

NEC

NDA-24282
ISSUE 1
STOCK # 200874

NEAX[®] 2400 IMX

CallCenterWorX-Enterprise
ACD System Manual



SEPTEMBER, 2000

NEC America, Inc.

LIABILITY DISCLAIMER

NEC America, Inc. reserves the right to change the specifications, functions, or features, at any time, without notice.

NEC America, Inc. has prepared this document for use by its employees and customers. The information contained herein is the property of NEC America, Inc. and shall not be reproduced without prior written approval from NEC America, Inc.

NEAX and D^{term} are registered trademarks of NEC Corporation.

CAUTION: The use of a monitoring, recording or listening device to eavesdrop, monitor, retrieve or record telephone conversations or other sound activities, whether or not contemporaneous with its transmission, may be illegal in certain circumstances under federal or state laws. Legal advice should be sought prior to implementing any practice that monitors or records any telephone conversation. Some federal and state laws require some form of notification to all parties to the telephone conversation, such as using a beep tone or other notification methods or require the consent of all parties to the telephone conversation, prior to monitoring or recording a telephone conversation. Some of these laws incorporate strict penalties.

Copyright 2000

NEC America, Inc.

Printed in USA

PAGE No.	ISSUE No.								PAGE No.	ISSUE No.							
	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8
i	1								29	1							
ii	1								30	1							
iii	1								31	1							
iv	1								32	1							
v	1								33	1							
vi	1								34	1							
vii	1								35	1							
viii	1								36	1							
ix	1								37	1							
x	1								38	1							
1	1								39	1							
2	1								40	1							
3	1								41	1							
4	1								42	1							
5	1								43	1							
6	1								44	1							
7	1								45	1							
8	1								46	1							
9	1								47	1							
10	1								48	1							
11	1								49	1							
12	1								50	1							
13	1								51	1							
14	1								52	1							
15	1								53	1							
16	1								54	1							
17	1								55	1							
18	1								56	1							
19	1								57	1							
20	1								58	1							
21	1								59	1							
22	1								60	1							
23	1								61	1							
24	1								62	1							
25	1								63	1							
26	1								64	1							
27	1								65	1							
28	1								66	1							
ISSUE 1				ISSUE 2				ISSUE 3				ISSUE 4					
DATE	SEPTEMBER, 2000			DATE				DATE				DATE					
ISSUE 5				ISSUE 6				ISSUE 7				ISSUE 8					
DATE				DATE				DATE				DATE					
NEAX2400 IMX CallCenterWorX-Enterprise ACD System Manual																	
														Revision Sheet 1/7			
NDA-24282																	

PAGE No.	ISSUE No.								PAGE No.	ISSUE No.							
	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8
67	1								105	1							
68	1								106	1							
69	1								107	1							
70	1								108	1							
71	1								109	1							
72	1								110	1							
73	1								111	1							
74	1								112	1							
75	1								113	1							
76	1								114	1							
77	1								115	1							
78	1								116	1							
79	1								117	1							
80	1								118	1							
81	1								119	1							
82	1								120	1							
83	1								121	1							
84	1								122	1							
85	1								123	1							
86	1								124	1							
87	1								125	1							
88	1								126	1							
89	1								127	1							
90	1								128	1							
91	1								129	1							
92	1								130	1							
93	1								131	1							
94	1								132	1							
95	1								133	1							
96	1								134	1							
97	1								135	1							
98	1								136	1							
99	1								137	1							
100	1								138	1							
101	1								139	1							
102	1								140	1							
103	1								141	1							
104	1								142	1							

ISSUE 1		ISSUE 2		ISSUE 3		ISSUE 4	
DATE	SEPTEMBER, 2000	DATE		DATE		DATE	
ISSUE 5		ISSUE 6		ISSUE 7		ISSUE 8	
DATE		DATE		DATE		DATE	

NEAX2400 IMX
CallCenterWorX-Enterprise ACD System Manual

Revision Sheet 2/7

NDA-24282

PAGE No.	ISSUE No.								PAGE No.	ISSUE No.							
	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8
143	1								181	1							
144	1								182	1							
145	1								183	1							
146	1								184	1							
147	1								185	1							
148	1								186	1							
149	1								187	1							
150	1								188	1							
151	1								189	1							
152	1								190	1							
153	1								191	1							
154	1								192	1							
155	1								193	1							
156	1								194	1							
157	1								195	1							
158	1								196	1							
159	1								197	1							
160	1								198	1							
161	1								199	1							
162	1								200	1							
163	1								201	1							
164	1								202	1							
165	1								203	1							
166	1								204	1							
167	1								205	1							
168	1								206	1							
169	1								207	1							
170	1								208	1							
171	1								209	1							
172	1								210	1							
173	1								211	1							
174	1								212	1							
175	1								213	1							
176	1								214	1							
177	1								215	1							
178	1								216	1							
179	1								217	1							
180	1								218	1							

ISSUE 1		ISSUE 2		ISSUE 3		ISSUE 4	
DATE	SEPTEMBER, 2000	DATE		DATE		DATE	
ISSUE 5		ISSUE 6		ISSUE 7		ISSUE 8	
DATE		DATE		DATE		DATE	

NEAX2400 IMX
CallCenterWorX-Enterprise ACD System Manual

Revision Sheet 3/7

NDA-24282

PAGE No.	ISSUE No.								PAGE No.	ISSUE No.							
	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8
219	1								257	1							
220	1								258	1							
221	1								259	1							
222	1								260	1							
223	1								261	1							
224	1								262	1							
225	1								263	1							
226	1								264	1							
227	1								265	1							
228	1								266	1							
229	1								267	1							
230	1								268	1							
231	1								269	1							
232	1								270	1							
233	1								271	1							
234	1								272	1							
235	1								273	1							
236	1								274	1							
237	1								275	1							
238	1								276	1							
239	1								277	1							
240	1								278	1							
241	1								279	1							
242	1								280	1							
243	1								281	1							
244	1								282	1							
245	1								283	1							
246	1								284	1							
247	1								285	1							
248	1								286	1							
249	1								287	1							
250	1								288	1							
251	1								289	1							
252	1								290	1							
253	1								291	1							
254	1								292	1							
255	1								293	1							
256	1								294	1							

ISSUE 1		ISSUE 2		ISSUE 3		ISSUE 4	
DATE	SEPTEMBER, 2000	DATE		DATE		DATE	
ISSUE 5		ISSUE 6		ISSUE 7		ISSUE 8	
DATE		DATE		DATE		DATE	

NEAX2400 IMX
CallCenterWorX-Enterprise ACD System Manual

Revision Sheet 4/7

NDA-24282

PAGE No.	ISSUE No.								PAGE No.	ISSUE No.							
	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8
295	1								333	1							
296	1								334	1							
297	1								335	1							
298	1								336	1							
299	1								337	1							
300	1								338	1							
301	1								339	1							
302	1								340	1							
303	1								341	1							
304	1								342	1							
305	1								343	1							
306	1								344	1							
307	1								345	1							
308	1								346	1							
309	1								347	1							
310	1								348	1							
311	1								349	1							
312	1								350	1							
313	1								351	1							
314	1								352	1							
315	1								353	1							
316	1								354	1							
317	1								355	1							
318	1								356	1							
319	1								357	1							
320	1								358	1							
321	1								359	1							
322	1								360	1							
323	1								361	1							
324	1								362	1							
325	1								363	1							
326	1								364	1							
327	1								365	1							
328	1								366	1							
329	1								367	1							
330	1								368	1							
331	1								369	1							
332	1								370	1							

ISSUE 1		ISSUE 2		ISSUE 3		ISSUE 4	
DATE	SEPTEMBER, 2000	DATE		DATE		DATE	
ISSUE 5		ISSUE 6		ISSUE 7		ISSUE 8	
DATE		DATE		DATE		DATE	

NEAX2400 IMX
CallCenterWorX-Enterprise ACD System Manual

Revision Sheet 5/7

NDA-24282

PAGE No.	ISSUE No.								PAGE No.	ISSUE No.							
	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8
371	1								409	1							
372	1								410	1							
373	1								411	1							
374	1								412	1							
375	1								413	1							
376	1								414	1							
377	1								415	1							
378	1								416	1							
379	1								417	1							
380	1								418	1							
381	1								419	1							
382	1								420	1							
383	1								421	1							
384	1								422	1							
385	1								423	1							
386	1								424	1							
387	1								425	1							
388	1								426	1							
389	1								427	1							
390	1								428	1							
391	1								429	1							
392	1								430	1							
393	1								431	1							
394	1								432	1							
395	1								433	1							
396	1								434	1							
397	1								435	1							
398	1								436	1							
399	1								437	1							
400	1								438	1							
401	1								439	1							
402	1								440	1							
403	1								441	1							
404	1								442	1							
405	1								443	1							
406	1								444	1							
407	1								445	1							
408	1								446	1							

ISSUE 1		ISSUE 2		ISSUE 3		ISSUE 4	
DATE	SEPTEMBER, 2000	DATE		DATE		DATE	
ISSUE 5		ISSUE 6		ISSUE 7		ISSUE 8	
DATE		DATE		DATE		DATE	

NEAX2400 IMX
CallCenterWorX-Enterprise ACD System Manual

Revision Sheet 6/7

NDA-24282

**NEAX2400 IMX
CallCenterWorX-Enterprise
ACD System Manual**

TABLE OF CONTENTS

	Page
LIST OF FIGURES.	vii
LIST OF TABLES.	ix
Chapter 1 Introduction.	1
1. General.	1
1.1 Configuration of this Manual.	1
1.2 Related Reference Manuals.	2
1.3 Precaution on Using the ACD Features.	2
Chapter 2 General Information.	3
1. General.	3
1.1 System Specifications.	3
1.2 Glossary of Terms.	3
2. System Specifications.	4
2.1 General.	4
2.2 Functional Outline.	5
2.3 System Configuration.	6
2.3.1 System Capacity.	9
2.4 MIS.	10
2.5 Interface Between ACD and MIS.	10
2.6 Equipment Related to ACD System.	10
2.6.1 Agent Position.	10
2.6.2 Supervisory Position.	13
3. Glossary of Terms.	14
Chapter 3 Installation.	19
1. General.	19
2. Precautions.	19
2.1 Essential/Critical Information.	19
3. Installation Procedures.	21
3.1 Peripheral Equipment Installation.	21
NAP-200-101 Installation of ACD Agent Position.	22
NAP-200-102 Installation of ACD Supervisory Position.	25
NAP-200-103 Installation of MIS.	28
NAP-200-104 Installation of Emergency Recorder.	29
NAP-200-105 Installation of Announcement Machine.	30

TABLE OF CONTENTS (CONTINUED)

	Page
NAP-200-106 Installation of IVR/Host	31
4. System Start-Up Procedure for Adding ACD Features	34
4.1 ACD Software Installation	34
4.2 Basic Data Assignment for Start-Up	36
5. Upgrading ACD System from NEAX2400 ICS to NEAX2400 IMX	37
5.1 Hardware and Software Requirements	37
5.2 Upgrading Procedure	39
Chapter 4 Switch Setting of ACD Circuit Cards	41
1. General	41
2. Explanation of ACD Circuit Cards	42
PA-CP53 (CPU)	43
PH-PC22 (EAPI)	49
PH-PC27 (EAPI)	54
PA-AL16 (ALMC)	59
PH-PC21 (APINT)	64
PA-PC56-A (COPY)	68
PA-CP54 (CPU)	72
PA-ME34 (CRAM)	79
PA-IO02-A (IOC)	83
PH-BS16 (PBI)	90
PA-GT17 (SPGT)	95
PA-16ELCDD (ELC)	99
PA-16ELCH (16ELC)	111
PA-16ELCJ (16ELC)	124
PA-4DATA (4DAT)	135
PA-4DATB (DAT)	145
PA-4DTLA (4DTL)	155
PA-CC98 (ETHER)	163
PA-GT16 (MBB)	170
Chapter 5 Office Data Design	175
1. General	175
2. Basic Office Data Assignment	175
2.1 Back-Up UCD	176
2.2 ACD In a Fusion Network Data Assignment	181
2.2.1 ACD Trunk In a Fusion Network	184
2.2.2 Multiple ACDPs In a FuSion Network	186
3. ACD Service Feature	196
A-31A Abandoned Call Search - ACD	199
A-34A Assistance - ACD Agent - ACD	200
A-35A Automatic Answer - ACD	202
A-37A Availability - ACD Position - ACD	204
A-80A Announcements - ACD	206
A-85A Agent Personal Queue - ACD	208
A-86A Auto Work Mode for PBX Calls - ACD	211
A-91A Analog ACD Position - ACD	212

TABLE OF CONTENTS (CONTINUED)

	Page
A-93A Alternate Night CCV - ACD	214
A-133A Agent Anywhere - ACD	215
B-20A Break Mode - ACD	217
B-21A Bad Call Notifications - ACD	219
C-35A Call Distribution to Agents - ACD	220
C-67A Call Transfer to Split Queue - ACD	222
C-68A Call Waiting Indication - LCD Display/CW Lamp - ACD	224
C-70A Calling Party Identification - ACD	225
C-108A Call Control Vector - ACD	227
C-110A Call Waiting Lamp with Chime - ACD	235
C-127A Call Forwarding - Split - ACD	236
C-191A Call Recover - ACD	238
C-199A Connection Displays - ACD	239
D-133A Do Not Disturb - Split - ACD	242
E-6A Emergency/Recorder - ACD	244
F-10A Function Groups (Splits) - ACD	248
F-25A Flexible ID Codes - ACD	249
H-20A Holiday Scheduling - ACD	251
H-31A Hot Split - ACD	252
I-99A Infolink Data Messages - ACD	254
L-19A Logon/Logoff Position - ACD	257
L-48A Language Default - ACD	259
L-92A Logoff Warning - ACD	260
M-28A Monitoring - ACD Supervisor - ACD	261
M-29A Multiple Customer Groups - ACD	264
M-79A Multiple Supervisor Groups (Splits) - ACD	266
M-88A MIS Operator Selection - ACD	268
M-89A Monitor Me - ACD	269
M-90A Multi-Split Agent - ACD	271
N-12A Night Service - ACD	275
N-14A Non-ACD Call - ACD	277
O-10A Overflow - ACD	278
O-19A Overflow Outside - ACD	279
P-21A Priority Queuing - ACD	280
P-40A Pilot Numbers - ACD	282
P-45A Personal Emergency and Assist - ACD	283
Q-1A Queuing - ACD	285
R-19A Release - ACD Position - ACD	288
R-145A Ring Delay - ACD	289
S-91A Splits - ACD	290
S-97A Split Display - ACD Position - ACD	294
S-98A Split Selection - ACD	295
S-108A Stranded Call Routing - ACD	296
T-24A Trunk Trouble Report - MIS - ACD	297
T-49A Tally Count - ACD	298
T-50A Time of Day/Week Routing - ACD	299
T-51A Tally-Oh Codes - ACD	300
T-85A Tally Required - ACD	305

TABLE OF CONTENTS (CONTINUED)

	Page
V-10 VARIABLE QUEUEING	306
W-5A Work Mode - ACD	307
W-6A Work Mode Time Limit - ACD	309
Z-1A Zip Tone - ACD	310
Chapter 6 ACD Service Features Functional Test Procedures	311
NAP-215-101 ACD Incoming	314
NAP-215-102 Call Distribution to Agents	316
NAP-215-103 Priority Processing	317
NAP-215-104 Automatic Call Distribution	318
NAP-215-105 Delay Announcement	319
NAP-215-106 Center Closed Announcement	320
NAP-215-107 Overflow	321
NAP-215-108 Emergency Recorder	322
NAP-215-109 After Call Work (Manual)	323
NAP-215-110 After Call Work (Automatic)	324
NAP-215-111 Assistance	325
NAP-215-112 Auxiliary Work	326
NAP-215-113 Monitoring-ACD Supervisor	327
NAP-215-114 Night Service	328
NAP-215-115 Abandoned Call Search	330
NAP-215-116 Trunk Trouble Report	331
Chapter 7 PBX and ACD Command Programming	333
1. General	333
2. Commands	333
2.1 NEAX2400 IMX Commands	333
ASYD Assignment of System Data	334
ASYDL Assignment of System Data into Local DM (LDM)	338
ASYDN Assignment of System Data in NDM	341
AOKC Assignment of OAI Key Code	342
ASDT Assignment of Station Data	344
ASFC Assignment of Service Feature Restriction Class Data	346
AKYD Assignment of Key Data for Dterm	348
AMNO Assignment of Monitored Number	354
AMNOL Assignment of Monitored Number for LDM	356
AMNON Assignment of Monitored Number for NDM	358
ACNO Assignment of Conversion Number Data	360
ACNOL Assignment of Conversion Number Data for LDM	362
ACNON Assignment of Conversion Number Data for NDM	364
AADT Assignment of Announcement/Dictation Trunks	366
AADTN Assignment of Announcement/Dictation Trunks for NDM	368
ALGNN Assignment of Telephone Number Data for NDM	370
ALGSN Assignment of Telephone Station Data for NDM	372
2.2 ACD Commands	376
2.2.1 Command Relationships	377
2.3 Setting Up the ACD	378
ACDTN Assignment of ACD Tenant Data	380

TABLE OF CONTENTS (CONTINUED)

	Page
ACDSPL Assignment of ACD Split Data	384
ACDLOG Assignment of ACD Receiver ID Code.....	389
ACDPSN Assignment of ACD Position Data	392
ACDCCV Assignment of ACD CCV Data.....	395
ACDPLT Assignment of ACD Monitor Number	400
ACDTG Assignment of ACD Trunk Group Data.....	402
ACDANA Assignment of ACD Analog Split Access Code	404
ACDIVR Assignment of ACD IVR Data.....	406
ACDHS Assignment of ACD Holiday Schedule	408
ACDHC Assignment of ACD Holiday Calendar	411
ACDWS Assignment of ACD Week Schedule.....	414
ACDCOM ACD Communications Data	417
System Information	418
ACD Backup	422
Chapter 8 System Operations	425
1. General	425
2. Operation of Dterm Agent Position/Supervisory Position.....	426
2.1 Log On/Log Off	426
2.2 Answer Mode.....	428
2.3 Work Mode	429
2.4 Break Mode	430
2.5 Tally Count.....	431
2.6 Trunk Trouble Report.....	431
2.7 Call Transfer	432
2.8 Night Service	432
2.9 Assistance	433
2.10 Emergency/Recorder.....	433
2.11 Monitoring/Supervisory Override.....	434
3. ACD System Restart Processing	434
Chapter 9 System Maintenance	435
1. General	435
2. Maintenance.....	436
2.1 Daily Maintenance.....	436
2.1.1 The Relationship between System Messages and Lamp Indications	436
3. System Messages	437
3.1 System Messages and Their Meanings.....	437
3.2 Message Detail Data	438
3.2.1 Message Detail Data of System Message "4-R"	438
3.2.2 Message Detail Data of System Message "5-Q"	440
3.2.3 Message Detail Data of System Message "6-H"	441
3.2.4 Message Detail Data of System Message "26-V"	447
4. Fault Diagnostics	448
4.1 Fault Information and Fault Diagnostics	448
4.2 Diagnostics from System Messages	449

TABLE OF CONTENTS (CONTINUED)

	Page
4.2.1 TCP/IP Link Failure	450
4.2.2 Bad Call Notification	451
5. Fault Recovery Procedure	451
5.1 Before Starting Fault Recovery	451
5.2 ACD SYSTEM FAULT RECOVERY PROCEDURES	451
5.3 MIS Fault Recovery Procedures	452
Appendix A Glossary	453
Appendix B Field Values for ACD Screens	455
Appendix C ACD Service in Fusion Network	463

LIST OF FIGURES

Figure	Title	Page
Figure 2-1	Functional Outline of NEAX2400 CallCenterWorX-Enterprise ACD System	4
Figure 2-2	Block Diagram of ACD System (Single CPU Configuration)	7
Figure 2-3	Block Diagram of ACD System (Dual CPU Configuration)	8
Figure 2-4	Outer View of Dterm Series III Agent Position	11
Figure 2-5	Over View of Dterm Series E Agent Position	12
Figure 2-6	Supervisory Positions	13
Figure 2-7	NEAX2400 CallCenterWorX-Enterprise ACD System Configuration	14
Figure 2-8	ACD Group Configuration	15
Figure 2-9	Concept of Operation Mode	17
Figure 3-1	Static Caution Indication	19
Figure 3-2	3M Model 8012 Portable Field Service Kit	20
Figure 3-3	Peripheral Equipment Installation Procedures	21
Figure 3-4	Connection of ACD Agent Position	22
Figure 3-5	Key Pads on ACD Agent Position Keyboard (Dterm Series III)	23
Figure 3-6	Key Pads on ACD Agent Position Keyboard (Dterm Series E)	24
Figure 3-7	Connection of ACD Supervisory Position	25
Figure 3-8	Key Pads on Supervisory Position Keyboard (Dterm Series III)	26
Figure 3-9	Key Pads on Supervisory Position Keyboard (Dterm Series E)	27
Figure 3-10	Cable Connection between MIS and PBX	28
Figure 3-11	Connection of Emergency Recorder (When Emergency Recorder Has Starting Terminal)	29
Figure 3-12	Connection of Emergency Recorder (When Emergency Recorder Does Not Have Starting Terminal)	29
Figure 3-13	Connection of Announcement Machine	30
Figure 3-14	System Configuration (when IVR/Host is installed)	31
Figure 3-15	Connection of Host	32
Figure 3-16	Connection of IVR	33
Figure 3-17	Hardware and Software Upgrading Requirements	37
Figure 4-1	RS Connector Leads Accommodation	88
Figure 4-2	Position in IMGdxh	95
Figure 4-3	LT Connector Leads Accommodation of PIMU-A (1/2)	103
Figure 4-3	LT Connector Leads Accommodation of PIMU-A (2/2)	104
Figure 4-4	LT Connector Leads Accommodation of PIMB (1/2)	105
Figure 4-4	LT Connector Leads Accommodation of PIMB (2/2)	106
Figure 4-5	ELC Connector Leads Accommodation of PIMB (1/2)	107
Figure 4-5	ELC Connector Leads Accommodation of PIMB (2/2)	108
Figure 4-6	Connection Diagram	109
Figure 4-7	LT Connector Leads Accommodation of PIMU-A (1 of 3)	116
Figure 4-7	LT Connector Leads Accommodation of PIMU-A (2 of 3)	117
Figure 4-7	LT Connector Leads Accommodation of PIMU-A (3 of 3)	118
Figure 4-8	LT Connector Leads Accommodation of PIMB (1 of 3)	119
Figure 4-8	LT Connector Leads Accommodation of PIMB (2 of 3)	120
Figure 4-8	LT Connector Leads Accommodation of PIMB (3 of 3)	121
Figure 4-9	Connecting Route Diagram	122
Figure 4-10	LT Connector Leads Accommodation of PIMU-A (1 of 3)	128
Figure 4-10	LT Connector Lead Accommodation of PIMU-A (2 of 3)	129
Figure 4-10	LT Connector Leads Accommodation of PIMU-A (3 of 3)	130
Figure 4-11	LT Connector Leads Accommodation of PIMK (1 of 3)	131
Figure 4-11	LT Connector Leads Accommodation of PIMK (2 of 3)	132

LIST OF FIGURES (CONTINUED)

Figure	Title	Page
Figure 4-11	LT Connector Leads Accommodation of PIMK (3 of 3)	133
Figure 4-11	Connecting Route Diagram	134
Figure 4-12	LT Connector Leads Accommodation of PIMU-A	141
Figure 4-13	LT Connector Leads Accommodation of PIMB	142
Figure 4-14	Location of PA-4DATB (DAT) card within the system	145
Figure 4-15	LT Connector Lead Accommodation (PIMU-A)	151
Figure 4-16	LT Connector Lead Accommodation (PIME)	152
Figure 4-17	LT Connector Leads Accommodation of PIMU-A (1/2)	158
Figure 4-17	LT Connector Leads Accommodation of PIMU-A (2/2)	159
Figure 4-18	LT Connector Leads Accommodation of PIMB (1/2)	160
Figure 4-18	LT Connector Leads Accommodation of PIMB (2/2)	161
Figure 5-1	Legend	189
Figure 5-2	Fusion Network with Single ACDP (Example)	189
Figure 5-3	Fusion Network with Multiple ACDPs (Example)	190
Figure 5-4	Network Configuration of ACD systems	191
Figure 7-1	Assigning and Removing Tenant Data Information	382
Figure 7-2	Assigning and Removing ACD Split Data	388
Figure 7-3	Assigning and Removing ACD Agent Logon ID Code	391
Figure 7-4	Assigning and Removing ACD Position Data	394
Figure 7-5	Assigning and Removing Call Control Vectors	399
Figure 7-6	Assigning and Removing ACD Pilot Data	401
Figure 7-7	Assigning and Removing ACD Trunk Group Data	403
Figure 7-8	Assigning and Removing Holiday Schedule Information	409
Figure 7-9	Assigning and Removing Holiday Calendar Information	412
Figure 7-10	Assigning and Removing Week Schedule Information	415
Figure 9-1	Flow of Maintenance Work	435
Figure 9-2	Flow from Fault Occurrence to Fault Diagnostics	448
Figure 9-3	Flow of Diagnostics from System Message	449
Figure 9-4	Flow of Fault Recovery Procedures	451

LIST OF TABLES

Table	Title	Page
Table 1-1	Configuration of this Manual	1
Table 1-2	Related Reference Manuals	2
Table 2-1	CallCenterWorX-Enterprise (I) ACD Capacities	9
Table 2-2	Interface Condition	10
Table 3-1	Hardware and Software Upgrading Requirements	38
Table 4-1	List of ACD Circuit Cards	41
Table 5-1	CCV for ACD Calls Transfer (in case of Traffic Congestion)	183
Table 5-2	ACD SERVICE LIST	196
Table 5-3	Call Distribution Algorithm - I	271
Table 5-4	Call Distribution Algorithm - II	271
Table 5-5	Valid Logon ID/Position Combinations	273
Table 7-1	NEAX2400 IMX Command List in Alphabetical Order	333
Table 7-2	ACD Command List	376
Table 7-3	Related Commands	377
Table 7-4	COND (Conditional Thresholds)	384
Table 7-5	Programming Considerations	393
Table 7-6	CCV Parameters	397
Table 9-1	System Messages and Lamp Indications on the TOPU	436
Table 9-2	System Messages for MIS	437
Table 9-3	Repairing Procedure for TCP/IP Link Failure (Message "4-R") (1/2)	450
Table 9-3	Repairing Procedure for TCP/IP Link Failure (Message "4-R") (2/2)	450
Table 9-4	Repairing Procedure for TCP/IP Link Failure (Message "26-V")	450
Table B-1	Field Values for ACD Screens (1/8)	455
Table C-1	ACD Service List in Fusion Network	463

This page is for your notes.

CHAPTER 1 INTRODUCTION

1. GENERAL

This manual describes the system outline and procedures for installation/installation tests, operations, maintenance and data assignment of Automatic Call Distribution (ACD) in the IMX System.

1.1 CONFIGURATION OF THIS MANUAL

The configuration of this manual is shown in [Table 1-1](#).

Table 1-1 Configuration of this Manual

CHAPTER	TITLE	CONTENTS
2	GENERAL INFORMATION	This chapter explains the concept, function and configuration of the NEAX2400 CallCenterWorX-Enterprise ACD System.
3	INSTALLATION	This chapter explains the procedures of installation and or installation tests of the NEAX2400 CallCenterWorX-Enterprise ACD System.
4	CIRCUIT CARDS	This chapter explains the circuit cards and switch settings for External ACD in the IMX System.
5	OFFICE DATA DESIGN	This chapter explains office data assignment applicable to the NEAX2400 CallCenterWorX-Enterprise ACD System.
6	ACD SERVICE FEATURES FUNCTIONAL TEST PROCEDURES	This chapter explains the test procedure of each ACD service feature.
7	PBX AND ACD COMMAND PROGRAMMING	This chapter explains the commands used in the NEAX2400 CallCenterWorX-Enterprise ACD System. Sample programming sheets that may be copied and used to help configure a system are included.
8	SYSTEM OPERATIONS	This chapter explains the operating methods of Agent/ Supervisory Position. And explains the restart processing of the NEAX2400 CallCenterWorX-Enterprise ACD System.
9	SYSTEM MAINTENANCE	This chapter explains the maintenance, diagnoses (according to system messages), and fault repair of the NEAX2400 CallCenterWorX-Enterprise ACD System.
APPENDIX A	GLOSSARY	This appendix gives explanations of ACD-related terms.
APPENDIX B	FIELD VALUES FOR ACD SCREENS	This appendix gives descriptions of all data values entered into MAT command screens when configuring and managing an ACD system.
APPENDIX C	ACD SERVICE IN FUSION NETWORK	This appendix gives descriptions of the ACD service activated between two fusion nodes through Fusion link.

INTRODUCTION

1.2 RELATED REFERENCE MANUALS

For maintenance to be performed on the NEAX2400 CallCenterWorX-Enterprise ACD System, there are operations pertaining to ACD functions and those pertaining to the NEAX2400 IMX itself. Because this manual explains only the operations pertaining to ACD functions, related reference manuals explaining the procedures of the NEAX2400 IMX must be used with this manual when performing maintenance on the NEAX2400 CallCenterWorX-Enterprise ACD System as a whole.

IMX reference manuals and their relation with this manual are shown in [Table 1-2](#).

Table 1-2 Related Reference Manuals

MANUAL NAME	RELATION TO THIS MANUAL
Installation Manual	When performing installation/installation tests, use the manuals named in conjunction with Chapter 2, “General Information” , Chapter 3, “Installation” and Chapter 4, “Switch Setting of ACD Circuit Cards” located in this manual
Circuit Card Manual	
System Operations and Maintenance Manual	Maintenance operations can be performed by referring to the manual listed in addition to Chapter 8, “System Operations” and Chapter 9, “System Maintenance” in this manual.
Office Data Specification	Refer to the manual listed when programming office data other than for the ACD. Chapter 7, “PBX and ACD Command Programming” includes some information for commands used with the ACD System.

1.3 PRECAUTION ON USING THE ACD FEATURES

CAUTION: *The use of a monitoring, recording or listening devices to eavesdrop, monitor or record telephone conversations or other sound activities, whether or not contemporaneous with its transmission, may be illegal in certain circumstances under federal or state laws. Legal advice should be sought prior to implementing any practice that monitors or records any telephone conversation. Some federal and state laws require some form of notification to all parties to the telephone conversation, such as using a beep tone or other notification methods or require the consent of all parties to the telephone conversation, prior to monitoring or recording a telephone conversation. Some of these laws incorporate strict penalties.*

CHAPTER 2 GENERAL INFORMATION

1. GENERAL

This chapter provides the user with a basic working knowledge of the NEAX2400 CallCenterWorX-Enterprise (ACD) System. It also explains how to use documents furnished with the NEAX2400 CallCenterWorX-Enterprise (ACD) System.

The contents of this chapter and how to follow the information are as follows:

1.1 SYSTEM SPECIFICATIONS

The System Specifications section describes the NEAX2400 CallCenterWorX-Enterprise (ACD) System equipment configuration, functions and specifications, interface conditions for external equipment, and other related subjects.

Persons having little or no basic working knowledge of the NEAX2400 CallCenterWorX-Enterprise (ACD) System (equipment configuration, component functions, etc.) should read and thoroughly understand this chapter before proceeding.

1.2 GLOSSARY OF TERMS

The terms used throughout the manual are listed and described in [Section 3, “Glossary of Terms”](#) of this chapter.

GENERAL INFORMATION

2. SYSTEM SPECIFICATIONS

2.1 GENERAL

This section describes the concept, functions and configuration of the ACD in the IMX System.

This chapter includes the following information:

- **Functional Outline:** Describes the outline of the ACD.
- **System Configuration:** Describes the configuration of the ACD.
- **MIS:** Describes the MIS functions.
- **Interface between ACD and MIS:** Describes the interface condition to be used with the ACD in the IMX System and MIS.
- **Equipment related to ACD:** Describes the related equipment used with the ACD in the IMX System.

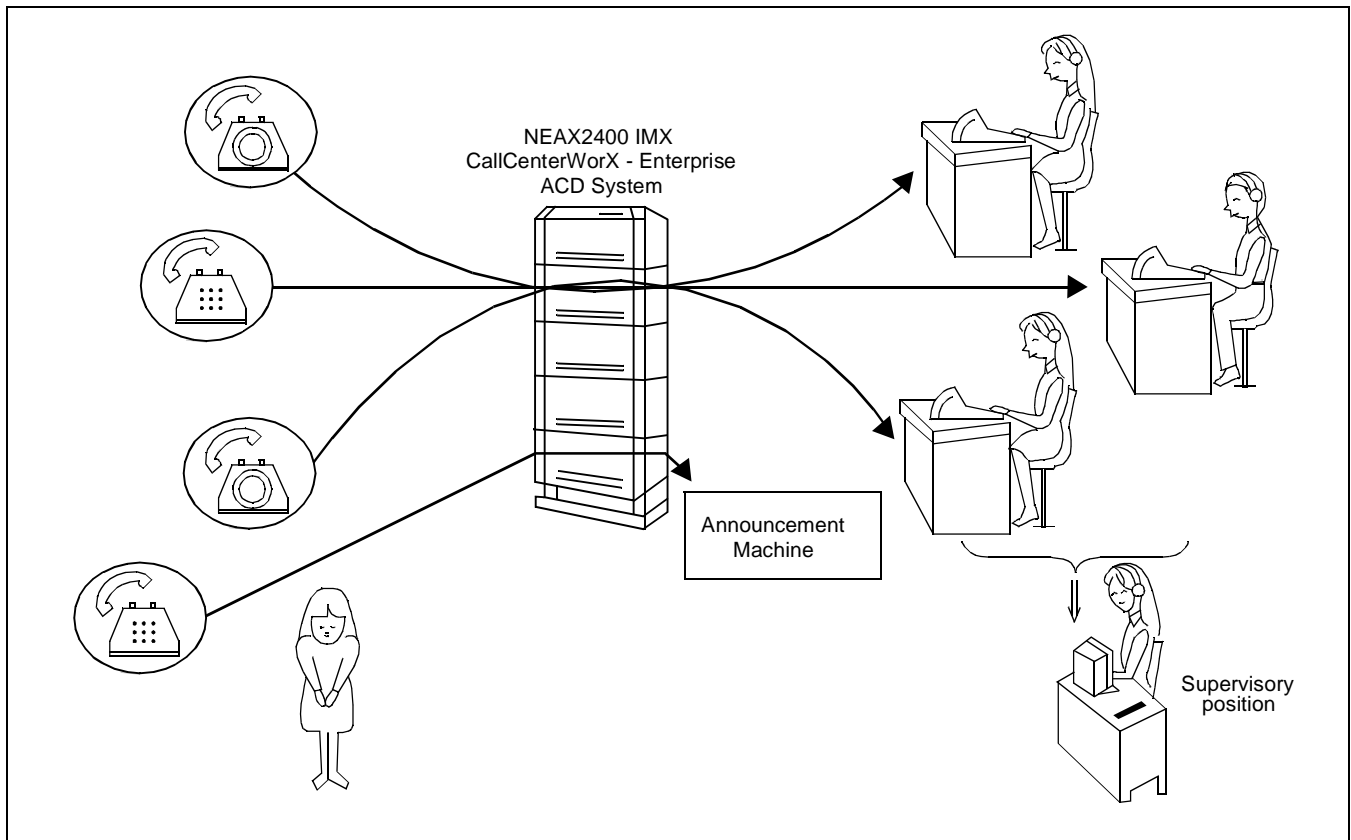


Figure 2-1 Functional Outline of NEAX2400 CallCenterWorX-Enterprise ACD System

2.2 FUNCTIONAL OUTLINE

Presently, telephone reception services are provided to a wide variety of businesses including mail orders and travel reservations. However, as the number of customers increase, these services are often subjected to complaints such as telephone calls not answered for long periods of time, or the telephones being busy.

The agent positions receiving these calls also have problems which make their operators busy, such as calls being concentrated on specific positions.

To solve the problems of customers and telephone operators, the CallCenterWorX-Enterprise (ACD) system provides a range of service features. The addition of the Management Information System (MIS) to the ACD system saves excessive personnel expenses and communications costs based on calculations of the optimum number of operators and trunks.

The NEAX2400 CallCenterWorX-Enterprise (ACD) System can connect large amount of incoming calls automatically to the groups composed of ACD agent positions. These calls are processed in the order of their arrival, and distributed evenly among the ACD agent positions.

When all agent positions handling incoming calls are busy or their splits have already finished the service, the ACD can transmit various announcements to the calling customers.

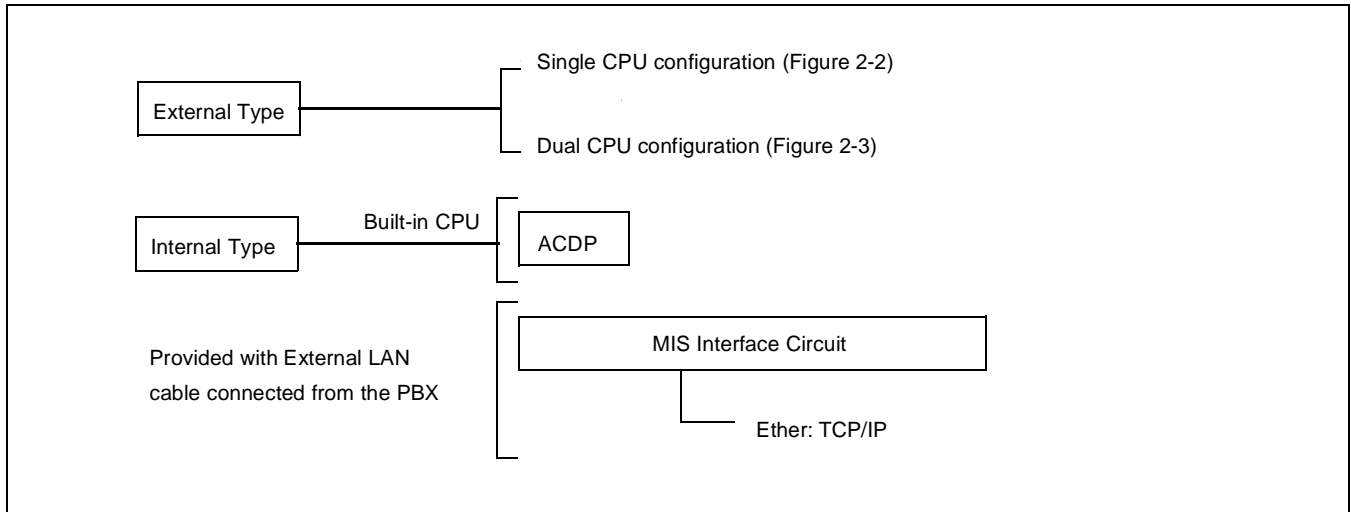
The supervisor is able to supervise the agent positions. The supervisor can monitor the performance of each agent and change the system administration style to optimize the personnel arrangement.

GENERAL INFORMATION

2.3 SYSTEM CONFIGURATION

The ACD system can be implemented in the internal Type configuration, with which the ACDP is built in the CPU of the NEAX2400 IMX.

The configuration of the NEAX2400 CallCenterWorX-Enterprise (ACD) System is defined as follows.



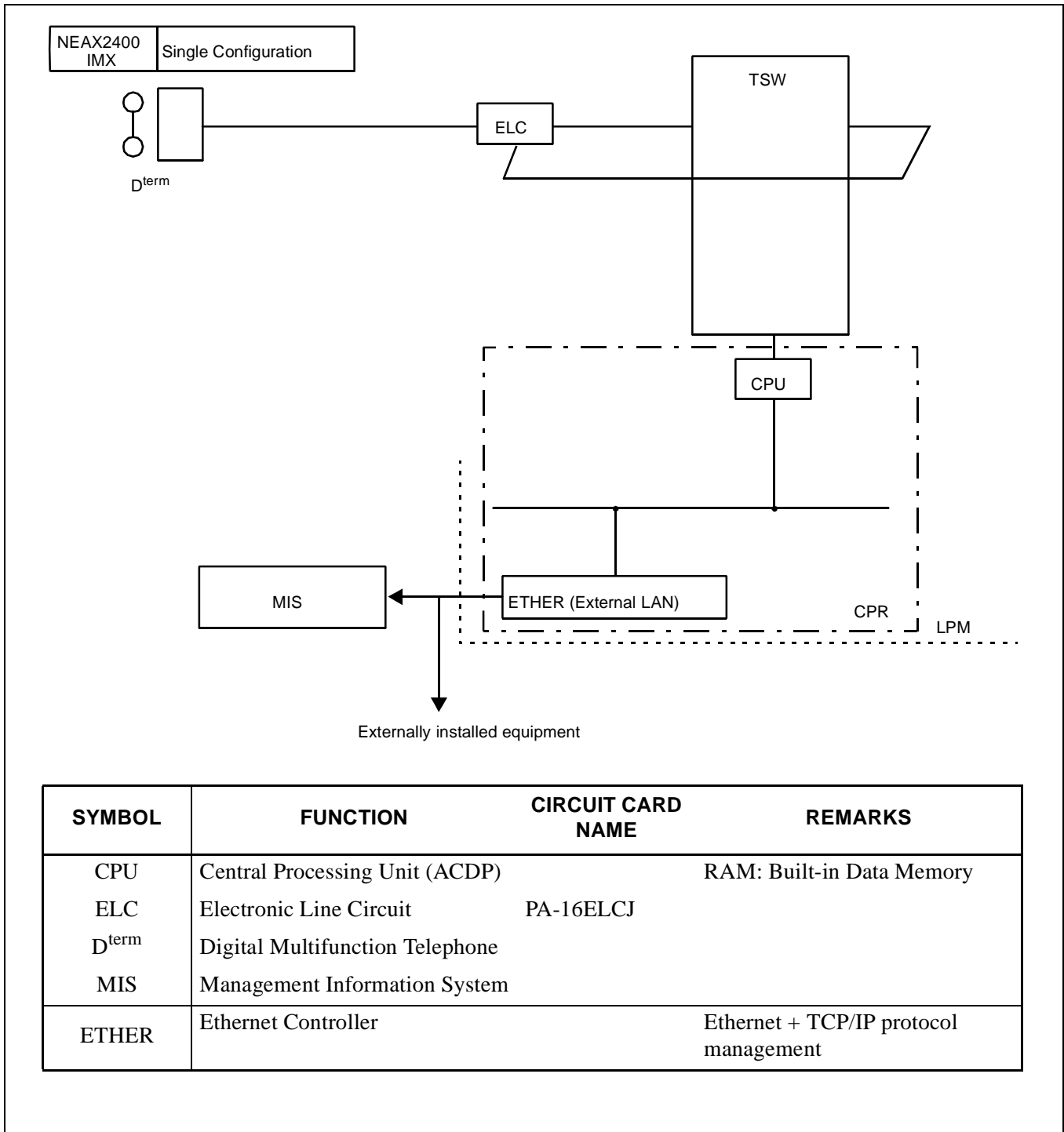


Figure 2-2 Block Diagram of ACD System (Single CPU Configuration)

GENERAL INFORMATION

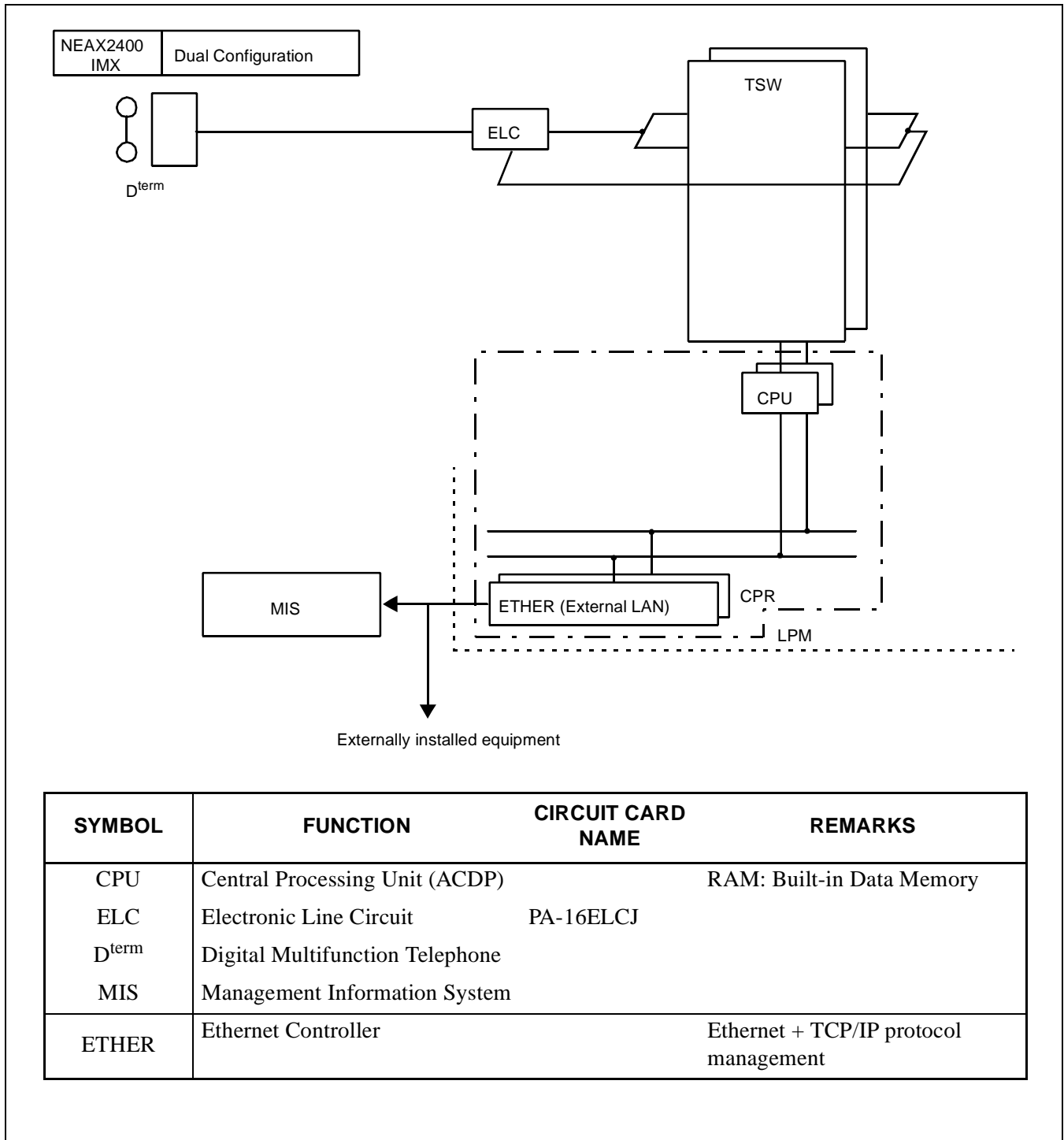


Figure 2-3 Block Diagram of ACD System (Dual CPU Configuration)

2.3.1 SYSTEM CAPACITY

CallCenterWorX-Enterprise (ACD) system capacity can be upgraded by installing the ACD Option Service Software (standard) for extending ACD capacity.

For the procedure to link with the Optional Service Software, refer to Chapter 4 “System Startup” in the Installation Manual.

Table 2-1 CallCenterWorX-Enterprise (I) ACD Capacities

System Components	25-1,000 Seats
	Version (I4.01.00.000)
Analog Agent Access Codes	4,000 *
Announcement Routes	58
Call Active (simultaneous calls)	6,000
Call Control Vectors (20 steps each)	1,200
Holiday Schedules per Tenant	3
IVR Ports	400
Logon IDs (9 digits maximum)	7,000
Personal Pilot Numbers	4,000 *
Pilot Numbers	4,000 *
Priority Level	250
Splits	900
Splits per Agent	16
Station Calls	500
TCP/IP Clients	8
Tenants	10
Transfer to PBX Numbers	1,200
Trunk Groups	255
* Note: <i>Personal Pilots, Pilots, and Analog Access Codes cannot exceed 4,000.</i>	

Note: *Due to the amount of memory allocated to the ACD database, use consecutive numbering when possible to gain the maximum number of pilot numbers, ACD myline, ACD line, IVR parts, and analog access codes available.*

GENERAL INFORMATION

2.4 MIS

The Management Information System (MIS) expands the benefits of the telephone reception services of the ACD system by providing efficient administration.

The number of handled ACD calls, system capacity and functions of the MIS vary depending on whether it is based on a Navigator MIS. The MIS calculates the traffic related to the ACD calls and issues reports. The basic purpose of MIS is to provide statistical data to be used in calculations of the number of agents required and the amount of C.O. trunk traffic.

System administration can be optimized by the supervisor, by setting the average delay time response of the trunk group or split between 20 and 40 seconds. If the delay time is less than 20 seconds, agents become idle, thus the number of agents can be reduced. When delay time is more than 40 seconds, the number of agents should be increased. (Note the number of agents is dependent on the customers.)

From the MIS, the supervisor can change the office data related to the ACD, including the C.O. call destination, overflow condition and the number of agents.

[Precautions for Use of Navigator MIS]

When using the Navigator MIS, please note the following points:

- If the customer uses the Navigator MIS on a 24-hour basis, be sure to install the Navigator MIS in an air-conditioned room to ensure normal operation and preventing the hard disk from overheating.
- Be sure to perform shutdown procedure before powering off the MIS personal computer. If the power is turned off without running the procedure, statistical data on the hard disk **will be corrupted or destroyed**.

2.5 INTERFACE BETWEEN ACD AND MIS

Table 2-2 shows the interface condition between the ACD in the IMX System and MIS.

Table 2-2 Interface Condition

CIRCUIT CARD	INTERFACE CONDITION	
ETHER	Physical Interface	ETHER
	Communication protocol	TCP/IP
	Data Transmission Speed	10 Mbps

2.6 EQUIPMENT RELATED TO ACD SYSTEM

2.6.1 AGENT POSITION

1. Function

This type of agent position is comprised of a telephone, jack set and a headset. It is equipped with the ACD functions as well as the multifunction telephone functions including the single-key speed dialing. It operates off the 16ELCJ card.

2. Specifications

Dimensions	D ^{term} Series III	105 (H) mm × 205 (W) mm × 225 (D) mm
	D ^{term} Series E	98.1 (H) mm × 177.0 (W) mm × 223.7 (D) mm
Cable Conductors	2-conductor (1 Pair)	
Distance from PBX	Less than 850m (2787 ft.)	

3. Outer View

Figure 2-4 shows the outer view of D^{term} Series III Agent Position.

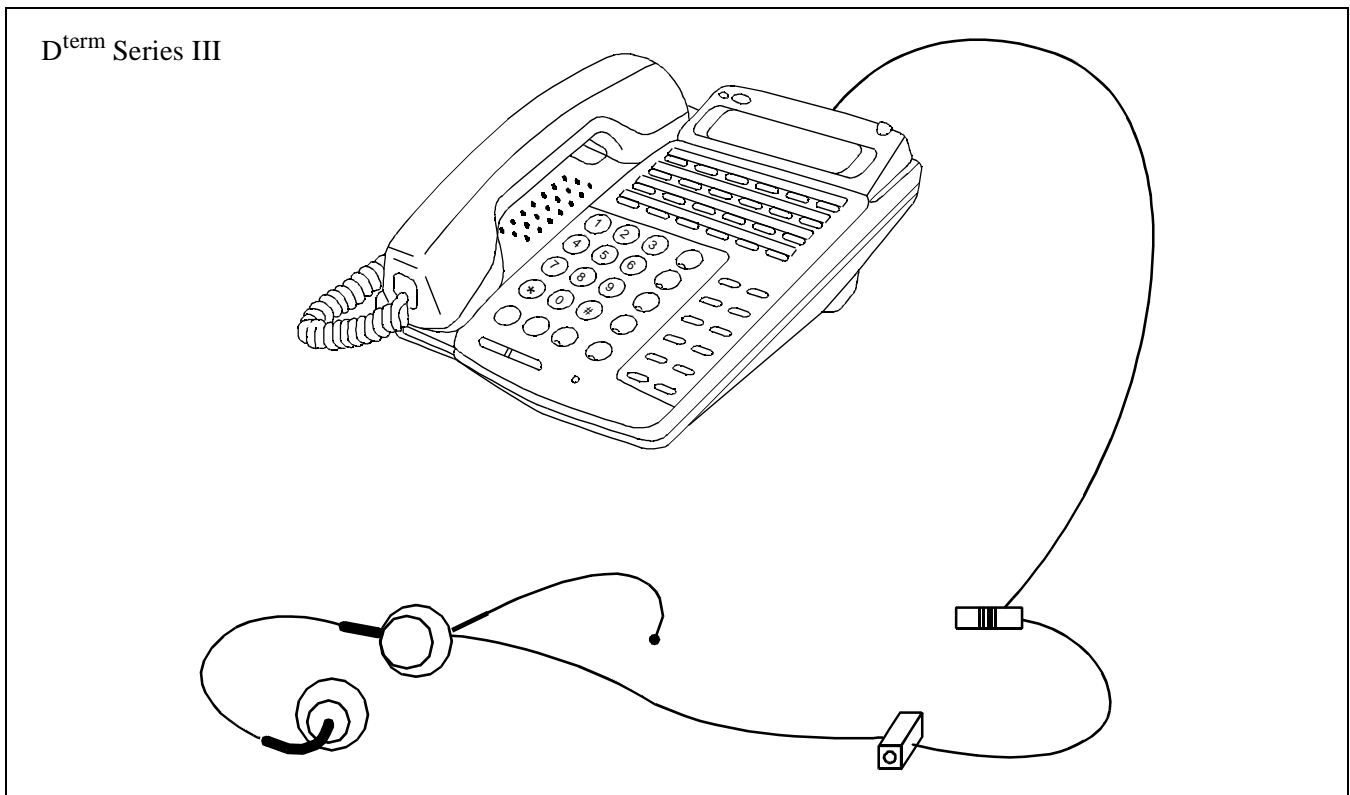


Figure 2-4 Outer View of D^{term} Series III Agent Position

GENERAL INFORMATION

Figure 2-5 shows the outer view of D^{term} Series E Agent Position.

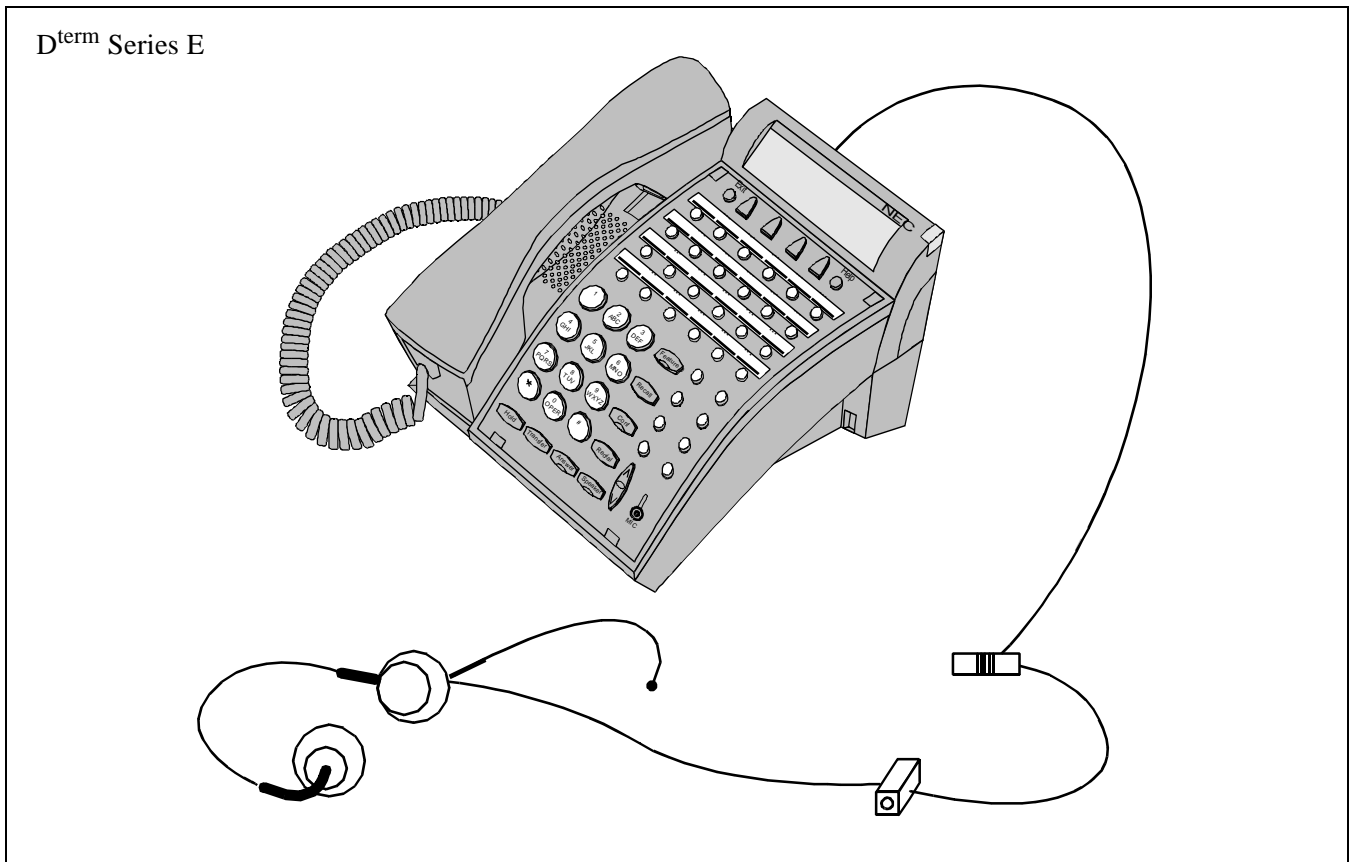


Figure 2-5 Over View of D^{term} Series E Agent Position

2.6.2 SUPERVISORY POSITION

1. Function

The supervisory position is equipped with the agent position functions and the display terminal. It is used as the supervisor of splits to manage the ACD operations by overriding calls to agent positions, call monitoring, agent position status display, etc.

The supervisor position consists of an ACD agent position and a display with keyboard (MIS terminal). Some supervisor positions are not equipped with the MIS terminal.

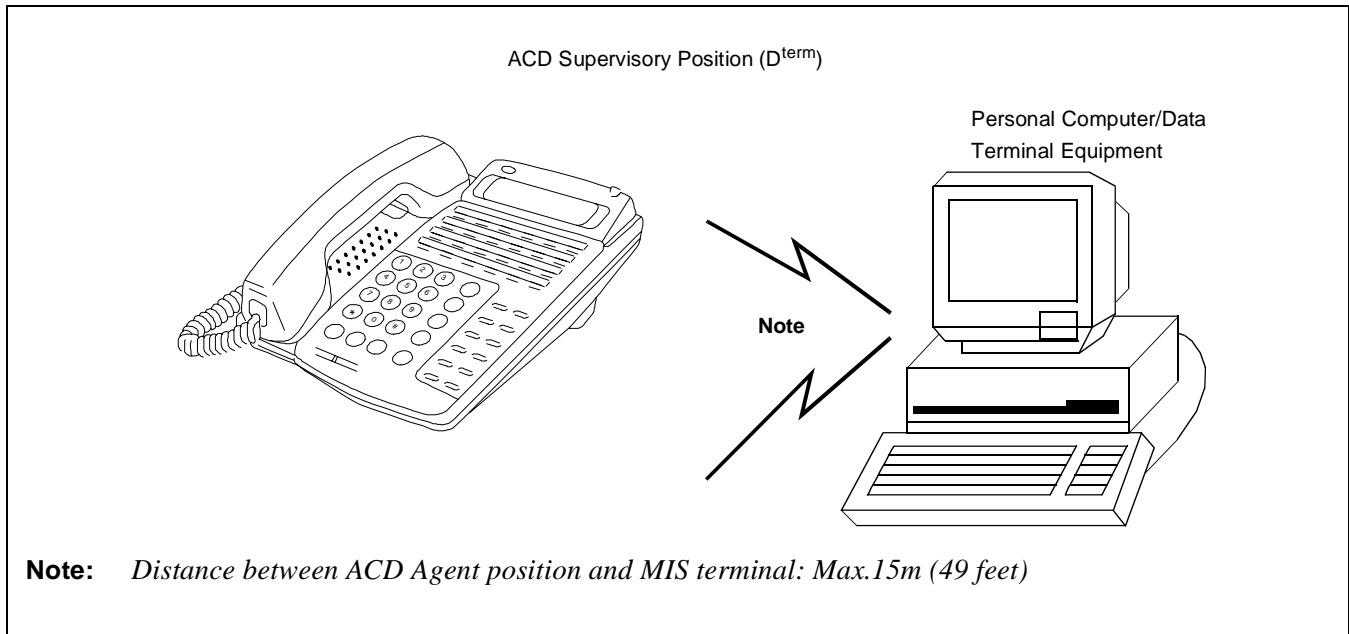


Figure 2-6 Supervisory Positions

GENERAL INFORMATION

3. GLOSSARY OF TERMS

This section defines ACD-related terms.

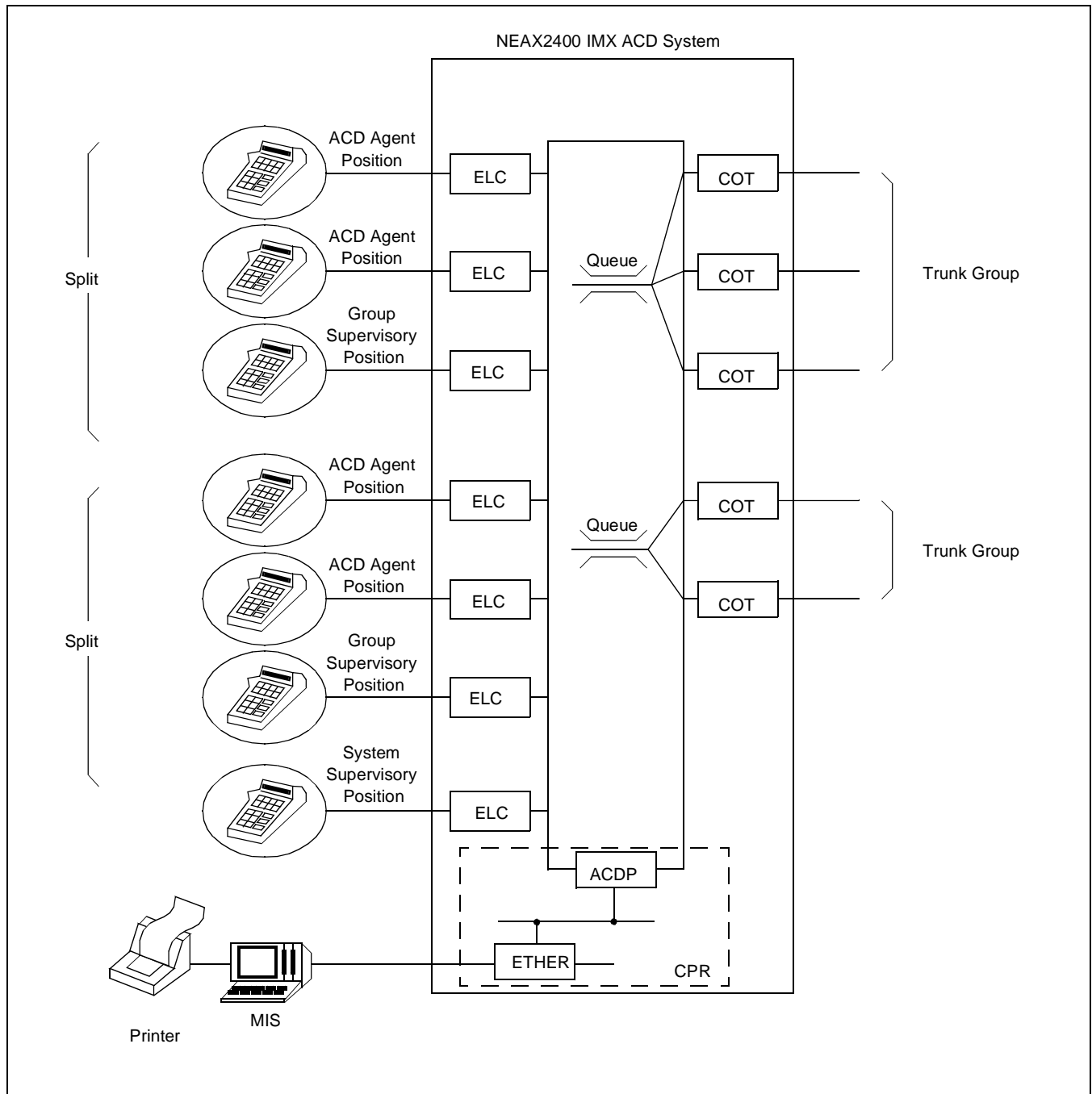


Figure 2-7 NEAX2400 CallCenterWorX-Enterprise ACD System Configuration

- **Trunk Group**
A group, organized according to routes, of trunks which transmits calls incoming to or originated from the ACD System.
- **ACD Group (Tenant)**
An ACD system can be divided into groups according to the user firms or departments. The ACD group is the unit of such a division. Its configuration is as shown in [Figure 2-8](#).

Note: *The following data must be assigned on an ACD tenant basis:*

- *Trunk Group*
- *ACD Monitored Number (Pilot Number)*
- *Split*
- *Announcement Equipment*
- *Transferring Destination (STN)*
- *Transferring Destination (TRK)*

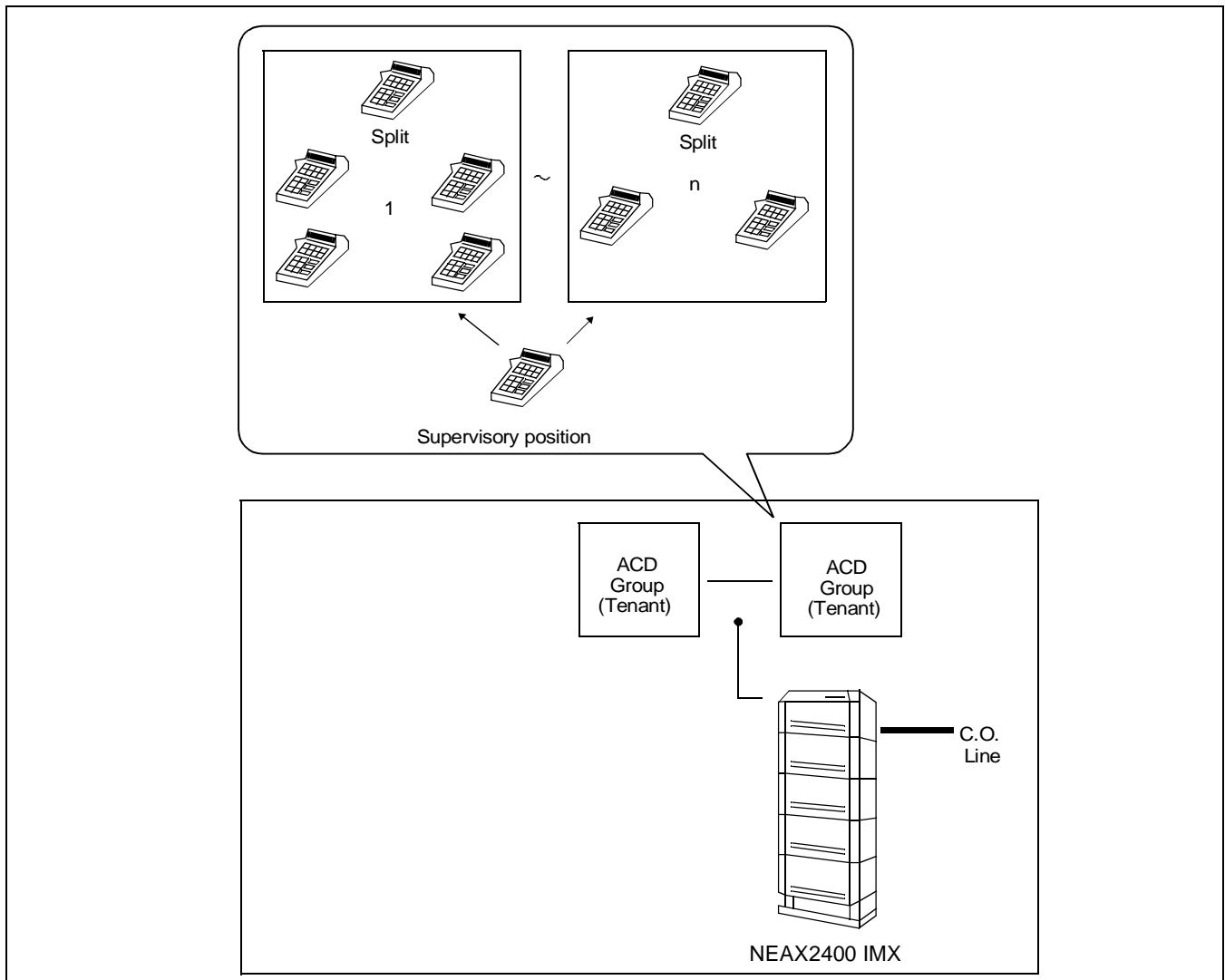


Figure 2-8 ACD Group Configuration

GENERAL INFORMATION

- **Split**
The unit of division of an ACD group according to functions. Each split is composed of a queue to hold incoming calls temporarily, agent positions to answer the incoming calls, and a group supervisory position.
- **Queue**
The queue is the area in which calls incoming to the ACD in the IMX System wait for handling. Each split has multiple queues.
When all of the agent positions of a queue are busy, the calls assigned to that queue will wait. As agent positions become idle, the calls are distributed to the agent positions according to first-in, first-out condition. However, since queues are assigned different priority levels, the calls in higher-priority queues are distributed before the calls in lower-priority queues.
- **Overflow**
An ACD call waiting in a queue of a split that cannot be connected to an agent position assigned to the queue (overflow origination) once a predetermined period of time had elapsed, the call is sent to the queue of another split (overflow destination) where it can wait for an agent position to become idle in both queues. This allows the ACD call to be answered by the first available agent.
- **Overflow Threshold**
The period of time between the origination of an ACD call and its overflow.
- **Inflow Threshold**
Specific value defined by number of waiting calls in the overflow destination.
- **ACD Agent Position**
All agent positions belong to any ACD group and an ACD call is originated/picked up from the agent position. Also, when Client/Server MIS system is used, ACD agent positions may have the client MIS.
- **Group Supervisory Position**
The position assigned the agent position supervisory functions, such as monitoring of agent positions and assistance of agent positions, as well as the functions of an agent position. It may be equipped with the MIS Terminal (DTE) which can display the status of the ACD subsystem.
- **Agent**
The operator using an agent position to handle calls via the ACD system. Every agent can be assigned an ID code to logon to the CallCenterWorX-Enterprise (ACD) system. For the purpose of effective use, the agent can use to connect the client MIS.
- **Group Supervisor**
This is the manager who uses a supervisory position to assist agent positions, monitor them, supervise their status using the MIS terminal, and change the system configuration of an ACD group. Every supervisor can be assigned an ID code.
- **MIS Terminal (DTE)**
This is the MIS Data Terminal Equipment used to display the ACD status and/or change the system configuration.

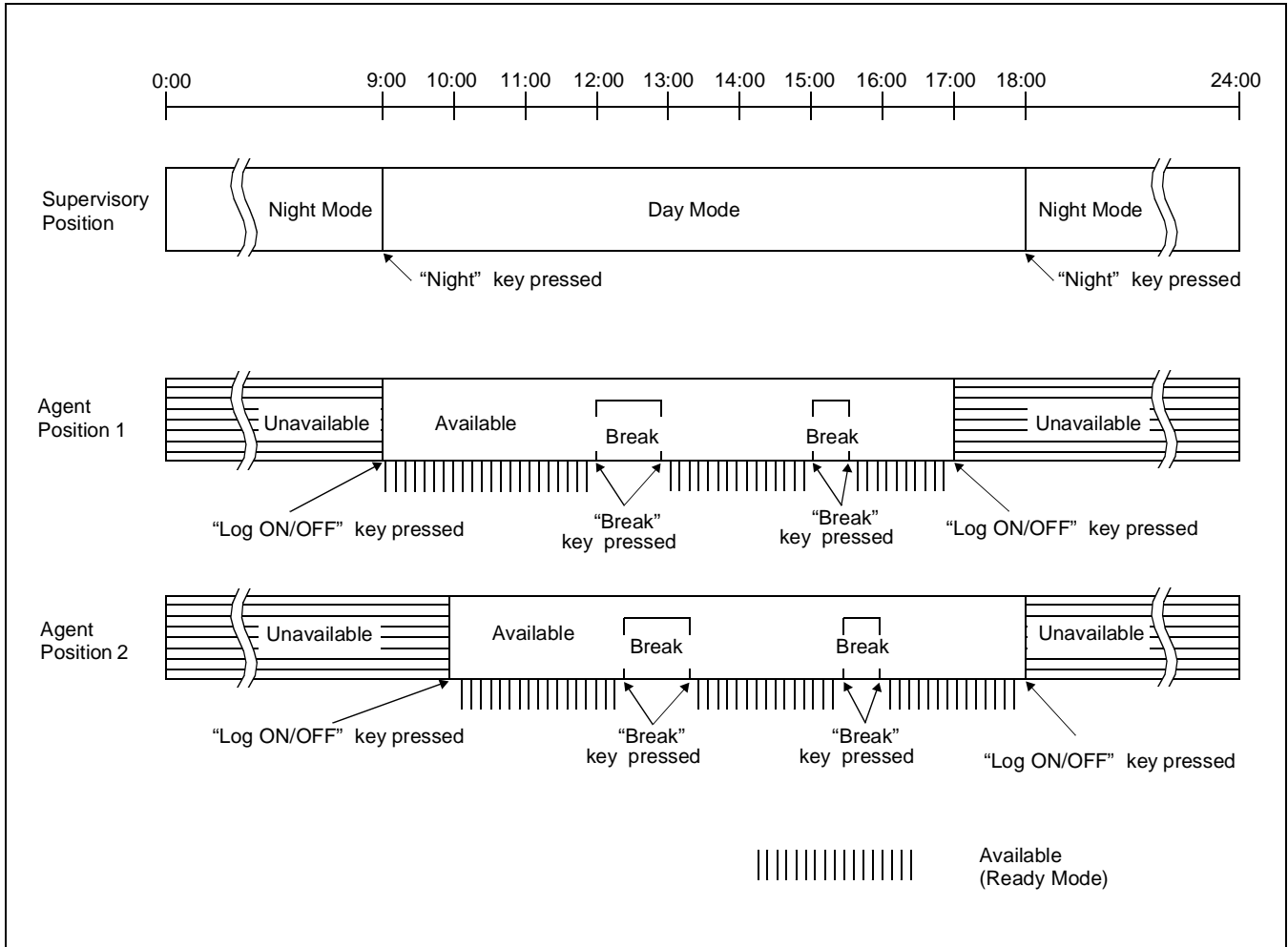


Figure 2-9 Concept of Operation Mode

- Day/Night Mode**

The day and night mode determine the destination of incoming ACD calls on a per-split basis. Set the day mode when starting the ACD call reception service, and set the night mode to end the ACD call reception service in the evening or before the agent leaves position.
- Ready Mode**

This is the status of an ACD position (including group or system supervisory position) after starting the reception service. In this state, the position can answer ACD calls.
- Work Mode**

This is the state of an ACD position (including supervisory position) in which it restricts the termination of incoming ACD calls. The agent may then perform nonverbal tasks, such as the creation of a business slip. The Work mode can be set either automatically at the end of conversation with an incoming call (Automatic After Call Work mode) or manually by pressing the "Work" key as needed.

GENERAL INFORMATION

- **Break Mode**
This is the state of an ACD position (including supervisory position), which is activated by the agent pressing the “BREAK” key to disallow the termination of incoming ACD calls before the agent temporarily leaves the position.
- **ACD Trunk in a Fusion Network**
ACD trunks can be accommodated in the multiple nodes within the Fusion network and via the trunk in the remote node, ACD calls can be originated or picked up from the agent accommodated in the node that provides ACDP.
- **Agent Anywhere**
With this function, ACD agent positions can be installed in multiple nodes of a Fusion Network, and ACD calls can be distributed to ACD agents in the remote node. Those agent positions are controlled by one ACDP in a Fusion Network.
- **Expanding ACD capacity**
With the ACD Option Service Software, the built-in ACDP capacity will be extended and more than 1000 agent positions can be installed.
- **Split of Supervisors (see [Multiple Supervisor Groups \(Splits\) - ACD \[M-79A\]](#))**
Split formed by multiple supervisors. It is beneficial when more than one supervisor serves a split of agents.

CHAPTER 3 INSTALLATION

1. GENERAL

This chapter describes the installation and test procedures for the NEAX2400 CallCenterWorX-Enterprise ACD System.

The installation of the ACD in the IMX system is completed by the installing the MIS, MIS interface, and terminal equipment such as agent positions and supervisory positions.

Because the installation procedures required for the NEAX2400 IMX are the same as for the business system, this manual describes only the terminal equipment related to the MIS and ACD positions. For information on installation procedures related to the NEAX2400 IMX, refer to the NEAX2400 IMX Installation Manual.

2. PRECAUTIONS

2.1 ESSENTIAL/CRITICAL INFORMATION

To prevent accidents or equipment damage from occurring while installation is being performed, each NEAX2400 IMX manual provides “WARNING”, “CAUTION”, and “Note” indications to draw the technician’s attention to specific matters.

1. Meaning

WARNING: Personal injury may result if the warning is not heeded.

CAUTION: Damage to the equipment and/or the system may result if the caution is not heeded.

Note: *Indicates an item which requires special attention.*

2. Locations of Indicators

WARNING and CAUTION indications are located at the top of the page. Descriptions are included as part of the procedures on the page.



Figure 3-1 Static Caution Indication

INSTALLATION

This manual provides Static Caution indicators (see [Figure 3-1](#)) on page where work involving static-sensitive components is described.

The 3M Model 8012 Portable Field Service Kit, shown in [Figure 3-2](#) is recommended as an effective counter-measure against static electricity. The kit is available from NEC.

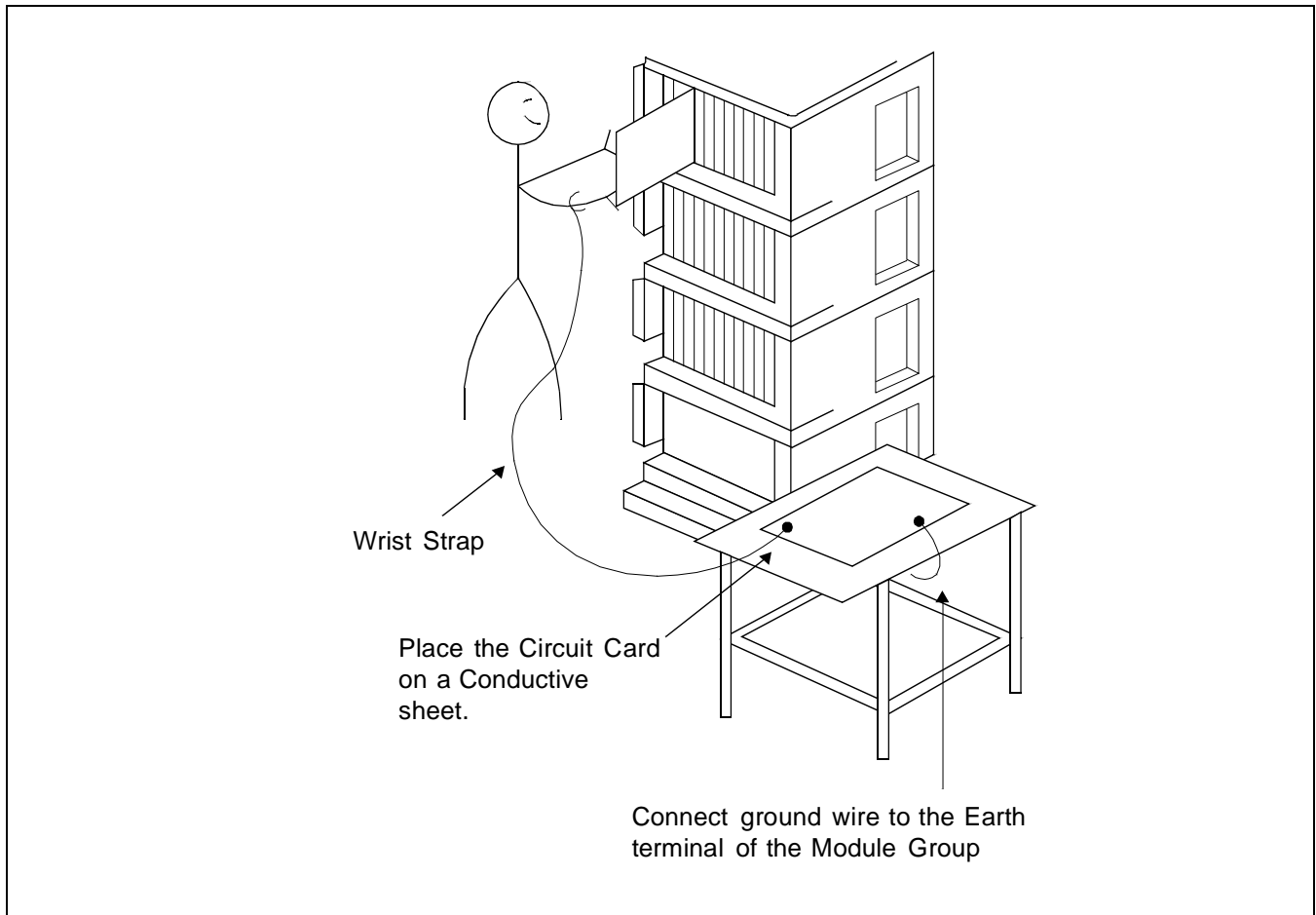


Figure 3-2 3M Model 8012 Portable Field Service Kit

3. INSTALLATION PROCEDURES

3.1 PERIPHERAL EQUIPMENT INSTALLATION

This section explains the procedures to install peripheral equipment for the ACD in the IMX system (Agent positions, MIS terminals, etc.).

The reference NAPs for the peripheral equipment are indicated in [Figure 3-3](#).

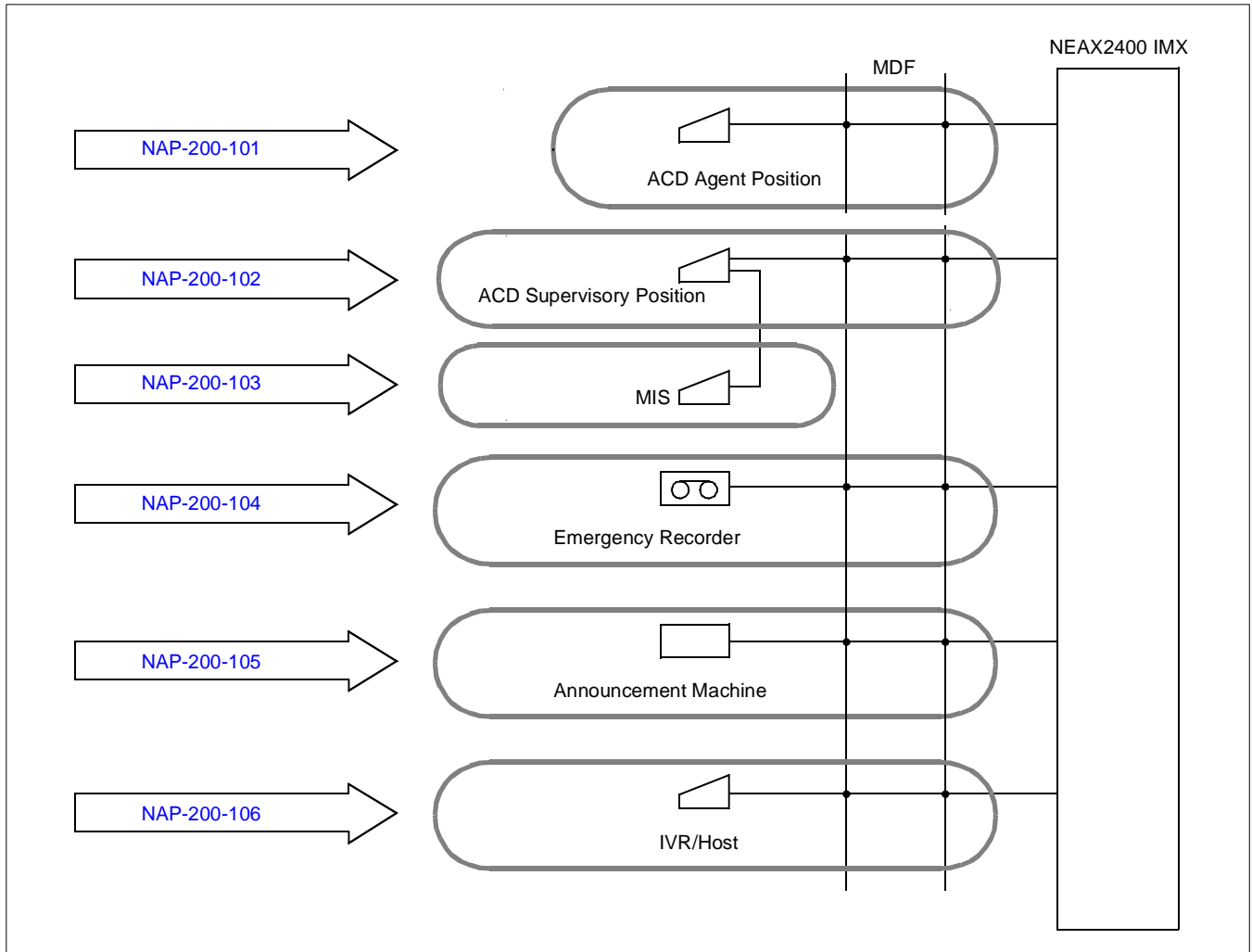


Figure 3-3 Peripheral Equipment Installation Procedures

INSTALLATION

NAP-200-101
Sheet 1/3
Installation of ACD Agent Position

Figure 3-4 shows the cable connection between the Agent Position and the NEAX2400 IMX.

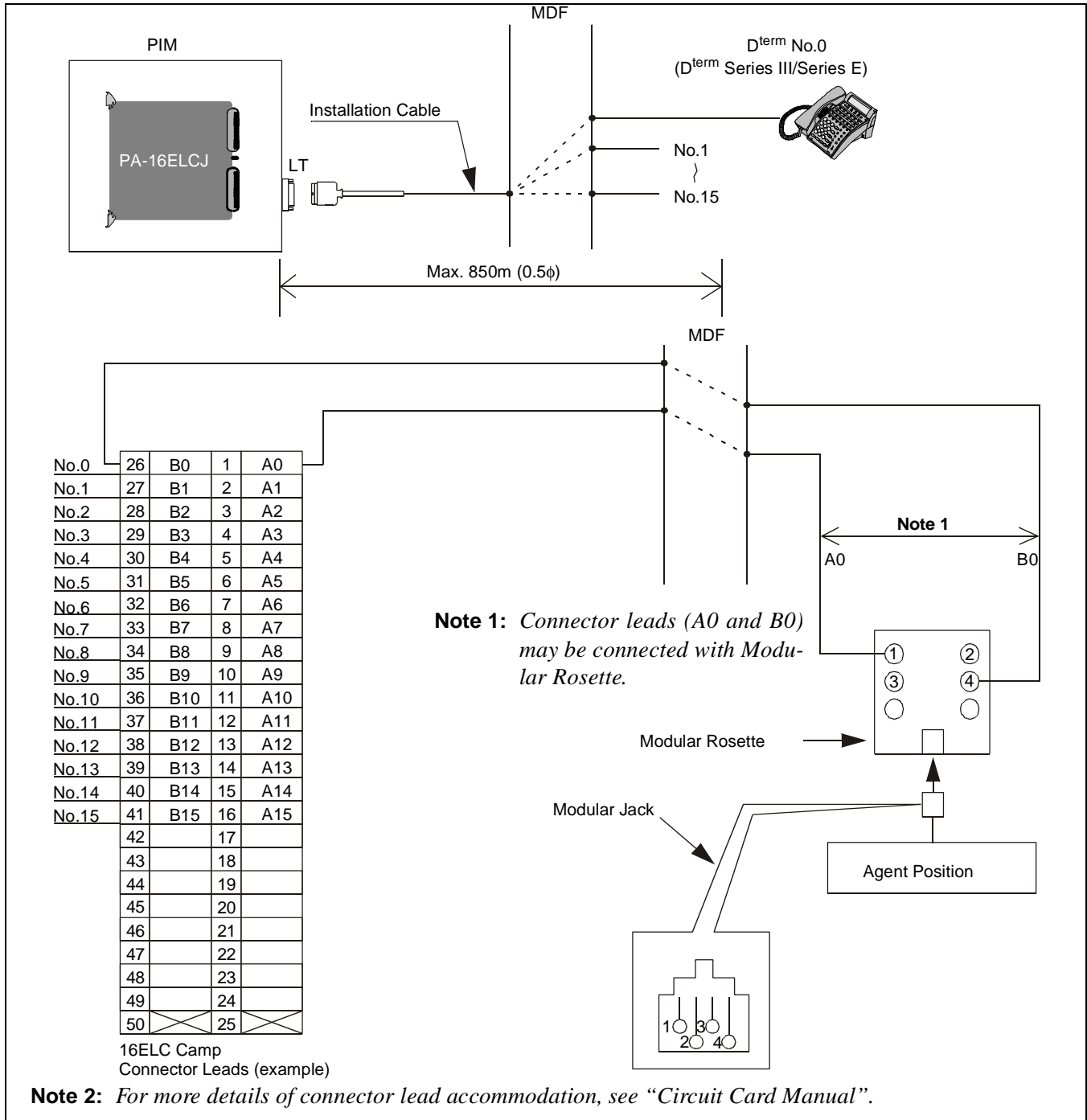


Figure 3-4 Connection of ACD Agent Position

NAP-200-101
Sheet 2/3
Installation of ACD Agent Position

- Attach the provided key pad/labels to identify the names of the keys. For the function key data assignments, refer to the AKYD command in [Chapter 7](#).

(1) D^{term} Series III

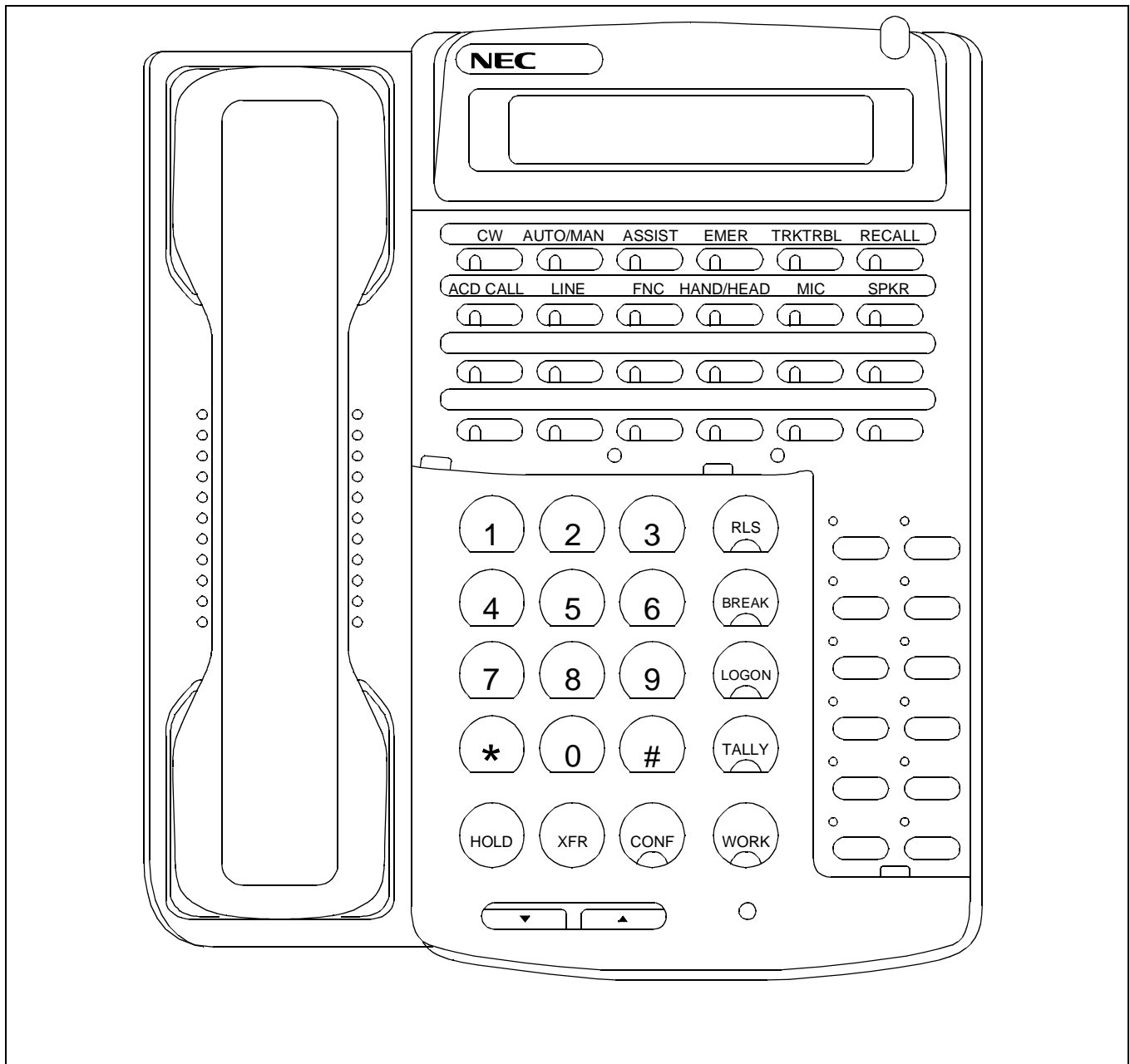


Figure 3-5 Key Pads on ACD Agent Position Keyboard (D^{term} Series III)

INSTALLATION

NAP-200-101
Sheet 3/3
Installation of ACD Agent Position

(2) D^{term} Series E

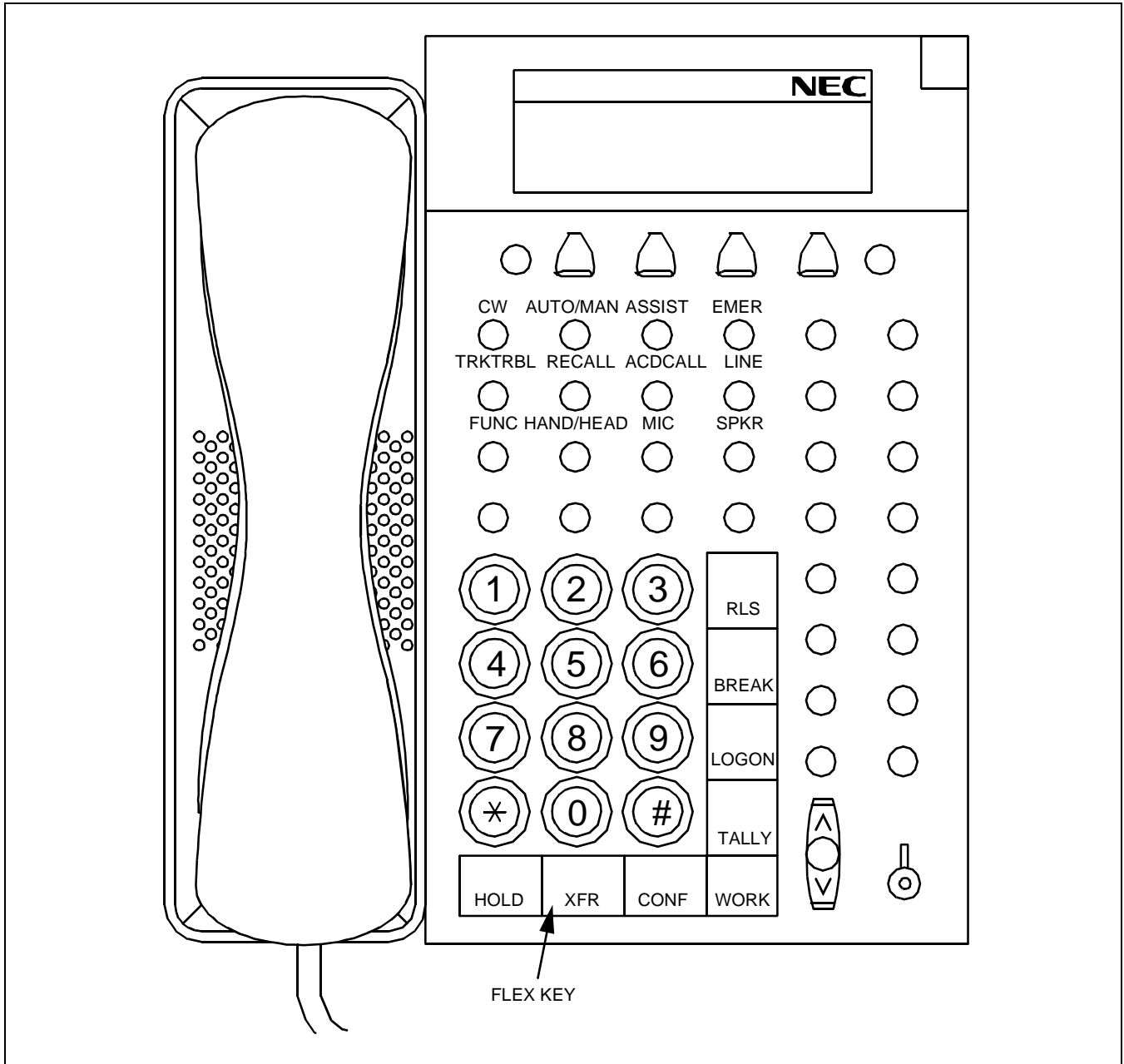


Figure 3-6 Key Pads on ACD Agent Position Keyboard (D^{term} Series E)

NAP-200-102
Sheet 1/3
Installation of ACD Supervisory Position

Figure 3-7 shows the cable connection between the Supervisory Position and the NEAX2400 IMX.

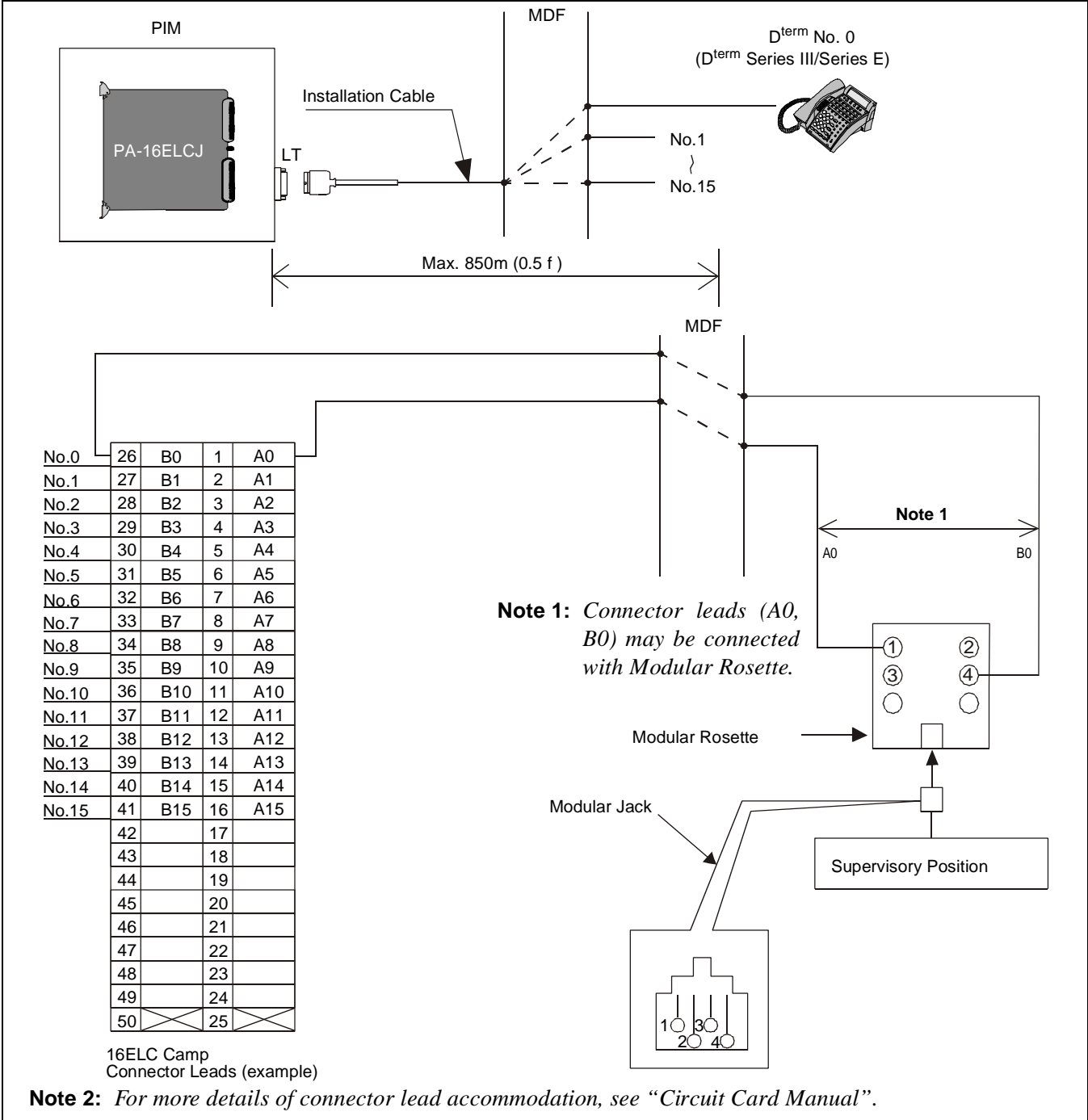


Figure 3-7 Connection of ACD Supervisory Position

INSTALLATION

NAP-200-102
Sheet 2/3
Installation of ACD Supervisory Position

- Attach the provided key pad/labels to identify the names of the keys. For the function key data assignments, refer to the AKYD command in [Chapter 7](#).
- (1) D^{term} Series III

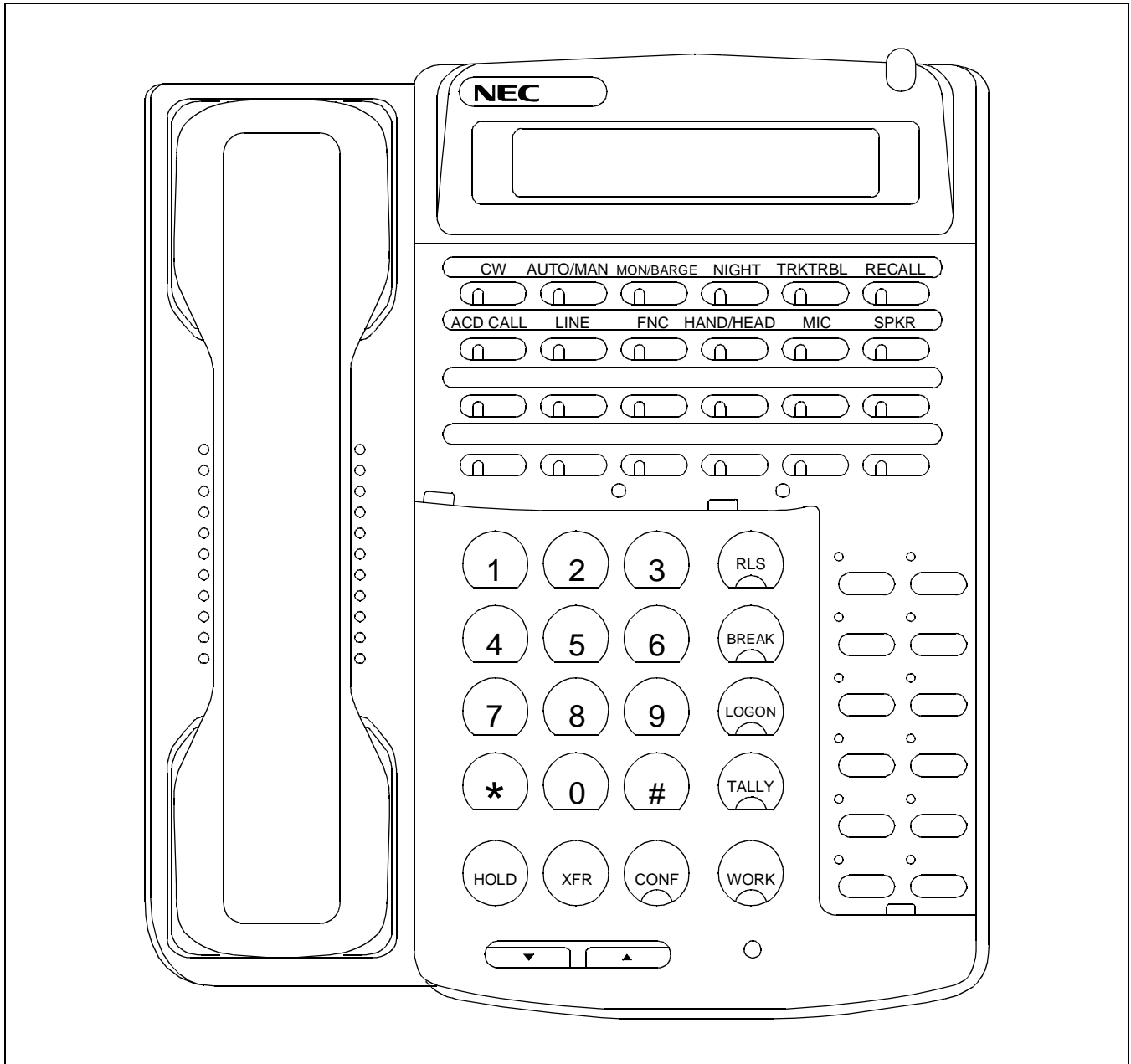


Figure 3-8 Key Pads on Supervisory Position Keyboard (D^{term} Series III)

NAP-200-102
Sheet 3/3
Installation of ACD Supervisory Position

(2) D^{term} Series E

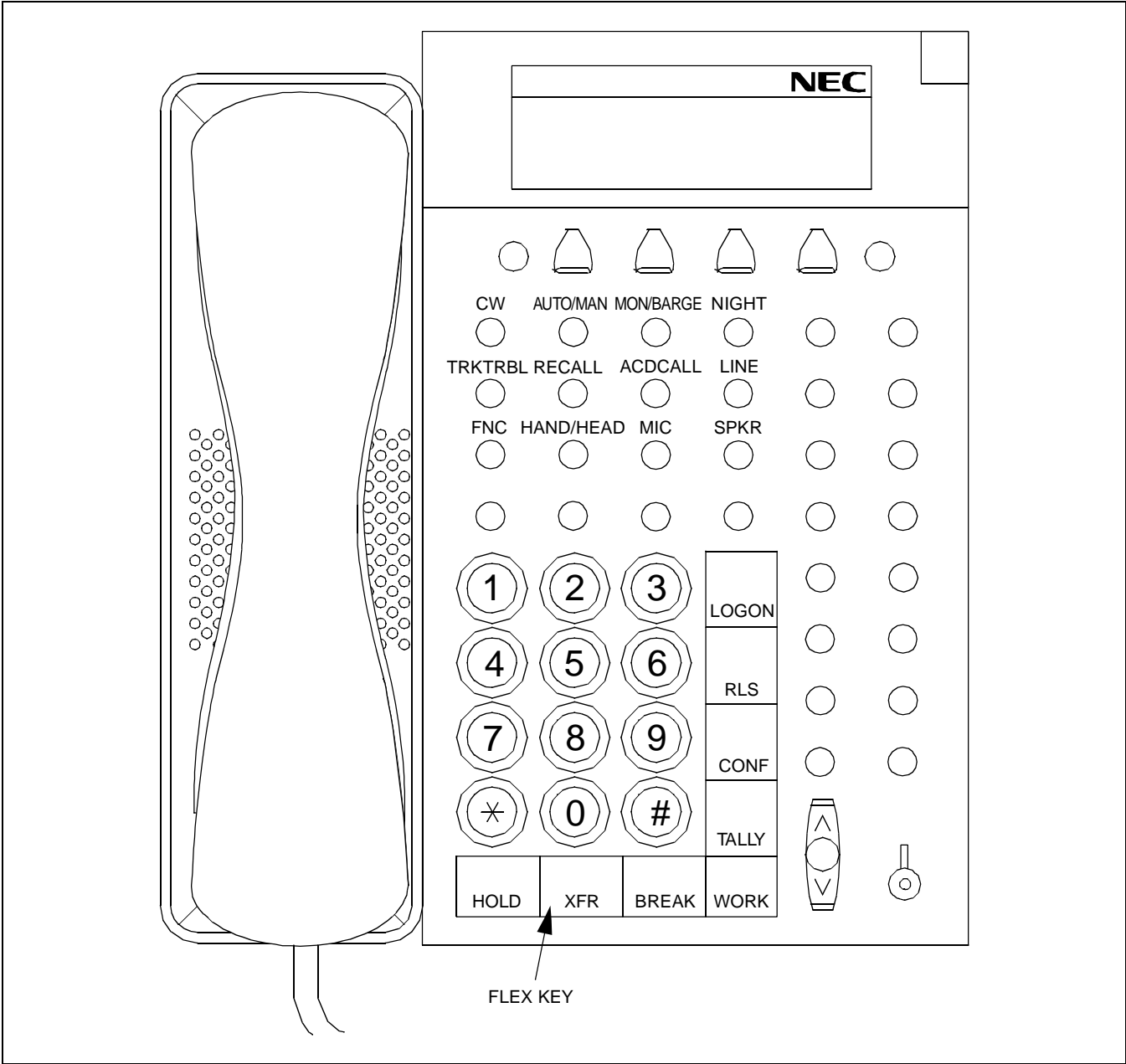


Figure 3-9 Key Pads on Supervisory Position Keyboard (D^{term} Series E)

INSTALLATION

NAP-200-103
Sheet 1/1
Installation of MIS

Figure 3-10 shows the cable connection between the MIS and the NEAX2400 IMX.

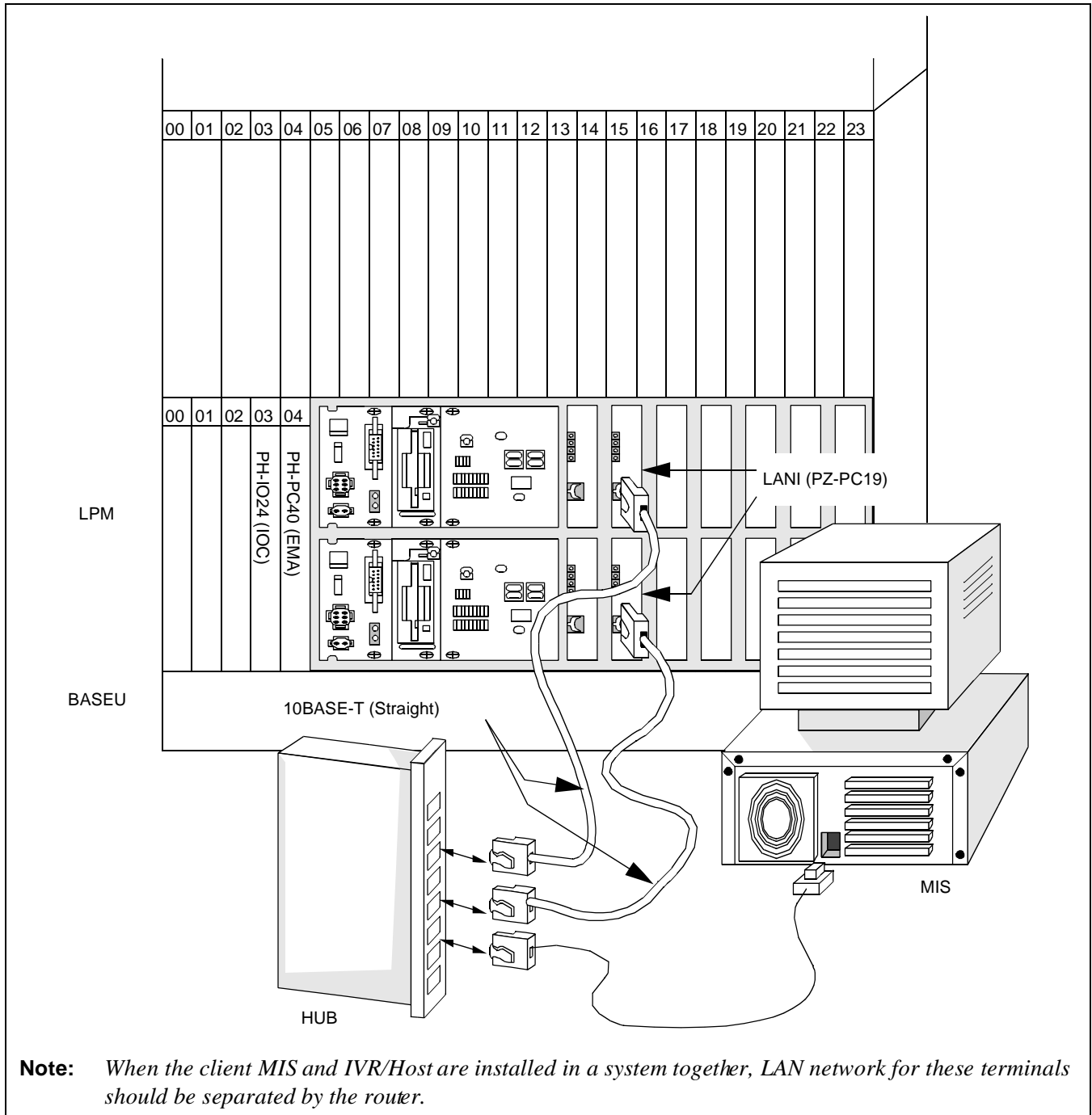


Figure 3-10 Cable Connection between MIS and PBX

NAP-200-104
Sheet 1/1
Installation of Emergency Recorder

Figures 3-11 and 3-12 show connection for an Emergency Recorder.

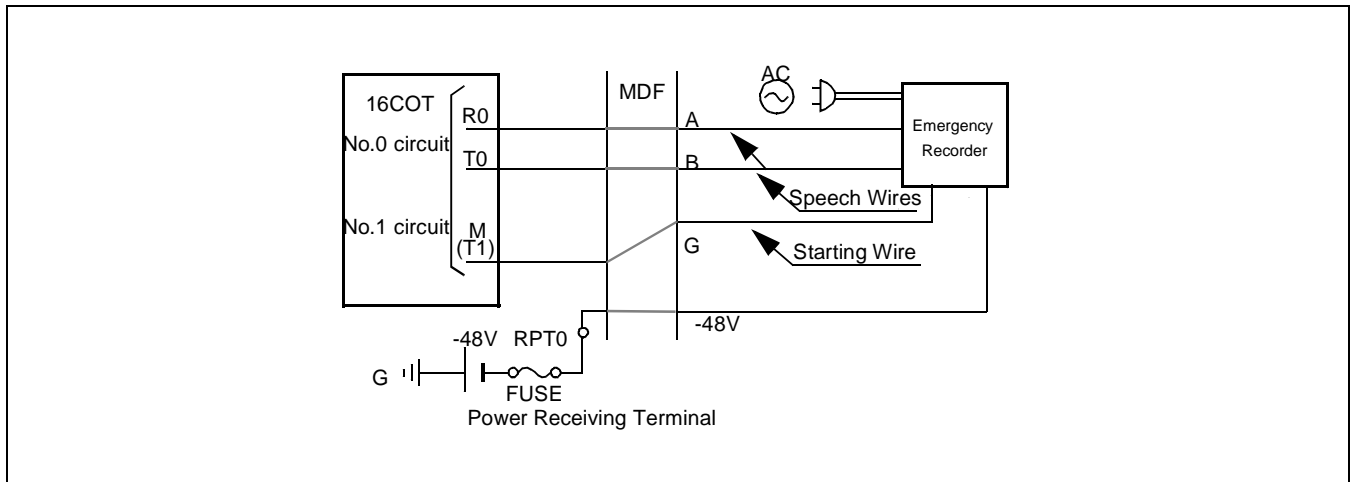


Figure 3-11 Connection of Emergency Recorder (When Emergency Recorder Has Starting Terminal)

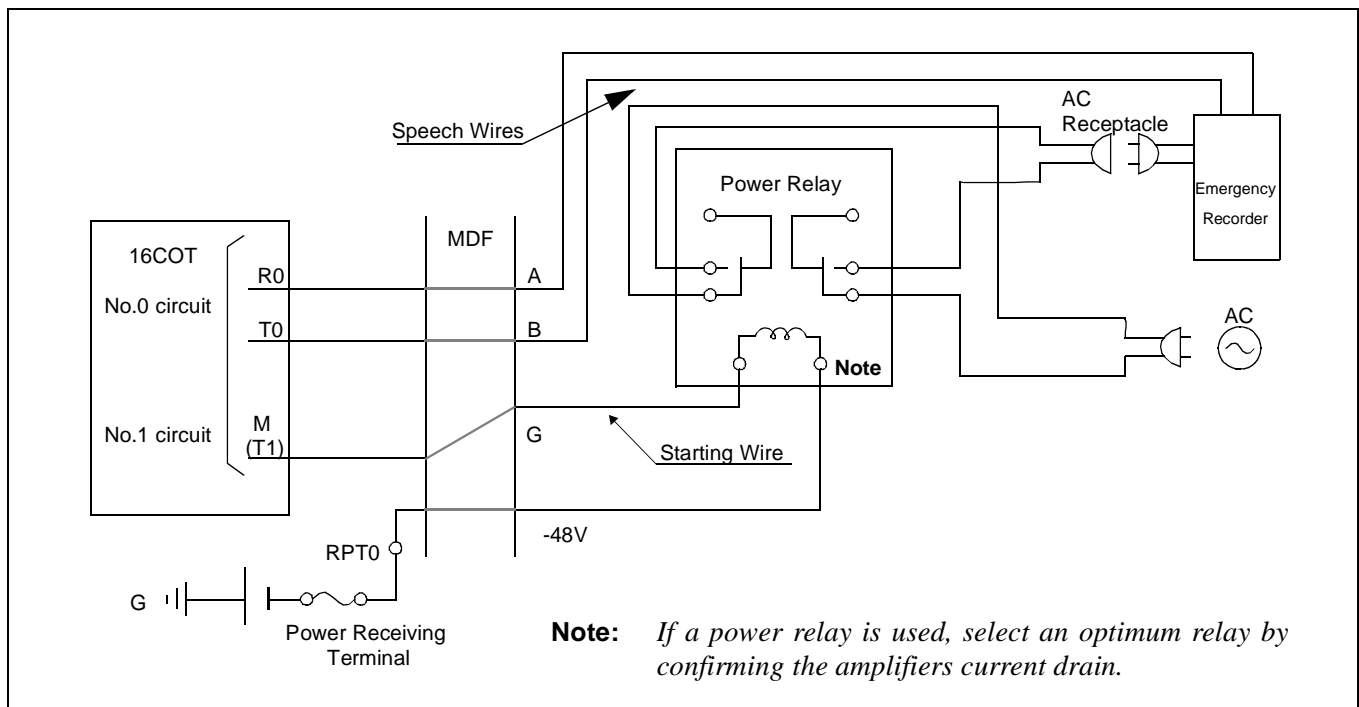


Figure 3-12 Connection of Emergency Recorder (When Emergency Recorder Does Not Have Starting Terminal)

INSTALLATION

NAP-200-105
Sheet 1/1
Installation of Announcement Machine

The standard announcement machine available is PA-4DATA or PA-4DATB (4DAT: 4 Digital Announcement Trunk) card. The 4DAT can be used by simply inserting it in the universal slot of PIM.

If a non-standard announcement machine is used, the connection method and the announcement trunk to be used as interface vary depending on the machine.

An example of this connection is shown in [Figure 3-13](#).

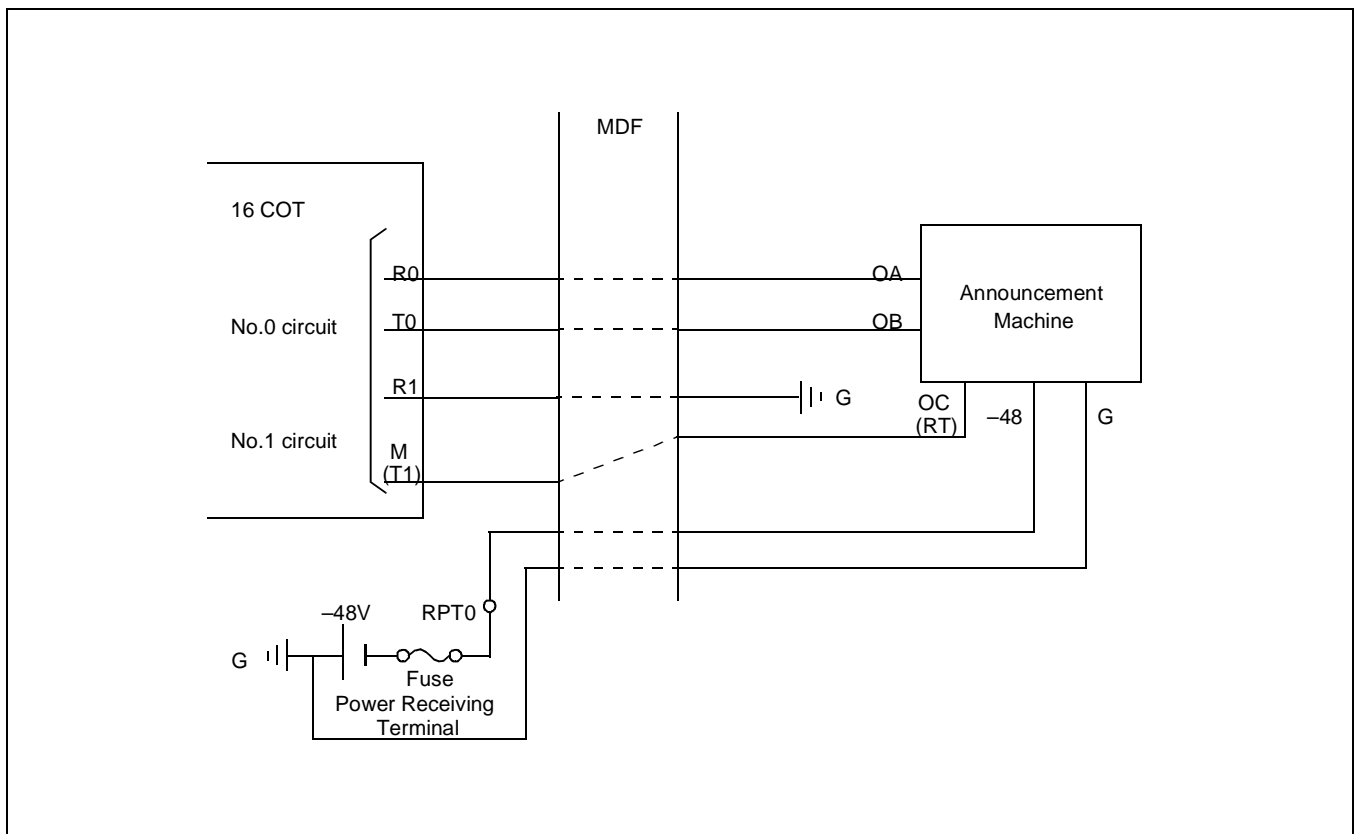


Figure 3-13 Connection of Announcement Machine

NAP-200-106
Sheet 1/1
Installation of IVR/Host

Figure 3-14 shows the system configuration when IVR/Host is installed.
For more details of IVR cable connection, refer to Figure 3-15 and for the Host connection, refer to Figure 3-16.

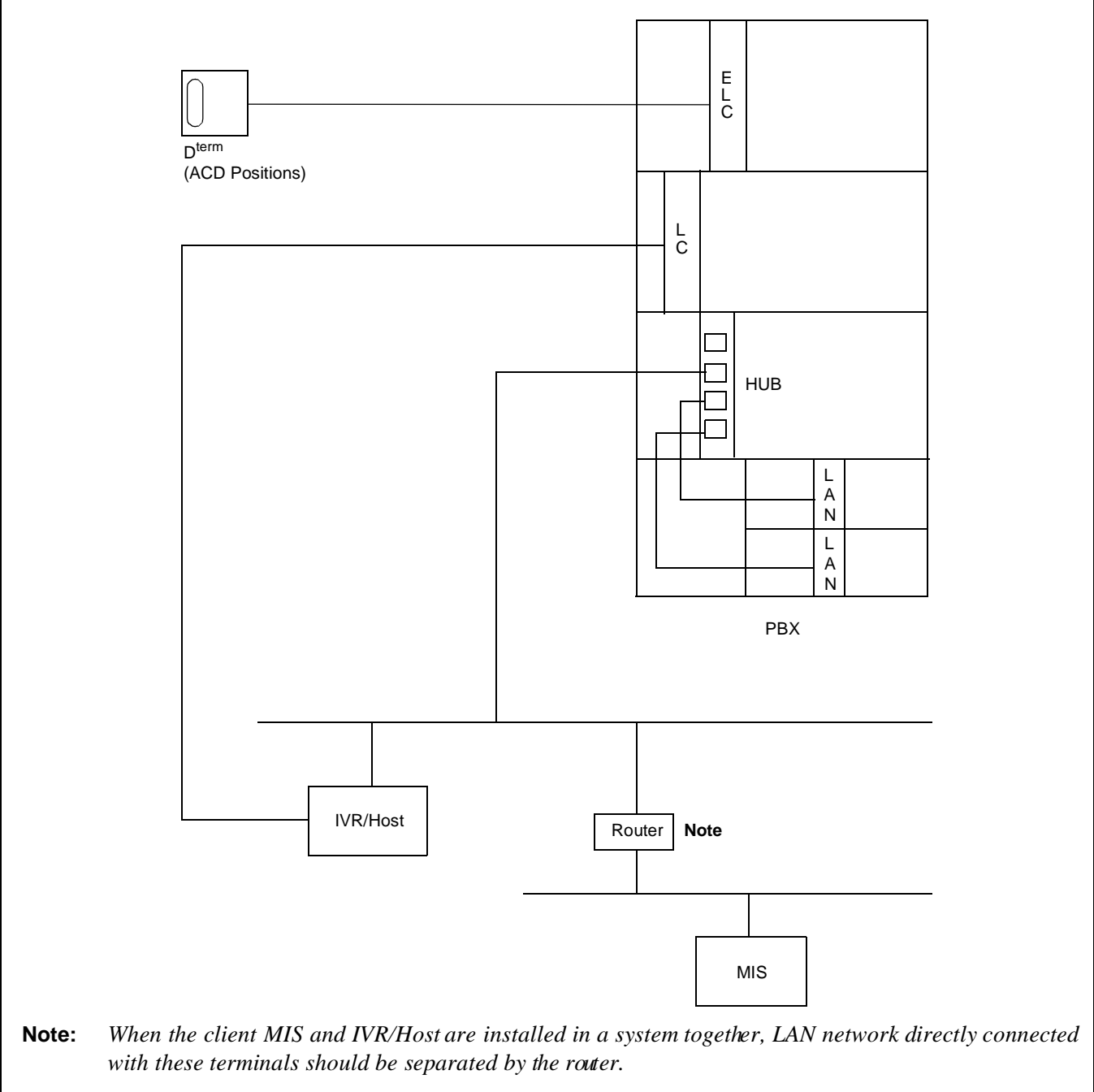


Figure 3-14 System Configuration (when IVR/Host is installed)

INSTALLATION

Figure 3-15 shows the cable connection between Host and the PBX.

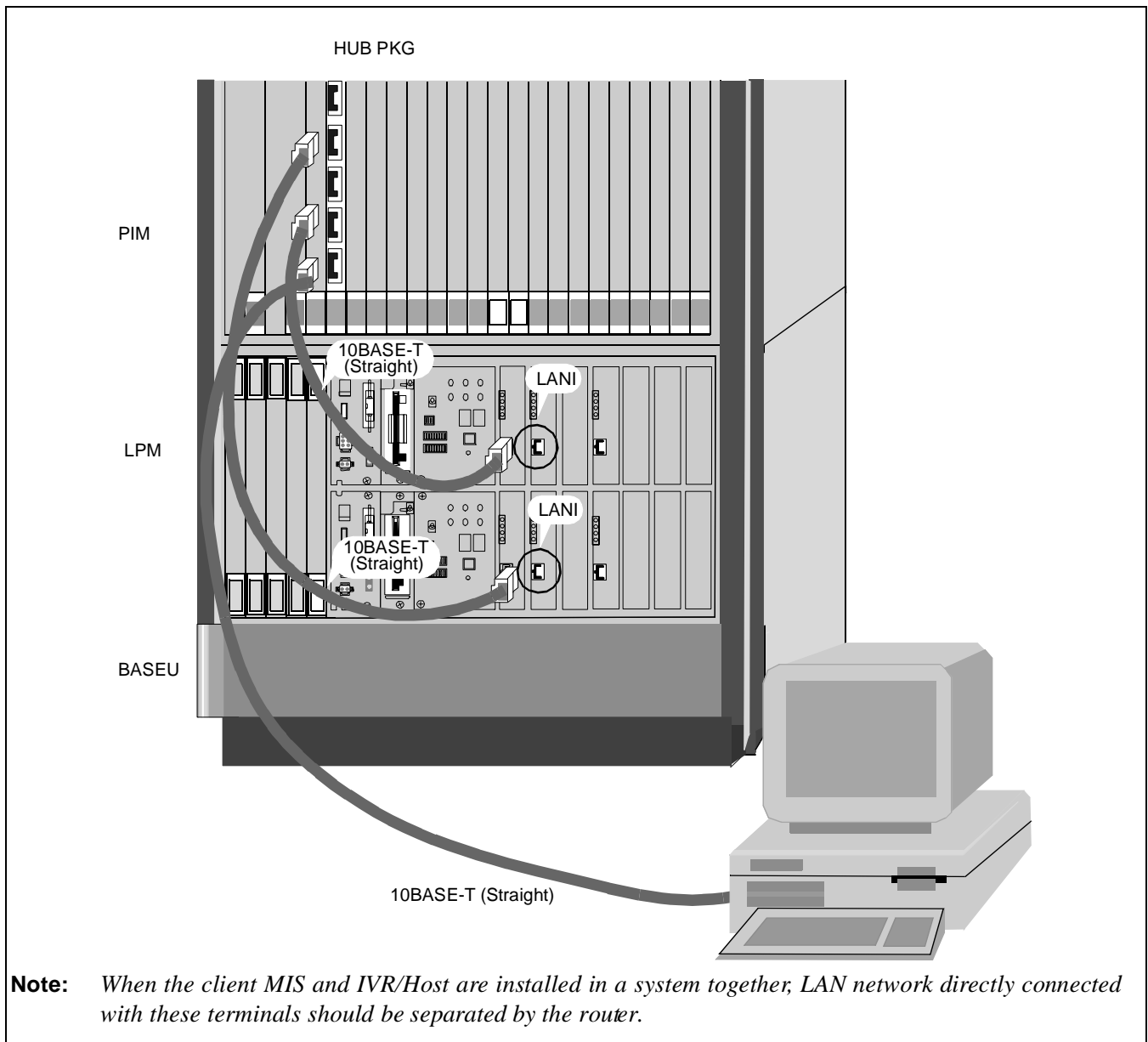


Figure 3-15 Connection of Host

Figure 3-16 shows the cable connection between IVR and the PBX.

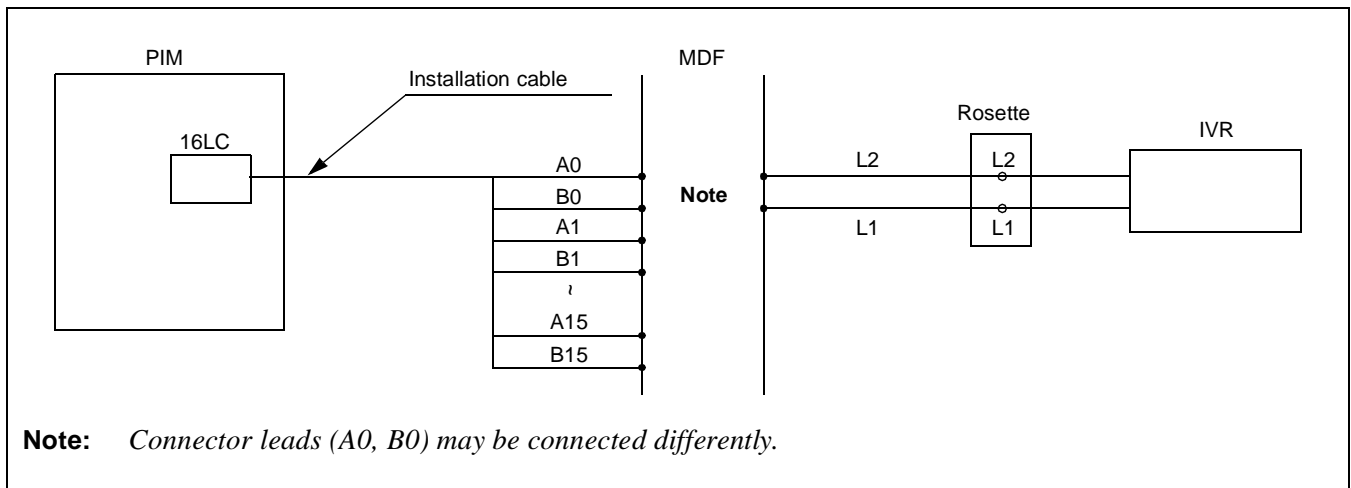


Figure 3-16 Connection of IVR

INSTALLATION

4. SYSTEM START-UP PROCEDURE FOR ADDING ACD FEATURES

4.1 ACD SOFTWARE INSTALLATION

This section explains the installation procedure for adding the Built-in ACDP software to the PBX in on-line operation. For more detailed information about start-up procedures before the ACD application software install, see the "Installation Manual".

[Operation Procedure]

a. Basic Operating Procedure

STEP 1 : By using MEM_HDD command, save all data to both HDDs.

STEP 2 : Insert the Built-in ACDP software FD into the HDD of the PBX.

Note 1: *When ACD service is used in a Fusion Network and when "ACD Trunk in a FCCS Network" is used: Install the software into the node that accommodates the ACDP.
When "AGENT ANYWHERE" is used:
Install the software into one node only. In this case, the node with the most ACD agent positions is recommended to prevent network traffic congestion. The node that uses the ACDP is most recommended according to the service condition Item 3 described in "Agent Anywhere - ACD" in Chapter 5.*

STEP 3 : Install the Configuration Software to all nodes. **Note 2**

Note 2: *This software is used to define the CallCenterWorX-Enterprise (ACD) system capacity (50, 200, 500, 900, or 2000 Agent Positions).*

STEP 4 : Initialize the system (perform IPL, DM loading).
PROGRAM="LOAD"
SYSTEM DATA="LOAD"

- b. When Installing ACD Trunk into Multiple Fusion Nodes (Software installation when the ACD trunk is installed at Fusion Nodes.)
 - (1) At the node that uses the ACDP, the ACD software (Built-in ACDP software) and ACD Option Software installation is necessary.
 - (2) At the node that accommodates the ACD trunk, only ACD Option Software installation is necessary. Do not install the ACD software.
 - (3) Initialize the node that uses the ACDP after the software installation.
- c. When Installing ACD Agent Position into Multiple Fusion Nodes (For PBX Software Series 7300 or later)
 - (1) At the node that uses the ACDP, the ACD software (Built-in ACDP software) and the basic ACD Option Software, installation is necessary.
 - (2) At the node that accommodates the ACD trunk, ACD agent position, the basic ACD Option Service Software must be installed.
 - (3) Initialize the node that uses the ACDP after the software installation.
- d. When Installing ACDP into Multiple Fusion Nodes (For PBX Software Series 7400 or later)
 - (1) At the node that uses the ACDP, the ACD software (Built-in ACDP software) and ACD Option Software installation is necessary.
 - (2) At the node that accommodates the ACD trunk, only ACD Option Software installation is necessary. Do not install the ACD software.
 - (3) Initialize the node that uses the ACDP after the initialization of the other nodes (non-ACDP nodes).

INSTALLATION

4.2 BASIC DATA ASSIGNMENT FOR START-UP

STEP 1 : Change the system data written in DM.

ASYD SYS1
INDEX2 - b0=1 (ACDP mounted)
INDEX31 - b0~b3: CM mounting capacity
Assign Normally "06". **Note 1**
INDEX79 - b6=0 (ACD service is effective) **Note 1**
INDEX207 - b0=1 (ACDP in system0 is used)
b1: ACDP in system1
0/1=Not used/Used
INDEX241 - b2=1 (call event process) **Note 1**

Note 1: *When the ACD service is activated via FCCS, this data must be set to all nodes providing ACD service (Not just the node accommodating the ACDP).*

STEP 2 : Assign the system data written in LDM as shown below.

ASYDL SYS1
INDEX512: FPC of the self-node
INDEX513: 01 Hex (LDM usage)
INDEX515~518 b0~b7: IP address (Hex) for PBX over external LAN **Note 2**
INDEX519~522 b0~b7: Subnet Mask (Hex) for PBX over external LAN **Note 2**
INDEX523~526 b0~b7: Default Gateway Address for External LAN
(This data is required when the Host is connected via gateway) **Note 2**
INDEX864 - b0=1 (Built-in ACDP is provided)
INDEX864 b1: Output the system message (4-R) when TCP-IP is normally disconnected.
0/1 = Effective/Ineffective **Note 3**
b2: 0/1 = "Agent Anywhere" Out of Service/In Service
b3: 0/1 = Multiple ACDPs Not Available/Available
INDEX865: FPC of Node Providing IP.
INDEX866: FPC of Node Providing ACDP.

Note 2: *If the MAT or SMDR has been connected with external LAN already, this data assignment is not necessary.*

STEP 3 : Assign the System data written in NDM.

This data is necessary when using "AGENT ANYWHERE" (Available since the PBX software Series 7300.)

ASYDN SYS1
INDEX514- NDM usage
INDEX533- FPC of the node that provides VNDM

STEP 4 : Check the station-to-station connection and confirm no fault status occurs or system messages are output (such as cable connection fault, LCD display fault, memory alarm fault, abnormal interrupt, etc.).

STEP 5 : Program the ACD office data. Also, program the Fusion data to make ACD service effective through Fusion network, if necessary. Refer to [Chapter 5, "Office Data Design"](#).

STEP 6 : Save the DM, ACD data memory into the HDD by using MEM_HDD.

5. UPGRADING ACD SYSTEM FROM NEAX2400 ICS TO NEAX2400 IMX

Figure 3-17 and Table 3-1 show the requirements when upgrading the CallCenterWorX-Enerprise (ACD) system from NEAX2400 ICS to 2400 IMX.

5.1 HARDWARE AND SOFTWARE REQUIREMENTS

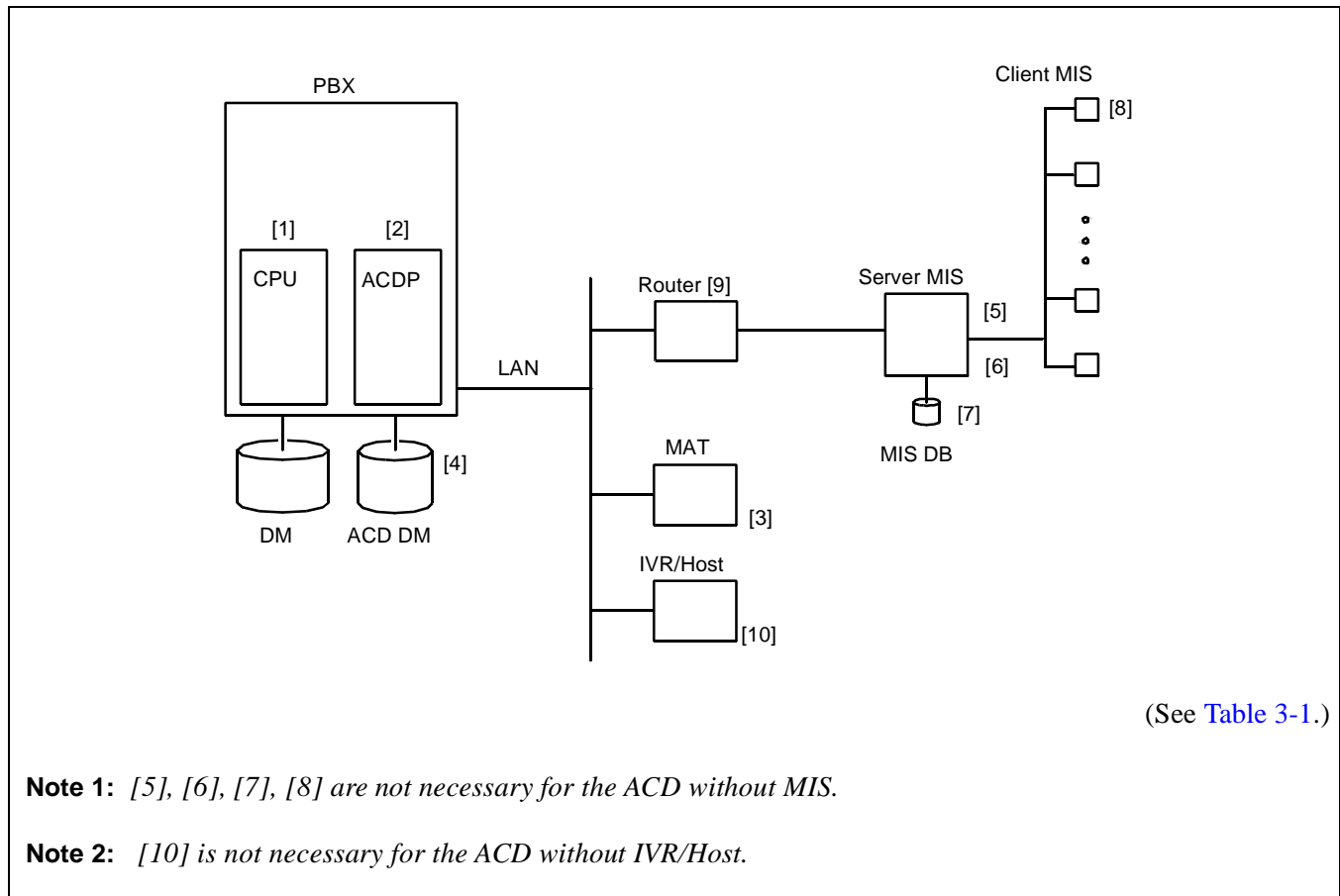


Figure 3-17 Hardware and Software Upgrading Requirements

INSTALLATION

Table 3-1 Hardware and Software Upgrading Requirements

No.	Upgrading Hardware or Software		NEAX2400 ICS (before upgrading)	NEAX2400 IMX (after upgrading)
[1]	Generic Software <ul style="list-style-type: none"> • Basic software • Standard Service software • Optional software 		All types of system	PBX software Release 3 or later <ul style="list-style-type: none"> • Basic software (#1~#11) • Internal MAT software (#1~#2) • TCP/IP software
[2]	ACD software		SC-2242 PRG-E or SC-2243 PRG-F	Built-in ACDP software
[3]	MAT Hardware and Software		IBMPC/AT	Windows
[4]	ACD Data Memory		PBX software Release 2 or Release 3	Built-in type Necessary to be reprogrammed via [3]
[5], [6]	Server MIS	Hardware and Software	Navigator MIS (IBMPC/AT)	Navigator MIS (IBMPC/AT) For NEAX2400 IMX system
[7]		Data base (Config., static data, etc.)	Navigator MIS (IBMPC/AT)	Navigator MIS (IBMPC/AT)
[8]	Client MIS terminal Software		Navigator MIS (IBMPC/AT)	(a) Remote MIS terminal MIS terminal for Navigator MIS (IBMPC/AT) (b) Client MIS terminal Navigator MIS client for NEAX2400 IMX system
[9]	Router		—	Router
[10]	IVR/Host Hardware and Software Note: <i>Necessary when IVR/ Host is added only.</i>			

5.2 UPGRADING PROCEDURE

- STEP 1 : Print out the existent data in the MIS terminal or save the data as the text file. **Note 4**
- STEP 2 : List up the office data related to the current ACDP.
- STEP 3 : Shutdown MIS operation following the appropriate procedure. **Note 4**
- STEP 4 : Make busy the CPU (ACDP) card (CP53/CP54) and disconnect all cables connected to cards related to ACD.
- STEP 5 : Upgrade the PBX hardware following the Upgrade Manual for the PBX.
- STEP 6 : Install the software below to upgrade the PBX software. Refer to [Chapter 3, Section 4.1, “ACD Software Installation”](#).
- An assortment of software for NEAX2400 IMX
 - Built-in ACDP software **Note 1**
 - System Configuration Software containing ACD Options **Note 2**
- STEP 7 : Program the following ACD commands data again.
ACDTN/ACDSPL/ACDLOG/ACDPSN/ACDCCV/ACDPLT/ACDTG/ACDANA/ACDIVR/
ACDHS/ACDHC/ACDWS
- STEP 8 : Start up the Navigator MIS for IBMPC/AT. **Note 3**
- Standard MIS hardware and software
 - MIS terminal hardware and software
- STEP 9 : Start up the IVR/Host. **Note 4**
- IVR/Host hardware and software
 - Related Equipment for LAN
- STEP 10 : Perform the installation test.

- Note 1:** *When ACD service is used in a Fusion Network, and when “ACD Trunk in a Fusion Network” is used: Install the software into the node that accommodates the ACDP.
When “AGENT ANYWHERE” is used:
Install the software into one node only. In this case, the node with the most ACD agent positions is recommended to prevent network traffic congestion. The node that uses the ACDP is most recommended according to the service condition Item 3 described in “Agent Anywhere - ACD” in Chapter 5.*
- Note 2:** *When ACD features are activated in Fusion network, this software is installed in all nodes.*
- Note 3:** *This procedure is not necessary for the ACD without MIS.*
- Note 4:** *Details for start-up procedure are decided by the IVR/Host feature specifications.
This procedure is not necessary when IVR/Host is not used.*

This page is for your notes.

CHAPTER 4 SWITCH SETTING OF ACD CIRCUIT CARDS

1. GENERAL

This chapter explains the circuit cards related to the NEAX2400 CallCenterWorX-Enterprise (ACD) System which are shown in [Table 4-1](#).

Table 4-1 List of ACD Circuit Cards

SYMBOL	CIRCUIT CARD	MOUNTING MODULE	REMARKS
CPU	PA-CP53	PIMU	For circuit card type
EAPI	PH-PC22/PH-PC27	LPRJ-A	
ALMC	PA-AL16	APM	For module type
APINT	PH-PC21	LPRJ-A	
COPY	PA-PC56-A	APM	
CPU	PA-CP54	APM	
CRAM	PA-ME34	APM	
IOC	PA-IO02-A	APM	
PBI	PH-BS16	APM	
SPGT	PA-GT17	MISCME	For MISCME type
ELC	PA-16ELCDD	PIMU	Common
16ELC	PA-16ELCH	PIMU	Common
16ELC	PA-16ELCJ	PIMU	Common
4DAT	PA-4DATA	PIMU	Common
DAT	PA-4DATB	PIMU	Common
4DTL	PA-4DTLA	PIMU	Common
ETHER	PA-CC98	APM/PIMU	Module/Package
MBB	PA-GT16	APM	Module

SWITCH SETTING OF ACD CIRCUIT CARDS

2. EXPLANATION OF ACD CIRCUIT CARDS

This section explains each of the ACD circuit cards regarding the following items.

1. Function

Explanations are given about the functional outline and the purpose of each circuit card.

2. Mounting Location/Condition

The mounting location of each circuit card is illustrated with the mounting module name, slot number, etc. Any conditions pertaining to mounting are also denoted.

3. Face Layout of Lamps, Switches, and Connectors

The locations of the lamps, switches, and connectors provided on each circuit card are illustrated by a face layout.

4. Lamp Indications

Lamps equipped on each circuit card, their names, colors, and indication states are tabulated.

5. Switch Setting

Switches equipped on each circuit card, their names, switch numbers, setting and its meaning, standard setting, etc. are tabulated.

6. External Interface

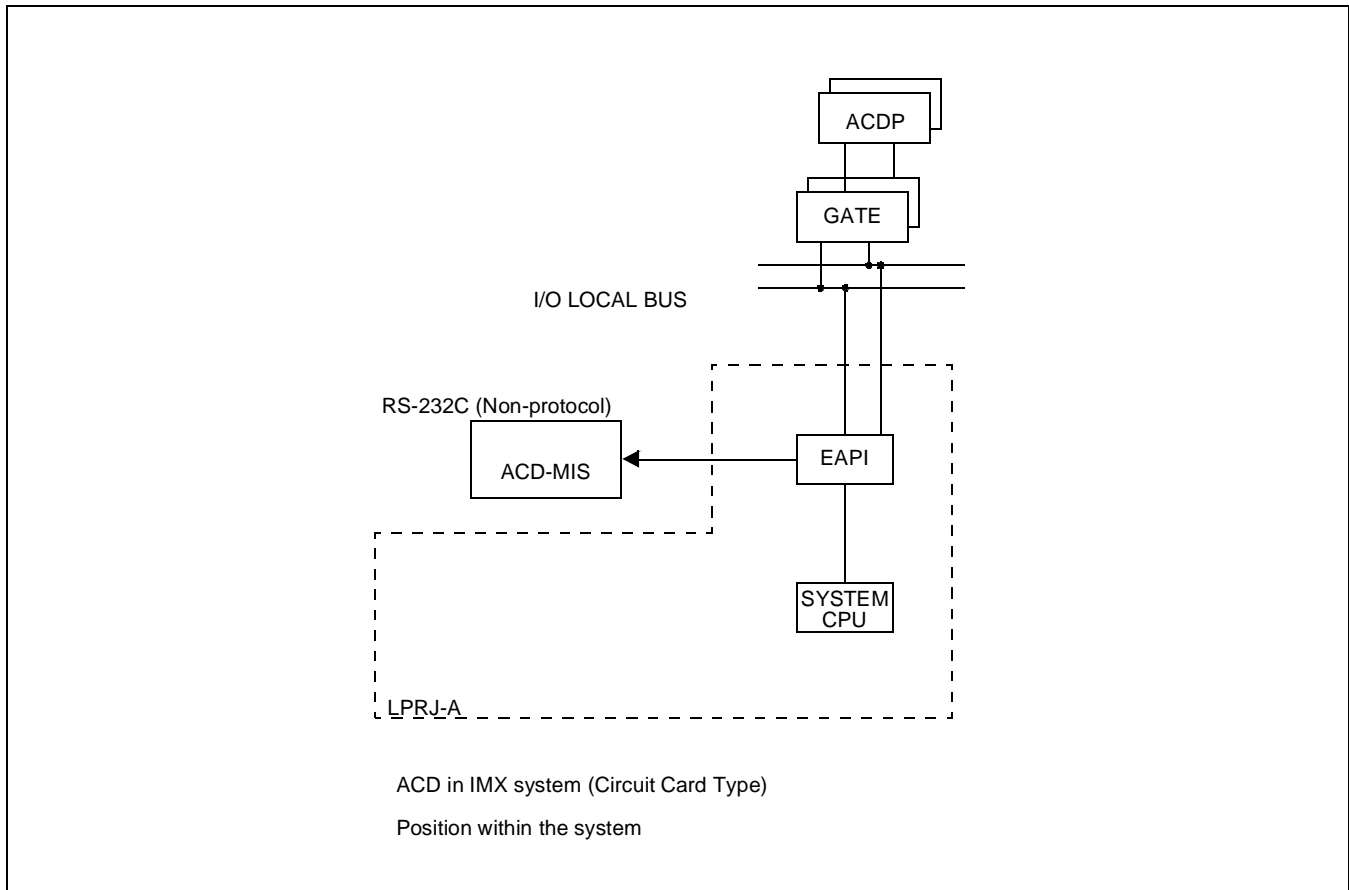
If the lead outputs of the circuit card are provided by an LT connector, the relation between the mounting slots and the LT connector is illustrated by an LT Connector Lead Face Layout. Also, if the lead outputs are provided by other than an LT connector or the lead outputs are provided by the circuit card front connector, the connector lead accommodations and the connecting routes are illustrated.

A SWITCH SETTING SHEET showing module name, slot number, switch name, switch shape, etc. is provided at the end of the explanation of each circuit card.

PA-CP53 (CPU)

1. Function

This circuit card is the CPU card (Central Processing Unit) which controls the ACD Circuit Card Type System. Using V60 microprocessor (32 bits), this CPU card provides programs and data memory. The card is equipped with EPROM of 2MB and SRAM of 1MB, respectively.



PA-CP53 (CPU)

2. Mounting Location/Condition

The mounting locations of this circuit card and the conditions related to mounting are shown below.

(a) When this circuit card is mounted in PIMA

Mounting Module				PIMU																					
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		

Note: ● indicates the mounting locations of this circuit card.

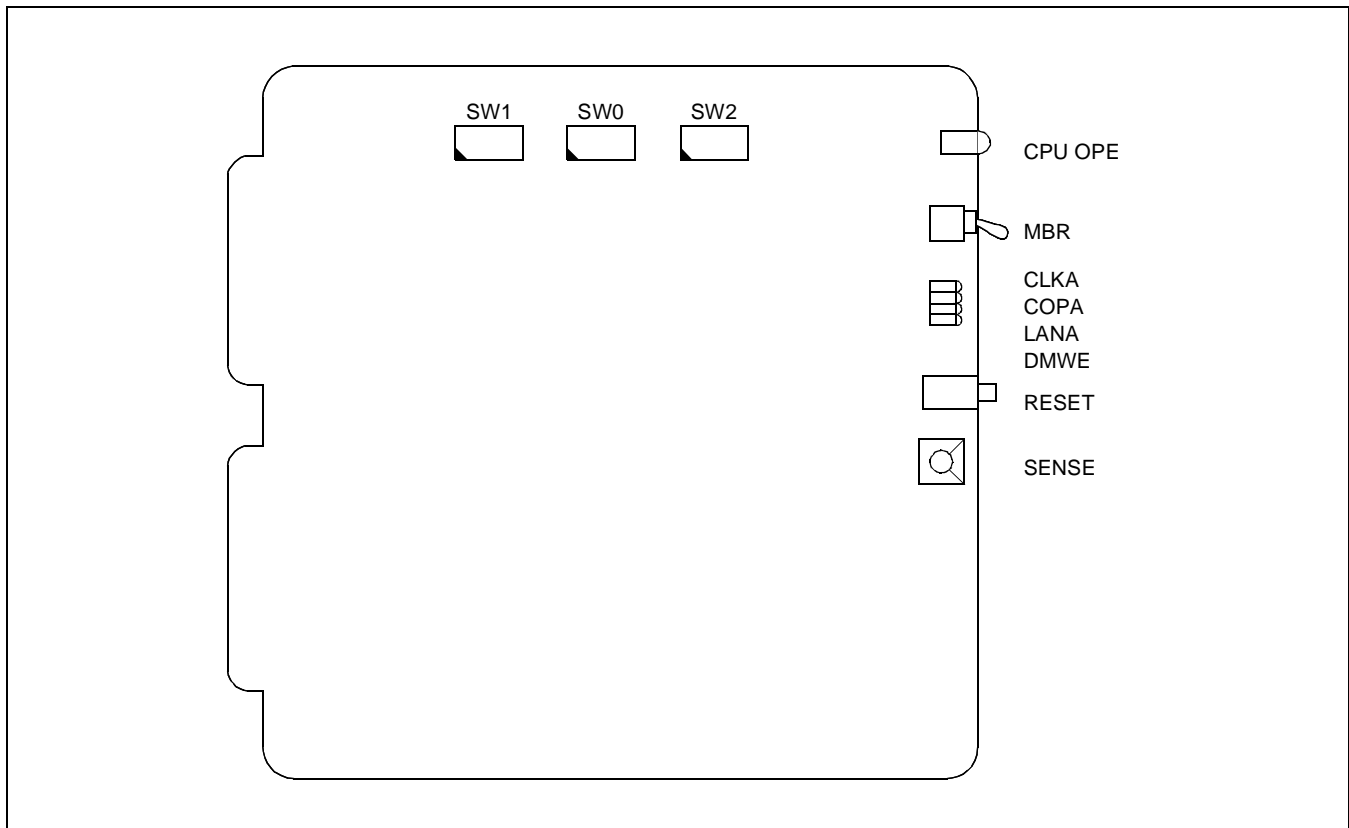
(b) When this circuit card is mounted in PIMB

Mounting Module				PIMB																					
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		

Note: ● indicates the mounting locations of this circuit card.

3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.



4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

LAMP NAME	COLOR	STATE
CPU OPE	Green	Remains lit while this circuit card is operating.
CLKA	Red	Lights when a microprocessor operating clock failure has occurred in this circuit card.
COPA	Red	Lights when a C-level infinite loop has occurred.
LANA	Yellow	Lights when a major failure has occurred in PA-CC98 card or when this circuit card is not connected with PA-CC98 card. Note
DMWE	Green	Remains lit when the data memory in this circuit card is in write enable state.

Note: When this circuit is used only as ACDP, PA-CC98 card is not used and thus this card is operating normally even if this lamp is lighting.

PA-CP53 (CPU)

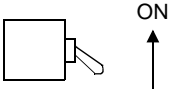



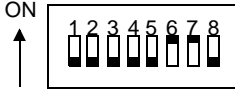

5. Switch Settings

Standard settings of various switches on this circuit card are shown in the table below.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
MBR		UP		Circuit card make busy request.
		DOWN		Circuit card make busy request cancel
RESET		PUSH		Starting of reset of this circuit card
SENSE		5	×	On line (Normal Operation)
		D		Clearing the data memory area at the time of initialization
SW0	1	OFF	×	Fixed
	2	OFF	×	Fixed
	3	OFF	×	Fixed
	4	OFF	×	Fixed
	5	OFF	×	Fixed
	6	OFF	×	Fixed
	7	OFF	×	Fixed
	8	ON	×	Fixed
SW1	1	OFF	×	Fixed
	2	OFF	×	Fixed
	3	OFF	×	Fixed
	4	OFF	×	Fixed
	5	OFF	×	Fixed
	6	ON	×	Fixed
	7	ON		IMX
		OFF		ICS
8	OFF	×	Fixed	

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
SW2	1	ON	×	Internal NMI possible
		OFF		Internal NMI inhibited
	2	ON	×	Data Memory Write Protect cancel
		OFF		Data Memory Write Protect controllable
	3	ON		Data Memory Write inhibited
		OFF	×	Data Memory Write controllable
	4	ON		When connecting PA-CC98 card
		OFF		When not connecting PA-CC98 card
	5	OFF	×	Fixed
	6	OFF	×	Fixed
7	OFF	×	Fixed	
8	OFF	×	Fixed	

SWITCH SETTING SHEET

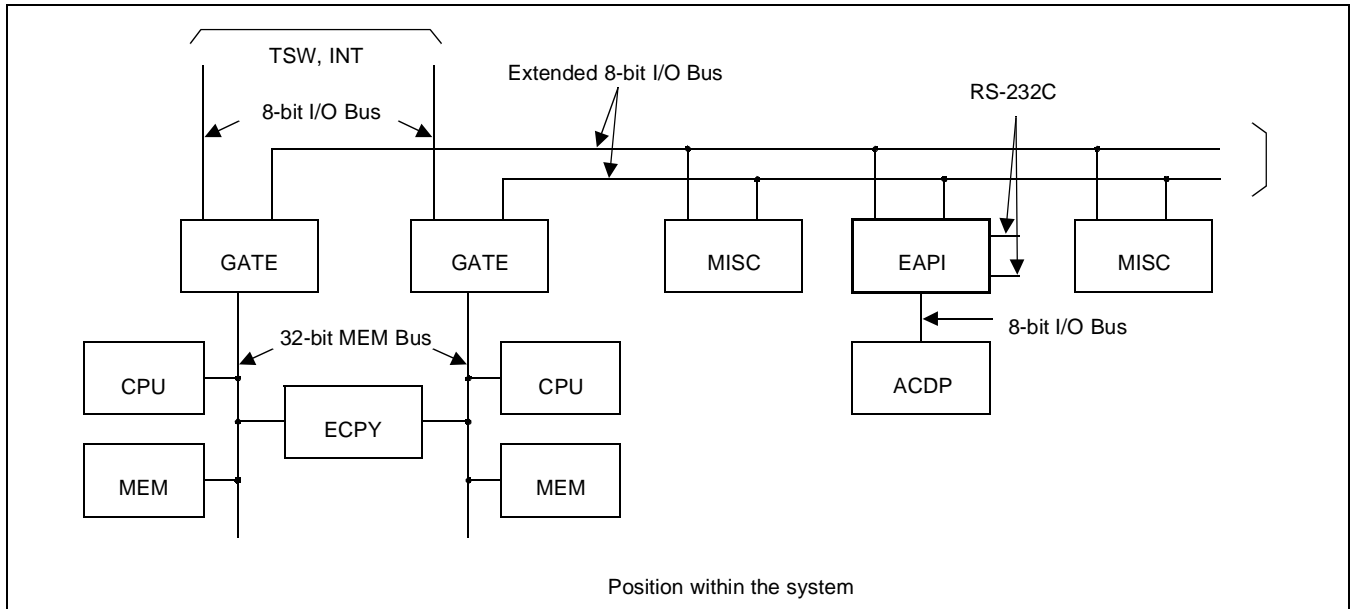
MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
PIM	any universal slot	MBR		UP: Circuit card make busy request DOWN: Circuit card make busy request cancel
		RESET		
		SENSE		
		SW0		
		SW1		7 = ON for IMX 7 = OFF for ICS
		SW2		4 ON When connecting PA-CC98

PH-PC22 (EAPI)

1. Function

This circuit card is an I/O system functions integrated card to be used in the ACD Circuit Card Type System. This card supports the following functions.

- (a) APINT Function: For processor communications between the CPU of the System and ACDP card, this circuit card provides FIFO for mutual I/O bus connections.
- (b) IOC Function: For ACD-MIS connection, this circuit card provides a serial interface which conforms with RS-232C (two I/O ports).



2. Mounting Location/Condition

The mounting locations of this circuit card and the conditions related to mounting are shown below.

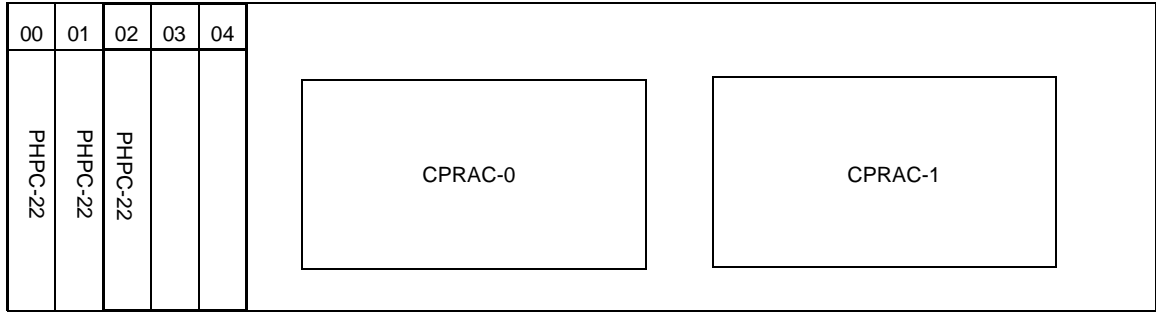
Mounting Module		CMA																						
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
		PHPC-22	PHPC-22	PHPC-22																				

Note

Note: This circuit card is mounted in any one of Slot No. 02~04.

PH-PC22 (EAPI)

Mounting Module	LPRJ-A
-----------------	--------

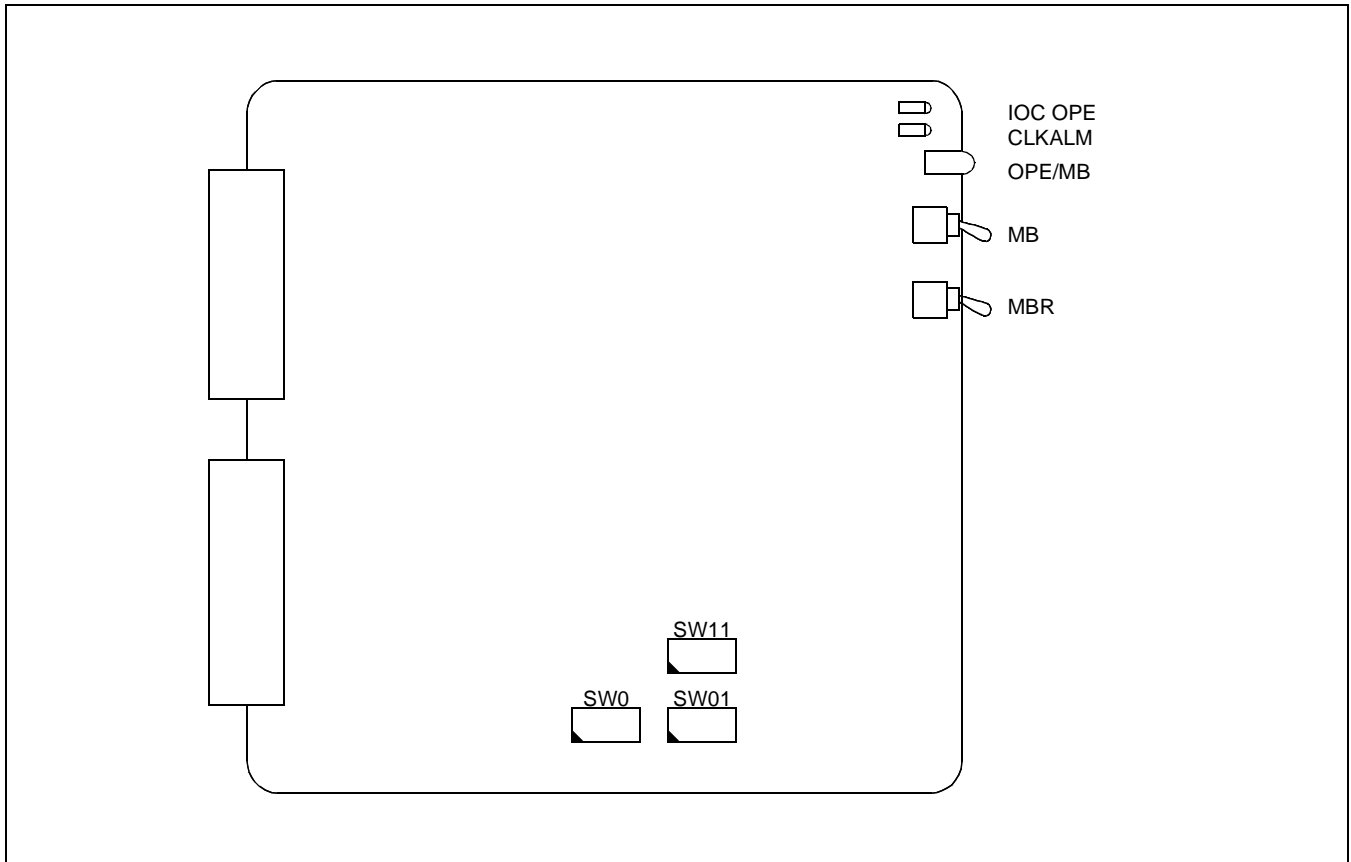


Note

Note: This circuit card is mounted in any one of Slot No. 00~02

3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.



4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

LAMP NAME	COLOR	STATE
OPE/MB	Green	Remains lit while this circuit card is operating.
IOCOPE	Red	Remains lit while the non-protocol/RS-232C Port Controller is operating normally.
CLKALM	Red	Lights when a clock failure has occurred.

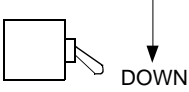
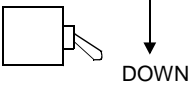



5. Switch Settings

Standard settings of various switches on this circuit card are shown in the table below.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
MB		UP		Circuit card make busy request
		DOWN		Circuit card make busy cancel
MBR		UP		Requests the software to place the ACD-MIS Interface Port Controller into make-busy state.
		DOWN		Cancels the request to place the ACD-MIS Interface Port Controller into make-busy state. (Circuit card operating state)
SW0	1	OFF	×	Fixed
	2	OFF	×	
	3	OFF	×	
	4	OFF	×	
	5	OFF	×	
	6	ON	×	
	7	OFF	×	
	8	ON	×	

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING	
SW01 (for Port 0) SW11 (for Port 1) (When using ACD-MIS Interface Port)	1	SW01-1 SW11-1	SW01-2 SW11-2	SW01-3 SW11-3	NON-PROTOCOL RS-232C PORT DATA SPEED SETTING
		ON	ON	ON	
	2	ON	ON	OFF	600 bps
		ON	OFF	ON	1200 bps
		ON	OFF	OFF	2400 bps
		OFF	ON	ON	4800 bps
	3	OFF	ON	OFF	9600 bps
		OFF	OFF	ON	19200 bps
	4	ON	×		Sets the non-protocol RS-232C port stop bit length to 1 bit.
		OFF			Sets the non-protocol RS-232C port stop bit length to 2 bit.
	5	ON	×		Sets the non-protocol RS-232C port data length to 7 bit.
		OFF			Sets the non-protocol RS-232C port data length to 8 bit.
	6	SW01-6 SW11-6	SW01-7 SW11-7	NON-PROTOCOL RS-232C PORT PARITY BIT SETTING	
	7	ON	ON	ODD Parity Check	
		ON	OFF	EVEN Parity Check (standard setting)	
		OFF	OFF	No Parity Check is to be made	
	8	ON			Sets the polarity of non-protocol RS-232C PB signal to Not Provided.
		OFF	×		Sets the polarity of non-protocol RS-232C PB signal to +, or sets PB signal to Provided.

SWITCH SETTING SHEET

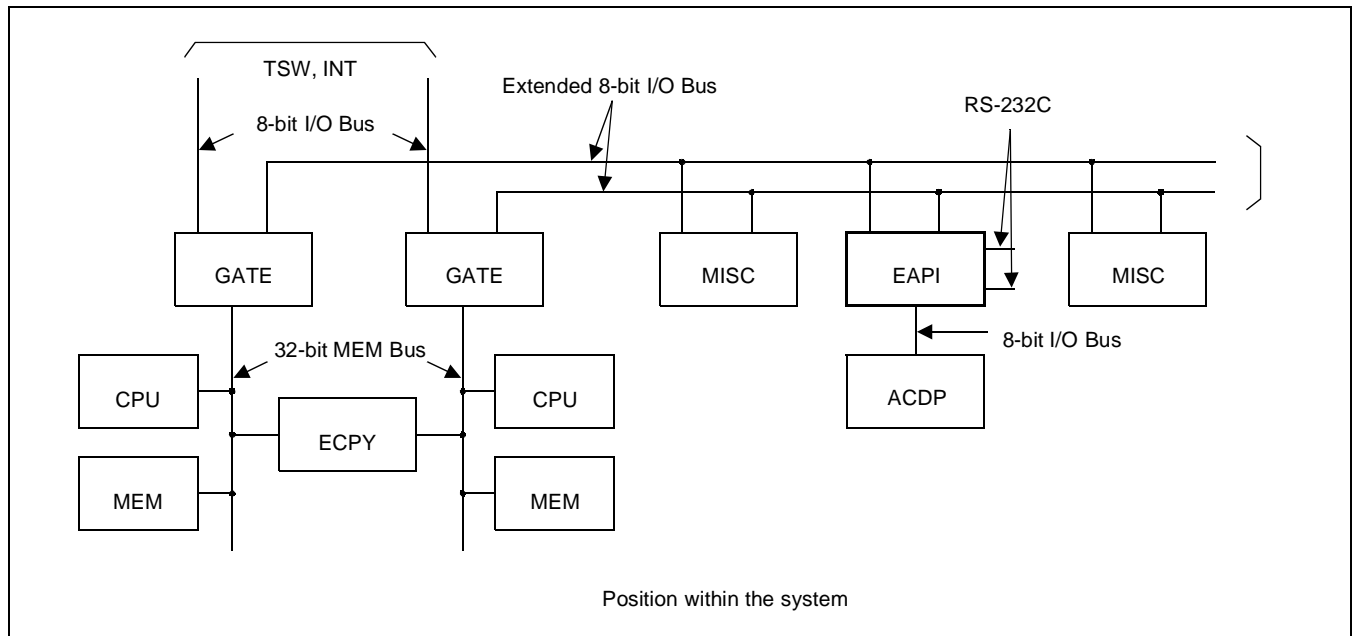
MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
LCMA	02 03 04	MB		UP: Circuit card make busy
		MBR		DOWN: Circuit card make idle
LPRJ-A	00 01 02	SW0		
		SW01		9600 bps Port 0, 1 Stop 7 Even
		SW11		9600 bps Port 1, 1 Stop 7 Even

PH-PC27 (EAPI)

1. Function

This circuit card is an I/O system functions integrated card to be used in the ACD Circuit Card Type System. This card supports the following functions.

- (a) APINT Function: For processor communications between the CPU of the System and ACDP card, this circuit card provides FIFO for mutual I/O bus connections.
- (b) IOC Function: For ACD-MIS connection, this circuit card provides a serial interface which conforms with RS-232C (three I/O ports).



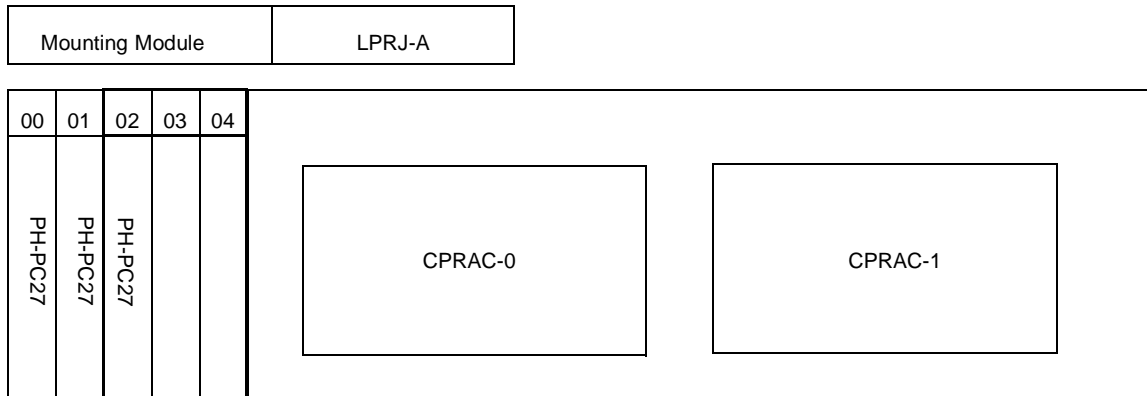
2. Mounting Location/Condition

The mounting locations of this circuit card and the conditions related to mounting are shown below.

Mounting Module				LCMA																				
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
		PH-PC27	PH-PC27	PH-PC27																				

Note

Note: This circuit card is mounted in any one of Slot No. 02~04.

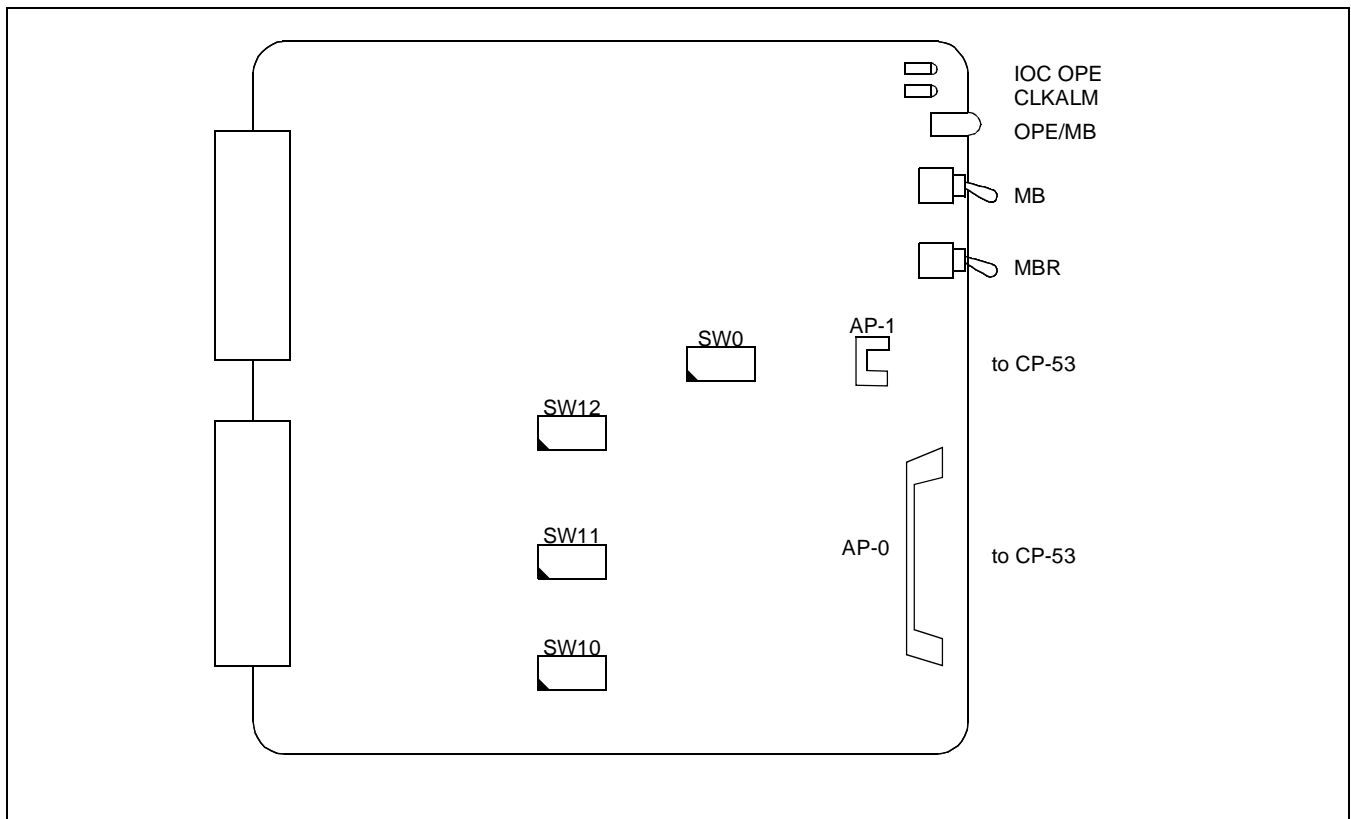


Note

Note: This circuit card is mounted in any one of Slot No. 00~02.

3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.



PH-PC27 (EAPI)

4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

LAMP NAME	COLOR	STATE
OPE/MB	Green	Remains lit while this circuit card is operating.
IOCOPE	Red	Remains lit while the non-protocol/RS-232C Port Controller is operating normally.
CLKALM	Red	Lights when a clock failure has occurred.
Note: <i>The PH-PC27 is a three port EAPI card.</i>		

5. Switch Settings

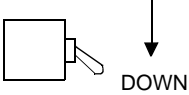
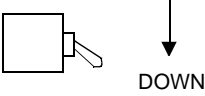
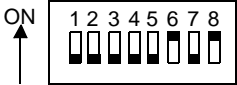



Standard settings of various switches on this circuit card are shown in the table below.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
MB		UP		Circuit card make busy.
		DOWN		Circuit card make idle.
MBR		UP		Requests the software to place the ACD-MIS Interface Port Controller into make-busy state.
		DOWN		Cancels the request to place the ACD-MIS Interface Port Controller into make-busy state. (Circuit card operating state)
SW0	1	OFF	×	Fixed
	2	OFF	×	
	3	OFF	×	
	4	OFF	×	
	5	OFF	×	
	6	ON	×	
	7	OFF	×	
	8	ON	×	

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING		
SW10 (for Port 0) SW11 (for Port 1) SW12 (for Port 2)	1	SW01-1 SW11-1	SW01-2 SW11-2	SW01-3 SW11-3	NON-PROTOCOL RS-232C PORT DATA SPEED SETTING	
		ON	ON	ON	300 bps	
	2	ON	ON	OFF	600 bps	
		ON	OFF	ON	1200 bps	
	3	ON	OFF	OFF	2400 bps	
		OFF	ON	ON	4800 bps	
		OFF	ON	OFF	9600 bps	
	MIS Port Interface	4	OFF	ON	ON	19200 bps
			OFF	OFF	ON	
4		ON	×		Sets the non-protocol RS-232C port stop bit length to 1 bit.	
		OFF			Sets the non-protocol RS-232C port stop bit length to 2 bit.	
5		ON	×		Sets the non-protocol RS-232C port data length to 7 bit.	
		OFF			Sets the non-protocol RS-232C port data length to 8 bit.	
6		SW01-6 SW11-6	SW01-7 SW11-7	NON-PROTOCOL RS-232C PORT PARITY BIT SETTING		
		ON	ON	ODD Parity Check		
	ON	OFF	EVEN Parity Check (standard setting)			
7	OFF	OFF	No Parity Check is to be made			
8	ON			Sets the polarity of non-protocol RS-232C PB signal to Not Provided.		
	OFF	×		Sets the polarity of non-protocol RS-232C PB signal to +, or sets PB signal to Provided.		

Note: Ports 0, 1 and 2 translate to MIS ports 1, 2 and 3.

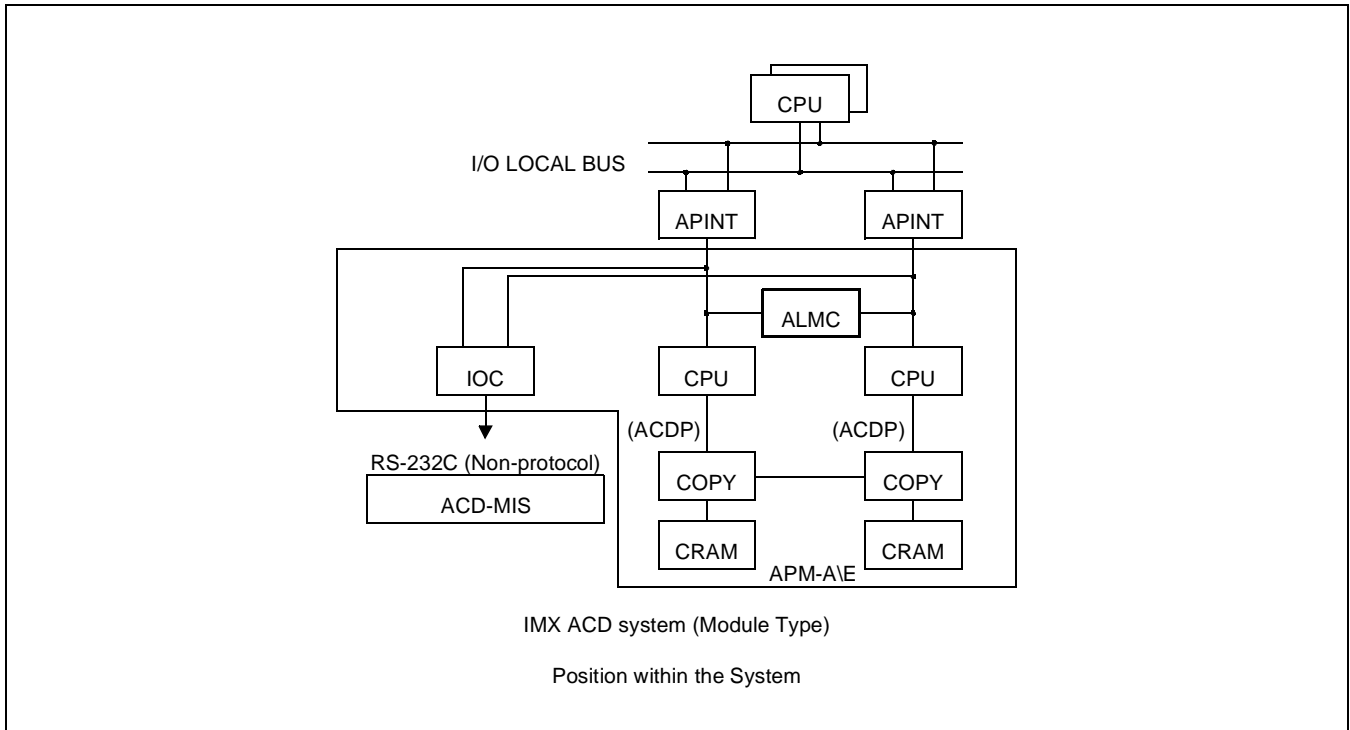
SWITCH SETTING SHEET

MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
LCMA	02 03 04	MB		UP: Circuit card make busy.
		MBR		DOWN: Circuit card make idle.
LPRJ-A	00 01 02	SW0		
		SW10		2, 4, 5, 6 ON only
		SW11		2, 4, 5, 6 ON only
		SW12		2, 4, 5, 6 ON only

PA-AL16 (ALMC)

1. Function

This circuit card collects fault information and manages a dual-configuration system of the ACD Module Type System. The card displays the collected fault information on the TOPU. Besides, the card provides the functions for data communication between two ACDPs in the dual system configuration.



2. Mounting Location/Condition

The mounting location of this circuit card and the condition related to mounting are shown below.

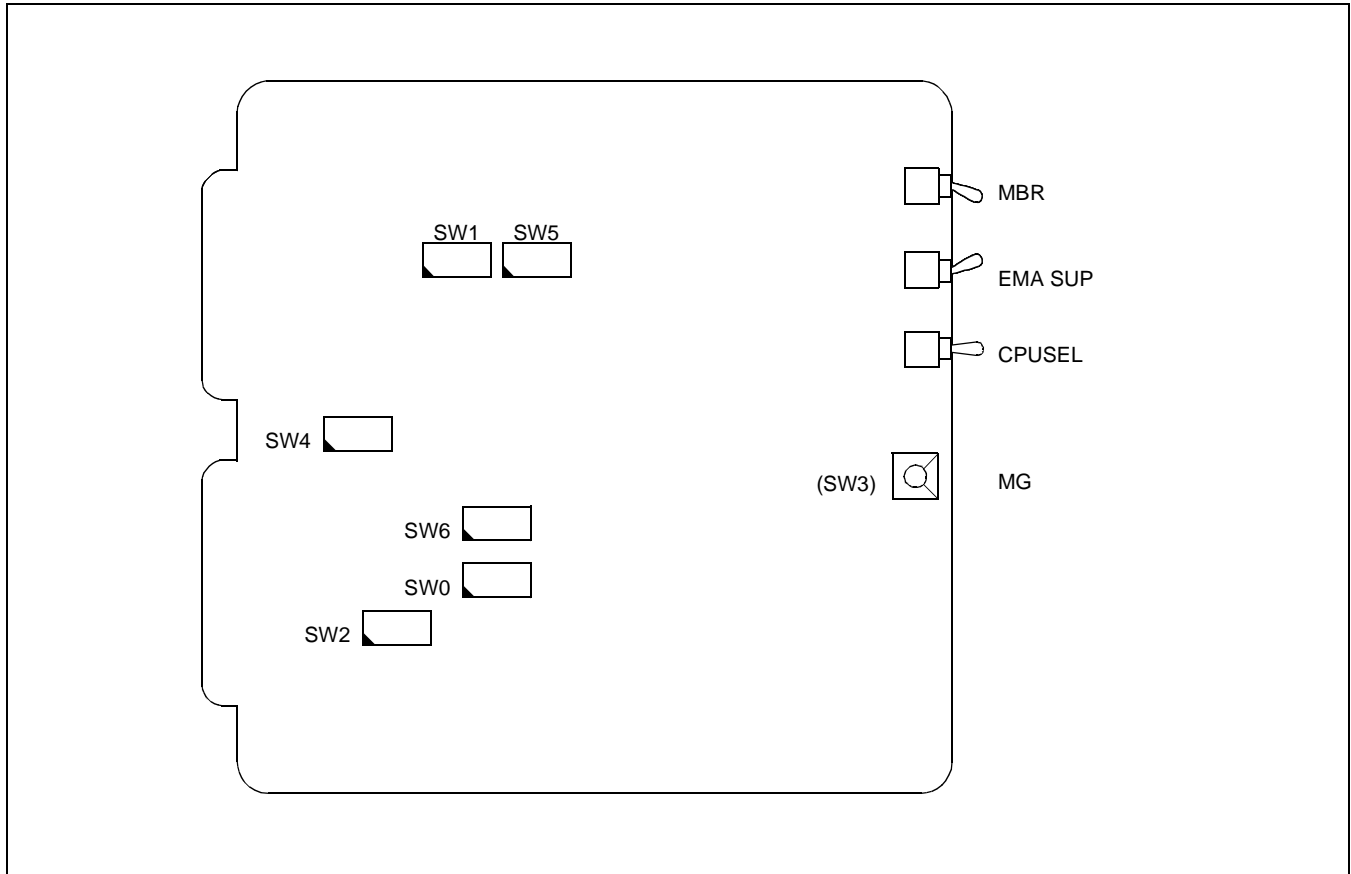
Mounting Module		APM-A/E																						
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
																					PA-AL16			

When ACDP is provided by single system configuration in the IMG (IMX), this circuit card is to be mounted in its mounting slot only when the APMA is installed externally.

PA-AL16 (ALMC)

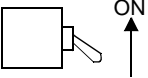
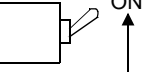
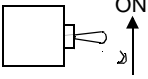

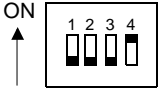

3. Face layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.




4. Switch Settings

Standard settings of various switches on this circuit card are shown in the table below.

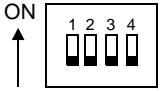
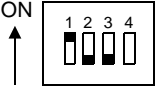

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
MB 		UP		Circuit card make busy.
		DOWN		Circuit card make idle.
EMASUP 		UP	×	Fixed
		DOWN		
CPUSEL 		UP		
		MIDDLE		For ACDP Dual System Configuration
		DOWN		For ACDP Single System Configuration
MG (SW3) 			0	Single CPU System Note 1
			9	Multi CPU System Note 2
SW0 	1	OFF	×	Fixed
	2	OFF	×	Fixed
	3	OFF	×	Fixed
	4	ON	×	Fixed
SW1 	1	OFF	×	Fixed
	2	ON	×	Fixed
	3	OFF	×	Fixed
	4	ON	×	Fixed

Note 1: For IMG (IMX) (ICS), IMGx, IMGxh

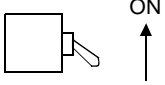
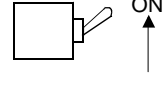
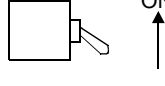
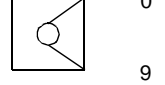





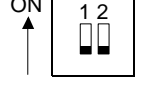
Note 7: For MMG (ICS), UMG (ICS), UMGx

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
SW2 	1	OFF	×	Fixed
	2	ON	×	Fixed

PA-AL16 (ALMC)

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
SW4 	1	OFF	×	Alarm Bus Fixed
	2	OFF	×	Alarm Bus Fixed
	3	OFF	×	Alarm Bus Fixed
	4	OFF	×	Alarm Bus Fixed
SW5 	1	ON	×	Fixed
	2	OFF	×	Fixed
	3	OFF	×	Fixed
	4	ON		
OFF				For ACDP Single System Configuration
SW6 	1	OFF	×	Alarm Bus Fixed
	2	OFF	×	Alarm Bus Fixed

SWITCH SETTING SHEET

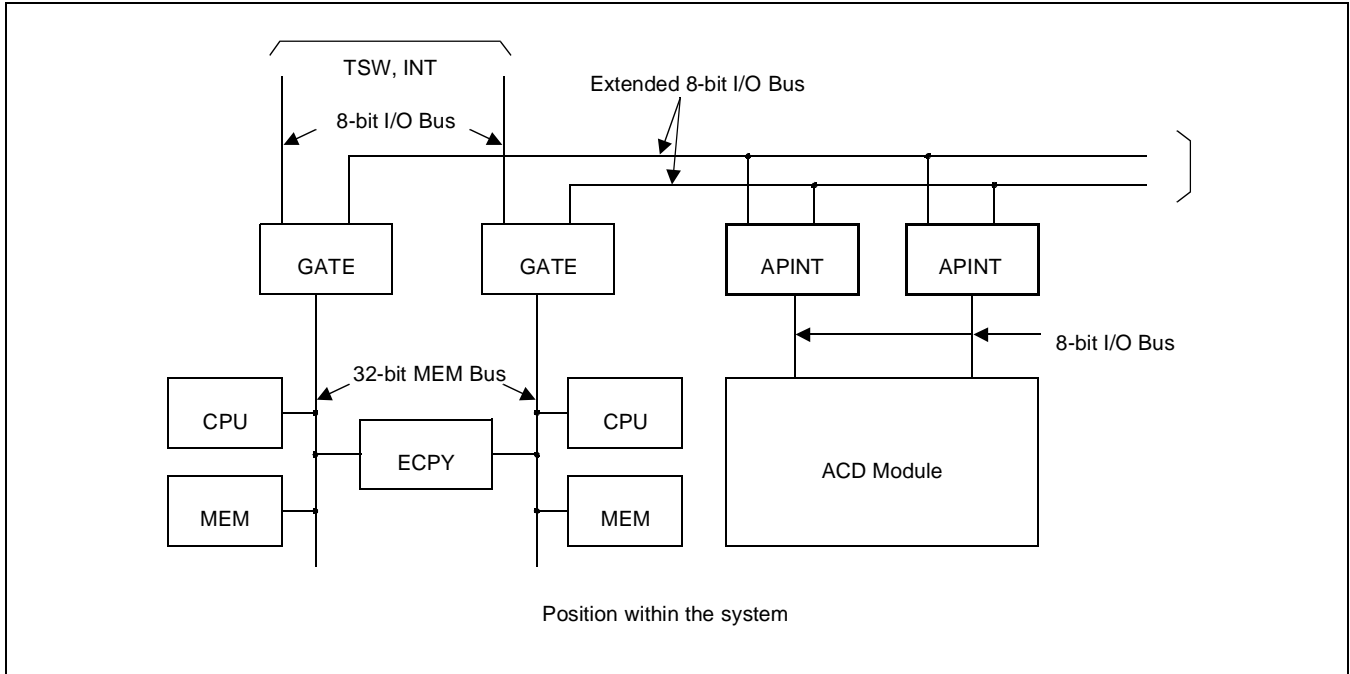
MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
APM	20	MB		UP: Circuit card make busy DOWN: Circuit card make idle
		EMASUP		
		CPUSEL		Middle = ACDP Dual System Down = ACDP Single System
		MG (SW3)		0 = Single CPU Systems 9 = Multi CPU Systems
		SW0		
		SW1		2 and 4 ON (Fixed)
		SW2		
		SW4		Alarm Bus
		SW5		4 ON = Dual ACDP 4 OFF = Single ACDP
		SW6		Alarm Bus

PH-PC21 (APINT)

1. Function

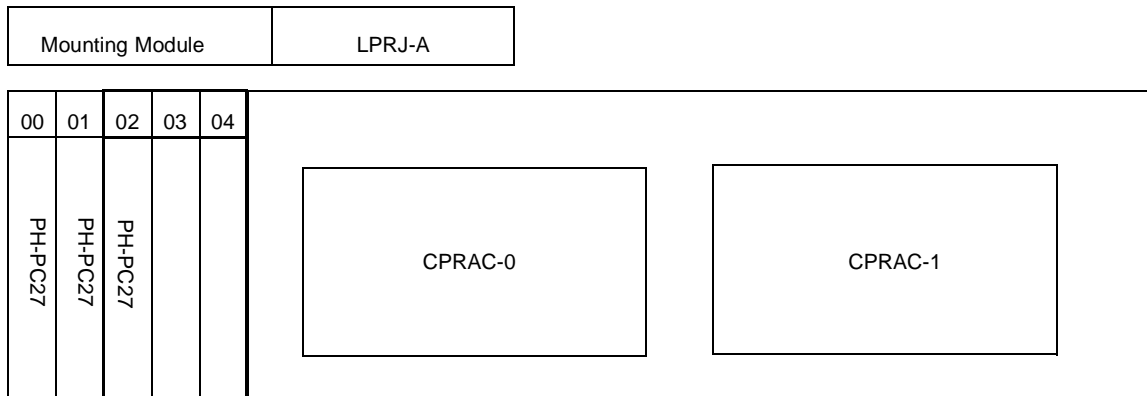
This circuit card is an inter-processor interface card and is used only for the ModuleType ACD.

The card provides FIFO for mutual I/O bus connections for processor communication between the system CPU and the ACDP.



2. Mounting Location/Condition

The mounting location of this circuit card and the condition related to mounting are shown below.

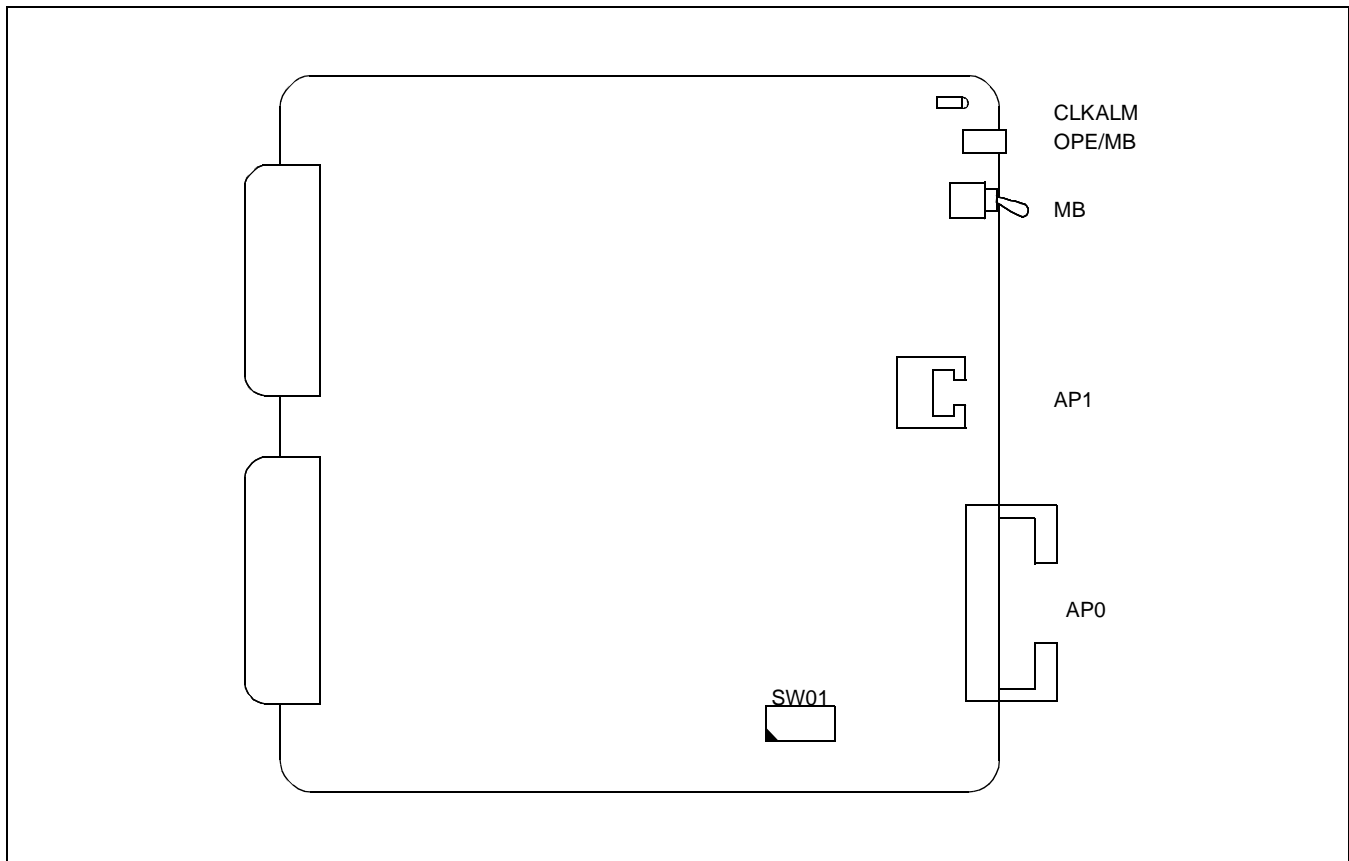


Note

Note: This circuit card is mounted in any one of Slot No. 00~02.

3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.



4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

LAMP NAME	COLOR	STATE
OPE/MB	Green	Remains lit while this circuit card is operating.
	Red	Lights while this circuit card is in make-busy state.
CLKALM	Red	Lights when a failure has occurred to clocks for I/O bus synchronization.

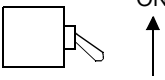
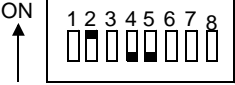
5. Switch Settings

Standard settings of various switches on this circuit card are shown in the table below.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
MB		UP		Circuit card make busy.
		DOWN		Circuit card make idle.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING																	
SW0	1	ON		When using this circuit card in the ACDP of single-system configuration or when connecting this circuit card to No. 0 system of the ACDP of dual-system configuration.																	
		OFF		When connecting this circuit card to No. 1 system of the ACDP of dual-system configuration.																	
	2	ON	×	Fixed																	
	3	ON		When the ACDP is provided by single-system configuration.																	
		OFF		When the ACDP is provided by dual-system configuration.																	
	4	OFF	×	Fixed																	
	5	OFF	×	Fixed																	
	6	ON	<table border="1"> <thead> <tr> <th>SW0-6</th> <th>SW0-7</th> <th>SW0-8</th> <th>DEFINITION OF SOFTWARE TYPE</th> </tr> </thead> <tbody> <tr> <td>ON</td> <td>ON</td> <td>OFF</td> <td>To be used in ACD ModuleType (Single-System Configuration)</td> </tr> <tr> <td>OFF</td> <td>ON</td> <td>OFF</td> <td>To be used in ACD ModuleType (Dual-System Configuration)</td> </tr> <tr> <td colspan="3">Others</td> <td>Not used</td> </tr> </tbody> </table>			SW0-6	SW0-7	SW0-8	DEFINITION OF SOFTWARE TYPE	ON	ON	OFF	To be used in ACD ModuleType (Single-System Configuration)	OFF	ON	OFF	To be used in ACD ModuleType (Dual-System Configuration)	Others			Not used
	SW0-6	SW0-7	SW0-8	DEFINITION OF SOFTWARE TYPE																	
	ON	ON	OFF	To be used in ACD ModuleType (Single-System Configuration)																	
OFF	ON	OFF	To be used in ACD ModuleType (Dual-System Configuration)																		
Others			Not used																		
7	OFF																				
8	ON																				

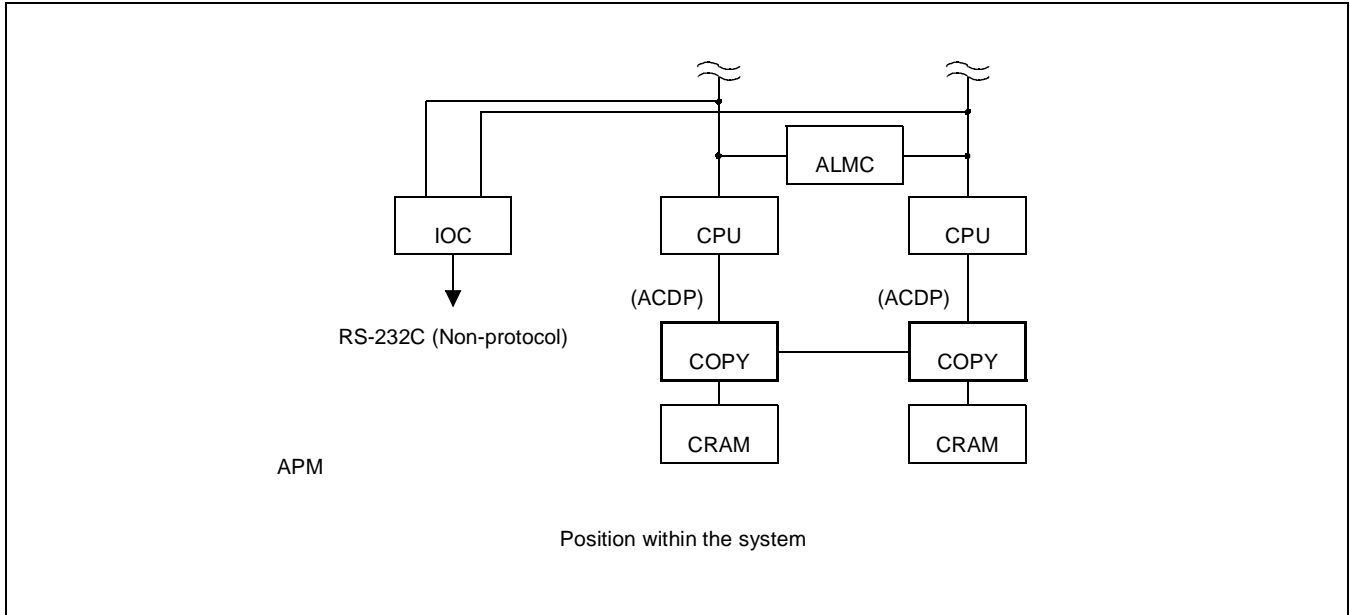
SWITCH SETTING SHEET

MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
LPRJ-A	00 01 02	MB		UP: Circuit card make busy DOWN: Circuit card make idle
		SW0		

PA-PC56-A (COPY)

1. Function

This circuit card provides the function to copy the contents of the RAM of both the standby (ST-Y) system and the active (ACT) system so that the contents of the RAM of both system may be always coinciding with each other.



2. Mounting Location/Condition

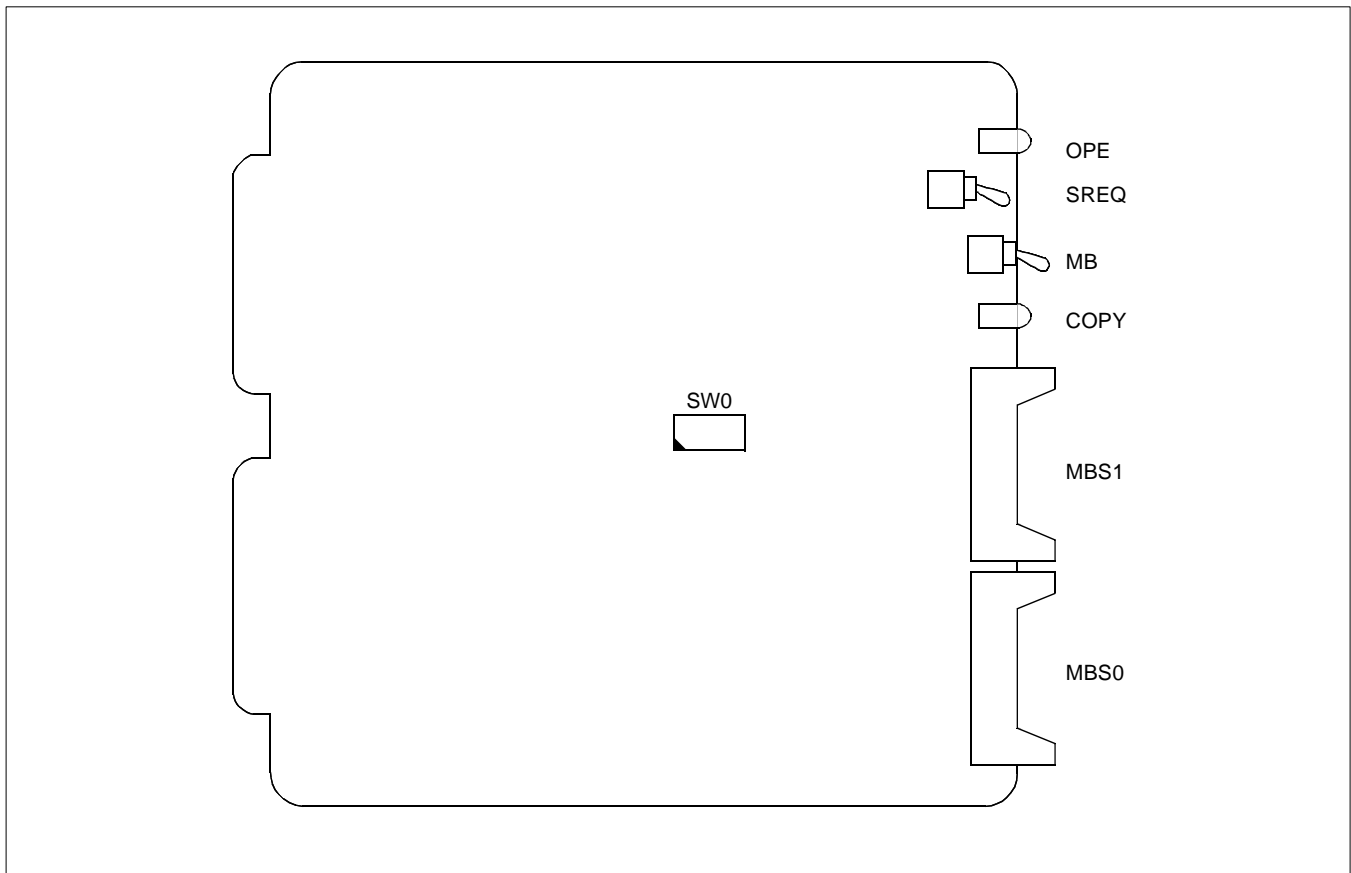
The mounting locations of this circuit card and the conditions related to mounting are shown below.

Mounting Module		APM																						
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
								PA-PC56-A									PA-PC56-A							
								↑									↑							
								For No.0 system									For No.1 system							

- This circuit card is not used when the ACDP is provided in a single-system configuration.

3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.



4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

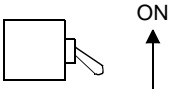
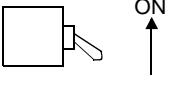
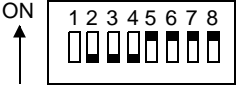
LAMP NAME	COLOR	STATE
OPE	Green	Remains lit while this circuit card is operating in ACT state.
COPY	Green	Remains lit while this circuit card is operating in COPY mode.

5. Switch Settings

Standard settings of various switches on this circuit card are shown in the table below.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
MB		UP		Circuit card make busy.
		DOWN		Circuit card make idle.
SREQ		UP		Separate mode request.
		DOWN		Separate mode request cancel (Copy mode).
SW0	1	ON		To be set in the case of System No. 0. (To be mounted in Slot No. 08 of APMA.)
		OFF		To be set in the case of System No. 1. (To be mounted in Slot No. 17 of APMA.)
	2	OFF	×	Fixed
	3	OFF	×	
	4	OFF	×	
	5	ON	×	
	6	ON	×	
	7	ON	×	
8	ON	×		

SWITCH SETTING SHEET

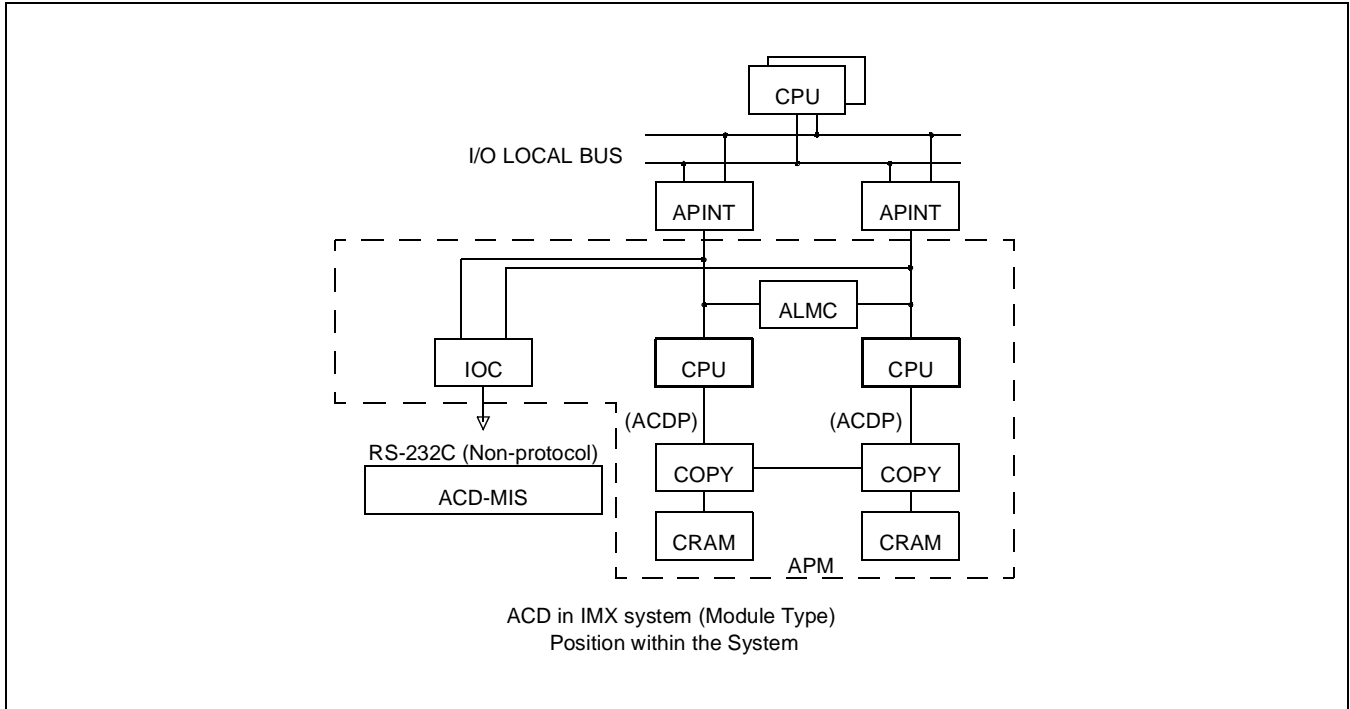
MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
APM-A\E	08 17	MB		UP: Circuit card make busy DOWN: Circuit card make idle
		SREQ		
		SW0		1 ON = System No. 0 1 OFF = System No. 1

PA-CP54 (CPU)

PA-CP54 (CPU)

1. Function

This circuit card is the CPU card (Central Processing Unit) which controls the ACD Module Type System. Using the V60 microprocessor (32 bits), this CPU card provides programs and working memory. The card is equipped with EPROM of 2MB and SRAM of maximum 384KB respectively.



2. Mounting Location/Condition

The mounting locations of this circuit card and the conditions related to mounting are shown below.

Mounting Module	APM-A/E
-----------------	---------

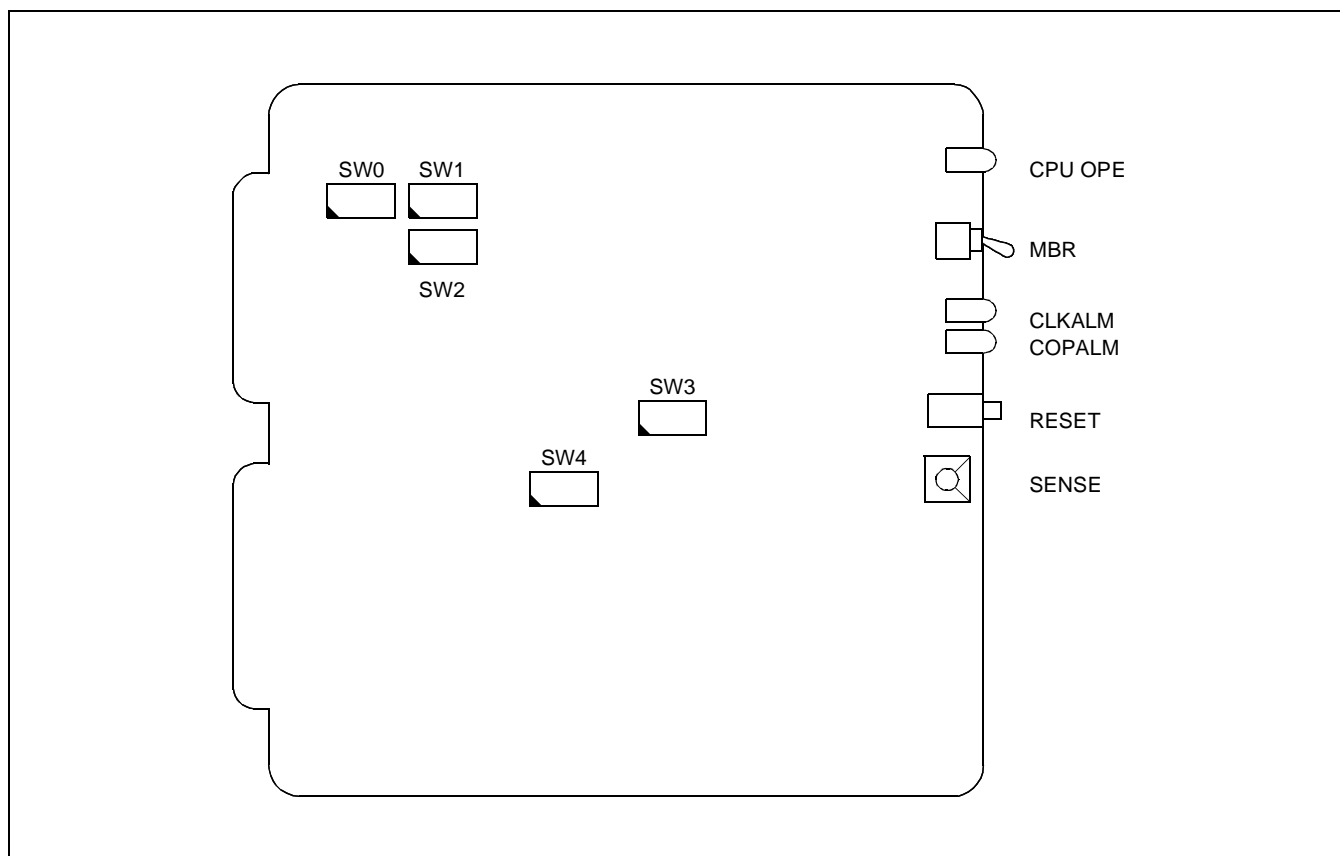
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
									PA-CP54							PA-CP54								

↑ For No.0 system

↑ For No.1 system

3. Face Layout of Lamp, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.



4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

LAMP NAME	COLOR	STATE
CPU OPE	Green	Remains lit while this circuit card is operating.
CLK ALM	Red	Lights when a microprocessor operating clock failure has occurred in this circuit card.
COP ALM	Red	Lights when a C-level infinite loop has occurred.

PA-CP54 (CPU)

5. Switch Settings

Standard settings of various switches on this circuit card are shown in the table below.

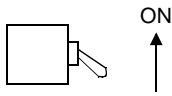


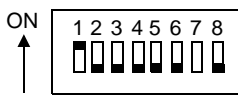
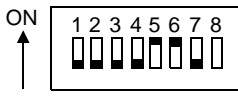
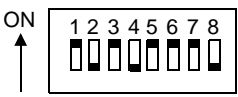


SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
MB		UP		Circuit card make busy.
		DOWN		Circuit card make idle.
RESET		PUSH		Starting of reset of this circuit card.
SENSE	0			
	1			For MMG (ICS), UMG (ICS), UMG _x (Normal Setting).
	2			
	3			
	4			
	5			For IMG (IMX) (ICS), IMG _x , IMG _{xh} , IMG _{dxx} (Normal Setting).
	6			
	7			
	8			
	9			When connecting the ACD System to MMG (ICS), UMG (ICS), UMG _x ; and when the data memory of ACDP is to be cleared at the time of ACDP initialization. (CRAM Clear).
	A			
	B			
	C			
	D			When connecting the ACD System to IMG (IMX) (ICS), IMG _x , IMG _{xh} , IMG _{dxx} ; and when the data memory of ACDP is to be cleared at the time of ACDP initialization. (CRAM Clear).
	E			
F				

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
SW0	1	ON	×	Memory Parity Alarm Inhibited.
		OFF		Memory Parity Alarm not inhibited.
	2	ON		External NMI input inhibited.
		OFF	×	External NMI input not inhibited.
	3	ON		Memory Alarm NMI inhibited.
		OFF	×	Memory Alarm NMI not inhibited.
	4	ON		COPALM inhibited.
		OFF	×	COPALM not inhibited.
	5	OFF	×	Fixed.
	6	OFF	×	Fixed.
7	ON		When ACDP is provided by dual-system configuration.	
	OFF		When ACDP is provided by single-system configuration.	
8	OFF	×	Fixed.	
SW1	1	ON		Sets Ready Alarm Detect Timing to longer than 48 sec.
		OFF	×	Sets Ready Alarm Detect Timing to longer than 6 sec.
	2	ON		Sets the interval of C-Level interrupt to 4 msec.
		OFF	×	Sets the interval of C-Level interrupt to 16 msec.
	3	ON		NMI input from an external memory system is inhibited.
		OFF	×	NMI input from an external memory system is not inhibited.
	4	OFF	×	Fixed.
	5	ON	×	Equipped with 1.5 MB CRAM area.
		OFF		Equipped with 3 MB CRAM area.
	6	ON	×	Fixed.
	7	ON	IMX	Fixed.
		OFF	ICS	Fixed.
	8	ON	×	CRAM (PA-ME34) mounted.
		OFF		CRAM (PA-ME34) not mounted.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
SW2	1	SW2-1	SW2-2	SETTING OF EPROM
		ON	ON	When equipping 1M bit EPROM IC.
	2	ON	OFF	When equipping 2M bit EPROM IC (standard).
		OFF	ON	When equipping 4M bit EPROM IC.
	3	OFF	OFF	Not used
		ON	×	When equipping 1M bit SRAM IC.
	4	OFF		When equipping 256 K bit SRAM IC.
		SW2-4	SW2-5	SETTING OF ROM AREAS
	5	ON	ON	When providing 1MB of F00000H ~ FFFFFFFH.
		OFF	ON	When providing 2MB of F00000H ~ FFFFFFFH and 00000H ~ 0FFFFFFH (standard setting).
	6	OFF	OFF	When providing 4MB of F00000H ~ FFFFFFFH and 00000H ~ 2FFFFFFH.
		ON	×	When providing EE0000H ~ EFFFFFFH and E00000H ~ E3FFFFFFH as RAM areas.
	7	OFF		When providing EE0000H ~ EFFFFFFH as RAM area.
		ON	×	When equipping 256 kbit SRAM IC as parity RAM.
	8	OFF		When equipping 64 kbit SRAM IC as parity RAM.
		ON		Test mode (Always mis-hit state).
9	OFF	×	Normal operation mode.	
	1	OFF	×	Fixed.
SW3	2	ON		When equipping 64 kbit SRAM IC as parity RAM.
		OFF	×	When equipping 256 kbit SRAM IC as parity RAM.
	3	ON	×	When equipping EPROM IC of either 1M bit 2M bit.
		OFF		When equipping EPROM IC of 4M bit.
	4	ON	×	When equipping EPROM IC of either 1M bit 2M bit as parity ROM.
		OFF		When equipping EPROM IC of 4M bit as parity ROM.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
SW4	1	OFF	×	Fixed
	2	OFF	×	Fixed
	3	ON	×	Fixed
	4	OFF	×	Fixed
	5	ON	×	Fixed
	6	OFF	×	Fixed
	7	OFF	×	Fixed
	8	OFF	×	Fixed

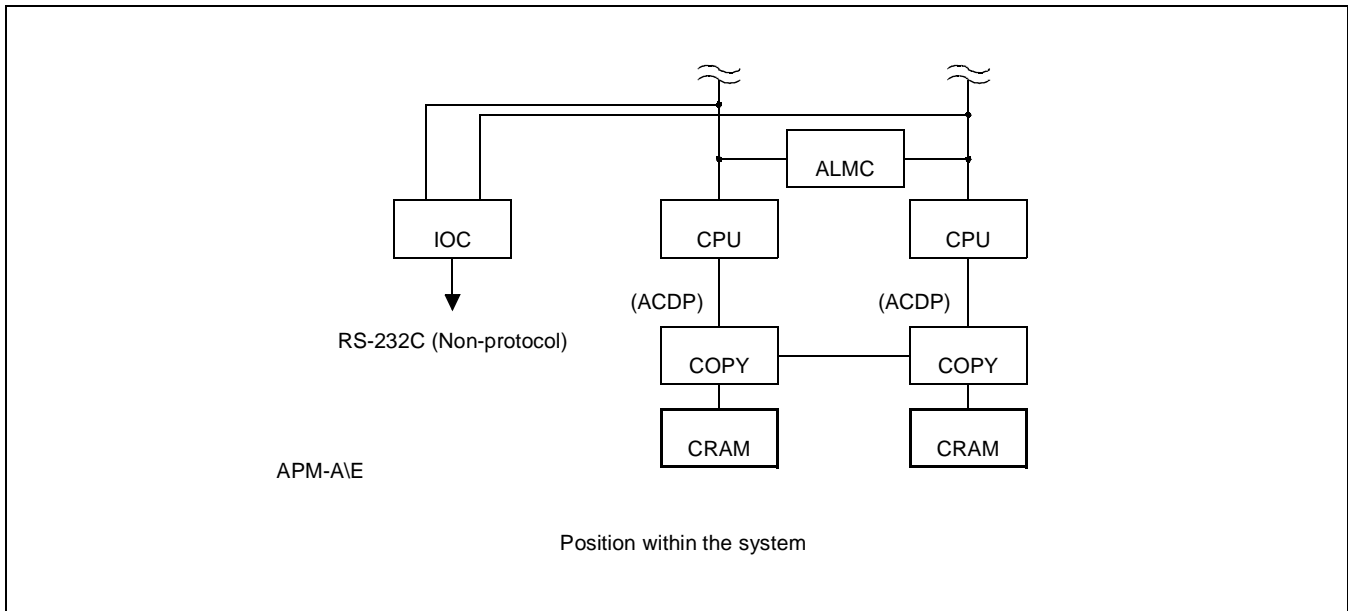
SWITCH SETTING SHEET

MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
APM	09 16	MBR		UP: Circuit card make busy. DOWN: Circuit card make idle.
		RESET		
		SENSE		
		SW0		7 ON = Dual ACDP 7 OFF = Single ACDP
		SW1		7 ON = IMX Systems 8 ON = PA-ME34 Mounted 8 OFF = PA-ME34 Not Mounted
		SW2		Standard
		SW3		Standard
		SW4		Fixed

PA-ME34 (CRAM)

1. Function

This circuit card is a RAM card for the ACD System and has memory capacity of 1.5 Mbytes.



2. Mounting Location/Condition

The mounting locations of this circuit card and the conditions related to mounting are shown below.

Mounting Module		APM-A/E																					
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
						PA-ME34		PA-ME34											PA-ME34				

Note

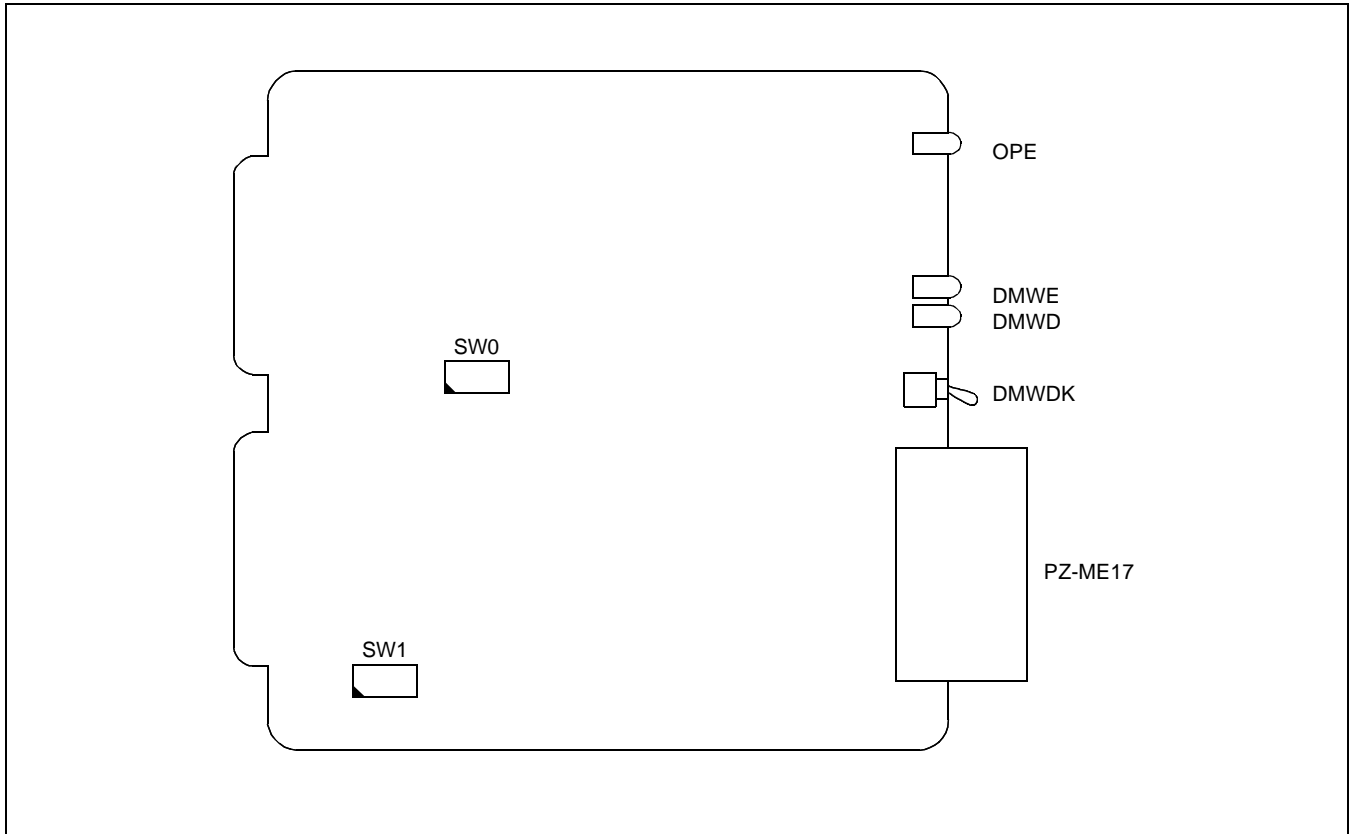
↑ For No. 0 system ↑ For No. 1 system

Note: When ACDP is single system configuration, this circuit card is mounted in Slot No. 08.

PA-ME34 (CRAM)

3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.



4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

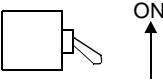

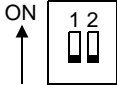
LAMP NAME	COLOR	STATE
OPE	Green	Lights when the CPU has accessed to the RAM in this card.
DMWE	Red	Lights when the data memory area of this card is in write enable state.
DMWD	Red	Lights when the data memory area of this card is in write inhibited state as set by the DMWDK switch.

5. Switch Settings

Standard settings of various switches on this circuit card are shown in the table below.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING									
DMWDK		UP		Data memory area write inhibited									
		DOWN		Data memory area write enable									
SW0	1	OFF	×	Fixed Sets the RAM area to \$800000 ~ 8FFFFFFH, \$C00000 ~ C7FFFFFFH									
	2	OFF	×										
	3	ON	×										
	4	ON	×										
	5	OFF	×										
	6	ON	×										
	7	OFF	×	Fixed									
	8	OFF	×	Fixed									
SW1	1	<table border="1"> <thead> <tr> <th>SW1-1</th> <th>SW1-2</th> <th></th> </tr> </thead> <tbody> <tr> <td>ON</td> <td>ON</td> <td>Write Protect is provided.</td> </tr> <tr> <td>OFF</td> <td>OFF</td> <td>Write Protect is not provided (Fixed).</td> </tr> </tbody> </table>			SW1-1	SW1-2		ON	ON	Write Protect is provided.	OFF	OFF	Write Protect is not provided (Fixed).
		SW1-1	SW1-2										
	ON	ON	Write Protect is provided.										
OFF	OFF	Write Protect is not provided (Fixed).											
2													

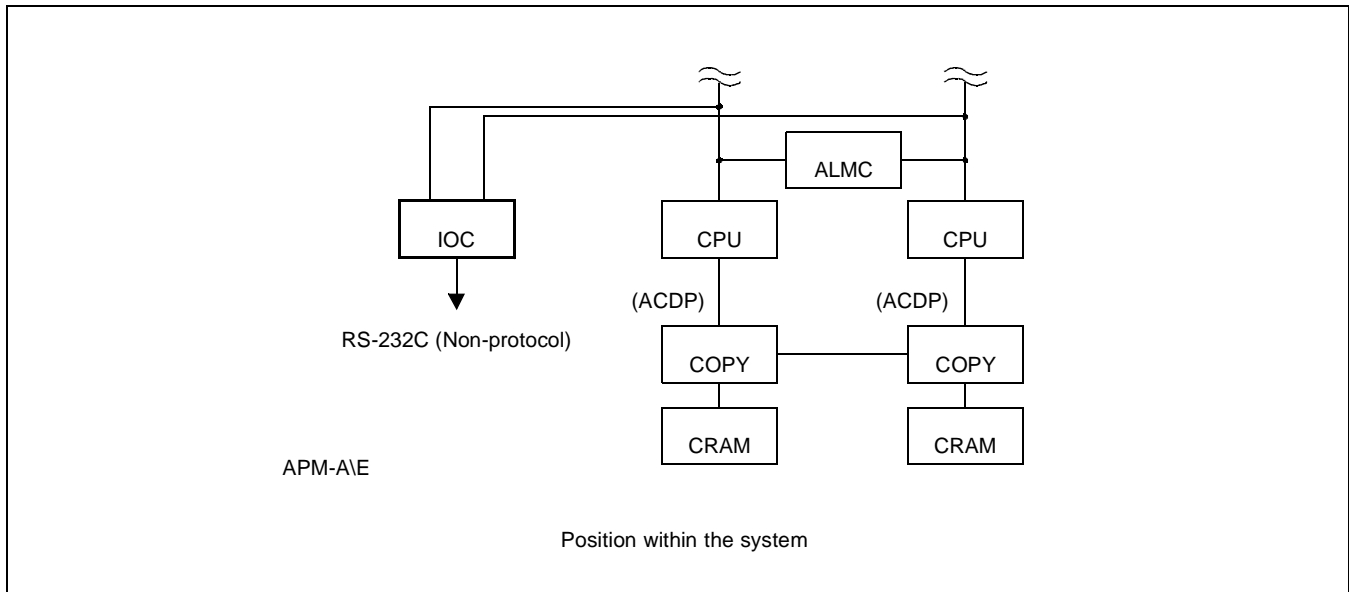
SWITCH SETTING SHEET

MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
APM-A\E	06 08 19	DMWDK		
		SW0		
		SW1		

PA-IO02-A (IOC)

1. Function

This circuit card is an I/O card (input/output control card) and provides a serial interface function by which the CPU performs mutual communications with the ACD-MIS conforming with the RS-232C Interface.



2. Mounting Location/Condition

The mounting locations of this circuit card and the conditions related to mounting are shown below.

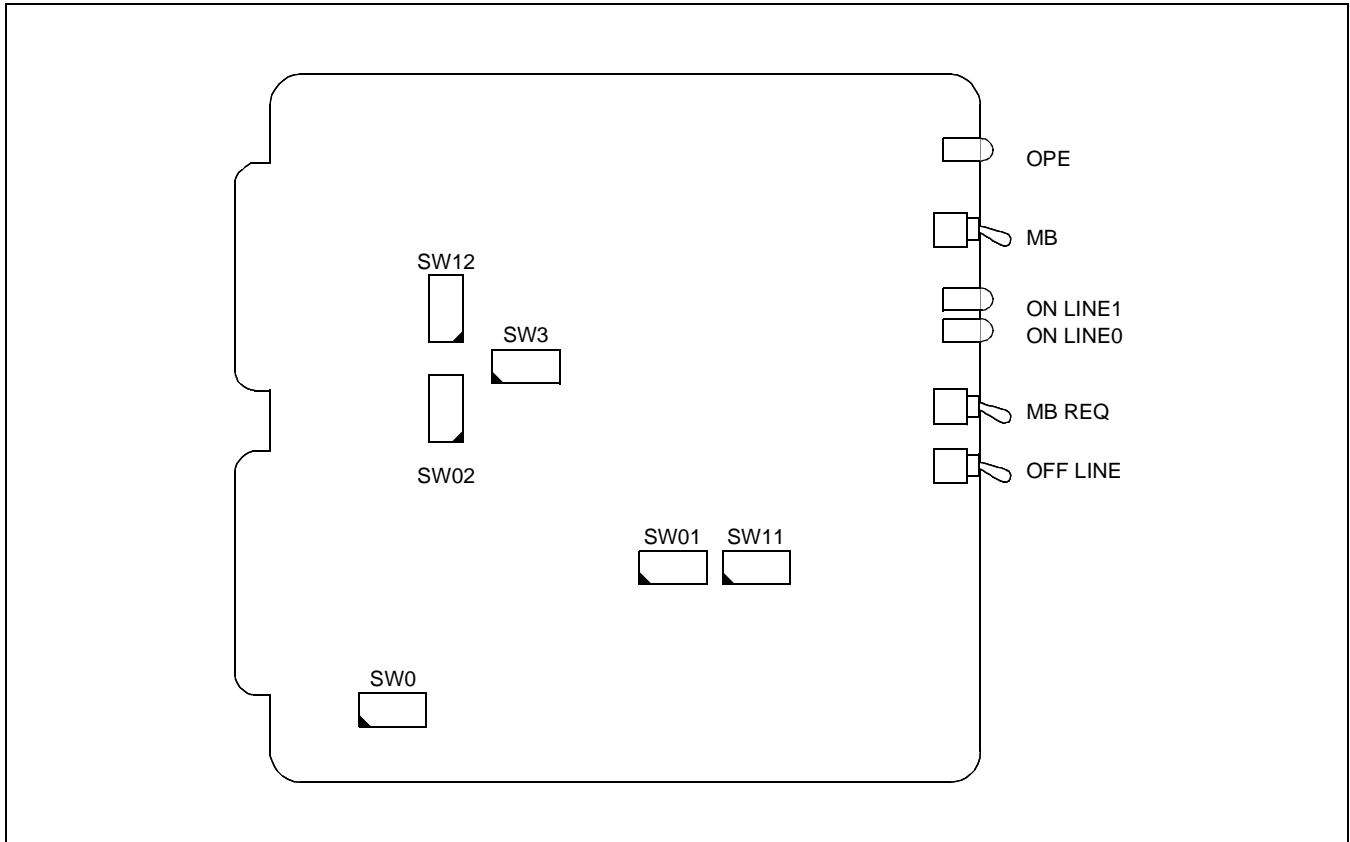
Mounting Module	APM-A/E
-----------------	---------

00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
				PA-IO02-A	PA-IO02-A																PA-IO02-A		

PA-IO02-A (IOC)

3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.



4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

LAMP NAME	COLOR	STATE
OPE	Green	Remains lit while this circuit card is operating in ACT mode.
ON LINE1	Green	Remains lit while PORT 1 is in on-line state.
ON LINE0	Green	Remains lit while PORT 0 is in on-line state.

5. Switch Settings

Standard settings of various switches on this circuit card are shown in the table below.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING												
MB		UP		Circuit card make busy.												
		DOWN		Circuit card make idle.												
MB REQ		UP		Circuit card make busy.												
		DOWN		Circuit card make idle.												
OFF LINE		UP		Setting is inhibited.												
		MIDDLE	×	Fixed.												
		DOWN		Setting is inhibited.												
SW0	1			<table border="1"> <thead> <tr> <th>SW0-1</th> <th>SW0-2</th> <th>SETTING OF IOC EQUIPMENT NUMBER</th> </tr> </thead> <tbody> <tr> <td>OFF</td> <td>OFF</td> <td>Sets IOC Equipment Number 0.</td> </tr> <tr> <td>OFF</td> <td>ON</td> <td>Sets IOC Equipment Number 1.</td> </tr> <tr> <td>ON</td> <td>OFF</td> <td>Sets IOC Equipment Number 2.</td> </tr> </tbody> </table>	SW0-1	SW0-2	SETTING OF IOC EQUIPMENT NUMBER	OFF	OFF	Sets IOC Equipment Number 0.	OFF	ON	Sets IOC Equipment Number 1.	ON	OFF	Sets IOC Equipment Number 2.
		SW0-1	SW0-2		SETTING OF IOC EQUIPMENT NUMBER											
	OFF	OFF	Sets IOC Equipment Number 0.													
	OFF	ON	Sets IOC Equipment Number 1.													
	ON	OFF	Sets IOC Equipment Number 2.													
	2	3	OFF	×												
		4	OFF	×												
		5	OFF	×												
		6	OFF	×												
		7	OFF	×												
8		OFF	×													
			Fixed													
SW3	1	OFF	×	Fixed												
	2	OFF	×													
	3	OFF	×													
	4	OFF	×													

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING	
SW1 (for Port 0) SW11 (for Port 1)	1	SW01-1 SW11-1	SW01-2 SW11-2	SW01-3 SW11-3	DATA TRANSMISSION SPEED (BPS) SETTING
		ON	ON	ON	
	2	ON	ON	OFF	600 bps
		ON	OFF	ON	1200 bps
		ON	OFF	OFF	2400 bps
		OFF	ON	ON	4800 bps
	3	OFF	ON	OFF	9600 bps
	4	SW01-4 SW11-4	SW01-5 SW11-5	PARITY SETTING	
		ON	ON	ODD Parity	
	5	ON	OFF	EVEN Parity (standard setting)	
		OFF	OFF	No Parity	
	6	ON	×	Data Length: 7 bits	
		OFF		Data Length: 8 bits	
	7	ON	×	Stop Bit: 1 bits	
		OFF		Stop Bit: 2 bits	
	8	ON		Data store into the send-side buffer of the port is disabled.	
		OFF	×	Data of max. 64 kbytes are to be stored into the send-side buffer of the port.	

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
SW02 (for Port 0) SW12 (for Port 1)	1	ON	×	PB terminal becomes minus (-) when the port terminal is busy.
		OFF		PB terminal becomes plus (+) when the port terminal is busy.
	2	ON	×	Sets the ER terminal of the port to Always ON.
		OFF		Controls ON/OFF of the ER terminal of the port by the CPU.
	3	ON		DR signal lead is not to be used to the port.
		OFF	×	DR signal lead is to be used to the port.
	4	ON	×	CD signal lead is not to be used to the port.
		OFF		CD signal lead is to be used to the port.
	5	ON		CS signal lead is not to be used to the port.
		OFF	×	CS signal lead is to be used to the port.
	6	ON		CI signal lead is not to be used to the port.
		OFF	×	CI signal lead is to be used to the port.
	7	ON	×	PB signal lead is not to be used to the port. Note
		OFF		PB signal lead is to be used to the port.
	8	OFF	×	Not used.

Note: When setting SW02-7/SW12-7 to ON, set SW02-1/SW12-1 to ON, also.

6. External Interface

The RS connector leads accommodation of this circuit card is shown below.

RS Connector Leads Accommodation

RS0 Connector

26	E	1	SD0
27	E	2	RD0
28	E	3	RS0
29	E	4	CS0
30	E	5	DR0
31	CI0	6	SG0
32	E	7	CD0
33	E	8	ER0
34	E	9	PB0
35	E	10	SP00
36	E	11	SP10
37	E	12	SP20
38	E	13	SD1
39	E	14	RD1
40	E	15	RS1
41	E	16	CS1
42	E	17	DR1
43	CI1	18	SG1
44	E	19	CD1
45	E	20	ER1
46	E	21	PB1
47	E	22	SP01
48	E	23	SP11
49	E	24	SP21
50	EXTA	25	EXTB

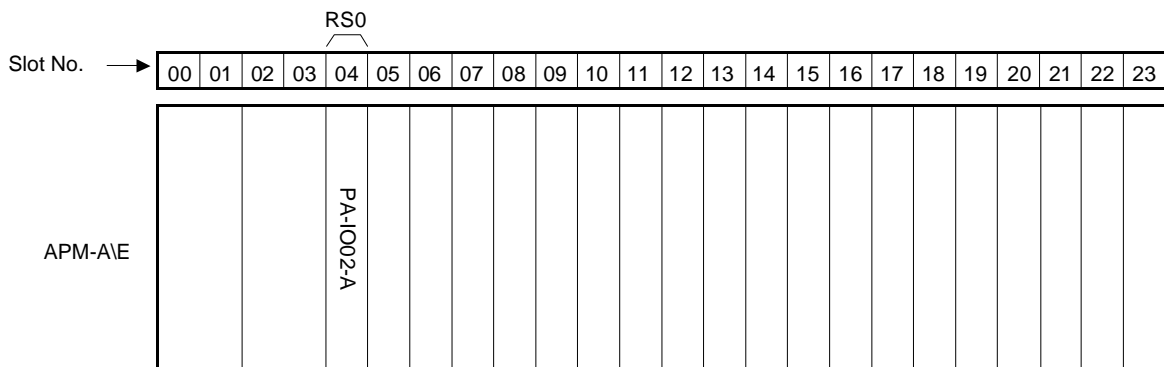
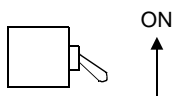
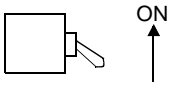
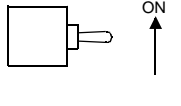
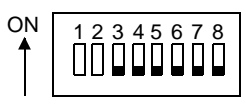
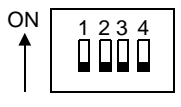
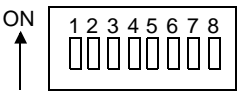
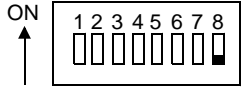
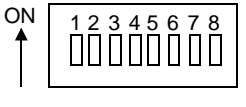
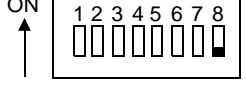


Figure 4-1 RS Connector Leads Accommodation

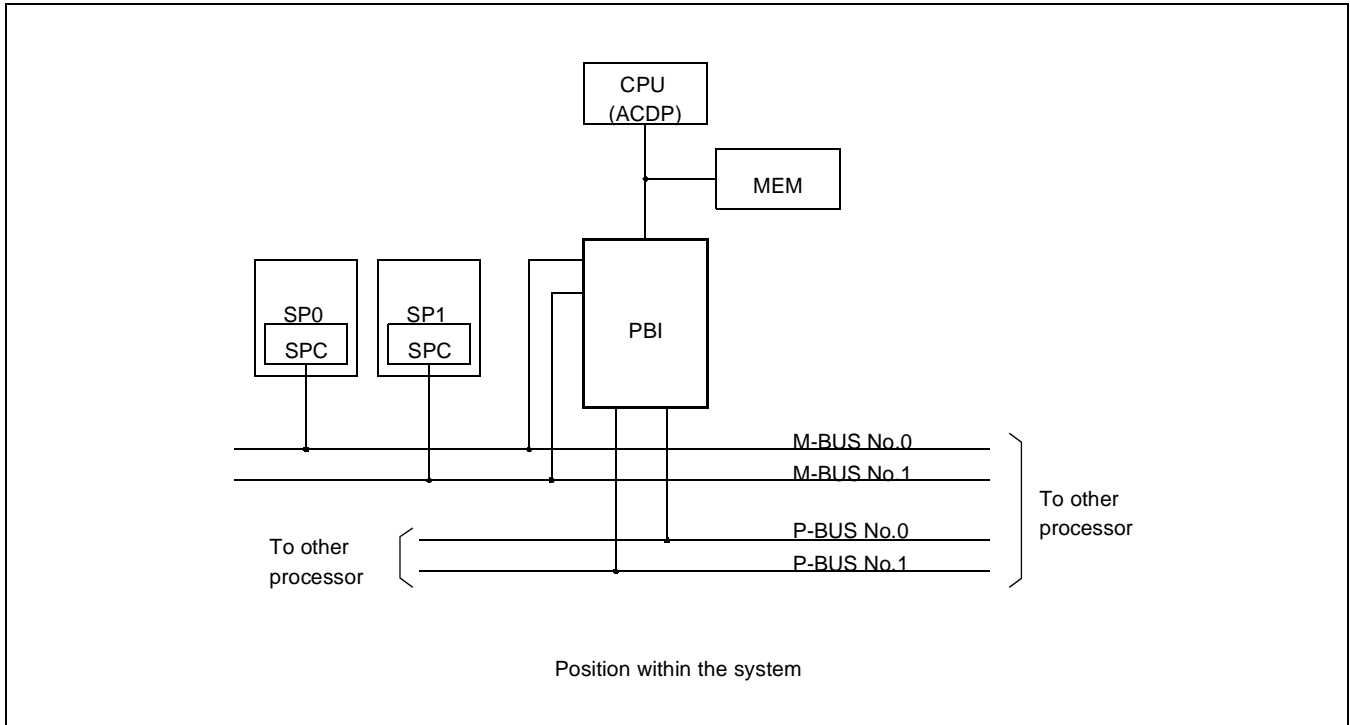
SWITCH SETTING SHEET

MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
APM-A\E	04	MB		UP: Circuit card make busy.
		MB REQ		DOWN: Circuit card make idle.
		OFF LINE		
		SW0		
		SW3		
		SW01		
		SW02		
		SW11		
		SW12		

PH-BS16 (PBI)

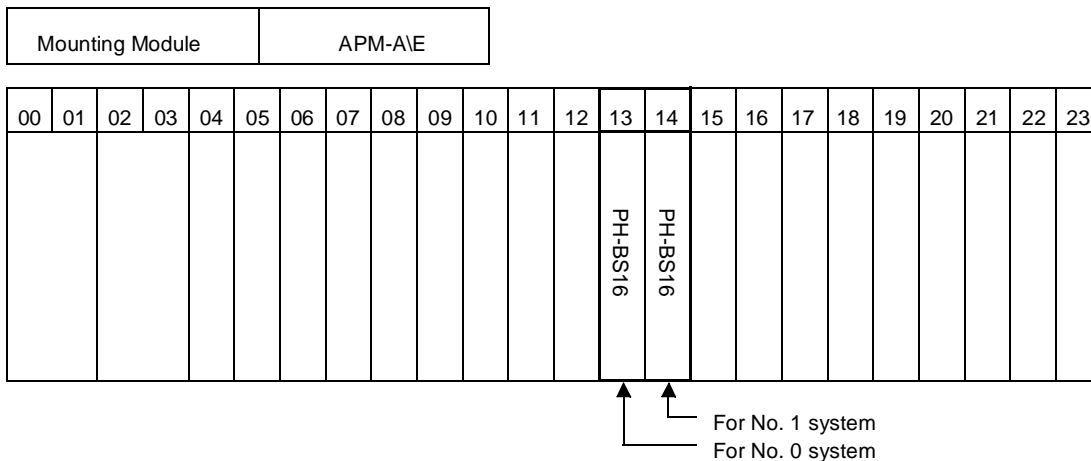
1. Function

This circuit card provides an interface by which the ACDP performs inter-processor communications with another Processor via the Processor Bus (P-BUS) under control of the ACDP (PA-CP54 card). Also, this circuit card is connected with the Maintenance Bus (M-BUS) and provides functions that allow the SP (System Processor) to read out status or fault information of the ACDP and that cause the ACDP to set make-busy or perform initialization.



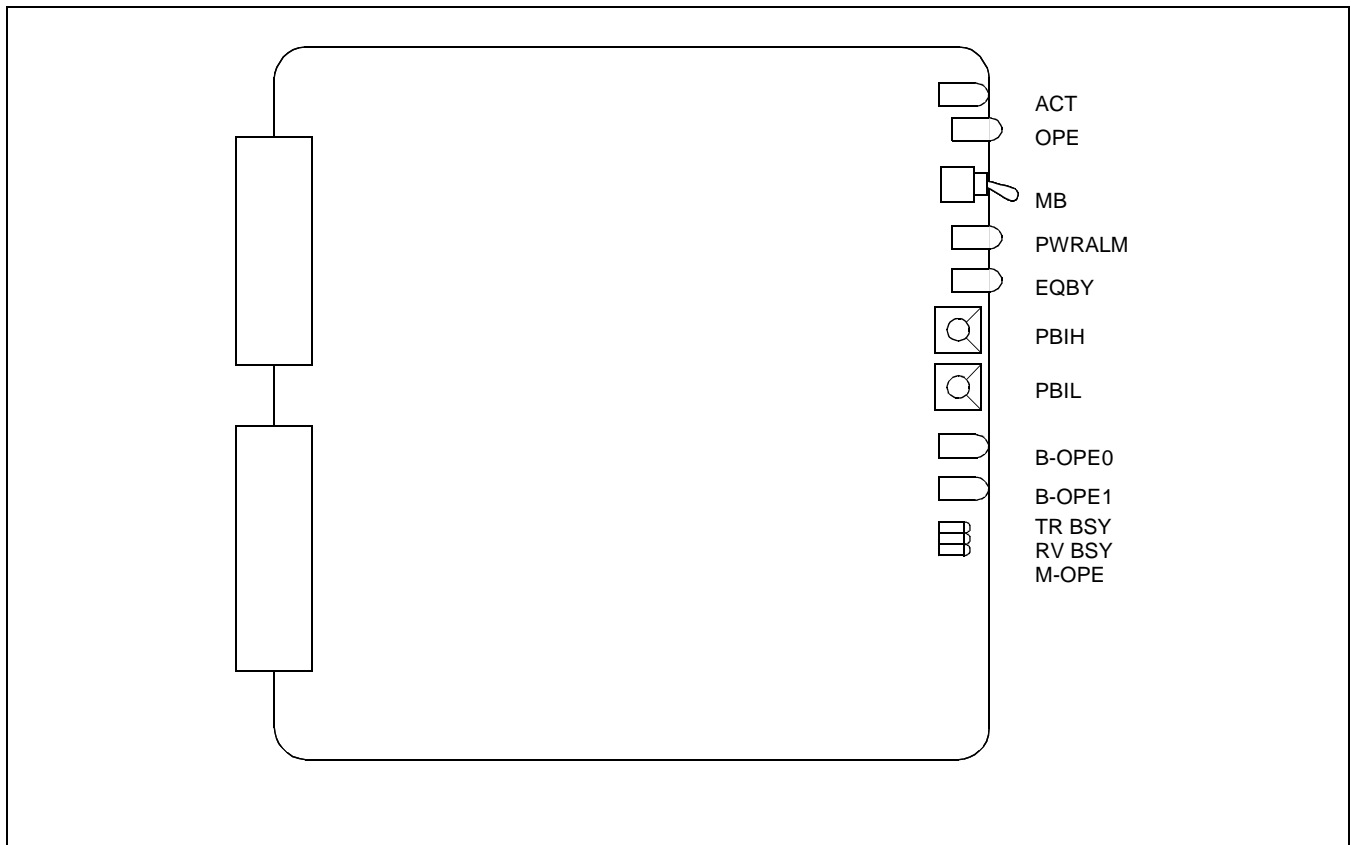
2. Mounting Location/Condition

The mounting locations of this circuit card and the conditions related to mounting are shown below.



3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.



PH-BS16 (PBI)

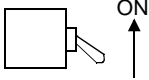


4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

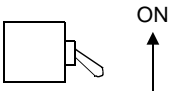


LAMP NAME	COLOR	STATE
ACT	Green	Remains lit while the CPU which controls this circuit card is in ACT state.
	Red	Lights with PBI Make Busy switch and MB switch turned on.
OPE	Green	Lights when the CPU has accessed to this circuit card.
PWRALM	Red	Lights when the On-Board Power Supply equipped on this circuit card is faulty.
EQBY	Green	Remains lit while the circuit card is in equipment busy state.
B-OPE0	Green	Remains lit while BUS No. 0 of this circuit card is data transmitting and receiving.
	Red	Lights when BUS No. 0 of this circuit card has been placed into make-busy state by SP or PBI Make Busy switch has been turned on.
B-OPE1	Green	Remains lit while BUS No. 1 of this circuit card is data transmitting and receiving.
	Red	Lights when BUS No. 1 of this circuit card has been placed into make-busy state by SP or PBI Make Busy switch has been turned on.
TRBSY	Green	Lights when the send memory of this circuit card is busy.
RVBSY	Green	Lights when the receive memory of this circuit card is busy.
M-OPE	Green	Lights when the data have been received from M-BUS.

5. Switch Settings

Standard settings of various switches on this circuit card are shown in the table below.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
MB 		UP		Circuit card make busy.
		DOWN	×	Circuit card make idle.
PBIH 		7	×	Fixed
PBIL 		0		Not used.
		1		?
		7		Not used
		8		ACDP0-System No. 0 (Mounted in Slot No. 13 of APMA0) (standard setting)
		9		ACDP0- System No. 1 (Mounted in Slot No. 14 of APMA0) (standard setting)
		A		ACDP1-System No. 0 (Mounted in Slot No. 13 of APMA1)
		B		ACDP1-System No. 1 (Mounted in Slot No. 14 of APMA1)
		C		ACDP2-System No. 0 (Mounted in Slot No. 13 of APMA2)
		D		ACDP2-System No. 1 (Mounted in Slot No. 14 of APMA2)
	E		Not used	
	F		Not used	

SWITCH SETTING SHEET

MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
	13 14	MB		UP: Circuit card make busy DOWN: Circuit card make idle
		PBIH		7: Fixed
		PBIL		

PA-GT17 (SPGT)

1. Function

This circuit card is used when the MISCME module is required. This circuit card provides flow control and terminates the extension of the MISC bus. This circuit card also controls the alarm LEDs equipped in the Top Unit.

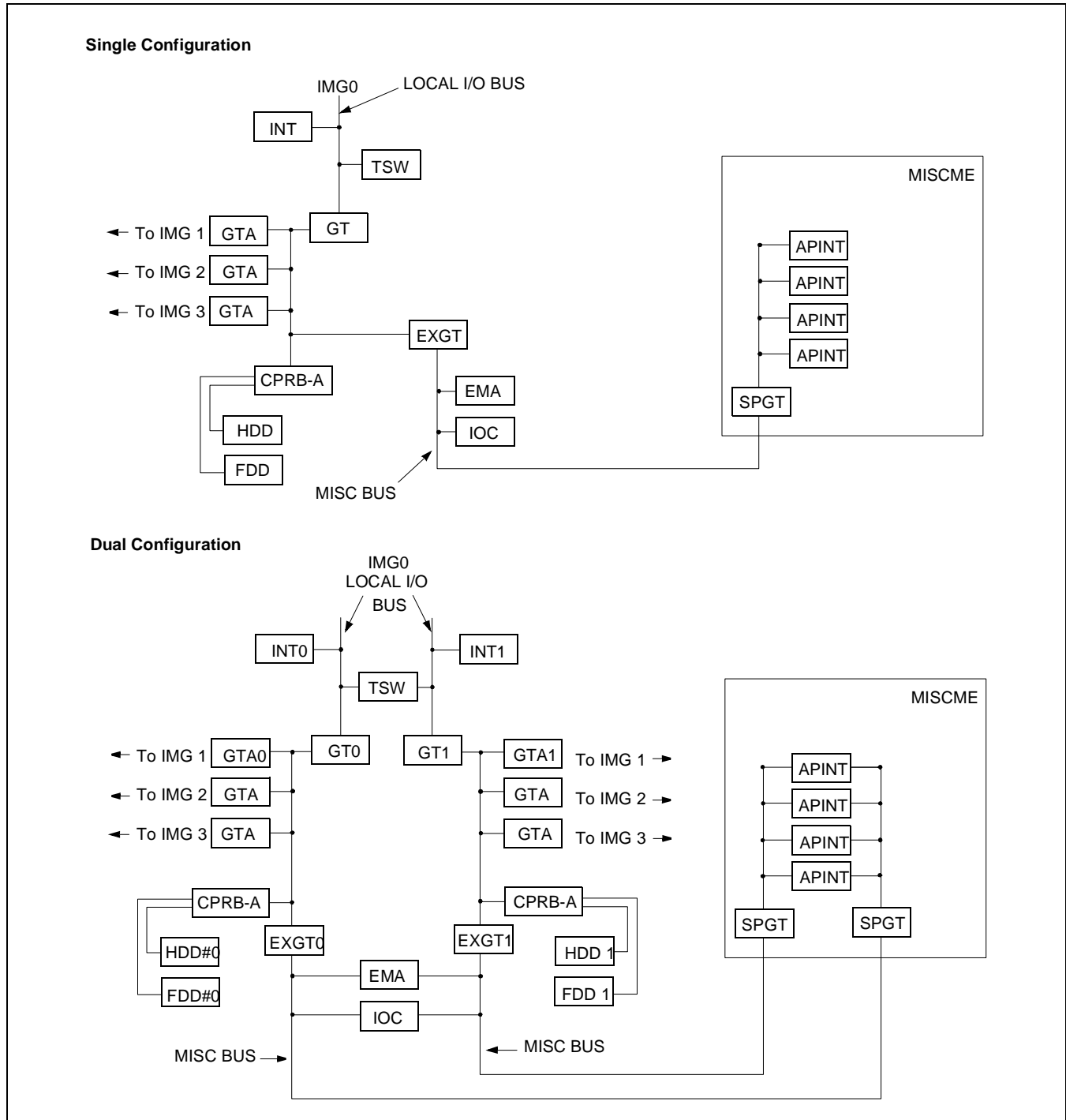


Figure 4-2 Position in IMGdxh

PA-GT17 (SPGT)

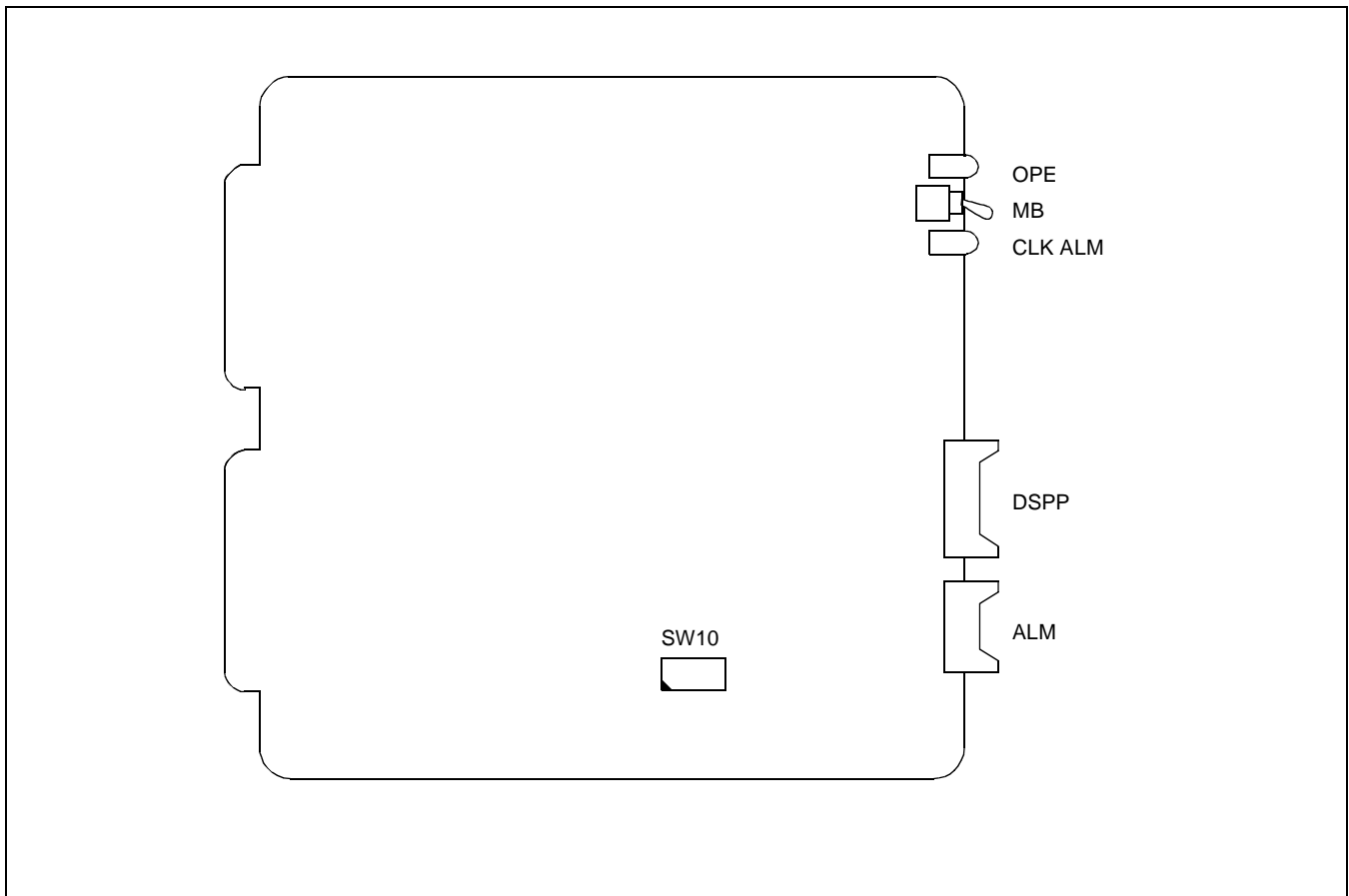
2. Mounting Location/Conditions

The SPGT card mounts in the MISCME as shown below.

Mounting Module						MISCME																		
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
																							SPGT	SPGT

3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.



4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

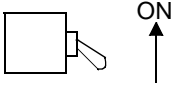

LAMP NAME	COLOR	STATE
OPE	Green	Remains lit while this circuit card is operating.
CLK ALM	Red	Lights when a clock down occurred.

5. Switch Setting

Standard settings of various switches on this circuit card are shown in the table below.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
MB		ON		Circuit card make busy.
		OFF	×	Circuit card make idle.
SW10	1	OFF	×	Fixed.
	2	OFF	×	Fixed.

Switch Setting Sheet

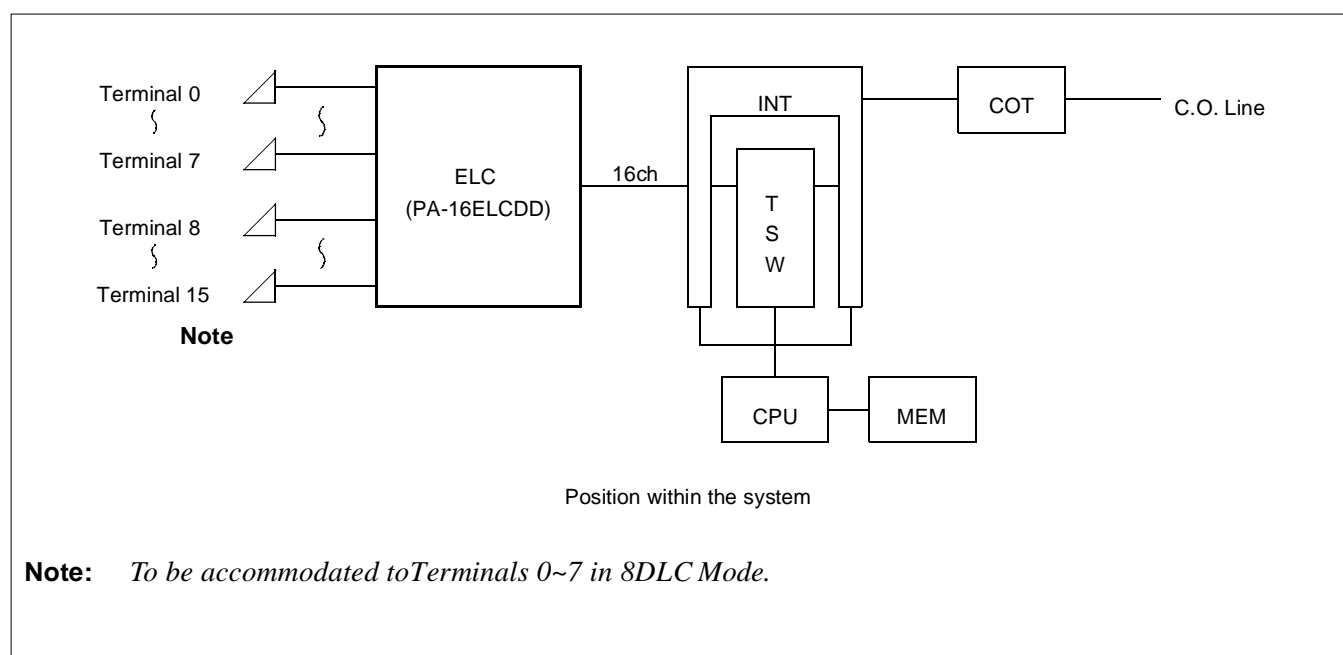
MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
MISCME	22 and 23	MB		UP: Circuit card make busy DOWN: Circuit card make idle
		SW0		

PA-16ELCDD (ELC)

1. Function

This circuit card is a line card which supports the interface of HDAC. When using voice only, 16 lines of HDAC can be connected to this circuit card. Further, by changing the switch setting, this circuit card can be connected with eight (8) lines respectively of voice terminals and data terminals.

	NUMBER OF LINE CIRCUITS	NUMBER OF TIME SLOTS	DATA COMMUNICATION FUNCTION	REMARKS
8DLC Mode	8 circuits	16 Time Slots	Available	
16ELC Mode	16 circuits	16 Time Slots	Not Available	

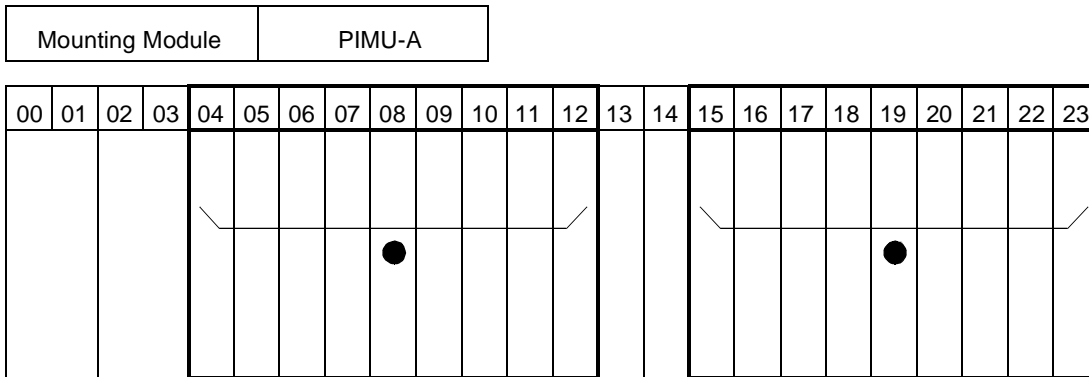


PA-16ELCDD (ELC)

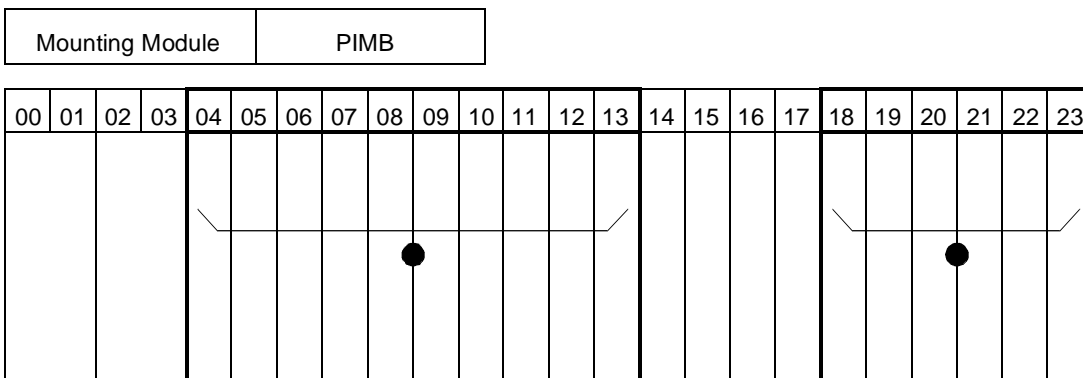
2. Mounting Location/Condition

The mounting locations of this circuit card and the conditions related to mounting are shown below.

(a) When this circuit card is mounted in PIMA



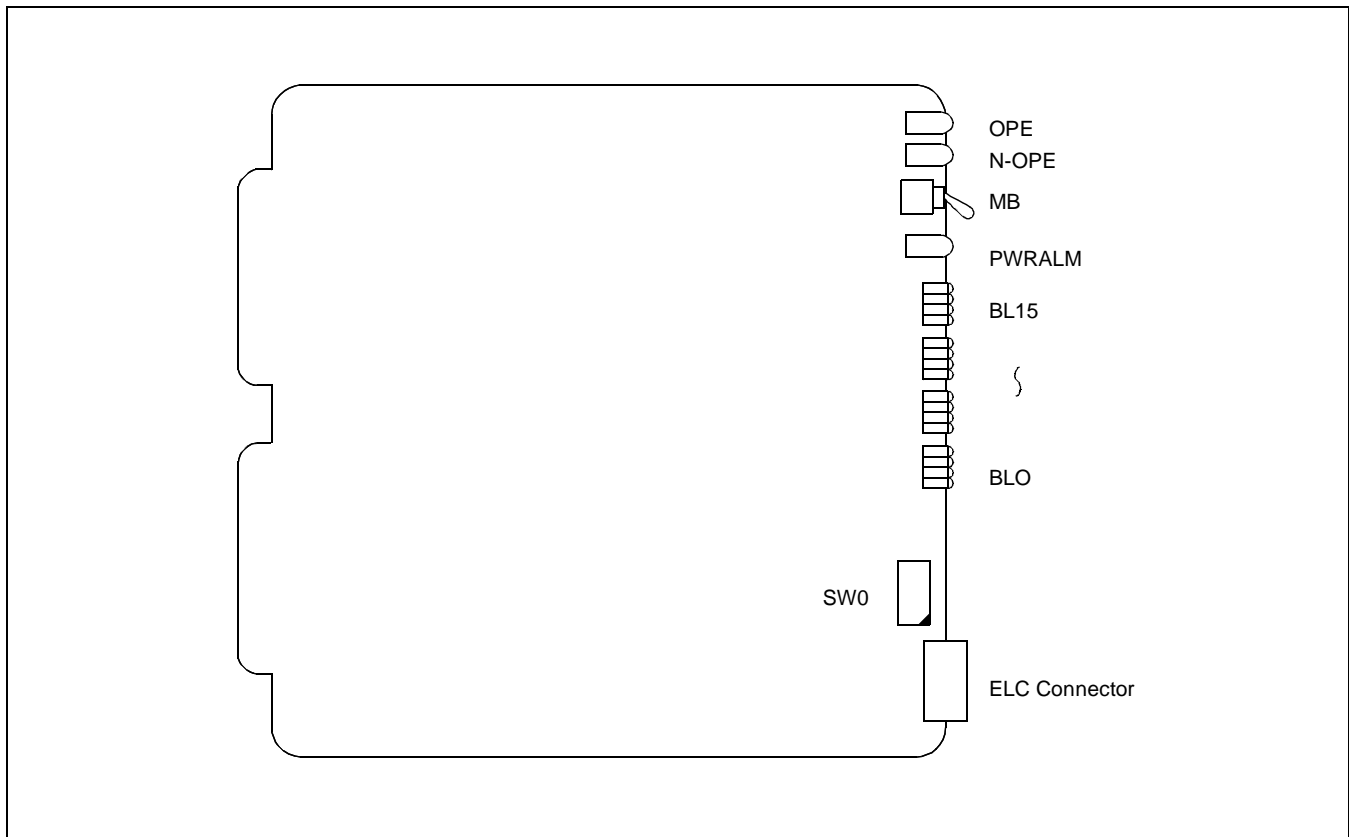
(b) When this circuit card is mounted in PIMB



Note: ● indicates the mounting locations of this circuit card.

3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.



4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

LAMP NAME	COLOR	STATE
OPE	Green	Remains lit while this circuit card is in operating normally.
N-OPE	Red	Remains lit while this circuit card is isolated from the system.
PWRALM	Red	Lights when power supply to D^{term} is abnormal on more than one circuit.
BL0	Green	Lights when the corresponding circuit is busy.
BL15	Flash	Lights when the corresponding circuit is in make-busy state or when the related system data is not assigned.

PA-16ELCDD (ELC)

5. Switch Settings

Standard settings of various switches on this circuit card are shown in the table below.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
MB		UP		Circuit card make busy.
		DOWN		Circuit card make idle.
SW0	1	ON		For using this circuit card as 8DLC.
		OFF		For using this circuit card as 16ELC.
	2	OFF	×	Fixed
	3	OFF	×	
	4	OFF	×	
	5	OFF	×	
	6	OFF	×	
	7	ON		When connecting D ^{term} 24 key type to this circuit card (connection to any other type is not allowed).
		OFF	×	When not connecting D ^{term} 24 key type to this circuit card.
	8	OFF	×	

6. External Interface

The LT connector leads accommodation and the connection diagram of this circuit card are shown below.

(a) LT connector leads accommodation when this circuit card is mounted in PIMU-A

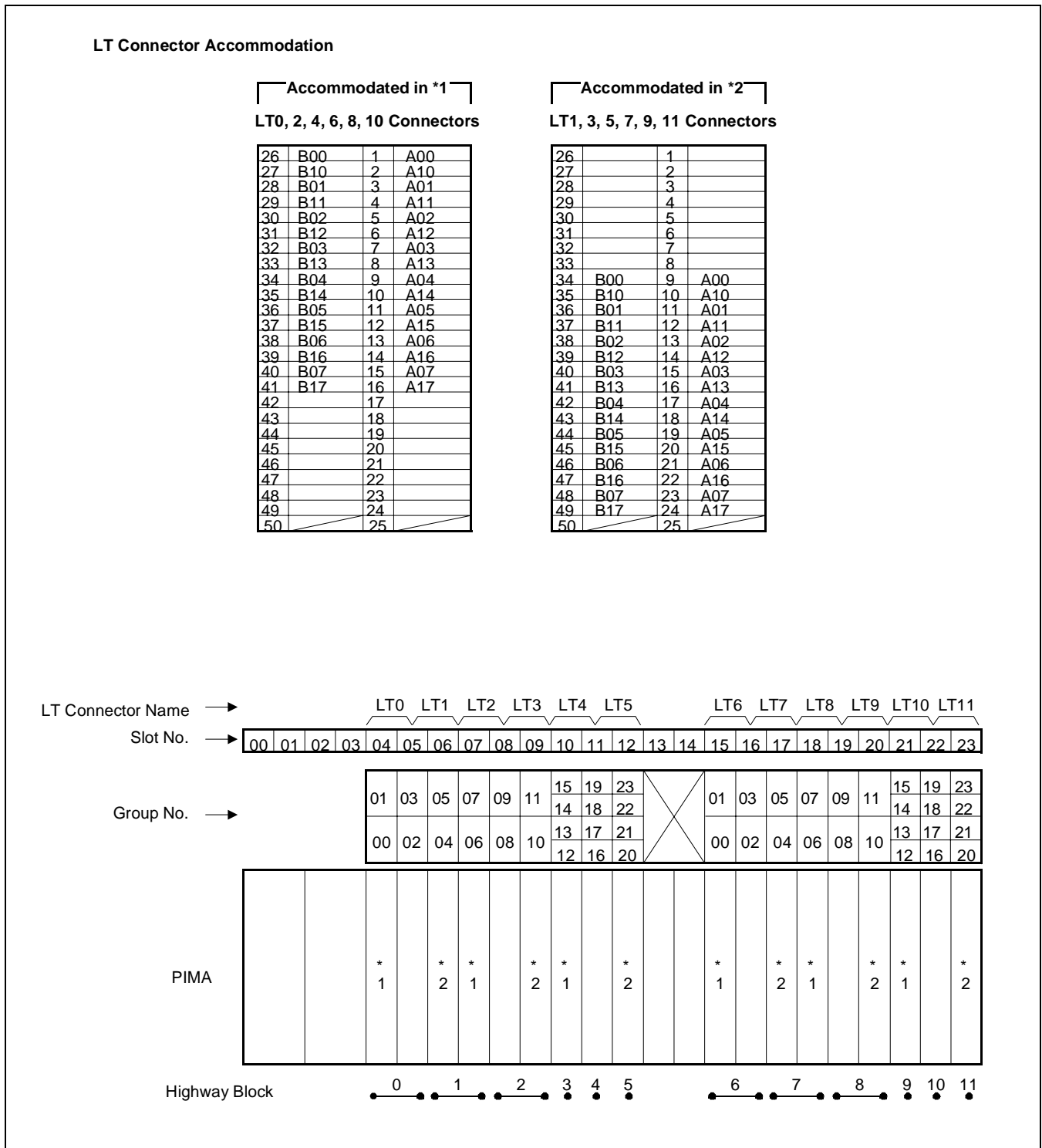


Figure 4-3 LT Connector Leads Accommodation of PIMU-A (1/2)

(b) LT Connector Leads Accommodation when this circuit card is mounted in PIMB

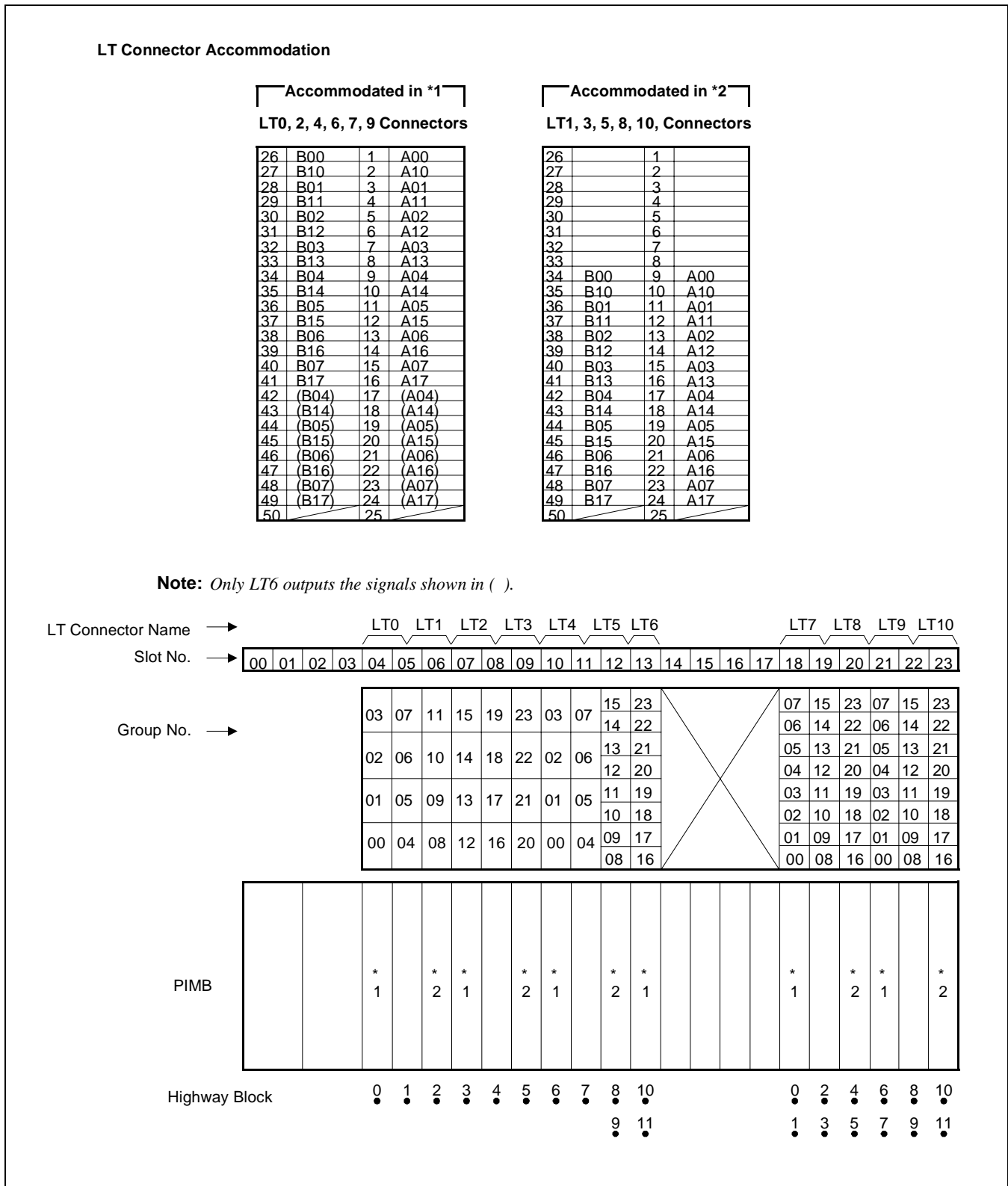
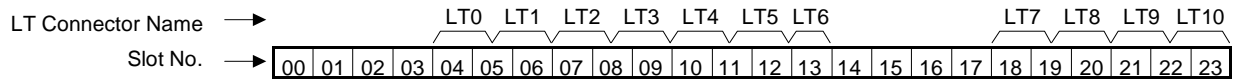


Figure 4-4 LT Connector Leads Accommodation of PIMB (1/2)

LT Connector Accommodation

Accommodated in *3			
LT0, 2, 4, 7, 9 Connectors		LT1, 3, 5, 8, 10 Connectors	
26		1	
27		2	
28		3	
29		4	
30		5	
31		6	
32		7	
33		8	
34		9	
35		10	
36		11	
37		12	
38		13	
39		14	
40		15	
41		16	
42	B00	17	A00
43	B10	18	A10
44	B01	19	A01
45	B11	20	A11
46	B02	21	A02
47	B12	22	A12
48	B03	23	A03
49	B13	24	A13
50		25	



Group No. →

03	07	11	15	19	23	03	07	15	23								07	15	23	07	15	23
																	06	14	22	06	14	22
02	06	10	14	18	22	02	06	13	21							05	13	21	05	13	21	
																04	12	20	04	12	20	
01	05	09	13	17	21	01	05	11	19						03	11	19	03	11	19		
															02	10	18	02	10	18		
00	04	08	12	16	20	00	04	09	17						01	09	17	01	09	17		
								08	16						00	08	16	00	08	16		

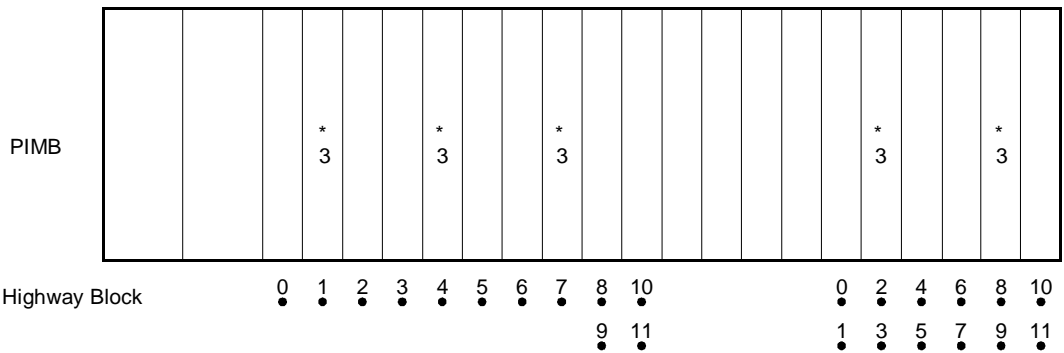


Figure 4-4 LT Connector Leads Accommodation of PIMB (2/2)

(c) Front connector leads accommodation

Leads from No. 8~15 circuits come out to the front connector of the circuit card. The front connector leads are shown below.

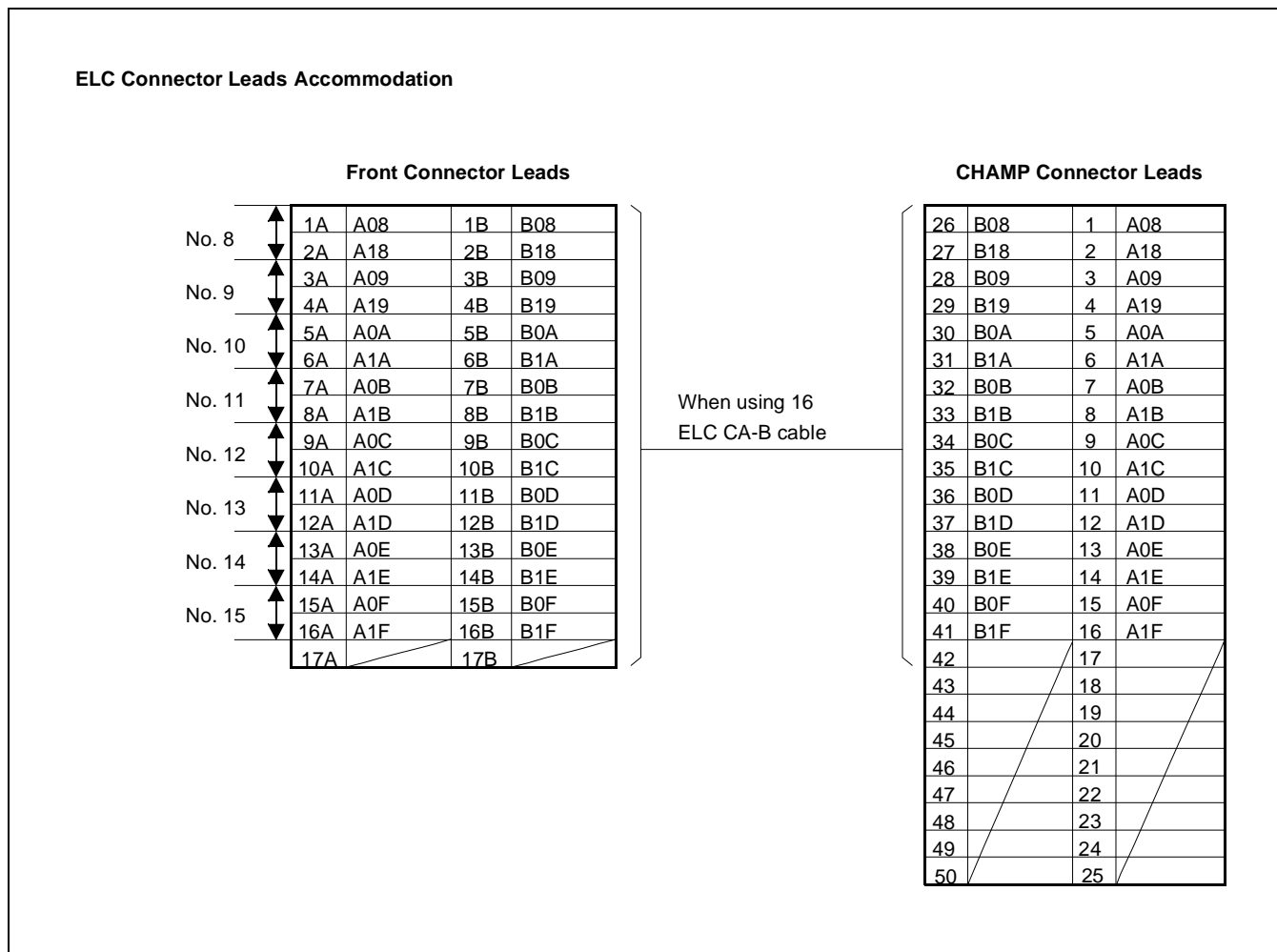


Figure 4-5 ELC Connector Leads Accommodation of PIMB (1/2)

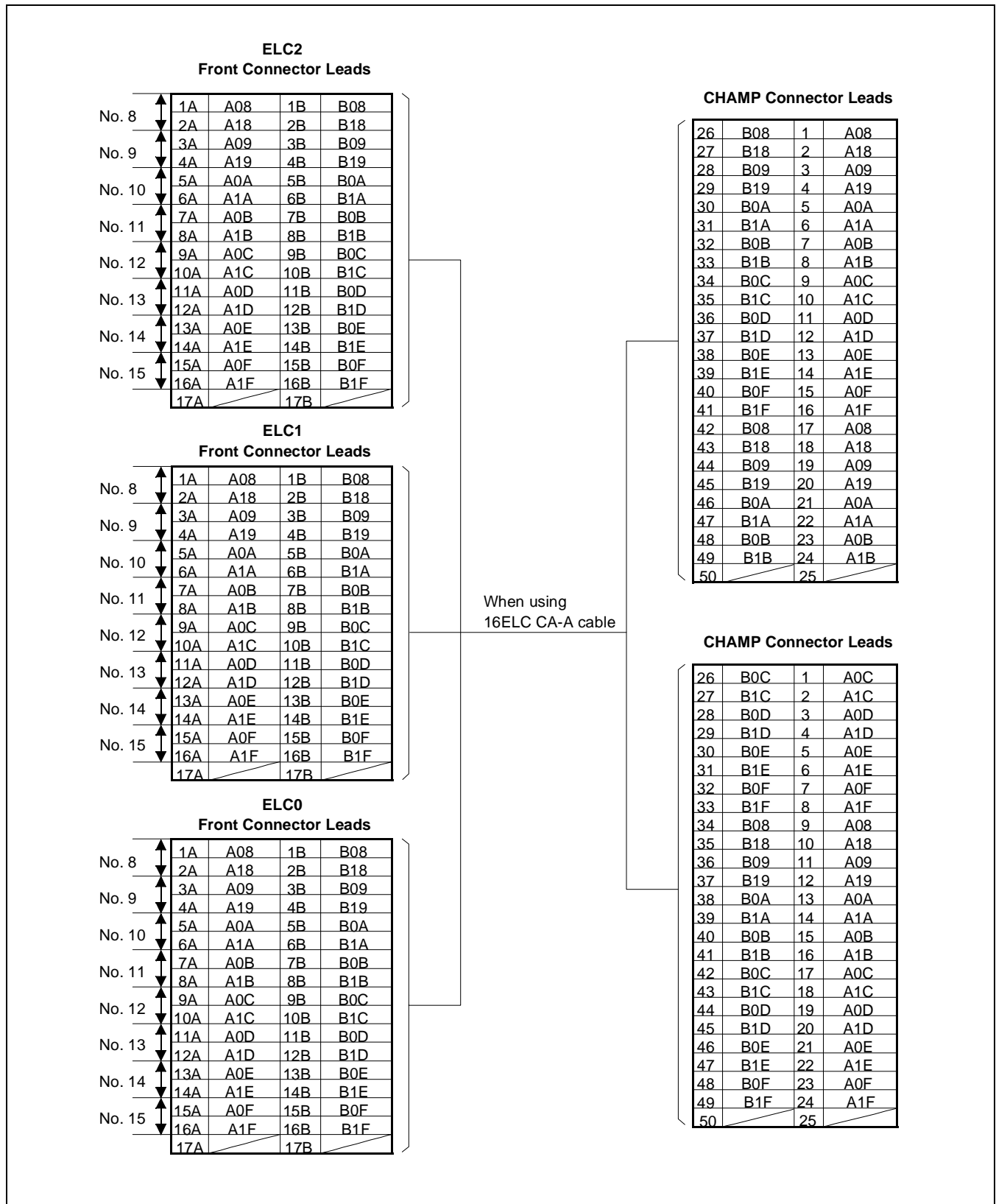


Figure 4-5 ELC Connector Leads Accommodation of PIMB (2/2)

(d) Connection Diagram

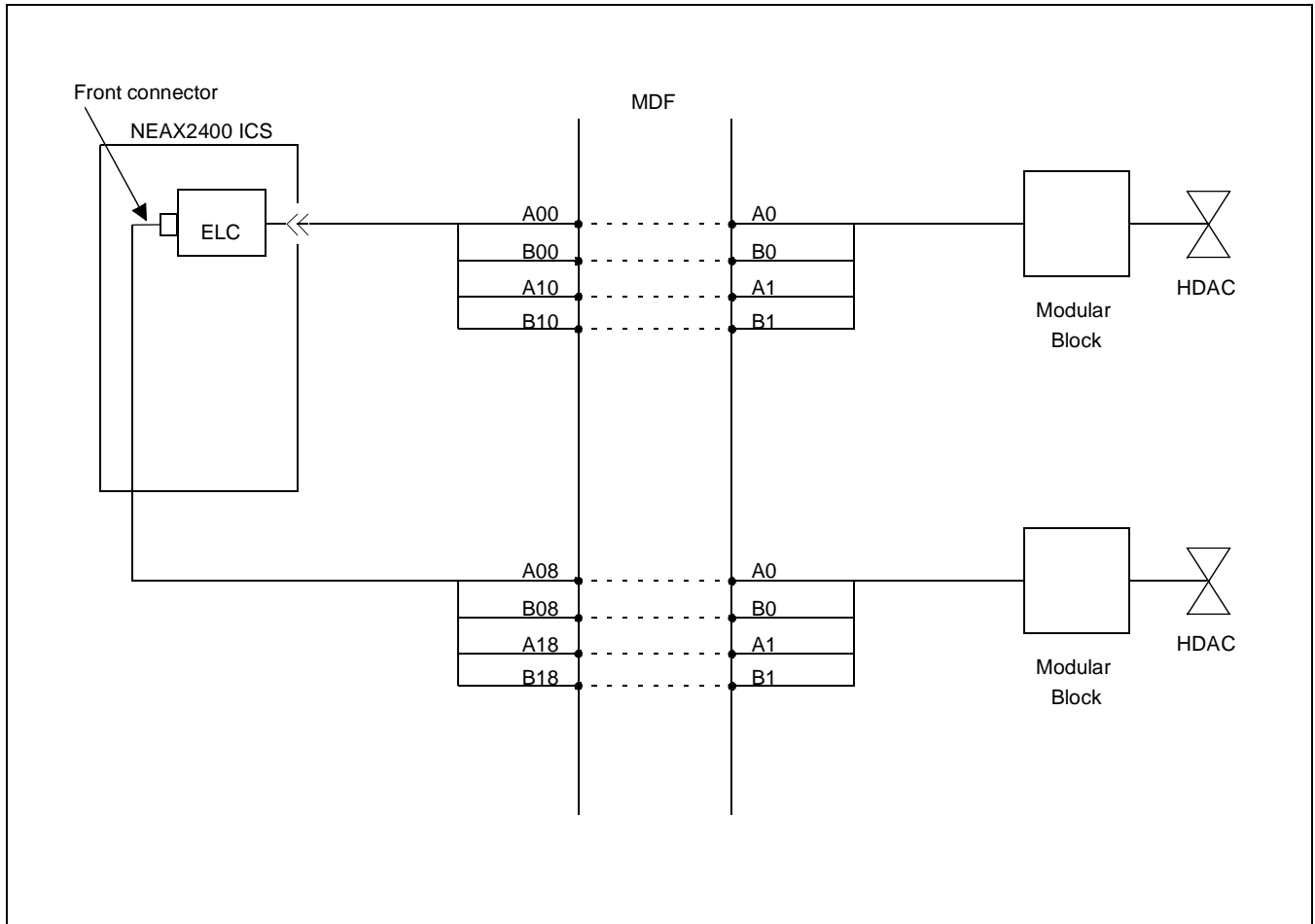
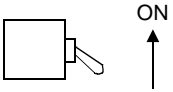
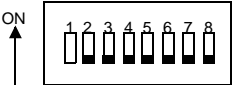


Figure 4-6 Connection Diagram

SWITCH SETTING SHEET

MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
PIMU-A	04~12 15~23	MB		UP: Circuit card make busy. DOWN:Circuit card make idle.
		SW0		

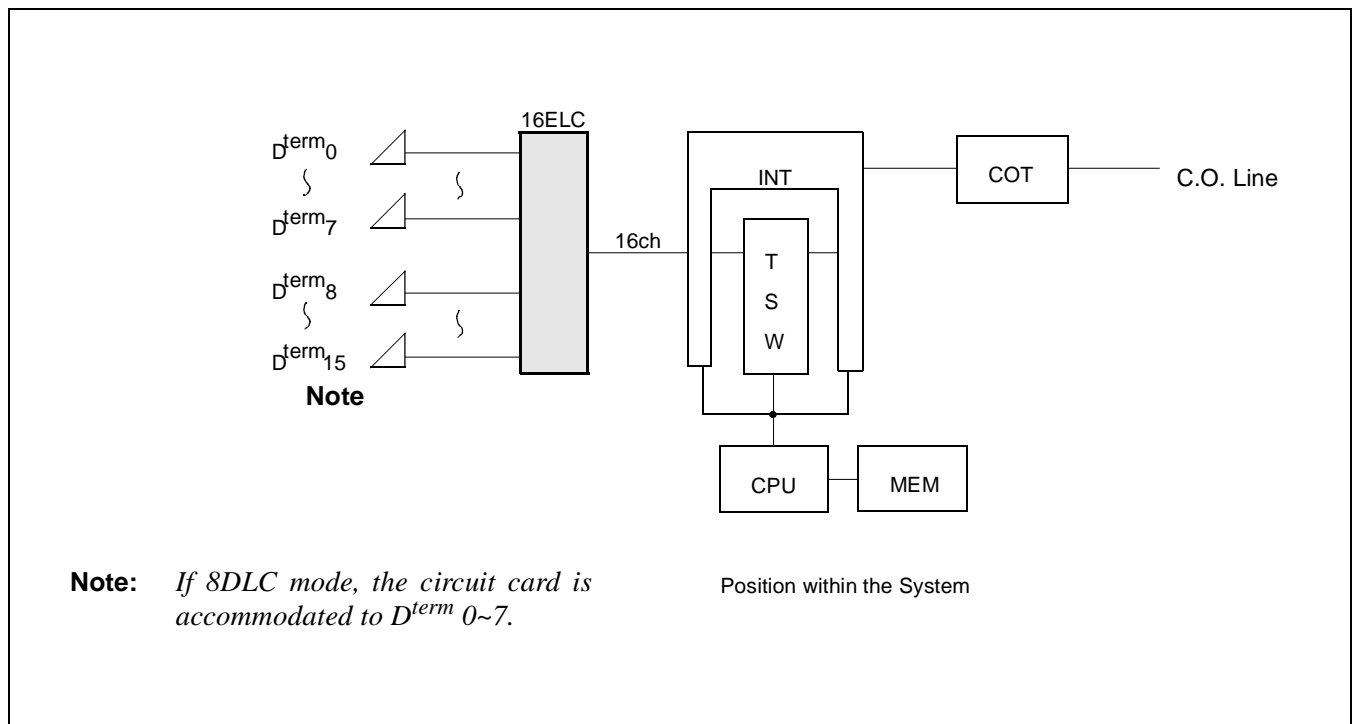
PA-16ELCH (16ELC)

1. Function

This circuit card is a line circuit card that supports the interface of 16 circuits or 8 circuits of a 2W-Digital Terminal based on TCM transmission system (Time Compression Multiplex).

This circuit card can be used as an 8-circuit voice/data digital line (8DLC Mode) and a 16-circuit voice only digital line circuit (16ELC Mode), and can be connected to any D^{term} of the D^{term} Series III. Differences in operations by mode are shown below.

	NUMBER OF CIRCUITS	NUMBER OF TIME SLOTS	DATA COMMUNICATION FUNCTION	REMARKS
8DLC Mode	8 circuits	16 Time Slots	Provided	
16ELC Mode	16 circuits	16 Time Slots	Not Provided	



PA-16ELCH (16ELC)

2. Mounting Location/Condition

The mounting locations of this circuit card and the conditions related to mounting are shown below.

(a) When this circuit card is mounted in PIMA

Mounting Module				PIMU-A																			
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23

Note: ● Indicates that the slots are a universal slot for line/trunk circuit cards.

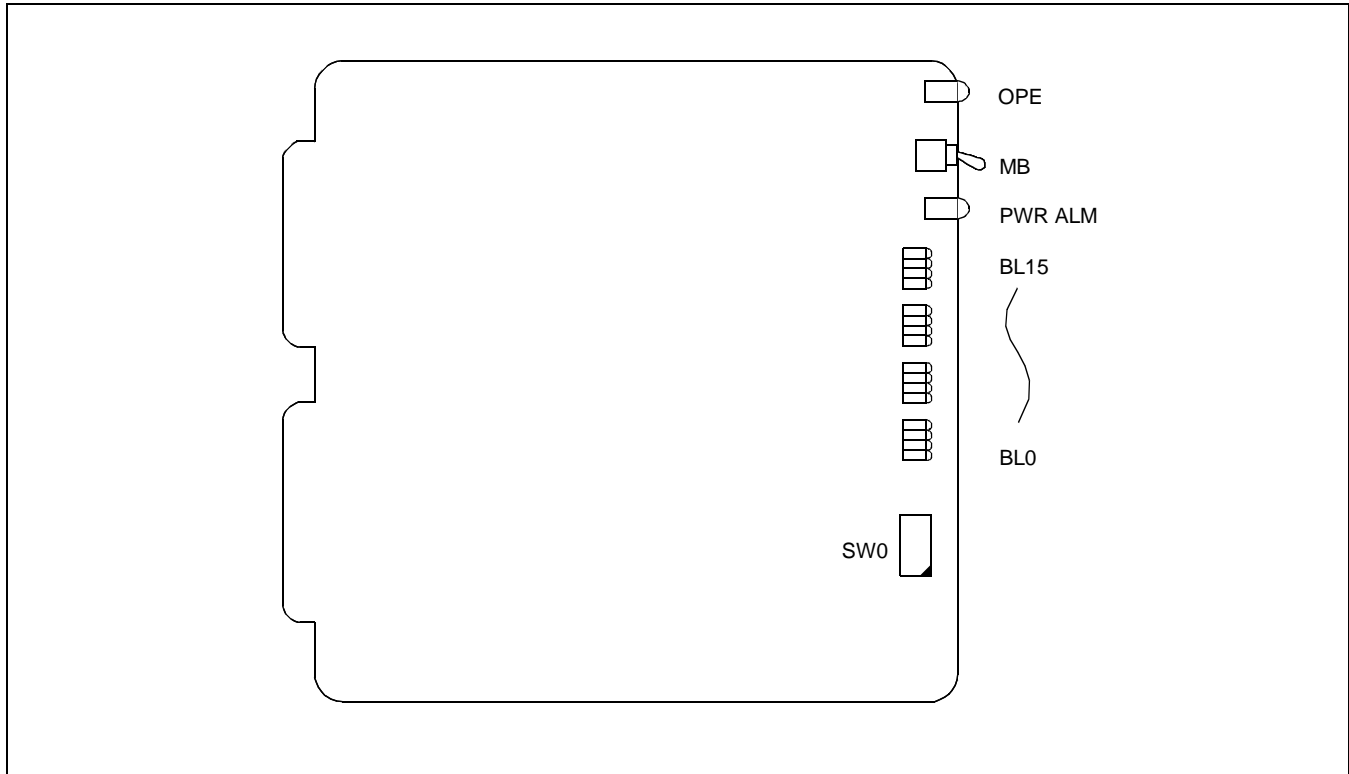
(b) When this circuit card is mounted in PIMB

Mounting Module				PIMB																					
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		

Note: ● Indicates that the slots are a universal slot for line/trunk circuit cards.

3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.



4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

LAMP NAME	COLOR	STATE
OPE	Green	Remains lit while on-line operations are normal.
	OFF	Off when on-line operations are abnormal.
PWR ALM	Red	Lights when more than one power supply circuit are abnormal.
	OFF	Off when all the power supply circuits are normal.
BL0	Green	Lights when the corresponding circuit is busy.
?	Flash	Flashes when the corresponding circuit is in make-busy state or the system data is not assigned.
BL15	OFF	Off when the corresponding circuit is idle.

PA-16ELCH (16ELC)

5. Switch Settings

Standard settings of various switches on this circuit card are shown in the table below.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
SW0	1 Note 1 Note 2	ON		When APR-J/APA-J is not connected.
		OFF		When APR-J/APA-J is connected.
	2	ON		Setting of Speech Level: NEAX2400 IMS (HDS) Level.
		OFF		Setting of Speech Level: NEAX2400 IMS (ICS) Level.
	3	ON	×	Fixed in the system.
		OFF		
	4	ON	×	Single Port Mode.
		OFF		Dual Port Mode.
	5	ON	×	Fixed in the system.
		OFF		
	6	ON	×	Fixed in the system.
		OFF		
	7	ON		16ELC Mode.
		OFF		8DLC Mode.
	8	ON	×	Fixed in the system.
		OFF		
MB		UP		Circuit card make busy.
		DOWN	×	Circuit card make idle.

Note 1: APR-J/APA-J is an optional device to be connected to D^{term} and provides interface for analog terminal.

Note 2: By setting SWO-1 and SWO-7 as explained in the above table, either APR-J/APA-J or Data Adapter can be used.

SW0-7 SW0-7	ON	OFF
ON	Up to 16 circuits can be connected. Only voice is used.	Up to 8 circuits can be connected. Simultaneous communications of voice and data (use of Data Adapter) can be utilized. Make this setting when using Data Adapter.
OFF	Up to 16 circuits can be connected. Simultaneous communications of voice and data (use of APR-J/APA-J) cannot be serviced. When either data or voice is used by changing over with APR-J/APA-J.	Up to 8 circuits can be connected. Simultaneous communications of voice and data (use of APR-J/APA-J) can be serviced.

LT Connector Accommodation

Accommodated in *3			
LT0, 2, 4, 6, 8, 10 Connector		LT1, 3, 5, 7, 9, 11 Connector	
26		1	
27		2	
28		3	
29		4	
30		5	
31		6	
32		7	
33		8	
34		9	
35		10	
36		11	
37		12	
38		13	
39		14	
40		15	
41		16	
42	B0	17	A0
43	B1	18	A1
44	B2	19	A2
45	B3	20	A3
46	B4	21	A4
47	B5	22	A5
48	B6	23	A6
49	B7	24	A7
50		25	

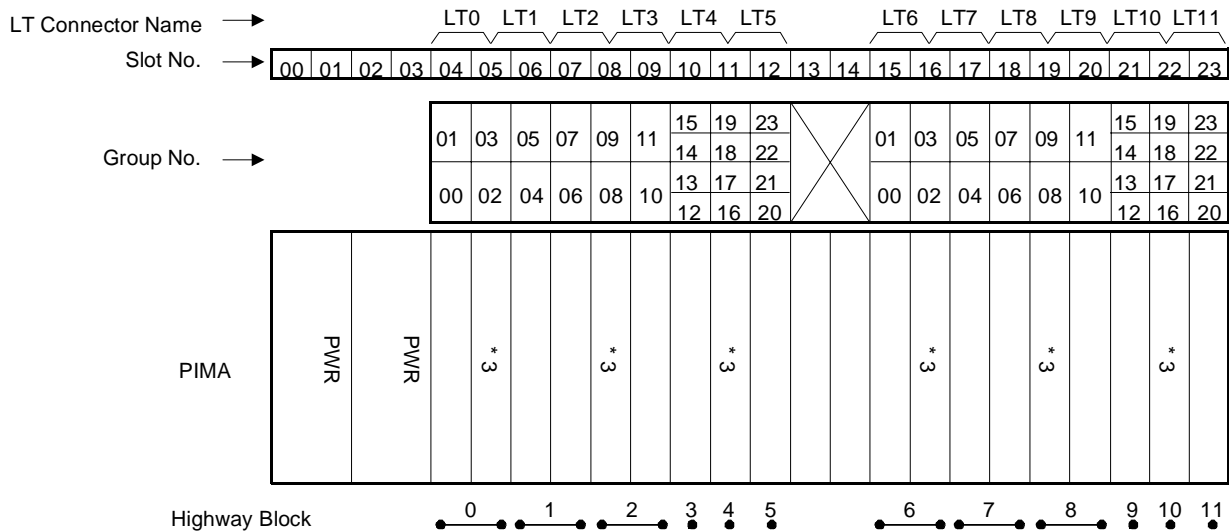


Figure 4-7 LT Connector Leads Accommodation of PIMU-A (2 of 3)

- When the mode is 8DLC Mode/Dual Port Mode.

LT Connector Accommodation

Accommodated in *1

LT0, 2, 4, 6, 8, 10 Connector

26		1	
27		2	
28		3	
29		4	
30		5	
31		6	
32		7	
33		8	
34	B0	9	A0
35	B1	10	A1
36	B2	11	A2
37	B3	12	A3
38	B4	13	A4
39	B5	14	A5
40	B6	15	A6
41	B7	16	A7
42		17	
43		18	
44		19	
45		20	
46		21	
47		22	
48		23	
49		24	
50		25	

Accommodated in *2

LT1, 3, 5, 7, 9, 11 Connector

26	B0	1	A0
27	B1	2	A1
28	B2	3	A2
29	B3	4	A3
30	B4	5	A4
31	B5	6	A5
32	B6	7	A6
33	B7	8	A7
34		9	
35		10	
36		11	
37		12	
38		13	
39		14	
40		15	
41		16	
42		17	
43		18	
44		19	
45		20	
46		21	
47		22	
48		23	
49		24	
50		25	

Accommodated in *3

LT1, 3, 5, 7, 9, 11 Connector

26		1	
27		2	
28		3	
29		4	
30		5	
31		6	
32		7	
33		8	
34		9	
35		10	
36		11	
37		12	
38		13	
39		14	
40		15	
41		16	
42	B0	17	A0
43	B1	18	A1
44	B2	19	A2
45	B3	20	A3
46	B4	21	A4
47	B5	22	A5
48	B6	23	A6
49	B7	24	A7
50		25	

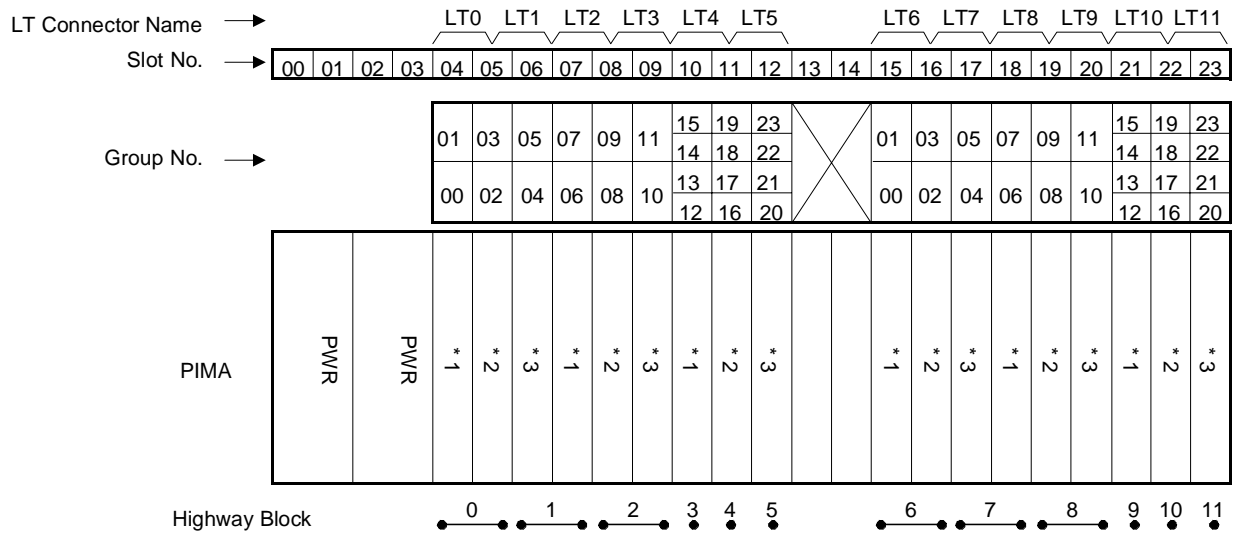


Figure 4-7 LT Connector Leads Accommodation of PIMU-A (3 of 3)

(b) LT Connector Lead Accommodation when this circuit card is mounted in PIMB

- When the mode is 16ELC Mode and the APR-J/APA-J is used.

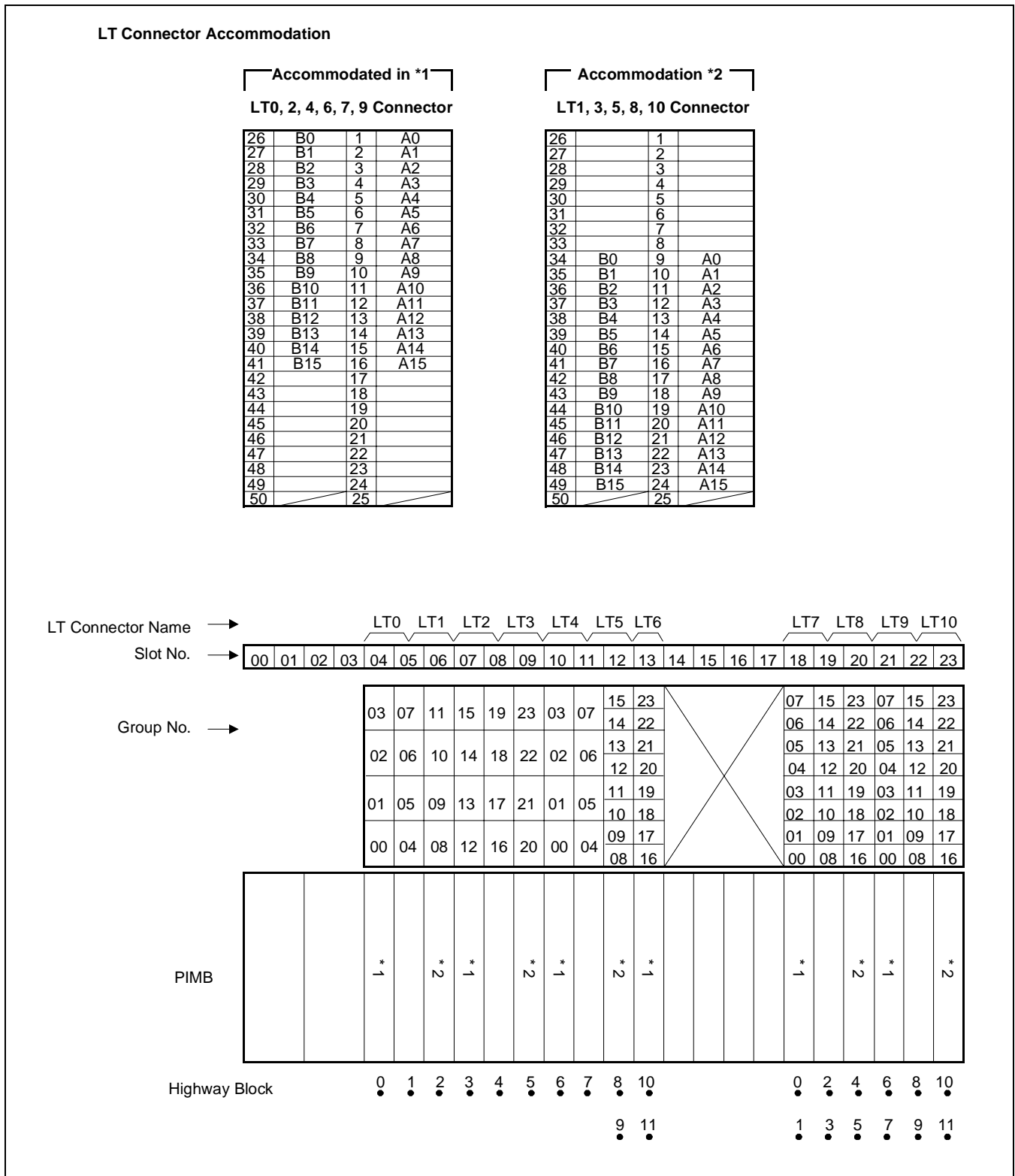


Figure 4-8 LT Connector Leads Accommodation of PIMB (1 of 3)

- When the mode is 8DLC Mode and the APR-J/APA-J is used.

LT Connector Accommodation

Accommodated in *1

LT0, 2, 4, 6, 7, 9 Connector

26		1	
27		2	
28		3	
29		4	
30		5	
31		6	
32		7	
33		8	
34	B0	9	A0
35	B1	10	A1
36	B2	11	A2
37	B3	12	A3
38	B4	13	A4
39	B5	14	A5
40	B6	15	A6
41	B7	16	A7
42		17	
43		18	
44		19	
45		20	
46		21	
47		22	
48		23	
49		24	
50		25	

Accommodated in *2

LT1, 3, 5, 8, 10 Connector

26	B0	1	A0
27	B1	2	A1
28	B2	3	A2
29	B3	4	A3
30	B4	5	A4
31	B5	6	A5
32	B6	7	A6
33	B7	8	A7
34		9	
35		10	
36		11	
37		12	
38		13	
39		14	
40		15	
41		16	
42		17	
43		18	
44		19	
45		20	
46		21	
47		22	
48		23	
49		24	
50		25	

Accommodated in *3

LT1,3,5,8,10 Connector

26		1	
27		2	
28		3	
29		4	
30		5	
31		6	
32		7	
33		8	
34		9	
35		10	
36		11	
37		12	
38		13	
39		14	
40		15	
41		16	
42	B0	17	A0
43	B1	18	A1
44	B2	19	A2
45	B3	20	A3
46	B4	21	A4
47	B5	22	A5
48	B6	23	A6
49	B7	24	A7
50		25	

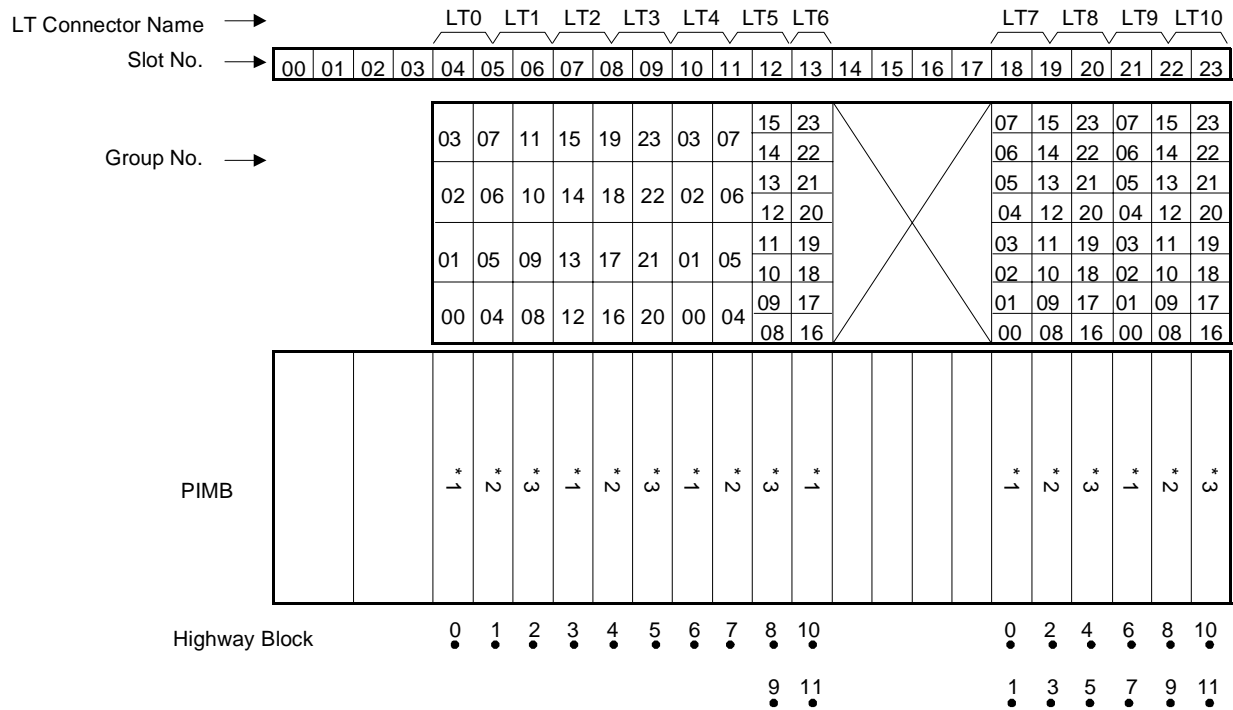


Figure 4-8 LT Connector Leads Accommodation of PIMB (3 of 3)

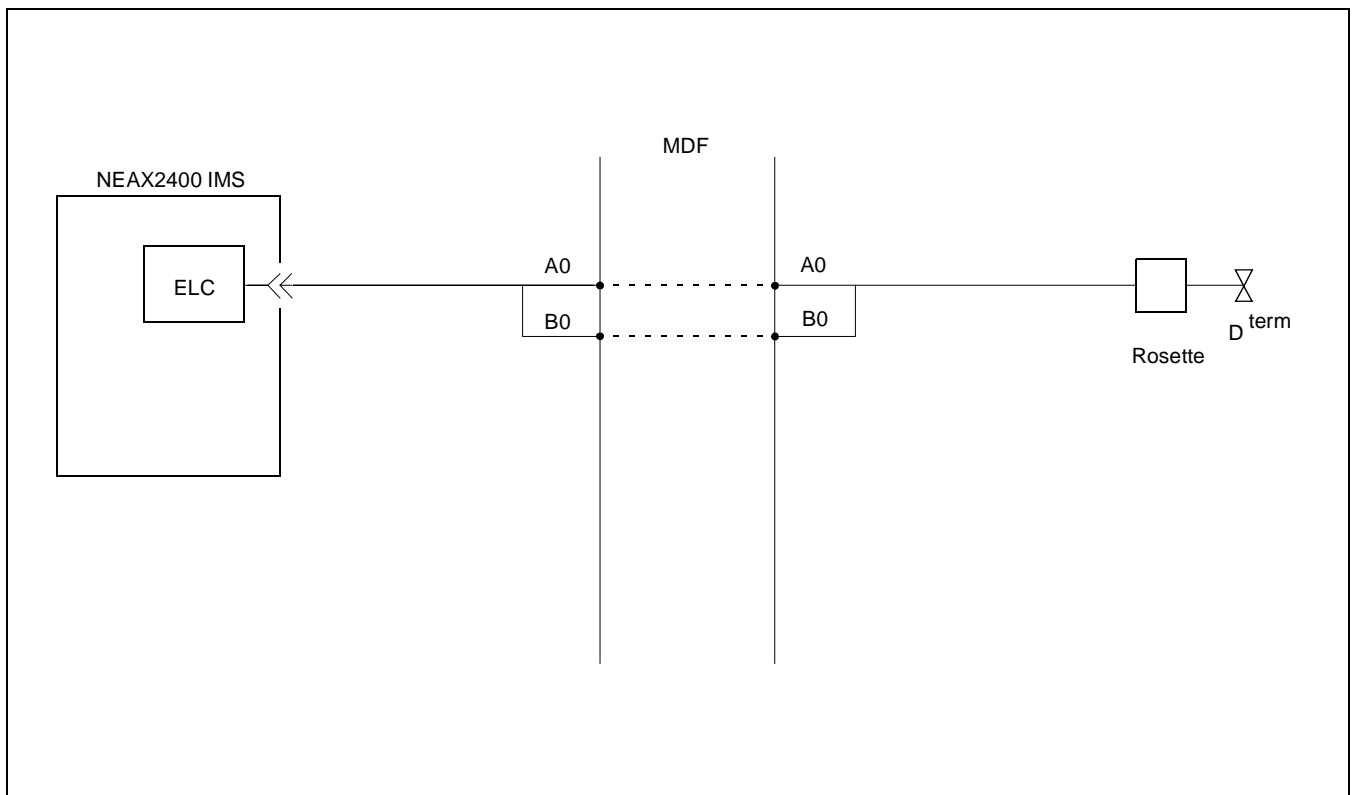



Figure 4-9 Connecting Route Diagram

Switch Setting Sheet

MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
PIMU-A		SW0	ON 	
		MB	DOWN	Circuit card make idle.

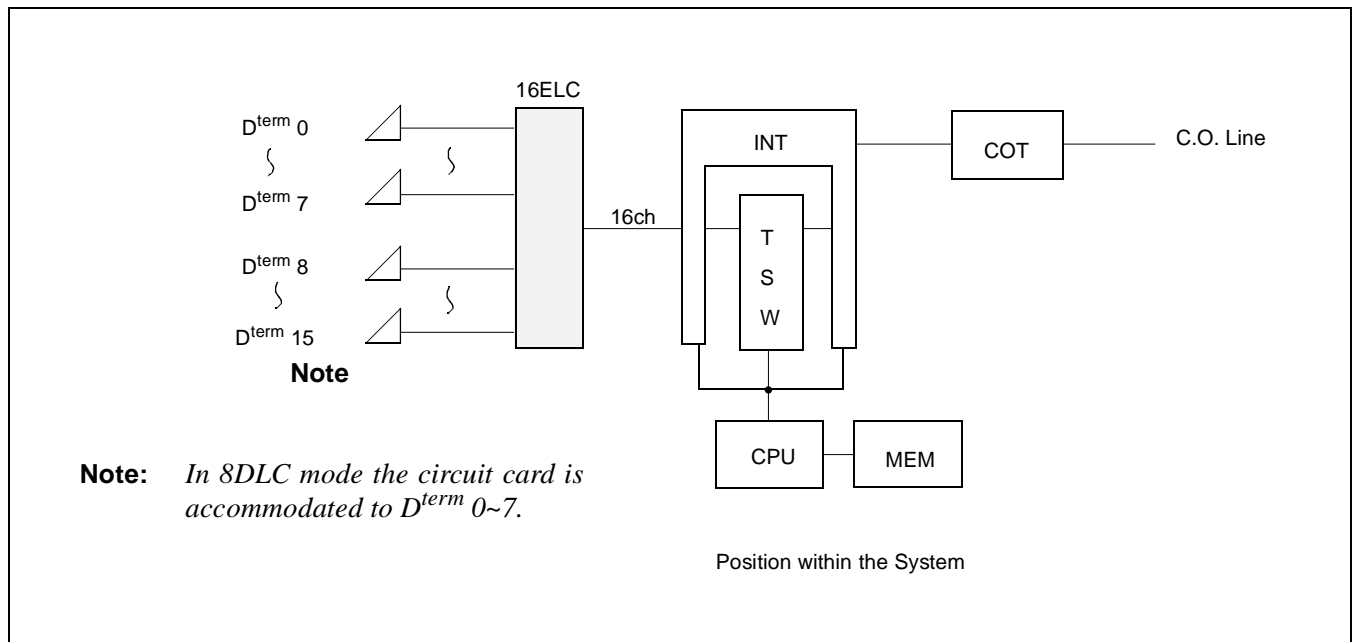
PA-16ELCJ (16ELC)

1. Function

This circuit card is a line circuit card which supports the interface of 16 circuits or eight circuits of a 2W-Digital Terminal based on TCM transmission system (Time Compression Multiplex).

This circuit card can be used as an eight-circuit voice/data digital line (8DLC Mode) and a 16-circuit voice only digital line circuit (16ELC Mode), and can be connected to any D^{term} of the D^{term} Series III. Differences in operations by mode are shown below.

	NO. OF CIRCUITS	NO. OF TIME SLOTS	DATA COMMUNICATION FUNCTION	REMARKS
8DLC Mode	8 Circuits	16 Time Slots	Provided	
16ELC Mode	16 Circuits	16 Time Slots	Not Provided	



2. Mounting Location/Condition

The mounting locations of this circuit card and the conditions related to mounting are shown below.

(a) When this circuit card is mounted in PIMJ

Mounting Module	PIMU-A
-----------------	--------

00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
								●											●					

Note: ● Indicates universal slots for line/trunk circuit cards.

(b) When this circuit card is mounted in PIMK

Mounting Module	PIMK
-----------------	------

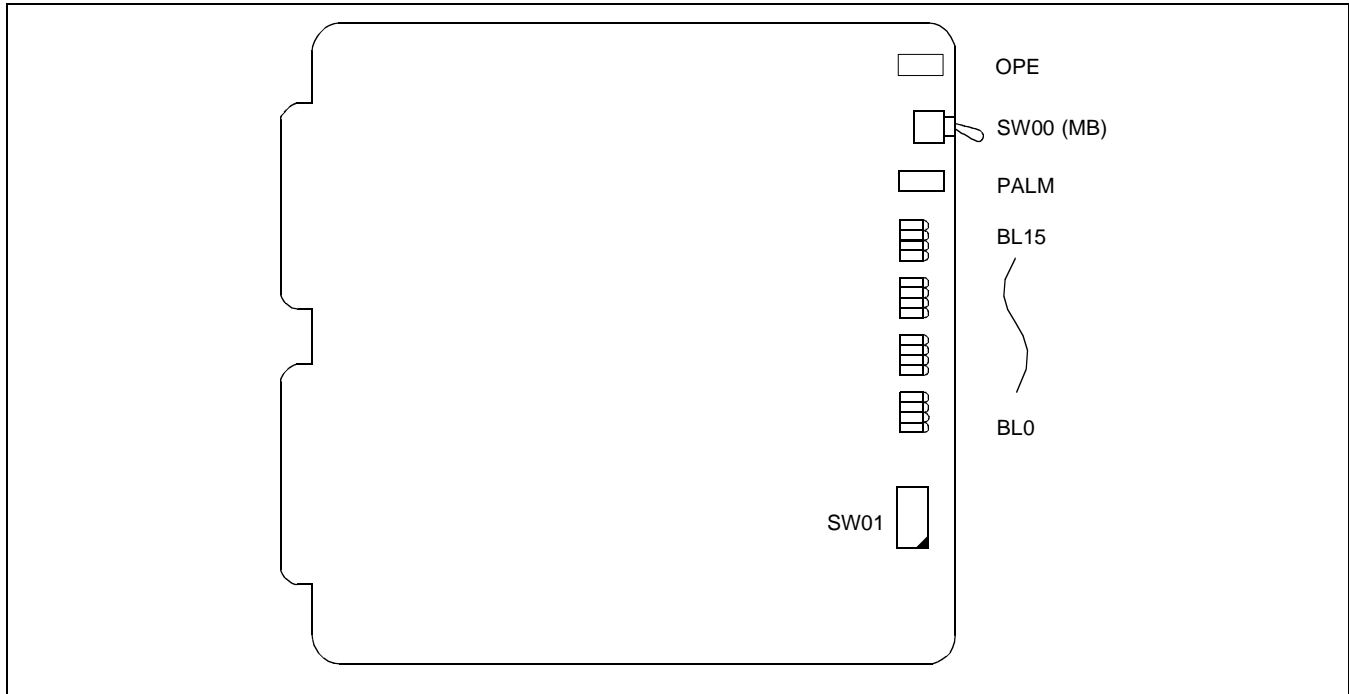
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
								●												●				

Note: ● Indicates universal slots for line/trunk circuit cards.

PA-16ELCJ (16ELC)

3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps and switches on this circuit card is shown below.



4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

LAMP NAME	COLOR	STATE
OPE	Green	Remains lit while on-line operations are normal.
	OFF	Off when on-line operations are abnormal.
PALM	Red	Lights when more than one power supply circuit are abnormal. Note
	OFF	Off when all the power supply circuits are normal.
BL0 ? BL15	Green	Lights when the corresponding circuit is busy.
	Flash	Flashes when the corresponding circuit is in make-busy state or the system data is not assigned.
	OFF	Off when the corresponding circuit is idle.

Note: When the PALM lamp lights red, observe the following instructions.

- i) Identify the location where any in-house wires have a short circuit as to all lines which belong to the PA-16ELCJ card whose PALM is on.
- ii) Repair the short-circuited wires of the associated D^{term} .
- iii) Disconnect the D^{term} from the rosette, then leave it disconnected for at least 1 minute.
- iv) Connect the D^{term} again.

5. Switch Settings

Standard settings of various switches on this circuit card are shown in the table below.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING	
SW01	1 Note 1 Note 2	ON		When APR-J/APA-J is not connected.	
		OFF		When APR-J/APA-J is connected.	
	2	ON	×	Fixed ON	
		OFF			
	3	ON	×	Fixed in the system.	
		OFF			
	4	ON	×	Fixed in the system.	
		OFF		Dual Port Mode.	
	5	ON	×	Fixed in the system.	
		OFF			
	6	ON	×	Fixed in the system.	
		OFF			
	7	ON		16ELC Mode	
		OFF		8DLC Mode	
	8	ON	×	Fixed in the system.	
		OFF			
	SW00 (MB)		UP		Circuit card make busy.
			DOWN	×	Circuit card make busy cancel.

Note 1: APR-J/APA-J is an optional device to be connected to D^{term} and provides interface for analog terminal.

Note 2: By setting SW01-1 and SW01-7 as explained in the table below, either APR-J/APA-J or Data Adapter can be used.

SW01-7 \ SW01-1	ON	OFF
ON	Up to 16 circuits can be connected. Only voice is used.	Up to 8 circuits can be connected. Simultaneous communications of voice and data (use of Data Adapter) can be done. Make this setting when using Data Adapter.
OFF	Up to 16 circuits can be connected. Simultaneous communications of voice and data (use of APR-J/APA-J) cannot be done. When either data or voice is used by changing over with APR-J/APA-J.	Up to 8 circuits can be connected. Simultaneous communications of voice and data (use of APR-J/APA-J) can be done.

PA-16ELCJ (16ELC)

6. External Interface

Accommodation of the LT connector leads of this circuit card and connecting route diagram are shown below.

(a) LT Connector Lead Accommodation when this circuit card is mounted in PIMJ

- When the mode is 16ELC Mode/Single Port Mode.

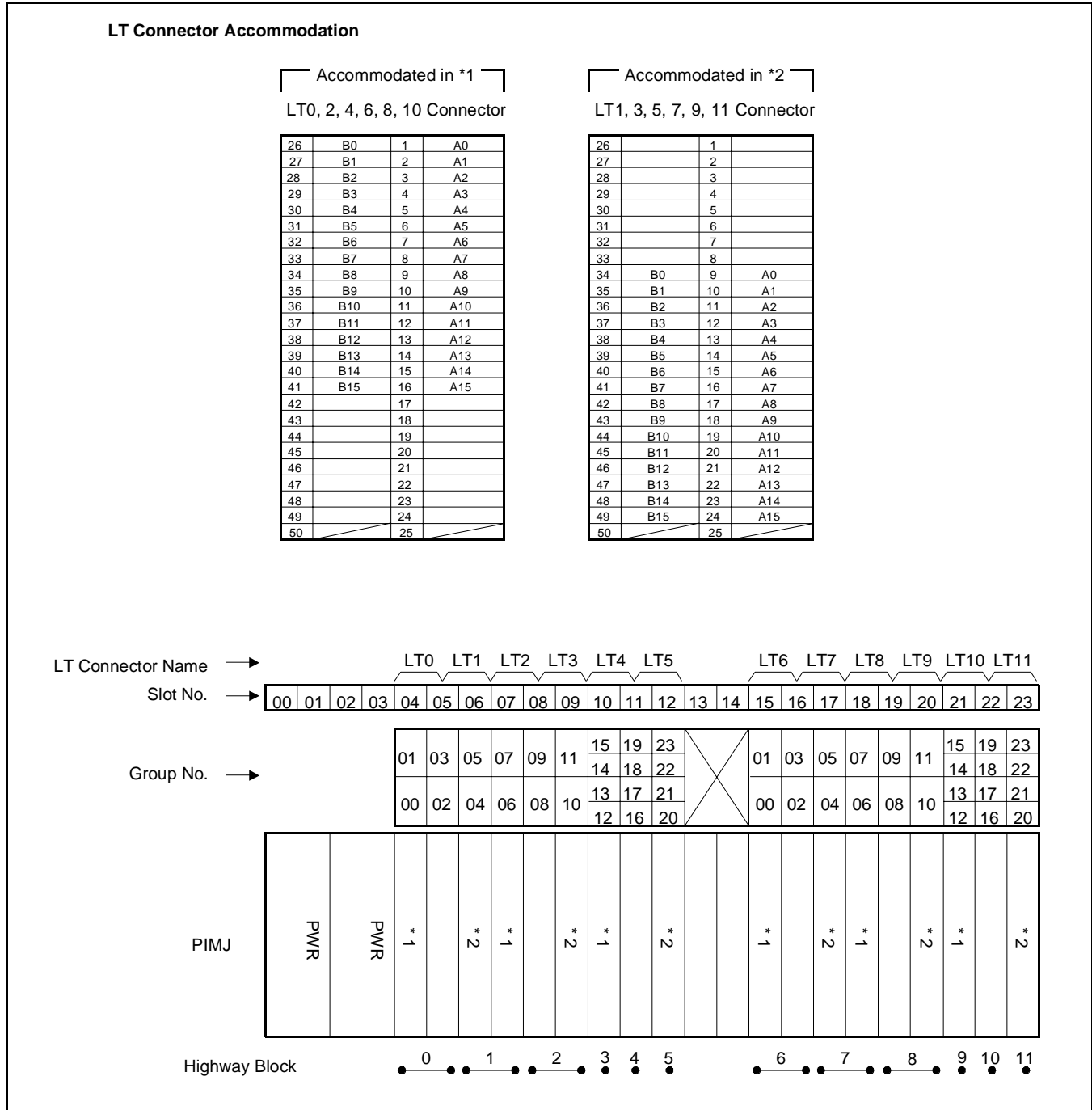


Figure 4-10 LT Connector Leads Accommodation of PIMU-A (1 of 3)

LT Connector Accommodation

Accommodated in *3			
LT0, 2, 4, 6, 8, 10 Connector		LT1, 3, 5, 7, 9, 11 Connector	
26		1	
27		2	
28		3	
29		4	
30		5	
31		6	
32		7	
33		8	
34		9	
35		10	
36		11	
37		12	
38		13	
39		14	
40		15	
41		16	
42	B0	17	A0
43	B1	18	A1
44	B2	19	A2
45	B3	20	A3
46	B4	21	A4
47	B5	22	A5
48	B6	23	A6
49	B7	24	A7
50		25	

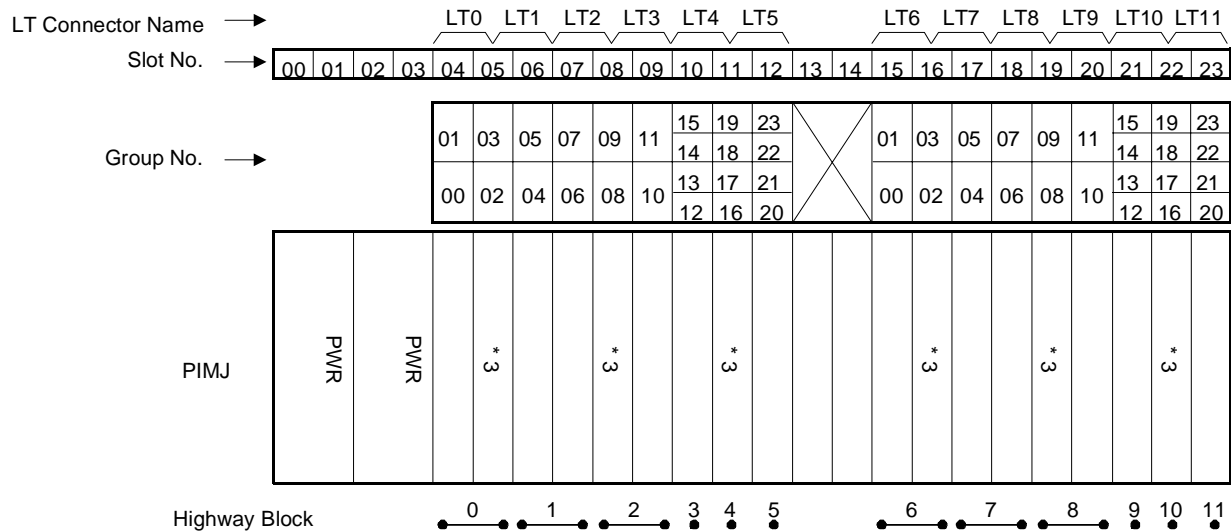


Figure 4-10 LT Connector Lead Accommodation of PIMU-A (2 of 3)

- When the mode is 8DLC Mode/Dual Port Mode.

LT Connector Accommodation

Accommodated in *1

LT0, 2, 4, 6, 8, 10 Connector

26		1	
27		2	
28		3	
29		4	
30		5	
31		6	
32		7	
33		8	
34	B0	9	A0
35	B1	10	A1
36	B2	11	A2
37	B3	12	A3
38	B4	13	A4
39	B5	14	A5
40	B6	15	A6
41	B7	16	A7
42		17	
43		18	
44		19	
45		20	
46		21	
47		22	
48		23	
49		24	
50		25	

Accommodated in *2

LT1, 3, 5, 7, 9, 11 Connector

26	B0	1	A0
27	B1	2	A1
28	B2	3	A2
29	B3	4	A3
30	B4	5	A4
31	B5	6	A5
32	B6	7	A6
33	B7	8	A7
34		9	
35		10	
36		11	
37		12	
38		13	
39		14	
40		15	
41		16	
42		17	
43		18	
44		19	
45		20	
46		21	
47		22	
48		23	
49		24	
50		25	

Accommodated in *3

LT1, 3, 5, 7, 9, 11 Connector

26		1	
27		2	
28		3	
29		4	
30		5	
31		6	
32		7	
33		8	
34		9	
35		10	
36		11	
37		12	
38		13	
39		14	
40		15	
41		16	
42	B0	17	A0
43	B1	18	A1
44	B2	19	A2
45	B3	20	A3
46	B4	21	A4
47	B5	22	A5
48	B6	23	A6
49	B7	24	A7
50		25	

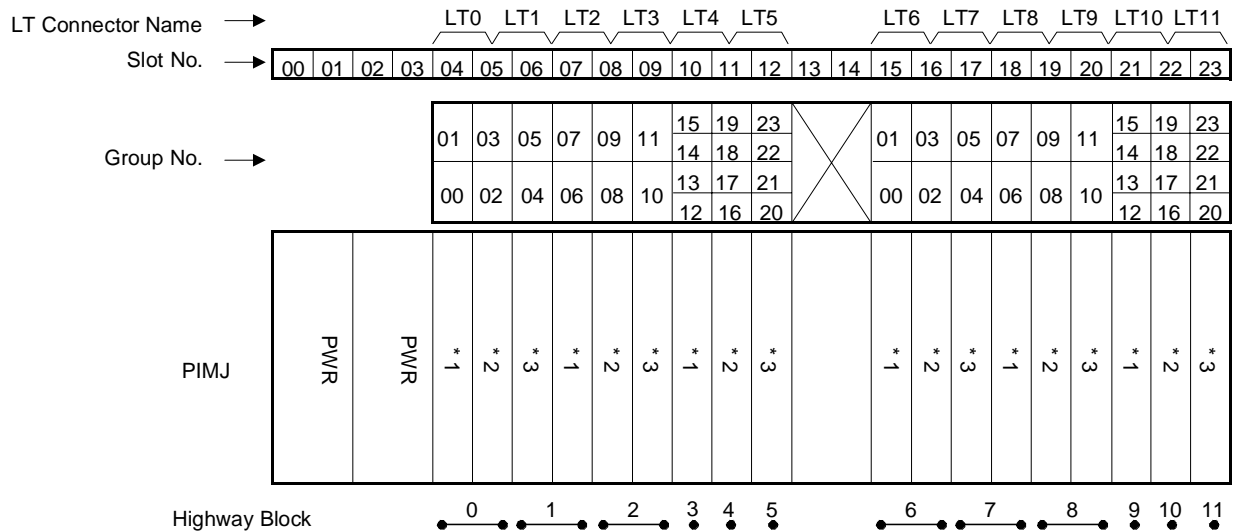


Figure 4-10 LT Connector Leads Accommodation of PIMU-A (3 of 3)

(b) LT Connector Lead Accommodation when this circuit card is mounted in PIMK

- When the mode is 16ELC Mode and the APR-J/APA-J is used.

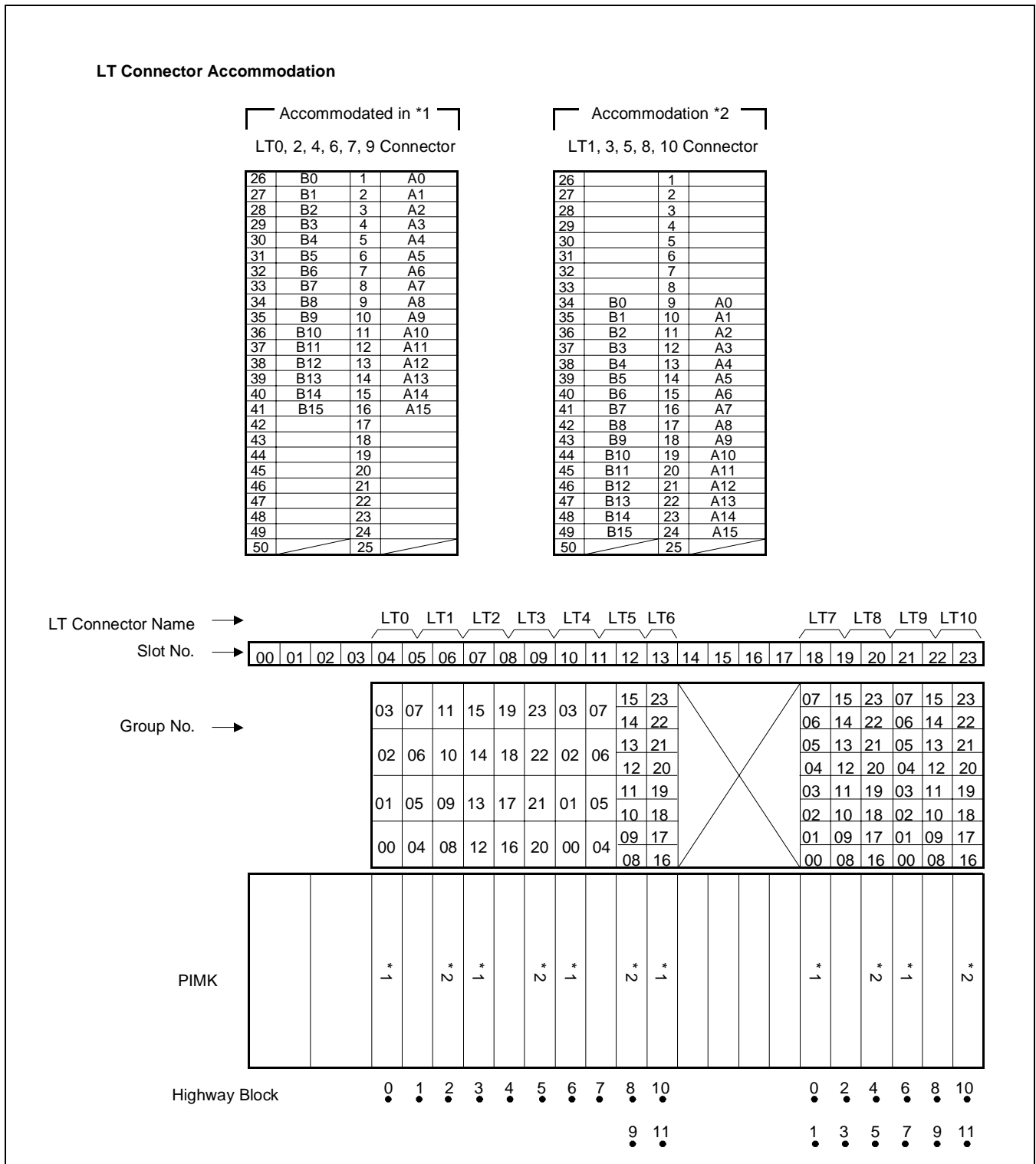


Figure 4-11 LT Connector Leads Accommodation of PIMK (1 of 3)

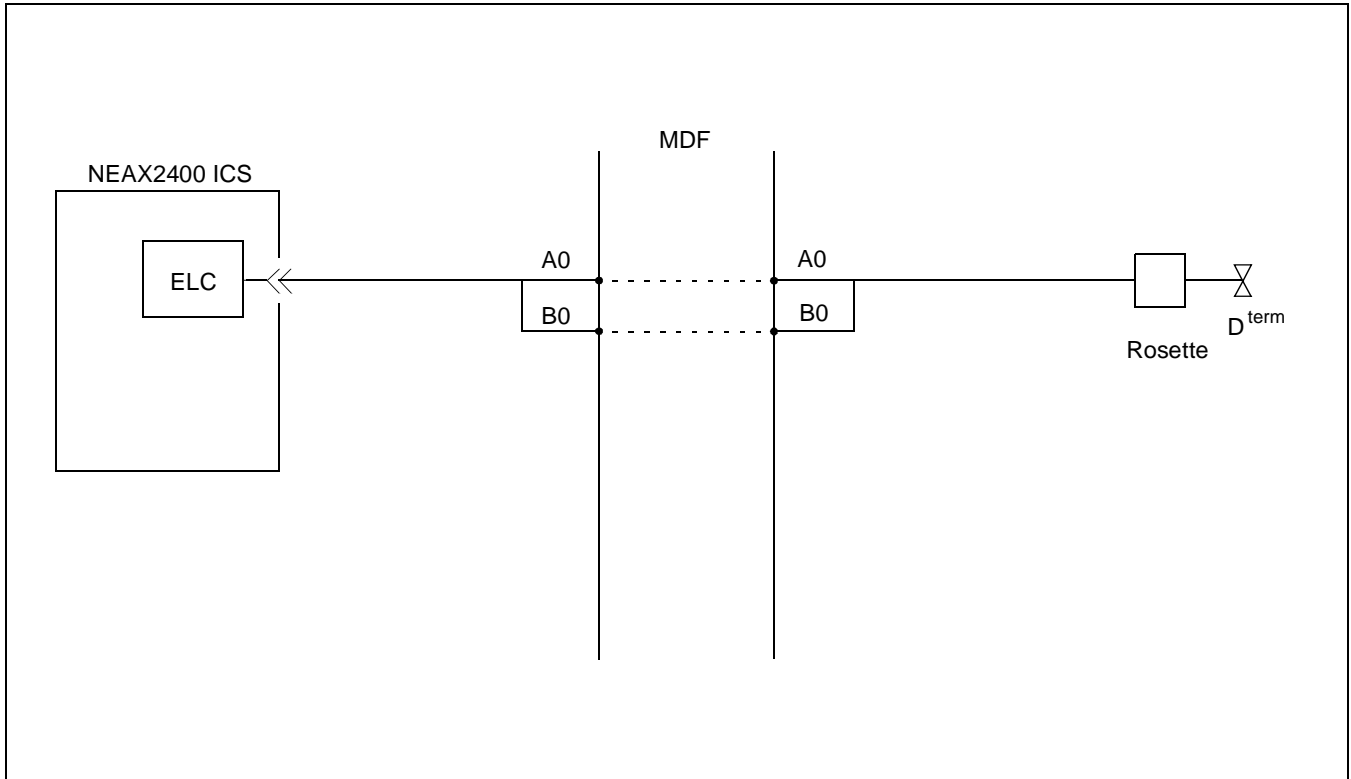


Figure 4-11 Connecting Route Diagram

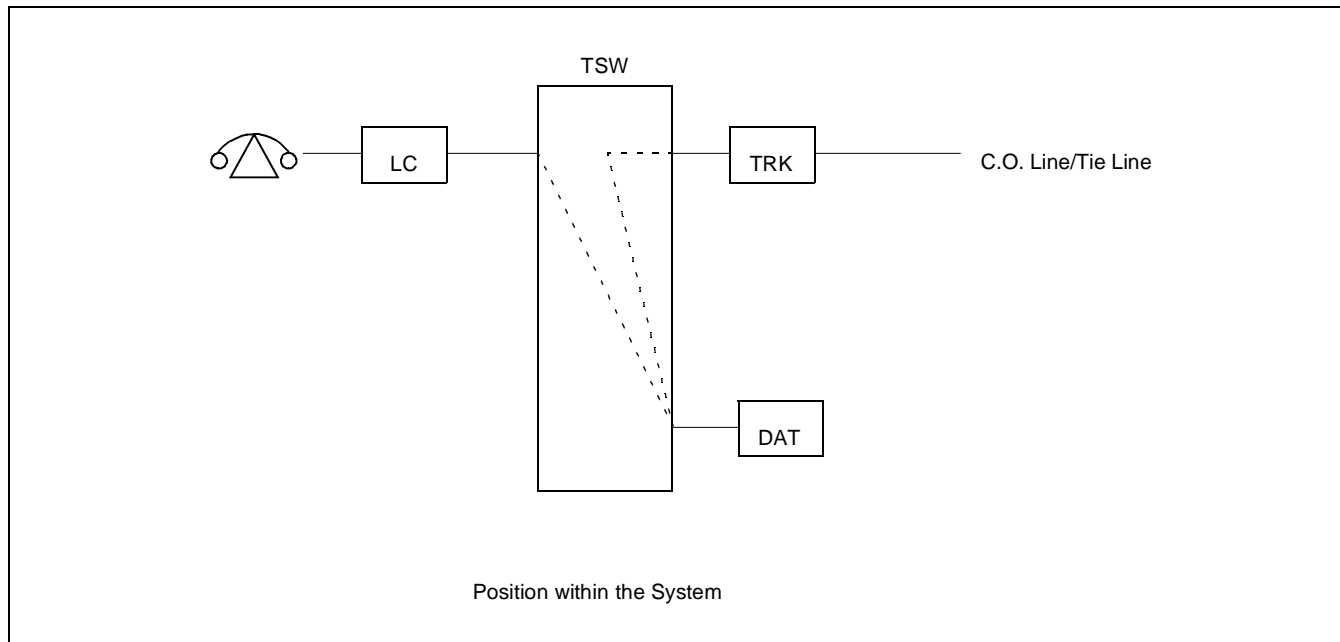
Switch Setting Sheet

MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
PIM		SW01	ON ↑ 	
		MB	DOWN	Circuit card make busy cancel.

PA-4DATA (4DAT)

1. Function

This circuit card is a trunk card which supports the announcement function for a maximum of four lines without external announcement equipment. A message for an announcement recorded in this circuit card can be rewritten in any way desired.



2. Mounting Location/Condition

The mounting locations of this circuit card and the conditions related to mounting are shown below.

(a) When this circuit card is mounted in PIMA

Mounting Module				PIMU-A																				
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
								●																

Note: ● Indicates that the slots are a universal slot for line/trunk circuit cards.

PA-4DATA (4DAT)

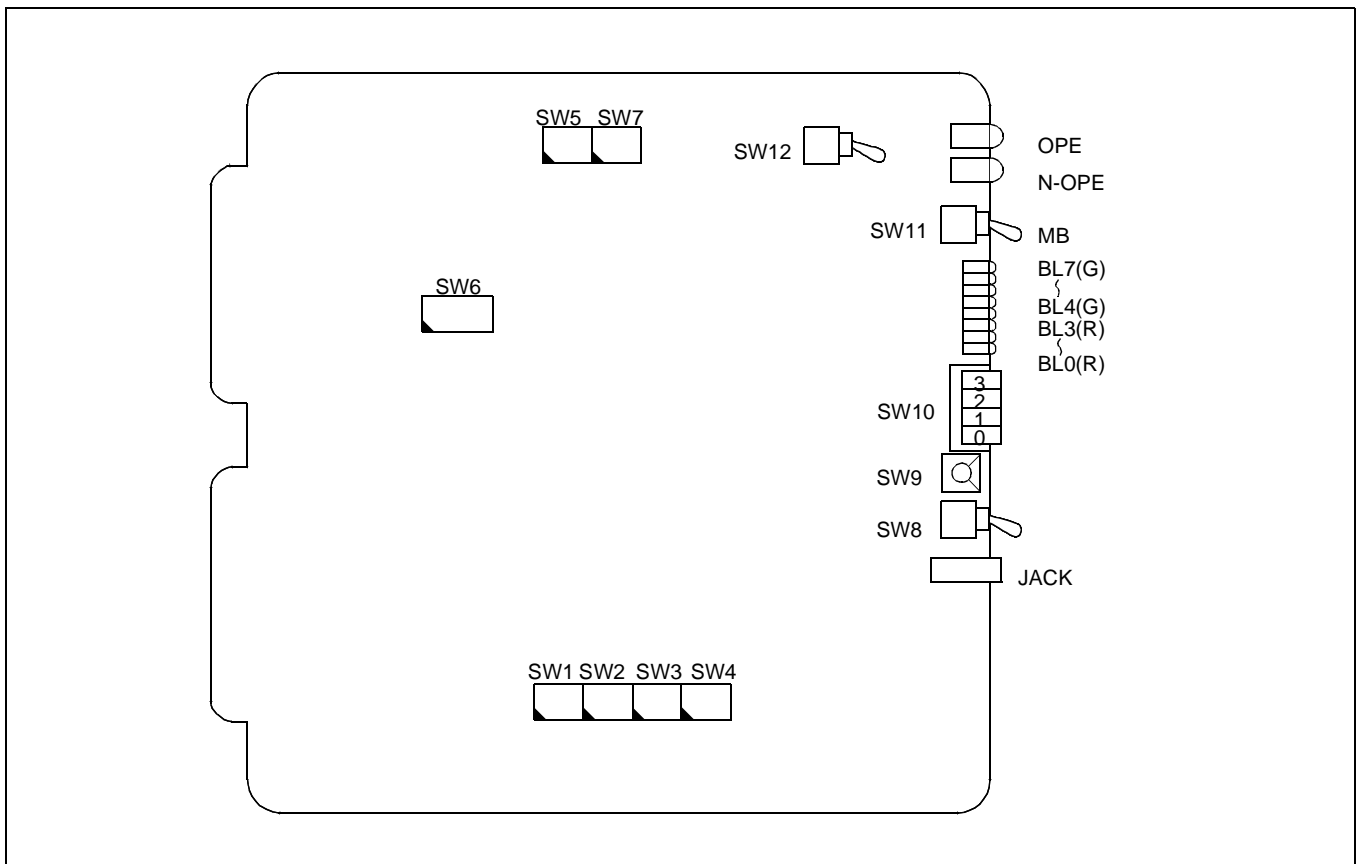
(b) When this circuit card is mounted in PIMB

Mounting Module				PIMB																				
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	

Note: ● Indicates that the slots are a universal slot for line/trunk circuit cards.

3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.



4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

LAMP NAME	COLOR	STATE
OPE	Green	Remains lit while this circuit card is operating.
N-OPE	Red	Remains lit while this circuit card is in make-busy state.
BL4	Green	Lights when the corresponding circuit (circuits No. 0 through No. 3) is busy.
BL7	Flash	Flashes while message recording is in progress on the correspond-circuit (circuits No. 0 through No. 3).
BL0	Red	Lights when the corresponding circuit (circuits No. 0 through No. 3) is busy.
BL3	Flash	Flashes when the corresponding circuit (circuits No. 0 through No. 3) is in make-busy state or is not assigned in the system.

PA-4DATA (4DAT)

5. Switch Settings

Standard settings of various switches on this circuit card are shown in the table below.

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING																										
MB (SW11)		UP		Circuit card make busy.																										
		DOWN	×	Circuit card make idle.																										
	SW1 (for Circuit No. 0)	1			<table border="1"> <thead> <tr> <th colspan="5">SETTING OF TIMER FOR EACH CIRCUIT</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>TIMER (MODE)</th> </tr> </thead> <tbody> <tr> <td>ON</td> <td>ON</td> <td>OFF</td> <td>ON</td> <td>16-sec. mode</td> </tr> <tr> <td>ON</td> <td>ON</td> <td>ON</td> <td>OFF</td> <td>32-sec. mode</td> </tr> <tr> <td>OFF</td> <td>OFF</td> <td>OFF</td> <td>OFF</td> <td>60-sec. mode</td> </tr> </tbody> </table> <p>Note 1: 16-sec. mode = 4 recording circuits 32-sec. mode = 2 recording circuits 60-sec. mode = 1 recording circuit.</p> <p>Note 2: For each circuit, SW1 ~ SW4 must be set in the same way. (Two different modes cannot be assigned.)</p>	SETTING OF TIMER FOR EACH CIRCUIT					1	2	3	4	TIMER (MODE)	ON	ON	OFF	ON	16-sec. mode	ON	ON	ON	OFF	32-sec. mode	OFF	OFF	OFF	OFF	60-sec. mode
			SETTING OF TIMER FOR EACH CIRCUIT																											
			1	2		3	4	TIMER (MODE)																						
ON			ON	OFF		ON	16-sec. mode																							
ON	ON	ON	OFF	32-sec. mode																										
OFF	OFF	OFF	OFF	60-sec. mode																										
SW2 (for Circuit No. 1)	2																													
SW3 (for Circuit No. 2)	3																													
SW4 (for Circuit No. 3)	4																													
SW5	1			<table border="1"> <thead> <tr> <th colspan="3">SETTING OF ANNOUNCEMENT RECORDING/PLAYBACK TIME</th> </tr> <tr> <th>SW5-1</th> <th>SW5-2</th> <th>RECORDING/PLAYBACK TIME</th> </tr> </thead> <tbody> <tr> <td>OFF</td> <td>ON</td> <td>16-sec. Recording/Playback</td> </tr> <tr> <td>ON</td> <td>OFF</td> <td>32-sec. Recording/Playback</td> </tr> <tr> <td>OFF</td> <td>OFF</td> <td>60-sec. Recording/Playback</td> </tr> </tbody> </table> <p>Note 3: Set the Recording/Playback Timer in the same way as set by SW1 ~ SW4.</p>	SETTING OF ANNOUNCEMENT RECORDING/PLAYBACK TIME			SW5-1	SW5-2	RECORDING/PLAYBACK TIME	OFF	ON	16-sec. Recording/Playback	ON	OFF	32-sec. Recording/Playback	OFF	OFF	60-sec. Recording/Playback											
		SETTING OF ANNOUNCEMENT RECORDING/PLAYBACK TIME																												
	SW5-1	SW5-2	RECORDING/PLAYBACK TIME																											
	OFF	ON	16-sec. Recording/Playback																											
	ON	OFF	32-sec. Recording/Playback																											
	OFF	OFF	60-sec. Recording/Playback																											
	2																													
	3	ON	×	To be used by μ -Law.																										
OFF			To be used by A-Law.																											
4	ON		When using as an external hold tone source																											
	OFF		When using as announcement equipment only																											

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
SW6	1	ON		One-time playback by Circuit No. 0. Note
		OFF		Repeated playback by Circuit No. 0.
	2	ON		One-time playback by Circuit No. 1. Note
		OFF		Repeated playback by Circuit No. 1.
	3	ON		One-time playback by Circuit No. 2. Note
		OFF		Repeated playback by Circuit No. 2.
	4	ON		One-time playback by Circuit No. 3. Note
		OFF		Repeated playback by Circuit No. 3.
	5	OFF	×	Fixed
	6	OFF	×	Fixed
	7	OFF	×	Not used
	8	ON		Recording from a telephone set
OFF		×	Normal setting	
Note: For announcement-like Automated Attendant, etc., set one-time playback (ON). For Attendant Delay Announcement, set repeated playback (OFF).				
SW7	1	OFF	×	Fixed
	2	OFF	×	Fixed
	3	OFF	×	Not used
	4	OFF	×	Not used
SW8 (START KEY)		UP		Setting for recording start from a tape recorder or for playback start.
		DOWN	×	Normal setting

PA-4DATA (4DAT)

SWITCH NAME	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
SW9 Note		E		Set to E while the circuit card is in use as announcement equipment only.
		0		Designation of Circuit No. 0. The timer is 16-sec. mode.
		1		Designation of Circuit No. 1. The timer is 16-sec. mode.
		2		Designation of Circuit No. 2. The timer is 16-sec. mode.
		3		Designation of Circuit No. 3. The timer is 16-sec. mode.
		4		Designation of Circuits No. 0 and No. 1. The timer is 32-sec. mode.
		5		Designation of Circuits No. 2 and No. 3. The timer is 32-sec. mode.
		6		Designation of All Circuits. The timer is 60-sec. mode.
		F		Recording from a telephone set.
SW10	0	ON		Circuit No. 0 make busy request. Circuit No. 0 is designated during a recording.
		OFF	×	Circuit No. 0 make busy request cancel.
	1	ON		Circuit No. 1 make busy request. Circuit No. 1 is designated during a recording.
		OFF	×	Circuit No. 1 make busy request cancel.
	2	ON		Circuit No. 2 make busy request. Circuit No. 2 is designated during a recording.
		OFF	×	Circuit No. 2 make busy request cancel.
	3	ON		Circuit No. 3 make busy request. Circuit No. 3 is designated during a recording.
		OFF	×	Circuit No. 3 make busy request cancel.
SW12 (WR KEY)		UP		Recording from a tape recorder. (WRITE mode)
		DOWN	×	Normal setting

Note: When this circuit card is being used as an external hold tone source, set 0, 4 or 6 by timer mode.

6. External Interface

Accommodation of the LT connector leads of this circuit card and connecting route diagram are shown below.

(a) LT Connector Lead Accommodation when this circuit card is mounted in PIMA

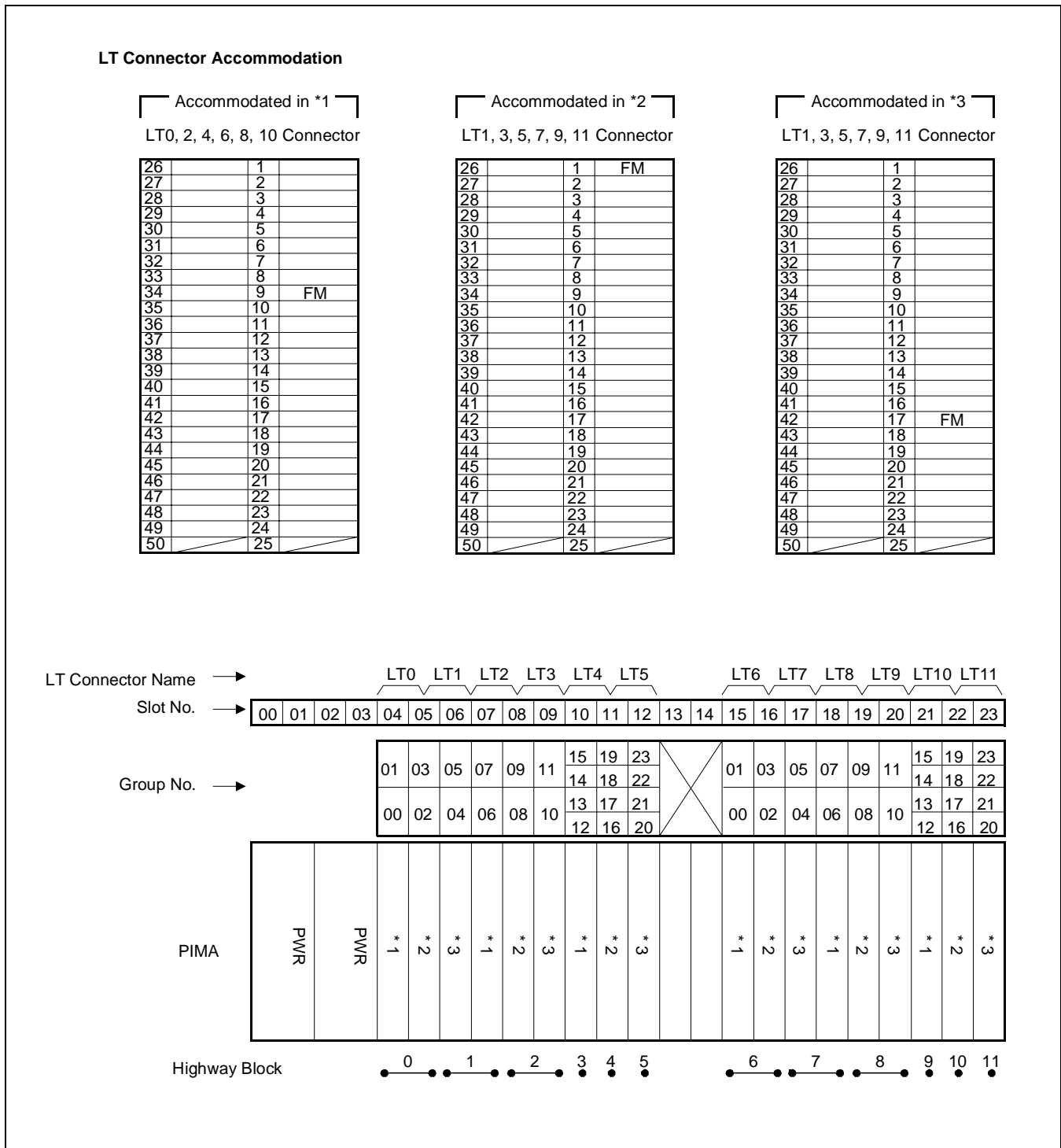


Figure 4-12 LT Connector Leads Accommodation of PIMU-A

(b) LT Connector Lead Accommodation when this circuit card is mounted in PIMB

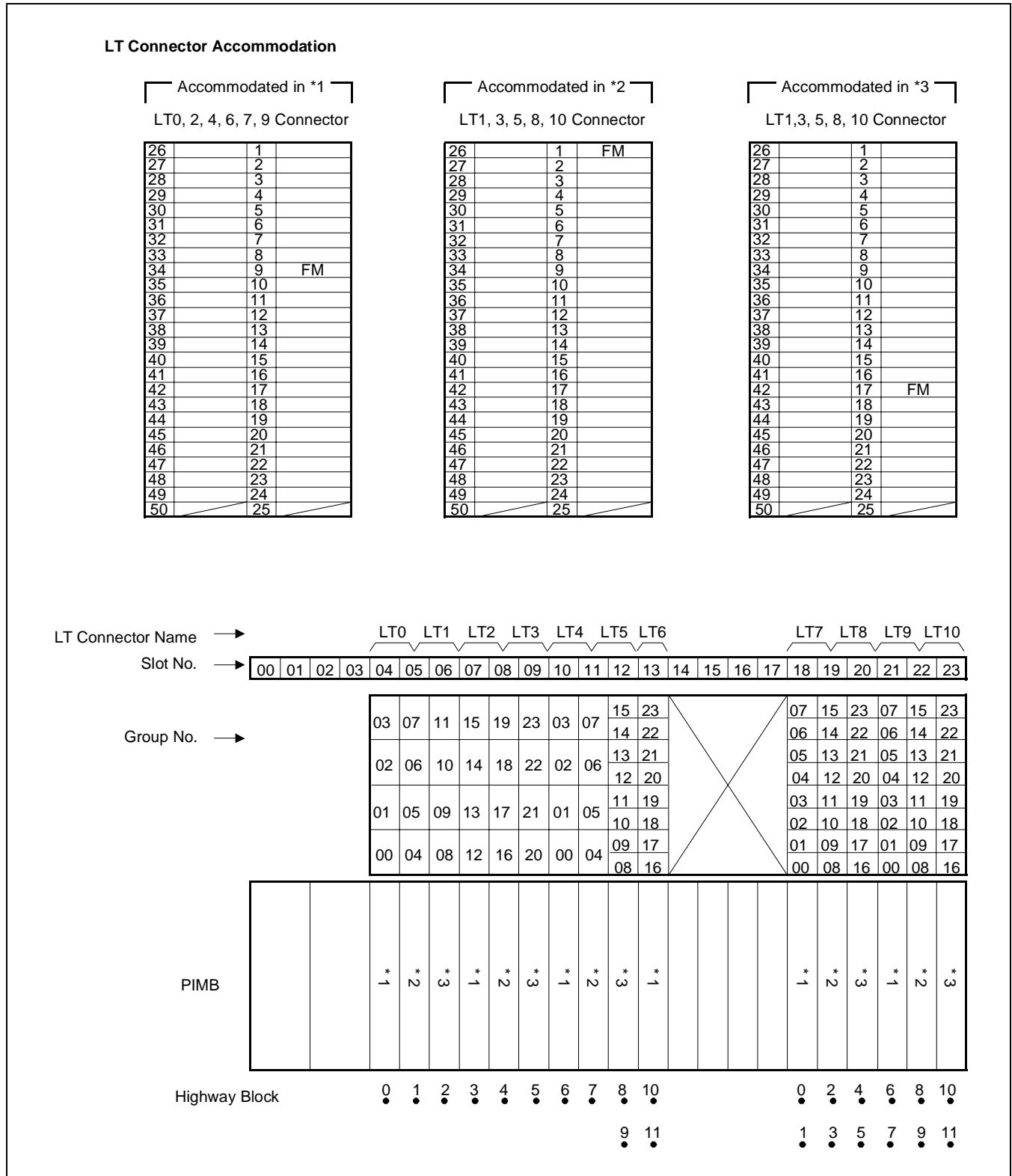
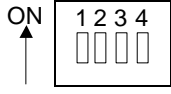
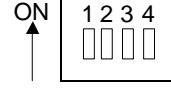
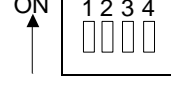




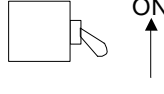

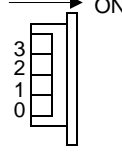
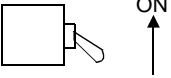


Figure 4-13 LT Connector Leads Accommodation of PIMB

Switch Setting Sheet

MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
PIM		SW1		
		SW2		
		SW3		
		SW4		
		SW5		
		SW6		
		SW7		
		SW8		
		SW9		
		SW10		

Switch Setting Sheet (Continued)

MODULE	SLOT NO.	SWITCH NAME	SWITCH SHAPE	REMARKS
		SW12		
		MB	DOWN	Circuit card make idle.

PA-4DATB (DAT)

1. General Function

The PA-4DATB (DAT) circuit card is used as a Digital Announcement Trunk supporting service features related to announcement functions such as Automated Attendant, Delay Announcement Attendant, Announcement Service (for Hotel System). Depending on the switch setting, this circuit card works in one of the following three modes.

- 64-second mode (maximum 4 CHs/card)
- 128-second mode (maximum 2 CHs/card)
- 240-second mode (maximum 1 CH/card)

A message can be recorded from either a tape recorder or a telephone set. In addition, this circuit card can be used as an external music source.

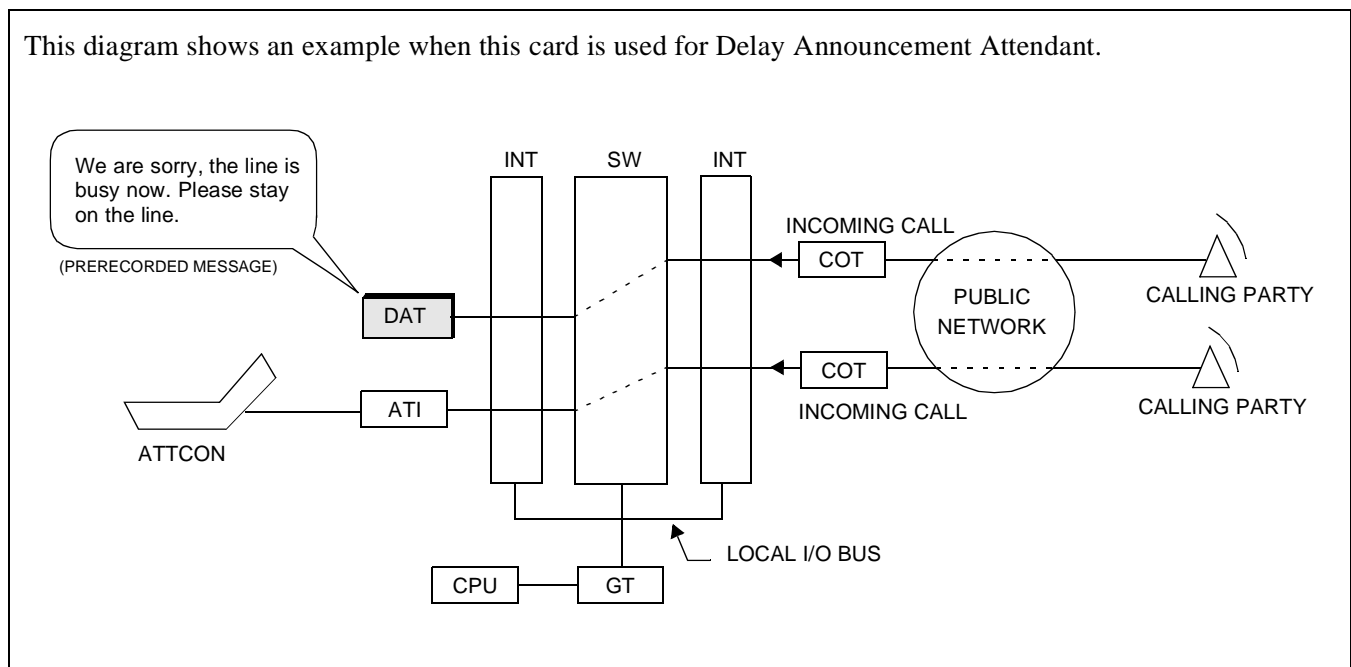


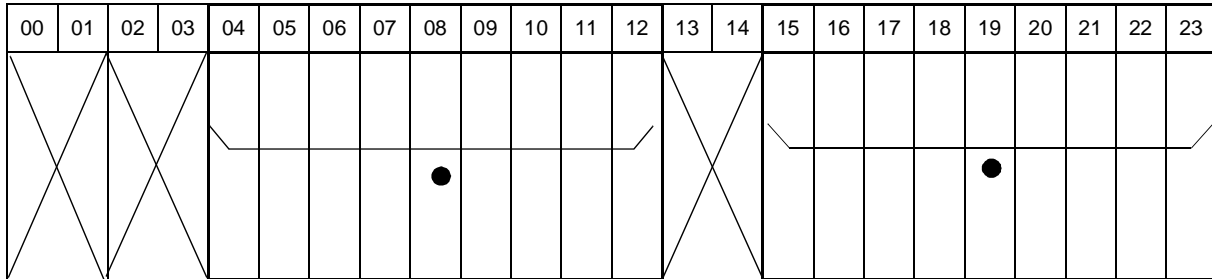
Figure 4-14 Location of PA-4DATB (DAT) card within the system

PA-4DATB (DAT)

2. Mounting Location/Condition

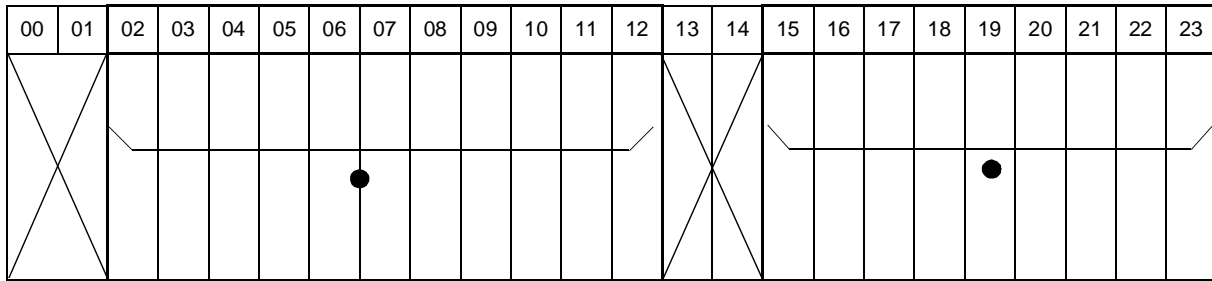
The PA-4DATB (DAT) card can be mounted in any universal slot as shown below.

Mounting Module	PIMU-A
-----------------	--------



Note: ● Indicates universal slots for line/trunk circuit cards.

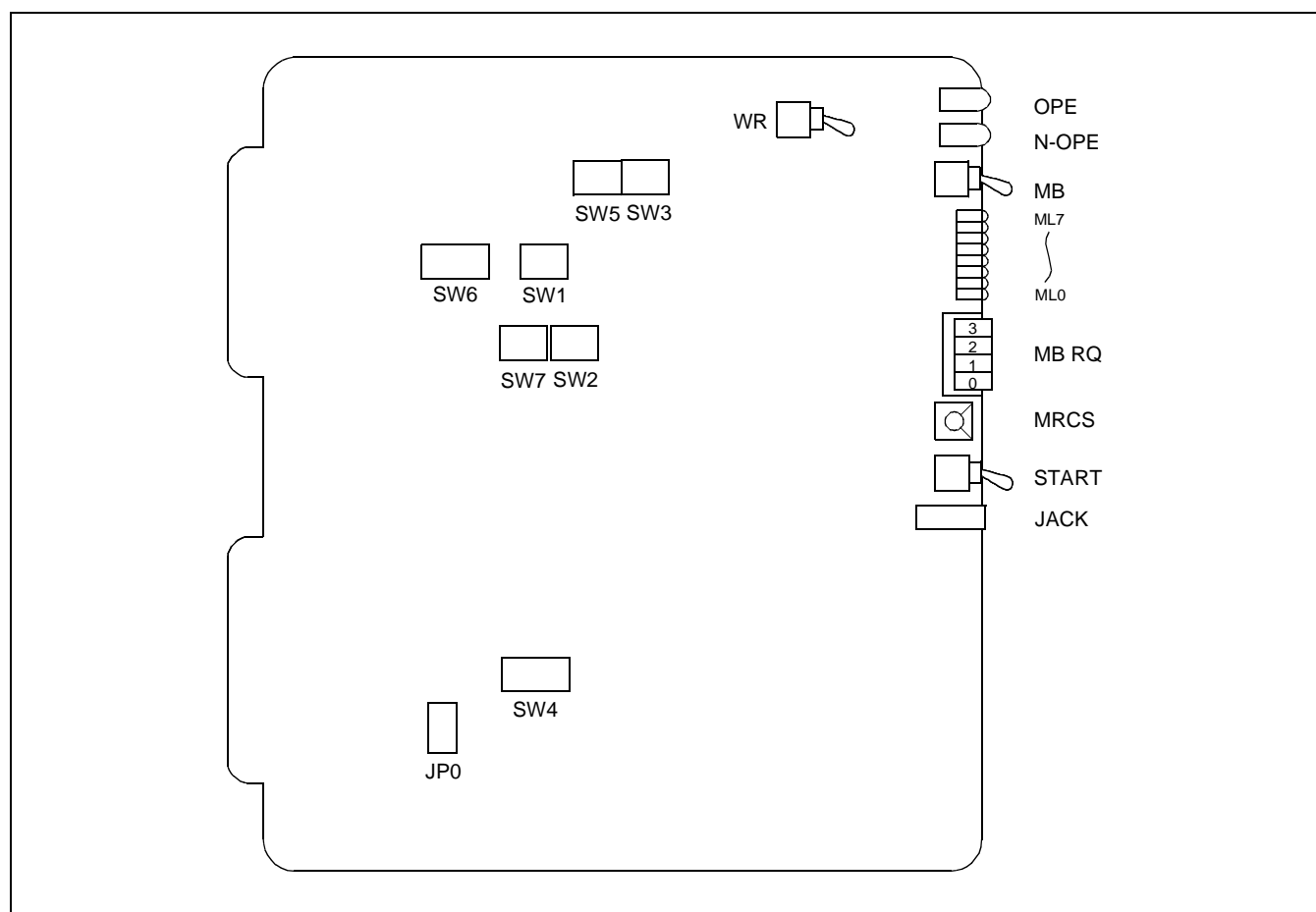
Mounting Module	PIME
-----------------	------



Note: ● Indicates universal slots for line/trunk circuit cards.

3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors on this circuit card is shown below.



4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

LAMP	COLOR	STATE
OPE	Green	Remains lit while this circuit card is operating.
N-OPE	Red	Remains lit while this circuit card is in make-busy state.
BL4 ? BL7	Green	Lights when the corresponding circuit (No 0 through No. 3 circuits) is connected to a recording source.
	Flash	Flashes while message recording is in progress on the corresponding circuit (No. 0 through No. 3 circuit).
BL0 ? BL3	Red	Lights when the corresponding circuit (No. 0 through No. 3 circuits) is busy.
	Flash	Flashes when the corresponding circuit (No. 0 through No. 3 circuits) is in make-busy state or has not been assigned in the system.

PA-4DATB (DAT)

5. Switch Settings

Standard settings of switches on this circuit card are shown in the table below.

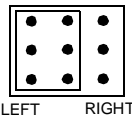
SWITCH	SWITCH NO.	SETTING	STANDARD SETTING	MEANING																														
MB		UP		Circuit card make busy.																														
		DOWN	×	Circuit card make busy cancel.																														
MB RQ	1-4	ON		Make busy request on a channel basis (Channel Designation for Recording/Playback)																														
		OFF	×	Make busy request cancel on a channel basis																														
MRCS		0		<table border="1"> <thead> <tr> <th colspan="3">SETTING OF RECORDING MODE</th> </tr> <tr> <th>SWITCH NO.</th> <th>MODE</th> <th>Channel</th> </tr> </thead> <tbody> <tr> <td>0</td> <td rowspan="3">64-sec. mode</td> <td>0</td> </tr> <tr> <td>1</td> <td>1</td> </tr> <tr> <td>2</td> <td>2</td> </tr> <tr> <td>3</td> <td rowspan="3">128-sec. mode</td> <td>3</td> </tr> <tr> <td>4</td> <td>0, 1</td> </tr> <tr> <td>5</td> <td>2, 3</td> </tr> <tr> <td>6</td> <td>240-sec. mode</td> <td>0, 1, 2, 3</td> </tr> </tbody> </table>	SETTING OF RECORDING MODE			SWITCH NO.	MODE	Channel	0	64-sec. mode	0	1	1	2	2	3	128-sec. mode	3	4	0, 1	5	2, 3	6	240-sec. mode	0, 1, 2, 3							
		SETTING OF RECORDING MODE																																
		SWITCH NO.	MODE		Channel																													
		0	64-sec. mode		0																													
		1			1																													
		2			2																													
		3	128-sec. mode		3																													
		4			0, 1																													
5	2, 3																																	
6	240-sec. mode	0, 1, 2, 3																																
1																																		
2																																		
3																																		
4																																		
5																																		
6																																		
7																																		
SW1 ? SW4		Each Switch corresponds to each channel of DAT: channel SW1: channel 0 SW2: channel 1 SW3: channel 2 SW4: channel 3		<table border="1"> <thead> <tr> <th colspan="5">SETTING OF TIMER FOR EACH CIRCUIT</th> </tr> <tr> <th>1</th> <th>2</th> <th>2</th> <th>4</th> <th>TIMER (MODE)</th> </tr> </thead> <tbody> <tr> <td>ON</td> <td>ON</td> <td>OFF</td> <td>ON</td> <td>64-sec. mode</td> </tr> <tr> <td>ON</td> <td>ON</td> <td>ON</td> <td>OFF</td> <td>128-sec mode</td> </tr> <tr> <td>OFF</td> <td>OFF</td> <td>OFF</td> <td>OFF</td> <td>240-sec. mode</td> </tr> <tr> <td>ON</td> <td>ON</td> <td>ON</td> <td>ON</td> <td>Not available</td> </tr> </tbody> </table>	SETTING OF TIMER FOR EACH CIRCUIT					1	2	2	4	TIMER (MODE)	ON	ON	OFF	ON	64-sec. mode	ON	ON	ON	OFF	128-sec mode	OFF	OFF	OFF	OFF	240-sec. mode	ON	ON	ON	ON	Not available
SETTING OF TIMER FOR EACH CIRCUIT																																		
1	2	2	4	TIMER (MODE)																														
ON	ON	OFF	ON	64-sec. mode																														
ON	ON	ON	OFF	128-sec mode																														
OFF	OFF	OFF	OFF	240-sec. mode																														
ON	ON	ON	ON	Not available																														

SWITCH	SWITCH NO.	SETTING	STANDARD SETTING	MEANING															
SW5	1			<table border="1"> <thead> <tr> <th colspan="3">SETTING OF ANNOUNCEMENT RECORDING/PLAYBACK TIME</th> </tr> <tr> <th>SW5-1</th> <th>SW5-2</th> <th>RECORDING/PLAYBACK TIME</th> </tr> </thead> <tbody> <tr> <td>OFF</td> <td>ON</td> <td>64-sec. Recording/Playback</td> </tr> <tr> <td>ON</td> <td>OFF</td> <td>128-sec. Recording/Playback</td> </tr> <tr> <td>OFF</td> <td>OFF</td> <td>240-sec. Recording/Playback</td> </tr> </tbody> </table>	SETTING OF ANNOUNCEMENT RECORDING/PLAYBACK TIME			SW5-1	SW5-2	RECORDING/PLAYBACK TIME	OFF	ON	64-sec. Recording/Playback	ON	OFF	128-sec. Recording/Playback	OFF	OFF	240-sec. Recording/Playback
		SETTING OF ANNOUNCEMENT RECORDING/PLAYBACK TIME																	
	SW5-1	SW5-2	RECORDING/PLAYBACK TIME																
	OFF	ON	64-sec. Recording/Playback																
	ON	OFF	128-sec. Recording/Playback																
	OFF	OFF	240-sec. Recording/Playback																
	2			Note: <i>Setting of Recording/Playback Timer should correspond to that of SW1-SW4.</i>															
	3	ON		Compression Law: μ -law															
		OFF		Compression Law: A-law															
	4	ON		To be used as external hold tone source															
OFF			To be used as announcement equipment																
SW6	1	ON		Single playback of No. 0 channel Note 2															
		OFF		Multiple playback of No. 0 channel															
	2	ON		Single playback of No. 1 channel Note 2															
		OFF		Multiple playback of No. 1 channel															
	3	ON		Single playback of No. 2 channel Note 2															
		OFF		Multiple playback of No. 2 channel															
	4	ON		Single playback of No. 3 channel Note 2															
		OFF		Multiple playback of No. 3 channel															
	5	ON		RAM Test data - clear															
		OFF	×	RAM Test data - store															
	6	OFF	×	Not used															
	7	OFF	×	Not used															
8	OFF	×	Not used																
Note 3: <i>When this card is used as announcement equipment, SW6-1~SW6-4 should be set OFF.</i>																			
Note 4: <i>For Automated Attendant and Delay Announcement-Attendant, set single playback (ON).</i>																			

PA-4DATB (DAT)

SWITCH	SWITCH NO.	SETTING	STANDARD SETTING	MEANING
SW7	1	ON		Activation of RAMTest
		OFF	×	Normal setting
	2	ON		Port Microprocessor is reset when MBR key is ON.
		OFF	×	Port Microprocessor is not reset when MBR key is ON.
	3	OFF	×	Not used
4	OFF	×	Not used	
WR		UP		For recording from the phone jack
		DOWN	×	Normal setting
START		UP		When starting recording from the phone jack or play-back.
		DOWN	×	Normal setting

Jumper Setting

SWITCH	SWITCH SHAPE	SETTING	DESCRIPTION
JP0		LEFT	Compression Law: μ -law
		RIGHT	Compression Law: A-law

6. External Interface

When this card is used as an external music-on-hold source, the following cable connection is required.

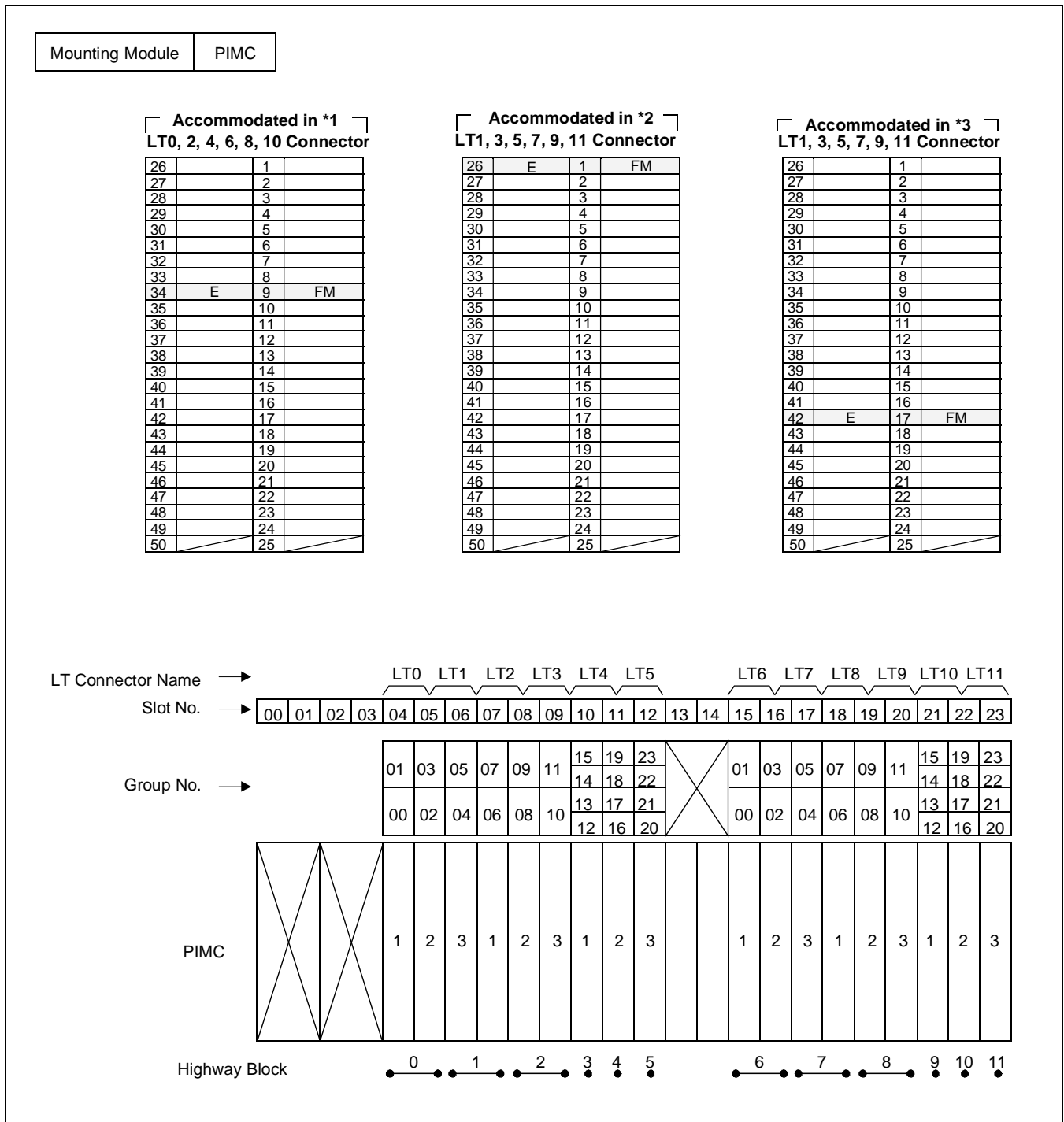


Figure 4-15 LT Connector Lead Accommodation (PIMU-A)

Mounting Module	PIME
-----------------	------

Accommodated in *1
LT0, 2, 4, 6, 8, 10, 12, 14 Connector

26		1	
27		2	
28		3	
29		4	
30		5	
31		6	
32		7	
33		8	
34	E	9	FM
35		10	
36		11	
37		12	
38		13	
39		14	
40		15	
41		16	
42		17	
43		18	
44		19	
45		20	
46		21	
47		22	
48		23	
49		24	
50		25	

Accommodated in *2
LT1, 3, 5, 7, 9, 11, 13, 15 Connector

26	E	1	FM
27		2	
28		3	
29		4	
30		5	
31		6	
32		7	
33		8	
34		9	
35		10	
36		11	
37		12	
38		13	
39		14	
40		15	
41		16	
42		17	
43		18	
44		19	
45		20	
46		21	
47		22	
48		23	
49		24	
50		25	

Accommodated in *3
LT1, 3, 5, 7, 9, 11, 13, 15 Connector

26		1	
27		2	
28		3	
29		4	
30		5	
31		6	
32		7	
33		8	
34		9	
35		10	
36		11	
37		12	
38		13	
39		14	
40		15	
41		16	
42	E	17	FM
43		18	
44		19	
45		20	
46		21	
47		22	
48		23	
49		24	
50		25	

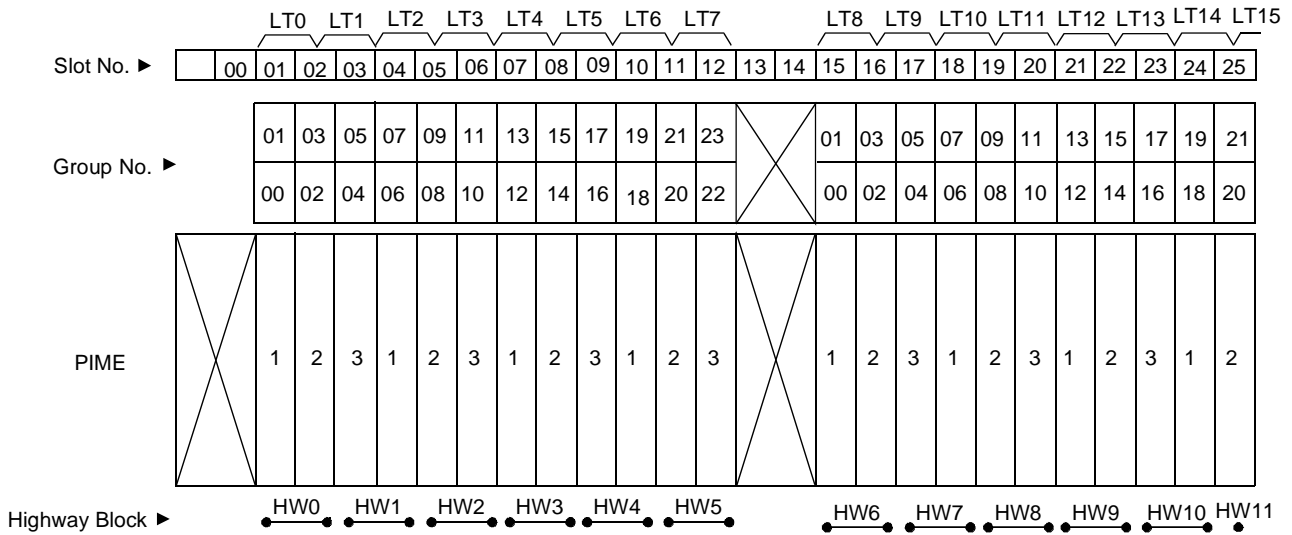


Figure 4-16 LT Connector Lead Accommodation (PIME)

7. Reference

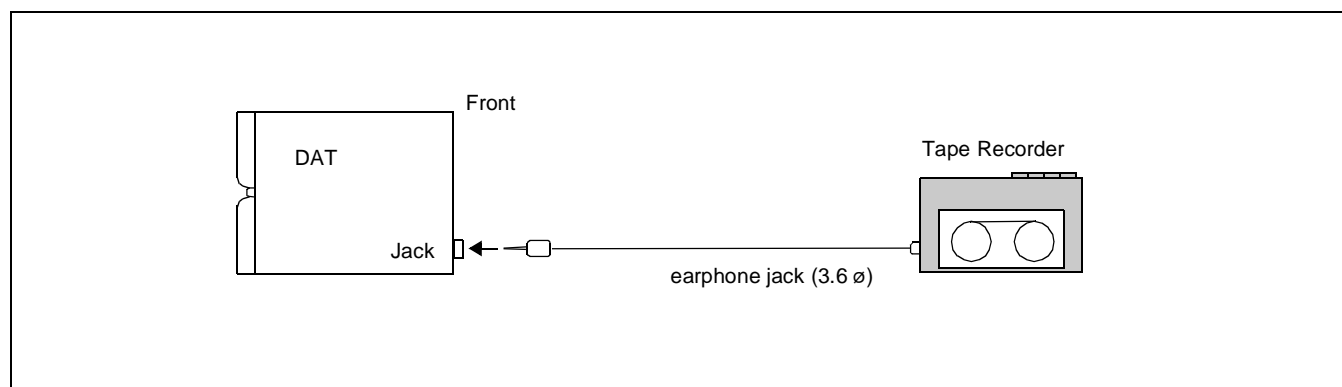
How to Record a Message

- Prior to your recording, set switches on the DAT card according to the following example.

SWITCH	SETTING	DESCRIPTION
SW1		Timer Value for Channel 0-3: 240 sec.
SW4		
SW5		Circuit Card Timer: 60 sec. A-law/ μ -law: A-law External Music Source/ Announcement Equipment: Announcement Equipment
SW6		Single/Repeated Playback: Repeated Playback
MRCS		Channel Designation: 240 sec mode

SWITCH SETTINGS ON DAT (Example <240 sec mode>)

- Connect a tape recorder to the DAT card with a cable.



- Turn On the MBRQ key to make busy a channel to be recorded.
(To record a message in the 240 sec. mode, all circuits must be placed into MB state.)
- Turn the WR key upwards.
(The corresponding BL lamp lights green indicating the tape recorder has been connected to the circuit.)
- Turn the START key upwards.
(The corresponding BL lamp starts flashing.)
- Start the tape recorder and record your message in the designated channel.

<recording>

- The corresponding BL lamp (BL0 ~ BL7) lights steadily. (Recording ends.)
- Return the START, WR key to the previous position.

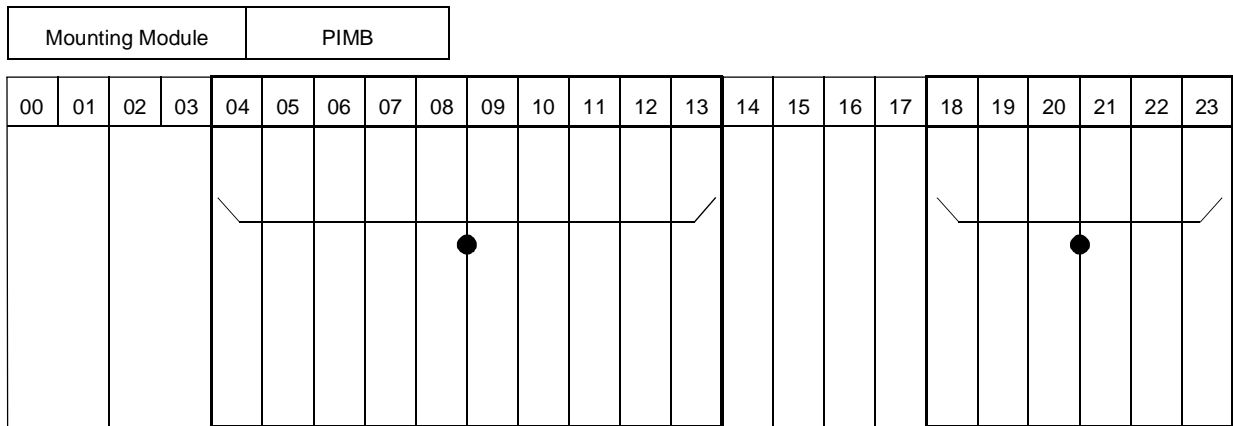
PA-4DATB (DAT)

How to Play Back the Recorded Message

- Playback from a telephone set
 - Set the related switches on the PA-4DATB (DAT) card.
 - Seize a specific channel by “Individual Trunk Access”.
 - Hear the recorded message.
- Playback from the phone jack on PA-4DATB (DAT) card.
 - Connect a earphone to the phone jack on the PA-4DATB (DAT) card.
 - Select your desired channel (0~3) by the MRCS switch.
 - Turn the START key upwards.
 - Hear the recorded message.

PA-4DTLA (4DTL)

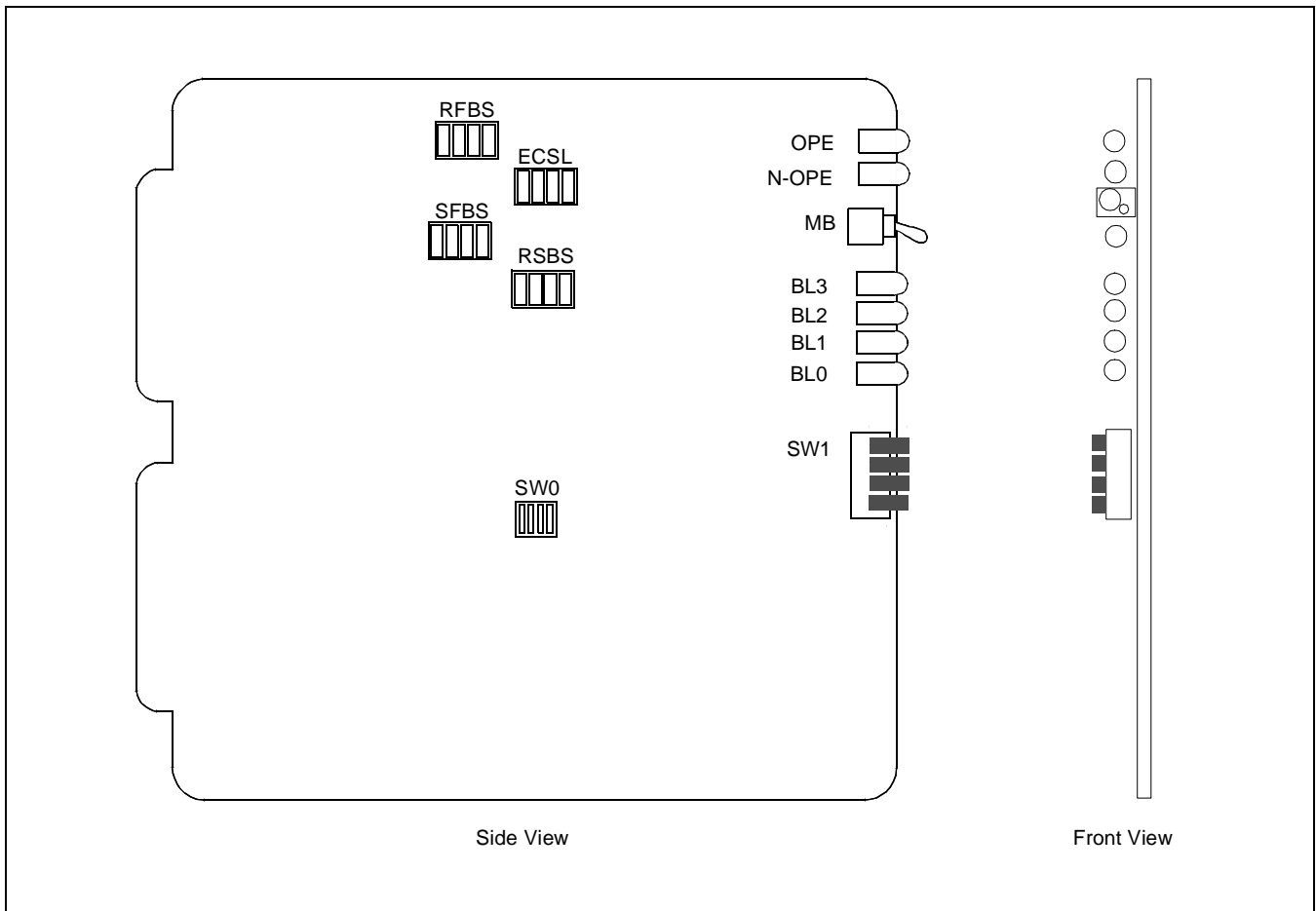
(b) When this circuit card is mounted in PIMB



Note: ● Indicates that the slots are a universal slot for line/trunk circuit cards.

3. Face Layout of Lamps, Switches, and Connectors

The face layout of lamps, switches, and connectors of this circuit card is shown below.



4. Lamp Indications

The contents of lamp indications of this circuit card are shown in the table below.

LAMP NAME	COLOR	Status	STATE
OPE	Green	ON	The Port Microprocessor is operating normally.
N-OPE	Red	ON	The Port Microprocessor is not operating due to MB switch or software.
BL0	Red	ON	The circuit is in use.
BL3		Blinking (1/sec.)	The circuit is out of service due to switch setting or software.

5. Switch Settings

Standard settings of various switches on this circuit card are shown in the table below.

SWITCH TYPE AND NAME	FUNCTION	SWITCH		
		ELEMENT	POSITION	MEANING
Toggle Switch MB	Make Busy (entire circuit card)		UP	Take circuit card out of service.
			DOWN	Normal operation.
“Piano” keys MB0 ~ MB3	Busy out individual circuits	0 ~ 3	UP (left)	Normal operation.
			DOWN (right)	Take corresponding circuit out of service.
Dip Switch SW0		1 ~ 4	Must be ON	
DIP Switch RFBS	Received framing bit control	1 ~ 4 Note	ON	Firmware control; DSR always ON.
			OFF	Hardware control; DSR set by DTE (standard setting).
DIP Switch SFBS	Sent framing bit control	1 ~ 4 Note	ON	Firmware control; DSR always ON.
			OFF	Hardware control; DSR set by DTE (standard setting).
DIP Switch RSBS	Not used	1 ~ 4	OFF	(Standard setting.)
DIP Switch ECSL	Not used	1 ~ 4	OFF	(Standard setting.)
Note: Each switch element (1 ~ 4) controls the corresponding circuit (0 ~ 3).				

PA-4DTLA (4DTL)

6. External Interface

Accommodation of the LT connector leads of this circuit card and connecting route diagram are shown below.

(a) LT Connector Lead Accommodation when this circuit card is mounted in PIMA

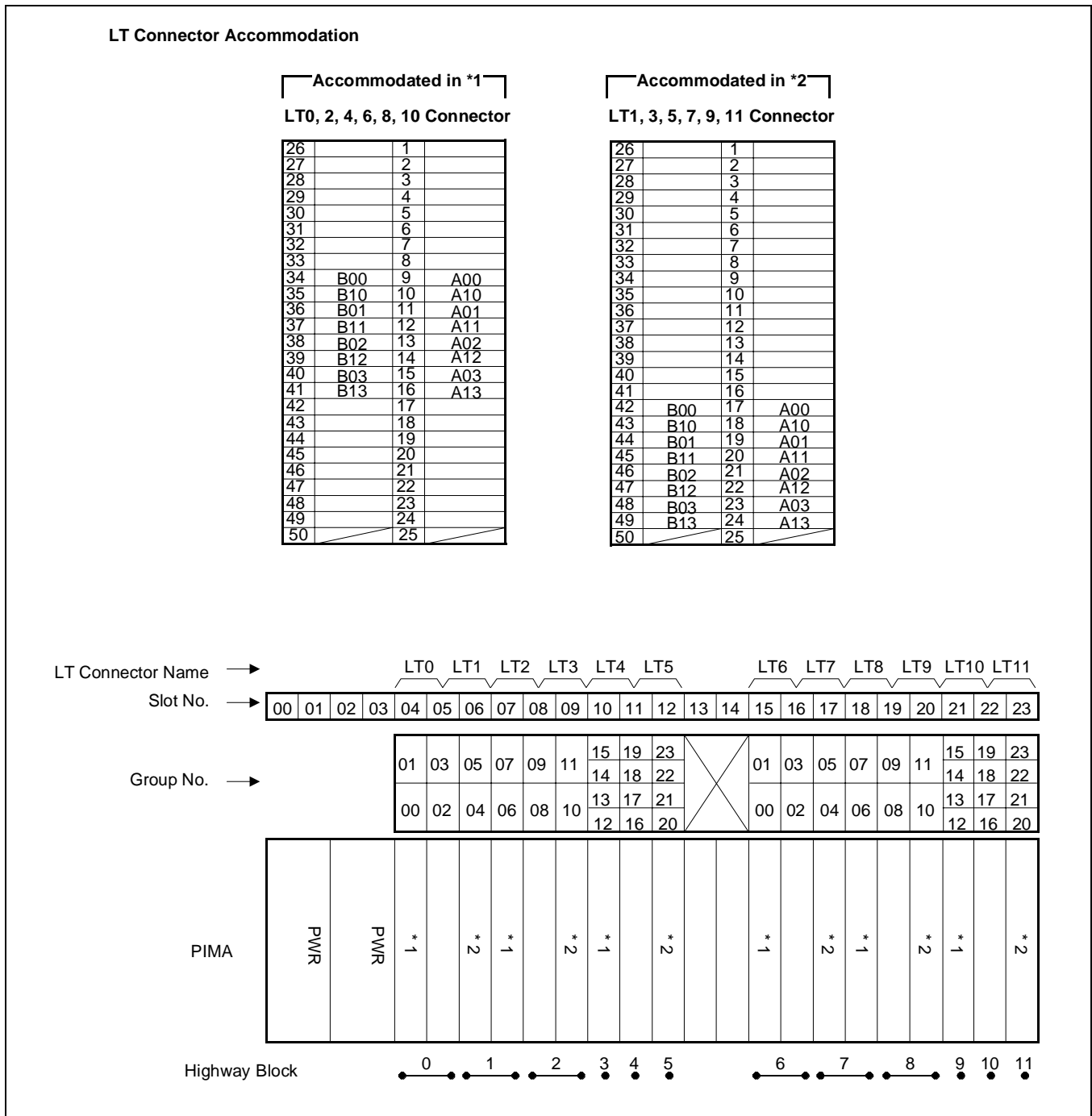


Figure 4-17 LT Connector Leads Accommodation of PIMU-A (1/2)

(b) LT Connector Lead Accommodation when this circuit card is mounted in PIMB

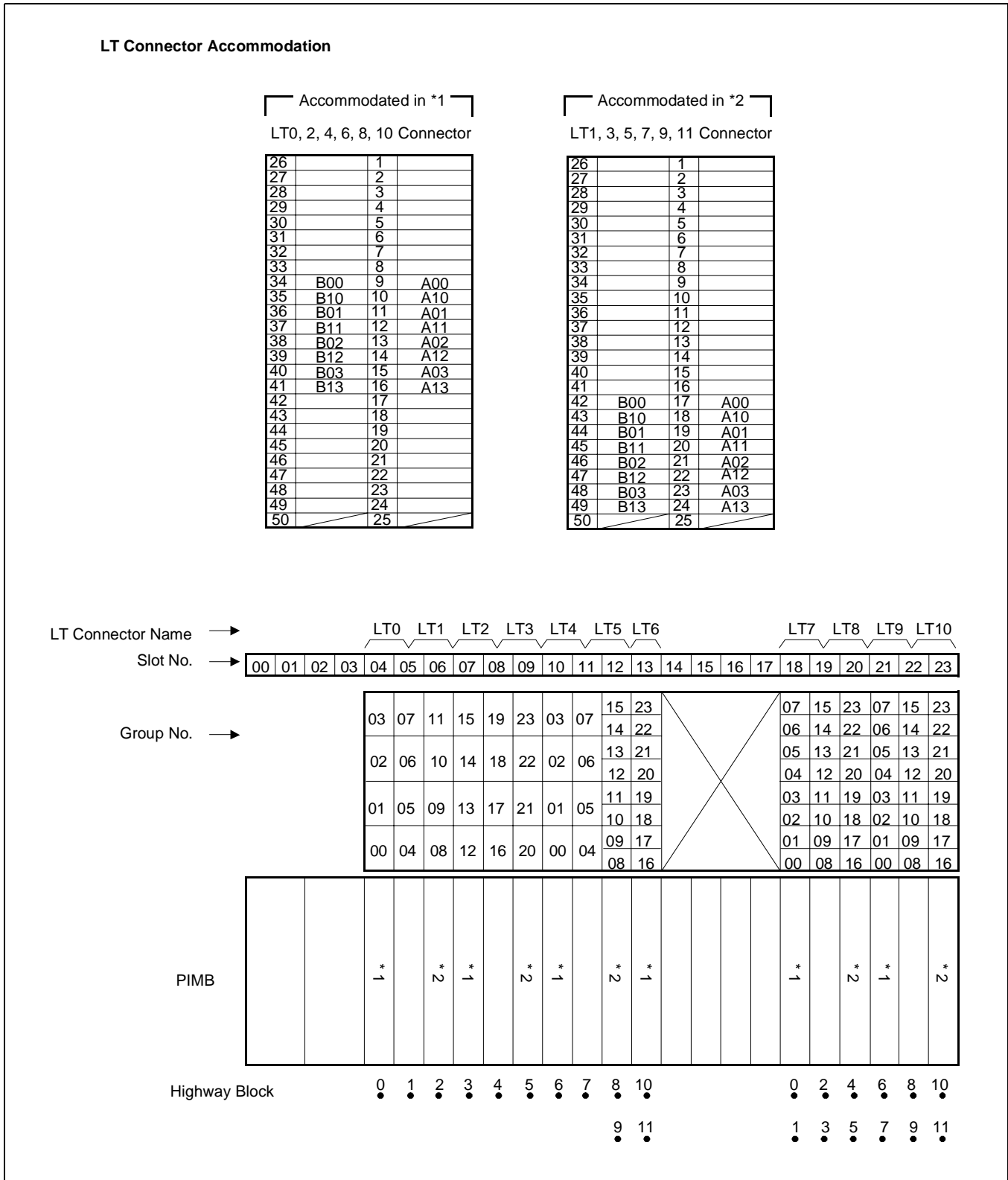


Figure 4-18 LT Connector Leads Accommodation of PIMB (1/2)

LT Connector Accommodation

Accommodated in *3
 LT1, 3, 5, 7, 9, 11 Connector

26	B00	1	A00
27	B10	2	A10
28	B01	3	A01
29	B11	4	A11
30	B02	5	A02
31	B12	6	A12
32	B03	7	A03
33	B13	8	A13
34		9	
35		10	
36		11	
37		12	
38		13	
39		14	
40		15	
41		16	
42		17	
43		18	
44		19	
45		20	
46		21	
47		22	
48		23	
49		24	
50		25	

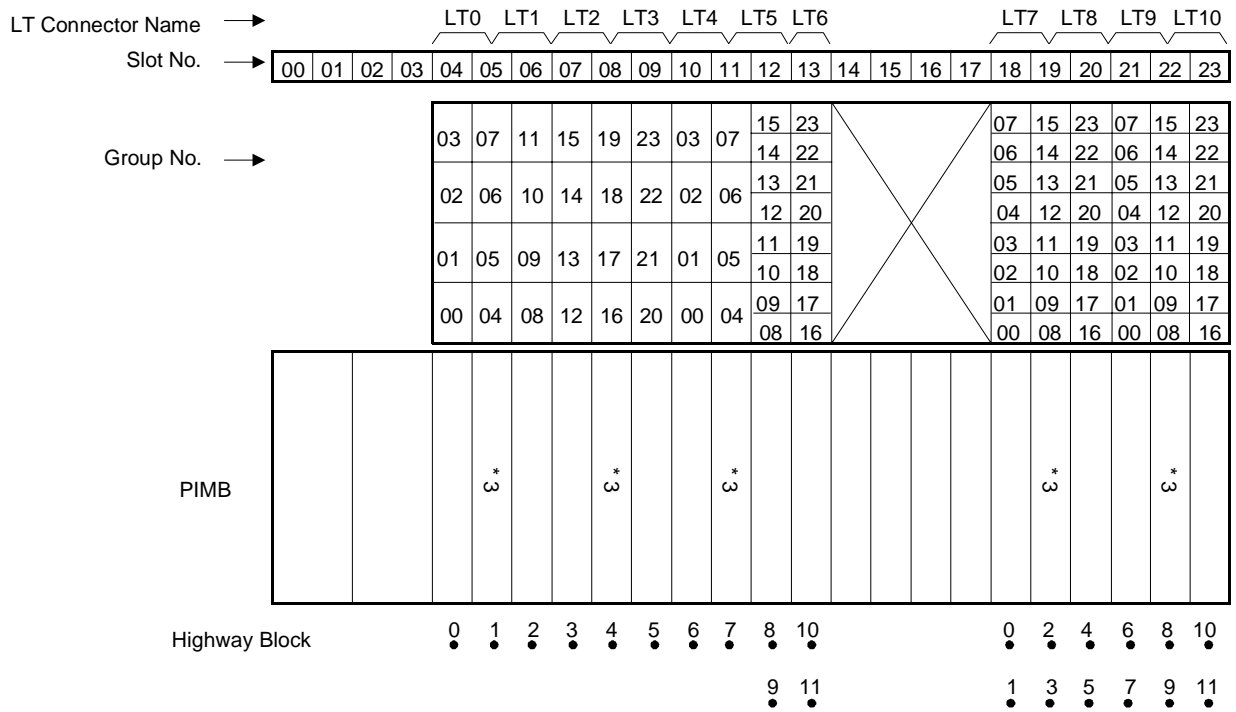
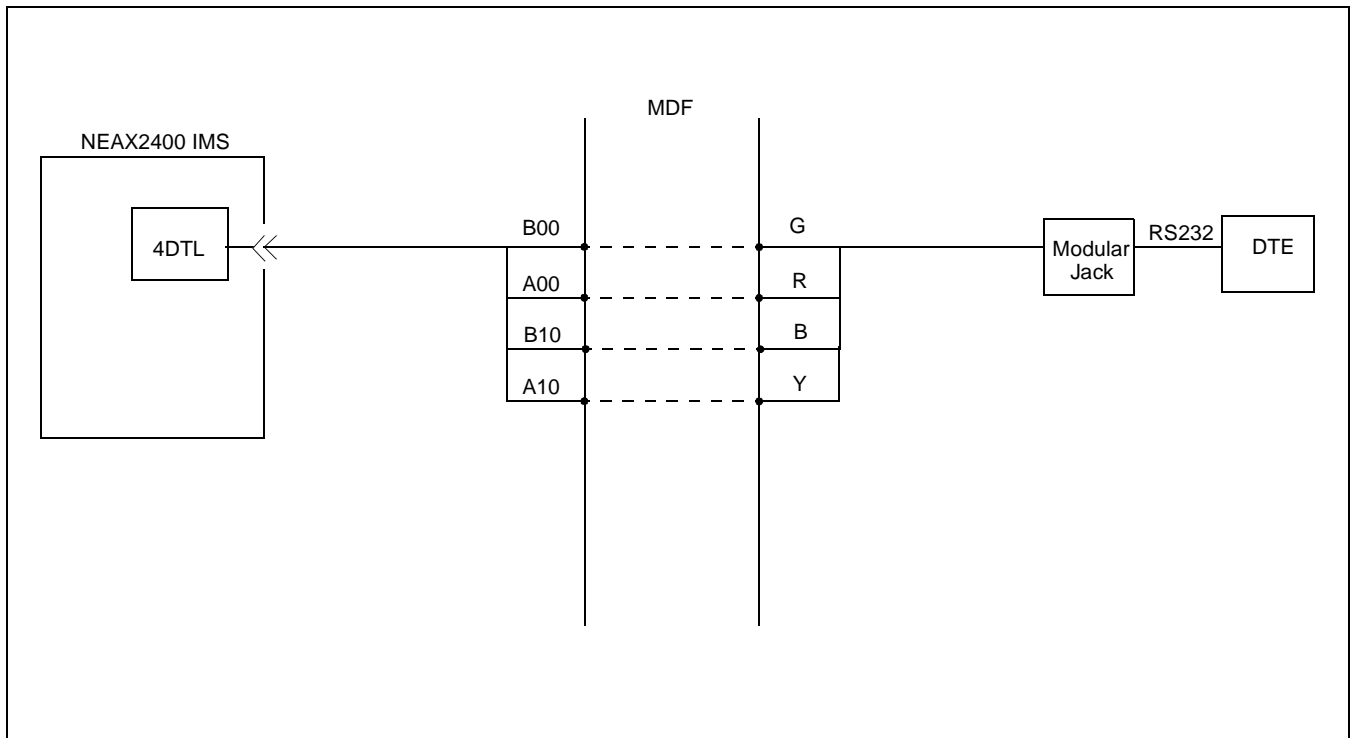


Figure 4-18 LT Connector Leads Accommodation of PIMB (2/2)

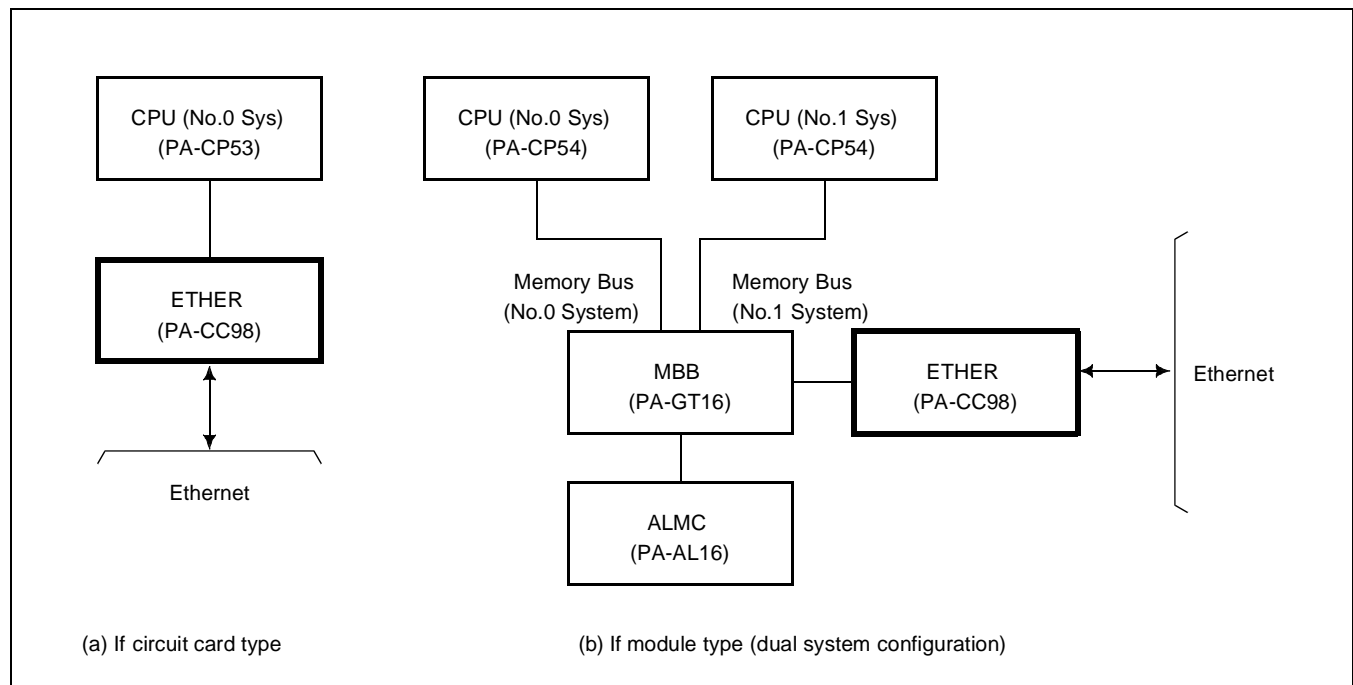


PA-CC98 (ETHER)

Ethernet Controller

1. Functional Outline

In the NEAX2400 ICS OAI System, this circuit card supports the functions for interface between the CPU (IP) circuit card and the external computer. If circuit card type, this circuit card is directly connected with the CPU card (PA-CP53). If module type, being paired with PA-GT (MBB) card, it connects the Interface Processor (IP) and the User Application Processor (UAP) through a LAN.



PA-CC98 (ETHER)

2. Circuit Card Mounting Locations/Conditions

The mounting locations and conditions of this circuit card are shown below.

(a) In the case of circuit card type

- When mounting in the PIMU-A

Mounting Module	PIMU-A
-----------------	--------

00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
								●															

Note: ● Indicates the mounting locations of this circuit card.

- When mounting in the PIMB

Mounting Module	PIMB
-----------------	------

00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
								●															

Note: ● Indicates the mounting locations of this circuit card.

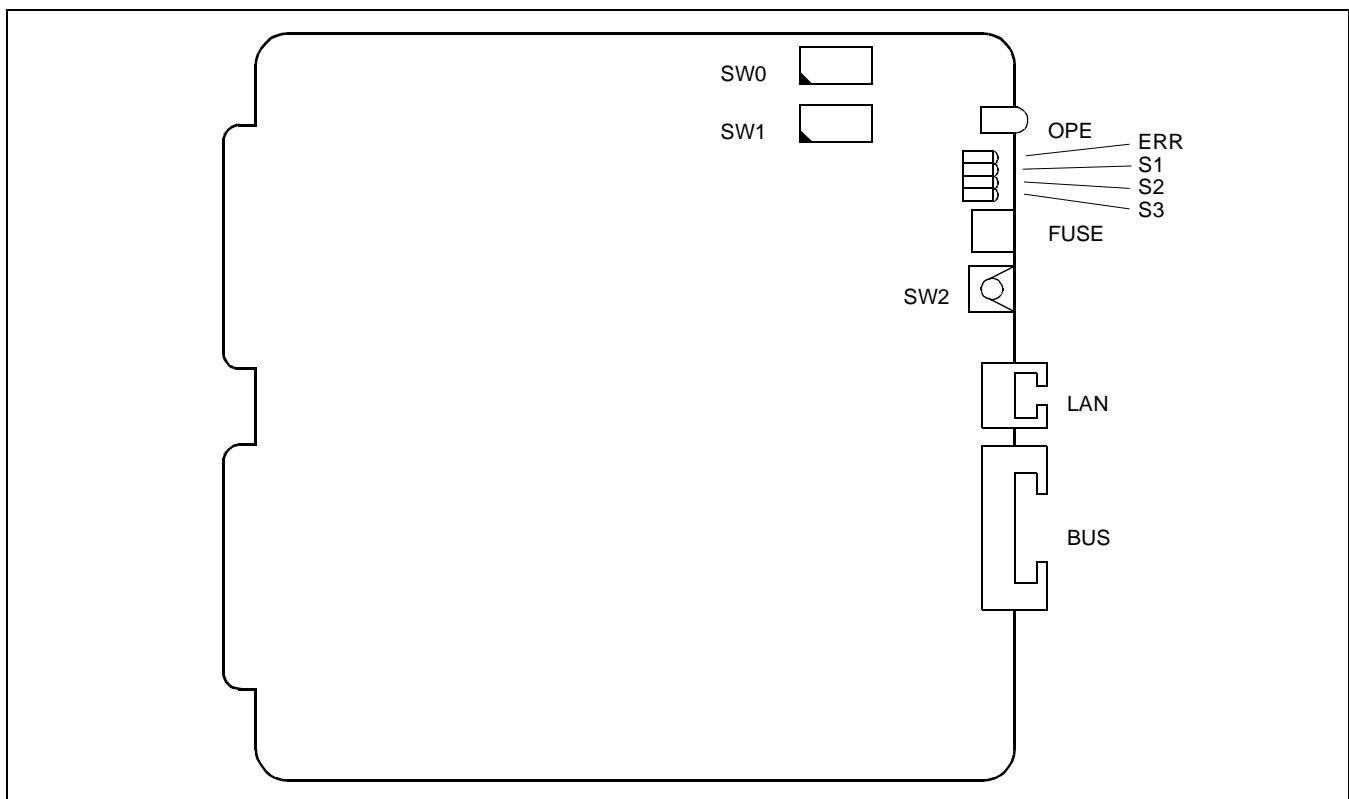
(a) In the case of module type

Mounting Module	APM
-----------------	-----

00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
											PA-CC98												

3. Locations of Lamps, Switches, and Connectors

The locations of lamps, switches, and connectors equipped on this circuit card are shown below.



PA-CC98 (ETHER)

4. Lamp Indications

The meaning of indication of each lamp on this circuit card is shown below.

LAMP	COLOR	MEANING OF INDICATION
OPE	Green	Remains lit while this circuit card is in operating status
ERR	Red	When a fault has occurred within this circuit card, this lamp lights or flashes together with lamp S1, S2, or S3 so as to specify the contents of the fault
	Red Flash	
S1	Green Flash	Flashes when data frame has been sent out onto the LAN
S2	Green	Lights when this circuit card is ready to operate
S3	Green	Remains lit while the power supply to this circuit card is on

5. Switch Setting

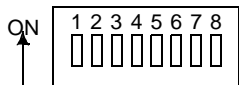
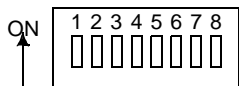
Each switch setting on this circuit card and its meaning are shown in the tables on the following pages.

The CC98 Internet address is set by using the AIPT MAT command. For ICS and IMX, Internet is set only by the AIPT command. For HDS (IMG) configurations, the AIPT command is used for setting the Internet address for software versions J04.7 and higher.

Contact NEC Personnel for Internet address settings in HDS software versions below J04.7.

Each CC98 card must have a unique MAC address. This MAC address allows each CC98 to be different from each other and different from any other LAN system. The MAC address is twelve digits in length. Switches SW0 and SW1 are used to set the lowest three digits. The remainder of the MAC address is fixed. The Internet address set by AIPT is used with the MAC address to allow the CC98 to connect to LAN networks.

Note: *If two or more CC98 cards are connected on the same LAN, each must have a unique MAC address.*

SWITCH	DIP SW No.	SETTING	DEFAULT SETTING	MEANING
SW0  (8 DIP Switches)	1	ON		Sets 0, corresponding to bit 0 of MAC address
		OFF		Sets 1, corresponding to bit 0 of MAC address
	2	ON		Sets 0, corresponding to bit 1 of MAC address
		OFF		Sets 1, corresponding to bit 1 of MAC address
	3	ON		Sets 0, corresponding to bit 2 of MAC address
		OFF		Sets 1, corresponding to bit 2 of MAC address
	4	ON		Sets 0, corresponding to bit 3 of MAC address
		OFF		Sets 1, corresponding to bit 3 of MAC address
	5	ON		Sets 0, corresponding to bit 4 of MAC address
		OFF		Sets 1, corresponding to bit 4 of MAC address
	6	ON		Sets 0, corresponding to bit 5 of MAC address
		OFF		Sets 1, corresponding to bit 5 of MAC address
	7	ON		Sets 0, corresponding to bit 6 of MAC address
		OFF		Sets 1, corresponding to bit 6 of MAC address
	8	ON		Sets 0, corresponding to bit 7 of MAC address
		OFF		Sets 1, corresponding to bit 7 of MAC address
	Note: For switch setting for MAC address, refer to [Reference] shown below in the setting of SW1. For details of switch setting for Internet address, refer to the AIPT command explained in Chapter 7, "PBX and ACD Command Programming".			
SW1  (8 DIP Switches)	1	ON		Sets 0, corresponding to bit 8 of MAC address
		OFF		Sets 1, corresponding to bit 8 of MAC address
	2	ON		Sets 0, corresponding to bit 9 of MAC address
		OFF		Sets 1, corresponding to bit 9 of MAC address
	3	ON		Sets 0, corresponding to bit 10 of MAC address
		OFF		Sets 1, corresponding to bit 10 of MAC address

SWITCH	DIP SW No.	SETTING	DEFAULT SETTING	MEANING
SW1 (Continued)	4	ON		Sets 0, corresponding to bit 11 of MAC address
		OFF		Sets 1, corresponding to bit 11 of MAC address
	5	ON	×	Fixed
	6	ON	×	Fixed
	7	ON	×	Fixed
	8	ON	×	Fixed

[Reference]

Setting of MAC address

On LAN and TCP/IP, this circuit card can have the following addresses and ports.

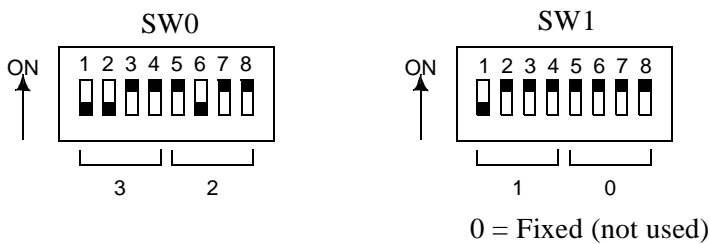
MAC Address: 000032250xxxH (48 bits)
 TCP Port Numbers: 16 port numbers of 1024 ~ 1039

The last 12 bits of MAC address must be set by switches SW0 and SW1 before starting up this circuit card.


(Ex.)

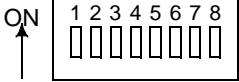


When MAC address is to be set to 000032250123H:

By dividing 12 bits into 4-bit units (refer to the table on the right side), and set the switches as shown below.



Relation between the value of 4 Bits and Switch Setting	
Hex	Switch Setting
0H	0000
1H	0001
2H	0010
3H	0011
4H	0100
5H	0101
6H	0110
7H	0111
8H	1000
9H	1001
AH	1010
BH	1011
CH	1100
DH	1101
EH	1110
FH	1111

SW2  (Rotary SW)		0	×	Fixed setting (When operating)
---	--	---	---	--------------------------------

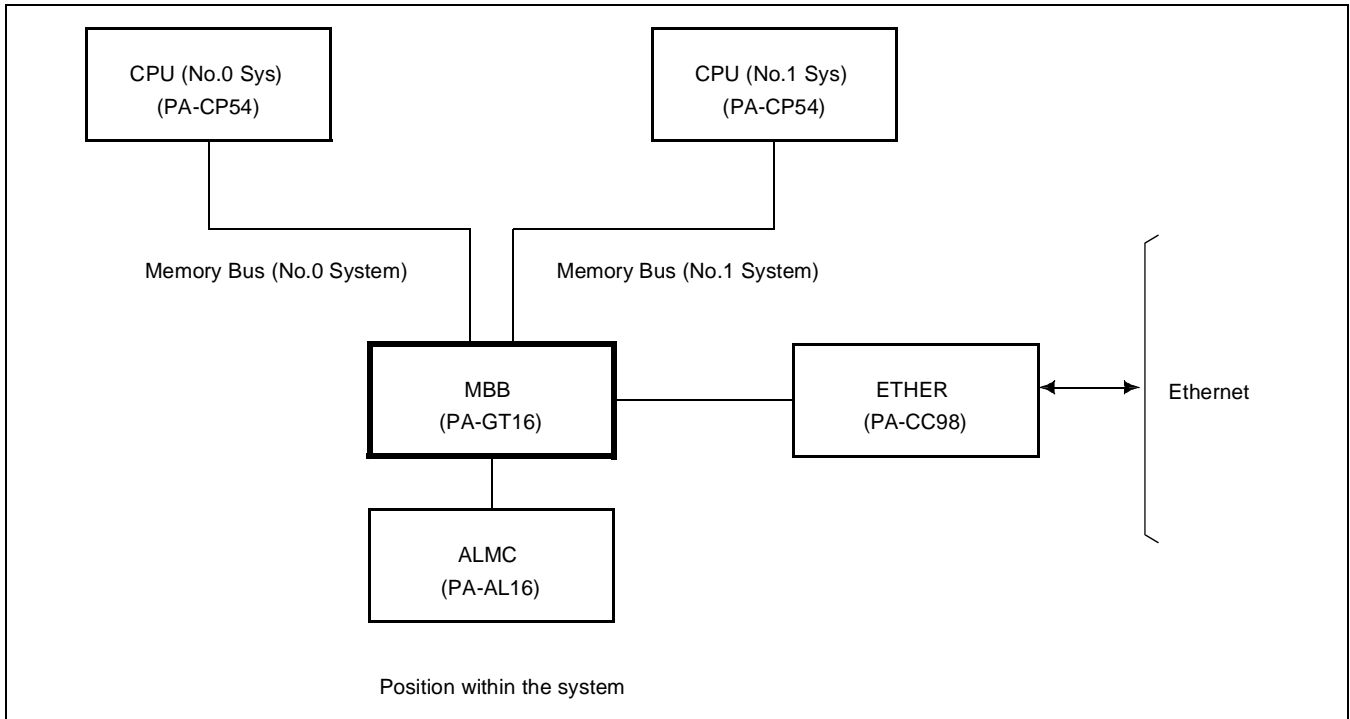
MODULE	SLOT	SWITCH	SWITCH SHAPE	REMARKS
		SW0		
		SW1		
		SW2		Fixed for the system

PA-GT16 (MBB)

Memory Bus Buffer

1. Functional Outline

This circuit card is used in the OAI module type for the NEAX2400 IMX and ICS OAI System. It is a circuit card which repeats the memory bus on PA-CP54 (CPU) card side to ETHER (Ethernet Interface) gate card.



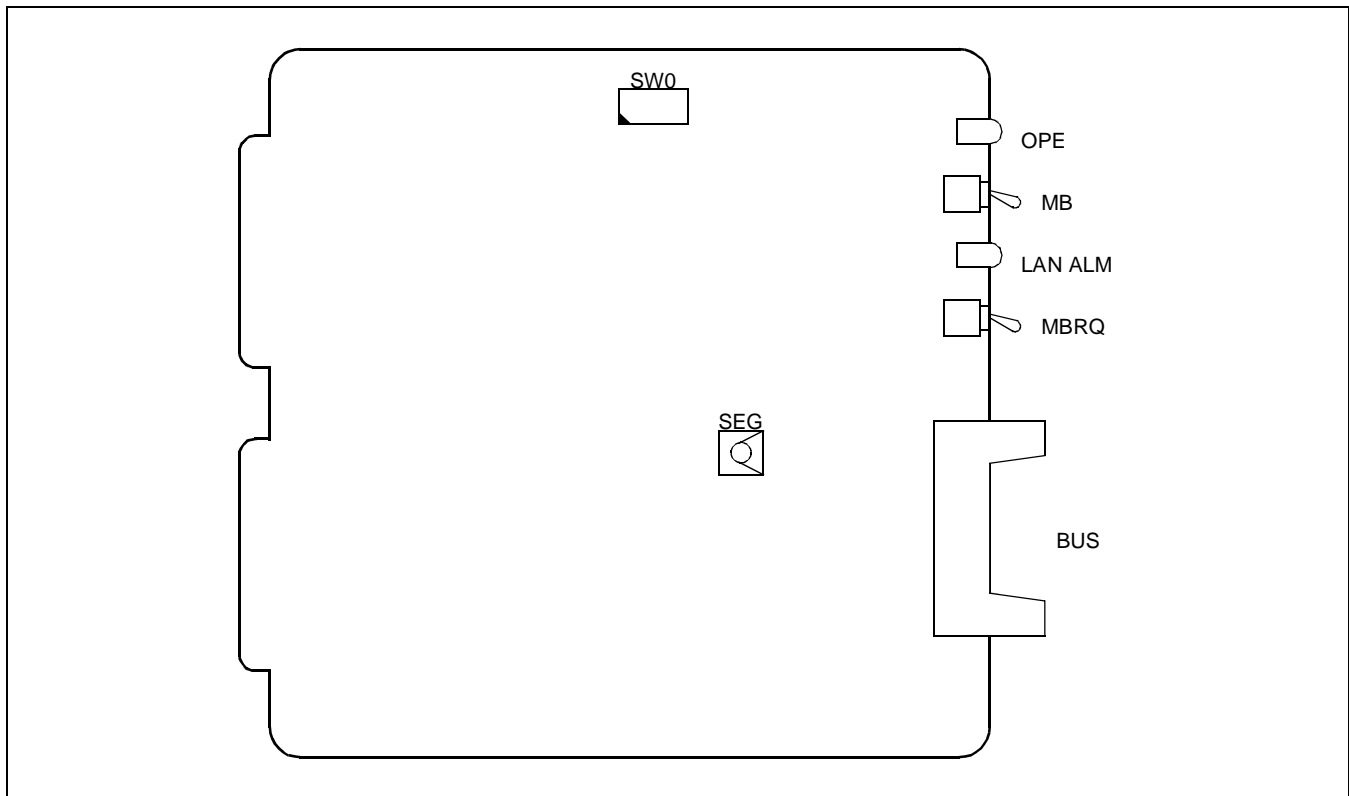
2. Circuit Card Mounting Locations/Conditions

Mounting Module	APM
-----------------	-----

00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
												PA-GT16												

3. Locations of Lamps, Switches, and Connectors

The locations of lamps, switches, and connectors equipped on this circuit card are shown below.



4. Lamp Indications

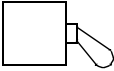
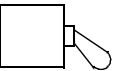

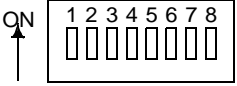
The meaning of indication of each lamp on this circuit card is shown below.

LAMP	COLOR	MEANING OF INDICATION
OPE	Green	Remains lit while this circuit card and ETHER card are normally operating
LAN ALM	Red	Lights when the processor in ETHER card has become faulty or when ETHER card is not correctly connected with this circuit card

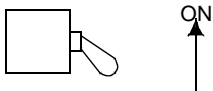
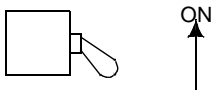

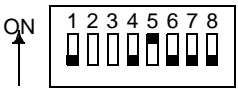
PA-GT16 (MBB)

5. Switch Setting

Each switch setting on this circuit card and its meaning are shown below.

SWITCH	DIP SW No.	SETTING	DEFAULT SETTING	MEANING
MB  ON(MB) OFF (Toggle SW)		UP		Circuit card make-busy
		DOWN		Circuit card make-busy cancel (Circuit card is in operating status)
MBRQ  ON(MB) OFF (Toggle SW)		UP		Circuit card make-busy request
		DOWN	×	Circuit card make-busy request cancel (Circuit card is in operating status)
SEG  (Rotary SW)		F	×	Sets memory address area to XF0000H ~ XFFFFFFH
SW0  (8 DIP Switches)	1	OFF	×	Fixed
	2	ON		Interrupt is inhibited
		OFF	×	Interrupt is not inhibited
	3	ON		Sets the equipment number of this circuit card to 1
		OFF	×	Sets the equipment number of this circuit card to 0
	4	OFF	×	Not used
	5	ON	×	Fixed
	6	OFF	×	Fixed
7	OFF	×	Fixed	
8	OFF	×	Fixed	

Switch Setting Table

MODULE NAME	SLOT	SW NAME	SWITCH SHAPE	REMARKS
APM	12	MB		UP: Circuit card make-busy DOWN: Circuit card make-busy cancel (Circuit card in operating status)
		MBRQ		
		SEG		Fixed
		SW0		

This page is for your notes.

CHAPTER 5 OFFICE DATA DESIGN

1. GENERAL

This chapter explains the office data design for the ACD in the IMX system.

2. BASIC OFFICE DATA ASSIGNMENT

This section explains how to assign the basic office data. Items covered in this section include the following:

[2.1 Back-Up UCD](#)

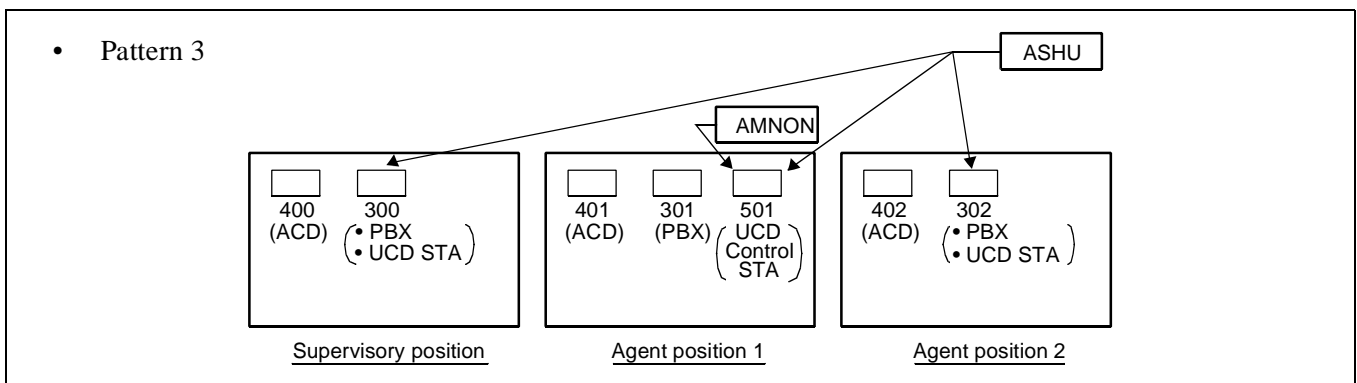
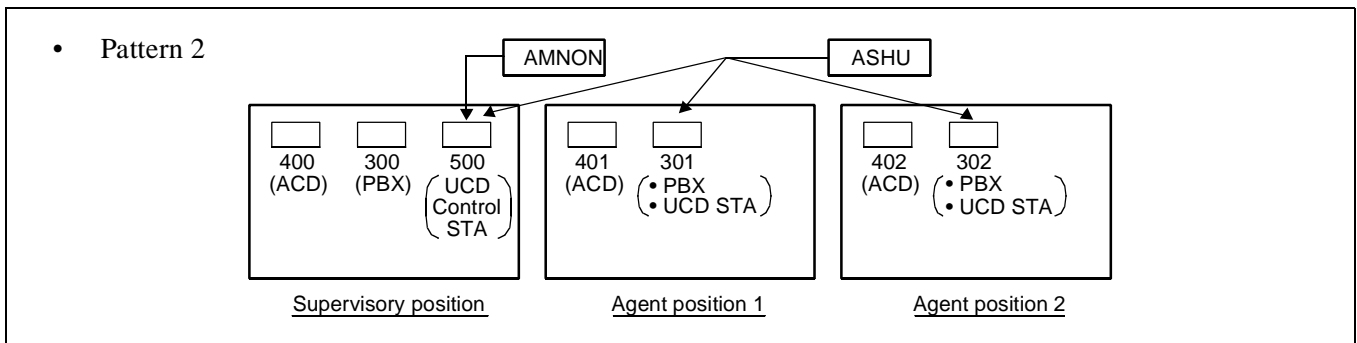
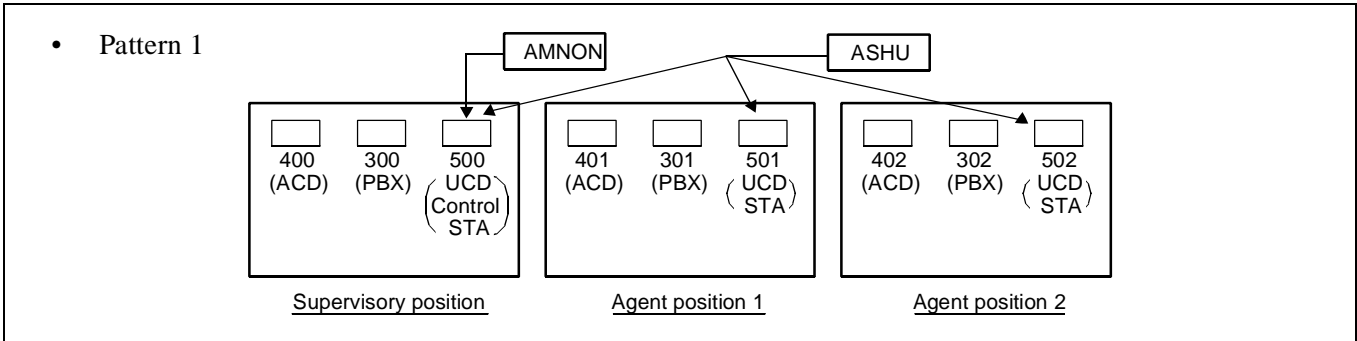
[2.2 ACD In a Fusion Network Data Assignment](#)

OFFICE DATA DESIGN

2.1 BACK-UP UCD

When a system provides the back-up UCD group, ACD calls will be routed to the back-up UCD group if ACD system is corrupted.

Design of UCD station



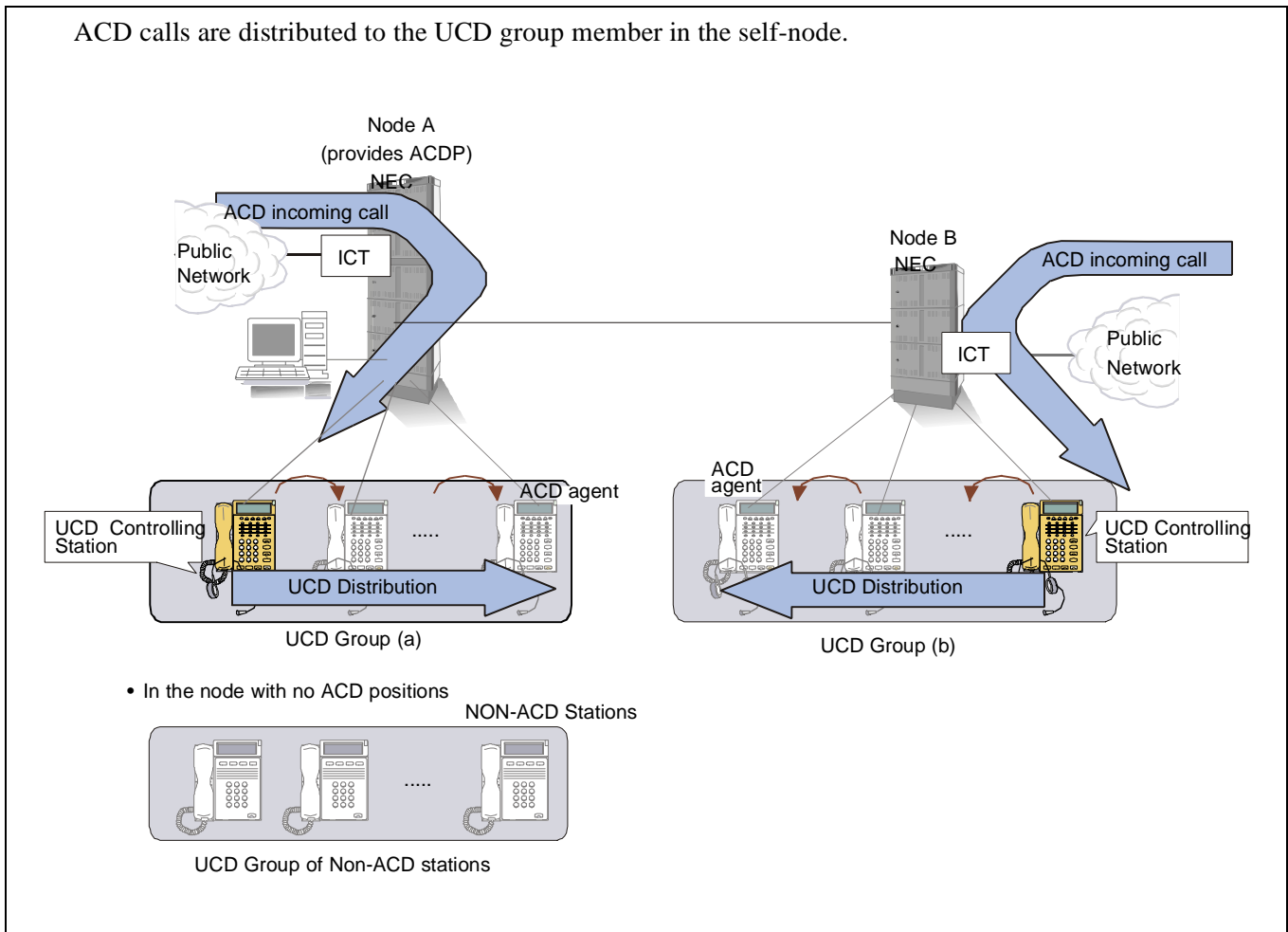
<Back-up UCD for Fusion service>

Design of UCD station

Assign the ACD positions in the self-node as UCD controlling station at each node. By this programming, ACD incoming calls terminated to the trunk in the self-node can be distributed to the UCD group member in the self-node even when link down or the remote system down is occurred.

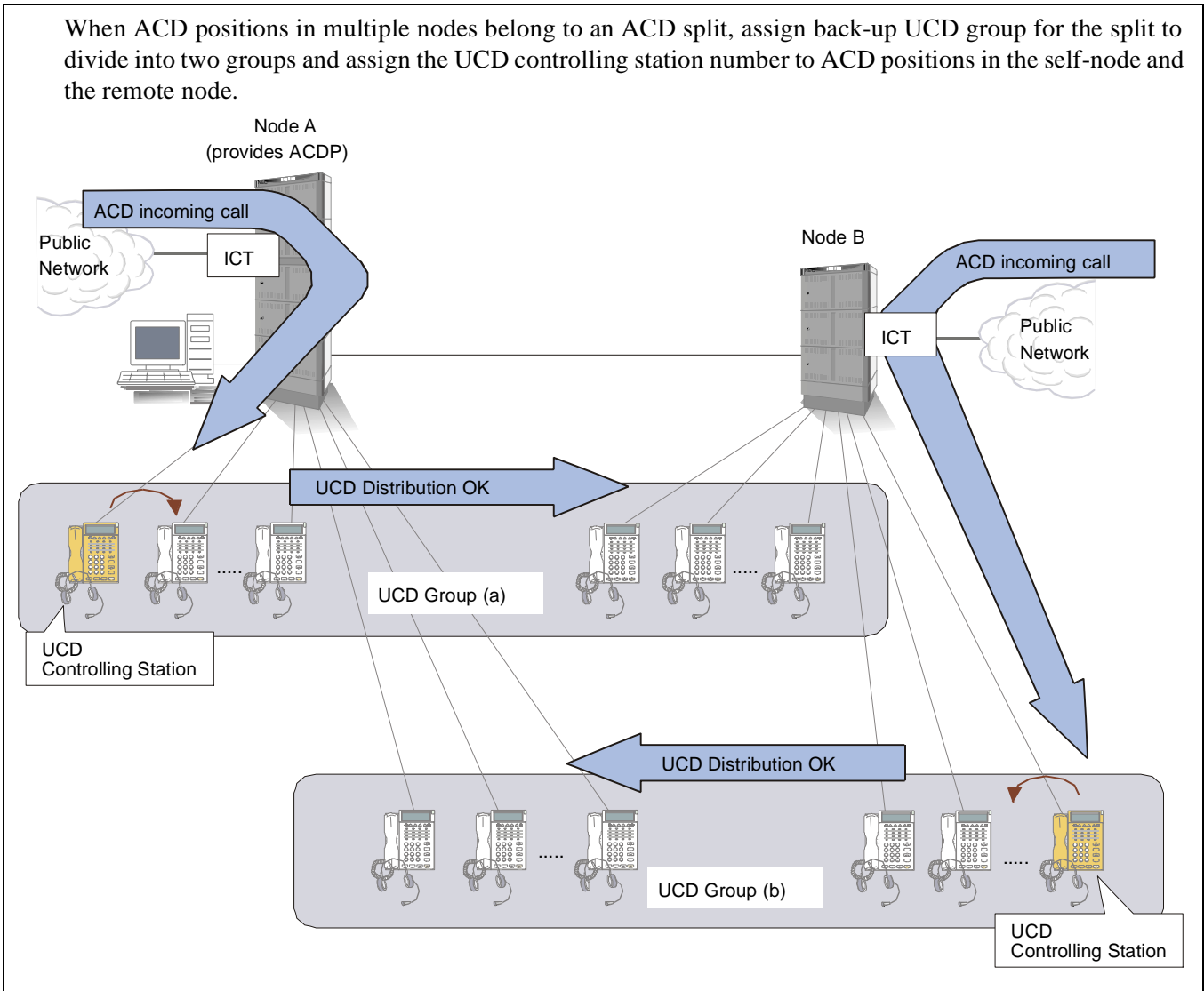
When there is no ACD positions in the node, the back-up UCD group may be organized by the non-ACD position.

- Pattern 1 when a back-up UCD group is formed by ACD positions in a node.



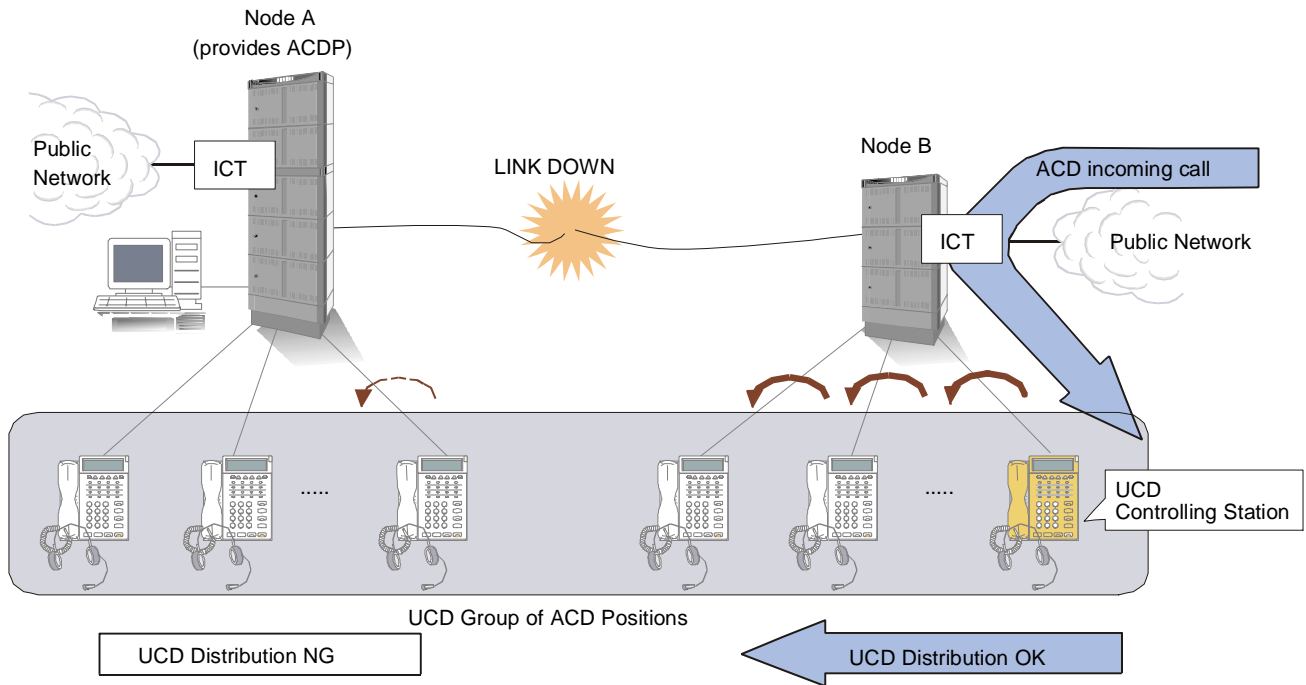
OFFICE DATA DESIGN

- Pattern 2 when a back-up UCD group is formed by ACD positions in multiple nodes.

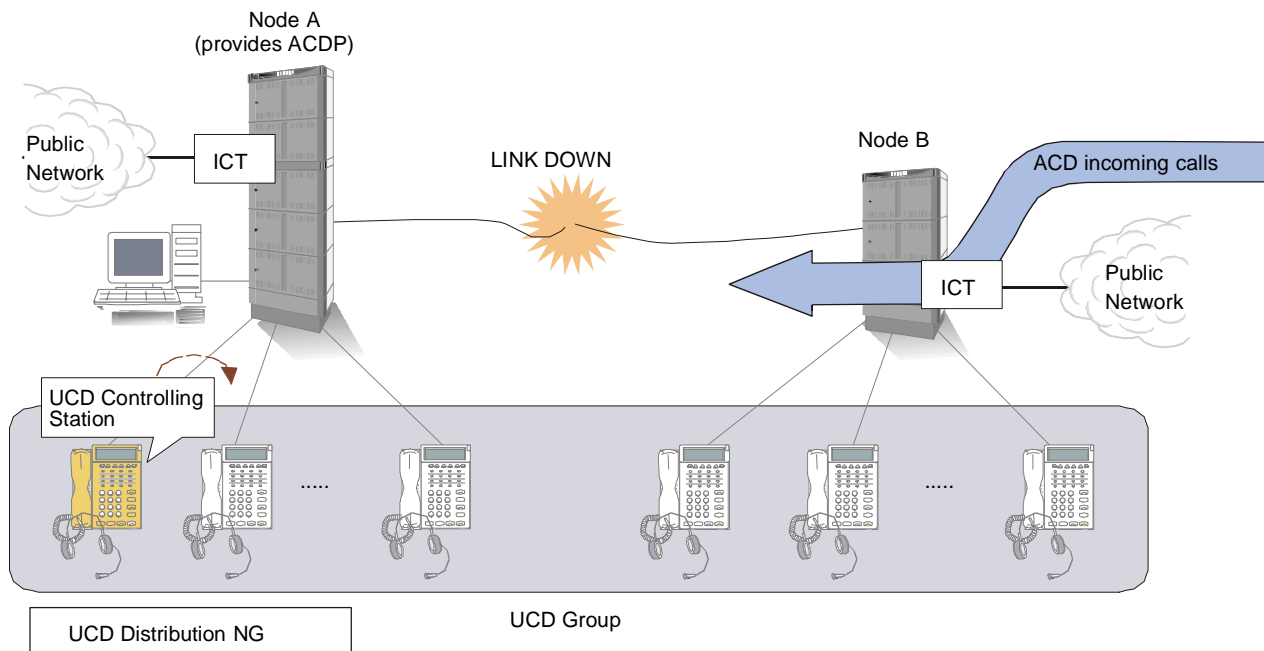


When a UCD group is organized by ACD positions in multiple nodes, ACD incoming calls cannot be distributed to ACD positions in the node where UCD controlling station is not accommodated when the link connecting the nodes is down.

ACD incoming calls terminated at the trunk in Node B are distributed to UCD group members in Node B.



ACD incoming calls are not distributed to any position and the caller hears the reorder tone.



OFFICE DATA DESIGN

Step 1: ASHU (Station Hunting - UCD)/ASHUN (for Fusion)
Assign UCD group data

Note: *ASHU command data and ASHUN command data cannot be used in a system.*

Step 2: AMNO (Monitored Number)/AMNON (for Fusion)

- Assign “1” on a parameter UCD.
- Assign the control station number of the back-up UCD per Monitored number.

2.2 ACD IN A FUSION NETWORK DATA ASSIGNMENT

This section provides general information about ACD in an Fusion Network and also, network establishment conditions, data programming. For the function differences, this information is classified into the following two functions.

Function 1 - ACD agents in a node providing ACDP can answer the ACD incoming calls via access to ACD trunks in the remote node. This is called “ACD Trunk for Fusion” in this manual.

Function 2 - ACD agents in multiple nodes can answer ACD incoming calls since multiple ACDPs can be provided in a Fusion Network (PBX software Series 7400 feature). This is called “Multiple ACDPs in an Fusion Network” in this manual.

Note: *Feature [A-133] AGENT ANYWHERE allows ACD calls to be terminated to agents in remote nodes since Series 7300 software. See [Section 3, “ACD Service Feature”](#) in this chapter for details.*

Conditions for Network Establishment

1. Telephone Number (maximum 5 digits) is used for the station number type (both PBX line and ACD line) to activate ACD system through Fusion Network. **Note 1**
2. Logical Route (1-254; route numbers more than 254 are not available) is used for the route type to activate ACD system through Fusion Network. The tables below show which data programming is changed in accordance with these conditions in terms of data and commands.

① Basic Office Data

Data Description	Notice
Monitor number	1. AMNON is used in place of AMNO 2. Telephone number for Monitor number (pilot number) is assigned in ALGNN command before the monitor number data assignment. 3. ACNON is used in place of ACNO
Announcement data	AADTN is used in place of AADT
Back up-UCD data	ASHUN is used in place of ASHU. See “Uniform Call Distribution (UCD) [U-1]” in Feature Programming Manual.
Other data	Logical route number (1-254) and telephone number (max. 5 digits) are used.

OFFICE DATA DESIGN

② ACD Command Data

(See [Chapter 7, "PBX and ACD Command Programming"](#) for details of each command.)

Data Description	Notice
ACDANA	Telephone number (monitor number = pilot number) should be set in AMNON before this command.
ACDCCV	Telephone number is programmed when the transferred destination is a station.
ACDIVR	Telephone number is programmed for Access number to IVR.
ACDLOG	Telephone number is programmed in Personal Assist and Personal Emergency.
ACDPLT	Telephone number (monitor number = pilot number) should be set in AMNON before this command.
ACDPSN	Telephone number is programmed in ALGSN (Position Number and ACD/PBX Line Number).
ACDSPL	Telephone number is programmed in ASIST, NIGHT, and EMGCY.
ACDTG	Logical route (1-254) is programmed in ALRTN.
ACDTN	Telephone number is programmed in IVR Pilot Number and Operator Access Code.

3. The following operation codes (OP-CODE) are not available for OAI system when OAI and ACD system are used together in the same Fusion Network. See AOKC command in [Chapter 7](#) for details.
- MSF (F-KIND=1): OP-CODE=185~191
 TMF (F-KIND=2): OP-CODE=248~255
4. Proper number of connection trunks must be prepared to prevent the traffic congestion. If all connection trunks are busy, ACD call distribution is not available. If such a situation occurs, program the CCV step as shown below. Using this data setting, ACD calls distribution to transfer to another agent position is available using the alternate routing function.
- Transfer is assigned at CCV Step 20.
 The system is designed to select the alternating route assigned in Step 20 automatically if the connection trunk is busy.

Table 5-1 CCV for ACD Calls Transfer (in case of Traffic Congestion)

CCV step	CCVACT	Remarks
1	Queue Assign	
2	Pause	
3	Announcement	
4	End CCV	Be sure to assign "End CCV" by CCV Step 19 so that the call is not processed with CCV Step 20 "Transfer".
:		
:		
20	Transfer	Examples of alternating route (dialed number of the transfer destination) <ul style="list-style-type: none"> • Monitor Number in the self-node • Monitor Number in the remote node via outgoing trunk route

OFFICE DATA DESIGN

2.2.1 ACD TRUNK IN A FUSION NETWORK

General Information

To use the ACD services in a Fusion Network, any ACD calls can be picked up from ACD positions in a node providing ACDP using ACD trunk in the remote node.

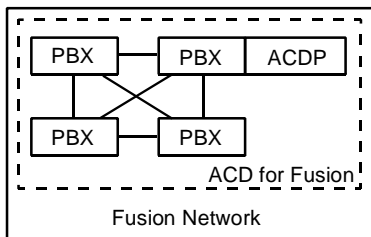
Note: ACD calls terminated at the trunk in the remote node can be handled by ACD positions in any node (irrespective of the self or remote node, or providing ACDP or not.) since the PBX software Series 7300. For details, see [A-133A] *Agent Anywhere - ACD* in Section 3 of this chapter.

Network Configurations:

Examples:

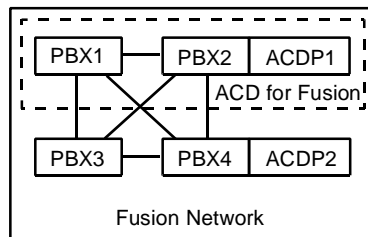
—AVAILABLE

- (a) One ACDP manages all nodes in Fusion network



- (b) Two ACDPs manage individual system at each.

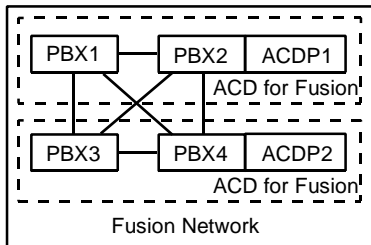
- ACDP2 manages only PBX4. (PBX4 is ACD stand-alone system.)



—UNAVAILABLE

- (c) Two ACDPs manage the same nodes in Fusion network.

Multiple ACD for Agent Anywhere cannot exist in a Fusion Network.



Data Programming

Step 1: ASYDL - ACD for Fusion Network. This data must be set for all nodes to be provided ACD service.
 SYS1, INDEX512: FPC number of the self-node (1-253)
 *SYS1, INDEX865: FPC of the node providing IP. (When IVR is used, this data is necessary)
 *SYS1, INDEX866: FPC of the node providing built-in ACDP.

Note 1: *The same value (FPC) must be set to these indexes.*

Note 2: *Assign 0 for the node using ACD service in the self node only.*

Step 2: ASYDN - SYS1, INDEX514: NDM usage

Step 3: Data programming procedures other than Steps 1, 2 are the same as those for the non-Fusion system (ACD stand-alone system). However, note which data is necessary for the node providing ACDP. The others are set to all Fusion nodes in which ACD trunks or ACD agents are installed.

Data required for the node that accommodates ACDP:

ASYD - SYS1, INDEX2, b0:1=ACDP is used

SYS1, INDEX207, b0:1=ACDP0 is used

SYS1, INDEX207, b1:0/1=ACDP1 is not used/used **Note 4**

ASYDL - SYS1, INDEX864, b0:1=Built-in ACDP is used

Note 3: *PBX command data such as AKYD, AOKC, ASFC is set to all nodes in a Fusion Network.*

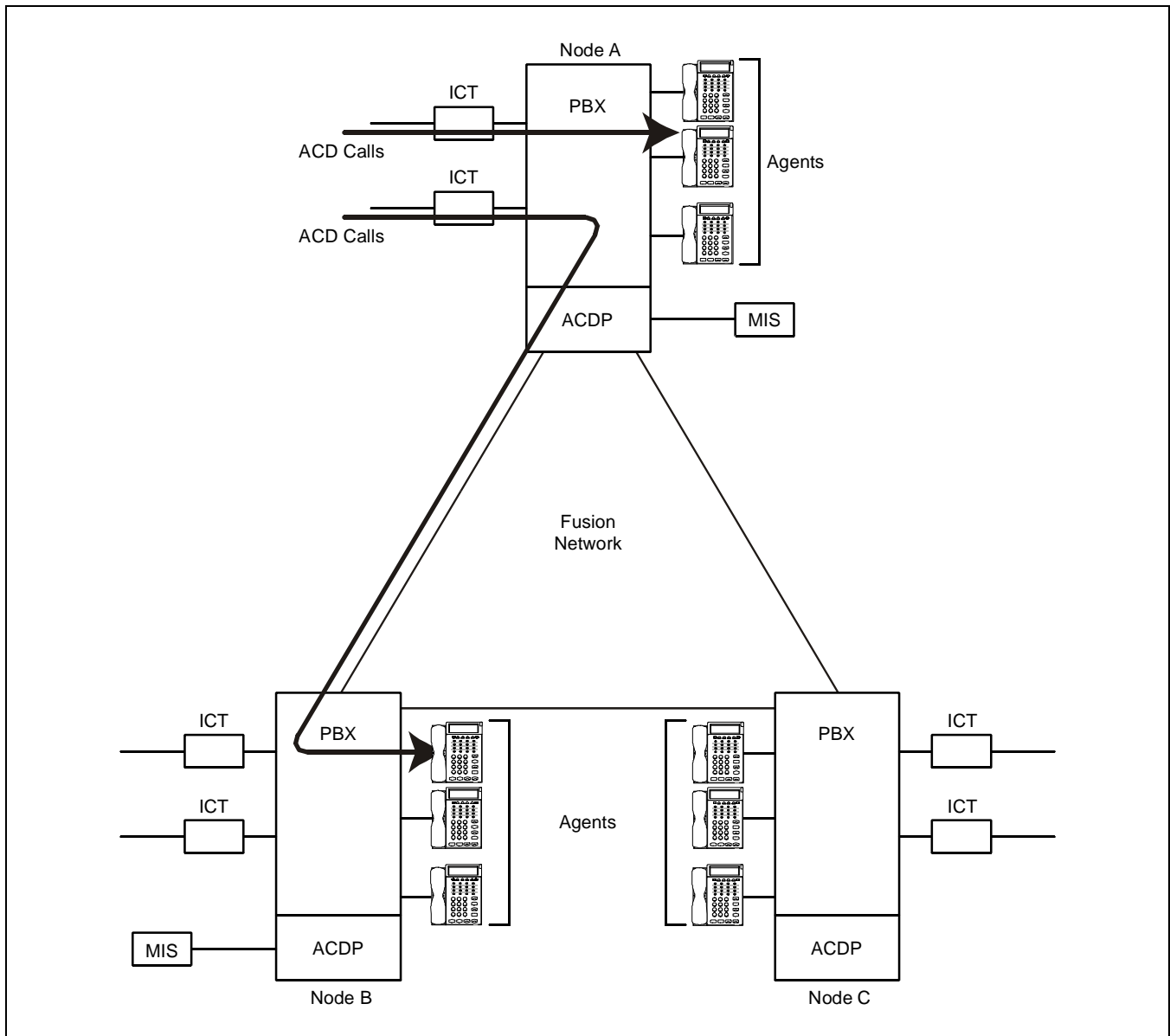
Note 4: *Not used in Internal ACD.*

OFFICE DATA DESIGN

2.2.2 MULTIPLE ACDPS IN A FUSION NETWORK

General Information

This feature allows multiple ACDPs in a Fusion Network. Since Series 7400 software, establishing the CCIS line is not necessary to use ACD function through the network. The network user can transfer ACD calls to the remote node with an FCCS line and fusion service can be used by establishing a Fusion Network. As for ACD incoming calls, calls terminated to ACD trunk can be distributed to the remote node regardless of the self-node or the remote node. This feature is available since the PBX software Series 7400.

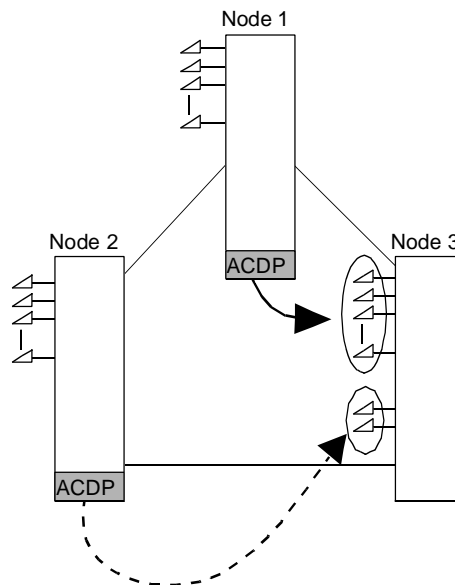


Service Conditions

1. ACDP can be accommodated in all fusion nodes.
2. The maximum number of Status Monitoring Requests to a terminal (including Trunk) is decided by the system data (maximum of eight ports available including ACDP, UAP*). Note that the normal operation is not guaranteed if Status Monitoring is requested to a terminal from more than the number of ports (for example, the case DID Trunk is managed by more than the designated number of ACDPs). Do not establish such a network configuration.

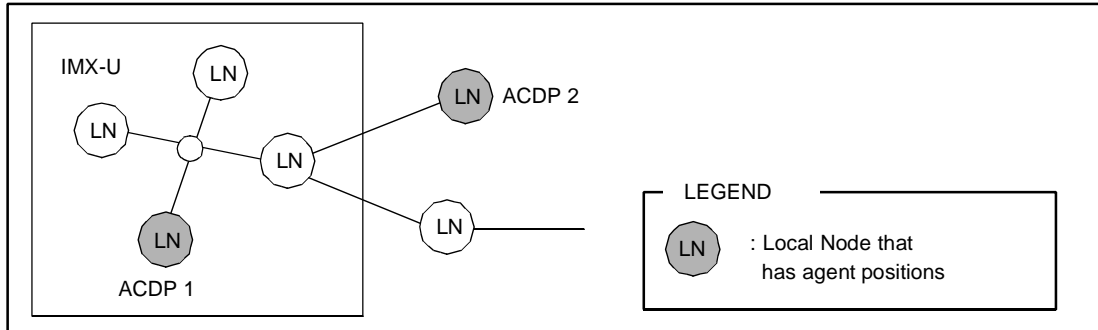
* UAP for Status Monitoring Request using SMFR. Status Monitoring Request from UAP is available by using the ports other than ports used for Status Monitoring Request from ACDP.
3. Multiple ACDPs can be used for “ACD Trunk for Fusion” and ACD stand-alone (the ACDP provides ACD function in the self-node only) in a Fusion Network. However, only one ACDP can be used for “AGENT ANYWHERE” in a Fusion Network.
4. The destination node (ACDP) for ACD incoming calls is designated on a monitor number basis using ACD-PLT command (ACD trunk basis). Note that the same monitor number cannot be assigned at multiple nodes using ACDPLT).
5. Agent positions to be controlled from different ACDPs cannot be accommodated in a node.

Both ACDPs in Node 1 and Node 2 cannot control ACD positions in Node 3.

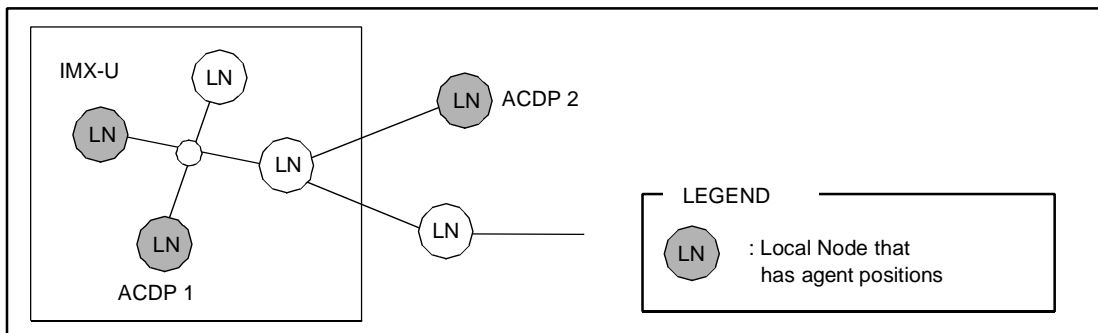


OFFICE DATA DESIGN

- 6. When Multiple ACDPs are used in a Fusion Network that accommodates the IMX-U system, consider the following conditions when programming data.
 - (a) IMX-U system where the agent positions are accommodated in a Local Node of the system. In the IMX-U system, data programming for “ACD Trunk for Fusion” must be programmed at the node that has ACDP (“ACDP1” in the figure below). Program so that another ACDP (“ACDP2” in the figure below) can be used for “AGENT ANYWHERE”.



- (b) IMX-U system where the agent positions are accommodated in a multiple Local Nodes. In the IMX-U system, data programming for “AGENT ANYWHERE” must be programmed at the node that has ACDP (“ACDP1” in the figure below). In the network, only one ACDP can be used for “AGENT ANYWHERE”.



- 7. When a DID Trunk is managed by multiple ACDPs, the trunk information (CA, AF message) is sent to each MIS. Accordingly, the number of originating static report which is concerned with the trunk group and the trunk to be processed by the other ACDPs is included in the report.

Network Configurations:

The following are examples of ACD system configuration in a Fusion Network where single ACDP is provided and in a network where multiple ACDPs are provided. The following examples show how to change a network with a single ACDP into a network with multiple ACDPs. For settings, see “Data Programming” in this section.

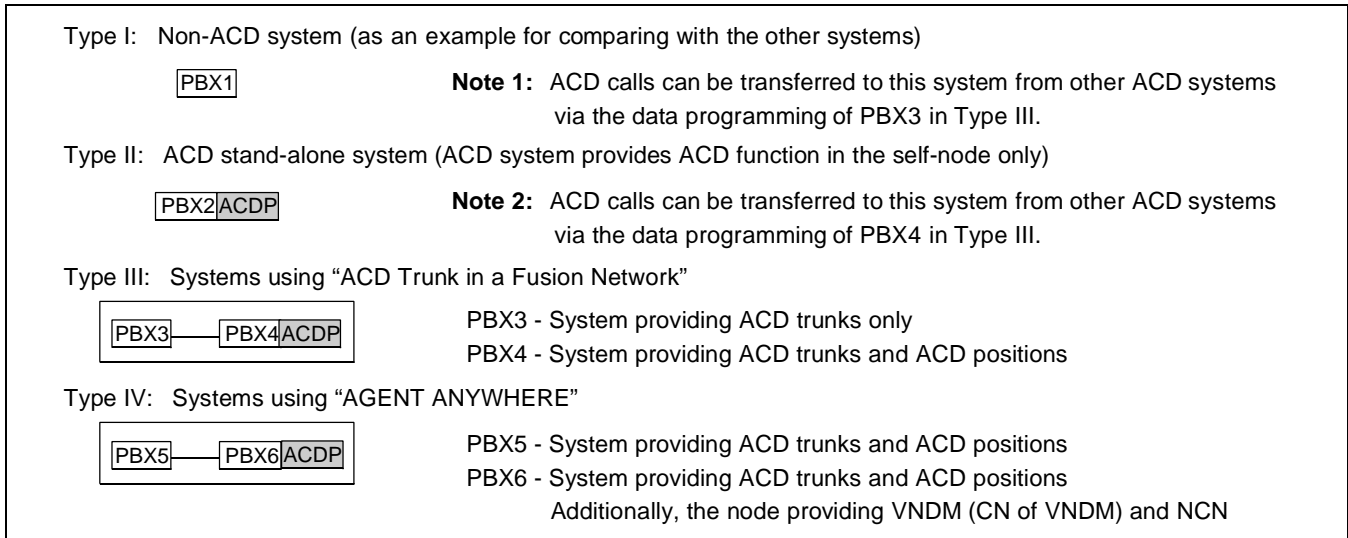


Figure 5-1 Legend

The following are example configurations of a network providing single ACDP. In this network, call transfer is not available between different types of system since each ACDP works individually.

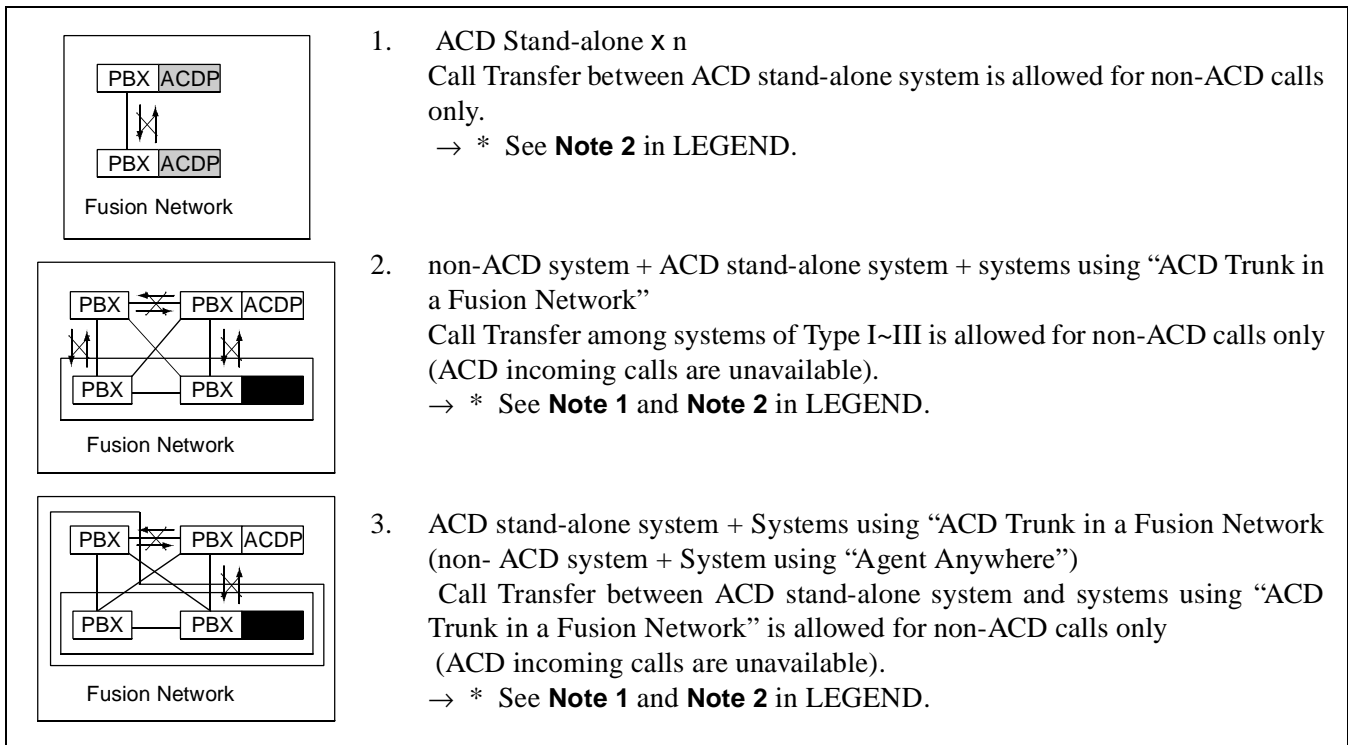


Figure 5-2 Fusion Network with Single ACDP (Example)

OFFICE DATA DESIGN

The followings are some example configurations of network providing multiple ACDPs. In this network, ACD incoming calls in a node can be terminated to any nodes depending on the setting. And also, call transfer is available for each other.

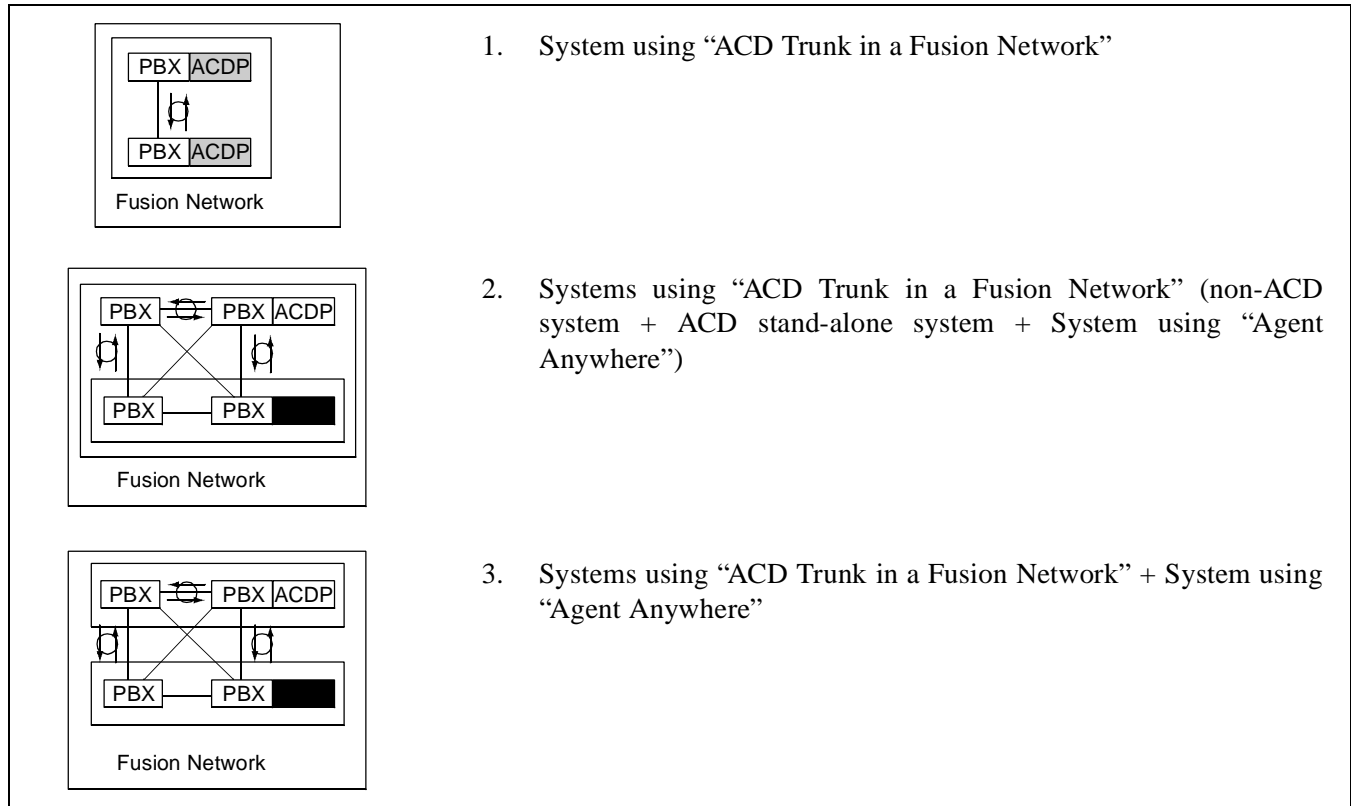


Figure 5-3 Fusion Network with Multiple ACDPs (Example)

Data Programming

This section shows data programming divided into the types of ACD system in the figure below.

The following shows the network configuration of ACD system in a Fusion Network.

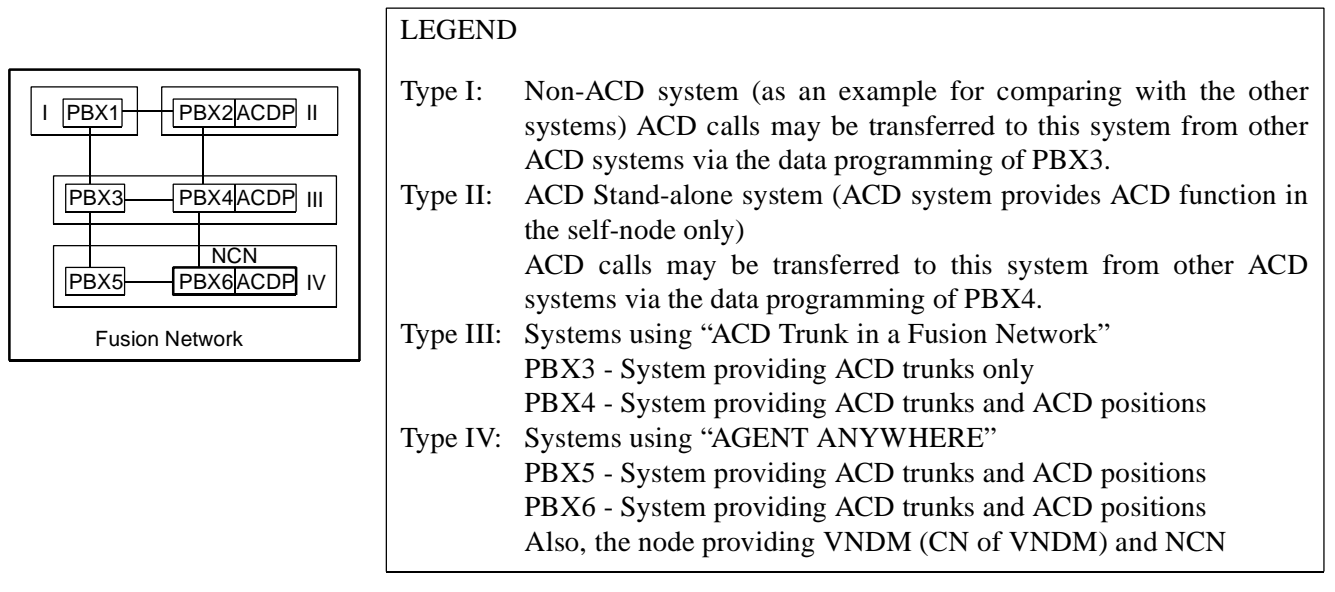


Figure 5-4 Network Configuration of ACD systems

OFFICE DATA DESIGN

1. The following is a quick reference of optional software and data programming for each ACD system type.

ACD Software and Data Programming		Type and Node					
		I PBX1	II PBX2	III PBX3 PBX4		IV PBX5 PBX6	
ACD Software							
1	Built-in ACDP software (Series 7300 or later release)		⊙		⊙		⊙
2	ACD Option Service software (basic) (APL-0809: Series 7400 or later release)		⊙	⊙	⊙	⊙	⊙
3	ACD Option Service software (for defining the ACD capacity) (APL-0729~0733)		⊙	⊙	⊙	⊙	⊙
4	ACD Option Service Software for "AGENT ANYWHERE" (APL-0734: Series 7300 or later release)					⊙	⊙
System Data							
3	ACDP in service/out of service (ASYD: SYS1, INDEX2, b0)	0	1	0	1	0	1
4	CM Usage Note 1 (ASYD: SYS1, INDEX31, b0~3)	0	6	6	6	6	6
5	OAI in service/out of service (ASYD: SYS1, INDEX79, b6)	1	0	0	0	0	0
6	IP in system 0 is used/not used (ASYD: SYS1, INDEX207, b0)	0	1	0	1	0	1
7	IP in system 1 is used or not (ASYD: SYS1, INDEX207, b1)	0	Note 2	0	Note 2	0	Note 2
8	OAI Call Processing Event Notification (ASYD: SYS1, INDEX241, b2)	0	1	1	1	1	1
9	SCF Return Error Detail Notification (ASYD: SYS1, INDEX241, b3)	0	1	1	1	1	1
10	Built-in ACDP is used/not used (ASYDL: SYS1, INDEX864, b0)	0	1	0	1	0	1
11	"AGENT ANYWHERE" in service/out of service (ASYDL: SYS1, INDEX864, b2) Note 3	0	0	0	0	1	1
12	"MULTIPLE ACDPs in an FCCS Network" in service/out of service Note 4 (ASYDL: SYS1, INDEX864, b3)	0	0	1	1	1	1
13	FPC no. of the node providing IP (ASYDL: SYS1, INDEX865)	0	0	Note 5	Note 5	Note 5	Note 5
14	FPC no. of the node providing ACDP (ASYDL: SYS1, INDEX866)	0	0	Note 6	Note 7	PBX 6	PBX 6

⊙: Item 1 is ACD FD4 included with Generic Software. Items 2, 3 and 4 are provided on the Configuration FD.

○: Node requires ACD data programming.

ACD Software and Data Programming		Type and Node					
		I	II	III		IV	
		PBX1	PBX2	PBX3	PBX4	PBX5	PBX6
15	Number of ports for SMFN (terminal) (ASYDL: SYS1, INDEX864, b4~5)	0	Note 8	Note 8	Note 8	Note 8	Note 8
16	FPC no. of Center Node providing VNDM (ASYDN: SYS1, INDEX533)	Note 9	Note 9	Note 9	Note 9	Note 9	Note 9
17	ACD data (See item (2) in this section)		○		○		○

◎: Item 1 is ACD FD4 included with Generic Software. Items 2, 3 and 4 are provided on the Configuration FD.

○: Node requires ACD data programming.

Note 1: When CM is used for another function, this setting may be changed.

Note 2: When the CPU in system 1 is used, assign "1". (Used only in External ACD.)

Note 3: Assign "1" to all nodes using "AGENT ANYWHERE".

Note 4: All fusion nodes in the network are used for "MULTIPLE ACDPs in a Fusion Network", this data may be assigned using ASYDN.

Note 5: This data is required for UAP connection.

Note 6: When ACD incoming calls are controlled by one ACDP, assign FPC no. of the node providing ACDP. As for ACD incoming calls controlled by multiple ACDPs, assign FPC no. of a node of all managing nodes. Program the data for the transferred ACD calls.

Note 7: Assign FPC no. of the self node.

Note 8: (This data is not necessary for the example in [Figure 5-4](#).) Assign this data so that the proper number of ports can be used when more than three ports of Status Monitoring for terminal (SMFN) is required. The identical data should be assigned at all nodes.

ASYDL SYS1 INDEX864 b4-5: (b4=0, b5=0)=2 ports
(b4=1, b5=0)=8 ports

Note 9: Assign the FPC no. of ACDP node using "AGENT ANYWHERE" when a Fusion Network provided MULTIPLE ACDPs is also provided "AGENT ANYWHERE". While in the network not provided "AGENT ANYWHERE" (actually, the node may be changed into the node provided "ACD Trunk for Fusion") assign the FPC no. of ACDP node using "ACD Trunk in a Fusion Network" (In this example, FPC no. of PBX4 or PBX6 is applied with this condition).

2. Notations for ACD command data programming are described below.

(a) When the DID trunk is controlled by multiple ACDPs, the identical ACDTG command data can be programmed at the nodes of ACDPs.

(b) Do not duplicate the monitor number in ACDPLT data, agent position (including analog ACD positions and agent positions in a "Hot Split")'s number in ACDPSN, and IVR access number in ACDIVR command data at multiple ACDP nodes.

OFFICE DATA DESIGN

3. Some notices for PBX commands data programming are described below.
See Figure “Network Configuration of ACD systems” for network configuration of ACD systems.

Type and Node PBX Command Data	I	II	III		IV	
	PBX1	PBX2	PBX3	PBX4	PBX5	PBX6
AMNO (Monitor Number Data)		N/L		N		N
(Back-up UCD) Note		F		F		F
ACNO (Conversion Number Data)		N/L		N		N
AADT (Announcement/Dictation Data)		N		N		N
AOKC (OAI Key Code Data)		○		○		○
AKYD (Key Data for D ^{term})		○		○		○
ASFC (Service Feature Restriction Class Data)		○		○		○
ASHU (Station Hunting Group-UCD Data)		F	F	F	F	F

- : Assign data by the corresponding commands written in DM.
- N : Assign data by the corresponding commands written in NDM.
- L : Assign data by the corresponding commands written in LDM when the call is not terminated from other nodes.
- F : UCD for Fusion service must be used for the back-up UCD.

Note: When a COT card is used for back-up UCD, assign the UCD pilot number for the destination of RT and TK for COT card using ACSI command data.

The system may not be operated normally if the above-mentioned data (especially, system data in item 1) is not programmed correctly or the required software (also, described in item 1) is not installed yet. Data to be checked if the following faults occur are shown below.

Note: Data marked with an asterisk (*) indicates that system must be initialized after data change.

(a) ACD data cannot be programmed.

- Software to be installed
 - Software install for Built-in ACDP function (Basic ACD Option Service software (APL-0809: Series 7400 or later release)
- Data Programming
 - ACDP in service/out of service (ASYD: SYS1, INDEX2, b0)
 - IP in system 0 is used/not used (ASYD: SYS1, INDEX207, b0)
 - IP in system 1 is used/not used (ASYD: SYS1, INDEX207, b1) **Note 1**
 - Built-in ACDP is used/not used (ASYDL: SYS1, INDEX864, b0)

Note 1: IP in System 1 not used in Internal ACD.

(b) ACD agent positions cannot be logged on to the split.

- Software to be installed
 - Software install for VNDM function (Basic ACD Option Service software, APL-0809: Series 7400 or later release)
 - Software install for “AGENT ANYWHERE” (APL-0734: Series 7300 or later release)
 - Data Programming
 - FPC number of Center Node providing VNDM (ASYDN: SYS1, INDEX533)
 - “AGENT ANYWHERE” is in service/out of service (ASYDL: SYS1, INDEX864, b2)
 - “MULTIPLE ACDPs in a Fusion Network” is in service/out of service (ASYDL: SYS1, INDEX864, b3)
- (c) ACD incoming calls are routed to the busy tone connection./ACD incoming calls are distributed by back-up UCD function.
- Software to be installed
 - Software install for VNDM function or ACD Trunk for Fusion function (Basic ACD Option Service software, APL-0809: Series 7400 or later release)
 - Software install for “AGENT ANYWHERE” (APL-0734: Series 7300 or later release)
 - Data Programming
 - FPC number of Center Node providing VNDM (ASYDN: SYS1, INDEX533)
 - “AGENT ANYWHERE” is in service/out of service (ASYDL: SYS1, INDEX864, b2)
 - “MULTIPLE ACDPs in a Fusion Network” is in service/out of service (ASYDL: SYS1, INDEX864, b3)
 - FPC number of the node providing ACDP (ASYDL: SYS1, INDEX866)
- (d) ACD incoming calls released before connecting with the ACD positions are not deleted from the queue (Abandoned Call Search is ineffective)/ACD positions are not automatically released from the connection with an ACD call after the call is released.
- Software to be installed
 - Software install for extending the number of ports for SMFN (terminal) function (Basic ACD Option Service software, APL-0809: Series 7400 or later release)
 - Data Programming
 - CM usage (ASYD: SYS1, INDEX31, b0~3)
 - OAI Call Processing Event Notification (ASYD: SYS1, INDEX241, b2)
 - Number of ports for SMFN (terminal) (ASYDL: SYS1, INDEX864, b4~5)
- (e) ACD agent position is locked up after transferring an ACD call to another position in the remote node.
- Software Install
 - Software install for extending the number of ports for SMFN (terminal) function (Basic ACD Option Service software, APL-0809: Series 7400 or later release)
 - Data Programming
 - Number of ports for SMFN (terminal) (ASYDL: SYS1, INDEX864, b4~5)
 - Others
 - Check the destination node is PBX1 or PBX2 in [Figure 5-4](#). If PBX1 or PBX2 is required to be transferred ACD calls from other ACD systems, data programming and software install of PBX3 to PBX1, data programming and software install of PBX4 to PBX2 are required.
- (f) ACD incoming calls are not distributed using alternate routing function when system is down or connection trunks are all busy.

OFFICE DATA DESIGN

- Data Programming
 - SCF Return Error Detail Notification (ASYD: SYS1, INDEX241, b3=1) (*)
 - ACD data programming (see ACDCCV command data in item 4) (*)
- (g) LCD display is not operated normally on ACD agent positions.
- Software Install
 - Software install for extending the number of ports for SMFN (terminal) function (Basic ACD Option Service software, APL-0809: Series 7400 or later release)
- Data Programming
 - Number of ports for SMFN (terminal) (ASYDL: SYS1, INDEX864, b4~5)
 - ACD data programming (ACD position data in ACDPSN command is duplicated at multiple nodes) (*)

3. ACD SERVICE FEATURE

This section explains general description, operating procedure, service condition, and programming procedure for the following ACD service features.

Table 5-2 ACD SERVICE LIST

FEATURE CODE	SERVICE NAME
A-31A	Abandoned Call Search - ACD
A-34A	Assistance - ACD Agent - ACD
A-35A	Automatic Answer - ACD
A-37A	Availability - ACD Position - ACD
A-80A	Announcements - ACD
A-85A	Agent Personal Queue - ACD
A-86A	Auto Work Mode for PBX Calls - ACD
A-91A	Analog ACD Position - ACD
A-93A	Alternate Night CCV - ACD
A-133A	Agent Anywhere - ACD
B-20A	Break Mode - ACD
B-21A	Bad Call Notifications - ACD
C-35A	Call Distribution to Agents - ACD
C-67A	Call Transfer to Split Queue - ACD
C-68A	Call Waiting Indication - LCD Display/CW Lamp - ACD
C-70A	Calling Party Identification - ACD
C-108A	Call Control Vector - ACD
C-110A	Call Waiting Lamp with Chime - ACD
C-127A	Call Forwarding - Split - ACD

Table 5-2 ACD SERVICE LIST (Continued)

FEATURE CODE	SERVICE NAME
C-191A	Call Recover - ACD
C-199A	Connection Displays - ACD
D-133A	Do Not Disturb - Split - ACD
E-6A	Emergency/Recorder - ACD
F-10A	Function Groups (Splits) - ACD
F-25A	Flexible ID Codes - ACD
H-20A	Holiday Scheduling - ACD
H-31A	Hot Split - ACD
I-99A	Infolink Data Messages - ACD
L-19A	Logon/Logoff Position - ACD
L-48A	Language Default - ACD
L-92A	Logoff Warning - ACD
M-28A	Monitoring - ACD Supervisor - ACD
M-29A	Multiple Customer Groups - ACD
M-79A	Multiple Supervisor Groups (Splits) - ACD
M-88A	MIS Operator Selection - ACD
M-89A	Monitor Me - ACD
M-90A	Multi-Split Agent - ACD
N-12A	Night Service - ACD
N-14A	Non-ACD Call - ACD
O-10A	Overflow Outside - ACD
P-21A	Priority Queuing - ACD
P-40A	Pilot Numbers - ACD
P-45A	Personal Emergency and Assist - ACD
Q-1A	Queuing - ACD
R-19A	Release - ACD Position - ACD
R-145A	Ring Delay - ACD
S-91A	Splits - ACD
S-97A	Split Display - ACD Position - ACD
S-98A	Split Selection - ACD
S-108A	Stranded Call Routing - ACD
T-24A	Trunk Trouble Report - MIS - ACD
T-49A	Tally Count - ACD

Table 5-2 ACD SERVICE LIST (Continued)

FEATURE CODE	SERVICE NAME
T-50A	Time of Day/Week Routing - ACD
T-51A	Tally-Oh Codes - ACD
T-85A	Tally Required - ACD
W-5A	Work Mode - ACD
W-6A	Work Mode Time Limit - ACD
Z-1A	Zip Tone - ACD

A-31A ABANDONED CALL SEARCH - ACD

GENERAL DESCRIPTION

This feature prohibits abandoned incoming calls from being connected to agent/supervisory positions. Any trunk call disconnected during ringback tone is considered an abandoned call and is automatically removed from all queues. Trunk calls disconnecting after the first announcement must provide disconnect supervision to be classified as an abandoned call and to be removed from all queues. Once the ACD has answered a call, some central offices are unable to inform the ACD when a trunk is no longer in use. In these cases, the ACD is unable to recognize that the trunk has been abandoned and will connect the idle trunk to an agent/supervisory position.

OPERATING PROCEDURE

- Step 1: A caller has dialed into the ACD and is waiting in queue since no agents were available. While waiting the calling party hears either ringback tone, a message, or music on hold.
- Step 2: The caller disconnects prior to being connected to an agent. This could be either while hearing an announcement, listening to music on hold, or even while the agent's phone is ringing. At this time the abandoned call is detected and the caller will be removed from all queues he was waiting in.
- Step 3: If the abandon occurred while ringing at an agent's position, the agent will be assigned a new call from queue if there are additional callers waiting.

SERVICE CONDITIONS

- Step 1: An ACD call is registered as an abandoned call under the following conditions:
- The ACD incoming call is placed in queue and disconnects after hearing ringback tone.
 - The ACD incoming call disconnects while it is in queue at both the overflow source and the overflow destination.
 - The ACD incoming call disconnects during the first delay announcement.
 - The ACD incoming call disconnects while hearing music or silence between the first and second announcements.
 - The ACD incoming call disconnects during the second delay announcement.
 - The ACD incoming call disconnects after the second delay announcement and before connection to an agent position.
 - The caller disconnects while the ACD call is being terminated to the ACD agent position and ringback tone is being provided.
- Step 2: If the C.O. trunk is a loop start trunk (loop start trunks are unsupervised), the ACD cannot detect the release of a call by the C.O. after the trunk has terminated or is connected to the first delay announcement. Thus, the ACD cannot detect an abandoned call.

PROGRAMMING

None

A-34A ASSISTANCE - ACD AGENT - ACD

GENERAL DESCRIPTION

This feature allows an agent to call a supervisor for assistance. Activation of this feature, using the ASSIST key during an ACD call, automatically places the active call on hold and places an assistance call to a pre-programmed number. This number can be a PBX line for the supervisor. If the target extension of the assistance request has display capabilities, display information identifying the call as a call for assistance will accompany the call.

OPERATING PROCEDURE

To place an assistance request:

1. While on an ACD call, the agent whose extension is 4302, presses the ASSIST key. The ASSIST lamp lights and *ASSIST AND THEN TRANSFER* is displayed at the agent position.
2. The ACD call is placed on hold and an automatic transfer to the designated supervisor is initiated.
3. The agent hears ringback tone and the supervisor is rung. The supervisor is connected to the agent. (If supervisor is not available to take the call, the call waiting indication is provided to the supervisory position and "BUSY" is displayed at the agent position.)
4. The assistance call will connect on the supervisor's PBX line and will display either *ASSIST NAME* or *ASSIST 4302*, depending on whether the agent's name is programmed with their logon ID. Refer to [Flexible ID Codes - ACD \[F-25A\]](#) for more information.
5. After consulting with the supervisor, one of three things may happen:
 - a. The agent may release from the call, thereby completing the transfer of the ACD call to the supervisor.
 - b. The supervisor may release from the call. This will reconnect the agent and the ACD call.
 - c. The agent may press the CONF key and invoke a three-way conference between the supervisor, the agent and the ACD calling party.
6. When either the agent or the supervisor disconnects from the assistance call, the ASSIST lamp is extinguished and the displays return to their original status.

To cancel an assistance request:

1. After initiating an assistance request and before being answered by a supervisor, the agent may cancel the request by pressing the TRANSFER key or performing the switch hook flash. At that time, the agent reconnects with the ACD call.
2. The lamp associated with ASSIST key will be extinguished, the agent will be reconnected with the ACD calling party, and the display will return to the original display.

Queuing of Assistance Requests: *Valid since the PBX software Series 7400 and the ACD software R1.*
See [Multiple Supervisor Groups \(Splits\) - ACD \[M-79A\]](#) for details.

1. Assistance requests may be routed to a split of supervisors or an individual supervisor. If to a split of supervisors, multiple assistance requests can be queued. All the features which apply to CALL TRANSFER TO SPLIT QUEUE [C-67] also apply to assistance requests to a split of supervisors.
2. If assistance requests are being routed to a split of supervisors, they will also appear on the supervisor's ACD line. If the calls are routed directly to an individual supervisor, they will appear on the pre-programmed line (e.g., the supervisor's non-ACD line).

SERVICE CONDITIONS

1. During an assist call, either the agent or the supervisor can display the source of the original ACD call and the queue depth by pressing the LOGON key. Refer to [Calling Party Identification - ACD \[C-70A\]](#) for additional information.
2. The directory number used for assistance requests may not contain a "*" or a "#".
3. Assist requests will be ignored while talking on a non-ACD line or during an emergency call.
4. The ASSIST key can be dedicated to the ASSISTANCE - ACD AGENT feature or the MONITOR ME feature. The choice is made on a split-wide basis.
5. When an Emergency request is routed to an individual supervisor, the call is distributed to the supervisor in Work Mode or Break Mode. While, Emergency call to a split of supervisors is not distributed to the supervisors in those modes.
6. For emergency split queuing, to ensure the fastest processing, the only CCV steps that will be executed are Queue to Split, Conditional Queue to Split, and Goto (the steps are followed by Pause, End CCV), and the request will be queued at the highest priority. All other CCV steps will be ignored.

PROGRAMMING

This data is set to the agent position.

Step 1: AKYD - Assign ASSIST Key to a Function Key.

Step 2: ACDSPL - Assign number for ASSIST under the DIR numbers.

Step 3: ACDLOG - Assign Personal Assist Number.

AUTOMATIC ANSWER - ACD

A-35A AUTOMATIC ANSWER - ACD

GENERAL DESCRIPTION

This feature gives an agent the ability to determine whether calls should be automatically connected to the headset or handset, or manually answered after ringing. When in Automatic Answer mode, calls are announced using a special tone signal called Zip Tone. All normal calls are preceded by a single burst of tone. Calls which may require special handling (forwarded or overflow calls) are preceded by two bursts of tone.

OPERATING PROCEDURE

To set AUTOMATIC ANSWER from the Manual Answer mode:

- Step 1: The agent or supervisor presses the AUTO/MAN key.
- Step 2: The D^{term} display shows *AUTO ANSWER*. The AUTO/MAN lamp lights steadily.
- Step 3: All subsequent calls are introduced by a Zip Tone at the agent's or supervisor's headset, and then the caller is automatically on-line.

To set Manual Answer from the AUTOMATIC ANSWER mode:

- Step 1: The agent or supervisor presses the AUTO/MAN key.
- Step 2: The D^{term} display shows *MANUAL ANSWER*, and the AUTO/MAN lamp is extinguished.
- Step 3: All subsequent calls are introduced by the normal ringing of the D^{term} set.

SERVICE CONDITIONS

- Step 1: The AUTO/MAN key can be pressed at any time as long as the agent or supervisor is logged onto the ACD system.
- Step 2: If the supervisor or agent is engaged in a call when the AUTO/MAN key is pressed, the answering mode change will take effect upon the completion of the call in progress.
- Step 3: If the agent or supervisor is in the Auto mode and hears Zip Tone (introducing the next call), and presses the AUTO/MAN key at that moment, the next call will not be answered until after the current call is completed. Refer to [Zip Tone - ACD \[Z-1A\]](#) for related information.
- Step 4: When the agent console is set for AUTOMATIC ANSWER, normal ACD calls are introduced by one burst of tone (i.e., Zip Tone). Overflowed calls and calls which arrive at the agent position as a result of forwarding from another split are announced by two bursts of tone.
- Step 5: AUTOMATIC ANSWER applies only to ACD calls. It does not apply to calls which terminate to an agent's or supervisor's LINE key.
- Step 6: AUTOMATIC ANSWER applies only when the agent position is in the off-hook condition (through the headset or handset) and is not engaged in any other call. If the agent position is engaged in a call when the ACD call arrives (for example, if the agent is talking on the LINE key), then the ACD call will terminate as though Manual Answer was set.

- Step 7: The answer mode change can be operated at any time a position is occupied. AUTO ANSWER parameter in ACDSPL determines the default setting for this feature for a particular split each time an agent or supervisor logs in.
- Step 8: Agents can be restricted from changing their answer mode by not assigning an AUTO/MAN key to the agent position. In that case, the split default will remain in effect.
- Step 9: When a D^{term} is left on hook in the auto answer mode, the ACD line will ring as if it were set to the manual answer mode.

PROGRAMMING

- Step 1: ACDSPL - Assign whether the default ANSWER mode is automatic or manual after logging on.
- Step 2: In AKYD, assign “AUTO/MAN” key to change the answer mode.

AVAILABILITY - ACD POSITION - ACD

A-37A AVAILABILITY - ACD POSITION - ACD

GENERAL DESCRIPTION

After-Call Availability allows a split to be assigned to either Automatic-Available mode or Automatic-Work mode. This is referred to as the after-call work mode.

In Automatic-Available mode, a position becomes available to receive new ACD calls immediately upon disconnecting from the previous call. In Automatic-Work mode, a position is unavailable to receive ACD calls after disconnecting from the previous call. Automatic-Work mode allows the agent time to perform miscellaneous activities that may be associated with the ACD call.

After-call work mode may have a time limit which will automatically force the position to Available mode upon expiration.

The after-call mode and optional Work Timeout are set on a per-split basis through the ACD MAT or a MIS terminal. Agents may change their after-call mode during an ACD call.

OPERATING PROCEDURE

Automatic-Available Mode set for split:

- Step 1: An agent is engaged in an ACD call. The WORK lamp is not lit and the lamp associated with the ACD CALL key is lit.
- Step 2: When the ACD call is disconnected, the lamp associated with the ACD CALL key is turned off, the position becomes available, and *READY* is displayed.
- Step 3: If the agent presses the WORK key before the ACD call is disconnected, the WORK lamp is lit, *WORK PENDING* is displayed. The work lamp is lit until it times out or is pressed by the Agent.

Automatic-Work Mode set for split:

- Step 1: An agent is engaged in an ACD call. The WORK lamp is lit and the lamp associated with the ACD CALL key is lit.
- Step 2: When the ACD call is disconnected, the lamp associated with the ACD CALL key is extinguished, the position becomes unavailable, and *WORK MODE* is displayed. The work lamp is lit until it times out or is pressed by the Agent.
- Step 3: If the agent presses the WORK key before the ACD call is disconnected, the WORK lamp is extinguished and the Automatic-Available mode is selected for this call only.
- Step 4: After releasing the call and entering the Automatic-Work mode, the agent must press the WORK key to leave the Automatic-Work mode and become available to receive new ACD calls, unless the timeout mode is set in ACDSPL.

SERVICE CONDITIONS

- Step 1: The after-call mode can be operated whenever a position is occupied.
- Step 2: When a position is forced into the Automatic-Work mode immediately after an agent or supervisor logs on, the WORK key must be pressed to begin receiving ACD calls. When the first and all subsequent ACD calls are received, a split parameter will automatically set the appropriate after-call mode for the position.
- Step 3: The conditions for Automatic-Available/Automatic-Work mode can be set on a per-split basis. The operating mode can be changed either from the ACD MAT or from a MIS terminal.
- Step 4: During after-call Automatic-Work mode, no ACD incoming calls are allowed to terminate to the ACD position. However, non-ACD incoming calls are terminated or originated from the position's MYLINE.

PROGRAMMING

Assign "WORK" key to the agent position.

AKYD - Assign AUTO/MAN to a function key.

ACDSPL - AUTO READY AFTER CALL

Note: *Work mode may be canceled and reset by the manual operation even if AUTO READY AFTER CALL is programmed in ACDSPL.*

ANNOUNCEMENTS - ACD

A-80A ANNOUNCEMENTS - ACD

GENERAL DESCRIPTION

Other variable length announcements (4-60 seconds/2-120 seconds/1-240 seconds using NECi SPA-4DATC Announcement Trunk Card) are provided for ACD callers by customer-provided announcement hardware using digital announcement trunk circuits or certain analog trunk circuits. Announcements are designed to be heard for one complete cycle from the beginning of the message. Since multiple connections to each announcement channel are possible, an appropriate delay may be inserted to wait for the beginning of the spoken announcement, if necessary.

OPERATING PROCEDURE

- Step 1: The ACD system recognizes the termination of an ACD incoming call.
- Step 2: The ACD calling party hears ringback tone.
- Step 3: Announcement connections are made by properly programming a Call Control Vector (CCV). Refer to [Call Control Vector - ACD \[C-108A\]](#) for additional information.
- Step 4: When the predetermined ring delay timing parameter set before the delay announcement has passed, the system sends answer supervision to the central office and connects the caller to the announcement. During this process, the ACD call retains its queue position if a “(queue to)” step has been specified at the CCV.
- Step 5: At any point after a “(queue to)” step (including during the delay announcements), if an agent becomes available, the ACD call is immediately connected to the agent.

SERVICE CONDITIONS

- Step 1: Announcements are connected only when the transfer is completed.
- Step 2: The announcement source connection method can be a multiple connection or a single connection with start point seek, depending on System Data.
- Step 3: In the case of a multiple connection, all new calls that are detected within a period of time preassigned by System Data (2~30 sec.) will receive the message simultaneously.
- Step 4: This feature is applicable to ACD incoming calls from a C.O., transferred from an attendant, agent or PBX station.
- Step 5: The announcement length timer is programmed in the System data on a per-announcement basis.
- Step 6: It is possible to set up multiple channels of the same announcement in a hunt arrangement to accommodate large volumes of simultaneously queuing calls.
- Step 7: By the system data programming, at any point during the announcement when all the ACD callers connected to the announcement are disconnected or distributed to another station/trunk, the Digital Announcement Trunk (DAT) is released and the next announcement is sent immediately.
- Step 8: In a multiple connection, a maximum of 10 ACD incoming calls can be connected to one channel of Digital Announcement Trunks depending on the system data.

Step 9: In a single connection, one ACD incoming call is connected to one channel of Digital Announcement Trunks.

PROGRAMMING

Step 1: AADT/AADTN

Step 2: ACDCCV

A-85A AGENT PERSONAL QUEUE - ACD

GENERAL DESCRIPTION

Incoming ACD calls wait in queues until an agent is available to take the call. There are two types of queue for waiting callers, Split Queues and Agent Personal Queues. When a call is waiting in a split queue, the next agent who becomes available in the entire split will be assigned the longest waiting call. When a call is waiting in an Agent Personal Queue, it can only be assigned to a single agent. A variety of overflow timeout, unavailability, and full queue parameters can be programmed for each agent personal queue to provide for alternate call handling when the designated agent does not get to the call in time or is unavailable.

A call is directed to a normal split queue by way of the dialed Pilot Number. A call is directed to an agent's personal queue by way of a Personal Pilot Number. The personal pilot number is associated with the agent's logon ID and is valid whenever and wherever the agent is logged onto the ACD system.

Calls (internal, external, ACD agent transfers, CCV transfers, emergency, assist, etc.) to the agent's ACD line are made by calling the personal pilot number. If and only if the agent is on an ACD call or is in Work mode, the call will be queued to the agent's personal queue. The LOGON lamp functions as the call waiting indicator for the personal queue. Calls in the agent's personal queue have priority over calls in any split queue.

Six pieces of data may be programmed independently for each agent's personal queue.

The Personal Pilot Number: this is the number dialed in order to call to the personal queue.

Call Waiting Chime: alerts the agent when calls arrive in queue, may be off, on first, on always.

Maximum Queue Depth: how many calls may be waiting in the agent's personal queue.

Forward / Full CCV: how to handle calls when the queue is full or when the agent is not available. Not available includes the two states of a) not logged into the ACD and b) on Break.

Personal Queue Timeout: how long a call may wait in queue before overflowing.

Overflow CCV: how to handle calls which overflow in timeout.

Each call that is added to the personal queue, abandons the personal queue, or overflows from the queue invokes a display on the agent's console. The display indicates the current depth of the personal queue; for example, *PERS. QUEUE: 4*.

A call in a personal queue does not have an associated priority. A call in a split queue does have an associated priority because the handling of a call in a split queue is based on the call's priority and elapsed time in the queue. When a call overflows from a personal queue or is forwarded from a personal queue, and the call is then queued to a split, the call must have a priority assigned to it. Calls that overflow/forward from a personal queue are placed in one of two categories for the purpose of assigning a priority.

1. Calls that were received on an ACD trunk are given the priority of the trunk.
2. Calls that were not received on an ACD trunk are given a priority that is programmed in the ACD database. The single priority is set on a tenant-wide basis.

OPERATING PROCEDURE

The agent is handling an ACD call or is in Work mode, when a non-emergency/non-assist call to the agent's personal pilot number is received:

1. The call is queued to the agent's personal queue.
2. The agent's display shows *PERS. QUEUE: 1*, which indicates that a single call (in this example) is in the agent's personal queue.
3. The LOGON lamp, functioning as the call waiting lamp for the personal queue, begins flashing. The lamp flashes when the queue depth is one (1) or two (2); it winks when the queue depth is three (3) or greater. The flash and wink thresholds are fixed in the System software.
4. If programmed to do so, a chime (personal queue chime) will sound as an audio alert to the agent. The chime can be programmed to sound for only the first call queued, for each call queued, or not to sound.
5. The calling party is immediately connected to an announcement (personal queue announcement). This announcement, which is specifically for agent personal calls, is programmed on a tenant-wide basis. All calls to any personal queue will hear the exact same announcement.
6. The call to the agent's personal pilot number will have a higher priority than any non-emergency/non-assist call queued to a split. When the agent becomes Ready the personal queue call will connect to the agent.
7. When the call is ringing and when the agent answers the call, the display shows *PRS ORDERS*, for four (4) seconds, followed by *TIME IN Q: 0:28* (for example). The consecutive displays indicate that the call is from the personal queue, identify the source of the call (trunk/party, etc.), and provide the amount of time the call spent in the queue.
8. If the timer expires, the call will be handled by the Forward/Full CCV step indicated in the ACD database. If another ACD agent subsequently receives the overflowed call, that agent's display will indicate that the call overflowed from a specific personal queue; for example *PRS OVF SAM*.
9. If the agent logs off or enters Break mode, the call will be handled by the Forward/Full CCV step indicated in the ACD database.

SERVICE CONDITIONS

1. The personal queue announcement is connected to each call as soon as the call is queued. The announcement is only played once. Therefore, it is suggested that the announcement informs the caller that additional announcements will not be forthcoming and that the call will be handled elsewhere (if the called agent does not answer, and the personal queue time-out is used and expires). If the personal queue time-out is not used, the call will remain in the personal queue until it is either handled by the agent, or the agent logs off or goes into Break mode. In the latter case, the call will go to the personal queue forward step.
2. A personal queue overflow step and a personal queue forward step both point to a step (instruction) in a particular Call Control Vector. The indicated steps can be any CCV instruction.
3. The flash and wink thresholds for the LOGON lamp are fixed in the system; they are not programmable. The LOGON lamp will flash when the queue depth is one or two calls; it will wink when the queue depth is three or more calls.

AGENT PERSONAL QUEUE - ACD

PROGRAMMING

- Step 1: AIGNN - Assign telephone number for NDM.
- Step 2: AMNON - Assign the pilot number (monitor number) for an individual call.
pilot number (maximum 5 digits) **Note**
- Step 3: ACDTN - Assign the announcement number per tenant
ANNOUNCEMENT NUMBER: announcement number for an individual call (0-58)
"0" means an announcement service is out of service for an individual call
- OVERFLOW/FORWARD PRIORITY: Priority order of queue for an individual call (1-255)
ACDLOG - Personal Queuing
- PILOT NUMBER: Pilot number for an individual call (maximum 5 digits)
- MAX QUEUE DEPTH: Maximum Queue Depth for an incoming call routed to the agent (0-999)
- PERSONAL FORWARD CCV: CCV No. to be routed when the individual call encounters busy status (1-900)
CCV step number to be forwarded when the individual call encounters busy status (1-20)
- OVFT: Overflow Timeout (0-9999 sec.)
"0" means overflow service is out of service for an individual call
- PERSONAL OVERFLOW CCV: CCV number to be routed when the time limit (OVFT) is over (1-900)
CCV step number to be routed when the time limit (OVFT) is over (1-20)
- CALL WAITING CHIME: Call waiting chime is not available
Call waiting chime is rung only once (at the first time)
Call waiting chime is rung every time

Note: Refer to [Chapter 7](#) for Monitored Number Assignments.

A-86A AUTO WORK MODE FOR PBX CALLS - ACD

GENERAL DESCRIPTION

All the agents, within a split, can automatically be placed in Work mode when handling a call on a PBX line. Incoming and outgoing PBX calls are treated separately.

When this feature is applied to incoming PBX calls, an agent will be automatically placed in Work mode upon receiving an incoming PBX call.

When this feature is applied to outgoing PBX calls, an agent will be automatically placed in Work mode upon receiving dial tone on their PBX line.

If Work mode is restricted, Break mode is used instead.

OPERATING PROCEDURE

None

SERVICE CONDITIONS

This feature is implemented through the ACDSPL command. The command data is on a split-wide basis.

Note: See *ACDSPL Programming* in [Chapter 7](#).

ANALOG ACD POSITION - ACD

A-91A ANALOG ACD POSITION - ACD

GENERAL DESCRIPTION

This feature extends the functionality of ACD features to users operating analog station equipment. By dialing access codes from a single-line (POTS) station an agent may invoke several features including:

- Logon with ID
- Logon without ID
- Logoff
- Switch between the modes of Work, Ready, and Break (up to nine types of Break)
- Enter Tally codes
- Register Trunk Trouble
- Place the split into Day and Night modes

Using Off-Premise Extension (OPX) technology an agent can be situated at a remote location and still process ACD calls with many of the features available to the local agents using digital telephone sets. With additional hardware, a remote agent can dial in to the NEAX2400 ACD and remain continuously connected while calls are connected to the agent one after another. The same hardware can also be programmed to call the agent back at their home telephone number effectively reversing any long distance charges which might apply.

OPERATING PROCEDURE

A typical shift at an analog position might be as follows:

- The agent dials the access code 4300 to logon to a split using the ID code 100. ID 100 is not currently in use by another agent, and is programmed for Split 1 which requires an ID code. The agent is logged on to Split 1 and hears the success announcement or the service set tone* programmed for access code 4300. The agent enters Work mode automatically upon logon.
- After the Work Timeout expires (3 seconds, for example), the agent automatically enters Ready mode. If ACD calls are waiting in queue one will be immediately assigned to this position.
- At the conclusion of each call, the position is placed in Work mode for three seconds, then returned to Ready mode (assuming the after call work timeout is programmed for three seconds).
- At the end of the shift, the agent calls the access code to logoff and is connected to the success announcement or the service set tone*.

* Available since PBX software Series 7400 and ACD software Release 3.

SERVICE CONDITIONS

1. The access codes dialed by agents from analog positions may be from two to five digits in length and may not contain any "*" or "#" digits even though these digits are commonly available on the station equipment typically used.
2. Success and failure announcements are not connected to agents performing a transfer to the access code. Only agents without a held party hear announcements.
3. The PBX without announcement trunk can send the tone, (service set tone for success and reorder tone for failure) to the agent since PBX software Series 7400 and ACD software Release 3.

PROGRAMMING

- Step 1: AMNON - Assign the Access Codes used in ACDANA
 N_MNO: pilot number (monitor number) Maximum 5 digits
 N_NMI: number monitored Index (1-4095)
- Step 2: ACDANA
 ACC: Access code (Maximum 5 digits) assigned in AMNON.
 Feature
 Logon with ID code
 Logon without ID code
 Logoff
 Ready Mode
 Work Mode
 Break Mode
 Tally Code
 Trunk Trouble
 Day Mode Single
 Day Mode All
 Night Mode Single
 Night Mode All
 Permanent Work
 ID: Logon ID *Valid for "Logon with ID" Feature
 CODE: Tally code *Valid for "Tally Code" Feature
 TYPE: Break type *Valid for "Break Mode" Feature
 S-ANT: Success Announcement or Tone
 0 = Service Set Tone*
 1-58 = Announcement No. programmed in AADT. Analog ACD position will be
 connected to the announcement upon successful operation.
 F-ANT: Failure Announcement or Tone
 0 = Reorder Tone*
 1-58 = Announcement No. programmed in AADT. Analog ACD position will be
 connected to the announcement upon failed operation.

Note: *Valid since PBX software Series 7400 and ACD software Release 3.*

Step 3: ACDSPL - Assign the split data.

Step 4: ACDPSN
 Position Number: My line number for the analog agent **Note**
 ACD - My line number for the analog agent
 Yes - Analog agent position

Note: *Position and ACD number same for Analog Agent.*

ALTERNATE NIGHT CCV - ACD

A-93A ALTERNATE NIGHT CCV - ACD

GENERAL DESCRIPTION

Alternate Night CCV provides custom routing on a per Pilot Number basis for incoming ACD calls which encounter splits in the night mode. This feature is activated only when a split is in night mode. Consequently, if a split is in Call Forward mode the Alternate Night CCV assigned to the Pilot Number will not be checked.

Several incoming Pilot Numbers can be directed to a common split for answering of calls during the daytime. When the split is placed in Night Mode a new Night CCV is specified to handle the calls. Calls to Pilot Numbers which do not specify an Alternate Night CCV will be routed to the split's Night CCV.

OPERATING PROCEDURE

1. An ACD position puts the split into night mode via the NIGHT key.
2. New calls arriving at this time will route to the Alternate Night CCV specified for the Pilot Number dialed.
3. If the Pilot Number dialed does not have an Alternate Night CCV then the split's night destination is used as a default.

SERVICE CONDITIONS

1. Alternate Night CCV will be used if and only if the call is not yet queued to any split and the current split being checked is in the Night Mode.
2. Alternate Night CCV cannot be CCV Index #1, CCV Step#1; only CCV Index #2 through CCV index #900 and CCV Step#2 through 20 are allowed.
3. Incoming calls to Pilot Numbers without an Alternate Night CCV will follow the Night Mode programmed for the split.

PROGRAMMING

- Step 1: ACDPLT
CCV index number to be routed in the night mode (2-900)
CCV step number to be routed in the night mode (2-20)
- Step 2: ACDSPL
NIGHT: Destination pilot number in the night mode (maximum 5 digits)

Note: *When night destination is not programmed for the split, enter the pilot number assigned in ACDPLT.*

A-133A AGENT ANYWHERE - ACD

GENERAL DESCRIPTION

This feature is used in the fusion network. This feature allows the ACD agent position to be installed in any fusion node irrespective of the node having the ACDP. (Those ACD agent positions in multiple nodes are controlled by one ACDP). By using this feature, the ACD call terminated at the trunk in the self node can be handled by ACD agent positions in the self node. A split can consist of ACD positions belonging to multiple nodes.

This feature is available with the Series 7300 or later PBX software.

OPERATING PROCEDURE

None

SERVICE CONDITIONS

1. Refer to the condition described in [Section 2.2, ACD In a Fusion Network Data Assignment](#) of this chapter.
2. ACDP is in only one node of the Fusion Network.
3. The node that has the most ACD agent positions must be specified for the node providing ACDP.
4. After the system initialization is complete in the node providing the ACDP, it will take around five minutes until the ACD service becomes effective in all nodes. (It depends on the quantity of the ACD data. The shortest time is 30 seconds.)
The reason for the delay is because of the time to complete transferring the ACD data written in the Variable Network Data Module (VNDM) to all nodes.
5. The pilot number (including the personal monitored number and the dialed number for ANALOG ACD POSITION [A-91]) has to be registered in the Network Data Memory (programmed in AMNON).
6. After the ACD pilot number is added or deleted, it takes around five minutes until the new pilot number becomes effective in all nodes. (It depends on the quantity of the ACD data. The shortest time is 30 seconds.) When adding or deleting ACD pilot number, the VNDM data is automatically transferred to all nodes. Thus, the addition or deletion of the pilot number has to be done in low traffic.
7. The node providing the ACDP must be initialized when all the other nodes are in on-line mode.
8. When you initialize the node that does not accommodate the ACDP, you must also initialize the node providing the ACDP.
9. When you add a node/nodes to the network, you have to initialize the node that accommodates the ACDP. Until you complete the initialization of the node providing the ACDP, you cannot use the ACD agent position or the ACD trunk in the additional node.
10. The MIS must be installed in the node providing the ACDP.

AGENT ANYWHERE - ACD

PROGRAMMING

ASYDL

SYS1, INDEX864: Internal ACDP is provided (ACD node only)

SYS1, INDEX512: FPC number of the self-node (I-253)

SYS1, INDEX866: FPC number of the node that accommodates the ACDP (1-253)

ASYDN

SYS1, INDEX533: FPC number of the node that has the standard VNDM (1-253)
(assign the FPC number of the node providing ACDP).

B-20A BREAK MODE - ACD

GENERAL DESCRIPTION

This feature allows an agent to take their position out of the queue without logging off or entering Automatic-Work mode. This feature is useful if the agent will be away from the position for a short time, such as for lunch, a coffee break, etc. Since the agent does not log off when using BREAK MODE, no other agent may log onto this position.

The user can select, for each split, a single break type or nine break types. If nine break types are selected for a split, then whenever an agent in the split requests a break, the agent is prompted for the break type. The Navigator Management Information System (MIS) allows each break type to be defined with a six-character string, such as “coffee” or “lunch”. This string will be used for Navigator MIS reporting purposes.

OPERATING PROCEDURE

To activate BREAK MODE (single break type):

1. The agent presses the BREAK key and the associated lamp is lit.
2. If the agent is not on a call, the display will show *ON BREAK*. If the agent is on a call, the display will show *BREAK PENDING*. At the end of the call, the display changes to *ON BREAK*.

To activate BREAK MODE (nine break types):

1. The agent presses the BREAK key and the associated lamp is lit.
2. The display shows *BREAK TYPE?*
3. The agent enters a digit from “1” to “9”, to indicate the break type, then enters “#” to complete the input.
4. The display shows *BREAK TYPE = N*, where N is the number the agent entered in the previous step. This display will be shown for four seconds. Following this display, if the agent is not on a call, the display will show *ON BREAK*. If the agent is on a call, the display will show *BREAK PENDING*. At the end of the call, the display will change to *ON BREAK*.
5. If the agent does not indicate a break type (“1” to “9”), within thirty seconds of pressing the BREAK key, the system will default to break type 1, and *BREAK TYPE = 1* will be displayed for four seconds. Following this display, if the agent is not on a call, the display will show *ON BREAK*. If the agent is on a call, the display will show *BREAK PENDING*. At the end of the call, the display will change to *ON BREAK*.

To cancel BREAK MODE (single break type or nine break types):

1. The agent presses the BREAK key.
2. The display shows the time spent on break in minutes and seconds. For example, *BREAK OVER 35:20*.
3. The BREAK lamp is extinguished.
4. The WORK lamp indicates whether the agent will be placed in the Work Mode or Ready Mode when the Break Mode is concluded. By operating the WORK key prior to exiting Break Mode the agent may specify what their next mode will be.

BREAK MODE - ACD

SERVICE CONDITIONS

1. Logging off is permitted while in Break Mode, by pressing the LOGON key. The after-call mode may be toggled while on break and set to either Automatic-Work or Automatic-Available.
2. When Break Mode is set at a position, incoming ACD calls are not allowed to terminate to the position.
3. Non-ACD calls can be originated from or terminated to a position, while the position is in Break Mode.
4. This feature's status can be monitored at a Navigator MIS terminal via the agent current status display and the agent audit report.
5. Every agent position and supervisor position may have a BREAK key.
6. The operation of the BREAK key allows the MIS to track work time and non-work time.

PROGRAMMING

Step 1: ADYD - Assign BREAK key to function key.

B-21A BAD CALL NOTIFICATIONS - ACD

GENERAL DESCRIPTION

Bad Call Notifications are printed on the PBX system's MAT printer when they occur. Even though the name indicates that some serious error has occurred there are several "Bad Call Notifications" which are for informational purposes only and do not really indicate an error situation. The term "Bad Call Notification" cannot be changed but ACD users should consider the 6-H reports as "ACD Information Report" regardless of what the header information says. For details about system message "6-H", see [Section 3.2.3](#) in [Chapter 9](#).

OPERATING PROCEDURE

- Step 1: The noise or an error occurs in the communication or the agent wants to see the information of the connection in progress.
- Step 2: The agent presses the TRKTRBL key during handling the call.
- Step 3: The ACD information report is printed on the PBX system's MAT printer.

PROGRAMMING

- Step 1: ADYD - Assign "TRKTRBL" to function key.

CALL DISTRIBUTION TO AGENTS - ACD

C-35A CALL DISTRIBUTION TO AGENTS - ACD

GENERAL DESCRIPTION

ACD calls are automatically distributed among the agents in a split such that when an agent becomes available the longest waiting call with the highest priority in the queue is assigned to that agent. Refer to [Priority Queuing - ACD \[P-21A\]](#) and [Queuing - ACD \[Q-1A\]](#) for additional information.

During periods when more than one agent is available and there are no calls in the queue, the first incoming ACD call is assigned, based on a two-level algorithm, to an agent.

The first level of the algorithm seeks the agent who has the highest preference level specified for the split. An agent who is servicing a single split is considered to have the highest possible preference level ("1") specified for the split. An agent who is servicing multiple splits can have a preference level ranging from "1" (highest) to "250" (lowest) specified for the split (Since an agent is allowed to handle calls terminated at a maximum of four split, only four privilege order is applied to each split). The preference levels for an agent who is servicing multiple splits are set in the ACD database. Refer to the description of the [Multi-Split Agent - ACD \[M-90A\]](#) for more details.

The second level of the algorithm seeks the agent who has been waiting to service an incoming ACD call (in Ready mode) for the longest period of time.

The following example illustrates the operation of the two-level algorithm.

Agent Preference Example

Agent Name	Preference Level	Waiting Time
Allan	3	55 seconds
Barbara	1	30 seconds
Charles	1	25 seconds
Denise	2	40 seconds

The first incoming ACD call will be sent to Barbara. The first level of the algorithm removes Allan and Denise from consideration since their respective preference levels are lower than the preference level that Barbara and Charles have in common. The second level of the algorithm removes Charles from consideration since Charles has been waiting to service an incoming ACD call (in Ready mode) for a shorter period of time than Barbara.

Only incoming ACD calls directed to pilot numbers or personal pilot numbers, and other calls generated within the ACD processor (such as Assist and Emergency calls) may be connected to agents' ACD lines. For proper operation of the ACD, direct calls to an agent's ACD line from stations, DIDs, Tie trunks, CCIS trunks, attendants or any other method (such as call forwarding to agents' ACD lines) are not permitted and must be restricted by the proper programming of the PBX database.

OPERATING PROCEDURE

No agents available:

1. An incoming ACD call is queued.
2. An agent becomes available.
3. The longest waiting ACD call in the queue with the highest priority is assigned to that agent.

Agents available:

1. There are no incoming ACD calls.
2. Agents are queued as they become available.
3. An incoming ACD call arrives.
4. The ACD call is assigned to the agent who has the highest preference level, and who, among those agents with the same preference level, has been waiting to service an incoming ACD call (in Ready mode) for the longest period of time.

SERVICE CONDITIONS

1. When calls are waiting in queue, all calls of a higher priority will be answered (in their order of arrival) before calls of a lower priority, regardless of how long a lower-priority call has been waiting.
2. Upon receiving a call, an agent may transfer the call to any destination allowed under normal transfer conditions. When transferring to a CALL PARK [C-29] location, the agent will hear only a short burst of Service Set Tone.
3. Do Not Disturb (DND) Key

The DND Key may have undesirable side effects if utilized at an agent's ACD position. For example: an agent position left in Ready mode but with the DND feature set for the position's PBX line (my line) will still receive an ACD call (as a result of the Ready mode) but the position will not ring (as a result of the DND feature being set). It is up to the ACD user to understand and accept all potential side effects of using the DND key at an ACD position.

PROGRAMMING

None

CALL TRANSFER TO SPLIT QUEUE - ACD

C-67A CALL TRANSFER TO SPLIT QUEUE - ACD

GENERAL DESCRIPTION

This feature allows calls to be transferred by agents or supervisors, PBX station users, or attendants to splits in the ACD system. The transferred call will be connected to an available agent or the call will be queued, if agents are not available. The transferring party is allowed to remain on the line until the agent answers (screened transfer) or may complete the transfer while still in queue or while ringing the agent (blind transfer).

OPERATING PROCEDURE

From a PBX station:

1. The PBX station user transfers the calling party to the ACD by dialing a pilot number.
2. A Call Control Vector (CCV) associated with the pilot number is processed and the transferred call may be queued to a split.
3. The PBX transferring station processes the CCV until an agent answers, the PBX station finishes the transfer, or the party being transferred disconnects. All announcement connections indicated in the CCV are skipped over in the case of a transferred call. The PBX transferring party hears only ringback, while transferring, until an agent answers.
4. The transferring station user may either disconnect, completing the transfer, or may press the TRANSFER key again, aborting the transfer. Attempts to conference at this point will be ignored.
5. If the transferring station disconnects and completes the transfer, the calling party will then begin processing the remainder of the CCV, including announcements.

From an ACD agent's or supervisor's position:

1. The agent or supervisor presses their TRANSFER key while on an ACD call or a PBX call and transfers to the ACD by dialing a pilot number.
2. A CCV associated with the pilot number is processed and the transferred call may be queued to a split.
3. The agent processes the CCV until another agent answers, the agent finishes the transfer, or the transferred party disconnects. All announcement connection instructions in the CCV are skipped over. Ringback Tone (RBT) is provided to the transferring agent until another agent answers.
4. The transferring agent may either disconnect (completing the transfer), or may press the TRANSFER key again, aborting the transfer. Attempts to conference at this point will be ignored.
5. If the transferring agent disconnects and completes the transfer, the calling party will begin processing the remainder of the CCV, including announcements.

From an attendant console:

1. The attendant transfers the calling party to the ACD by dialing a pilot number.
2. RBT is provided to the attendant. At this point the attendant may either complete or cancel the transfer. If the attendant completes the transfer, the transferred party will begin processing the CCV, including all announcements. Note that except for transfers across CCIS, no CCV processing is done while the attendant listens to RBT. The attendant must complete the transfer before CCV processing takes effect. For attendant transfers across CCIS, CCV processing will begin when the attendant first receives RBT.

SERVICE CONDITIONS

1. Any calling party, except attendants, may be transferred into a split queue.
2. For attendant transfers to a split queue across CCIS, CCV processing will begin when the attendant first receives RBT. However, for non-CCIS attendant transfers to a split queue, CCV processing will begin only after the attendant completes the transfer.
3. Except for calls across CCIS, attendants are only allowed to transfer calls to pilot numbers. They may not call pilot numbers directly. If an attendant dials pilot number directly, the call is ignored and the attendant will hear RBT indefinitely.
4. If an attendant dials a pilot number directly across CCIS, the call will be treated as a normal trunk call.
5. If an agent or PBX station user transfers a call to a split queue and hangs up before the agent at the destination answers, recall does not occur when the don't answer timer expires.
6. In a call transfer to a split queue, overflow service is provided to calls placed in queue.

PROGRAMMING

None

CALL WAITING INDICATION - LCD DISPLAY/CW LAMP - ACD

C-68A CALL WAITING INDICATION - LCD DISPLAY/CW LAMP - ACD

GENERAL DESCRIPTION

This feature provides visual indication of a split's current queue depth by the use of the CW lamp (Call Waiting) and the position's display. The CW lamp is always operative but can only provide an approximate indication of the queue depth. The position's display can show the current queue depth precisely but the display is provided periodically as the agent processes calls. An optional Call Waiting Key may be programmed and will generate a display of the current queue depth when pressed.

OPERATING PROCEDURE

1. When the number of ACD calls in a split's queue is greater than or equal to the call-waiting-on threshold, the CW lamp is turned on.
2. When the number of ACD calls in the split's queue is greater than or equal to the call-waiting-flash threshold, the CW lamp flashes. A database setting can enable a chime to sound at positions in the WORK mode when the lamp comes on or begins flashing. For more details information, refer to [Call Waiting Lamp with Chime - ACD \[C-110A\]](#).
3. Each time an ACD agent or supervisor is assigned a new call or each time they go into Work mode, the number of calls waiting in the split's queue is displayed on their position.
4. When an agent or supervisor presses the LOGON key while engaged in a call, the calling party identification of the original incoming ACD call (trunk calls only) is displayed for that position followed by the number of calls waiting in the split queue.
5. For an on-demand display of the current queue depth and longest waiting caller the agent may press the Call Waiting Key while in any mode.

SERVICE CONDITIONS

1. The lighting of the CW lamp may be somewhat delayed and is not intended to depict instantaneous queue status.
2. Queue depth is only displayed on an agent's position when there are calls waiting in the split queue.
3. Split data must be set for the desired threshold of calls in queue required to make the CW lamp illuminate or flash to indicate call thresholds have been exceeded.
4. The call waiting indication can be provided on the D^{term} agent or supervisor console in any unused programmable line appearance.
5. The DLC and ELC line cards must be of the proper version to provide "call waiting indication".

PROGRAMMING

- Step 1: AKYD - Assign the CW lamp to the agent/supervisory position
KYN: Key Number
KYI = 1 (Function key)
FKY = 47 (CW lamp)

C-70A CALLING PARTY IDENTIFICATION - ACD

GENERAL DESCRIPTION

This feature allows calling party information to be displayed on the LCD of the D^{term} when an incoming call is assigned to an ACD agent. The format of the calling party information follows:

1. Incoming Trunk and Circuit Information:

A unique twenty-character name for an incoming trunk group along with the trunk circuit number within the group can be displayed. This display is commonly used for ringdown trunks. For example, *NATIONAL 7*.

2. Called Number Identification: LDN

When an incoming trunk calls a particular pilot number, an ID associated with the pilot number can be displayed instead of the twenty-character name of the incoming trunk group and the trunk circuit number. This display is commonly used for DID trunks. For example, *SALES DEPT*.

3. Internal Directory Number:

The internal directory number (up to five digits) assigned to the circuit can be displayed. This display is used for PBX stations calling into the ACD. For example, *70626*.

4. Overflow Connections:

When a non-transferred call is assigned to an agent in a secondary split, an overflow message is displayed before the calling party identification indicating that this call is not being assigned to an agent in the split for which it was first queued. For example, *OVF SHIPPING*. If the call has overflowed from an agent's personal queue, the display will identify the call as such and will show the name of the called agent; for example, *PRS OVF FRED*. Refer to [Agent Personal Queue - ACD \[A-85A\]](#) for related information.

5. Transfer Connections:

When a call being transferred by one agent is answered by another agent, an indication of who is transferring the call is displayed. For example, *XFR JONATHAN*.

6. Talking notification:

While an agent is engaged in a call, the Calling Party Identification of the original incoming ACD call, along with the number of calls waiting in the split queue, can be displayed by pressing the LOGON key. For example, *NATIONAL 17* is displayed prior to *SHIPPING: 5*. A display showing the amount of time in queue is provided to the agent position when a call is assigned (ringing) and again when the call is answered. For example, *TIME IN Q: 9:17*. The time shown is computed as the elapsed time since the caller entered the ACD system and when it is answered (or started ringing).

CALLING PARTY IDENTIFICATION - ACD

7. If an incoming ACD call enters the system through a pilot number and the receiving agent uses a pilot number to transfer the call to an agent in another split, the transferred call will be identified by the ID associated with the latter pilot number. If an ID is not associated with the latter pilot number, the call will be identified by the ID associated with the original pilot number. For example, an agent in Split A receives a call via a pilot number with an associated ID of "SERVICE", resulting in *SERVICE* being displayed at the agent's position. The agent uses a pilot number to transfer the call to Split B. Split B has an associated ID of "PARTS". The agent who receives the transferred call in Split B will have *PARTS* displayed at their position. If an ID was not associated with the pilot number applied in the transfer, the agent in Split B will have *SERVICE* displayed at their position. Refer to [Pilot Numbers - ACD \[P-40A\]](#) for related information.

OPERATING PROCEDURE

This feature is assigned through ACDPLT and ACDTG MAT commands.

SERVICE CONDITIONS

1. Pilot number ID takes precedence over incoming trunk gate and circuit ID when both are programmed.
2. If no special Calling Party Identification is chosen for a particular trunk, the PBX defaults is displayed.
3. Names displayed is limited to sixteen alphanumeric characters on D^{term} Series III. On D^{term} Series E, whole name (20 characters) is displayed.
4. The character display data for C.O. Line/Tie Line calls can be assigned on the basis of each trunk route.
5. The character display data for this service is assigned from the ACDMAT.
6. The Calling Party Identification is displayed for only four seconds; then, the default PBX display is shown.
7. Call type and circuit number of the incoming call may be displayed before Calling Party Identification information.

PROGRAMMING

Assign the name for incoming call identification by following commands.

- Step 1: ACDPLT - Assign name corresponding to the pilot number.
NAME: up to 20 characters
- Step 2: ACDTG - Assign name corresponding to the route number.
NAME: up to 20 characters
- Step 3: ACDSPL - Assign the name corresponding to the split.
NAME: up to 20 characters

Note 1: *Since NAME programmed in ACDPLT and in ACDTG may be duplicated to display the trunk incoming call, assign NAME in one of those two commands, and skip NAME parameter in the other command.*

Note 2: *When MIS is used, name corresponding to the pilot number and name corresponding to the split are programmed from MIS terminal.*

C-108A CALL CONTROL VECTOR - ACD**GENERAL DESCRIPTION**

A Call Control Vector (CCV) is a series of steps that describe how an incoming ACD call is to be handled. A CCV can consist of a maximum of 20 steps. Each step of a CCV is an instruction for handling the call at a specific time. The steps may be programmed in any sequence (see Service Condition #1) and will be processed in order until an agent answers the call.

When an incoming call is presented to the ACD system, it is processed according to the CCV specified for the dialed pilot number (refer to [Pilot Numbers - ACD \[P-40A\]](#)). Thus, specifying different CCVs for different pilot numbers can produce a variety of call handling patterns. Countless combinations of CCV steps are possible and have been put together in very creative ways to solve complex call handling requirements.

A CCV is a timed sequence of events which control incoming ACD calls prior to their connection to an agent. It is important to understand the timing of CCV instructions in order to construct CCVs which process calls at the proper tempo. The following table shows how much time is used for each CCV instruction. Only after that amount of time has passed, a caller will proceed to the next step in the CCV.

Call Control Vector Timing

CCV Step Action (Alphabetical Order)	takes this much time
Announcement	wait until beginning of announcement or 30 seconds whichever comes first, then proceed to next instruction
Blank	0 seconds, next instruction processed immediately
Conditional Queue to Split	0 seconds, next instruction processed immediately
Dequeue from Split	0 seconds, next instruction processed immediately
Goto CCV X:Y	wait 2 seconds, then proceed with CCV #X step#Y.
Hang Up	0 seconds, next instruction processed immediately
If Estimated Time to Answer	0 seconds, process first or second instruction immediately based on testing ETA
If Not Queued then Busy	0 seconds, busy tone provided immediately
If Not Queued then Goto X:Y	wait 2 seconds, then proceed with CCV #X step#Y.
IVR Announcement	wait 2 seconds, then proceed with IVR Announcement
IVRDN	0 seconds, next instruction processed immediately
New Priority	0 seconds, next instruction processed immediately
Pause X	wait X seconds (1 to 999) then proceed with next instruction
Queue to Split	0 seconds, next instruction processed immediately
Ring Delay	Wait 2 seconds, then proceed with Ring Delay
Skip Percent	0 seconds, first or second instruction processed immediately based on percentage
Transfer To	If transfer succeeds, CCV processing is complete, otherwise wait 2 seconds and process next instruction.
Up Priority	0 seconds, next instruction processed immediately

CALL CONTROL VECTOR - ACD

A list of the available CCV instructions and their associated variables follows.

1. QUEUE TO SPLIT #n

This instruction directs a call to the specified split. The calling party will be connected to an agent within the split, if an agent is available. If an agent is not available to accept the call, the call will be placed in a queue of calls waiting to be serviced by an agent at a priority level determined by the Pilot Number dialed. If the target split's queue is full, the call will be handled by the next step in the CCV. The next step could provide alternate routing (refer to item #4).

A call can only be queued to four splits simultaneously. If a call encounters a Queue to Split instruction and the call is already successfully queued to four splits, the call will be connected to an agent in the target split, if an agent is available. If an agent is not available, the call will not be placed in the queue for that split. The call will be handled by the next step in the CCV.

When a Queue to Split instruction points to a split that is in Night Mode or is forwarded, the call will follow the target split's night routing of forward routing only if the call is not already in a queue. If the call is already in a queue (or queues), the Queue to Split instruction will be ignored. The call will be handled by the next step in the CCV.

2. CONDITIONAL QUEUE TO SPLIT #n

This instruction directs a call to the specified split. The split will not accept the call unless a predefined condition (to be explained) is satisfied. If the condition is satisfied, the calling party will be connected to an agent within the split, if an agent is available. If an agent is not available to accept the call, the call will be placed in a queue of calls waiting to be serviced by an agent. If the condition is not satisfied, the call will be handled by the next step in the CCV. The next step could provide alternate routing (refer to item #4).

The condition serves to control the traffic that the split will accept. The condition is a property of the split, and is defined in the ACD database. There are three options for imposing a condition. The conditions are mutually exclusive; therefore, only one of the following three conditions can be selected.

a. Agents Available [minimum]

The ACD system will ascertain the number of available agents in the split at the time the call is presented. If the number of available agents is greater than or equal to the minimum specified, the call is accepted and connected to the longest-waiting available agent. For example, if the minimum agent threshold is set at "3", then calls are connected if there are three or more available agents. If there are two or fewer available agents, the call will be handled by the next step in the CCV.

b. Calls in Queue [maximum]

The ACD system will ascertain the number of calls in the split's queue at the time the call is presented. If the queue depth is less than the maximum specified, the call may be queued, or connected if agents are available. For example, if the maximum queue depth is set at "3", and there are fewer than three calls in queue, calls will be queued, or connected to an available agent. If there are three or more calls in queue, the call will be handled by the next step in the CCV.

c. No Calls Accepted

The split will not accept any call that is directed to the split by a Conditional Queue to Split instruction. The split will only accept calls that are presented through a Queue to Split instruction.

A call can only be queued to four splits, simultaneously. If a call encounters a Conditional Queue to Split instruction and the call is already successfully queued to four splits, the call will be connected to an agent in the target split, if an agent is available. If an agent is not available, the call will not be placed in the queue for that split. The call will be handled by the next step in the CCV.

When a Conditional Queue to Split instruction points to a split that is either in Night Mode or forwarded, the call will be handled by the next step in the CCV.

3. DEQUEUE #n

This instruction removes a call from a specified queue or from all the queues in which the call currently resides.

4. IF NOT QUEUED GOTO CCV #x STEP #y or BUSY

This instruction provides an alternate routing option if a call cannot be queued for one of the following reasons.

- a. The target split of a Queue to Split instruction has a full queue.
- b. The target split of a Conditional Queue to Split instruction does not satisfy the preimposed condition.
- c. The call is already successfully queued to four splits.
- d. The target split of a Queue to Split instruction is in Night Mode or forwarded, and the call is already queued to other split(s).
- e. The target split of a Conditional Queue to Split instruction is in Night Mode or forwarded.

If none of the above reasons exists, then alternate routing is not implemented and the call will be handled by the next step in the CCV.

If one of the above reasons exists, then alternate routing is implemented in one of the following manners.

- a. If a CCV number and a step number are included in the If not Queued instruction, then processing will continue at the specified CCV number and step number.
- b. If a CCV number and a step number are not included in the If not Queued instruction, and the call is not queued to other split(s), then busy tone will be returned to the calling party. The CCV processing will be halted, and the calling party must hang up.
- c. If a CCV number and a step number are not included in the If not Queued instruction, and the call is queued to other split(s), then the call will be handled by the next step in the CCV.

The If not Queued, Goto or Busy instruction will be performed only if it follows a Queue to Split or a Conditional Queue to Split instruction. If it does not follow one of the queuing instructions, the If not Queued, Goto or Busy instruction will be ignored and the call will be handled by the next step in the CCV.

5. PAUSE #n

This instruction delays the processing of the CCV for the specified period of time. During that period of time, the call will remain in the same state it was in when the Pause step was encountered. After the specified period of time has elapsed, the processing of the CCV will resume at the step which follows the Pause step.

CALL CONTROL VECTOR - ACD

6. ANNOUNCEMENT #n

This instruction connects the caller to the beginning of the specified announcement.

Incoming callers with held parties cannot be connected to an announcement, although this will not affect their CCV processing.

An announcement may be used in any CCV and announcements can be shared among splits. Announcements can be used in any order and can be repeated as often as desired, although each should be followed by a pause step with a pause time at least as long as the announcement.

7. GOTO CCV #x STEP #y

This instruction invokes a pause of two seconds before the processing of the CCV continues at the specified step, in the specified CCV. The specified CCV can be the CCV that is currently handling the call, or it can be a different CCV in the same tenant.

8. SKIP %

This instruction causes the next CCV step to be bypassed by a percentage of the calls that reach this step. The indicated percentage of calls will skip the next step and continue immediately with the CCV step that is two steps after the SKIP instruction. The remaining calls will not honor the SKIP instruction and will process the next CCV step. Thus, the SKIP instruction acts as a filter to distribute calls, on a percentage basis, between two consecutive steps in the CCV.

9. HANG UP

This instruction disconnects the call by breaking the station or trunk connection. CCV processing is terminated after this instruction. The Hang Up step is designed to provide positive forward disconnect on a supervised trunk circuit particularly after having heard an announcement. Station users who encounter a Hang Up step while calling into an ACD pilot number may receive mixed results based on their exact call scenario at the time as well as the PBX software level in use. The possible results include busy tone, reorder tone or the inadvertent completion of a transfer. Because of these variations for station users the feature is best described as “unpredictable” for stations and should be avoided if possible.

10. TRANSFER TO PBX #n

This instruction transfers the call to the specified Transfer Index Number (1-10). A Transfer Index Number is associated with a telephone number; the telephone number can have a maximum of twenty-two digits. The telephone number can be associated with an internal extension, an operator, a UCD group, voice mail, an outside number via Least Cost Routing (LCR), or a system speed dial code. This instruction removes the call from every queue in which it currently resides.

With the exception of transfers across CCIS, if the specified telephone number is not busy, this instruction will complete the CCV call processing. If the specified telephone number is busy, CCV processing will resume at the next step following a two-second delay. If the transfer is across CCIS, this instruction will complete the CCV processing whether the specified telephone number is busy or not.

If the transfer is to a local UCD group with all members busy UCD queuing will not take place even if the feature is enabled. The call will continue processing the CCV in an all-busy UCD group.

11. NEW PRIORITY #n

This instruction is used to change the current priority associated with a call to a different priority in all the splits to which the call is currently queued. The priority that is specified in the instruction can be either higher or lower than the present priority.

The variable associated with the instruction is a priority. If a call with a priority of “8” encounters the instruction “New Priority 15”, the call’s priority will change to “15” in all splits it is currently queued to.

12. UP PRIORITY #n

This instruction is used to change the current priority associated with a call to a higher priority in all the splits where the call is currently queued.

The variable associated with the instruction is the amount by which to increment the priority. If a call with priority of “14” encounters the instruction “Up Priority 4”, the call’s priority will change to “10”. A priority of “10” is four levels higher than a priority of “14”.

13. BLANK

This instruction does not invoke any call processing action. The call will immediately process the next step with no delay.

The Blank instruction is used to simplify future modifications to a CCV. If a CCV is constructed without Blank instructions, and new instructions are added to the CCV at a later time, then the changes could force a major restructuring of the CCV. If a CCV is constructed with Blank instructions, and new instructions are added to the CCV at a later time, then the new instructions can take the place of Blank instructions.

14. IVR ANNOUNCEMENT #n

This instruction will connect a caller to an IVR port for the purpose of playing a customized announcement. The IVR equipment will be notified via an Infolink message which announcement has been requested (1 to 99) and which port was used for connection. It will be up to the IVR to speak the desired announcement and inform the ACD when the announcement is complete.

15. IVR DN #n * Available since PBX software Series 7400 and ACD software Release 3.

Before this enhancement only one IVR can be used on a tenant basis.

A PBX directory number that enables the ACD to access a port on an Interactive Voice Response Unit (IVR). Each IVR port should have a corresponding IVR directory number. All such numbers should be set up on the PBX as members of a ICD group and can be accessed via the UCD pilot number. This UCD pilot number should be entered as the IVR pilot number using the ACDTN command.

This step must be assigned before Item 10 “IVR Announcement #n”. If not, IVR announce step will be executed by the IVR port number programmed in ACDTN.

16. ETA Greater Than / ETA Less Than

This instruction checks all queues a caller is waiting in and determines the best estimated time to answer (ETA). Using this ETA in a comparison with the parameter to the ETA > or ETA < instruction determines whether the next CCV instruction should be skipped.

If result of ETA comparison is TRUE, next instruction is PROCESSED.

If result of ETA comparison is FALSE, next instruction is SKIPPED.

CALL CONTROL VECTOR - ACD

Imagine this small CCV example:

- | | |
|------------------|--|
| 3. Queue to | 1. this is the regular split queue |
| 4. ETA Greater | 120 |
| 5. Goto CCV step | 8. |
| 6. Queue to | 3. this could be the standard overflow split |
| 7. ==== End ==== | |
| 8. Queue to | 4. this could be the message center split |
| 9. ==== End ==== | |

If a caller is queued to Split 1 and finds that his ETA for that split is greater than 120 seconds (2 minutes) then the call will goto Step 8 and will queue to Split 4, the message center. If the current ETA is less than or equal to 120 seconds (ETA tests FALSE) then Step 5 will be skipped and the call will continue with Step 6 and queue to the standard overflow split.

** ETA less than 11 seconds will be considered as 0 second.*

ETA steps should be used with some amount of leeway since they can only be approximations of an estimated time to answer. Many events could occur to cause the ETA estimate to be incorrect by a considerable amount of time.

QUEUE TO SPLIT #n (Item 1) or CONDITIONAL QUEUE TO SPLIT #n (Item 2) step must be assigned before ETA Greater/Less step. When queuing to more than one split, ETA in the originally queued split is compared with the threshold value of ETA Greater/Less step.

17. Split ETA > (Greater Than) / Split ETA < (Less Than) * Available since the PBX software Series 7400 and the ACD software R3.

This instruction allows CCV processing to be decided based on the Estimated Time to Answer (ETA) for a specified split, as opposed to being based on the ETA of a call in queue. It then compares that calculated Split ETA with a specified number of seconds. If the greater than (>) or less than (<) comparison is met, the next CCV step is processed. The next step is skipped if the comparisons are not met. This allows the CCV to determine the ETA of a split before queuing a call to the split, thus allowing the decision of whether or not to queue a call, for example, to be determined by the current split traffic level.

ETA less than 11 seconds will be considered as 0 second.

18. Ring Delay #n * Available since the PBX software Series 7400 and the ACD software R3.

This instruction must appear prior to any Queue to Split steps in the CCV in order for it to have the desired effect. The Ring Delay feature is intended to slow down the connection of incoming calls to agents and give a window of opportunity for a host computer to paint an appropriate screen of information for the agent which may aid in proper answering of the call.

Ring Delay specifies a number of seconds to wait after selecting which agent should receive the next call in queue. The actual ringing of the agent's phone will be intentionally delayed by 'n' seconds. An Infolink application can send a command to the ACD to terminate the artificial delay before time expires if it has determined that it is OK to ring the agent's phone. See [Ring Delay - ACD \[R-145A\]](#) for more details.

19. END

This instruction terminates the processing of the CCV. The call remains in any queue or queues in which it currently resides, and the caller will be connected to an agent when one is available.

The call processing in a CCV will terminate, without an End instruction, when the entire twenty steps of the CCV have been executed. If the CCV has fewer than 20 instructions, the steps without instructions are treated as Blank instructions.

OPERATING PROCEDURE

The desired Call Control Vectors are created through ACD MAT assignments.

SERVICE CONDITIONS

1. The programming of CCVs is not examined by the ACD system. It is the responsibility of the user to provide a logical sequence of instructions, which produces the desired call handling, in every CCV.
2. An announcement is not guaranteed to be available from its beginning, when an Announcement instruction is encountered. An additional Pause instruction may need to be programmed in order to provide proper sequencing through the CCV. Refer to [Announcements - ACD \[A-80A\]](#) for additional information.
3. The If not Queued Goto or Busy instruction is applicable to DID & Tie type trunks. In the case of ringdown trunks, ringback tone is controlled by the C.O.; therefore, busy tone cannot be given to the caller.
4. A "Transfer To" step in the CCV may send a caller off to any number within the number plan established for the PBX system. It is not feasible to describe the exact operation of such a transfer to all possible numbers under all possible conditions. Many of the cases are described below.
 - a. When the target is a UCD pilot number in the PBX: If a member of the UCD is available, the call will be transferred. If there are no members available in the UCD, the call remains in the ACD side and continues the CCV with the step following the "Transfer To". The call *will not queue* to the UCD group even if queuing in the UCD is enabled.
 - b. If the overflow destination is an ordinary station: If the station at the overflow destination is a member station of a station hunting group:
 - c. If transfer service is set for the station at the overflow destination:
 - d. When the station at the target is busy, the Transfer-To instruction may be retried with a Goto instruction.
 - e. When the station at the target is in make-busy state or lockout state, no transfer takes place.
 - f. If the overflow destination is an attendant console: Transfer is executed only when the attendant console group is in Day mode, or when a night attendant console is provided and is in service during Night mode.
 - g. No transfer will take place when the attendant console group is in Night mode and no night attendant console is provided.
 - h. If the transfer target is an external line:
 - i. To designate the external line number for the overflow destination, an abbreviated code for SPEED CALLING - SYSTEM [S-3] is used.

CALL CONTROL VECTOR - ACD

- j. A maximum of 1000 abbreviated codes can be assigned for the ACD.
- k. For selecting external routes, LCR can be used.
- l. When an overflow has encountered all external trunks busy, it may be retried with a Goto instruction.
- m. When an overflow has encountered all senders busy, it may be retried with a Goto instruction.
- n. Once an ACD call has been connected to an external trunk, it may not be distributed to agent positions at the overflow origination side even if the destination distant office happens to be busy.
- o. Tandem connections which release on both the incoming route and the outgoing route cannot be supervised and should be restricted by means of System Data programming.
- p. A transfer to step will not be executed if it is programmed directly after an announcement step. A Pause step, the length of the previous announcement must be programmed after the announcement.

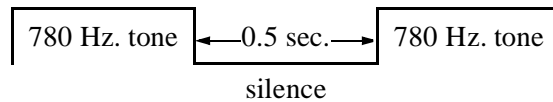
PROGRAMMING

Refer to [Assignment of ACD CCV Data](#) in [Chapter 7](#).

C-110A CALL WAITING LAMP WITH CHIME - ACD**GENERAL DESCRIPTION**

An optional chime is available, on a split-wide basis, as a companion audio signal to the visual signals offered by the CW lamp (Call Waiting). The CW lamp can be programmed to light or flash when a given quantity of calls reside in a split queue. There are separate thresholds for lighting the lamp and for flashing the lamp. Refer to [Call Waiting Indication - LCD Display/CW Lamp - ACD \[C-68A\]](#) for related information. If the chime is selected, the chime will sound at each agent position which is in the Work mode at the time the CW lamp is lit, and at the time the CW lamp begins to flash.

The chime is composed of two half-second beeps, which are separated by a half-second of silence.

**OPERATING PROCEDURE**

None

SERVICE CONDITIONS

1. The chime will sound only at a position where the agent is in Work mode.
2. The volume of the chime is controlled by the ringer volume switch on the D^{term} instrument.
3. The use of the chime is indicated through an ACD MAT command. The command data is on a split-wide basis.

PROGRAMMING

ACDSPL - Make the CW lamp with chime service available for each split.

CALL FORWARDING - SPLIT - ACD

C-127A CALL FORWARDING - SPLIT - ACD

GENERAL DESCRIPTION

This feature provides alternate routing for calls destined for a particular split. When split call forwarding is in effect and a call attempts to queue for that split, the call is routed to a pilot number instead of being queued. At this point, the call is handled by the Call Control Vector (CCV) associated with the new pilot number.

OPERATING PROCEDURE

1. The supervisor presses the NIGHT key while logged onto the ACD.
2. *ENTER NIGHT/FWD?* is displayed at the position. The individual enters the digit 0, a pilot number, and #.
3. At this point, the split goes into call forwarding, incoming calls are routed to the call forwarding number entered, and the NIGHT lamp flashes at all the positions in the split.
4. Split call forwarding may be canceled by pressing the NIGHT key again. *EXIT FWD?* is displayed at the position and the supervisor enters 1# to confirm.
5. At this point the split exits split call forwarding and the NIGHT lamp is extinguished at all the positions in the split.

SERVICE CONDITIONS

1. Only pilot numbers may be used as the split call forwarding destination.
2. The pilot number used for split call forwarding may not contain a "*" or a "#".
3. The pilot number for split call forwarding may invoke either a Week Schedule or a CCV.
4. The MIS is not informed when split call forwarding is activated.
5. When a split enters Night mode automatically using the MIS, split call forwarding is canceled.
6. When a call attempts to queue to a split using a Queue to Split instruction in a CCV and the split has call forwarding activated, the new pilot number routing for the split is only followed if the split is the primary split for the call. If the split is a secondary split, the Queue to Split instruction is ignored. A primary split is the split specified in the first queuing instruction in a CCV. Splits specified in subsequent queuing instructions in the CCV are referred to as secondary splits.
7. When a call attempts to queue to a split using the Conditional Queue to Split instruction in a CCV and the split has call forwarding activated, the Conditional Queue to Split instruction is ignored.
8. When alternate routing is required by a split, night service may be used to provide a more static choice of pilot numbers used for the new routing (see [Night Service - ACD \[N-12A\]](#) for additional information).

PROGRAMMING

Step 1: ACDCCV - Assign the pilot number of Night destination to the CCV

Step 2: ACDPLT - Designated the CCV for alternate route

Step 3: ARRC - Release the route restriction between the ACD line and the tie line.

CALL RECOVER - ACD

C-191A CALL RECOVER - ACD

GENERAL DESCRIPTION

The call recover feature allows an ACD call to ring at an ACD position for a preprogrammed length of time and if unanswered the call will be directed to another available agent or replaced in all of the queues it was originally in at the highest possible priority. If the call is requeued it will be the highest possible priority and will be answered by the next available agent.

OPERATING PROCEDURE

1. An incoming ACD call rings at an agent's position. The agent is either unavailable to answer the call or chooses to not answer the call.
2. When the "Call Recover" timer expires the call is removed from the agent's position. The agent's position is placed in a "Penalty Work" mode and the display will show *CALL RECOVERED* until a key is pressed.
3. The caller will be immediately directed to another available agent if one exists.
4. If there are no available agents the call will be replaced in all of the queues it was originally queued to at the highest possible priority. The call will also continue to process the CCV beginning with the step where it left off.
5. The call will be assigned to the next available agent.

SERVICE CONDITIONS

1. The time used for the Time In Queue display when the call is assigned for the second time will be the cumulative time starting when the call first arrived at the ACD.
2. If a recovered call had been directed via the agent's personal queue the call will be redirected according to the Forward / Full CCV programmed for the agent's logon ID.

PROGRAMMING

ACDSPL - Assign the time for Call Recover activating.
Call Recover time (1-255)

C-199A CONNECTION DISPLAYS - ACD

GENERAL DESCRIPTION

This feature allows each agent to specify the exact sequence of displays to be delivered to the LCD display at the time of an incoming ACD call connection. There are several displays available providing a variety of information pertaining to the call being connected. Different styles of operation give rise to different needs regarding what information is presented first. Now each agent can specify how much information they want and in what order.

The setup for the custom connection displays is controlled by each agent through the entry of a special Tally-Oh code designed for this purpose. By entering the proper codes and durations the agent can customize the sequence and timing of the displays received when an incoming ACD call commences ringing at the agent position and when the agent answers the call. Only one sequence is specified and the same set of displays will be generated at time of ringing and answer.

The following table indicates which displays can be selected and the Display ID Code for each:

Connection Display Codes

Display ID Code	Display Description
3	Time in queue (merged display)
4	Time in queue (stand-alone display)
5	Pilot number text (gate ID)
6	ANI digits received
7	Customer entered digits (via IVR)
8	Answering split name
9	Current queue depth and longest call time
10 thru 29	reserved

A maximum of five displays may be selected. A duration from 3 to 9 seconds is assigned to each display and is specified using the setup Tally-Oh code. As an option, the final display can be set to display for the remainder of the ACD call by entering a time of 0 seconds. A Tally-Oh code exists which can reset the permanent display and allow the standard conversation timer to display.

Three Tally-Oh codes have been added to support the Connection Displays feature. These codes are available to all ACD agent positions and cannot be restricted. The Connection Display sequence and timing is stored on a per-agent-logon ID basis and will be retained from one logon session to the next as long as a Personal Emergency Supervisor has not been specified for this agent. Those agents with an assigned Personal Emergency Supervisor will need to setup their Connection Displays each time upon logging onto the system.

Connection Display Tally-Oh Codes

Code	Format	Description
021	021DS# -or- 021DDS#	Setup the display sequence and timing for the current agent. D = single-digit display code (3 thru 9) DD = double-digit display code (10 thru 29) S = number of seconds to display (3 thru 9 seconds, or 0 for permanent display) The DS or DDS pairs may be repeated up to 5 times, the '#' digit must follow the final entry. A very long entry might look like: Tally+021-44-54-64-74-84# (pluses and minuses are not actually entered, they are shown here for visual separation only)
022	022#	On-line help to show a series of 4-second displays describing the available displays codes.
023	023DS# -or- 023DDS#	Demand display of the specified code. D = single-digit display code (3 thru 9) DD = double-digit display code (10 thru 29) S = optional number of seconds to display (3 thru 9 seconds, default = 4)

When using display code 3, time in queue merged display, the actual time in queue will be merged with the previous display if possible. The previous display must be 11 characters or shorter for the merge to be allowed (10 or shorter if the time in queue was over 10 minutes). For example, if the agent entered Tally "021-58-38#" the request is to display the Pilot number text for eight seconds and merge the time in queue on the end of the display. If the Pilot number text was "SALES" then the display would show "SALES 0:48" for eight seconds. On the other hand, if the Pilot number text was "APPLICATIONS" (12 characters) then the first display would be "APPLICATIONS" for eight seconds followed by "TIME IN Q 0:48" for eight seconds.

Use display code 4 to force the time in queue display to always be displayed alone, that is, not merged with the previous display even when space permits.

Use a time code of zero seconds to indicate that the final display should remain on the display for the duration of the ACD call. Tally-Oh code 021# can be entered at any time to reset the display to the default information. For example, if the agent entered Tally "021-42-60#" the time in queue will be displayed (alone) for two seconds (code 42) followed by the ANI digits being displayed for the remainder of the ACD call (code 60). All digits beyond the permanent display will be ignored.

SERVICE CONDITIONS

1. Connect displays are saved after logoff for each agent unless the agent is using a Personal Emergency Supervisor. Those agents using Personal Emergency Supervisor must setup their connection displays each time after logging onto the ACD system.
2. A maximum of five displays may be setup with each display being from three to nine seconds.
3. A permanent display (time code of zero seconds) must be the last display in the setup string. Any subsequent codes entered will be ignored.
4. When more than five displays are coded only the first five will be displayed, the remaining entries will be ignored.
5. The same display sequence and display timing is provided both when the agent position begins ringing with an incoming ACD call as well as when the agent answers the incoming ACD call. The permanent display is only supported after the agent answers the phone and will be provided as a nine-second display when displayed during the ringing phase. This is a security feature so that potentially private numbers are not left on display at an unoccupied position.
6. Even a permanent display will be automatically reset at the conclusion of the ACD call.
7. This feature is available to all agents via Tally-Oh codes. The feature itself cannot be restricted.
8. Display timing accuracy is limited to ± 2 seconds from the time indicated for each display.

PROGRAMMING

Assign the name for incoming call identification by following commands.

Step 1: ACDPLT - Assign name corresponding to the pilot number.
NAME: up to 20 characters

Step 2: ACDTG - Assign name corresponding to the route number.
NAME: up to 20 characters

Step 3: ACDSPL - Assign the name corresponding to the split.
NAME: up to 20 characters

Note 1: *Since NAME programmed in ACDPLT and in ACDTG may be duplicated to display the trunk incoming call, assign NAME in one of those two commands, and skip NAME parameter in the other command.*

Note 2: *When MIS is used, name corresponding to the pilot number and name corresponding to the split are programmed from MIS terminal.*

DO NOT DISTURB - SPLIT - ACD

D-133A DO NOT DISTURB - SPLIT - ACD

GENERAL DESCRIPTION

The Do Not Disturb feature disables queuing when there are no agents logged onto the split. When the last agent logs off the split will be automatically placed in the Do Not Disturb mode. Although similar to Night Mode in some respects this feature does not activate the NIGHT lamp. Incoming calls cannot queue to this split as long as it is in the Do Not Disturb mode. As soon as an agent logs in the Do Not Disturb mode is cancelled and queuing is enabled. See also [Stranded Call Routing - ACD \[S-108A\]](#) for how to process calls which were left behind in queue when the last agent logs off.

If the Do Not Disturb mode is active any Call Control Vector (CCV) step that would cause a call to be queued to the split is ignored. The CCV processing will continue until a queuing or transfer step is reached. Any Pause and Announcement steps that are encountered, between the ignored queuing step and the subsequent queuing/transfer step, are also ignored.

After the call is queued to another split or transferred to a PBX number, the CCV processing will continue in a normal fashion, with every Pause and Announcement step processed normally.

OPERATING PROCEDURE

The DO NOT DISTURB option is implemented through ACDSPL. The command data is on a split-wide basis.

The following example illustrates how the feature functions.

Do Not Disturb CCV Example

Step	CCV INSTRUCTION (CCVACT)	DETAIL DATA (CCVACT DATA)
1.	10 (QUEUE TO SPLIT)	5
2.	1 (PAUSE)	15
3.	2 (ANNOUNCEMENT)	3
4.	1 (PAUSE)	22
5.	8 (CONDITIONAL QUEUE TO SPLIT)	12
6.	2 (ANNOUNCEMENT)	4

1. Split 5 has been programmed to be placed in DO NOT DISTURB mode when agents are not logged onto the split. There are no agents logged onto Split 5.
2. A call to an ACD pilot number processes the CCV shown above.
3. The Queue to Split 5 in Step 1 is ignored, because Split 5 is in DO NOT DISTURB mode.
4. The Pause in Step 2 is ignored because the call was not queued during Step 1.
5. Also the Announcement in Step 3 and the Pause in Step 4 will be ignored since the call was not queued.
6. The conditional Queue to Split 12 is processed. The conditions for queuing are satisfied, and the call is queued to Split 12.

7. The processing of this CCV will continue from Step 6 in a normal fashion, with all Pause and Announcement steps processed.
8. The first agent logs onto Split 5 and is in Work mode. A call to an ACD pilot number now enters the same CCV. The call will queue to Split 5 even though the agent is not yet available. The caller will also perform the pause from Step 2 and hear announcement 3 assuming the agent is not available.

SERVICE CONDITIONS

Both a Queue to Split and a Conditional Queue to Split instruction will be ignored if the target split is in DO NOT DISTURB mode.

PROGRAMMING

ACDSPL - Make Do Not Disturb - Split service available for each split.

E-6A EMERGENCY/RECORDER - ACD

GENERAL DESCRIPTION

In an emergency, this feature allows a conversation between an agent and an incoming ACD caller to be recorded, using a customer-provided recording device, and simultaneously permits a monitor connection between the ACD call and a supervisor. Activation of this feature, while on an ACD call, automatically places a call to a pre-programmed number. This number can be any station in the PBX, an individual supervisor, or a pilot number for a split of supervisors. If the target extension of the emergency request has display capabilities, then display information will accompany the call, identifying it as an emergency call.

OPERATING PROCEDURE

To place an emergency request:

The following example assumes that an emergency request is sent to the pilot number of a split of supervisors.

** The destination, the pilot number of a split of supervisors, is allowed since the PBX software Series 7400 and the ACD software R3. For details, see [Multiple Supervisor Groups \(Splits\) - ACD \[M-79A\]](#).*

1. While engaged in an ACD call, the agent presses the EMER key, the agent's display shows *EMERG [SUPV PILOT#]*, and the associated lamp is lit. "SUPV A" is the name associated with the split of supervisors.
2. If no supervisor is available to take the call, a call waiting indication is provided to each supervisor position. The first supervisor to respond will silently monitor the agent and the calling party.
3. Upon the assignment of the call, the supervisor's display shows *AGENT [EXT#]*, or if agent names are used, *EMERG [NAME]*.
4. When a supervisor answers, the agent's display will show *EMERG ANSWERED* and the associated lamp will wink. When the agent releases from the call, or the supervisor releases from the monitor, the agent's lamp will be extinguished.
5. The agent and the calling party are never disconnected while the supervisor's position is ringing.
6. An emergency recorder is connected as soon as the supervisor starts ringing and is disconnected if the supervisor joins the call in a three-way conference by pressing the MON/BARGE key. The recorder is also disconnected if the supervisor releases from the monitor using the RELEASE key. **Note**
7. If the agent releases from the call while the call is being recorded, Reorder Tone is sent out to the ACD trunk.

Queuing of emergency requests: *Valid since the PBX software Series 7400 and the ACD software R3.*

1. Emergency requests may be routed to a split of supervisors or an individual supervisor. In the case of a split of supervisors, multiple emergency requests can be queued. Recording starts from the moment the ACD call terminates to the supervisory position (not recorded while the call is in queue).
2. For emergency split queuing, to ensure the fastest processing, the only CCV steps that will be executed are Queue to Split, Conditional Queue to Split, and Goto (the steps are followed by Pause, End CCV), and the request will be queued at the highest priority. All other CCV steps will be ignored.

Note: *When the supervisor presses the MON/BARGE key, BARGE? is displayed. By pressing 1# a three-way conference is established.*

SERVICE CONDITIONS

1. This service requires the three-conference trunk.
2. During an emergency, either the agent or the supervisor can display the identification of the original ACD call and the queue depth by pressing the LOGON key. Refer to [Calling Party Identification - ACD \[C-70A\]](#) for additional information.
3. The directory number used for emergency requests may not contain a “*” or a “#”.
4. Supervisors are always rung in Manual Answer for the EMERGENCY/RECORDER feature, regardless of their answer mode. This is to guard against unattended supervisor positions being left in Ready mode.
5. Supervisors may be members of a split when it is necessary for them to handle regular split calls. In this case, emergency requests should be routed to one supervisor’s non-ACD line. However, the supervisor will not be able to barge. Barge attempts are only allowed from the ACD line.
6. Emergency requests are only allowed while talking on an ACD line. Requests while on a non-ACD line will be ignored.
7. Emergency requests are not allowed during an assist call.
8. If the emergency request is sent to an individual line and that line is busy, the agent’s display will show *EMERG BUSY* and the emergency lamp will be turned off. The agent may try to send the emergency request as many times as necessary during the call.
9. The supervisor’s monitor will not be updated for transfers or subsequent calls as in the [Monitoring - ACD Supervisor - ACD \[M-28A\]](#) feature. At the completion of the emergency call, the supervisor will be released.
10. If an agent presses the EMER key, while already being monitored by a supervisor for a non-emergency situation, the supervisor will be released from the monitor and the emergency will continue as usual. Emergency requests are not allowed during a supervisor’s three-way barge or any other three-way connection in progress at the agent’s position.
11. Emergency requests cannot be routed to operators, or destinations over CCIS. Pilot numbers for group hunts is available as the destination of Emergency requests call, but the request call is not hunted to the other members.
12. The emergency recorder is customer-provided equipment. Typically, it is a dictation machine with remote playback capabilities. This equipment is optional and all other feature operations work even if a recorder is not provided.
13. Due to the emergency nature of the call, audible beeps are not provided to the parties even though the call is being recorded.

EMERGENCY/RECORDER - ACD

14. The emergency call is still routed to the supervisor even if the recording equipment is not available. The recording equipment must be idle at the beginning of the emergency call.
The recording equipment will not be connected in the middle of the emergency call if the equipment was busy at the beginning of the emergency call and then subsequently became idle. One circuit is required as an i7tween the emergency recorder and the PBX; this circuit can be Port 0 or Port 1 of an 8 COTBF or 16 COTBD circuit card or one circuit of a 8 TLTR circuit card.
15. When the trunks connecting the recording equipment are all busy, the trunk is not seized, but the emergency call is still routed to the supervisor.
16. The playback controls of the recorder normally require DTMF signals.
17. Any trunk-side connectable recording device may be provided, but a device which has playback controls is strongly recommended.
18. Most recording devices impose some mechanical delay before recording begins.
19. Even when the recording equipment is not available, reorder tone is sent out to the ACD trunk when the agent is released.
20. The recording equipment can be shared among agent position splits, but it is recommended to prepare several pieces of equipment per system.
21. For the agent position where MONITORING - ACD SUPERVISOR [M-28] is available, the directory number used for emergency request can be programmed individually on each agent position.
22. Recording type number is assigned on an agent position split basis.
23. When Emergency requests is routed to an individual supervisor, the call is distributed to the supervisor in Work Mode or Break Mode. While, Emergency call to a split of supervisors is not distributed to the supervisors in those modes.

CAUTION: The use of a monitoring, recording or listening devices to eavesdrop, monitor or record telephone conversations or other sound activities, whether or not contemporaneous with its transmission, may be illegal under certain circumstances and laws. Legal advice should be sought before implementing any practice that monitors or records any telephone conversation. Some federal and state laws require the monitoring party to use beep tones, to notify all parties to the telephone conversation, or to obtain the consent of all parties to the telephone conversation. Some of these laws incorporate strict penalties.

PROGRAMMING

- Step 1: ACDSPL - Assign the destination of Emergency request call.
EMERGENCY The ACD line of a supervisory position/the pilot number of a split of supervisors
- Step 2: ARTD - Assign the route class data for Emergency/Recording trunk.
CDN2: ONSG = 2 (PB), 60 msec. interval
CDN6: TCL = 4 (Tie Line/Announcement Trunk)
- Step 3: ATRK and ALRTN- Assign the trunk data of COT used for interface with the recording machine.

When Paging Trunk is available, two circuits (0, 1) are required for connecting paging equipment.

Step 4: AADTN - Assign the related data of recording machine.

TYPE: 2 (Recording Trunk)

NO.: 1~5

RT: Route number for recording machine

TK: Trunk number for recording machine

Step 5: MBTK - Make the interface trunk (COT) idle.

Step 6: ARRC - Release the route restriction between the ACD route and the route for the recording machine.

Step 7: AKYD - Assign EMER key to a function key.

Note: *When the destination of Emergency request call that is programmed in ACDSPL is busy, the request call is not connected. In another word, this service is available for one agent only per split when the destination is only one. For preventing the above-mentioned case, the destination of Personal Emergency Request call (both the ACD line of a supervisory position and the pilot number of a split of supervisors are allowed) can be programmed for each ID code in ACDLOG.*

FUNCTION GROUPS (SPLITS) - ACD

F-10A FUNCTION GROUPS (SPLITS) - ACD

GENERAL DESCRIPTION

Please refer to [Splits - ACD \[S-91A\]](#) for a full description of how splits are used with this product.

F-25A FLEXIBLE ID CODES - ACD**GENERAL DESCRIPTION**

ID codes are used by agents and supervisors to access the ACD system. A considerable amount of information is programmed for each agent's ID code and this information is used by the ACD system to determine which calls the agent will be handling after logging in and which features the agent will have access to.

Some of the parameters programmed in ACDLOG for each logon ID are described in the table below.

For more details, see [ACDLOG](#) in [Chapter 7](#).

Logon ID Characteristics

Logon ID:	From 2 digits to 9 digits
LANG (Default Language):	English Japanese Spanish Italian French German
NAME (Agent Name):	Specify a name for use in displays
SPLIT (Available Split or Splits to logon):	Specify a maximum of 16 split Nos. (1-250)
PRIORITY:	Priority for the split assigned in SPLIT (1-250) or Agent's Preference level (1-99)
Multi-split Allowed:	Allow or Restrict multiple simultaneous splits
Personal Pilot Number:	Specify a directory number for Personal Queue
Personal Queue Depth:	from 0 to 999 calls may be in queue
Personal Queue Forward CCV:	Specify a CCV for alternate handling
Personal Queue Timeout:	from 1 to 9999 seconds
Personal Queue Timeout CCV:	Specify a CCV for alternate handling
Personal Queue Chime:	Call Waiting in queue chime On or Off
Personal Assist:	Specify destination for Assist
Personal Emergency:	Specify destination for Emergency

Refer to [Multi-Split Agent - ACD \[M-90A\]](#) and [Split Selection - ACD \[S-98A\]](#) for information on how an ID code determines the split.

OPERATING PROCEDURE

None

FLEXIBLE ID CODES - ACD

SERVICE CONDITIONS

1. The maximum length for an ID code is nine digits, and only the digits “0” through “9” are allowed.
2. Leading zeros are permitted, but are not meaningful, in logon ID codes. For example, “0017” is acceptable; however, this code is identical to the code “17”.
3. Each split determines whether ID codes are required for access to the ACD system.
4. An ID code can only be assigned once in the ACD system regardless of which tenant the ID code is used for.
5. An ID code can only be used in the tenant in which it is assigned.
6. An ID code can only be used at one position at any given time. Multiple logons with the same ID code are not permitted.

PROGRAMMING

ACDLOG

H-20A HOLIDAY SCHEDULING - ACD

GENERAL DESCRIPTION

Holidays may be programmed up to 365 days in advance. On a holiday, special call routing is in effect for up to eight time-of-day changes. Three different holiday schedules, one of which is used on any particular holiday, may be programmed for each tenant.

OPERATING PROCEDURE

See [Time of Day/Week Routing - ACD \[T-50A\]](#).

SERVICE CONDITIONS

1. Holiday schedule routing takes place only for those pilot numbers which route to week routing. If a pilot number routes directly to a Call Control Vector (CCV), its routing is not affected on a holiday even if holiday routing has been programmed.
2. All incoming ACD traffic must follow the same routing (CCV handling) on a holiday.

PROGRAMMING

Refer to [Assignment of ACD Holiday Schedule](#) in Chapter 7.

HOT SPLIT - ACD

H-31A HOT SPLIT - ACD

GENERAL DESCRIPTION

This feature was designed to accommodate “Automatic” agents of “Hot” agents. That is to say, agents who never log on, never log off and never take breaks. As soon as the ACD is online these “agents” are automatically logged on to the ACD and placed in the Ready Mode to take incoming calls. Actually, these agents are more accurately described as “machines” because the feature was intended for use with answering machines, dictation machines, voice mail machines, etc.

The feature is named “Hot Split” because all members of the split must be automatic agents. There cannot be a mixture of standard agent positions and hot agent positions in the same split.

Due to the nature of the equipment expected to be used for this feature it was designed to accommodate only analog station equipment, or TEC = 3 for those familiar with PBX database assignments. D^{term} stations in particular cannot be used for members of a Hot Split. A member of a Hot Split is called a Hot Position.

OPERATING PROCEDURE

1. A Hot Position is idle and, therefore, in the Ready Mode. This station is the only assigned member of a particular Hot Split. Let's say it is an answering machine.
2. A call arrives to the Pilot Number for this Hot Split and immediately rings the Ready “agent”.
3. The “agent” (answering machine) automatically answers and does what answering machines do. Meanwhile, another call arrives for the Hot Split and is placed in queue.
4. The Hot Split is programmed for 15 seconds of After Call Work Mode Timeout. This allows the answering machine sufficient time to rewind or reset before the next call rings through.
5. The first caller hangs up. The “agent” enters After Call Work Mode for 15 seconds.
6. After 15 seconds the Hot Position is automatically placed in the Ready Mode and since a caller is waiting in queue it immediately rings the position.
7. The Hot Position (answering machine) answers the next call.

SERVICE CONDITIONS

1. A Hot Position is allowed to go off-hook and originate outgoing calls. It will be placed in a Break Mode for incoming ACD calls until it goes onhook.
2. Hot Positions are assumed to be in the Ready Mode upon ACD startup. If, in fact, the position is offhook and busy the ACD will make only one attempt to connect a call and then, upon noticing its busy status, will correctly mark the position as Unavailable and wait for its onhook.

PROGRAMMING

Step 1: ACDPSN
LINE NUMBERS = ACD and PBX are the same
ANALOG AGENT POSITION = No

Step 2: ACDSPL
HOT SPLIT = Yes

I-99A INFOLINK DATA MESSAGES - ACD

GENERAL DESCRIPTION

Infolink Data Messages provides a two-way communications link between the ACD and external computer equipment. Typical examples of external computer equipment includes but is not limited to:

- Mini and Mainframe Host Computers (IBM, DEC, Honeywell, Borroughs, Hewlett Packard)
- Desktop Workstations (Sun, IBM, Hewlett Packard, DEC)
- Personal Computers (IBM, Compaq, Dell, Gateway, AST, *et.al.*)
- Interactive Voice Response (IVR) systems (Centigram, Periphonics, InterVoice, Syntellect)

The first three categories are obvious examples of computer equipment but what about the fourth? The Infolink message set was specifically designed to support features which are best performed by IVR equipment in addition to several obvious applications which can be done from a host computer. IVRs can provide customized announcements, collect digits (account numbers, billing reference codes, etc.) from customers and provide voice menuing, "Press '1' for Sales, '2' for Service or '3' for Billing Inquiry".

Three message sets have been designed for Infolink. External computers may use as little or as much of the data from any of the three sets as needed in order to implement their application. Unnecessary messages may be turned off to reduce transmission bandwidth. Just as there are many words which can be derived using the 26 letters of the alphabet there are also many applications which can be invented using the messages available in the Infolink message sets. We can guess what some of the obvious applications might be but there is no way to predict how far developers can go given the information available from Infolink.

Some of the possible applications which Infolink clients could perform include:

- Agent Screen Pop-Up
- Agent Screen Correlation and Screen Transfer
- Outbound Calling Campaigns
- Electronic Call Transfer
- Customized Announcements
- Host Directed Routing - Host Directed Priority Changes
- Customer Callback
- Predictive Dialing Enhancements
- Phone-In-A-Drawer
- Position In Queue Announcements
- Estimated Time To Answer Announcements
- Leave A Message vs. Stay In Queue Options

The following tables lay out the names of the messages currently available:

Inbound Messages from Infolink Client to ACD

Tag	Message Description
IA	Dialed digits
IB	Manage Call
IC	Split Status/Caller Status Request
ID	Announcement Request
IE	Outbound Call Request
IF	Route Call Request
IG	Call Manipulation Request
IH	State Change Request
IL	Message Subscription

Outbound Messages from ACD to Infolink Client

Tag	Message Description
IM	ANI/DNIS Information
IN	Port Release
IO	Play Announcement
IP	Split Status Notification
IQ	Incoming Call Notification
IR	Report IVR Dialed Digits
IS	Agent Ringing
IT	Agent Answer
IU	Call Disconnect
IV	Call Transfer
IW	Agent State Change
IX	Party Acknowledgment
IY	Sequence Acknowledgment
IZ	Outbound Call Disposition

INFOLINK DATA MESSAGES - ACD

OPERATING PROCEDURE

Depending on the usage of each application.

SERVICE CONDITIONS

1. Each feature is defined by the detail specification of each application.
2. Lower layer protocol of Infolink supports TCP/IP + DIX Ethernet Version 2.
3. Infolink Data Messages are provided to the ACD tenant programmed in ACDTN.
4. Two-way communications link is provided simultaneously.
5. One link controls one ACD tenant.
6. OAI transmission is also provided via the same link.
7. An IVR equipment may be accommodated per ACD tenant.

PROGRAMMING

Step 1: ASDT

TN: Tenant number (1-10)
STN: Station number of the IVR (maximum 5 digits)
TEC: 1-4

Step 2: ASHU

Assign the UCD group organized by the station number accommodates the IVR port

Step 3: ACDTN

IVR PILOT NUMBER : IVR Pilot number for UCD service programmed in ASHU
: Outbound Answer Timer (0-60 sec.)

Step 4: ACDIVR - Assign the desired IVR port number for all station numbers to access IVR programmed in ASDT

DIRECTORY NUMBER:IVR station number programmed in ASDT
PORT: IVR port number (1-255)

Step 5: ACDCCV - when IVR announcement service is provided. **Note 1**

ACTION: IVR ANNOUNCEMENT: **Note 2**

ARGUMENT: IVR announcement equipment number (1-99) **Note 3**

Announcement ID for announcement order via Infolink to the IVR

Note 1: *When this command data has already been programmed for OAI features, it is not necessary to program the data again.*

Note 2: *It is not necessary to program a Pause step after the IVR Announcement.*

Note 3: *The announcement number varies depending on each IVR Specifications.*

L-19A LOGON/LOGOFF POSITION - ACD

GENERAL DESCRIPTION

Access to the ACD system is controlled either with or without logon ID codes. A logon ID code is used to identify individual agents or supervisors, to the ACD, for statistics gathering purposes. An agent is only permitted to be logged onto the system at one position at a time. Flexible ID Codes can be employed to log onto the ACD system. Refer to [Flexible ID Codes - ACD \[F-25A\]](#) for related information.

OPERATING PROCEDURE

Logon Procedure:

This procedure varies depending on whether or not logon ID codes are used. The cases are described separately.

1. When logon ID codes are used:
 - a. The display shows *VACANT*.
 - b. The agent presses the LOGON key. The display shows *LOGON ID?*.
 - c. The agent enters a logon ID code, using the DTMF keypad, and presses the “#” key after the logon ID code is entered.
 - d. If an invalid logon ID code is entered, the display returns to *LOGON ID?* and the agent must enter a correct logon ID.
 - e. If the entered logon ID code is currently in use, the display briefly shows *ID IN USE* and then returns to *LOGON ID?*.
 - f. If a valid logon ID code is entered, the LOGON lamp is lit, a greeting is provided, and the split the user logged onto is displayed.
 - g. The console is placed in the Work mode with the Manual/Auto answer mode set to the split’s default.
 - h. The WORK key must be pressed before the agent can begin taking calls.
2. When logon ID codes are not used:
 - a. The display shows *VACANT*.
 - b. The agent presses the LOGON key; the LOGON lamp is turned on, a greeting is provided, and the split the user logged onto is displayed.
 - c. The console is placed in the Work mode with the Manual/Auto answer mode set to the split’s default.
 - d. The WORK key must be pressed before the agent can begin taking calls.

Logoff Procedure (with or without ID codes):

1. The agent or supervisor may log off the system while in Break mode, Work mode, or while ready to take calls.
2. The agent presses the LOGON key at this time. Several displays will cycle on the display for four seconds each:
 - a. A farewell greeting; for example, *GOODBYE RENEE*.

LOGON/LOGOFF POSITION - ACD

- b. The time since logon in hours, minutes, and seconds; for example, *SHIFT 6:38:08*.
- c. The number of incoming calls handled; for example, *ACD CALLS 138*.
- d. If any calls were handled, the average time spent with each call in minutes and seconds; for example, *AVG TALK 1:30*.
- e. The cumulative amount of time spent in Work mode during the shift in hours, minutes, and seconds; for example, *WORK 2:07:25*.
- f. The cumulative amount of time spent in Break mode during the shift in hours, minutes, and seconds; for example, *BREAK 1:02:41*.
- g. Finally, the display shows *VACANT*.

SERVICE CONDITIONS

1. When a vacant position displays *R.I.P.* (Reset In Progress), it indicates that the system is unable to communicate with the telephone instrument. If the LOGON key is pressed and the connection is established, the display will show *VACANT* within five seconds. If the connection cannot be established, *R.I.P.* will continue to be displayed.

PROGRAMMING

[When ID code is used]

Step 1: ACDSPL - Set the ID code is required to logon for each split.

Step 2: ACDLOG - Assign the ID code to logon
LOGON ID: (9 digits maximum)

Note: "0" is not recognized as the first digit.

AGENT NAME: Logon ID name (14 characters at the maximum)

ABBR NAME: Abbreviated ID code name (5 digits maximum)

[When ID code is not used]

Step 1: ACDSPL - Set the ID code is not necessary to logon for each split.

L-48A LANGUAGE DEFAULT - ACD

GENERAL DESCRIPTION

This feature allows the selection of a language, applicable to an entire tenant, for use in messages displayed at positions where an agent is not logged onto the ACD system. The following are examples of messages that will appear in the selected language:

1. The *VACANT* message, displayed when an agent is not logged on at the position;
2. The messages used during the logon procedure, such as *LOGON ID?*, (if logon ID codes are used);
3. The messages giving split information (name, queue depth, time of longest waiting call) that are displayed at a vacant position when the agent presses the AUTO/MAN key.

OPERATING PROCEDURE

None

This feature is implemented through an ACD MAT command. The command data is on a tenant-wide basis.

PROGRAMMING

ACDTN

DEFAULT LANGUAGE: English
Japanese
Spanish
Italian
French
German

LOGOFF WARNING - ACD

L-92A LOGOFF WARNING - ACD

GENERAL DESCRIPTION

This feature is programmed on a per-split basis via the ACDSPL MAT command. When a split is marked for Logoff Warning agents will receive the display “*LOGOFF WARNING*” for a few seconds if they try to logoff while there are still calls in queue. In order to actually logoff the agent must press the Logoff Key a second time after having received the warning message. In other words, the warning message is intended to encourage the agent to continue taking phone calls and, in fact, the agent remains logged on if the key is pressed only one time.

A value is set for the Logoff Warning feature from 1 to 9 or ALL. The value 1~9 describes the maximum number of agents still logged onto the split when the warning is given. If the setting is at 5 then only the last five agents to logoff from the split will be given the warning message.

The “*LOGOFF WARNING*” display is shown only when the number of callers waiting in queue for the agent’s split is greater than or equal to the number of agents still logged on in addition to the value set for Logoff Warning. That is, if the setting is at 5 and there are five agents logged on but only three calls are in queue then an agent will be allowed to logoff and will not receive the warning message. In fact, two agents may logoff and neither will receive the message. However, when there are only three agents remaining and three calls in queue, if one of those agents attempts to logoff the warning will be provided.

SERVICE CONDITIONS

1. For multi-split agents the logoff warning is calculated for each split that the agent is a member. If any split falls into the logoff with warning threshold then the warning will be provided and the agent’s logoff will be restricted. No indication is given as to which split or splits has remaining calls to be answered.
2. When an agent wishes to logoff when Logoff Warning is enabled it will be required that the agent press the LOGON/LOGOFF KEY two times in succession (no intervening keypresses) and that there must be at least a 2 second pause between the two keypresses.

This should ensure that the agent was given an opportunity to see the “*LOGOFF WARNING*” display and has chosen to ignore it and logoff anyway.

PROGRAMMING

ACDSPL -

LOGOFF WARNING CRITERIA: Assign the threshold value (necessary number of agents logged onto the split) for LOGOFF WARNING.

0 = LOGOFF WARNING is out of service

1-9 = Maximum number of agents to be logged on

ALL = Number of agents equal to or less than the number of calls in queue

M-28A MONITORING - ACD SUPERVISOR - ACD**GENERAL DESCRIPTION**

This feature allows the supervisor to select an agent position and to monitor the calls on both the ACD line and the non-ACD line at that position. The agent and calling party are not aware that their call is being monitored. As the agent concludes one call and begins another, switches from one line to another, or transfers, the supervisor's monitor is applied to the current call. If both lines are idle when the monitoring is established, the supervisor will hear quiet tone until the agent either answers a call on one of the lines or places a call from the non-ACD line. At that time, the supervisor will be able to hear both parties.

OPERATING PROCEDURE

Monitoring an agent's position:

1. While in Work mode, Break mode, or Ready mode, the supervisor presses the MON/BARGE key and the display shows *MONITOR NUMBER?*.
2. The supervisor enters either the ID code of the agent or a "0" followed by the extension number of the position the supervisor wishes to monitor and "#". For example, to monitor the agent whose ID code is "101" and who is at extension "4301", the supervisor presses either 101# or 04301#. Either a PBX or ACD extension can be used.
3. If the ID code or extension number is valid and the agent has a call in progress on either line, the MON/BARGE lamp will flash and the supervisor will hear a Zip Tone before silently listening in on the agent's call.
4. If no ACD call is in progress, the MON/BARGE lamp will be steadily lit and the supervisor will hear nothing.
5. As calls are handled by the agent, the supervisor will alternate between the two states described previously.
6. If the agent transfers to a third party, the supervisor will hear the conversation between the agent and the third party. When the agent returns to the original caller, the supervisor will again hear the agent and the original caller.
7. While monitoring a conversation, the monitor function is terminated either by releasing or by pressing the MON/BARGE key. The ACD system will respond by displaying the prompt *BARGE?* (**Note 1**). To barge, the supervisor enters 1#. To exit from the monitor mode and return to the previous mode, the supervisor enters # or presses the MON/BARGE key again.
8. While listening the quiet tone, the monitor function is terminated by pressing the MON/BARGE key once.

Note: *To use this feature, the supervisor must be off-hook and must not use the SPEAKER key of a D^{term} to monitor an agent. If the SPEAKER key is used, the SPEAKER lamp on the supervisor's D^{term} is extinguished when the call is released by either the agent or the ACD calling party. If the supervisor presses the SPEAKER key before another call is routed to that agent, monitoring will continue. If the agent receives another call before the supervisor's SPEAKER key is pressed, the monitor function is terminated.*

Note 1: *After supervisor presses 1 # A, three-party conference is established.*

MONITORING - ACD SUPERVISOR - ACD

Barging in on the monitored call:

1. Set up the monitor function as described in the preceding section.
2. While the agent is engaged in a conversation on the ACD line and the supervisor is monitoring, the supervisor may press the MON/BARGE key. The ACD system will respond by displaying the prompt *BARGE?*. To barge, the supervisor enters 1#. A three-way conference connection is now established.
3. Intrusion tones are provided to both the agent and the calling party prior to the conference connection, and the supervisor's MON/BARGE lamp will wink.
4. At this time one of two things is likely to happen:
 - a. The supervisor may press the RELEASE key or the MON/BARGE key to terminate the conference connection (barge) and return to the monitor connection.
 - b. The agent may press the RELEASE key and relinquish control of the call to the supervisor. In this case, the supervisor will continue to talk to the incoming caller until the call is completed, either by the supervisor pressing the RELEASE key or the MON/BARGE key, or by the caller releasing first. The supervisor will then return to a monitor connection, either listening to the agent on a new call, or quiet tone if there is no call.

SERVICE CONDITIONS

1. While monitoring or barging, the supervisor can display the identification of the original ACD call and the queue depth by pressing the LOGON key. Please see [Calling Party Identification - ACD \[C-70A\]](#) for additional information.
2. During three-party calls such as transfers and conferences, the supervisor will not be able to barge in, but will continue monitoring the agent and one of the other two parties. The monitoring will be updated to follow assist calls.
3. A supervisor can only monitor agents that are currently logged onto the ACD system. If a supervisor barges into a monitored call, and the agent releases and logs off, the supervisor will return to the previous mode at the completion of the call.
4. While monitoring an agent's PBX (non-ACD) line, the supervisor cannot barge into the conversation. Barges can only be done while monitoring ACD lines.
5. While the supervisor is monitoring, if the agent being monitored begins an emergency request, the supervisor will be released. This allows the supervisor to answer the emergency if necessary.
6. When requesting an agent to monitor, if the agent is not logged on, is on an emergency call, or is being monitored by another supervisor, the supervisor will be prompted again.
7. This feature is restricted to ACD positions. There is no capability to monitor voice connections, conducted by non-ACD users, among the remaining (non ACD) station equipment connected to the switch. The intent of this feature is to provide a secure, ACD-only, performance appraisal function.
8. If the agent places a call on hold or performs switch hook flash and is reconnected with the call, the supervisory position will release from monitoring for a moment. But the system will automatically reconnect the monitor again.

CAUTION: The use of a monitoring device to eavesdrop may be illegal under certain circumstances and laws. Legal advice should be sought before implementing any practice that monitors a telephone conversation. Some federal and state laws require the monitoring party to use beep tones, to notify all parties to the telephone conversation, or to obtain the consent of all parties to the telephone conversation. Some of these laws incorporate strict penalties.

PROGRAMMING

AKYD - Assign MON/BARGE function to a feature key.

MULTIPLE CUSTOMER GROUPS - ACD

M-29A MULTIPLE CUSTOMER GROUPS - ACD

GENERAL DESCRIPTION

The system can be arranged to independently service more than one ACD customer (tenant). Ideally all components of the ACD system should be duplicated for each tenant but in reality some components can be shared.

Using multiple tenants in an attempt to circumvent limitations imposed at a per-tenant level does not work since too many components end up being shared. Tenant limitation exists for a reason often related to software design considerations. Assigning a second tenant to take advantage of a tenant parameter may appear to work at first but blending all the other components of a multi-tenant ACD can present several difficulties.

OPERATING PROCEDURE

No manual operation is required.

SERVICE CONDITIONS

1. Multiple tenants were designed to serve separate groups within one ACD system. Each group should have separate telephone facilities, MIS systems and personnel.
2. Attempts to share resources will typically result in inaccurate statistics since calls which cross tenant boundaries cannot be adequately tracked by either system.

PROGRAMMING

For consideration of the ACD tenant, see [Assignment of ACD Tenant Data](#) in [Chapter 7](#).

Step 1: ASYD- Assign the tenant development table data.
Separate or Common Tenant Data table development for the respective commands.
0/1=Separate/Common

Note: When data "1" is assigned, data must be assigned for Tenant 1 (TN=1) in the respective commands.

SYS1, INDEX92,

- b₀: System Data-2 ("ASYD" command)
- b₁: Special Access Code Data ("ASPA", "AASP", "AGSP" commands)
- b₂: Numbering Plan Data ("ANPD", "AANP", "AGNP" commands)
- b₃: Station Data ("ASDT", "AAST", "AGST", "ALDN", "ASAT" commands)
- b₄: Route Restriction Class Data ("ARSC" command)
- b₅: Call Forwarding Restriction Data ("ACFR" command)

SYS1, INDEX93,

- b₀: Service Feature Restriction class Data ("ASFC" command)
- b₁: Call Forwarding Data ("ACFO" command)
- b₂: TAS Data ("ATAS" command)
- b₃: Speed Calling Data ("ASPD" command)
- b₄: Route and Selection Translation Data (OG, Tandem) ("ASTP", "AFRS" commands)
- b₅: Route and Selection Translation Data (IC) ("ASTP", "AFRS" commands)

b₆: Maximum Necessary Digit Data (“AMND” command)
b₇: Announcement Equipment Data (“AAED” command)

SYS1, INDEX94,

b₀: Tenant Restriction Class Data (“ATNR” command)
b₁: EPN Facility Restriction Data (“AEFR” command)
b₂: Primary Call Restriction Data (“APCR” command)
b₃: Authorization Code Data (“AATC” command)

Step 2: ACDTN- Assign the ACD tenant data.
TN: ACD tenant (1-10)
NAME: Name corresponding to the ACD tenant data (max. 20 digits)
SPLITS: Maximum Split for Tenant (1-250)
DEFAULT LAUGUAGE
English
Japanese
Spanish
Italian
French
German
OPERATOR ACCESS CODE: Enter the operator access code programmed in the ASPA or ASPAN
IVR PILOT NUMBER: Number to access IVR directory numbers used by ACD
OUTBOUND ANSWER TIME: Time (in seconds) after which an outbound call is assumed to have been answered.
AGENT PERSONAL QUEUE: Personal Announcement Number (0-58) or SPACE: feature not used
PRIORITY: Priority to use for split queuing after overflow or call forwarding (1 to 255) or SPACE: feature not used.

MULTIPLE SUPERVISOR GROUPS (SPLITS) - ACD

M-79A MULTIPLE SUPERVISOR GROUPS (SPLITS) - ACD

GENERAL DESCRIPTION

Multiple supervisors can be grouped together to form a split when it is necessary for more than one supervisor to serve a split of agents. Assistance and emergency requests can be routed to a split of supervisors, but a split of supervisors does not normally receive incoming call traffic unless it has been programmed as a secondary split to be queued to in a Call Control Vector (CCV). Refer to [Call Control Vector - ACD \[C-108A\]](#) for more detailed information. All aspects of an agent split, such as call waiting indication and queuing, also apply to a split of supervisors.

OPERATING PROCEDURE

For additional reading please see the note for “The Supervisor Concept” in [Splits - ACD \[S-91A\]](#).

SERVICE CONDITIONS

1. This feature is released since the PBX software Series 7400 and the ACD software R3.
2. Assistance and emergency calls with this feature can not be taken by the supervisor in Work Mode or Break Mode (Assistance and emergency call to a individual supervisor can be taken by supervisors in those modes).
3. The followings are differences between assistance/emergency requests to an individual supervisor and those to a split of supervisors. See [Assistance - ACD Agent - ACD \[A-34A\]](#) and [Emergency/Recorder - ACD \[E-6A\]](#) for more details,

Service \ Destination	Individual Supervisor	Split of Supervisor
Assistance-ACD Agent	Assistance call terminates to PBX line for the supervisor	Assistance call terminates to the pilot number of the split
Emergency/Recorder	Emergency call can be distributed to the supervisor in Work Mode/Break Mode.	Emergency call can not be distributed to the supervisor in Work Mode/Break Mode.

4. CCV data programmed for a pilot number of a split of supervisors as the destination of Assistance call or Emergency call is as follows. See [Assignment of ACD CCV Data](#) in [Chapter 7](#).
 - STEPn Queue Assign, Conditional Queue Assign, Goto
 - STEPn+1 Pause (Valid for CCV data for Assistance only)
 - STEPn+2 End CCV
5. Since DAY/NIGHT CLASS OF SERVICE [D-15] cannot be used for the split of supervisors, do not set the data that ACD call excluding Assistance and Emergency calls terminated to the split directly.
6. When using dictation trunk for EMERGENCY/RECORDER, recording starts from the moment the call terminates to the supervisory position (It is not recorded while the call is in queue).

PROGRAMMING

- Step 1: ACDSPL - Assign assistance and emergency request destinations per split.
ASSIST - pilot number of a split of supervisors
EMERGENCY - pilot number of a split of supervisors

- Step 2: ACDLOG - Assign assistance and emergency request destinations per ID code.
ASSIST REQUEST - pilot number of a split of supervisors
EMERGENCY REQUEST - pilot number of a split of supervisors

MIS OPERATOR SELECTION - ACD

M-88A MIS OPERATOR SELECTION - ACD

GENERAL DESCRIPTION

This feature permits the selection of an access code for an operator, for an entire tenant. Certain MIS change commands permit the operator to be selected as the destination when routing ACD calls.

In the extreme case where the ACD traffic has exhausted all available call records (too many simultaneous ACD calls either connected or in queue) all new incoming ACD traffic will be diverted to the code specified for the MIS Operator Selection. Once diverted the caller should be encouraged to call back at a later time when the ACD system is not so congested.

OPERATING PROCEDURE

This feature is implemented through an ACD MAT command. The command data is on a tenant-wide basis.

PROGRAMMING

ACDTN - OPE NO: Operator access code (Maximum 5 digits)

M-89A MONITOR ME - ACD

GENERAL DESCRIPTION

During an ACD call, an agent can request to be monitored by a specific supervisor. When the agent presses the ASSIST key or presses the TALLY key and dials 006#, a monitor request is sent to the designated supervisor. Upon answering, the supervisor is in a silent monitor connection listening to the agent and the calling party.

The number (personal assist request number) associated with the supervisor is programmable for each agent.

The ASSIST key and the personal assist request number can be used for either the MONITOR ME feature or the ASSISTANCE - ACD AGENT feature. The choice is made for each split. Regardless of which feature the key and number are dedicated to, if an agent personal assist number and a split assist request number are both defined, the personal assist request number will always be used. If an agent is in multi-split mode and a personal assist request number is defined, the quantity of splits which have an assist request number defined is meaningless; the personal assist request number will be applied. Please refer to [Multi-Split Agent - ACD \[M-90A\]](#) for more information.

OPERATING PROCEDURE

The following example illustrates how the feature functions.

1. An agent is logged onto a position; the extension is 4281.
2. The agent requests to be monitored by pressing the ASSIST key.
3. While the supervisor's position is being rung, the agent and the calling party remain connected and can continue to converse.
4. The ASSIST lamp at the agent's position is lit, and the display shows the individual supervisor's name. An example of the display is *MONITOR JAMES*.
5. When the destination supervisor is idle, the MON/BARGE lamp at the destination supervisor's position is lit and the display provides the extension of the agent who is requesting the monitor activity and the trunk type and number to which the agent is connected. The display appears when the monitor request is ringing and when it is answered.
6. The supervisor answers the request and begins monitoring the agent and the calling party.
7. The ASSIST lamp at the agent's position starts to flash and the display changes to *MONITOR ANSWERED*.
8. At this point, the supervisor is able to release the call or to barge. The latter option results in a three-way call involving the supervisor, the agent, and the calling party. To initiate the barge, the supervisor presses the MON/BARGE key; the ACD system responds with a *BARGE?* prompt. The supervisor can enter 1# to affirm the barge, at which point the agent and calling party are sent an intrusion tone. The supervisor can cancel the monitor activity by either pressing the MON/BARGE key or by entering #.

MONITOR ME - ACD

SERVICE CONDITIONS

1. This service requires the three-conference trunk.
2. During the barge (three-way conversation), any of the three parties may release themselves from the call; the other two parties remain connected.
3. The monitor activity, which is silent, is automatically canceled if the agent transfers to another party.
4. If the connection between the calling party and the agent is terminated prior to the supervisor's response to the monitor request, the request is automatically canceled.
5. While the supervisory position handles the ACD call, the LCD display for the service indication for "MONITOR ME" (see OPERATING PROCEDURE for details of indication) and the chime informs the supervisory position with the request. On the LCD of agent position, "MONITOR BUSY" is displayed.
6. When the supervisory position is logged off or in BREAK mode, the service indication of "MONITOR VACANT" or "MONITOR BREAK" is displayed on the agent position's LCD at each time. However, the supervisor can not find the service request via its LCD display.

CAUTION: The use of a monitoring device to eavesdrop may be illegal under certain circumstances and laws. Legal advice should be sought before implementing any practice that monitors a telephone conversation. Some federal and state laws require the monitoring party to use beep tones, to notify all parties to the telephone conversation, or to obtain the consent of all parties to the telephone conversation. Some of these laws incorporate strict penalties.

PROGRAMMING

- Step 1: ACDSPL - Assign the ACD line's number of the supervisory position as the assistance call's destination and the service activated with ASSIST key.
ASSIST: ACD line of the supervisory position
ASSIST Key or MONITOR ME
- Step 2: AKYD - Apply "ASSIST" key to the function key.
KYN = 7 (as an example)
KYI = 1
FKY = 41 (ASSIST)

M-90A MULTI-SPLIT AGENT - ACD**GENERAL DESCRIPTION**

This feature allows an individual agent to handle calls from a maximum of four (ACDP software R1 or R2)/ sixteen splits (ACDP software R3). The agent's logon ID is programmed to specify whether the agent is permitted to handle calls from a single split (single-split mode) or from multiple splits (multi-split mode).

The agent's logon ID is programmed to specify which splits the agent can service. The logon ID permits one to four/sixteen specific splits to be listed, or access to any split to be indicated. If specific splits are listed, then a priority (or preference level) is assigned to each split. There are 99 priority levels (1>99); splits can be assigned the same level.

An agent who is servicing multiple splits will have calls assigned based on a two-level algorithm. The first level of assignment is based on the priorities of the splits. Calls from the split with the highest priority will always be connected before calls from splits with lower priorities. The second level of assignment is the amount of time that the longest waiting call has been in queue. This level is only used if two or more splits have the same priority. If splits have the same priority, then the call with the longest time in queue will always be connected before calls that have spent less time in queue. The following examples, where an agent is servicing four queues, illustrate the two-level algorithm.

Table 5-3 Call Distribution Algorithm - I

SPLIT NUMBER	PRIORITY LEVEL	CALLS IN QUEUE	LONGEST WAITING CALL
1	1	1	15 seconds
2	2	4	45 seconds
3	2	7	20 seconds
4	3	3	50 seconds

In this case, the call in Split 1 will be connected to the agent. Split 1 has the highest priority of the splits that the agent is serving. Thus, the fact that Split 1 has the fewest calls and the call with the shortest time in queue is not a consideration.

Table 5-4 Call Distribution Algorithm - II

SPLIT NUMBER	PRIORITY LEVEL	CALLS IN QUEUE	LONGEST WAITING CALL
1	1	0	
2	2	4	60 seconds
3	2	7	35 seconds
4	3	3	65 seconds

In this example, the next call that is connected to the agent will be the longest waiting call from Split 2. The split with the highest priority, Split 1, does not have any calls in queue. Split 2 and Split 3 have the same (and next highest) priority. Thus, the longest waiting call will be selected, and that call resides in Split 2 (60 seconds as opposed to 35 seconds).

MULTI-SPLIT AGENT - ACD

The splits that an agent can handle are not based solely on the agent's logon ID. A combination of three factors determines which splits a specific agent, at a specific position, can handle. These factors and their associated variables are:

1. The splits allowed by the agent's logon ID, which can be a list of one to four/sixteen specific splits, or any split.
2. The splits allowed by the position, which can be one specific split or any split.
3. The split mode allowed by the agent's logon ID, which can be single-split or multi-split.

The ensuing paragraphs describe the scenarios associated with each possible combination of the three factors. While examining these scenarios, it would be beneficial to reference [Table 5-5](#). The table's horizontal axis describes the agent's logon ID (split mode and allowed splits) and the vertical axis describes the position's allowed splits. The intersection presents the split mode in which the agent will operate and the split or splits the agent will service (indicated with lower-case letters in parentheses).

The single-split mode scenarios will be examined first.

An agent, in single-split mode, whose logon ID lists one to four/sixteen allowable splits can log on to a position with a single specified split (which matches one of the agent's logon ID splits) or a position with any split allowed. As an example, an agent's logon ID specifies the splits 2, 5, 8 and 12. The agent can log on at a position that specifies one of those splits (2, 5, 8 or 12). Alternatively, the agent can log on to a position that allows any split. During the logon procedure, the splits in the logon ID list are displayed sequentially. The agent indicates the single split of choice by entering 1#; entering # indicates that this is not the split of choice. The agent's split defaults, such as the after-call mode and the answer mode, will be the defaults associated with the single split that is chosen.

An agent, in single-split mode, whose logon ID permits any split can only logon at a position that permits a single specified split. The agent will take calls from the single split and the agent's split defaults will be the defaults associated with that split.

An agent, in single-split mode, whose logon ID allows any split is not permitted to log on at a position that allows any split. This combination would force the ACD system to begin to sequentially prompt the agent with the name of every split in the system, until the agent selected the single split in which they wish to work. This is not an effective use of agents' time.

The multi-split mode scenarios will now be examined.

An agent, in multi-split mode, is not permitted to have a logon ID which allows any split. This combination would force the ACD system to begin to sequentially prompt the agent with the name of every split in the system, until the agent selected the splits in which they wish to work. As in the previous case, this is not an effective use of agents' time.

If taken together, the last scenario of the single-split mode (an agent's logon ID allows any split, the agent is not permitted to log on at a position which allows any split), and the first scenario of the multi-split mode (an agent's logon ID which allows any split is not permitted), the following ACD condition is the result. If an agent's logon ID allows any split, then the agent will automatically be put into single-split mode and will not be allowed to log on at a position which allows any split.

An agent, in multi-split mode, whose logon ID allows a list of specific splits can log on at a position that allows a single specified split (where the split matches one of the allowed splits in the agent’s logon ID list) or at a position that allows any split. In both cases, the agent will automatically be allowed to handle calls from every split in the agent’s logon ID list. As an example, the agent’s logon ID list allows splits 2, 5 and 8. The agent logs on at a position that allows Split 5. The agent will be allowed to handle calls from splits 2, 5 and 8. The same agent logs on at a position that allows any split. The agent will be allowed to handle calls from splits 2, 5 and 8. The agent’s split defaults, such as the after-call mode and the answer mode, will be the defaults associated with the agent’s logon ID attribute split. The attribute split is the first split in the list of allowable splits.

The **CW** lamp (Call Waiting), for an agent in multi-split mode, reflects the status of every split that the agent is servicing. The **CW** lamp serves as a visual indication for changes in the depth of each split queue. Thresholds for each split queue, based on the quantity of calls in the split queue, are programmed to force the **CW** lamp to light or flash. There are two separate thresholds. Please refer to [Call Waiting Indication - LCD Display/CW Lamp - ACD \[C-68A\]](#) for related information. Since the **CW** lamp is related to multiple splits, the lamp is used to indicate the most “severe” case at any given time. For example, the **CW** lamp reflects the status of the first split that has either reached a threshold, the first to reach a higher threshold (flashing), or the status of the split which has exceeded a threshold by the greatest amount of calls.

The **NIGHT** lamp, for an agent in multi-split mode, reflects the night mode of the attribute split. The agent is allowed to put the attribute split into Night mode, or remove the attribute split from Night mode.

Table below summarizes the valid combinations of an agent’s split mode, the splits allowed to the agent, and the splits allowed to the position. Recall that a logon ID which allows the agent to operate in multi-split mode and service any split is not permitted. The intersection of the rows and columns presents the split mode in which the agent will operate and the split or splits the agent will service (indicated with lower-case letters in parentheses; (a), (b), (c), (d)).

Table 5-5 Valid Logon ID/Position Combinations

	Agent’s Logon ID-ACDLOG Split Mode - single split or multi split: MULTS=0/1 Allowed Splits - List (a, b, c, d) or Any Split: SPLIT		
Position’s Allowed Splits-ACDPSN	Single-Split List (a, b, c, d)	Single-Split Any Split	Multi Split List (a, b, c, d)
Single (a):SPLC=1	Single (a)	Single (a)	Multi (a, b, c, d)
Any:SPLC=0	Single (a, b, c, d)	Not Allowed	Multi (a, b, c, d)

MULTI-SPLIT AGENT - ACD

The splits allowed to a position or an agent can be changed by using the ACD MAT, the MIS, or a Supervisor Tally-Oh Code. These changes can be implemented while agents are logged on at positions. The impact on the agent's call handling and the agent's ability to log on at the same position in the future are described by the two general statements which follow.

1. If the changes to the splits allowed the position and/or the splits allowed the agent produce a situation which is not a valid combination, the agent will be allowed to continue handling calls as before until the agent logs off.
2. If the changes to the splits allowed the position and/or the splits allowed the agent produce a situation which is not a valid combination, the agent will not be allowed to log on at the same position after the agent logs off.

OPERATING PROCEDURE

This feature is implemented through ACD MAT assignments. The three critical areas which underpin the feature are:

1. The split mode of the agent, which is part of the agent logon ID, is programmed on an agent basis.
2. The splits that an agent can service, which is part of the agent logon ID, is programmed on an agent basis.
3. The splits allowed at a position are programmed on a position basis.

PROGRAMMING

ACDLOG -

SPLIT: Split no. which an agent belongs to (1-250)
four splits - when using PBX software R4~Series 7300 and ACD software R1, R2
sixteen splits - since PBX software Series 7400 and ACD software R3

PERFORMANCE: Priority order to handle ACD calls terminated to each split (1-99)
When the priority is not taken, assign all "1" here.

MULTI-SPLIT: Multi Split or Single Split

N-12A NIGHT SERVICE - ACD

GENERAL DESCRIPTION

This feature provides alternate routing for calls destined for a particular split. When Night mode is in effect for a split and a call attempts to queue to that split, the call is routed to a programmed pilot number (night pilot number), used by the split, instead of being queued. At this point, the call is handled by the Call Control Vector (CCV) of the new pilot number. Refer to [Call Control Vector - ACD \[C-108A\]](#) for related information. Night mode is invoked manually by pressing the NIGHT key, or automatically by the MIS.

OPERATING PROCEDURE

[Manual Change-over]

Night Mode Engage:

1. The supervisor presses the NIGHT key while logged onto the ACD system.
2. *ENTER NIGHT/FWD?* is shown on the display and the agent presses 1# to confirm entering Night mode.
3. At this point, the split goes into Night mode, the NIGHT lamp is lit at all the positions in the split, and incoming calls are routed to the night pilot number programmed from the ACD Screens.

Night Mode Cancel:

1. Night mode may be canceled by pressing the NIGHT key again. *EXIT NIGHT?* is shown on the display and the agent presses 1# to confirm entering Day mode.
2. At this point, the split exits night service and the NIGHT lamp is extinguished at all the positions in the split.

[Automatic Change-over]

Automatic change-over from Day mode to Night mode and vice versa is accomplished from the MIS system. See the manual described on the MIS functions.

Note: *MIS cannot change split from day to night mode when night pilot involves a week schedule.*

SERVICE CONDITIONS

1. The pilot number used for Night mode cannot contain a "*" or a "#".
2. The pilot number for Night mode may invoke either a Week Schedule or a CCV.
3. The NIGHT lamp shows the current night status regardless of whether the night status was changed automatically or manually.
4. When a call attempts to queue to a split using a Queue to Split instruction in a CCV and the split is in Night mode, the Night mode routing for the split is only followed if the split is the primary split for the call. If the split is a secondary split, the Queue to Split instruction is skipped. A primary split is the split specified in the first queuing instruction in a CCV. Splits specified in subsequent queuing instructions in the CCV are referred to as secondary splits.

NIGHT SERVICE - ACD

5. When a call attempts to queue to a split using the Conditional Queue to Split instruction in a CCV and the split is in Night mode, the Conditional Queue to Split instruction is skipped.
6. When alternate routing is required by a split, [Call Forwarding - Split - ACD \[C-127A\]](#) may be used to provide a more dynamic choice of the pilot number used for the new routing.
7. When a split enters Night mode automatically, using the MIS, [Call Forwarding - Split - ACD \[C-127A\]](#) is canceled.
8. For multi-split positions the NIGHT key activates night mode for the agent's attribute split only. The attribute split is the first split assigned for the agent's logon ID. Refer to [Multi-Split Agent - ACD \[M-90A\]](#) for related information.

PROGRAMMING

- Step 1: ACDPLT - ALTERNATE NIGHT CCV:
INDEX: CCV index number to be routed in the night mode
STEP: CCV step number to be routed in the night mode
- Step 2: ACDSPL - Assign the pilot number of the Night mode destination.
DIR NUMBER NIGHT: 5 digits maximum
- Step 3: AKYD - Assign "Night" key to a supervisory position when DAY/NIGHT mode is changed over by the supervisory position.

N-14A NON-ACD CALL - ACD

GENERAL DESCRIPTION

This feature allows agents and supervisors to receive calls from and place calls to other ports in the system (e.g., PBX stations, attendants, trunks). When an agent or supervisor position is called using their PBX directory number, the call appears on the PBX line provided for that purpose. The same PBX line also permits agents and supervisors to place outgoing calls.

OPERATING PROCEDURE

The operation to place and receive calls on the PBX line is like any other PBX line with all the associated privileges and restrictions.

SERVICE CONDITIONS

1. The PBX line is not essential to ACD operation. Both agents and supervisors can operate without a PBX line. Agents and supervisors would only lose the ability to place non-ACD calls.
2. Direct incoming calls to PBX lines are permitted. When a call is received, or placed, on a PBX line, it is tagged as a non-ACD call by the MIS.

PROGRAMMING

Refer to [Assignment of ACD Position Data](#) in [Chapter 7](#).

OVERFLOW - ACD

O-10A OVERFLOW - ACD

GENERAL DESCRIPTION

This feature allows an ACD incoming call, which queues to a split for the predetermined period, queue to another SPLIT automatically and simultaneously. The agents capable of attendance, the earlier connection may be achieved.

The overflow destination can be a split, extension, announcement, IVR, trunk, attendant console, etc. "Overflow - ACD" feature indicates overflow to another split.

Operation Procedure

None

Service Conditions

1. When a call overflow to another split, the call is queued to the original split and the overflowed split simultaneously. The overflowed call can be overflowed again to another split. Likewise a call can be queued onto four (4) splits simultaneously. If simultaneous queuing is not required, a queue done by overflow can be denied (de-queued) by the office data.
2. Simple overflow (by the predetermined period) and conditional overflow are available. You can choose simple overflow, or one kind of conditional overflow by the office data. The applicable conditional overflows are below:
 - Queued call reaches the predetermined period and the number of queuing calls reaches the threshold (1-99)
 - Queued call reaches the predetermined period and the number of vacant agents becomes the threshold (1-250)
3. When an ACD call (which is not an overflowed call) and an overflowed call are in queue, the call termination priority can be assigned by office data. The system computes the priority of an ACD call (1-250 determined by ACDPLT) and overflowed call (1-250 determined by the ACDCCV "Up Priority" setting), the the prior party (the smaller priority number is given) to be terminated to the available agent. If priority data for the calls are the same, the call termination by the FIFO orders.

O-19A OVERFLOW OUTSIDE - ACD

GENERAL DESCRIPTION

This feature is provided by proper programming of Call Control Vectors, specifically using the “Transfer To” instruction. See [Call Control Vector - ACD \[C-108A\]](#) for additional information.

PRIORITY QUEUING - ACD

P-21A PRIORITY QUEUING - ACD

GENERAL DESCRIPTION

The ACD system supports 250 different queue priorities for every split. Priorities in a split queue are assigned such that priority “1” calls have the highest priority and priority “250” calls have the lowest priority. Calls with a higher priority will be serviced, in the order in which they were queued, before calls with a lower priority, regardless of the waiting time of the calls with a lower priority.

A particular call’s priority is determined by the following factors:

1. Call origination (incoming trunk or internal station).
2. Call transfer (by attendant or station).
3. Pilot number dialed.
4. CCV priority change steps.

OPERATING PROCEDURE

When implementing a system which will use multiple priorities for incoming callers there are several important concepts to keep in mind:

[HIGHEST PRIORITY CALLERS ALWAYS GO FIRST]

Callers with a higher priority are always serviced before those with lower priorities. As a result of this a low priority call could remain in queue forever or at least as long as higher priority calls continue to arrive. This situation can be rectified by proper CCV programming. After a low priority call has been in queue for some amount of time a “New Priority” step in the CCV can change a call’s priority. It should be changed to something at least as high as, if not higher than, the highest priority in use for other calls.

In this way a low priority caller is only penalized (kept at a low priority) for a certain amount of time after which it will be treated similarly to the higher priority calls coming in.

[DETERMINING TRUNK CALLER PRIORITY]

The priority of an incoming trunk call is determined by checking two places.

- A priority assigned to the trunk group (route)
- A priority assigned to the pilot number dialed

The higher of these two priorities will be used for the call.

SERVICE CONDITIONS

Calls transferred into the ACD by PBX stations and calls transferred by attendants have the same priority.

PROGRAMMING

- Step 1: ACDTG - Assign the priority order to each ACD route.
PRIORITY: Queue priority of ACD route (1-250) (1>250)
- Step 2: ACDPLT - Assign the priority order for ACD calls terminated to each pilot number
TRUNK: Priority order of ACD calls from a trunk (1~250)
INTERNAL: Priority order of ACD calls from a station (1~250)
TRANSFER: Priority order of ACD calls to be transferred (1~250)

PILOT NUMBERS - ACD

P-40A PILOT NUMBERS - ACD

GENERAL DESCRIPTION

Pilot numbers are the access codes to ACD functions. They are programmed into the PBX-side database according to the numbering plan in effect for the system. Pilot numbers do not correspond to any line appearances, either physical or virtual, in the system. No physical equipment is required to assign a pilot number.

Although pilot numbers are often thought of as ringing into a particular split, pilot numbers are associated with a Call Control Vector (refer to [Call Control Vector - ACD \[C-108A\]](#)) which in turn controls the handling of the ACD call. Since most Call Control Vectors will present a call to a split as one of their first functions, the pilot numbers appear as if they are connecting the ACD call to a split.

An ID can be associated with a pilot number. This ID will be displayed at an agent's position when the agent accepts a call that entered the system via that pilot number. An example of this display is *TECH SUPPORT*. Refer to [Calling Party Identification - ACD \[C-70A\]](#) for related information.

If an incoming ACD call enters the system through a pilot number and the receiving agent uses a pilot number to transfer the call to an agent in another split, the transferred call will be identified by the ID associated with the former pilot number. If an ID is not associated with the former pilot number, the call will be identified by the ID associated with the latter pilot number. For example, an agent in Split A receives a call via a pilot number with an associated ID of "SERVICE", resulting in *SERVICE* being displayed at the agent's position. The agent uses a pilot number to transfer the call to Split B. Split B has an associated ID of "PARTS". The agent who receives the transferred call in Split B will have *PARTS* displayed at his position. If an ID was not associated with the original pilot number, the agent in Split B will have *PARTS* displayed at his position.

SERVICE CONDITIONS

Only the digits "0" to "9" may be used ("*" and "#" are not allowed) with a minimum of two digits and a maximum of five digits in each Pilot Number.

PROGRAMMING

Refer to [Assignment of ACD Monitor Number](#) in [Chapter 7](#).

P-45A PERSONAL EMERGENCY AND ASSIST - ACD

GENERAL DESCRIPTION

This feature allows an agent to have a designated individual supervisor's number as the destination for an assist request (personal assist request number) and a designated individual supervisor's number as the destination for an emergency request (personal emergency request number). If these personal numbers are defined for an agent, then these numbers will be used instead of the emergency and assist numbers that are defined for a split. If these personal numbers are not defined, then the request (emergency/assist) will be directed to the supervisor who was designated for the split. In the latter case, the split is the split in which the agent received the call. This is true for an agent working in single-split or multi-split mode. Please refer to [Multi-Split Agent - ACD \[M-90A\]](#) for related information.

OPERATING PROCEDURE

For these examples, the agent's name will be Molly and the supervisor's name will be Kathey.

To place a personal assistance request:

1. While on an ACD call, Molly at extension is 4302 presses the ASSIST key. The ASSIST lamp turns on and *ASSIST KATHEY* is displayed on the agent's position indicating whose supervisor position is receiving the call.
2. The ACD call is placed on hold and an automatic transfer to the designated supervisor is initiated.
3. The agent hears ringback tone and the supervisor's position is rung.
4. The assistance call will connect on the supervisor's ACD line and the supervisor's position will display either *ASSIST MOLLY* or *ASSIST 4302*, depending on whether the agent's name is programmed with his or her logon ID. Please refer to [Flexible ID Codes - ACD \[F-25A\]](#) for more information.
5. After consulting with the supervisor, one of three things may occur:
 - a. The agent may release from the call thereby completing the transfer of the ACD call to the supervisor.
 - b. The supervisor may release from the call. This will reconnect the agent and the ACD call.
 - c. The agent may press the CONF key and invoke a three-way conference between the supervisor, the agent and the ACD calling party.
6. When either the agent or the supervisor disconnects from the assistance call, the ASSIST lamps are extinguished and the displays return to their original status.

To cancel a personal assistance request:

1. After initiating an assistance request and before being answered by the supervisor, the agent may cancel the request by pressing the TRANSFER key.
2. The ASSIST lamp will be extinguished, the agent will be reconnected with the ACD call, and the display will return to its original status.

PERSONAL EMERGENCY AND ASSIST - ACD

To place a personal emergency request:

1. While engaged in an ACD call, the agent presses the EMERGENCY key, the agent's display shows *EMR KATHEY*, and the associated lamp is lit.
2. The supervisor's phone rings with the emergency displays shown below.
3. The supervisor will silently monitor the agent and the calling party.
4. The supervisor's display shows *EMR 4302 DDD 28*, where 4302 is the agent position's extension and DDD 28 is the trunk type and trunk circuit number to which the agent is connected.
5. When the supervisor answers, the agent's display will show *EMERG ANSWERED* and the EMERGENCY lamp will wink. When the agent releases from the call, or the supervisor releases from the monitor, the agent's lamp will be extinguished.
6. The agent and the calling party are never disconnected while the supervisor's position is ringing.
7. An emergency recorder is connected as soon as the supervisor's position answers and is disconnected if the supervisor joins the call in a three-way conference by pressing the MON/BARGE key. The recorder is also disconnected if the supervisor releases from the monitor using the RELEASE key.

To cancel a personal emergency request:

1. If the request is routed to an individual supervisor's ACD or PBX line, the request can be canceled by pressing the EMERGENCY key.

SERVICE CONDITIONS

1. The ASSIST key and the personal assist request number are dedicated to one of two features; either the key and the number are used for the ASSIST feature or they are used for the [Monitor Me - ACD \[M-89A\]](#) feature. The choice is indicated through an ACD MAT command on a split-wide basis.
2. When a Personal Emergency or Personal Assist call destination is a station which has Call Forward All, Busy or Don't Answer set the call will not be forwarded.

PROGRAMMING

Step 1: ACDLOG - Personal Assist Request number
Personal Emergency Request number

Step 2: ACDSPL - ASSIST key or MONITOR ME

Q-1A QUEUING - ACD

GENERAL DESCRIPTION

There are two queues for every split. One queue contains a prioritized list of callers waiting to be connected to agents and the other queue contains a list of agents waiting to be connected to callers starting with the agent who has been ready the longest. A queue will be empty when there are no waiting callers or no waiting agents.

If agents are available to handle a call, the agent queue contains a list of the agents, starting with the highest priority (preference level) agent who has been waiting the longest period of time for a call, and ending with the lowest priority agent who has been waiting the shortest period of time for a call. Refer to [Call Distribution to Agents - ACD \[C-35A\]](#) and [Multi-Split Agent - ACD \[M-90A\]](#) for related information.

If callers are waiting to be connected to agents, the call queue contains a list of the calls, starting with the highest priority calls which have been waiting the longest period of time to be connected to an agent, and ending with the lowest priority calls which have been waiting the shortest period of time to be connected to an agent.

Callers may be suspended in queue while conducting certain voice transactions with IVR equipment. At this time it is possible to have a (suspended) caller in the call queue while at the same time have available agents in the agent queue.

There are two distinct ways to present a call to a split. Each way provides a different algorithm for connecting the call to an agent or placing the call in queue.

1. Standard queuing:

Standard queuing always connects a call with an available agent or queues the call when an agent is not available. Calls are queued according to their priority. The only limit to standard queuing is the split's maximum depth. Upon finding the queue full, alternate routing may be invoked, if alternate routing has been programmed. Please refer to the If not Queued, Goto or Busy instruction, under [Call Control Vector - ACD \[C-108A\]](#), for additional information.

A split's maximum queue depth may be specified in one of two ways:

- As an absolute number. This count defines the maximum number of callers who may wait in queue for the split.
- As a percentage of the number of working agents. This percentage is specified in 5% increments from 5% to 1000%. Working agents are those agents in the Work Mode or on an ACD call. When the queue depth is specified as a percentage of working agents the depth will change up and down as agents logon, take breaks and logoff. There may be occasions when there are more calls in queue than the queue depth might appear to permit. No new calls may queue until the current depth is reduced below the current maximum allowed.

If the percentage is set to 150% and there are 18 agents working then the queue depth for that moment will be set at 27.

QUEUING - ACD

2. Conditional queuing:

One of the two following conditions (programmed on a split-wide basis) will be checked before a call is either connected to an agent or queued.

a. Minimum Agent Availability

The system will check for a minimum number of available agents before connecting the call. If the number of available agents is greater than or equal to the minimum specified, the call is accepted and connected to the longest-waiting available agent. For example, if the minimum agent threshold is set at “3”, then calls are connected if there are three or more available agents. If there are two or fewer available agents the call will be processed by the next step in the Call Control Vector (refer to “[Call Control Vector - ACD \[C-108A\]](#)”).

b. Maximum Queue Depth

The system will check for a maximum number of calls in the split’s queue, at the time the call is presented. If the queue depth is less than the maximum specified, the call may be queued or connected if agents are available. For example, if the maximum queue depth is set at “3”, then calls are connected if there are fewer than three calls in queue. If there are three or more calls in queue the call will be processed by the next step in the Call Control Vector (refer to [Call Control Vector - ACD \[C-108A\]](#)).

A Call Control Vector (CCV), which is assigned to a Pilot Number, allows certain calls to queue to a split, and specifies standard or conditional queuing. When conditional queuing is used, the type (condition) and threshold must be selected for the split. A split may receive standard queuing calls from one CCV while receiving conditional queuing calls from another CCV. Refer to [Call Control Vector - ACD \[C-108A\]](#) for related information.

The following types of calls are permitted to queue to an ACD split when agents in the split are not available to handle calls:

1. Calls to the C.O. trunk assigned to the ACD split.
2. A DID or Tie trunk call that dialed the Pilot Number associated with the split.
3. Automatic Ringdown Tie trunk terminations.
4. Calls transferred by the attendant.
5. Calls overflowed from other splits.
6. Calls forwarded by the split supervisor of another split.
7. Calls transferred by PBX stations or ACD agents.
8. Calls transferred by Night mode.
9. Direct station calls.

OPERATING PROCEDURE

This feature is implemented through the programming of CCVs.

SERVICE CONDITIONS

1. Queuing Limitations:
 - a. An incoming ACD call can follow a set of instructions in the CCV, associated with the pilot number, and encounter many different splits. If all the splits are busy, the call is allowed to queue to the first four splits it encounters. Additional splits may be programmed in the CCV, but no queuing is permitted if the splits are busy. A Dequeue instruction removes the call from one or all of the queues it currently occupies. After dequeuing, additional splits may be programmed and queuing will take place.
 - b. A limited number of queue spots are available in the ACD system. If a call is queued to four different splits, it has absorbed four queue spots. In the unlikely event that all the queue spots in the ACD system are in use, the split queue will not accept additional calls even though its queue depth limit has not been reached.
2. Queue Size Restrictions:
 - a. Queues are basically unlimited in size; however, a maximum queue depth may be specified when designing the database. For example, a small split having only six agents should not allow 220 queued calls. This would result in numerous abandoned calls. A maximum queue size of 15 would be more appropriate for this particular split. Once full, additional calls would get busy tone or endless ringing, depending on CCV programming. Each split's queue is programmed with a maximum size which may be an absolute number (1 to 700) or may be stated as a percentage of logged on agents (5% to 1000%).
 - b. The total number of all calls waiting in all queues combined with the total number of all calls currently connected to agents is limited to the maximum number of Call Records. Refer to the ACD Job Specification for the quantity of Call Records allocated for each ACD system.
3. Queue Timing Restrictions:
 - a. There is no limit on how long a call may remain in queue. There are ways of removing calls from queues including the caller disconnecting, a successful transfer to a PBX number, a Dequeue instruction in the CCV, or the call being answered by an agent from another queue. Encountering an END instruction in a CCV does not remove the call from the queue.

PROGRAMMING

- ACDSPL - Assign the maximum number of queued calls
- 1-700 calls
 - 5% - 1000% (in increments of 5)

RELEASE - ACD POSITION - ACD

R-19A RELEASE - ACD POSITION - ACD

GENERAL DESCRIPTION

This feature allows an agent who is using a headset to release from a call by pressing the RELEASE key, rather than for the other party to disconnect.

OPERATING PROCEDURE

1. While engaged in a call, the agent or supervisor presses the RELEASE key.
2. The calling party is immediately disconnected and the agent or supervisor becomes idle with after-call availability set accordingly. Refer to [Availability - ACD Position - ACD \[A-37A\]](#) for related information.

PROGRAMMING

AKYD - Assign RELEASE function to a feature key.

R-145A RING DELAY - ACD

GENERAL DESCRIPTION

This feature is programmed in a Call Control Vector (ACDCCV) using the Ring Delay step followed by a parameter of from one to 15 seconds. Once a call has traversed a Ring Delay step then the ring delay feature will be applied to that call when it ultimately connects to an agent.

The effect of the Ring Delay feature on a call is that once an agent has been selected to receive this call there will be a delay in connection of up to 15 seconds. This delay is intentionally inserted to provide a window during which a host computer could paint information on the agent's screen which is pertinent to the call. The Host Computer is allowed to shorten the Ring Delay cycle by sending an appropriate Infolink command to the ACD. This message (IHx) will cause the call to immediately ring through to the agent's position.

SERVICE CONDITIONS

1. The accuracy of the timing on the Ring Delay feature is +/- 2 seconds.
2. For a Ring Delay step in a CCV to be effective it must appear before the Queue To (Queue Assign or Conditional Queue Assign) step, otherwise the Ring Delay step may not be reached if calls ring in and go directly to a waiting agent.
3. When the agent position is turned into the Work Mode or Break Mode while on Ring Delay step, the position goes in Work Mode or Break Mode after the communication ends as in the manner that the position presses the WORK/BREAK key while handling the ACD call (The ACD call is terminated to the position after Ring Delay step as normal processing).
4. When the call is distributed to execute more than one Ring Delay step, Ring Delay step which is programmed the longest time will be executed.
5. While RING DELAY is executed, the MIS displays "READY". The call abandoned during Ring Delay step is counted as "Abandoned Call before Announcement", "Abandoned Call after the First Announcement", or "Abandoned Call after the Second Announcement" in the static report.

PROGRAMMING

ACDCCV -

CCV ACTION: Ring Delay

ARGUMENT: 1-15 seconds

SPLITS - ACD

S-91A SPLITS - ACD

GENERAL DESCRIPTION

A Split is a basic building block of a call center and is generally thought to consist of a group of agents performing a similar task, a prioritized queue for incoming callers and possibly a supervisor position to oversee the caller and agent activity within the split. The supervisor may have a sophisticated statistics program available to monitor the caller and agent activity which will provide both realtime as well as historical information.

Many features are provided on a per-split basis and applied equally to all agents in the split or all callers in the split's queue. Here is a brief summary of the features available for a split. Most of these are discussed in detail on their respective pages and are included here for summary information only.

After ACD Call Mode

At the conclusion of each call an agent can be automatically either available or in wrap up mode depending on this setting. Straightforward key presses at the agent instrument allows individual agents to override this feature on a call-by-call basis.

Agent Queueing Options * Available since the PBX software Series 7400 and the ACD software R3.

An option exists where the agent's preference levels can be checked in order to decide which agent should receive the next incoming call. When preference levels are not being checked then the call will go to the longest waiting agent. If preference levels are being checked then the agent with the highest preference level is located and if there are more than one with the same preference level then the longest waiting one will be assigned the call.

The Agent preference level data for this feature is also used to decide the preference level of incoming ACD call when using [Multi-Split Agent - ACD \[M-90A\]](#) (Preference levels 1 through 99 (1>99) can be programmed using "PRIORITY" in ACDLOG command). Therefore, when [Multi-Split Agent - ACD \[M-90A\]](#) is used with this feature, there are the following conditions.

- a. if there are no ACD calls waiting in the queue:
Agent Queueing Options is available for the ACD call to be routed to the split where Agent Queueing Options is effective (when multiple splits are allowed for Agent Queueing Options, the agent may have different preference level for each split).
- b. if there are ACD calls waiting to be queued in multiple splits:
the agent handles the ACD call followed by [Multi-Split Agent - ACD](#) function.

Analog Work Timeout

Analog positions within a split may utilize a different after-call-work timeout than digital station users.

Answer Mode

By default, agent phones may be setup for auto answer which provides zip tone and an automatic connection or manual answer in which case the agent's position will ring and the incoming call should be answered in the normal fashion. Straightforward key presses at the agent instrument allows individual agents to override this feature on a call-by-call basis.

Assist Destination

A destination to receive calls when an agent presses the Assist Key can be specified for each split.

Auto Ready after PBX Call

A feature may be setup such that an agent's position will be automatically replaced in the Ready Mode at the conclusion of a call on their PBX line.

Auto Work with PBX Answer

ACD positions may be automatically placed in the Work Mode when an agent answers an incoming call on their PBX line.

Auto Work with PBX Ringing

ACD positions may be automatically placed in the Work Mode when an incoming call begins to ring on their PBX line.

Auto Work with PBX Dialing

ACD positions may be automatically placed in the Work Mode when an agent receives dial tone in order to place an outgoing call on their PBX line.

Break Types

By simply pressing a digit '1' through '9' when entering the Break Mode the MIS systems can track more closely how an agent's time is being spent.

Call Recover Timer

After a call has been assigned to an agent's position it is expected to be answered within a certain short period of time. If the call is not answered it can be programmed to be recovered and placed back in queue. At this time it will be connected immediately to another agent if one is available or will wait as the highest priority call to be connected as soon as one is available.

Call Waiting Chime On

The Call Waiting feature includes an optional chime which sounds only at ACD positions which are in the Work Mode at the moment the CW light turns on or begins flashing.

Call Waiting Threshold

The Call Waiting LED can be programmed to light when 'X' calls are in queue and begin flashing when there are 'Y' calls in queue. The thresholds are programmed independently for each split.

Conditional Threshold

Certain splits may be programmed to only accept overflow calls from other splits only if certain thresholds have not been exceeded. Either too many calls in queue or not enough available agents can prevent conditionally queued incoming calls from reaching this split.

SPLITS - ACD

Do Not Disturb Mode

When a split is unstaffed it operates in a Do Not Disturb Mode. Calls may be either allowed or restricted from queuing during this mode.

Emergency Destination

A destination to receive calls when an agent presses the Emergency Key can be specified for each split.

Emergency Recorder

A recording device can be specified to record calls in the event of an emergency. The agent must operate the Emergency Key before a call can be recorded.

Headset Jack Out Mode

When an agent's headset jack is removed from the telephone this can either automatically log the agent out or place the agent in break mode. Additionally the agent will have keys available to effect either of these conditions as well.

Hot Split

When a split is specified as a Hot Split then all ACD positions which are programmed for that split are automatically logged on when the ACD is initialized. This is most useful for ports which are typically staffed with machines like dictation equipment, answering machines, voice mail, etc.

Logoff Warning * Available since the PBX software Series 7400 and the ACD software R3.

When logoff warning feature is enabled agents will receive a visual display and their logoff key will be ignored (one key press only is ignored) if an agent attempts to logoff while there are still calls in queue.

Logon ID

Agents are expected to use a logon ID to gain access to an ACD position. It is via this ID that the ACD becomes aware of what kind of calls should be assigned to this position.

Queue depth

The number of calls waiting to be answered in a split's queue can be limited as an absolute value or as a percentage based on the number of agents logged in and working. Of course the limits can be set to such a level as to be virtually unlimited.

Monitor Me Destination

A destination to receive calls when an agent dials the Monitor Me code can be specified for each split. A supervisor is alerted to the agent's request for monitoring and should commence a silent monitor to that station.

Night Destination

A destination pilot number can be specified to receive incoming ACD calls when a split goes to Night Mode.

Stranded Calls CCV

If there are calls remaining in queue even after the last agent has logged off they will be forwarded automatically to the Stranded Calls CCV if on has been specified.

Tally Code Required * Available since the PBX software Series 7400 and the ACD software R3.

When per-call tally is enabled an agent is required to enter a tally code for each ACD call received before a new call will be assigned. The tally code may be entered either during the call or during the wrap up mode.

Work Mode Restriction

The ability for agents to selectively enter the work mode can be restricted. In such an environment agents will normally be forced to take one incoming call after another or enter the break mode.

Work Mode Timeout

The amount of time allocated for after call work mode wrap up can be set for each split. At the conclusion of that time period the agent will be automatically placed in the ready mode in order to receive a new incoming ACD call.

By properly assigning these features each split can customize the method of operation to suit the needs of the agents and clients. Additionally, it may be advantageous for an agent to be a member of multiple splits at one time. Please refer to [Multi-Split Agent - ACD \[M-90A\]](#) for additional information.

The Supervisor Concept

The concept of a supervisor or a supervisor position has no formal definition within this ACD. Some of the traditional ideas of a supervisor are described below and in all cases these features or attributes may be applied to any agent or agent position.

Can utilize the Performance Appraisal/Silent Monitor feature.

This feature is activated through the use of the MON/BARGE key and is available to any agent position equipped with such a key. It is not hard to imagine an environment where a senior agent may be responsible for doing some of the performance appraisals but not be considered the "Supervisor". Every position may be equipped with a MON/BARGE key.

Has access to the Realtime and Historical Report MIS Information.

This capability is provided by external computer (PC) equipment. It is a management decision that determines who will be provided with such computer equipment. We would expect most "Supervisors" to have access but certainly other individuals may have a need for such information as well.

SERVICE CONDITIONS

Every position in the ACD may be a member of the same split.

PROGRAMMING

Refer to [Assignment of ACD Split Data](#) in [Chapter 7](#).

SPLIT DISPLAY - ACD POSITION - ACD

S-97A SPLIT DISPLAY - ACD POSITION - ACD

GENERAL DESCRIPTION

The name of the split that a position belongs to can be displayed while the position is in Vacant mode. This maintenance feature helps the user determine which positions belong to which splits.

OPERATING PROCEDURE

1. While the position is Vacant, press the AUTO/MAN key or the WORK key.
2. Two four-second displays will follow each other providing some brief statistics pertaining to the split this position belong to.
 - the current queue depth and wait time of the longest caller is displayed first:
Q = 1 WAIT = 4:38
 - the name of the split and an estimated time to answer (ETA) for a call just arriving is shown second:
SALES: 5:45
3. The display returns to *VACANT*.

SERVICE CONDITIONS

1. This feature is only available when the position is unoccupied.
2. The agent's display will show *SPLIT: ANY* if the position is programmed as an any split position and an attempt is made to use this feature.

PROGRAMMING

None

S-98A SPLIT SELECTION - ACD

GENERAL DESCRIPTION

Split selection is determined by the position in use and the logon ID in use. A logon ID indicates whether the agent can service a single split (single-split mode) or a maximum of 16 splits concurrently (multi-split mode). A logon ID can access a maximum of 16 specified splits or any split. A position can access a single specified split or any split.

When an agent logs on, a validation procedure compares the split assignment of the position with the split assignment and the split mode of the logon ID. The three factors (position split assignment, logon ID split assignment, logon ID split mode) determine the split(s) that the agent works in and that are displayed during the logon process. Please refer to [Multi-Split Agent - ACD \[M-90A\]](#) for additional information.

OPERATING PROCEDURE

Split selections are performed automatically by the ACD system when an agent logs on.

SERVICE CONDITIONS

1. One combination of a position's split assignment and a logon ID is not allowed. One combination of a split mode and a split assignment, within the same logon ID, is not allowed. Both combinations are denied because the determination of the appropriate split(s) would be an ineffective use of ACD system resources and agent's time. The two combinations which are not permitted are:
 - a. A logon ID which allows any split, in combination with a position which allows any split;
 - b. A logon ID which indicates multi-split mode and allows any split.
2. Changes to the position's split assignment and/or the logon ID, entered at the ACD MAT or the ACD MIS terminal, will take effect immediately when the agent logs on.
3. Split assignments for positions and logon IDs are accomplished through ACD assignments.

PROGRAMMING

None

STRANDED CALL ROUTING - ACD

S-108A STRANDED CALL ROUTING - ACD

GENERAL DESCRIPTION

A stranded call is defined as a call left unanswered in queue at the time when the last agent in the split logs off the ACD system. If this call is not queued to any other split which still has agents logged on then it becomes “stranded” at the moment the last agent logs off and is a candidate for Stranded Call Routing.

Some call centers operate by placing a split into Night Mode some number of minutes prior to their actual closing time or more precisely prior to the time when the last agent will log off. This will stop new incoming calls from being queued while the remaining agents handle the calls which are still in queue. The Stranded Call Routing feature is not affected by Night Mode and will still be invoked to reroute any calls remaining in queue when the last agent logs off.

When Stranded Call Routing is invoked each caller remaining in queue will be directed to a new Call Control Vector and step and continue their ACD processing from that new point. Any CCV sequence may be specified at this time.

OPERATING PROCEDURE

1. A caller remains in queue for the Customer Service split.
2. One agent is still working, handling another call and all other agents have logged off and gone home.
3. The last agent finishes the call and enters After Call Work Mode.
4. After some time, and without answering the last call in queue, this agent logs off the system.
5. Since the caller in queue is only in the Customer Service queue and there are no agents remaining in this split the caller will be immediately rerouted to the Stranded Call CCV destination specified for this split.

SERVICE CONDITIONS

Assist and Emergency calls will not be rerouted by the Stranded Call Routing feature.

PROGRAMMING

ACDSPL

CCV index number for Stranded Call Routing (1-900)

CCV step number for Stranded Call Routing (1-20)

T-24A TRUNK TROUBLE REPORT - MIS - ACD

GENERAL DESCRIPTION

This feature allows an agent to indicate a trouble condition affecting a trunk (e.g., poor transmission) which is encountered during a call. The system will log the agent's position number and the number of the connected trunk. This information is printed out on the ACD MAT and provided to the MIS.

Although this feature is designed primarily to aid in the reporting of defective trunk circuits it does also report the connected party information even when the connected party is not a trunk such as in a station-to-station call.

Bad Call Notification

The trunk trouble report is logged to the MAT printer under the 6-H heading, Bad Call Notification. A special code within the 6-H report indicates the occurrence of the trunk trouble report. Additional codes used within the 6-H report are described in detail under [Section 3.2.3, "Message Detail Data of System Message "6-H" in Chapter 9.](#)

OPERATING PROCEDURE

1. The operations at the ACD agent position and the supervisory position are as follows:
 - a. The agent is engaged in an ACD call.
 - b. The TRK TRBL key is pressed on the ACD agent position.
 - c. *TROUBLE REPORTED* is displayed on the position for four seconds and the trouble is reported to both the ACD MAT and the MIS terminal.

SERVICE CONDITIONS

There is no LED indication when the TRK TRBL key is pressed.

PROGRAMMING

AKYD - Assign TRK TRBL function to feature key.

TALLY COUNT - ACD

T-49A TALLY COUNT - ACD

GENERAL DESCRIPTION

This feature allows agents to register the occurrences of several specific events using the dial keypad, such as responses to various advertising method, sales campaigns, or calls from particular locations.

The MIS system is responsible for keeping a record of each event and may keep additional statistics for the various Tally Count events such as call duration. If a particular Tally Count pertains to a specific phone conversation that Tally Count will need to be entered either during the phone call itself or during the After Call Work time following that call and definitely prior to the beginning of the next ACD call. Once the next call has begun a Tally Count entry at that time would be associated with the new call. There is no way to associate a Tally Count with a previous call once a subsequent call has begun.

Multiple Tally Counts may be entered for a single phone call.

This feature is activated by the operation of the TALLY key on the agent position.

OPERATING PROCEDURE

1. The agent presses the TALLY key at any time. The displays shows *TALLY NUMBER?*.
2. The agent enters up to 22 digits from the telephone keypad and presses # when finished.
3. The displays shows *TALLY ENTERED*, for a short time, and then reverts to the previous display.
4. Pressing the TALLY key a second time before pressing the “#” key cancels the Tally Count feature.
5. All digits must be entered within a 30-second period or the Tally Count feature will timeout. After timeout, the feature is reset and all digits will have to be reentered.

SERVICE CONDITIONS

1. Tally Count items are entered by pressing one of the dial keypad digits, “0” through “9” (however, leading digit “0” is not allowed).
2. The length of tally numbers is variable, to a maximum of 22 digits.
3. The “*” key and the “#” key cannot be used as tally numbers since they are used to erase and enter input.
4. The keypad number “0” cannot be used as the leading digit of a Tally Count code.

PROGRAMMING

Program the data followed by the manual described MIS functions.

T-50A TIME OF DAY/WEEK ROUTING - ACD

GENERAL DESCRIPTION

The routing of incoming calls is controlled by the time of week. A week can be divided into 50 time segments, with different call handling performed during each segment. Segments must begin and end on whole minutes; no fractional minutes are allowed. Each segment will specify a Call Control Vector (CCV) number and step number where call handling will commence (refer to [Call Control Vector - ACD \[C-108A\]](#)). This routing specification is referred to as a Week Schedule.

Week routing can be interrupted during pre-programmed holidays, at which time a special 24-hour override table is available with up to eight time segments to provide routing on that day. The override table is referred to as a Holiday Schedule (refer to [Holiday Scheduling - ACD \[H-20A\]](#)). Holidays may be programmed up to 365 days in advance.

OPERATING PROCEDURE

Week Schedule routing is activated by programming a pilot number to invoke a Week Schedule instead of a CCV.

SERVICE CONDITIONS

1. This feature uses the PBX system clock to determine the current time. It is the user's responsibility to ensure that the clock is accurately set for week routing to make accurate transitions from one time segment to another.
2. In processing the CCV for a particular time of the week, a Queue to Split instruction in the CCV may find a split in Night mode or in split call forwarding. In this case, the Night mode or split call forwarding will take over the routing of the incoming call. See [Night Service - ACD \[N-12A\]](#) and [Call Forwarding - Split - ACD \[C-127A\]](#) for more information.

PROGRAMMING

Refer to [Assignment of ACD CCV Data](#) in [Chapter 7](#).

TALLY-OH CODES - ACD

T-51A TALLY-OH CODES - ACD

GENERAL DESCRIPTION

Tally-Oh Codes are reserved for special use by agents or supervisors in the ACD system and are not reported to the MIS. These codes invoke various actions, such as statistical displays and mode changes. Tally-Oh Codes always begin with the digit zero, "0". This trait of always using a leading digit of "0" differentiates the Tally-Oh Codes from the Tally Codes which are reported to the MIS system for statistical analysis.

The Tally-Oh Codes are divided into three categories which are suggestive of the types of users who are most likely to need those codes. Only the Supervisor Codes can be restricted on a per-position basis. All other codes may be used at any ACD position.

The following three tables illustrate the purpose and usage of the Tally-Oh Codes for Agents, Supervisors, and Technicians.

OPERATING PROCEDURE

1. The agent/supervisor presses the TALLY key at any time. The displays shows *TALLY NUMBER?*.
2. The agent/supervisor enters the Tally-Oh Code from the telephone keypad and presses "#" when finished.
3. Pressing the TALLY key a second time before pressing the "#" key cancels the Tally-Oh Code entry.
4. The Supervisor Tally-Oh Codes must be explicitly enabled on a per-position basis as specified in ACDPSN.

Agent Tally-Oh Codes

Code	Description
000#	Replay agent's statistics: shift time, number of ACD calls answered, average talk time, total time in work mode since logging on, and total time in break mode since logging on. Can be used from any mode. After logging off, statistics can be replayed as many times as necessary until an agent logs onto the position. All statistics are reset upon logon. Sample Displays: <i>SHIFT 3:12:48</i> (hours, minutes, seconds) <i>ACD CALLS 22</i> (one to three digits) <i>AVG TALK 3:11</i> (minutes and seconds) <i>T-WORK 0:55:19</i> (hours, minutes and seconds) <i>T-BREAK 1:04:31</i> (hours, minutes and seconds)
001#	Display queue depth for current split. If used from a vacant position, the position's split is used. If used while logged on, the agent's split is used. For agents working in Multi-Split mode, the queue depths of all of the agent's splits are displayed, one at a time. Sample Displays: <i>ORDERS 10</i>
002#	Display time of longest waiting caller for current split. If used from a vacant position, the position's split is used. If used while logged on, the agent's split is used. For agents working in Multi-Split mode, the longest waiting callers of all of the agent's splits are displayed, one at a time. Sample Displays: <i>SERVICE 1:50</i> (minutes and seconds)

Agent Tally-Oh Codes (Continued)

Code	Description
003#	Display number of working agents in split. A working agent is one that is logged on, and not in break mode. (Either on an ACD call, in work mode, or ready mode) If used from a vacant position, the position's split is used. If used while logged on, the agent's split is used. For agents working in Multi-Split mode, the number of working agents for all of the agent's splits are displayed, one at a time. Sample Displays: <i>DOMESTIC 151</i> (1 to 3 digits)
004#	Display number of agents on break in split. If used from a vacant position, the position's split is used. If used while logged on, the agent's split is used. For agents working in multi-split mode, the number of agents on break for all of the agent's splits are displayed, one at a time. Sample Displays: <i>INTERNAT'L 8</i> (1 to 3 digits)
005#	Display time passed since entering current mode. Valid for all modes: Vacant, Work, Break, Ready, or on an ACD call. Sample Displays: <i>BREAK 0:41:06</i> (hours, minutes and seconds)
006#	Monitor Me request. An agent asks a supervisor to monitor the conversation. Only valid while on an ACD call. Sample Displays: <i>MONITOR JAMES</i>
007#	Temporarily disable Work mode time limit. Valid only from Work mode, and disabled only until agent exits Work mode. Sample Displays: <i>TIMEOUT DISABLED</i>
008#	Display time and date for four seconds. Can be used from any mode, including modes such as Ready and Break where the display normally shows a constant display. Sample Displays: <i>4:58 PM MON 28</i>
009#	Clear permanent display such as "READY", "ON BREAK", or "VACANT".
021	Setup Connection Displays, see Connection Displays - ACD [C-199A] .
022#	Online Help, see Connection Displays - ACD [C-199A] .
023#	Show Connection Displays, see Connection Displays - ACD [C-199A] .
028#	Unlock an agent's own position (Emergency use only).
029#	Force an agent's own position to logoff (Emergency use only).

Supervisor Tally-Oh Codes

Code	Description
030	<p>Display statistics for a given agent: shift time, number of ACD calls answered, average talk time, total time in Work mode since logging on, and total time in Break mode since logging on.</p> <p>Press: 030aaaaa# (aaaaa = agent's ACD or PBX extension)</p> <p>Sample Displays:</p> <p><i>SHIFT 3:12:48</i> (hours, minutes, seconds)</p> <p><i>ACD CALLS 122</i> (one to three digits)</p> <p><i>AVG TALK 3:11</i> (minutes and seconds)</p> <p><i>T-WORK 0:55:19</i> (hours, minutes and seconds)</p> <p><i>T-BREAK 1:04:31</i> (hours, minutes and seconds)</p>
031	<p>Display a given agent's current mode and the time passed since entering that mode. Valid for all modes: Vacant, Work, Break, Ready, or on an ACD call.</p> <p>Press: 031aaaaa# (aaaaa = agent's ACD or PBX extension)</p> <p>Sample Displays:</p> <p><i>BREAK 0:41:06</i> (hours, minutes and seconds)</p>
032	<p>Force a given agent to Break mode. (From Work or Ready modes)</p> <p>Press: 032aaaaa# (aaaaa = agent's ACD or PBX extension)</p>
033	<p>Force a given agent to Ready mode. (From Break or Work modes)</p> <p>Press: 033aaaaa# (aaaaa = agent's ACD or PBX extension)</p>
034	<p>Force a given agent to Work mode. (From Break or Ready modes)</p> <p>Press: 034aaaaa# (aaaaa = agent's ACD or PBX extension)</p>
035	<p>Change a given agent's split or Multi-Split mode. Prompts are displayed to prompt for split number and approval.</p> <p>Press: 035aaaaa# (aaaaa = agent's ACD or PBX extension)</p>
036	<p>Display queue depth for a given split.</p> <p>Press: 036ss# (ss = one or two digit split number)</p> <p>Sample Displays:</p> <p><i>DOMESTIC 36</i></p>
037	<p>Display time of longest waiting caller for a given split.</p> <p>Press: 037ss# (ss = one or two digit split number)</p> <p>Sample Displays:</p> <p><i>INTERNAT'L 4:06</i> (minutes and seconds)</p>
038	<p>Display number of working agents (on an ACD call, in Work or Ready modes) for a given split.</p> <p>Press: 038ss# (ss = one or two digit split number)</p> <p>Sample Displays:</p> <p><i>CRUISES 9</i></p>

Supervisor Tally-Oh Codes (Continued)

Code	Description
039	Display number of agents on break for a given split. Press: 039ss# (ss = one or two digit split number) Sample Displays: <i>SKY-DIVERS 2</i>
040	Change Night mode of a given split. Press: 040ss# (ss = one or two digit split number) The prompt <i>NIGHT MODE?</i> will be displayed to ask for approval to put the specified split into Night mode. To approve, press "1#" and the display <i>split name = NIGHT</i> will be shown. To disapprove and put the split into day mode, press "#" and the display <i>split name = DAY</i> will be shown. Sample Displays: <i>AWARDS = NIGHT</i> <i>AWARDS = DAY</i>
068	Unlock a given agent's position. (Emergency use only) Press: 068aaaaa# (aaaaa = agent's ACD or PBX extension)
069	Force a given agent's position to logoff. (Emergency use only) Press: 069aaaaa# (aaaaa = agent's ACD or PBX extension)

Technician Tally-Oh Codes

Code	Description
075	Turn Bad Call Notification MAT print-outs on or off Press: 075rrs# (rr = Reference number. s = state: 0 (off) or 1 (on)) To turn all print-outs on or off use the reference number "00". Example: 075000# (all off) or 075001# (all on). See "BAD CALL NOTIFICATIONS [B-21]" on page 80 for additional detail.
076	Display error counts. Press: 076n# (n = error count number 0-99)
077	Reset all error counts. Press: 0770#
080	Display ACD version number and release date. Press: 080#
081	Unlock given logon id. Press: 081n# (n = logon id number)
082	Display current location of buffer trace pointer. Press 082#
084	Display (clear) debugging call counters. To display, press: 084# To clear counters, press: 0840#
085	Turn st_driver() debugging on or off. Usually used with call processing trace. Press: 085s# (s = state: on = 1, off = 0)

SERVICE CONDITIONS

1. Tally-Oh Codes are entered by pressing one of the dial keypad digits, "0" through "9".
2. The "*" key and the "#" key cannot be used as Tally-Oh Code numbers since they are used to erase and enter input.

T-85A TALLY REQUIRED - ACD**GENERAL DESCRIPTION**

This feature is programmed on a per-split basis via the ACDSPL command. When a split is marked for Tally Required an agent will not be able to answer a new incoming ACD call until a Tally entry has been made for the previous call. If an agent attempts to enter the Ready Mode to receive a new call but has not yet entered a Tally Code from the previous call a message will display “*TALLY NEEDED*” for a few seconds.

The Per-Call Tally field on the ACDSPL command may be set independently for each split in the ACD. Even if an agent is using the multi-split agent feature the per-call tally feature will be checked as each call is assigned based on the split that call is coming from. The Tally Code may be entered while the call is in progress or during the after-call work mode. If the after-call work mode is timed and the timer expires before the Tally Code has been entered a Permanent Work Mode will result (The key lamp status is changed from flash to steady light). Once in Permanent Work Mode an agent will be required to press the Work Key in order to receive the next incoming call and, of course, this will only be effective after the required Tally Code has been entered.

SERVICE CONDITIONS

1. Agents who are determined to get around the requirement of entering a Tally Code after each and every call may find that they are not even allowed to logoff the ACD system until they have entered a tally code for the most recently completed call. This is not a bug. The “*TALLY NEEDED*” display will serve as a strong reminder to the agent that they have not yet completed the requirements for the previous call.
2. An agent is not permitted to go to Break Mode until a required Tally Code has been entered for the previous call. The usual display will remind the agent that the tally code is still needed.
3. Tally-Oh codes to Force Logoff a position will work even though a final Tally Code has not been entered.
4. Even though Tally Codes are required it is still possible for counts of Tally Codes and calls handled to differ. There are a few reasons for this, not the least of which is that multiple Tally Codes for a single call are always permitted.
5. When the communication with the ACD call ends without Tally Code entry, the position forced into Work Mode. At that time, WORK/BREAK/LOGOFF key is ineffective and the LCD display shows “*TALLY NEEDED*”. Operation for the status change to Ready Mode, Break Mode, Logoff using IVR is also ineffective.
6. This feature is not available when programming to restrict the Work Mode (ACDSPL, WORK MODE RESTRICTED).
7. When the communication ends without Tally Code entry, the agent position goes into the Work Mode even if the after-call work mode is Unavailable.

PROGRAMMING

ACDSPL -
Require Tally Per Call.

VARIABLE QUEUEING

V-10 VARIABLE QUEUEING

General Description

This feature allows the ACD caller to be queued to a split, depending on the number of working agents at the time that the ACD call is presented to the split.

Operating Procedure

Variable queueing is programmed by splits in the ACDSPL command in ACDMAT.

Service Conditions

Variable queueing is activated by a percentage of working agents (a working agent is logged on and not in Break mode). This percentage is specified in increments of 5 percentage points up to 1000%. This percentage is programmed in ACDSPL at maximum queue depth.

Example:

Maximum Queue Depth = 150%

There are four working agents.

The number of calls that will be allowed to queue to the split = 6.

1.50 (or 150% max queue depth)

x 4 (working agents)

6 calls allowed to queue

W-5A WORK MODE - ACD**GENERAL DESCRIPTION**

This feature offers the choice of allowing the agents within a split to enter and exit Work Mode. Calls waiting in queue cannot be connected to agents in the Work Mode. Since the Work Mode inhibits agents from receiving calls it is sometimes beneficial to limit Work Mode use or restrict it altogether. Two features have been provided which limit the agent's ability to be in the Work Mode.

After Call Work Mode Timeout

This feature sets a timer which limits how much time an agent may remain in the Work Mode at the conclusion of each ACD call. This mode is sometimes called the Wrap-Up Mode as well. When the timer expires the agent is automatically placed in Ready Mode and a new ACD call will be connected immediately if there is one waiting in queue.

Work Mode Restriction

The Work Mode can be restricted altogether for a specified split. Any attempt to enter the Work Mode is overridden according to the following conditions:

- The agent presses the WORK key. The ACD system ignores the request.
- The agent logs on to the ACD system. The agent is automatically placed in Ready mode and will receive calls immediately if calls are queued.
- The agent concludes an ACD call. The after call work mode of the split is ignored by the ACD system and the agent is automatically placed in Ready mode. If the agent requested to enter Break mode, while on the ACD call, the request will be honored and the agent will not be placed in Ready mode at the conclusion of the ACD call.
- The agent is placed in Work mode automatically if an assigned ringing ACD call has not been answered and the Recover Call feature has been activated and removed that call from the agent's position. The WORK lamp flashes to visually inform the agent of the forced entry into Work mode. This prevents the agent from receiving another ACD call.
- If the split is also setup for Automatic Work Mode with PBX Call and Work Mode Restriction is set then the position will be placed in the Break mode instead of the Work mode when PBX calls are assigned.

If the agents within a split are allowed to enter Work mode, the mode can be entered given the following conditions.

- The agent from the Ready Mode presses the WORK key.
- The agent is placed in Work mode automatically upon logon. This prevents a call from being connected before the agent is prepared to handle the call.
- The agent is placed in Work mode automatically at the conclusion of an ACD call, if the after call mode of the split is set to "Work".
- The agent is placed in Work mode automatically if an assigned ringing ACD call has not been answered and the Recover Call feature has been activated and removed that call from the agent's position. The WORK lamp flashes to visually inform the agent of the forced entry into Work mode. This prevents the agent from receiving another ACD call.

WORK MODE - ACD

OPERATING PROCEDURE

This feature is an inherent feature of the ACD programs. Agents use the WORK key on their ACD position to set the Work Mode appropriately. Work Mode restrictions and timeouts are programmed using the command ACDSPL for each split.

PROGRAMMING

ACDSPL -
WORK MODE RESTRICTED

W-6A WORK MODE TIME LIMIT - ACD**GENERAL DESCRIPTION**

This feature allows the specification of a maximum time limit for an agent to be in Work mode at the conclusion of an ACD call before being automatically placed in Ready mode. Once in Ready mode, the agent will be connected to a call if calls are queued. The time limit applies to all the agents within a split.

OPERATING PROCEDURE

1. This feature is implemented through an ACD command. The command data is on a split-wide basis.
2. The following example illustrates the operation of the feature.
 - a. The Work mode time limit is set at 45 seconds for Split A.
 - b. After-call Work mode is set for Split A.
 - c. An agent in Split A completes an ACD call, and is automatically placed in Work mode.
 - d. One of three different scenarios could follow:
 - The agent does not press any keys in the next 45 seconds. The agent is automatically placed in Ready mode and is connected to a caller if there are calls in queue.
 - The agent presses the BREAK key or LOGON key within the next 45 seconds. The agent is placed in the appropriate mode.
 - The agent chooses to return to Ready mode in less than 45 seconds, and presses the WORK key. The agent is connected to a caller if there are calls in queue.

PROGRAMMING

ACDSPL

Work mode timer timeout (0-9999 sec.)

ZIP TONE - ACD

Z-1A ZIP TONE - ACD

GENERAL DESCRIPTION

When an agent is operating in [Automatic Answer - ACD \[A-35A\]](#) mode, the system will provide an audible burst of tone to the agent's receive audio path before connecting an incoming ACD call.

OPERATING PROCEDURE

The operation of this feature from the agent or supervisory position is as follows:

From Manual Answering status:

1. The AUTO/MAN key is pressed.
2. *AUTO ANSWER* is displayed.
3. The AUTO/MAN lamp lights steadily.
4. The agent hears Zip Tone when an ACD call is connected.

SERVICE CONDITIONS

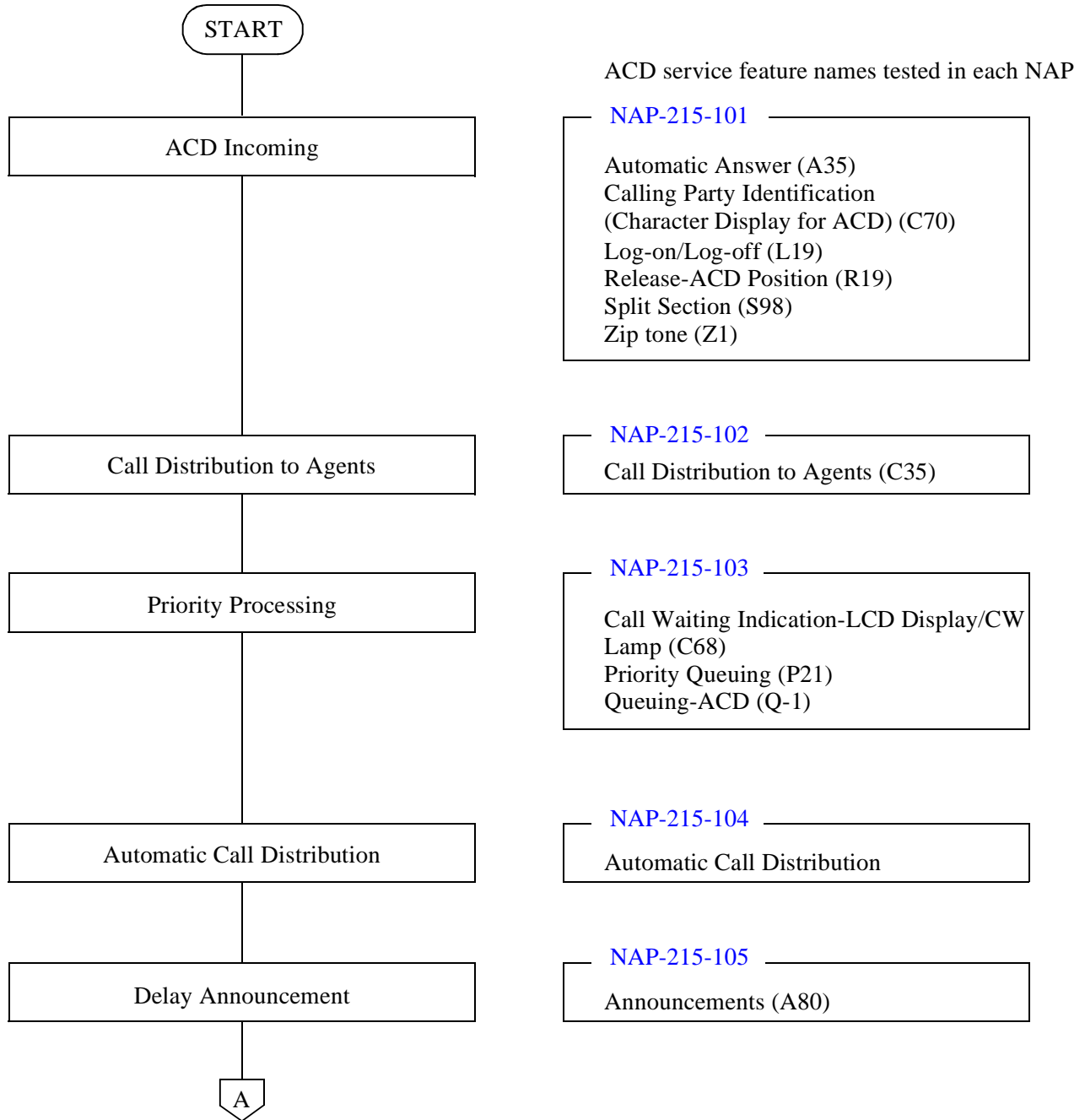
1. Tones:
 - a. Normal ACD calls are introduced by a single burst of tone.
 - b. Calls which may require special handling, calls which have overflowed from another split, calls which were call forwarded from another split by that split's supervisor, and calls transferred by agents or other business stations are introduced by two bursts of tone.

PROGRAMMING

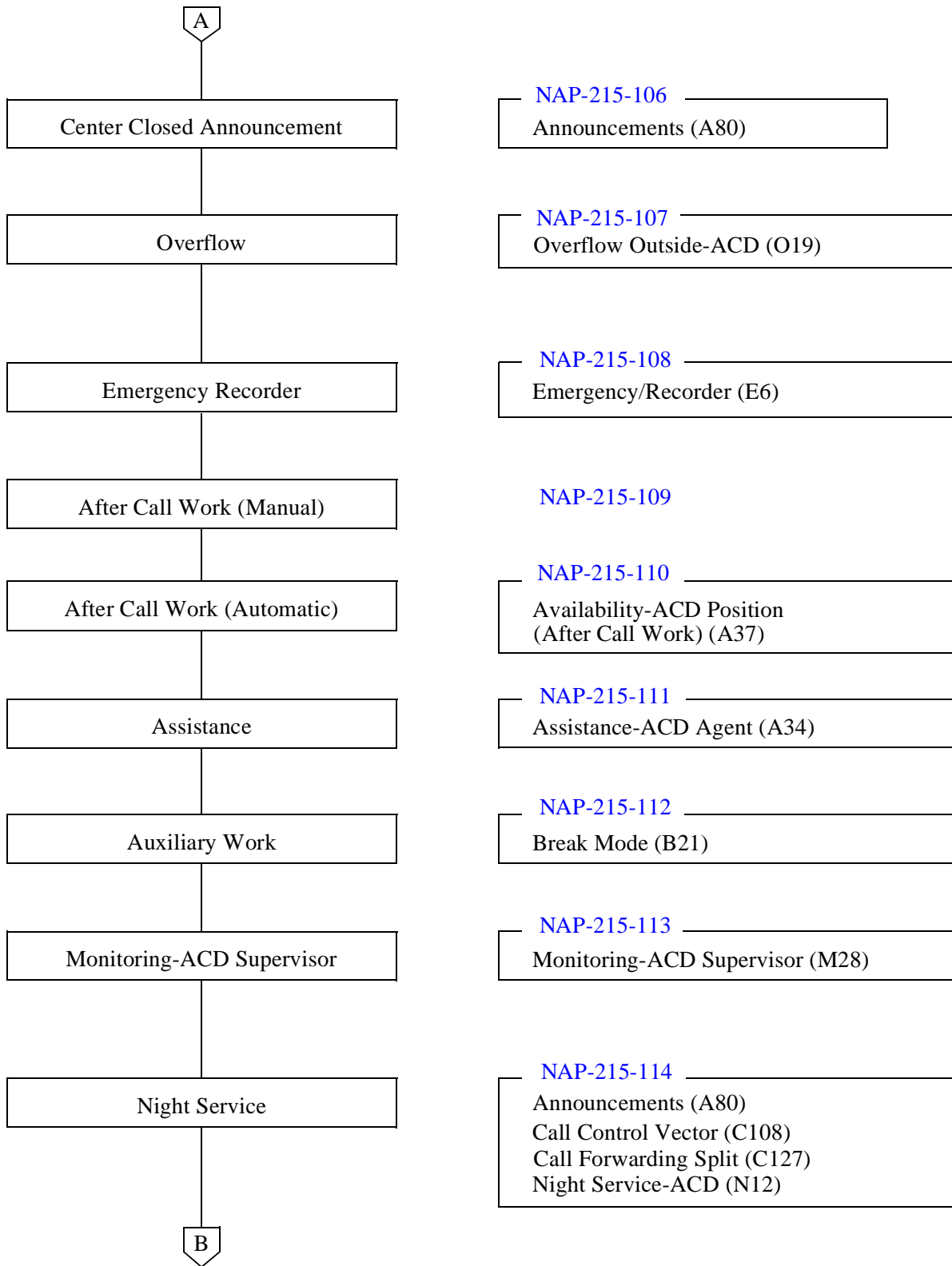
None

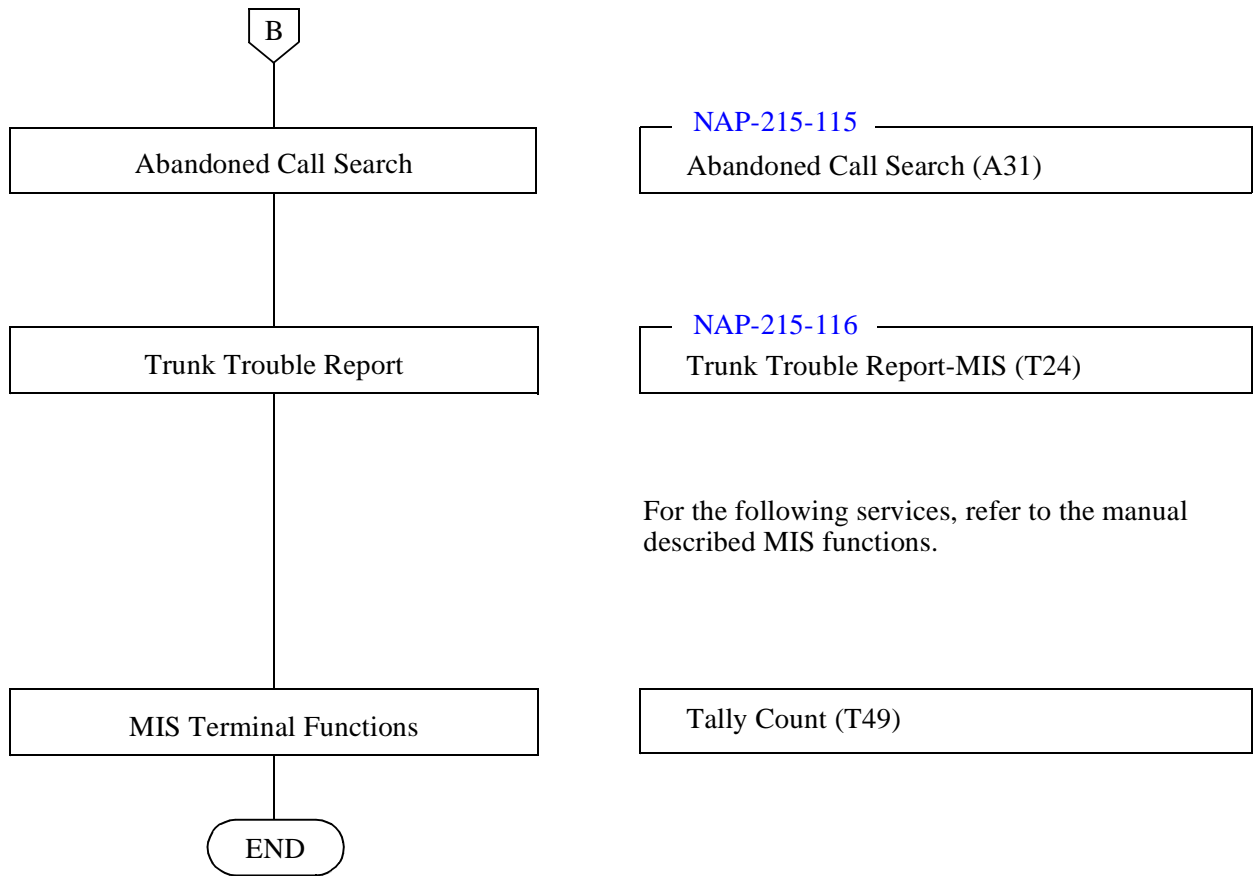
CHAPTER 6 ACD SERVICE FEATURES FUNCTIONAL TEST PROCEDURES

After the installation test following by “Installation Manual”, test the ACD service features following the flowchart below. The names listed within of each NAP are the names of the ACD services. Also refer to the detailed description of the services in [Section 3, “ACD Service Feature”](#) of [Chapter 5](#).



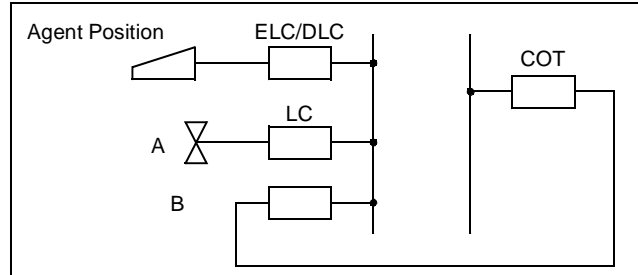
ACD SERVICE FEATURES FUNCTIONAL TEST PROCEDURES





ACD SERVICE FEATURES FUNCTIONAL TEST PROCEDURES

NAP-215-101
Sheet 1/2
ACD Incoming



START

Set up a loop-back connection between COT for ACD trunk group to be tested and station line.

Log off agent positions and supervisory positions.

ACD Agent/Supervisory Position Incoming Test

- Test all agent positions and supervisory positions with following flow chart.

Log on the agent position or supervisory position to be tested, and release the AfterCall Work Mode.

- Use the AUTO/MAN key to set to the Automatic Answer mode. (If the answering mode at logon is the Automatic Answer mode, this operation is not necessary for the Automatic Answer mode has already been set.)

C.O. trunk call incoming.

- Place a C.O. trunk call from station A to station B.

Incoming at ACD agent position.

- Check that a Zip Tone is generated when the call is incoming.
- Check that the incoming route is displayed on the LCD of the agent position.

Answering by ACD agent position.

Check that conversation can be started at the same time as the Zip Tone (without any operation).

Note: When ACD system is used in a Fusion Network, test that the incoming call terminated to C.O. trunk in other nodes can be picked up.

A

NAP-215-101
Sheet 2/2
ACD Incoming

A

ACD Agent/Supervisory Position Trunk Incoming Call

- Test all agent and supervisory position trunks with the following procedure.
- Log on to all agent and supervisory positions and release the After Call Work Mode.
- Use the AUTO/MAN key to set to the manual answer mode. (If the answering mode at logon is the Manual Answer mode, this operation is not necessary for the Manual Answer mode has already been set.)

Set up a loop-back connection between COT to be tested and station line.

C.O. trunk incoming test.

- Place a C.O. trunk call from station A to station B.

Incoming at ACD agent position.

- Check that the call is incoming to the ACD split where the trunk tested is set.

Answering by ACD agent position.

- Check that conversation can be held normally after answering.

END

ACD SERVICE FEATURES FUNCTIONAL TEST PROCEDURES

NAP-215-102
Sheet 1/1
Call Distribution to Agents

START

Log off all ACD agent/supervisory positions.

C.O. trunk incoming.

- Place C.O. trunk calls from station A, B and C to stations D, E and F.

Log on at agent position.

- The incoming call trunk groups are distributed in the split.
- One of the agent positions in the split releases the after call work mode.

Incoming at ACD agent positions.

Answering by ACD agent positions.

- Check that conversation can be held normally after answering.

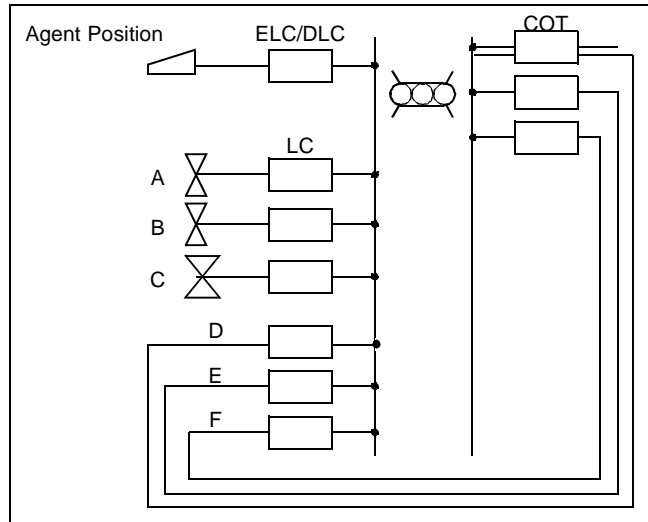
Release at ACD agent positions.

- The agent positions should not be in the Automatic After Call Work mode.

Check that the calls are distributed in the incoming order.

Apply the test procedure above to all splits.

END



NAP-215-103
Sheet 1/1
Priority Processing

START

Log off all ACD agent/supervisory positions.
 C.O. trunk incoming to the non-priority queue.

- Place C.O. trunk calls from station A to station D and from station B to station E, and let them terminate in the routes for the non-priority queue.

C.O. trunk incoming to the priority queue.

- Place C.O. trunk call from station C to station F, and let it terminate in the route for the priority queue.

Log on and After Call Work mode release at ACD agent position.

Log on one of the agent positions in the split where calls queued in the non-priority queue and priority queue are terminated, and release the After Call Work mode.

Incoming at ACD agent position.

Answering by ACD agent position.

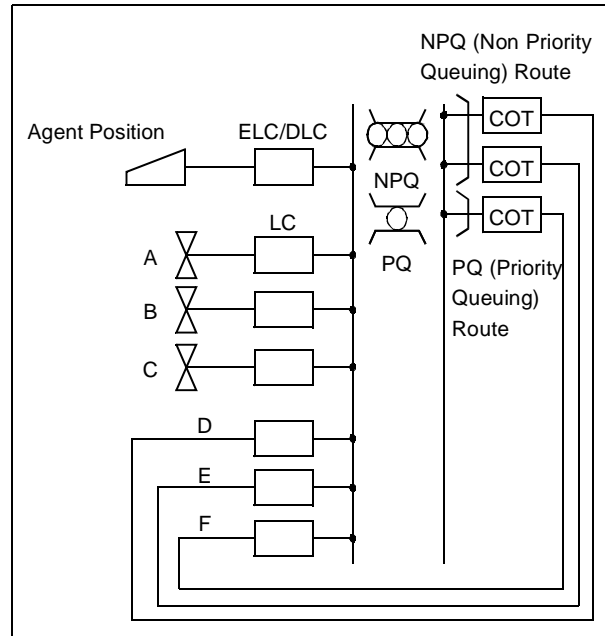
- Check that the first communication can be held with the originator of the call in the priority queue (station C).
- Check that the CW lamp on the agent position illuminates during queuing.
- Check that the number of waiting calls is indicated on the MIS terminal of the supervisory position during queuing.

Release of ACD agent position.

- After the above, confirm the originators of the calls in the non-priority queue (station A, then station B).

Apply the test procedure above to all splits.

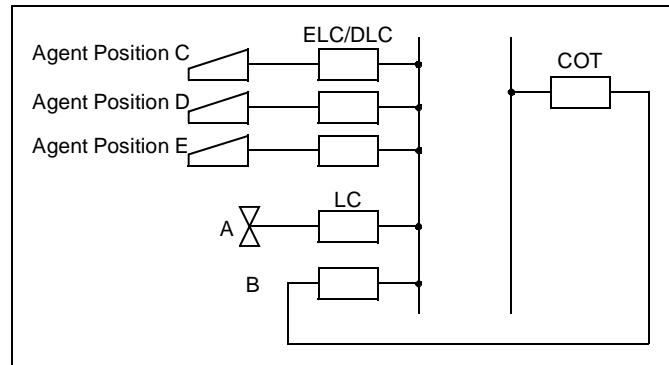
END



Note: The priority of C.O. trunk call incoming queue is determined depending on the queue priority set with the Assignment of Trunk Group data (ACDTG) command.

ACD SERVICE FEATURES FUNCTIONAL TEST PROCEDURES

NAP-215-104
Sheet 1/1
Automatic Call Distribution



START

Log off all agent and supervisory positions.

Log on agent positions in sequence.

- Log on agent positions in order of C→D→E.

C.O. trunk incoming.

- Place a C.O. trunk call from station A to station B.

Incoming at ACD agent position.

- Check that the call is terminated at agent position C.

Answering and release by ACD agent position.

C.O. trunk incoming.

- Place C.O. trunk call from station A to station B.

Incoming at ACD agent position.

- Check that the call is terminated at agent position D.

Answering and release by ACD agent position.

C.O. trunk incoming.

- Place a C.O. trunk call from station A to station B.

Incoming at ACD agent position.

- Check that the call is terminated at agent position E.

Answering and release by ACD agent position.

Repeat the test procedure above for every agent position and supervisory position of each split.

END

NAP-215-105
Sheet 1/1
Delay Announcement

START

Log off all agent and supervisory positions.

C.O. trunk incoming.

- Place C.O. trunk calls sequentially from stations A, B and C to stations D, E and F respectively.

First delay announcement.

- Stations A, B and C shall hear the first delay announcement after the predetermined period of time.

Music on hold.

- Stations A, B and C shall hear the music on hold until the second delay announcement.

Second delay announcement.

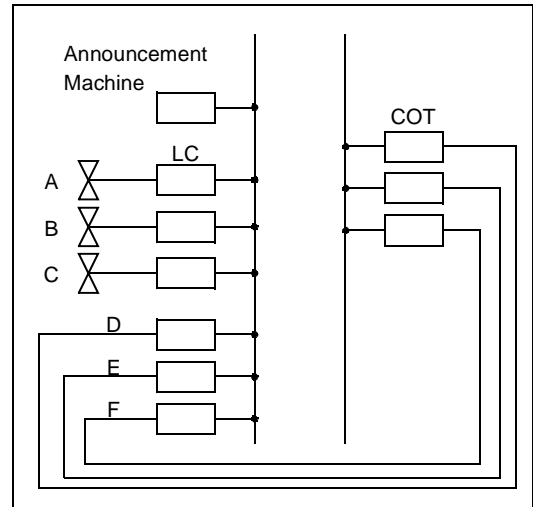
Music on hold.

Release.

- Check that the incoming trunk is cleared automatically after the second delay announcement, then release stations A, B and C.

Apply the test procedure above for each trunk group.

END



Note: *This test does not use the Overflow service.
Related commands: AADT, ACDCCV*

ACD SERVICE FEATURES FUNCTIONAL TEST PROCEDURES

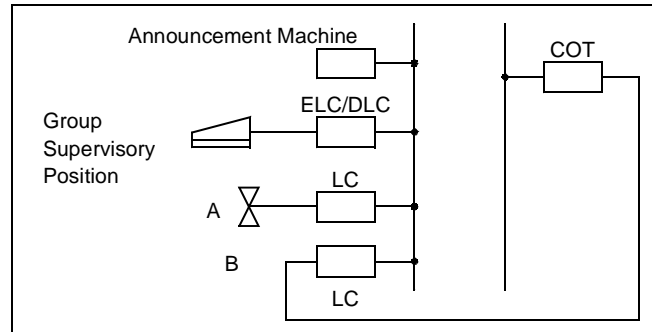
NAP-215-106
Sheet 1/1
Center Closed Announcement

(a) If the weekly schedule No. is set as the incoming path:

START

- C.O. trunk call origination.
- Place a C.O. trunk call from station A to station B.
- Check that station A hears the center closed announcement.

END



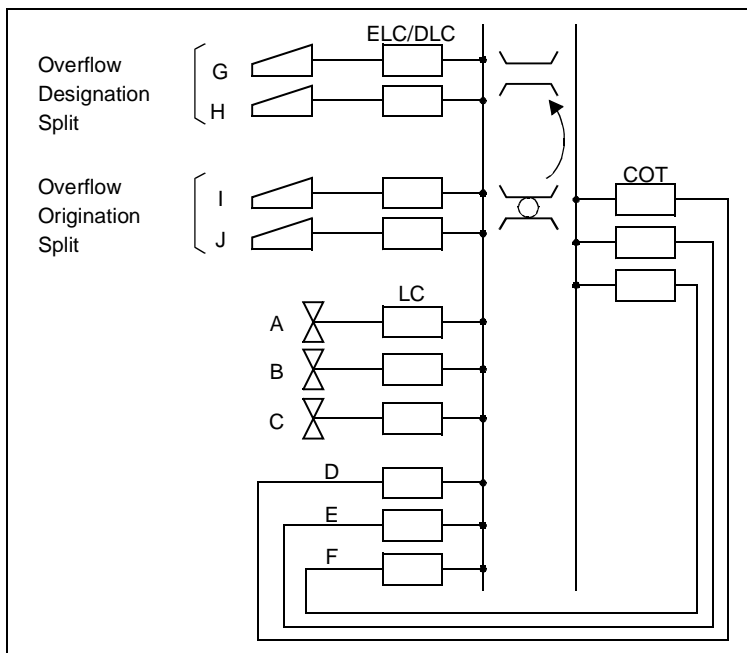
(b) If the call control vector is set as the incoming path:

START

- Set the ACD system to the night mode by pressing the NIGHT key on the supervisory position or by operating from the MIS terminal.
- C.O. trunk call incoming.
- Place a C.O. trunk call from station A to station B.
- Check that station A hears the center closed announcement.

END

NAP-215-107
Sheet 1/1
Overflow



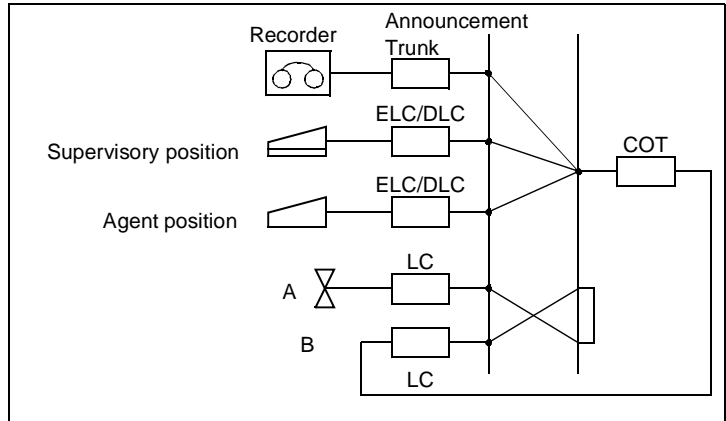
START

- Log on the ACD agent and supervisory positions of the overflow origination split.
- Log on the ACD agent and supervisory positions of the overflow destination split.
- C.O. trunk incoming.
 - Place C.O. trunk calls sequentially from stations A, B and C to stations D, E and F respectively.
- (Overflow period elapsed).
- Call termination at overflow destination split.
- Answering by ACD agent position.
 - At the moment an agent position answers, it hears the ACD call transfer identification tone, after which the communication can be started.
- Release of ACD agent position.
- Apply the test procedure above to each trunk group for which Overflow has been set.

END

ACD SERVICE FEATURES FUNCTIONAL TEST PROCEDURES

NAP-215-108
Sheet 1/1
Emergency Recorder



START

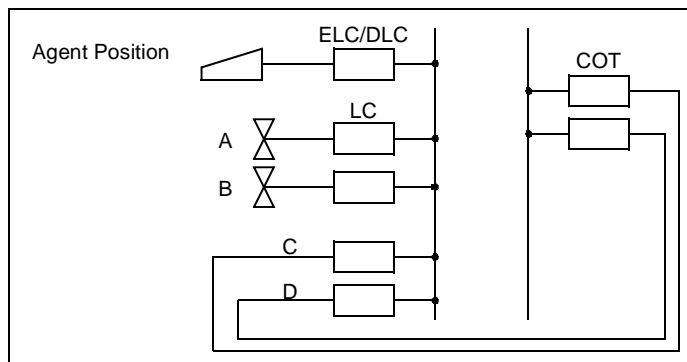
- C.O. trunk call incoming.
 - Place a C.O. trunk call from station A to station B.
- Incoming at ACD agent position.
- Answering by ACD agent position.
- Emergency recording operation.
 - Press the EMER key on the agent position.
- Incoming at supervisory position.
 - When the ACD calls is terminated at the supervisory position, the LCD on the supervisory position indicates the emergency recording request and the MON lamp also illuminates.
 - At the same time, the recorder starts recording.
 - In the period above, the agent position and C.O. trunk is in the communicating status.
- Answering by supervisory position.
 - The supervisory position answers the call as an ACD call and monitors it (three-party conference call does not occur).
 - The agent position can confirm the answering of the supervisory position by the change of the lamp indication on the agent position (flashing steady) as well as from the LCD display.
- Confirmation of recording.
 - Check that the call is recorded by the recorder.
- The supervisory position presses the MON key to start three-party conference call. **Note**
- Release by ACD agent position.
 - When the agent position releases the incoming C.O. trunk call, it is transferred to the supervisory position.
- Confirmation of communication.
 - Check that the supervisory position is communicating with the C.O. trunk.
- Release by supervisory position.
- Apply the test procedure above to all splits.

END

Note: After MON key is pressed, "BARGE?" is displayed. At that time, monitoring is abandoned by one of the following operations.

- Dial "1" + "#" (Three-party conference will be established.)
- Press MON key again

NAP-215-109
Sheet 1/1
After Call Work (Manual)



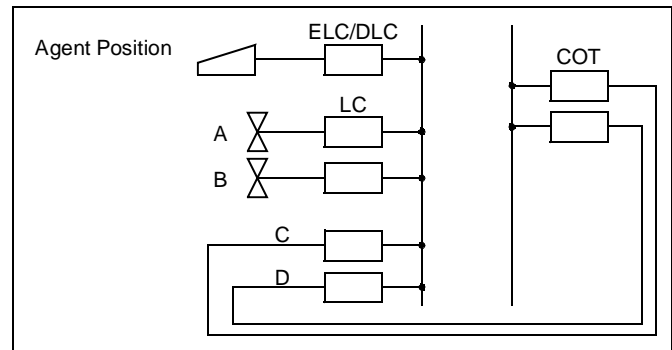
START

- Log off all ACD agent and supervisory positions, then log on only one position.
- C.O. trunk incoming.
 - Place C.O. trunk call from station A to station C.
- Incoming at ACD agent position.
- Answering by ACD agent position.
- After Call Work activation.
 - Press the WORK key so that the WORK lamp illuminates.
- C.O. trunk incoming.
 - Place a C.O. trunk call from station B to station D.
- Release by ACD agent position.
 - The agent position can end communication with station A by pressing the RELEASE key.
- Confirmation of After Call Work mode.
 - Check that, when the agent position release, the next call is not terminated at it.
- Release of After Call Work mode.
 - Press the WORK key again so that the WORK lamp goes out.
- Incoming at ACD agent position.
- Answering by ACD agent position.
 - The agent position starts communication with station B.
- Release by ACD agent position.
- Apply the test procedure above to all splits.

END

ACD SERVICE FEATURES FUNCTIONAL TEST PROCEDURES

NAP-215-110
Sheet 1/1
After Call Work (Automatic)

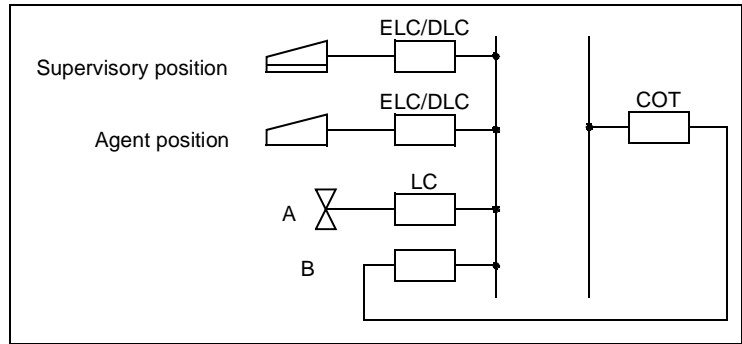


START

- Log off all ACD agent and supervisory positions, then log on only one position.
- Office data change.
 - Using the ACDSPL command, assign 0 (Automatic After Call Work mode setting) to parameter AFTER.
- C.O. trunk incoming.
 - Place a C.O. trunk call from station A to station C.
- Incoming at ACD agent position.
- Answering by ACD agent position.
- C.O. trunk incoming.
 - Place a C.O. trunk call from station B to station C.
- Release by ACD agent position, automatic setting of After Call Work mode.
 - Check that, when the agent position release, the After Call Work mode is set automatically.
- Release of After Call Work mode.
 - Press the WORK key so that the WORK lamp goes out.
- Incoming at ACD agent position.
- Answering by ACD agent position.
 - The agent position starts communication with station B.
- Release by ACD agent position.
- Release of office data.
- Apply the test procedure above to all splits.

END

NAP-215-111
Sheet 1/1
Assistance



START

C.O. trunk incoming.

- Place a C.O. trunk call from station A to station B.

Incoming at ACD agent position.

Answering by ACD agent position.

Assistance activation.

Press the ASSIST key on the agent position so that the ASSIST lamp illuminates.

Incoming at supervisory position.

- The call is terminated as non-ACD call to the supervisory position.

Answering by supervisory position.

- The communication between the agent position and supervisory position starts, while the C.O. trunk call is held.

Three-party conference call.

- Press the CONF key on the agent position to start three-party conversation.

Release by ACD agent position.

- The communication takes place between the C.O. trunk (station A) and supervisory position.

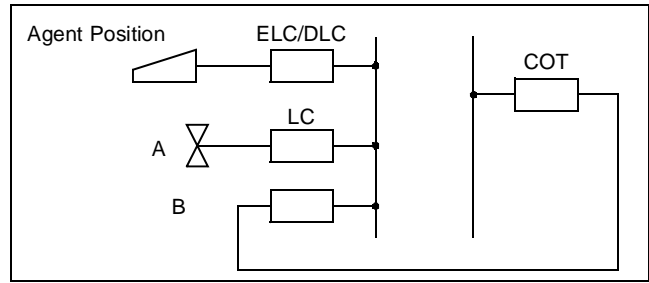
Release.

Apply the test procedure above to all splits.

END

ACD SERVICE FEATURES FUNCTIONAL TEST PROCEDURES

NAP-215-112
Sheet 1/1
Auxiliary Work

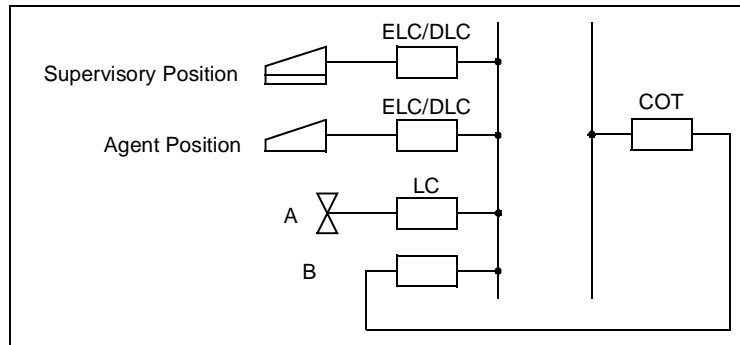


START

- Log off all ACD agent and supervisory positions.
- Set one of the ACD agent positions to the Auxiliary Work mode.
 - Press the AUX WORK key so that the AUX WORK lamp illuminates.
- C.O. trunk incoming.
 - Place a C.O. trunk call from station A to station B.
- Confirmation of Auxiliary Work mode.
 - Check that the incoming call is not distributed to the agent position.
- Release of Auxiliary Work mode.
 - Press the AUX WORK key again so that the AUX WORK lamp goes out.
- Incoming at ACD agent position.
- Answering by ACD agent position.
- Release by ACD agent position.
- Apply the test procedure above to all splits.

END

NAP-215-113
Sheet 1/1
Monitoring-ACD Supervisor



START

C.O. trunk incoming.

- Place a C.O. trunk call from station A to station B.

Incoming at ACD agent position.

Answering by ACD agent position.

Monitoring Activation from Supervisory Position

- (1) Press the MON key on the supervisory position.
- (2) Dial Agent ID code+# or 0+Agent position station No. for non-ACD calls+#.

Monitoring.

- The supervisory position can monitor the conversation between station A and the agent position.
- The supervisory position can monitor the call but cannot join the conversation.

Supervisory Override Operation

- Press the MON key on the supervisory position again. "BARGE?" is displayed. **Note**
- The agent position and the call originator (station A) hear the warning tone.

Release.

Apply the test procedure above to all splits.

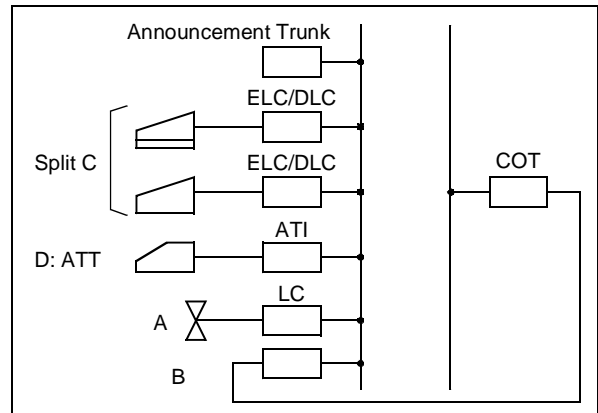
END

Note: *If one of the following operation is performed at this time, monitoring is abandoned.*

- Dial "1" + "#" (A three-party conference will be established.)
- Press MON key again

ACD SERVICE FEATURES FUNCTIONAL TEST PROCEDURES

NAP-215-114
Sheet 1/2
Night Service



START

Use one of the following three methods to change into the night mode.

- (1) Automatic changeover into the night mode based on the ACD call control vector (Night Announcement setting using ACD CCV command).
- (2) Pressing the NIGHT key on the supervisory position of split C; as this display confirmation message Night Mode?, enter 1# to change over into the night mode.
- (3) Changeover into the night mode by means of operation at the MIS terminal of the supervisory position.

Night Announcement

- Place a C.O. trunk call from station A to station B in the special night split.

Station A hears the night announcement.

Apply the test procedure above to all splits.

Using the ACD CCV command, change the night services of the split and test each of the following services repeatedly.

Night Service Change

Using the ACD CCV command, change the night services of the split and test each of the following services.

Night Transfer to Station

- Place a C.O. trunk call from station A to station B.

Call incoming at transfer destination station.

A

NAP-215-114
Sheet 2/2
Night Service

A

Answering by station.

Release by station.

Apply the test procedure above to all splits.

Night Transfer to Attendant

- Place a C.O. trunk call from station A to station B.
Call incoming at transfer destination attendant console.

Answering by ATTCON.

Release by ATTCON.

Apply the test procedure above to all splits.

Night Transfer to Outside

- Place a C.O. trunk call from station A to station B.
Call incoming at transfer destination C.O. trunk.

Answering by C.O. trunk.

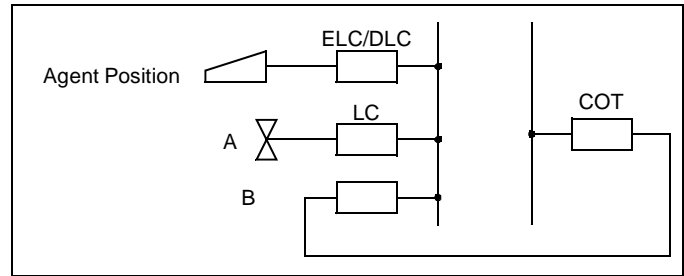
Release by C.O. trunk.

Apply the test procedure above to all splits.

END

ACD SERVICE FEATURES FUNCTIONAL TEST PROCEDURES

NAP-215-115
Sheet 1/1
Abandoned Call Search



START

Abandoned Call Search

C.O. trunk call origination.

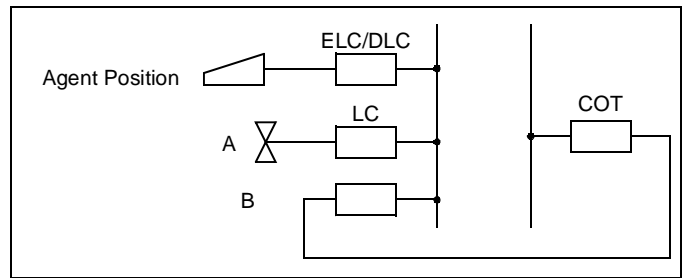
- Place a call from station A to station B and a C.O. trunk call is terminated to agent positions.
- At this time, agent positions shall be in the manual answer mode.

After checking that the CW lamp on the agent position illuminates, station A releases the call.

- Check that the CW lamp on the agent position goes out and that the call is released.

END

NAP-215-116
Sheet 1/1
Trunk Trouble Report



START

C.O. trunk call incoming.

- Place a C.O. trunk call from station A to station B and a C.O. trunk call is terminated to agent positions.

The call is terminated to agent positions. An agent position answers the call.

While the agent position is busy, press the TRK/TRBL key on station B.

The connection information is output at the MIS terminal.

A system message is output.

Apply the test procedure above to all agent and supervisory positions of all splits.

END

This page is for your notes.

CHAPTER 7 PBX AND ACD COMMAND PROGRAMMING

1. GENERAL

This chapter explains the commands which are used exclusively for the NEAX2400 CallCenterWorX-Enterprise ACD system. For other related commands, refer to the NEAX2400 IMX Office Data Specification. When engaging in command operations concerning the ACD system, ensure to use both this manual and NEAX2400 IMX Office Data Specification.

2. COMMANDS

2.1 NEAX2400 IMX COMMANDS

For ACD commands, see [Section 2.2, “ACD Commands”](#) in this chapter.

Table 7-1 NEAX2400 IMX Command List in Alphabetical Order

COMMAND NAME	FULL NAME
AADT	Assignment of Announcement/Dictation Trunks
AADTN	Assignment of Announcement/Dictation Trunks for NDM
ACNO	Assignment of Conversion Number Data
ACNOL	Assignment of Conversion Number Data for LDM
ACNON	Assignment of Conversion Number Data for NDM
AKYD	Assignment of Key Data for D ^{term}
ALGNN	Assignment of Telephone Number Data for NDM
ALGSN	Assignment of Telephone Station Data for NDM
AMNO	Assignment of Monitored Number
AMNOL	Assignment of Monitored Number for LDM
AMNON	Assignment of Monitored Number for NDM
AOKC	Assignment of OAI Key Code
ASDT	Assignment of Station Data
ASFC	Assignment of Service Feature Restriction Class Data
ASYD	Assignment of System Data
ASYDL	Assignment of System Data into Local DM (LDM)
ASYDN	Assignment of System Data in NDM

Note: Assign “1” to parameter “OAI” of “MMNF” command prior to using OAI command.

ASYD: Assignment of System Data

1. Function

This command is used to assign and change system data in the NEAX2400 IMX.

2. Precautions

1. ASYD is divided into three sections, as follows:
 - a. Assignment of System Data-1.
(SYS 1) - System-wide control parameters.
 - b. Assignment of System Data-2.
(SYS 2) - Service feature availability, on a tenant basis.
 - c. Assignment of System Data-3.
(SYS 3) - System-wide ringing patterns and hookswitch timing.
2. Only ASYD System Data-1 parameters relate to the functioning of ACD system.
3. System data must be entered using hexadecimal numbers. Refer to the ACD system Job Specification for the applicable system data.

3. Parameters

SYS:	System Data Items
	1: System Data 1
	2: System Data 2
	3: System Data 3
TN:	Tenant Number
INDEX:	System Data Index
	SYS INDEX
	1 0-511
	2 0-15
	3 0-31
DATA:	System Data (Hexadecimal)

System Data-1 Programming Sheet

Note: This Data Programming Sheet is only for the data to be set in the ACD System. Be sure to use this Data Programming Sheet together with the Data Programming Sheet for “ASYD” command described in the NEAX2400 IMX Office Data Specification.

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 0 ~ 511	DATA (DATA) 00 ~ FF (Hex)	BIT CORRESPONDING DATA		SYSTEM DATA CONTENTS	
			DATA 0/1	BIT		
1	2	01	1	b ₀	1=ACDP is used (Assign 01 Hex) Note 1	
	27		0	b ₄	ACD in Service (Fixed Data) 0 = In service; 1 = Out of service	
	31	04	1	b ₂	Note 2	
	42			b ₂	System Message “5-Q” is output. 0/1 = No/Yes Note 3	
	47				b ₀	Traffic Measurement Indication 0/1 = CCS Indication/Erlang Indication
				1	b ₁	b ₂ b ₁
				1	b ₂	TCFI timer: 0 0 = 2 sec. interval Note 4 1 1 = Application Dependent (Standard) 0 1 = 4 sec. interval 1 0 = 8 sec. interval
				0	b ₃	0 = Display last number for TCFD 1 = Display message Note 5
					b ₄	ACD Busy Tone Control 0/1 = No/Yes Note 6
					b ₇	Traffic Measurement for Terminal and Route Traffic 0/1 = Out/In Service

Note 1: For ACD system to be activated through Fusion network, this data is programmed in the node providing ACDP only. Other system data than INDEX2 must be set to all nodes to be provided ACD trunk-Fusion within Fusion network.

Note 2: When changing this index from 02 (normal setting for non- OAI/ACD system) to 04, you must back up DM to the HDD of the system.

Note 3: Valid since the PBX software Series 7300 and the ACD software R1.

ASYD: ASSIGNMENT OF SYSTEM DATA

Note 4: Terminal Control Facility Indirect is used for displays, LED functions, and chimes for ACD positions. The standard choice has both bit 1 and bit 2 set to “1”.

Note 5: Terminal Control Facility Direct is used for certain ACDP entries and displays from ACD positions.

Note 6: ASYD, System Data 1, index 59, bit 2 must also be set to a 1 for this feature to operate.

System Data-1 Programming Sheet

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 0 ~ 255	DATA (DATA) 00 ~ FF (Hex)	BIT CORRESPONDING DATA		SYSTEM DATA CONTENTS
			DATA 0/1	BIT	
1	59			b ₂	DID busy condition 0/1 = No/Yes Note 1
	70		1	b ₆	ACD Announcement service 0/1=Out of service/In service. Note 2
	79			b ₄	Warning tone sent to the monitored position. 0/1=No/Yes Note 3
			0	b ₆	OAI/ACD Service Note 4 0 = ACD In Service; 1 = ACD Out of Service
	80		0	b ₃	Line of the LCD for static ACD messages (Break, Ready, etc.) display. 0/1=top line/second line

Note 1: Must be set to “1” for an “IF NOT QUEUED GO TO BUSY 11 step to return busy tone to a self-directing trunk (CCV function on DIDs etc.). This does not work with ringdown type trunks.

Note 2: When the announcement service is used in Fusion network, this data is set to nodes that accommodates the announcement trunk.

Note 3: Be sure to assign the data value “1” here (see [Chapter 1, Section 1.3, “Precaution on Using the ACD Features”](#)).

Note 4: When changing the value of this data bit to “0” (OAI/ACD Service Provided) from “1” (OAI/ACD Service Not Provided), system initialization must be executed.

System Data-1 Programming Sheet

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 0 ~ 511	DATA (DATA) 00 ~ FF (Hex)	BIT CORRESPONDING DATA		SYSTEM DATA CONTENTS
			DATA 0/1	BIT	
1	89			b ₃	CPU ACT/ST-BY Change Function 0=Out of Service; 1=In Service
	207			b ₀	ACDP (No. 0 System) Mounting Status Indication 0/1 = Not Mounted/Mounted Note 1
				b ₁	ACDP (No. 1 System) Mounting Status Indication 0/1 = Not Mounted/Mounted Note 2
	241		1	b ₂	Call Event Processing 0/1 = Invalid/Valid (Always assign 1)
			1	b ₃	Details of SCF Error Notification 0/1 = Ineffective/Effective
	448		1	b ₁	Higher ACDP controlling capability
	449			b ₀	SCF Call origination from the first party notification 0/1 = Ineffective/Effective
b ₂				Access to Announcement trunk is controlled: 0 = by the timer 1 = by the DAT Note 3	

Note 1: This bit is always set to “1”.

Note 2: This bit is set to “1” for dual ACDP’s. If single ACDP, this bit is set to “0”. This bit is always set to “0” for internal ACDP.

Note 3: The announcement service for fusion network, “1 = DAT control” is not available.

ASYDL: Assignment of System Data into Local DM (LDM)

1. Function

This command is used to assign and change system data for the ACD activated via FCCS.

2. Precautions

ASYDL command is comprised with System Data-1, INDEX 512-1535.

3. Parameters

Refer to the programming sheet in the following pages.

System Data (LDM) -1 Programming Sheet

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 512-1535	DATA (DATA) 00 – FF (Hex)	BIT CORRESPONDING DATA		SYSTEM DATA CONTENTS										
			DATA 0/1	BIT											
1	513				LDM (Local Data Memory) usage. Assign data “1” (the memory block is used) for the corresponding memory block. Normally Assign “01”.										
	515				IP Address (Hex) for PBX over External LAN Note: <i>This data is valid when the PBX is connected to the external PC LAN.</i>										
	516				When default IP address (172.16.253.0) for the PBX is used, this data setting is not necessary. Example: IP Address: 133.206.8.1										
	517				<table border="1"> <thead> <tr> <th>INDEX</th> <th>Set Hex</th> </tr> </thead> <tbody> <tr> <td>515</td> <td>85</td> </tr> <tr> <td>516</td> <td>CE</td> </tr> <tr> <td>517</td> <td>08</td> </tr> <tr> <td>518</td> <td>01</td> </tr> </tbody> </table>	INDEX	Set Hex	515	85	516	CE	517	08	518	01
	INDEX	Set Hex													
	515	85													
	516	CE													
	517	08													
	518	01													
	518														
	519				Subnet Mask (Hex) for PBX over External LAN Note: <i>This data is valid when the PBX is connected to the external PC LAN.</i>										
	520				When default IP address (172.16.253.0) for the PBX is used, this data setting is not necessary. Example: Subnet Mask: 255.255.0.0										
	521				<table border="1"> <thead> <tr> <th>INDEX</th> <th>Set Hex</th> </tr> </thead> <tbody> <tr> <td>519</td> <td>FF</td> </tr> <tr> <td>520</td> <td>FF</td> </tr> <tr> <td>521</td> <td>00</td> </tr> <tr> <td>522</td> <td>00</td> </tr> </tbody> </table>	INDEX	Set Hex	519	FF	520	FF	521	00	522	00
	INDEX	Set Hex													
	519	FF													
	520	FF													
521	00														
522	00														
522															
523				Default Gateway Address of External LAN Gateway Address (IP address of Router) of Network connecting PBX. Note: <i>This data is valid when the PBX is connected to the external PC LAN.</i>											
524				<i>If no Network Gateway, assignment data is 00 Hex. in Index 523 through 526.</i>											
525				Example: Default Gateway Address: 133.206.8.254											
526				<table border="1"> <thead> <tr> <th>INDEX</th> <th>Set Hex</th> </tr> </thead> <tbody> <tr> <td>523</td> <td>85</td> </tr> <tr> <td>524</td> <td>CE</td> </tr> <tr> <td>525</td> <td>08</td> </tr> <tr> <td>526</td> <td>FE</td> </tr> </tbody> </table>	INDEX	Set Hex	523	85	524	CE	525	08	526	FE	
INDEX	Set Hex														
523	85														
524	CE														
525	08														
526	FE														

ASYDL: ASSIGNMENT OF SYSTEM DATA INTO LOCAL DM (LDM)

System Data (LDM) -1 Programming Sheet

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 512-1535	DATA (DATA) 00 – FF (Hex)	BIT CORRESPONDING DATA		SYSTEM DATA CONTENTS
			DATA 0/1	BIT	
1	533				FPC of the node providing ACDP
1	864		1	b ₀	0/1 = Built-in IP, ACDP is not used/used Note 1
				b ₁	Output the system message (4-R) when TCP-IP connection is normally disconnected. 0/1 = Effective/Ineffective
				b ₂	0/1 = “AGENT ANYWHERE” is out of service/in service Note 2, Note 3
				b ₃	0/1 = “Multiple ACDPs” is not available/available Note 2
				b ₄	Assign number of ports of Status Monitoring for terminal (SMFN). Note 2, Note 4 b ₄ = 0, b ₅ = 0 (2 ports) b ₄ = 1, b ₅ = 0 (8 ports)
				b ₅	
	865				FPC of the node providing IP. (Assign 0 when the ACD service is activated in the self node only.) FPC: 1-253 (01 Hex – FD Hex) Note 5, Note 6
	866				FPC of the node providing ACDP (Assign 0 when the ACD service is activated in the self node only.) FPC: 1-253 (01 Hex – FD Hex) Note 5, Note 6

Note 1: For ACD system to be activated through Fusion network, this data is programmed in the node providing ACDP only. Other data must be set to all nodes within Fusion network.

Note 2: Available since the PBX software Series 7400 and the ACD software R3.

Note 3: This data is used in the network providing multiple ACDPs.

Note 4: The identical data value must be assigned to all nodes.

Note 5: This data is necessary at all nodes. Assign the self FPC at the terminating node.

Note 6: For ACD service provided within Fusion network, the data value (FPC) in these indexes must be programmed the same.

ASYDN: Assignment of System Data in NDM

1. Function

This command is used to specify the system data for the Fusion Network.

2. Precautions

1. The data assigned by this command determines the service condition which affects the other nodes in the Fusion Network.
2. Data for ASYDN assigned at Network Control Node (NCN) has priority over data for ASYDL assigned at LN (Local Node) in the Fusion Network.
3. The ASYDN command consists of SYS1, INDEX 0 - 1535.
4. For more details, see the “Fusion System Manual”.

System Data (NDM) Programming Sheet

SYSTEM DATA TYPE (SYS)	SYSTEM DATA INDEX (INDEX) 0-1535	DATA (DATA) 00 – FF (Hex)	BIT CORRESPONDING DATA		SYSTEM DATA CONTENTS												
			DATA 0/1	BIT													
1	514				Network Data Memory (NDM) usage. Assign data “1 (the memory block is used)” for the corresponding memory block. <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>bit</th> <th>Memory Block</th> </tr> </thead> <tbody> <tr> <td>b₀</td> <td>Memory Block 0</td> </tr> <tr> <td>b₁</td> <td>Memory Block 1</td> </tr> <tr> <td>b₂</td> <td>Memory Block 2</td> </tr> <tr> <td>b₃</td> <td>Memory Block 3</td> </tr> <tr> <td>b₄</td> <td>Memory Block 4</td> </tr> </tbody> </table>	bit	Memory Block	b ₀	Memory Block 0	b ₁	Memory Block 1	b ₂	Memory Block 2	b ₃	Memory Block 3	b ₄	Memory Block 4
	bit	Memory Block															
b ₀	Memory Block 0																
b ₁	Memory Block 1																
b ₂	Memory Block 2																
b ₃	Memory Block 3																
b ₄	Memory Block 4																
	533				FPC number of the node that has the standard VNDM (1-253).												

AOKC: Assignment of OAI Key Code

1. Function

This command is applied to define the usage of D^{term} buttons (line/feature key and flex key).

2. Precautions

1. AOKC must be programmed before AKYD is programmed.
2. For station assignment, the OAI Key Codes correspond to the Function Key Code (FKY) range from 34 through 47 (refer to [AKYD](#)).
3. After the OAI key code data is changed or deleted by this command or the system initial is executed, newly programmed data is invalid for the first operation.
4. OAI key code data programmed in this command must be set to all nodes to be provided ACD service for Fusion network.

3. Parameters

KEY-CODE: OAI Key Code (1-31)

F-KIND: Kind of Facility
1= (MSF) Terminal Mode Set Facility
2= (TMF) Terminal Multiple Information Transfer Facility
3= (OAC) OAI Access Code Request
4= (KTF) Key Code Transfer Facility
5~15= Not used

C-TONE: Confirmation Tone
0 = Confirmation Tone
1 = No Tone

NND: Number of Necessary Digits (available for F-KIND=3 only)

OP-CODE: Operation Code
128 thru 191 (for F-KIND = 1)
192 thru 255 (for F-KIND = 2)

Note 1: *The following operation codes are not available for OAI system when OAI system and ACD system are used in the same Fusion network.*

When F-KIND=1 (MSF) OP-CODE 185~191
When F-KIND=2 (TMF) OP-CODE 248~255

OAI Key Code Data Programming Sheet

OAI KEY CODE (KEY CODE) 1 ~ 31 Note 1	KIND OF FACILITY (F-KIND) 1 ~ 15	CONFIRMATION TONE (C-TONE) 0/1 Note 2	OPERATION CODE (OP-CODE) 128 ~ 255	FUNCTION KEY (FKY)
1	1	1	187	Break
2	2	1	252	Auto/Manual (AUTO/MAN)
3	Not used			
4	2	1	253	Work
5	1	1	188	Night (NIGHT)
6	2	1	250	Trunk Trouble Report (TRK TRBL)
7	1	1	189	Tally (TALLY)
8	2	1	254	Assistance (ASSIST)
9	2	1	255	Emergency Recorder (EMER)
10	1	1	190	Log on/off (LOG ON/OFF)
11	Not used			
12	1	1	191	Monitor/Barge (MON/BARGE)
13	Not used			
14	2	1	249	CW lamp
15 ~ 31	Not used			

Note 1: For the quick reference table of KEY CODE and KYN, refer to AKYD command.

Note 2: Confirmation Tone (C-TONE)
0/1 = Confirmation Tone/No Tone

ASDT: Assignment of Station Data

1. Function

This command is used to assign, delete and display station data. If the station number designated has already been assigned, the current data is displayed. If new data is to be assigned, the old data must be deleted before the new data can be entered.

2. Precautions

1. The Route Restriction Class data (RSC) works in conjunction with the Assignment of Route Restriction Data command (ARSC).
2. The Service Feature Restriction Class data (SFC) works in conjunction with the Assignment of Service Feature Restriction Class command (ASFC).
3. When the station to be deleted is busy, an error indication is provided.
4. If station data is deleted, the data of the stations assigned by the AKYD command is also deleted.

3. Parameters

TN:	Tenant Number
STN:	Station Number
LENS:	Line Equipment Number (6 digits)
TEC:	Telephone Equipment Class (1 ~ 31) 3= DP/PB (for Hot position) / (Analog position) 12= D ^{term} (for My-Line) 18= Virtual Line Appearance (for ACD Line)
RSC:	Route Restriction Class (0 ~ 15) For assignment of RSC from ARSC command.
SFC:	Service Feature Class (0 ~ 15) For assignment of SFC from ASFC command.

Note: *For the ACD lines (Virtual Lines), the SFC must be separate from all other SFCs in the system. This does not apply to Hot Positions or Analog Positions.*

Note: *Stations must be programmed in the Network Node. Use ALGSN command.*

ASFC: Assignment of Service Feature Restriction Class Data

1. Function

This command is used to assign and display Service Feature Restriction information according to the Service Feature Restriction Class (SFC) of the Station.

2. Precautions

1. For the SFC of ACD line of an agent position, be sure to assign RES = 1 (A Direct call is restricted) for SFI = 95 (Direct Call Restriction). Assign RES = 0 (A Direct call is allowed) for SFC of non-ACD-lines
2. For details of SFIs other than SFI = 95, refer to "ASFC" command table in NEAX2400 IMX Office Data Specification
3. Service Feature Restriction Class data programmed in this command must be set to all nodes to be provided ACD trunk for Fusion network.

3. Parameters

DAY/NIGHT: Day/Night Mode
D= Day Mode
N= Night Mode

TN: Tenant Number

SFC: Service Restriction Class (0 ~ 15)

SFI: Service Feature Index (1 ~ 255) (Enter 95.)
95= 1 Direct Call Restriction (for ACD)
118= Live Record (for AD-16/40 vm)

RES: Restriction Data
0= Restricted
1= Allowed

Note: When $WRT? = Y$ is entered the value of the SFC automatically increases by one.

ASFC: ASSIGNMENT OF SERVICE FEATURE RESTRICTION CLASS DATA

Service Feature Restriction Class Data Programming Sheet

DAY/NIGHT MODE (DAY/NIGHT) D/N	TENANT NUMBER (TN)	SERVICE RESTRICTION CLASS (SFC) 0 ~ 15	SERVICE FEATURE INDEX (SFI) 1 ~ 255											Note 2
			1	~	94	95	96	~	117	118	119	~	255	
		0												
		1												
		2												
		3												
		4												
		5												
		6												
		7												
		8												
		9												
		10												
		11												
		12												
		13												
		14												
		15												

Note 1: Restriction Data (RES) is assigned in the squares where SFI and SFC cross. When unassigned, Restriction Data is set as "0" (Restricted status). Allowed Status data is "1", and must be assigned to allow the feature.

Note 2: Service Feature Index (SFI) 95.

- For SFC of ACD line of Agent Position and Supervisory Position, assign RES = 1 (Allowed).
For SFC of Non-ACD line of Agent Position and Supervisory Position, assign RES = 0 (Restricted).
For SFC of Stations other than the Agent Position and Supervisory Position, assign RES = 0 (Restricted).

Note 3: SF118 may be set to a 1 (for Live Record), when using an AD-16/40 vm system.

AKYD: Assignment of Key Data for D^{term}

1. Function

This command is used to assign, delete, and display the following key data corresponding to each line/feature buttons of D^{term}. For details of this command, refer to “AKYD” command in NEAX2400 IMX Office Data Specification.

- Line Key Data
- Function Key Data

2. Precautions

1. Before assigning the key data for D^{term} by this command, be sure to assign the station data (TN, STN, TEC = 12 (D^{term})) of the D^{term} by ASDT command. The station number assigned by ASDT command is referred to as “My Line”.

Note: *The “My Line” corresponds to the physical port associated with the LENS of a DLC/ELC card.*

2. By assigning another station line to a function button by this command, an incoming call terminated to a station line other than My Line can be answered or can be transferred to elsewhere as in the case of the My Line. A station line other than My Line is referred to as a “Sub Line”. A “Sub Line” can be assigned not only to a D^{term} but to any conventional telephone. In addition, the station data for My Line and Sub Line must be assigned via the ASDT command before the key data is assigned. When the Sub Line and the My Line belong to different tenants, use the ATNR command and clear the “Tenant to Tenant Restriction”.
3. A Multi-Line key (the key for My Line and Sub Line) on the D^{term} can be assigned as “Prime Line”. If the Prime Line is not assigned, the My Line will serve as the Prime Line. When the user goes off-hook, the Prime Line is automatically connected to the D^{term}.
4. A virtual line can be assigned as a Sub Line of the D^{term}. The virtual line can be used the same way as the My Line for outgoing calls and other service operations.

Note: *Virtual Line — A virtual LENS exists only in memory, but does not exist physically. Data can be assigned but no hardware is provided for it; ex. LENS = 000311. The virtual LENS is assigned station data using the ASDT command in the same way as for an ordinary line. (The telephone class is TEC = 18: Virtual Line)*

5. When this command is used, the DLC/ELC card must be reinitialized (MB switch UP-DOWN).
6. Key data programmed in this command must be set to all nodes to be provided ACD service for Fusion network.

Note: *Use Command ADKS for Series E D^{term}.*

3. Parameters

TN:	Tenant Number (for My Line)
STN:	Station Number (for My Line)
KYI or KYI2:	1= Function Key 2= Multi-line
KYN or KYN2:	Key number
TP:	Type of D ^{term} (Enter 2 or 3) 2= ACD Position (8/16 button + 8 Flex) 3= ACD Position (24 button + 8 Flex or 16-button with Add on Module + 8 Flex for D ^{term} Series III/32 button type with Add on Module + 8 Flex for D ^{term} Series E)
PRI:	Priority of Answering a Call (0 ~ 4) Must be programmed as 0.
LN PRE:	Line Preference (0/1): Must be programmed as 0.
PLTN:	Tenant Number of the Prime Line. } Note 1
PLSTN:	Station Number of the Prime Line. }
S:	Off-hook suppression to Prime Line. Note 2 0= Off-hook suppression disabled. 1= Off-hook suppression enabled.

Note: "WRT?" prompt is displayed after the function button data have all been assigned.

Note 1: The ACD Line Number must be programmed here (Virtual Line).

Note 2: Must be enabled to Prime Line (ACD Line).

AKYD: ASSIGNMENT OF KEY DATA FOR D^{TERM}

FKY: Function Key (valid for KYI=1)
 34= OAI Key 1 (Break)
 35= OAI Key 2 (Auto/Man) **Note 3**
 37= OAI Key 4 (Work)
 38= OAI Key 5 (Night)
 39= OAI Key 6 (Trk Trbl (Trunk Trouble))
 40= OAI Key 7 (Tally)
 41= OAI Key 8 (Assist (Assistance Key))
 42= OAI Key 9 (Emer (Emergency Key))
 43= OAI Key 10 (Log On/Off)
 44= OAI Key 11 (Answer)
 45= OAI Key 12 (Mon/Barge (Monitor/Barge))
 47= OAI Key 14 (Call Waiting Lamp)
 52= Speaker
 59= Release
KD: Kind of Line (Valid for KYI=2)
 0= Line
TN: Tenant Number (for Sub-Line)
STN: Station Number (for Sub-Line) **Note 4**)
RG: Ringing Information for Each Line (0 ~ 7)

RG	RINGING DURING DAY MODE	RINGING DURING NIGHT MODE	DELAY TIME
0	No Ringing	No Ringing	
1	Ringing	No Ringing	0 sec.
2	No Ringing	Ringing	0 sec.
3	Not used	Not used	
4	Ringing	Ringing	30 sec.
5	Ringing	Ringing	20 sec.
6	Ringing	Ringing	10 sec.
7	Ringing	Ringing	0 sec

Note 3: Automatic/Manual answer key, toggles between Automatic Answer Mode and Manual Answer Mode.

Note 4: The ACD Line Number must be programmed here (Virtual Line).

D^{term} Series E Flexible Key Assignments

- Standard

KYN	FKY	FUNCTION
1	13	CONFERENCE
2	8	REDIAL
3	28	ANSWER
4	16	FEATURE
5	18	TRANSFER
6	57	RECALL
7	20	HOLD
8	52	SPEAKER

FEATURE	4
RECALL	6
CONF	1
REDIAL	2
HOLD	7
TRANSFER	5
ANSWER	3
SPEAKER	8

- ACD

KYN	FKY	FUNCTION
1	13	CONFERENCE
2	40	TALLY
3	34	BREAK
4	43	LOGON
5	18	TRANSFER
6	59	RELEASE
7	20	HOLD
8	37	WORK

LOG	4
RIS	6
CONF	1
TALLY	2
HOLD	7
TRF	5
BRK	3
WORK	8

AKYD: ASSIGNMENT OF KEY DATA FOR D^{TERM}

D^{term} Key Data Programming Sheet (1/2)

MY LINE		PRIME LINE		ALLOW OG FROM PRIME LINE (S) 0/1	MESSAGE WAITING DATA DISPLAY SELECTION (MWD) 0/1	LINE PREFERENCE (LN PRE) 0/1	LINE PREFERENCE FOR SPEAKER BUTTON (SPK) 0-3	LINE PREFERENCE FOR ANSWER BUTTON (ANS) 0-2	LINE PREFER- ENCE FOR OUTGO- ING BUTTON (ORG) 0/1	TYPE OF DTERM (TP) 0-3
TENANT NUMBER (TN)	STATION NUMBER (STN)	TENANT NUMBER (PL TN)	STATION NUMBER (PL STN)							
KEY NUM- BER (KYN)	SERVICE CONDITION (KYI) 0 - 2	FEATURE KEY CODE (FKY) 1-320	KIND OF LINE (KD) 0-2	MULTI LINE			INTERCOM			
				TENANT NUMBER (TN)	STATION NUMBER (STN)	RING INFORMATION FOR EACH LINE (RG) 0-7	KIND OF INCOM (ICM) 0-2	GROUP ID NUM- BER (G-ID) 1-50		
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										

D^{term} Key Data Programming Sheet (2/2)

KEY NUMBER (KYN)	SERVICE CONDITION (KYI) 0 - 2	FEATURE KEY CODE (FKY) 1-320	KIND OF LINE (KD) 0-2	MULTI LINE			INTERCOM	
				TENANT NUMBER (TN)	STATION NUMBER (STN)	RING INFORMATION FOR EACH LINE (RG) 0-7	KIND OF INCOM (ICM) 0-2	GROUP ID NUMBER (G-ID) 1-50
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
F1								
F2								
F3								
F4								
F5								
F6								
F7								
F8								

Note 1: When KYI=0 (None), it is not necessary to assign any data.
 When KYI=1 (FUNCTION), assign data for FKY only.
 When KYI=2 (Multi-Line), assign data for multiple telephone only.

AMNO: Assignment of Monitored Number

1. Function

AMNO is used to assign monitored numbers into the PBX database. The numbers programmed in AMNO will also be programmed into ACDPLT (the ACD database). The monitored numbers programmed in AMNO are the entry points for pilot numbers into the ACD system.

2. Precautions

1. When the monitored number (MNO) is deleted, delete MNO in ACDPLT prior to this command.
2. When UCD=1 is programmed in this command, UCD service should be programmed beforehand.

3. Parameters

TN:	Tenant Number of Monitored Number
MNO:	Monitored Number (maximum 5 digits. the number is the same as the pilot number assigned in ACDPLT and must match the numbering plan of the NEAX2400 IMX.
NMI:	Number Monitored Index (1 ~ 4095)
UCD:	UCD degrade 0 – No 1 – Yes
STN:	UCD Control Station Number (Available for UCD=1) Note 1
A/G:	Station type of Hotel System Note 2 A: Administration Station G: Guest Station
MFC:	G-2 Signal Data for MFC (0-3) Note 3 0 = ASFC, SFI 59 = 0 and SFI 60 = 0 1 = ASFC, SFI 59 = 1 and SFI 60 = 0 2 = ASFC, SFI 59 = 0 and SFI 60 = 1 3 = ASFC, SFI 59 = 1 and SFI 60 = 1

Note: *Each monitored number must be assigned to different Monitored Number Index. "0" cannot be assigned at the first digit of the monitored number.*

Note 1: *When a C.O. trunk is used for UCD control station, UCD controlling station number should be programmed in ACSI in advance.*

Note 2: *For Business System, "A (Administration Station)" is assigned here.*

Note 3: *Valid for countries except Australia and North America.*

AMNOL: Assignment of Monitored Number for LDM

1. Function

AMNOL is used to assign monitored numbers into the PBX database. The numbers programmed in AMNOL will also be programmed into ACDPLT (the ACD database). The monitored numbers programmed in AMNOL are the entry points for pilot numbers into the ACD service to be activated over FCCS. The monitored number programmed in AMNOL is available for only the self node.

2. Precautions

1. Prior to this command, Telephone number of the monitored number should be programmed in ALGNL.
2. When the monitored number (L_MNO) is deleted, delete L_MNO in ACDPLT prior to this command.

3. Parameters

UGN:	User Group Number of Monitored Number (Fixed "1")
L_MNO:	Telephone number of Monitored Number (maximum 5 digits. the number is the same as the pilot number assigned in ACDPLT and must match the numbering plan of the NEAX2400 IMX).
L_NMI:	Number Monitored Index (1 ~ 4095)
UCD:	UCD degrade 0 – No 1 – Yes
TELN:	UCD Control Station's Telephone Number (Available for UCD=1) Note 1
A/G:	Station type of Hotel System Note 2 A: Administration Station G: Guest Station
MFC:	G-2-Signal Data for MFC (0-3) Note 3 0 = ASFC, SFI 59 = 0 and SFI 60 = 0 1 = ASFC, SFI 59 = 1 and SFI 60 = 0 2 = ASFC, SFI 59 = 0 and SFI 60 = 1 3 = ASFC, SFI 59 = 1 and SFI 60 = 1

Note: *Each monitored number must be assigned to different Monitored Number Index. "0" can not be assigned at the first digit of the monitored number.*

Note 1: *When a C.O. trunk is used for UCD control station, UCD controlling station number should be programmed in ACSIL in advance.*

Note 2: *For Business System, "A (Administration Station)" is assigned here.*

Note 3: *Valid for countries except Australia, U.S.A and Canada.*

AMNON: Assignment of Monitored Number for NDM

1. Function

AMNON is used to assign monitored numbers into the PBX database. The numbers programmed in AMNON will also be programmed into ACDPLT (the ACD database). The monitored numbers programmed in AMNON are the entry points for pilot numbers into the ACD service to be activated over FCCS. The monitored number programmed in AMNON is available for all nodes within Fusion network.

2. Precautions

1. Prior to this command, Telephone number of the monitored number should be programmed in ALGNN.
2. When the monitored number (N_MNO) is deleted, delete the number in ACDPLT prior to this command.
3. When UCD=1 is programmed in this command, UCD service for Fusion network should be programmed beforehand.

3. Parameters

UGN:	User Group Number of Monitored Number (Fixed "1")
N_MNO:	Telephone number of Monitored Number (maximum 5 digits). The number is the same as the pilot number assigned in ACDPLT and must match the numbering plan of the NEAX2400 IMX.
N_NMI:	Number Monitored Index (1 ~ 4095)
UCD:	UCD-fusion degrade 0 – No 1 – Yes
TELN:	UCD Control Station's Telephone Number Note 1
A/G:	Station type of Hotel System Note 2 A: Administration Station G: Guest Station
MFC:	G-2-Signal Data for MFC (0-3) Note 3 0 = ASFC, SFI 59 = 0 and SFI 60 = 0 1 = ASFC, SFI 59 = 1 and SFI 60 = 0 2 = ASFC, SFI 59 = 0 and SFI 60 = 1 3 = ASFC, SFI 59 = 1 and SFI 60 = 1

Note: *Each monitored number must be assigned to different Monitored Number Index. "0" can not be assigned at the first digit of the monitored number.*

Note 1: *When a C.O. trunk is used for UCD control station, UCD controlling station number should be programmed in ACSIL in advance.*

Note 2: *For Business System, "A (Administration Station)" is assigned here.*

Note 3: *Valid for countries except Australia, U.S.A and Canada.*

ACNO: Assignment of Conversion Number Data

1. Function

ACNO is used to direct a specified ringdown type trunk route to a specific monitored number (monitored number is the same as a pilot number).

Note: *This command does not apply to self-directing type trunks (i.e. DID, TIE Lines, etc.).*

2. Precautions

1. Prior to this command, program the monitored number by AMNO and ACDPLT.
2. Do not program the Direct in Termination service data against the route assigned by this command.

3. Parameters

RT:	Route Number (Must be Ring Down Trunk)
TN:	Tenant Number of Monitored Number
MNO:	Monitored Number (as programmed in AMNO)

ACNOL: Assignment of Conversion Number Data for LDM

1. Function

ACNOL is used to direct a specified ringdown type trunk route to a specific monitored number (monitored number is the same as a pilot number) in Telephone number. The conversion number programmed in ACNOL is available for the self node only.

Note: *This command does not apply to self-directing type trunks (i.e. DID, TIE Lines, etc.).*

2. Precautions

1. Prior to this command, program the monitored number by AMNOL and ACDPLT.
2. Assign the logical route number against each physical route number in ALRTL.
3. Do not program the Direct-in Termination service data against the route assigned by this command.

3. Parameters

LGRT: Logical Route Number 1-254 (Must be Ring Down Trunk)
UGN: User Group Number of Monitored Number (Fixed "1")
L_MNO: Telephone number of Local Monitored Number (as programmed in AMNOL)

ACNON: Assignment of Conversion Number Data for NDM

1. Function

ACNON is used to direct a specified ringdown type trunk route to a specific monitored number (monitored number is the same as a pilot number) in Telephone number. The monitored number is available for all nodes within Fusion network.

Note: *This command does not apply to self-directing type trunks (i.e. DID, TIE Lines, etc.).*

2. Precautions

1. Prior to this command, program the monitored number by AMNON and ACDPLT.
2. Assign the logical route number against each physical route number in ALRTN.
3. Do not program the Direct-in Termination service data against the route assigned by this command.

3. Parameters

LGRT: Logical Route Number 1-254 (Must be Ring Down Trunk)
UGN: User Group Number of Monitored Number (Fixed "1")
N_MNO: Telephone number of Network Monitored Number (as programmed in AMNON)

AADT: Assignment of Announcement/Dictation Trunks

1. Function

This command is used to assign, display and delete announcement trunks for delay announcements, night announcements, etc. Also used to assign, display and delete Dictation Trunks for such purposes as Emergency Recorder.

2. Precautions

Before LENS of announcement trunks or night announcement is changed in ATRK, the AADT command data should be deleted. In addition, if LENS data is deleted in ATRK by accident, this command data is also deleted automatically.

3. Parameters

TYPE: 1 = ANT (Announcement Trunk)
 2 = DCT (Dictation Trunk)

NO: ANT/DCT Number
 Announcement = 1 ~ 58
 Dictation = 1 ~ 5

D: Availability of Disconnect Timer (Available for TYPE = 1)
 0 = Disconnect timer not available
 1 = Disconnect timer available (normal) **Note 1**

MSGT: Message Timer (2 ~ 120 sec. 2-sec. interval when shorter than 30 sec. 8-sec. interval when longer than 30 sec.)

CP: Connection Pattern **Note 2**
 0 = Multiple Connection
 1 = Single Connection

WAIT: Waiting Timer (0~30sec. 2sec. interval) **Note 2**

CNT: Number of Announcement/Dictation Trunks (1 ~ 8)

RT: Route Number (1 ~ 255)

TK: Trunk Number (1 ~ 255)

Note 1: When D=1, msg disconnect timer is set at 30 seconds.

Note 2: Available only when the system data is programmed that the DAT control function is available (ASYD, SYS1, INDEX449, b2 = 1).

AADTN: Assignment of Announcement/Dictation Trunks for NDM

1. Function

This command is used to assign, display and delete announcement trunks for delay announcements, night announcements, etc. Also used to assign, display and delete Dictation Trunks for such purposes as Emergency Recorder. The announcement trunk or dictation trunk programmed in AADTN is allowed to use from the remote ACD node within Fusion Network.

2. Precautions

Before LENS of assignment trunks or night announcement is changed in ATRK, the AADTN command data should be deleted first. In addition, if LEN data is deleted in ATRK by accident, this command data is also deleted automatically.

3. Parameters

TYPE: 1 = ANT (Announcement Trunk)
 2 = DCT (Dictation Trunk)

NO: ANT/DCT Number
 Announcement = 1 ~ 58
 Dictation = 1 ~ 5

D: Availability of Disconnect Timer (Available for TYPE = ANT)
 0 = Disconnect timer not available
 1 = Disconnect timer available (normal) **Note 1**

MSGT: Message Timer (2 ~ 120 sec. 2-sec. interval when shorter than 30 sec. 8-sec. interval when longer than 30 sec.)

CP: Connection Pattern **Note 2**
 0 = Multiple Connection
 1 = Single Connection

WAIT: Waiting Timer (0~30sec. 2sec. interval) **Note 2**

CNT: Number of Announcement/Dictation Trunks (1 ~ 8)

LGRT: LOGICAL Route Number (1 ~ 254)

TK: Trunk Number (1 ~ 255)

Note 1: When D=1, msg disconnect timer is set at 30 seconds.

Note 2: Not available since the DAT control function is not available in Fusion network. Always assign "0"=ASYD, SYS1, INDEX449, b2 for the announcement to be provided in Fusion network.

Note 3: For Fusion network, DAT control function is not available.

ALGNN: Assignment of Telephone Number Data for NDM

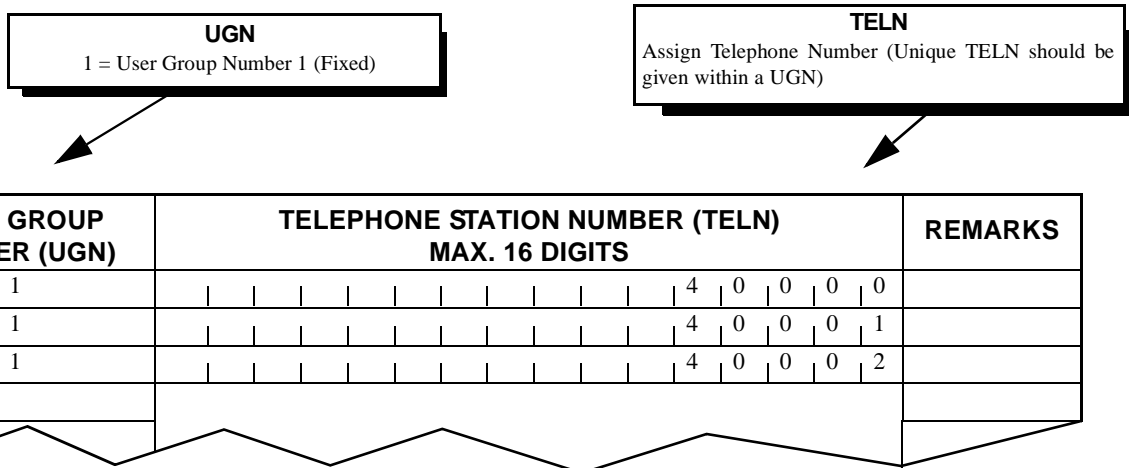
1. General

This command assigns the individual attendant identification number for Fusion service. The data assigned by this command is written in Network Data Memory (NDM) of the Network Control Node (NCN), updating the NDM at each Local Node (LN).

2. Precautions

1. The applicable tenant number (TN) range is designated by the ASYDN command, SYS 1, INDEX 8. If the numbering plan is common for all tenants (ASYDN, SYS1, INDEX 800, bit0 = 1), assign TN parameter as "1" for all tenants.
2. The system data assignment (ASYDN, SYS 1, INDEX 514, bit1 = 1) is needed to provide the Network Data Memory (NDM).
3. Before assigning this command, ANPDN/ASPAN commands are required for the numbering plan of the Telephone Number (TELN).
4. A unique Telephone Number (TELN) should be given within a User Group Number (UGN).
5. For more detail, see the NEAX2400 IMX Fusion Network System Manual.

3. Data Entry Instructions



Note: All monitored (Pilot) numbers must be added here and in AMNON for Fusion Network.

ALGSN: Assignment of Telephone Station Data for NDM

1. General

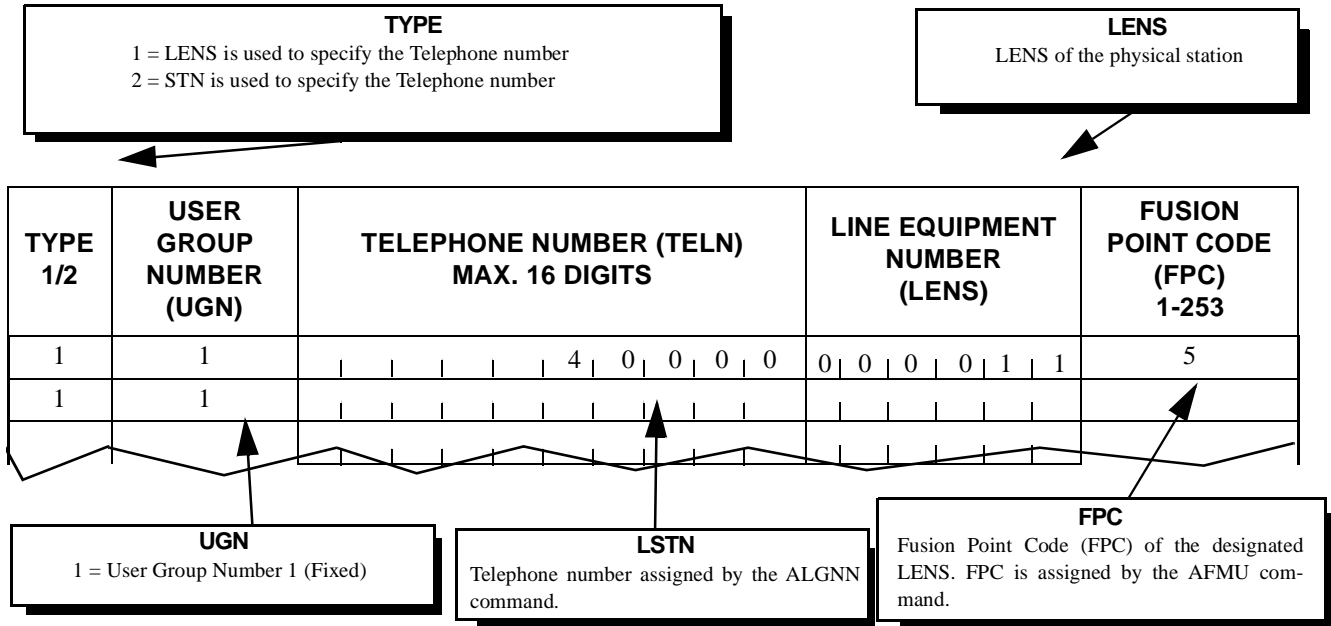
This command assigns the related data of the Telephone Number (TELN) corresponding to the physical station. The data assigned by this command is written in Network Data Memory (NDM) of the Network Control Node (NCN), updating the NDM at each Local Node (LN).

2. Precautions

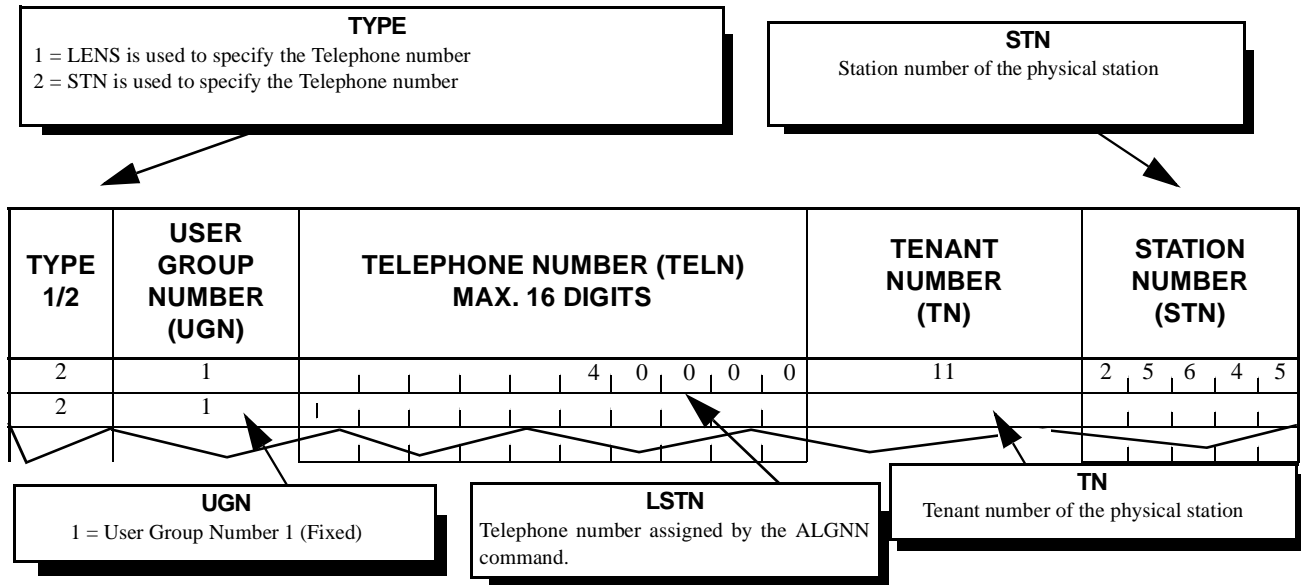
1. The ALGSN command is used to assign the Telephone Number (TELN) for a Network Control Node (NCN).
2. The TYPE parameter allows the user to choose the programming method of the physical station.
TYPE = 1 (LENS): Telephone number to be given to the LENS
TYPE = 2 (STN): Telephone number to be given to the station
3. The system data assignment (ASYDN, SYS 1, INDEX 514, bit1 = 1) is needed to provide the Network Data Memory (NDM).
4. When the parameter TYPE is "1" (LENS is used to specify the physical station number), the assignment of the Fusion Point Code (FPC) entered by the AFMU command is required.
5. For more details, see the NEAX2400 IMX Fusion Network System Manual.
6. All PBX and ACD Station Numbers must be added here for Fusion Network.

3. Data Entry Instructions

◆ When assigning TYPE = 1 (LENS is used to specify the Telephone number)



◆ When assigning TYPE = 2 (STN is used to specify the Telephone number)


















PBX AND ACD COMMAND PROGRAMMING

2.2 ACD COMMANDS

For NEAX2400 IMX Commands, see [Section 2.1, “NEAX2400 IMX Commands”](#) in this chapter.

Table 7-2 ACD Command List

COMMAND NAME	ICON	DESCRIPTION
ACDTN		Assignment of ACD Tenant Data
ACDSPL		Assignment of ACD Split Data
ACDLOG		Assignment of ACD Receiver ID Code
ACDPSN		Assignment of ACD Position Data
ACDCCV		Assignment of ACD CCV Data
ACDPLT		Assignment of ACD Monitor Number
ACDTG		Assignment of ACD Trunk Group Data
ACDANA		Assignment of ACD Analog Split Access Code
ACDIVR		Assignment of ACD IVR Data
ACDHS		Assignment of ACD Holiday Schedule
ACDHC		Assignment of ACD Holiday Calendar
ACDWS		Assignment of ACD Week Schedule
ACDCOM		ACD Communications Data
System Information		System Information
ACD Backup		ACD Backup

2.2.1 Command Relationships

Each command consists of a name (four to six alphanumeric characters) which suggests its function and the parameters required for its execution. Table 7-3 describes the correspondence among the ACD and PBX commands. Each ACD command may involve the assignment or execution of PBX commands and/or other ACD commands.

Each command description includes a section entitled “Assignment and Deletion Procedure” which describes the correct sequence for applying related commands.

Table 7-3 Related Commands

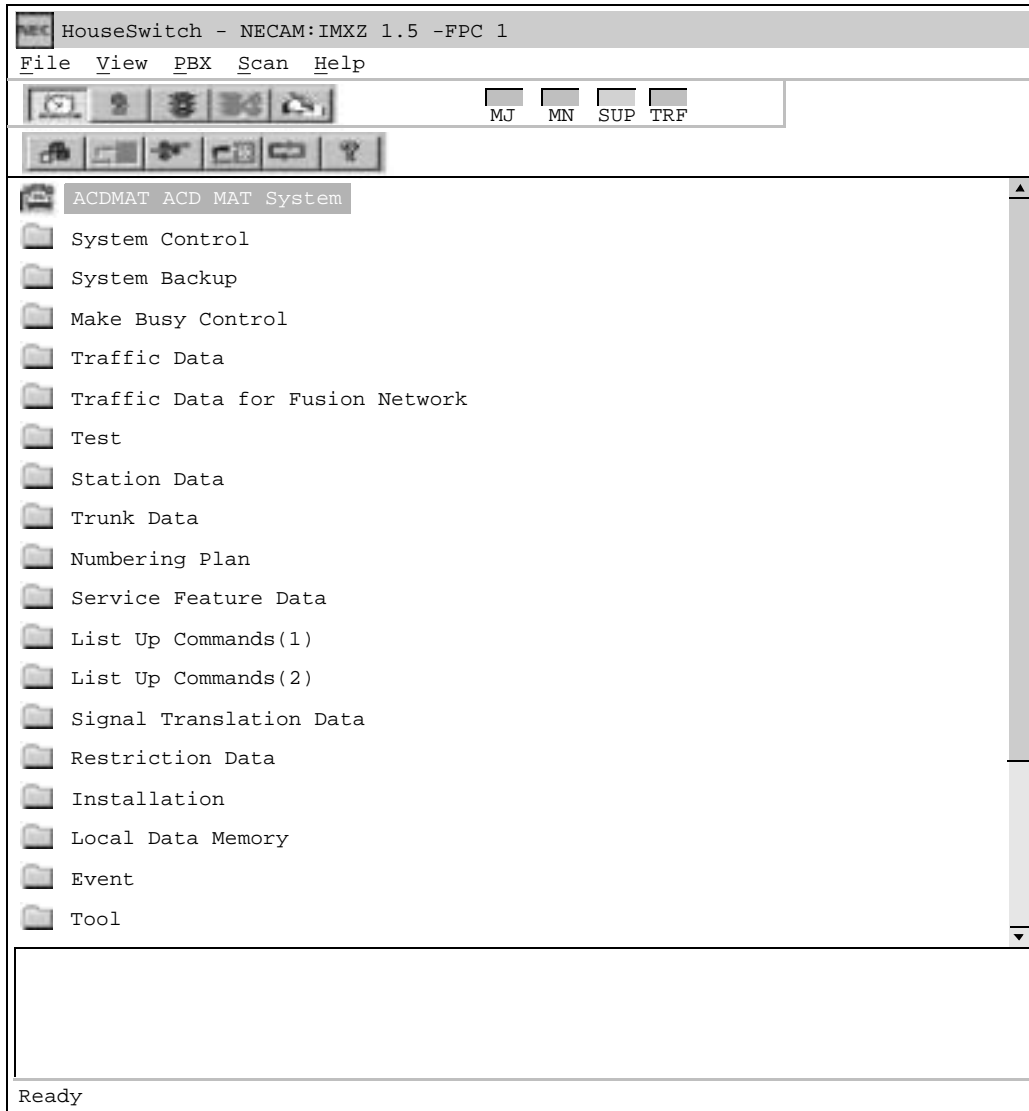
Command Name	Related PBX (Non-Fusion) Commands	Related PBX Fusion Commands	Related ACD Commands
ACDTN	ASYD, ANPD, ASPA, AADT	ASYD, ANPDN, ASPAN, ASYDL, AADTN, ASYDN	ACDCOM, ACDSPL, ACDCCV
ACDSPL			ACDTN
ACDLOG			ACDTN, ACDSPL, ACDPSN
ACDPSN	AEFR, ASFC, ASDT, AKYD, ARSC	AEFR, ASFC, ASDT, AKYD, ARSCN, ALGSN	ACDSPL, ACDHS, ACDWS, ACDHC, ACDTN
ACDCCV	AADT, ASDT	AADTN, ASDT, ALGSN	ACDSPL, ACDHS, ACDWS, ADCHC, ACDTN
ACDPLT	AMNO, ACNO, ASAT	AMNON, ACNON, ALGNN, ASATN	ACDTN, ACDCCV, ACDWS
ACDTG	ATRK, MBTK	ALRTN	ACDTN
ACDANA	AMNO	ALGNN, AMNON	ACDPSN
ACDIVR	ASDT, ASHU	ASDT, ASHUN, ALGSN	ACDTN
ACDHS			ACDTN, ACDWS, ACDHS, ACDCCV
ADCHC			ACDTN, ACDHS
ACDWS			ACDTN, ACDCCV, ACDPLT
Total ACD System	ASYD (R), ASDT (R), AOKC (R), ARSC (R), ASFC (R), AKYD (R), AMNO (R), ACNO (O), AEFR (R), AADT (O), ASHU (O), SPDL (R), ASAT (R), ROAI (O)	ASYD (R), ASYDL (R), ASDT (R), AOKC (R), ARSCN (R), ASFC (R), AKYD (R), AMNON (R), ACNON (O), AEFR (R), AADTN (O), ASHUN (O), SPDL (R), ASATN (R), ROAI (O), ALGNN (R), ALRTN (R), ALGSN (R)	ACDTN (R), ACDSPL (R), ACDLOG (O), ACDPSN (R), ACDCCV (R), ACDPLT (R), ACDTG (R), ACDANA (O), ACDIVR (O), ACDHS (O), ACDHC (O), ACDWS (O)

(R) = Required, (O) = Optional

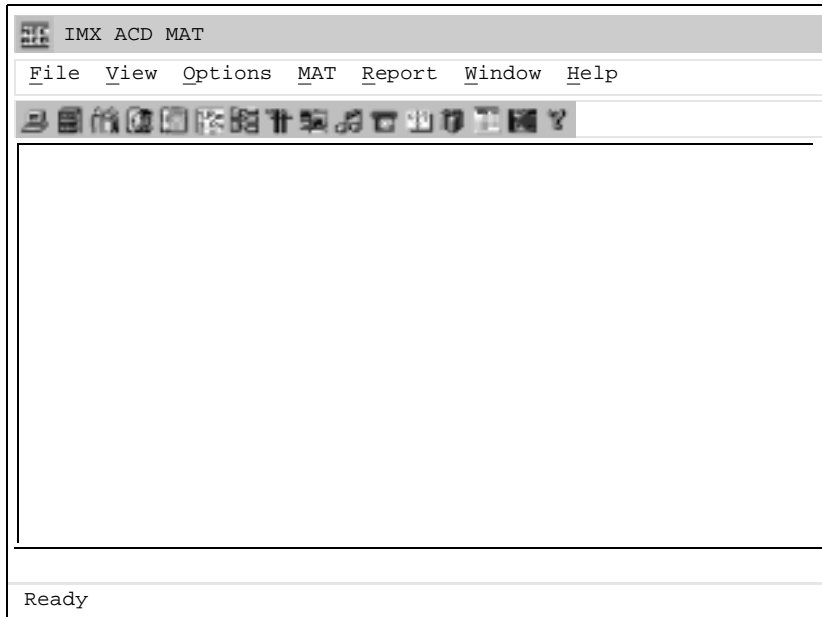
PBX AND ACD COMMAND PROGRAMMING

2.3 SETTING UP THE ACD

ACD parameters are set up in Windows 95 and Windows 98 using popup Windows. From the folder containing the IMX installation/maintenance files, select the ACDMAT ACD MAT System option.



The IMX ACD MAT menu is displayed. Double-click the icon corresponding to the function you wish to set.



To identify the function, place the cursor on the icon. The name of the function is displayed.

Note: *To use the ACD On-Line Help from any of the Windows, place the cursor in the box for the desired setting and press F1.*

ACDTN: Assignment of ACD Tenant Data

1. Function

This command is used to assign, list, and print the following data for an ACD tenant:

- [1] Tenant Number
- [2] Tenant Name (optional)
- [3] The number (maximum) of splits (per tenant)
- [4] Default Language
- [5] Operator Access Code
- [6] IVR Pilot Number
- [7] Outbound Answer Timer
- [8] Agent Personal Queue Parameters:
Announcement Number and Overflow/Forward Priority.

Tenant data gives the user an identity within the ACD system. It also allows the tenant to determine the number of splits that will be needed for ACD operations.

2. Precautions

1. The ACDTN data is one of the most important data for ACD system configuration. The user must program the NSPL data carefully to lessen the need for future changes. If the NSPL data is changed, all data concerned with ACD function must be changed also.
2. Since data related to MIS connection is assigned using TN 1, the following data must be set even when TN 1 is not used for the ACD system.
TN=1, NSPL=1, PRI=1, LANG=0 **the data to be entered in other parameter is optional*
3. For the maximum number of splits per ACD, see [Section 2.3.1, "System Capacity"](#) in [Chapter 2](#).
4. Remove menu selection is not applicable for this command.
5. Assign the number of tenants for whole system including Business/Hotel features (SYS1, Index8).

3. Parameters

TENANT NUMBER:	Tenant Number (1 to 10)
NAME:	Tenant Name (up to 20 characters)
SPLITS:	Maximum Split for Tenant (1 - 250)
DEFAULT LANGUAGE:	English Japanese Spanish Italian French German
OPERATOR ACCESS CODE:	Enter the operator access code programmed in the PBX subsystem (ASPA or ASPAN).
IVR PILOT NUMBER:	Number to access IVR directory numbers used by ACD
ANSWER TIMER:	Time (in seconds) after which an outbound call is assumed to have been answered.
AGENT PERSONAL QUEUE:	Personal Announcement Number (0 - 58) or SPACE: feature not used
OVERFLOW/FORWARD PRIORITY:	Priority to use for split queuing after overflow or call forwarding (1 to 250)
I/O PORT ASSIGNMENT:	MIS I/O Ports (1 to 6). Defines which of the MIS Ports are configured for this tenant.

ACDTN: ASSIGNMENT OF ACD TENANT DATA

4. Assignment and Deletion Procedure

These flow diagrams show the procedure used to assign and change Tenant Data for the Integrated ACD.

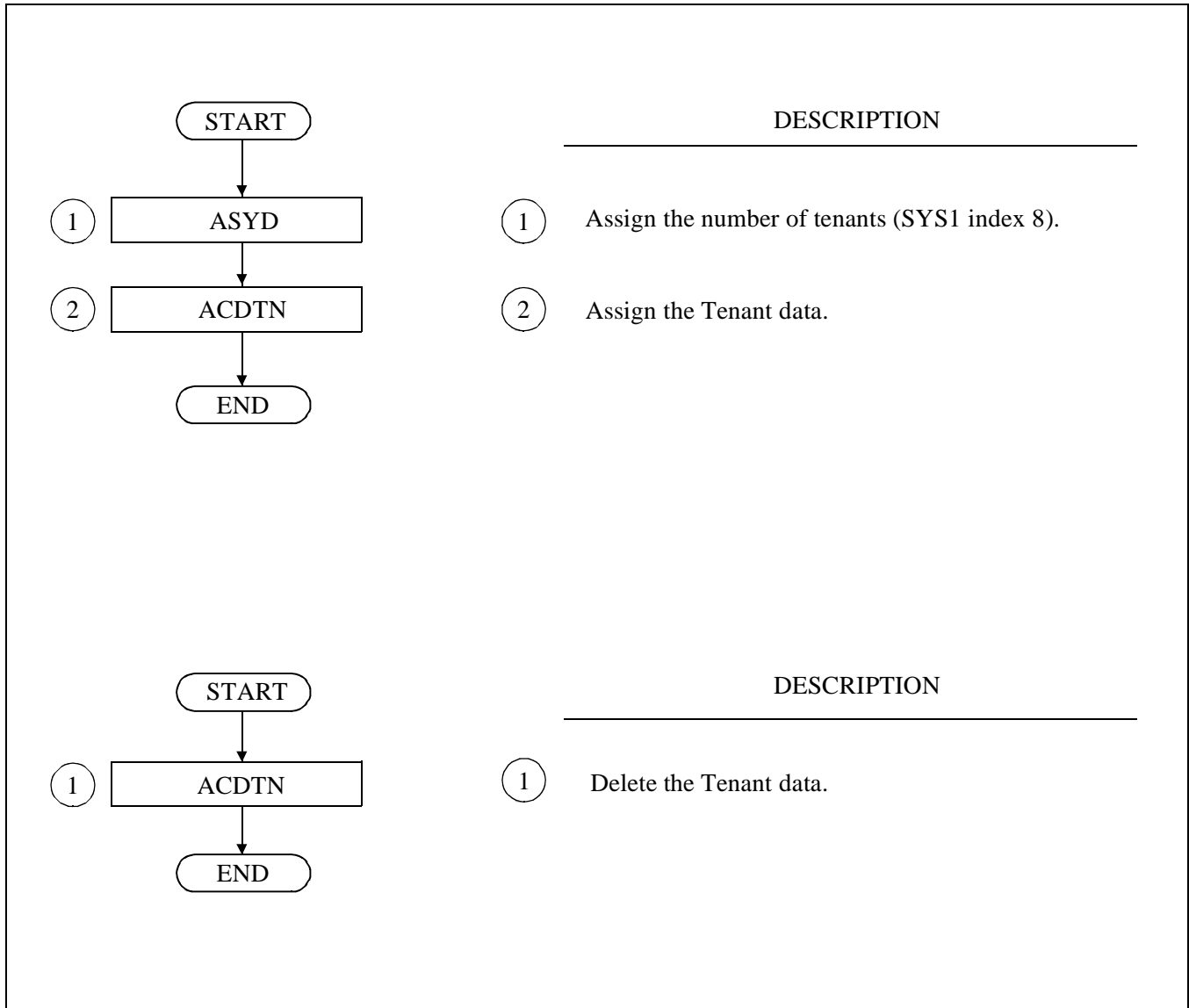


Figure 7-1 Assigning and Removing Tenant Data Information

ACDSPL: Assignment of ACD Split Data

1. Function

This command is used to assign, list, print, and remove ACD split data. Each split is configured through this command for its answer mode, after call status, conditional thresholds, and operationally-related directory numbers and other split-related data.

2. Precautions

1. Directory number for assist, emergency, and night should be assigned before assigning split data.
2. The dictation trunk for emergency calls should be assigned before assigning split data.
3. The operation of Conditional Thresholds (COND) is shown in [Table 7-4](#).

Table 7-4 COND (Conditional Thresholds)

METHODS	CONDITIONS	RESULTS
No Calls Accepted	No Call Accepted. Note 1	No conditional calls will be accepted by the split.
Agents Available Value: 1 to 250	Number of agents that must be available for conditional queue calls to be accepted. Note 2	Conditional calls will or will not be accepted.
Calls in Queue Value: 1 to 699	Will only accept conditional queue calls, depending on how many calls are already in queue to the split. Note 3	Conditional calls will or will not be accepted.

Note 1: If COND= NO CALLS ACCEPTED is selected, this split will not accept conditional Queue call.

Note 2: If COND= AGENTS AVAILABLE is selected, then this split will accept Conditional Queue calls, depending on the number of agents available in the split.

Example: If “2” is entered as the number of agents that must be available in COND DETAIL, then there will have to be at least 2 agents available in the split before it will accept any Conditional Queue calls.

Note 3: If COND= CALLS IN QUEUE is selected then the split will accept Conditional Queue calls depending on how many calls are already in queue in this split.

Example: If “3” is entered as the number of calls in queue in COND DETAIL and there are more than 3 calls in queue, this split will not accept Conditional Queue Calls.

4. Handling of conditionally queued incoming ACD calls for a particular split. Refer to CCV steps (Call Control Vector Programming) for programming conditional call handling.
5. Logon IDs can be set either as required or not used in REQUIRE LOGON ID. If a logon ID is required, an agent must enter a logon ID before receiving access to the ACD system.
6. When the split is in the QUEUE WHEN VACANT mode (when no positions are logged on in the split), either the Queue or Do Not Queue option may be programmed.
7. The Assist key can be programmed on a split-wide basis to function as an Assist key or a Monitor Me key in ASSIST KEY IS “MONITOR ME”.
8. Work mode can be Allowed or Restricted on a split-wide basis.
9. Call Waiting lamp can be programmed with two queue thresholds. It can light steadily when a specific number of calls are in queue, then flash when the second threshold of number of calls are in queue.
10. Never set the Call Waiting Threshold “LIGHT” and “FLASH” to the same value. Always set the “LIGHT” value lower than the “FLASH” value.
11. Work mode can be programmed to timeout after a position has been in Work mode for a predetermined time (on a split-wide basis).
12. Each split can be programmed to have one break mode type or nine break mode types in MULTIPLE BREAK TYPES.
13. QUEUE:
The maximum number of calls that can be in queue at any given time. This field allows normal inputs (“150”) as well as “percentage” inputs (“150%”), used for Variable Depth Queuing. A Variable Queue Depth is one that changes based on the number of working agents (logged on and not in break mode). Therefore, with four working agents, a maximum depth of 150% would equate to $150\% \times 4 = 6$ calls in queue. The seventh call would then not be allowed to queue until more working agents were added to the split. Valid ranges for normal maximum depths are 1 to 700. Valid ranges for variable maximum depths are 5% to 1000%, in increments of 5%.
14. Positions can be programmed to automatically go into Work mode if an outgoing call is made on the PBX line, or if an incoming call is received on the PBX line.
Press SPACE BAR to change selection (No/Yes)
15. After-call work mode setting determines if an agent is available for the next call immediately, or if the agent is placed in an after-call work mode at the completion of the current ACD call.

ACDSPL: ASSIGNMENT OF ACD SPLIT DATA

16. Answer mode setting determines if a call is automatically connected following a zip tone or if the agent must manually answer the incoming call by pressing the ANSWER key.
17. A split can be set up so that agent priority queueing can be used if desired.
18. This split can be set up as a Hot Split if desired.
19. A CCV can be assigned for calls stranded in queue.
20. The split can be programmed so that a call which rings at an agent's phone for a long time can be recovered and requeued.
21. When assigning AUTO WORK ON RING or AUTO WORK ON DIAL OUT, do not set the WHILE ON PBX CALL Time Out if the AUTO WORK MODE CANCEL Timer is to be restricted.

3. Parameters

TENANT NUMBER:	Tenant Number (1 to 10)
SPLIT:	Split Number (1 to 250)
NAME:	Split Name (Optional) - Up to 20 characters
REQUIRE LOGON ID:	Required/Not Required
AUTO READY AFTER CALL:	Work / Available
AUTO ANSWER:	Automatic / Manual
QUEUE:	Maximum Queue Depth 1 ~ 700 5 ~ 1000% (In increments of 5%).
CALL WAITING CHIME:	No / Yes
JACK OUT MODE:	Break / Vacant
WORK MODE TIMEOUT:	0~9999 seconds (0=indefinite)
ASSIST KEY:	Assist / Monitor Me
MULTIPLE BREAK TYPES:	1 Break Type / 9 Break Types
DIR NUMBERS	
NIGHT:	Night Pilot Number (SPACE: feature not used)
ASIST:	Assistance Number (SPACE: feature not used)
EMGCY:	Emergency Number (SPACE: feature not used)
RECORDER NUMBER:	Recorder No. 1 ~ 5 or 0=feature not used
QUEUE WHEN VACANT:	Queue / Do Not Queue
WORK MODE RESTRICTED:	Allow Restricted
UPON PBX CALL:	Ring: Auto Work / No Auto Work Answer: Auto Work / No Auto Work Dial: Auto Work / No Auto Work Release: Auto Work / No Auto Work
CONDITIONAL THRESHOLD:	No Calls Accepted Agent Available (1 ~ 250) Calls in Queue (1 ~ 699)
CALL WAITING THRESHOLD:	Light (0 ~ 700) Flash (0 ~ 700)
STRANDED CALL CCV:	Index number (1 ~ 900) Step number (1 ~ 20)
CALL RECOVER TIME:	(1 ~ 255 seconds or 0=Feature Not Used)
ANALOG WORK MODE TIMEOUT:	0 ~ 9999 seconds 0 = Indefinite
HOT SPLIT:	No / Yes
AGENT PRIORITY QUEUING:	Agent Queuing Options * <i>Available since the PBX software Series 7400 and ACD software R3.</i> Out of Service / In service
WORK MODE TIMEOUT:	Allowed / Rejected
REQUIRE TALLY PER CALL:	Tally Required * * <i>Available since the PBX software Series 7400 and ACD software R3.</i> Not required / Required
LOGOFF WARNING CRITERIA:	Logoff Warning * <i>Available since the PBX software Series 7400 and ACD software R3.</i> Disabled / Calls > Agents, number of calls in queue (1 ~ 9)

ACDSPL: ASSIGNMENT OF ACD SPLIT DATA

4. Assignment and Deletion Procedure

These flow diagrams show the procedure used to assign and delete ACD split data.

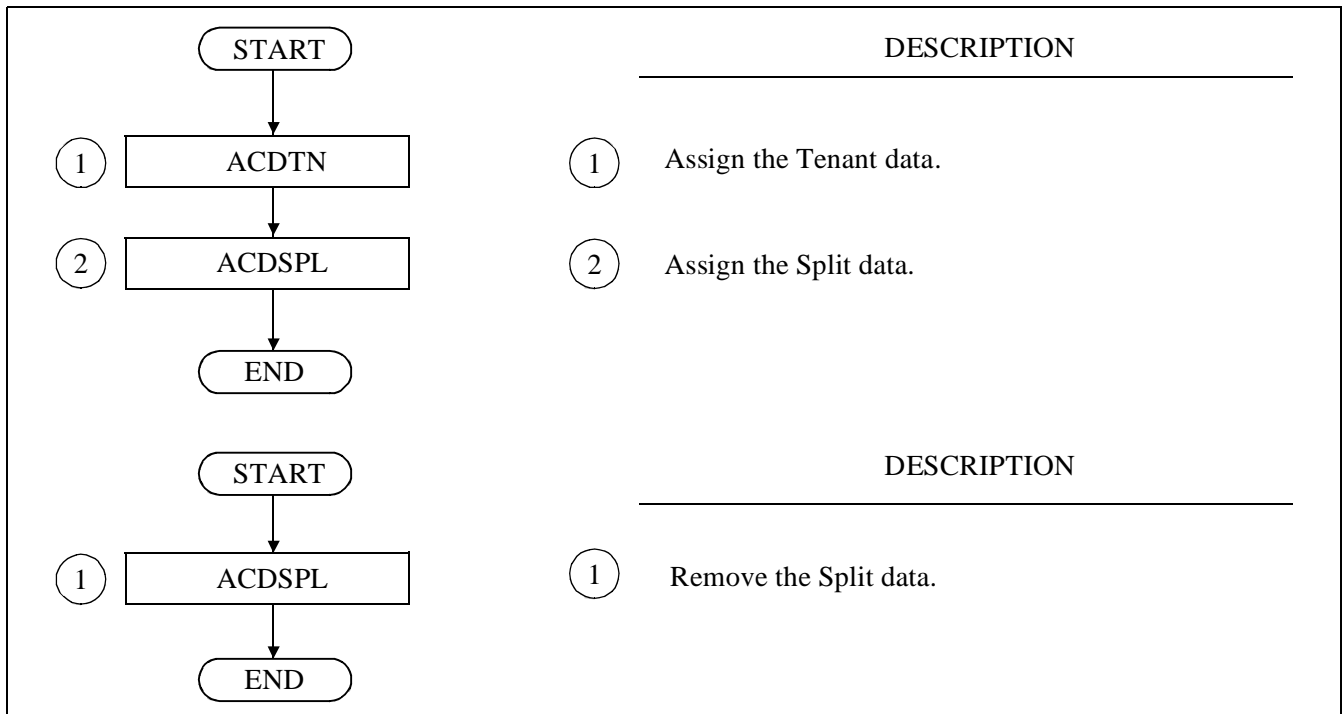


Figure 7-2 Assigning and Removing ACD Split Data

ACDLOG: ASSIGNMENT OF ACD RECEIVER ID CODE

3. Parameters

TENANT NUMBER:	Tenant Number (1 to 10)
LOGIN ID:	Consists of one to nine digits (1 to 999,999,999)
NAME:	(Optional) up to 14 characters
LANGUAGE:	English Japanese Spanish Italian French German
SPLITS:	Available split to logon (1 - 250)
PRIORITY:	Priority for handling ACD calls in multiple splits/the agent's preference level (1 ~ 99)
MULTI-SPLIT:	Single/Multi
PERSONAL PILOT NUMBER:	Valid personal pilot number (SPACE: feature not used) Queue depth for personal pilot number (0 ~ 999)
PERSONAL FORWARD CCV:	CCV index (1 - 900) CCV step number (1 - 20)
PERSONAL OVERFLOW CCV:	0 ~ 9999 seconds; 0 = indefinite CCV index (1 - 900) CCV step number (1 - 20)
CHIME:	Off/First/All
PERSONALASSIST:	Individual assistance number or SPACE (SPACE: Functional not used)
PERSONAL EMERG:	Individual emergency number or SPACE (SPACE: Functional not used)
NAMES:	Abbreviated Name (Use all initials of the user.)

4. Assignment and Deletion Procedure

These flow diagrams show the procedure used to assign and delete ACD Agent Logon Data.

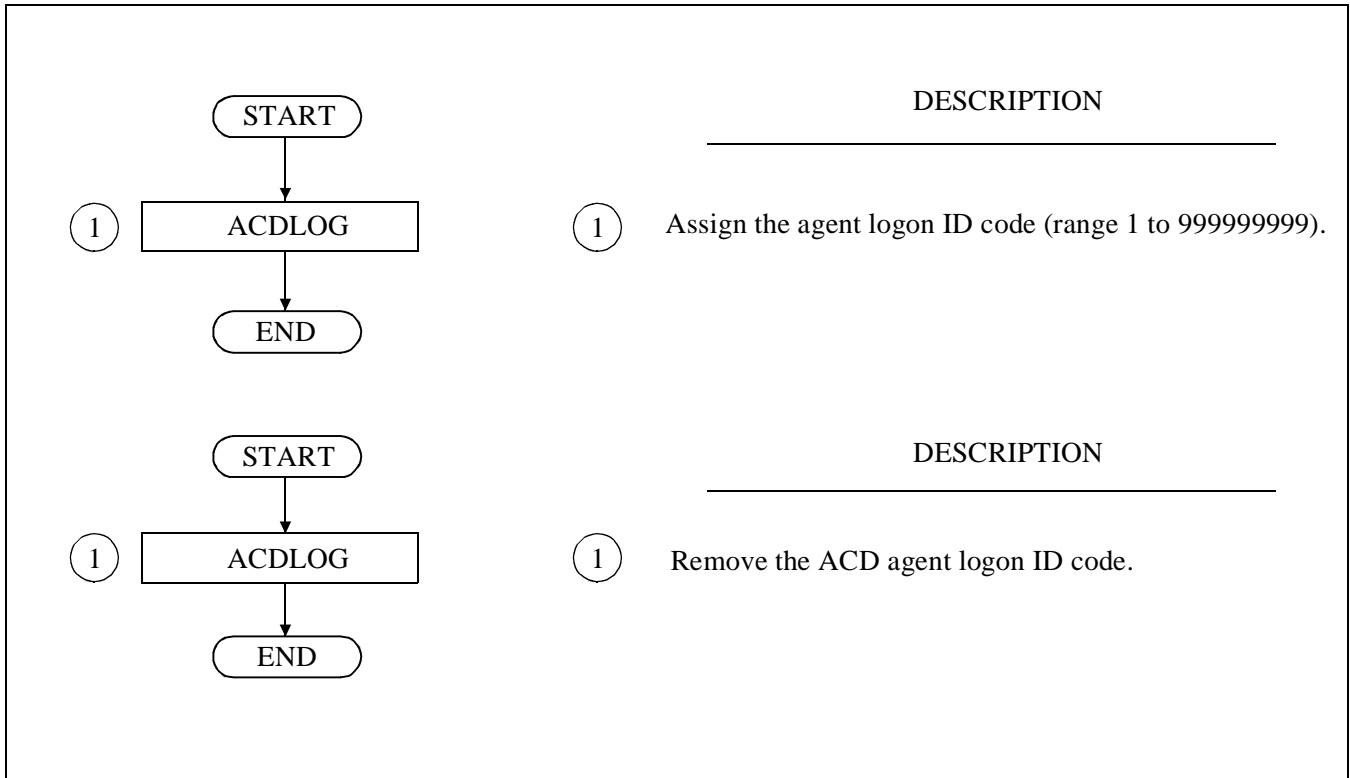


Figure 7-3 Assigning and Removing ACD Agent Logon ID Code

ACDPSN: Assignment of ACD Position Data

1. Function

This command is used to assign, list, print, and remove ACD position data. Each position is identified by the tenant it belongs to, the number of its ACD line and the PBX line it may have, and what split(s) the position belongs to.

Position Data

Tenant Number:

Position Number:

Line Numbers

ACD:

PBX:

Split Assignment:

Any Split

Allow Supervisor Tally-Ohs

Analog Agent Position

Remove Position?

2. Precautions

1. The terms supervisor and agent are used as a convention but are not differentiated by the ACD.
2. Any position may have a NIGHT key.
3. Removing positions removes them as ACD agents or supervisors. Positions still function as PBX lines unless removed using ASDT (see NEAX2400 IMX Office Data Specifications).
4. If changing the Tenant Number, My Line number, or ACD line number with the ASDT/ASTN commands (PBX), the position must first be deleted using the ACDPSN command before changes using the ASDT/ASTN commands may be made. See the procedure below:
 - STEP 1: Delete the ACDPSN data of ACD agent/supervisory position.
 - STEP 2: Change the number using ASDT or ALGSL/ALGSN
 - STEP 3: Assign the changed number and other data in the ACDPSN data.
5. See [Section 2.3.1, "System Capacity"](#) in [Chapter 2](#) for maximum number of ACD positions per ACD in the IMX System.
6. If an invalid PBX or ACD line number is programmed in ACDPSN, it may cause erroneous CW lamp problems.
7. There should only be two lines on an ACD position (the My line and the ACD line). If other lines are programmed on an ACD position, the MIS status may be incorrect.
8. Do not allow Call Pickup to ACD lines (may cause incorrect MIS status).

9. One of the following conditions must be met before using this command.
- ACD line number and PBX line number are assigned using the ASDT command
 - ACD line number and PBX line number are assigned using the ALGSL command
 - ACD line number and PBX line number are assigned using the ALGSN command
10. The relationship between ACDLOG and ACDPSN is shown in [Table 7-5](#).

Table 7-5 Programming Considerations

		LOGON TO A SPECIFIC SPLIT		LOGON TO MULTIPLE SPLITS	
ACDLOG \ ACDPSN	MULTI-SPLIT=NO (Single logon) Max. 16 split is programmed in ACDLOG	MULTI-SPLIT=NO (Single logon) Any is programmed in ACDLOG	MULTI-SPLIT=YES (Multi logon) Max. 16 split is programmed in ACDLOG	MULTI-SPLIT=YES (Multi logon) Any is programmed in ACDLOG	
	SPLITS (SPECIFIED)	If Logon ID list contains the Specified Split in ACDPSN, the Agent <u>will be ALLOWED</u> to Logon to the system.	The Specified Split in ACDPSN <u>will be ALLOWED</u> to Logon to the system.	If one of the splits on the list is allowed by ACDPSN, <u>ALL SPLITS ARE SERVICED</u> .	Not valid, <u>WILL NOT ALLOW LOGON</u> to the system.
SPLIT (ANY SPLITS)	System prompts for a Split, from ACDLOG. <u>Agent must select one Split from the list.</u>	Not valid, <u>WILL NOT ALLOW LOGON</u> to the system.	<u>Will Allow Logon to the Splits allowed in ACDLOG.</u>	Not valid, <u>WILL NOT ALLOW LOGON</u> to the system.	

3. Parameters

- TENANT NUMBER: Tenant Number (1 to 10)
 POSITION NUMBER: Number of PBX Line (My Line)
 ACD NUMBER: Number of ACD Line [Virtual Line (maximum of five digits)]
 SPLIT ASSIGNMENT: Any or specified specific split
 Split Number (1 ~ 250)
 (only used if SPLC=1)
 ALLOW SUPERVISOR TALLY-OHS: Allow/Do Not Allow
 ANALOG AGENT POSITION: No/Yes

Note: *The List up program will scan both My-Line and ACD line positions within the range designated in the List up command.*

4. Assignment and Deletion Procedure

These flow diagrams show the procedure used to assign and delete ACD Agent Position data.

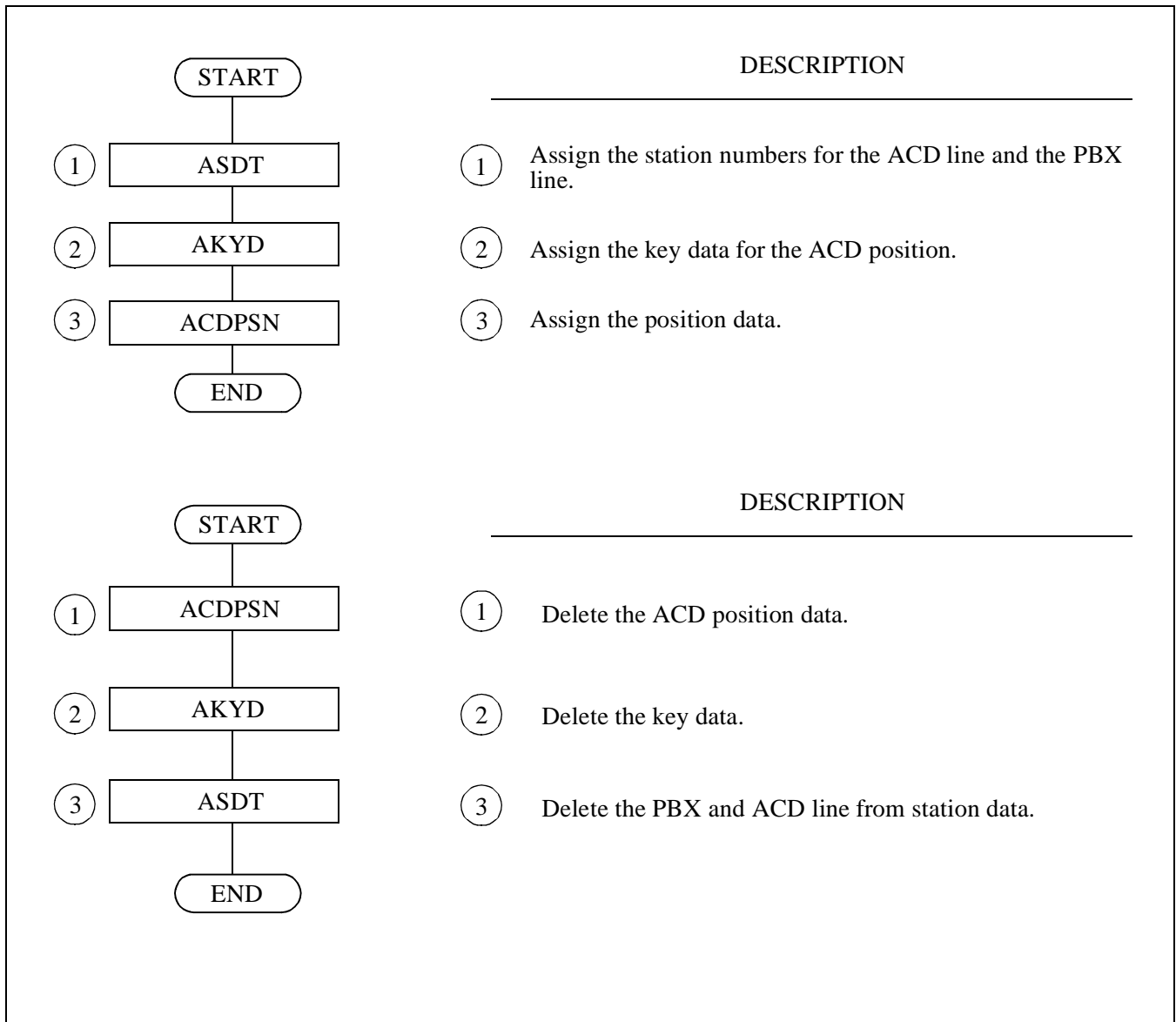


Figure 7-4 Assigning and Removing ACD Position Data

ACDCCV: Assignment of ACD CCV Data

1. Function

This command is used to assign, list, print, and remove Call Control Vectors. A Call Control Vector is a list of procedural instructions (or steps) for handling incoming ACD calls. The instructions defined by the Call Control Vector are sentence-based and can be combined to form many different sequences. Call Control Vectors provide the following functions for the ACD:

- Queue a call to a particular split.
- Pause for “n” seconds before continuing call processing.
- Announcement made during call processing (PBX and IVR).
- Hang up during call processing.
- Transfer to a particular directory number.
- Set a new priority or increase or decrease a call’s priority (new priority).
- Conditionally queue an incoming call to a particular split.
- Remove a call from a split’s queue (dequeuing).
- Queue to another split if the queue depth is full.
- Goto another CCV index step.
- Change priority of call at given point in the CCV.
- Skip a percentage of the calls going to the next step in the CCV.
- Conditionally perform next CCV instruction based on Estimated Time to Answer (ETA) of a call.
- Conditionally perform next CCV instruction based on ETA of a call in another split.*
- Individual IVR port number.*
- Delay the time for ringing start.*

* Available since the PBX software Series 7400 and the ACD software R3.

ACDCCV: ASSIGNMENT OF ACD CCV DATA

Call Control Vectors

Tenant Number: CCV Index:

Call Control Vectors:

	CCV Action	Argument
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Transfer Numbers

(1)

(2)

(3)

(4)

(5)

(6)

(7)

(8)

(9)

(10)

Remove Logon?

Remove

List

Close

2. Precautions

1. GOTO steps should be used with caution to avoid programming an infinite loop.
2. When a call rings at an Agent's position, the call will not continue through the CCV steps because the call is considered complete.
3. Maximum number of splits which an incoming ACD call can be queued to (accomplished by any combination of QUEUE TO and COND. QUEUE steps) is four/sixteen (before/after the PBX software Series 7400 and ACD software R3).
4. A CCV can be used to define how an incoming call is handled at any time by programming the ACD Week Schedule (ACDWS) and/or the ACD Holiday Schedule (ACDHS) commands.
5. It is recommended that the PAUSE step be programmed after an ANNOUNCEMENT step, and that PAUSE be programmed at least as long as ANNOUNCEMENT.
6. The same CCV number cannot be assigned to multiple ACD tenant numbers.
7. The call is controlled by the CCV by programming multiple PAUSE steps. However, the total time of multiple PAUSE steps should not exceed 999 seconds in a CCV.

CAUTION

Changing a CCV while calls are in progress creates unpredictable results. CCV changes should be made during low traffic periods. Alternatively, a new CCV can be created first and the pilot number can be changed to route to the new CCV.

3. Parameters

ACDCCV

TENANT NUMBER: 1 ~ 10

CCV INDEX: 1 ~ 900

CCV STEP: 1 ~ 20

CCV ACTION: See [Table 7-6](#).

ARGUMENT: See [Table 7-6](#).

TRANSFER NUMBER: Each represents a PBX number with a maximum of 22 digits.

Table 7-6 CCV Parameters

ACTION		ARGUMENT	Remarks
0	Blank	–	Vacant for future use
1	Pause	1-999 sec.	Waiting time before the next step
2	Announcement	Announce No. (1-58)	Delay Announcement/Announcement service in Night mode/Announcement service on holidays, etc.
3	GoTo CCV	CCV INDEX and STEP	For repeated use
4	Hang up	–	Forced to release
5	Transfer to PBX	Transfer Index Number (1 ~ 10)	Ex. Dialed number of destination station in the night mode
6	New Priority	Queue number (1-250)	Change the calls Priority
7			
8	Conditional Queue	Split number (1-250)	Split number of destination Note 1
9	Dequeue From	Split number (1-250)	Dequeued from the originally called split Note 2
10	Queue to Split	Split number (1-250)	Will connect if Agent is available
11	End CCV	–	CCV is finished
12	If Not Queued	CCV Index and Step Number or Busy	When split queue is full, jump to the designate CCV no. or 0=Busy
13	Skip	Percent to skip (1-99)	The next step is skipped at the rate of designated percentage
14	IVR announcement	Announcement No. (1-99)	IVR announcement
15	ETA less	ETA threshold value (1-9999)	When ETA value is less than the predetermined threshold value, shift to the next step
16	ETA greater	ETA threshold value (1-9999)	When ETA value is over the predetermined threshold value, shift to the next step
17	Ring Delay	Delayed time to ringing (0-15 sec.)	See “RING DELAY [R-145]”.

Table 7-6 CCV Parameters

ACTION		ARGUMENT	Remarks
18	Tally Short	Tally No. Up to four digits	This step will sendTally to MIS.
19	Tally Long	Tally No. Up to eight digit	This step will sendTally to MIS.
20	IVRDN	IVR Access number (maximum. 5 digits)	* <i>This step must be assigned before IVR announcement.</i>
21	Split ETA less	“SPLIT” [Split number for ETA call processing (1 ~ 127)] and “ETA” [ETA threshold value in a specified split (1 ~ 511)] to be programmed Split ETA less)	When ETA value is less than the predetermined threshold value and in the predetermined split, shift to the next step.
22	Split ETA greater	“SPLIT” [Split number for ETA call processing (1 ~ 127)] and “ETA” [ETA threshold value in a specified split (1 ~ 511)] to be programmed Split ETA greater)	When ETA value is greater than the predetermined threshold value and in the predetermined split, shift to the next step.
23	Up Priority	A variable number	Increase the Calls Priority by this amount.

Note 1: For details of each parameter’s meaning, see *Call Control Vector - ACD [C-108A]* in Chapter 5.

Note 2: Valid for Overflow service.

4. Assignment and Deletion Procedure

These flow diagrams show the procedure used to assign and delete Call Control Vectors.

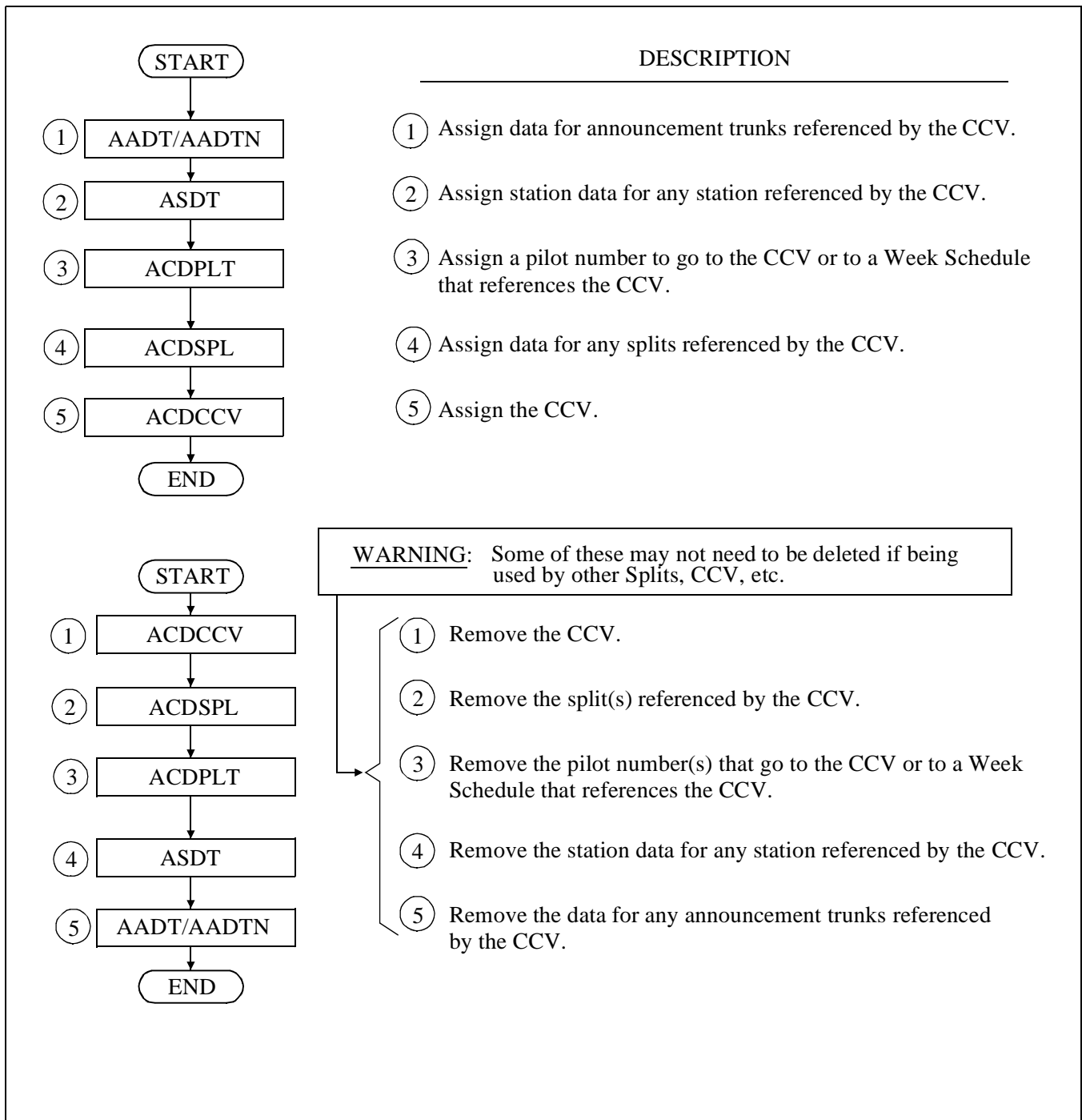


Figure 7-5 Assigning and Removing Call Control Vectors

ACDPLT: Assignment of ACD Monitor Number

1. Function

This command is used to assign, list, print, and remove ACD pilot data. This consists of a pilot number that designates the pilot to which ACD calls are routed and the Call Control Vector call processing path to be taken. Internal and Transfer Priorities can be designated as well as an optional pilot name.

Pilot Data

Pilot

Tenant Number: 1 ACD FPC40 Pilot Num: 4399 Name:

Route to Method: Call Control Vector Index: 1 Step: 1

Alternate Night CCV Index: 0 Step: 0

Priority Internal: 15 Trunk: 15 Transfer: 15

Remove Pilot?

Remove

List

Close

2. Precautions

1. A Call Control Vector is a list of instructions describing the procedure to be used in handling an individual call. Call processing steps are determined by the pilot number. Pilot numbers associate the call processing procedure with a Call ControlVector. Additional information about CCV programming can be found under ACDCCV.
2. Pilot numbers should be assigned as monitored numbers (see AMNO or AMNON in this chapter).
3. Different pilot numbers can route to the same CCV or Week Schedule and use different priorities.
4. If an invalid pilot number is assigned, it may cause the Call Recover feature not to work.
5. For a maximum number of pilots in a ACD system, see [Section 2.3.1, "System Capacity"](#) in [Chapter 2](#).

Note 1: *Pilot Number is the same number programmed in AMNO or AMNON.*

Note 2: *Personal Pilot Numbers are not programmed in ADCPLT.*

3. Parameters

- TENANT NUMBER: Tenant Number (1 to 10)
- PILOT NUMBER: The number used for the pilot in ACD call routing
- NAME: Pilot Name, up to 20 characters.
- ROUTE TO: Week Schedule (1-10)
- ROUTE TO: CCV index number (1-900)
- ROUTE TO: CCV step number (1-20)
- ALTERNATE NIGHT CCV: Night CCV Index and Step Number
- PRIORITY
 - TRUNK: Priority at which ACD trunk calls are queued (1 to 250).
 - INTERNAL: Priority with which internal calls are queued (1 to 250).
 - TRANSFERRED: Priority at which transferred calls are queued (1 to 250).

4. Assignment and Deletion Procedure

These flow diagrams show the procedure used to assign and delete ACD pilot data.

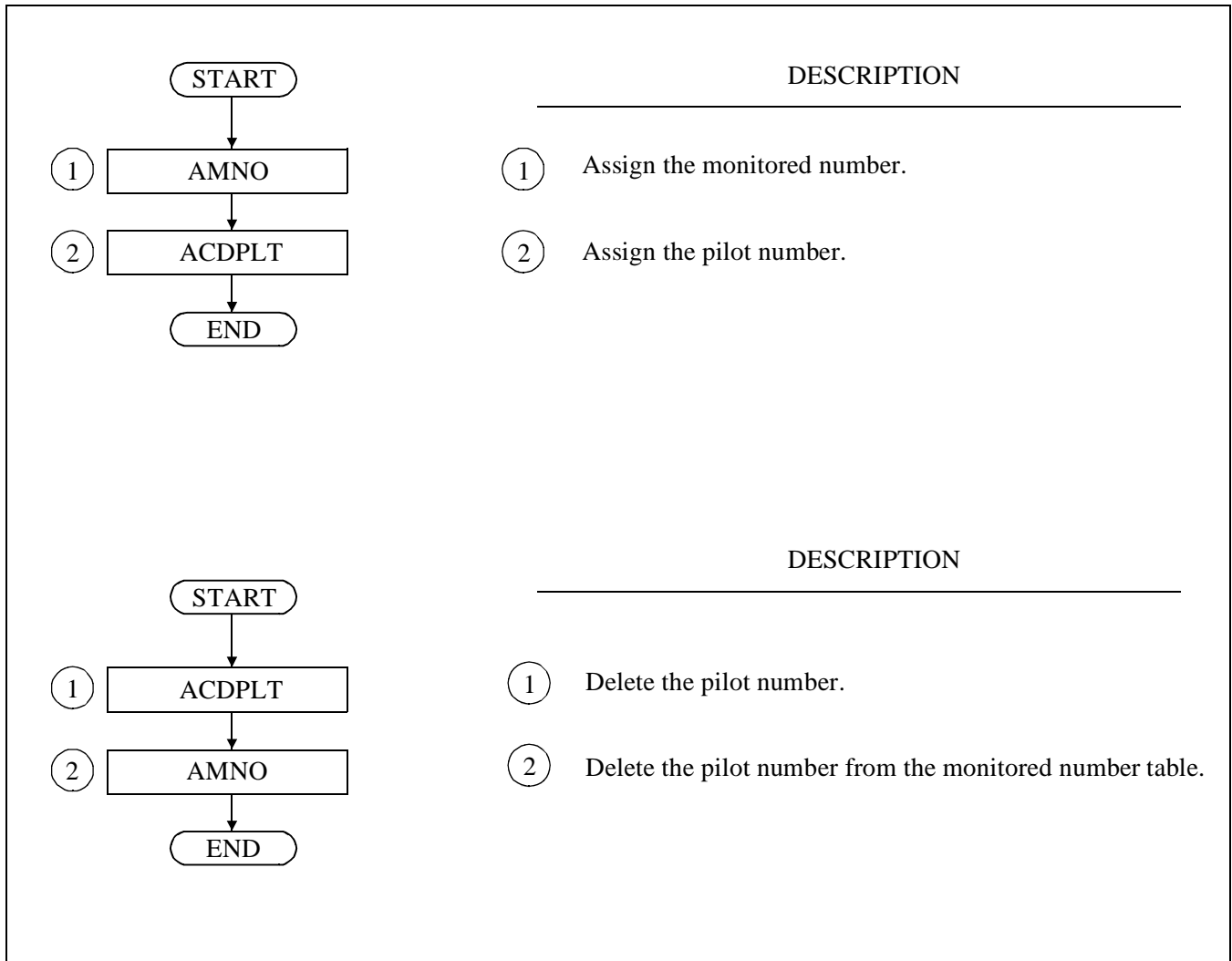


Figure 7-6 Assigning and Removing ACD Pilot Data

ACDTG: Assignment of ACD Trunk Group Data

1. Function

This command is used to assign, list, print, and remove ACD trunk group data. This data includes queue priority, circuit quantity, and an optional trunk group name.

Tr Trunk Group Data

Trunk Group

Tenant Number: Trunk Group:

Name Priority:

<
1 - 70
>

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70

New Trunk Group

2. Precautions

1. If ACD circuits are not assigned, they will not report to the MIS.
2. Queue Priority for ACD trunk is programmed in ACDTG.

3. Parameters

TENANT NUMBER: Tenant Number (1 ~ 10) 0: indicates all tenants
 TRUNK GROUP: Trunk Group Number (Rt. Number) (1 to 254)
 NAME: Trunk Group (Rt.) Name (optional, up to 20 characters).
 Only 12 will show on ACD position.
 PRIORITY: Priority (1 to 250)
 TRK: Trunk Numbers (1 ~ 255)

4. Assignment and Deletion Procedure

These flow diagrams show the procedure used to assign and delete ACD trunk group data.

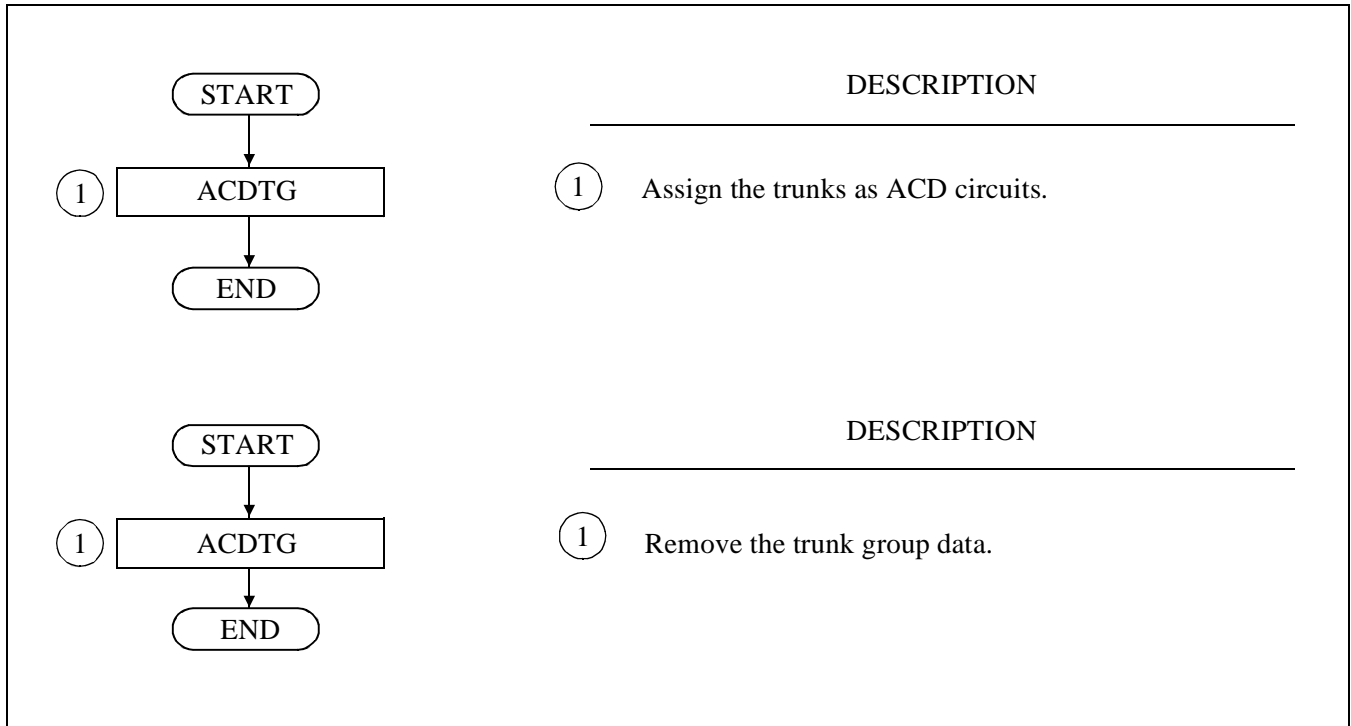


Figure 7-7 Assigning and Removing ACD Trunk Group Data

ACDANA: Assignment of ACD Analog Split Access Code

1. Function

This command is used to assign, list, print, and remove ACD Analog Agent access code data. These access codes enable agents using analog phones to perform many ACD features including logging on (with or without an ID), logging off, going into Ready, Work, and Break modes, entering tally codes, and reporting trunk troubles.

2. Precautions

Analog access codes must be set up on the PBX as monitored numbers (see AMNO or AMNON in this manual).

3. Parameters

- ACCESS CODE:** The dialed digit pattern used to invoke an ACD function.
- FEATURE:** The ACD feature which this access code will provide. (1-13)
 Logon With ID
 Logon Without ID
 Logoff
 Ready Mode
 Work Mode
 Break Mode
 Tally Code
 Trunk Trouble
 Day Mode Single
 Day Mode All
 Night Mode Single
 Night Mode All
 Permanent Work
- LOGIN ID:** The logon ID associated with an analog access code (only used for LOGON WITH ID).
- TALLY CODE:** The tally code associated with an analog access code (only used for TALLY CODE).
- BREAK TYPE:** The break type associated with an analog access code (only used for BREAK MODE).

ACDANA: ASSIGNMENT OF ACD ANALOG SPLIT ACCESS CODE

ANNOUNCEMENT

- SUCCESS:** Success Announcement or Tone
0 = Service Set Tone*
1~58 = Announcement No. programmed in AADT. An agent will be connected to the announcement upon successful operation.
- FAILURE:** Failure Announcement or Tone
0 = Reorder Tone*
1~58 = Announcement No. programmed in AADT. An agent will be connected to the announcement upon failed operation.

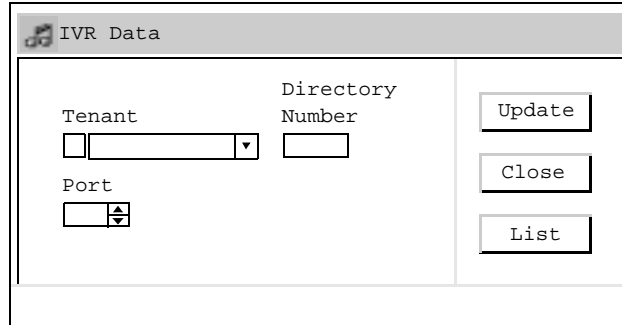
Note: *Valid since PBX software Series 7400 and ACD software R3.*

Note: ** or # are not available for access codes.*

ACDIVR: Assignment of ACD IVR Data

1. Function

This command is used to assign, list, print, and remove ACD Interactive Voice Response Unit (IVR) data. This command sets up IVR ports which will be used to play customized announcements or obtain dialed digit information from callers.



The screenshot shows a window titled "IVR Data" with a small icon on the left. The window contains three input fields: "Tenant" (a dropdown menu), "Directory Number" (a text box), and "Port" (a dropdown menu). To the right of these fields are three buttons: "Update", "Close", and "List".

2. Precautions

IVR should be set up on the PBX as members of a UCD hunt group whose pilot number is the same as the IVR pilot number field of ACD tenant data (see ACDTN).

3. Parameters

TENANT: Tenant number (1 to 10)
DIRECTORY NUMBER: The PBX directory number used to access an IVR port.
PORT: The IVR port number associated with this directory number. (1-255)

ACDHS: Assignment of ACD Holiday Schedule

1. Function

This command is used to assign, list, print, and remove the CCVs for holiday schedules. Up to three different holiday schedules per tenant can be programmed for handling incoming calls. When a holiday is designated through the ACDHC command, calls are processed according to one of the three schedules for that day. This only applies to Pilot Numbers that use time-of-week scheduling.

Holiday Schedules

Tenant Number: 1 | ACD FPC40

Schedule: 1

Start Time	CCV Index	CCV Step
00:00	0	0
00:00	0	0
00:00	0	0
00:00	0	0
00:00	0	0
00:00	0	0
00:00	0	0
00:00	0	0

Buttons: Update, List, Close

New Holiday Schedule

2. Precautions

Holiday schedules are only valid for pilot numbers using week schedule route.

3. Parameters

TENANT NUMBER: Tenant Number (1 to 10)
 SCHEDULE: Schedule Number (1 to 3)
 START TIME
 HOUR: CCV start hour (0-23)
 MINUTE: CCV start minute (0-59)
 CCV INDEX: CCV index (1 to 900)
 CCV STEP: CCV step (1 to 20)

4. Assignment and Deletion Procedure

These flow diagrams show the procedure used to assign and delete ACD Holiday Schedule data.

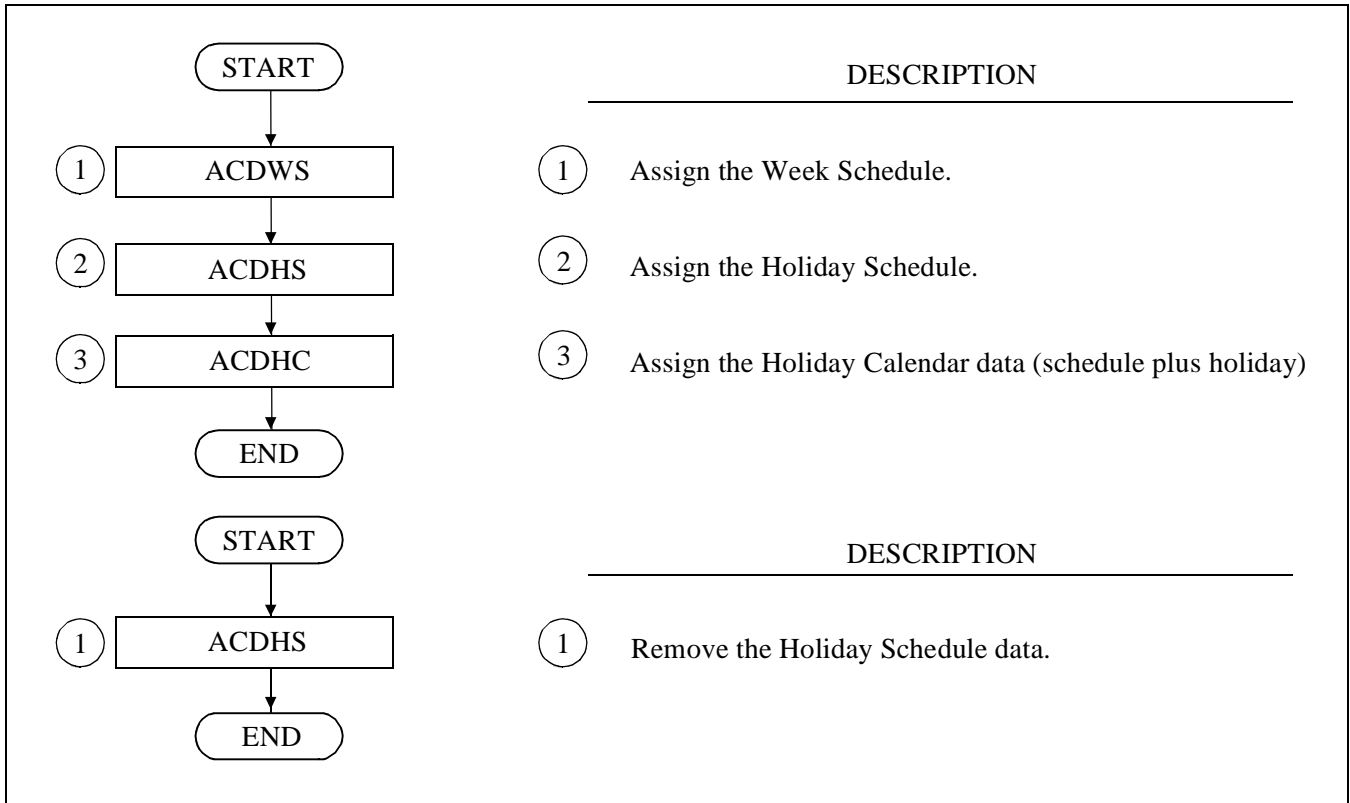


Figure 7-8 Assigning and Removing Holiday Schedule Information

ACDHS: ASSIGNMENT OF ACD HOLIDAY SCHEDULE

ACD Tenant (TN) 1 ~ 10				
Schedule Number 1 ~ 3	CCV Start time		CCV Index 1 ~ 900	CCV Step 1 ~ 20
	(HOUR) 0 ~ 23	(MINUTE) 0 ~ 59		
1				
	2			
3				

ACDHC: Assignment of ACD Holiday Calendar

1. Function

This command is used to assign, list, print, and remove Holiday Calendar information. The ACDHC command specifies days that calls are processed differently than on normal workdays (provided a Holiday Schedule is programmed). A Holiday Schedule only applies to pilot numbers that are using a Week Schedule (ACDPLT). Holiday information includes a month and day entry and a number that refers to the Holiday Schedule to be used on that day. An unlimited number of days may be scheduled as holidays, and up to three different holiday schedules per tenant can be programmed. Holidays can be programmed up to one calendar year in advance.

Holiday Schedules

Tenant Number

Schedule

<
January 2000
>

Sun	Mon	Tue	Wed	Thu	Fri	Sat
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

Remove Holiday Calendar?

2. Precautions

1. Holidays can be entered for any day of the year.
2. A separate Holiday Calendar is available for each tenant.

3. Parameters

TENANT NUMBER: Tenant Number (1-10)
 MONTH: Month (1-12)
 DAY: Day (1-31)
 SCHEDULE: Schedule Number (1-3)

4. Assignment and Deletion Procedure

These flow diagrams show the procedure used to assign and delete ACD Holiday Calendar data.

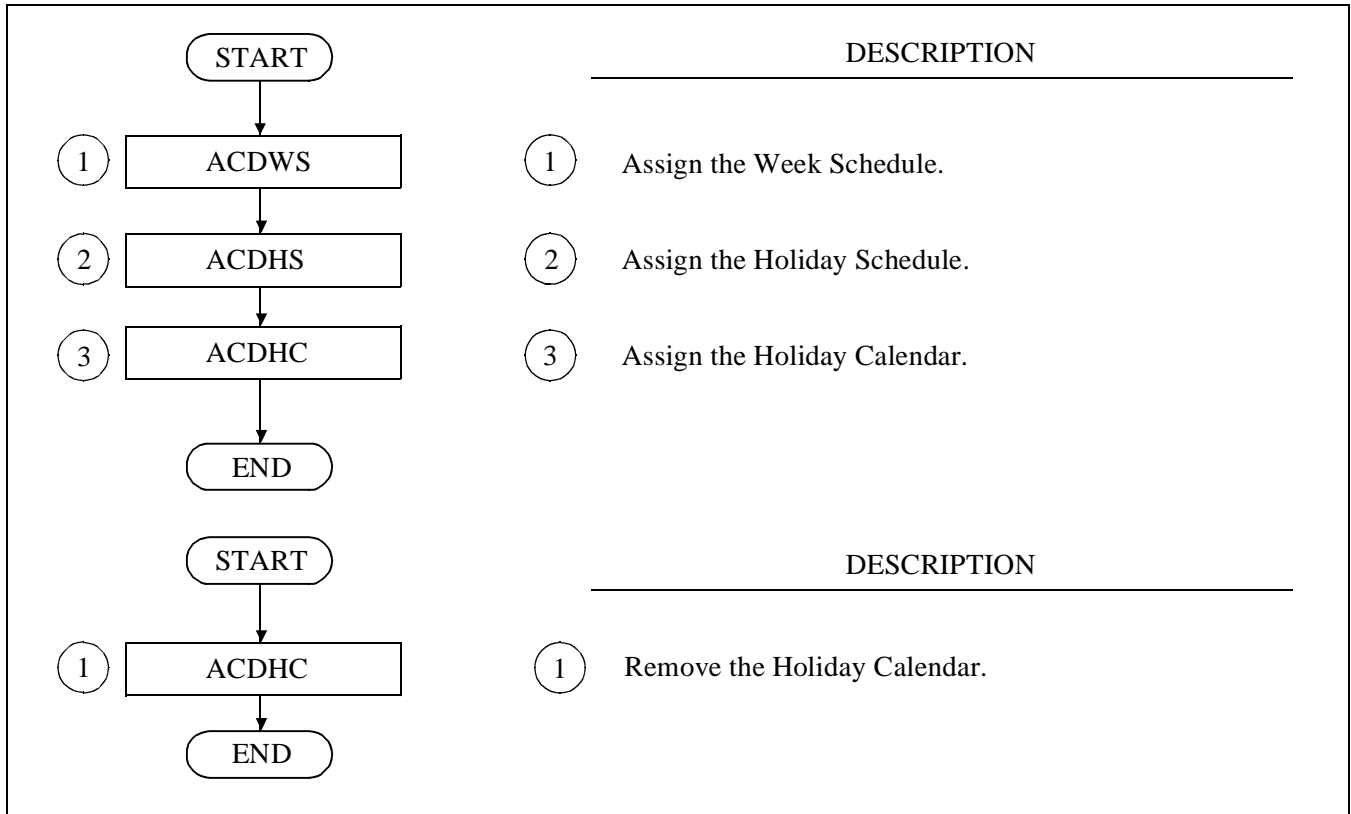


Figure 7-9 Assigning and Removing Holiday Calendar Information

ACD Holiday Calendar Data Programming Sheet

ACD Tenant (TN) 1 ~ 10	Month and Day		Schedule 1 ~ 3
	(MONTH) 1 ~ 12	DAY	
		1	
		2	
		3	
		4	
		5	
		6	
		7	
		8	
		9	
		10	
		11	
		12	
		13	
		14	
		15	
		16	
		17	
		18	
		19	
		20	
		21	
		22	
		23	
		24	
		25	
		26	
		27	
		28	
		29	
		30	
		31	

ACDWS: Assignment of ACD Week Schedule

1. Function

This command is used to assign, list, print and remove week schedule data. The ACDWS command is used to program the CCV by which all incoming calls are handled on a 24-hour basis.

	Day	Time	CCV Index	CCV Step
1	- -	00.00	0	0
2	- -	00.00	0	0
3	- -	00.00	0	0
4	- -	00.00	0	0
5	- -	00.00	0	0
6	- -	00.00	0	0
7	- -	00.00	0	0
8	- -	00.00	0	0
9	- -	00.00	0	0
10	- -	00.00	0	0

2. Precautions

1. CCVs should be assigned prior to use in week schedules.
2. For allowed number of entry for Week Schedule, see [Table 2-1](#) in [Chapter 2](#).
3. The same Schedule Number (SCH) can not be assigned to multiple tenant numbers.

3. Parameters

TENANT NUMBER: Tenant Number (1 to 10)
 SCHEDULE: Schedule Number (1 to 250)
 DAY: Sun, Mon, Tue, Wed, Thu, Fri, Sat
 HOUR: CCV start time: hour (0-23)
 MINUTE: CCV start time: minute (0-59)
 CCV INDEX: CCV index (1 to 900)
 CCV STEP: CCV step (1 to 20)

4. Assignment and Deletion Procedure

These flow diagrams show the procedure used to assign and delete Week Schedule data.

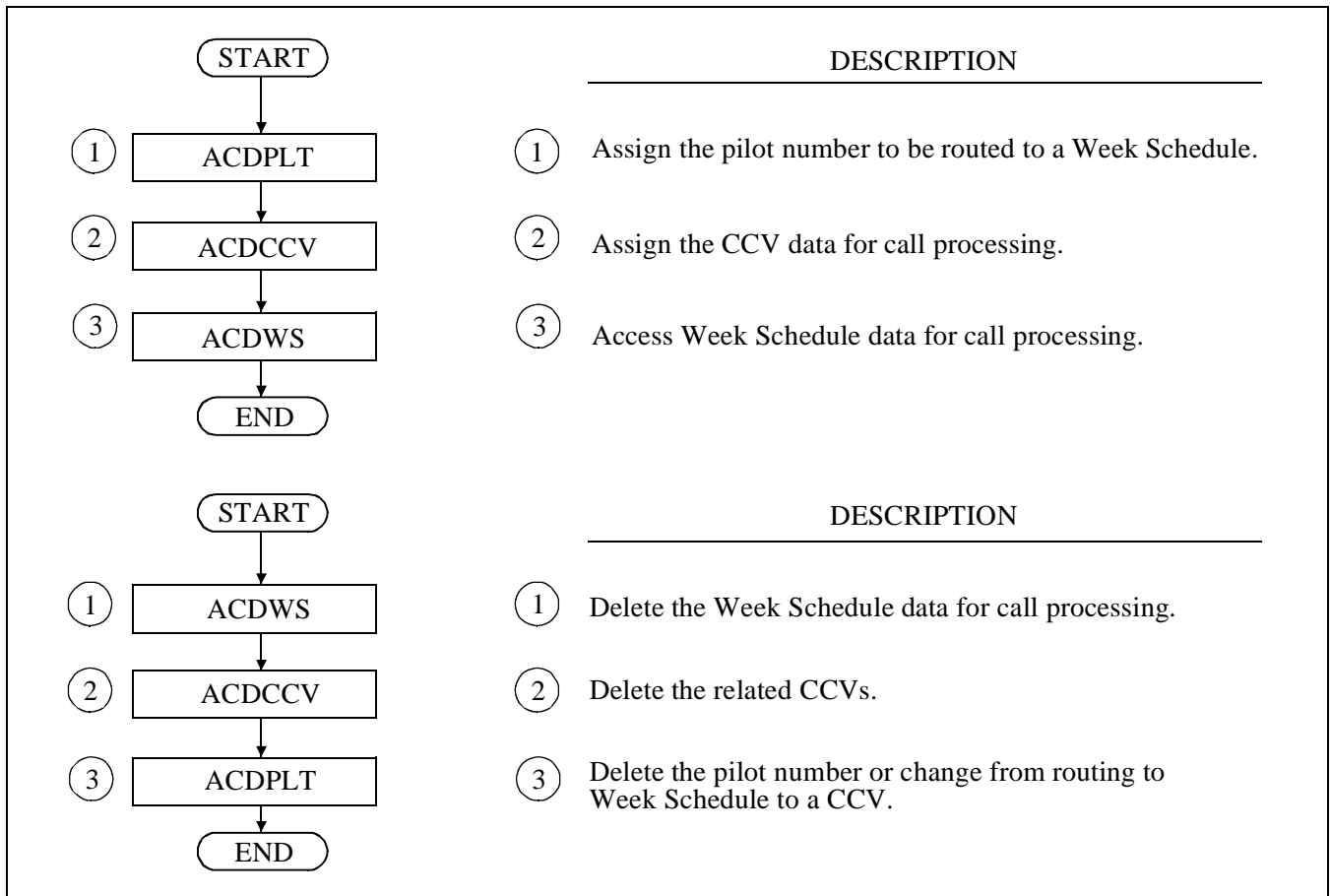


Figure 7-10 Assigning and Removing Week Schedule Information

ACDWS: ASSIGNMENT OF ACD WEEK SCHEDULE

ACD Week Schedule Data Programming Sheet

Tenant Number (TN) 1 ~ 10						
Schedule Number (SCH) 1 ~ 10						
Day of week (WEEK)	Monday (MON)					
	Tuesday (TUE)					
	Wednesday (WED)					
	Thursday (THU)					
	Friday (FRI)					
	Saturday (SAT)					
	Sunday (SUN)					
CCV start time (TIME)						
CCV index 1 ~ 900						
CCV step 1 ~ 20						

ACDCOM: ACD Communications Data

1. Function

This command is used to set up the I/O ports that are to be used for the Management Information Service(s) (MIS) and for Infolink.

The screenshot shows the 'Communication Data' dialog box. It features a title bar 'Communication Data' and a status bar 'Update Communication?'. The main area is divided into three sections:

- I/O Ports:** A table with 6 rows. Each row has a 'Type' dropdown menu and a 'Speed' spinner control.
- Trace Parameters:** Contains checkboxes for 'Call Processing' and 'MIS Errors'.
- Trace Destination:** Contains radio buttons for 'Buffer' (selected) and 'I/O Port', and a dropdown menu.

At the bottom right, there are three buttons: 'Update', 'Close', and 'List'. At the bottom left, there is a 'Clock Adjustment' text box.

2. Parameters

I/O Ports: 1 to 6
 I/O Type: MIS-1, MIS-2, MIS-3, MIS-4, MIS-5, Infolink, and OFF
 I/O Speed: 4-64 ms (standard assignment = 64)

Trace Parameters:

Call Processing: On/Off
 MIS Errors: On/Off
 X409 Messages: On/Off

(Normally set to "OFF")

Trace Destination: I/O Port Number (1 to 6) / Buffer (Normally set to "Buffer")

Clock Adjustment: 1 to 9999 (default 1049)

3. Programming

The type of MIS will determine how the I/O ports are programmed.

- MIS-1: not supported
- MIS-2: Navigator and Abacus MIS
- MIS-3 ~ MIS-5: reserved for future use
- Infolink: for Infolink clients (ACD Release 3 and above)

SYSTEM INFORMATION

System Information

This screen sets the parameters for optimal functioning of the ACD in the IMX System. From the System Data screen, User Settings, Tenant Settings and Time Out Settings are established. Using the system defaults for User and Time Out Settings is highly recommended.

User Settings

1. Function

This command maintains the ACD's system data for User Data. This data provides the ability to customize the ACD for some specific features including Infolink and MIS message generation, debugging tools, and phone set operation.

Note: *Using the system defaults for User Settings is highly recommended. Information on this screen should only be modified at the direction of a NEC Technical Support Associate.*

System Data

User Settings | Tenant Settings | Time Out Settings

CCV Tally DN:

Send AO (MIS) Msg:

Display 'ANI NONE':

Queue High Priority:

Display IVR Header:

ETA Includes Excess Work:

Infolink with Call ID:

Call Timeout Audit:

Orig Detail Codes:

Trim CP Trace Space:

Large CP Trace Buffer:

Dash

Min Len:

Index 1:

Index 2:

Index 3:

Index 4:

Index 5:

Incoming Cell Msg:

Outbound Cell Disp:

Reclaim IVR Call to:

Work Key Press:

MIS Split Capacity:

User Infolink Split Information:

Update

List

Close

Update System Data?

2. Parameters

CCV Tally DN:	1-5 digits
Send AO (MIS) Msg:	Yes/No
Display 'ANI NONE':	Yes/No
Queue High Priority:	Yes/No
Display IVR Header:	Yes/No
ETA Includes Excess Work:	Yes/No
Infolink with Call ID:	On/Off (Default = Off)
Time Out Audit:	Yes/No

Orig Detail Codes: Yes/No (Default = No)
 Trim CP Trace Space: Yes/No (Default = No)
 Large CP Trace Buffer: Yes/No (Default = Off)

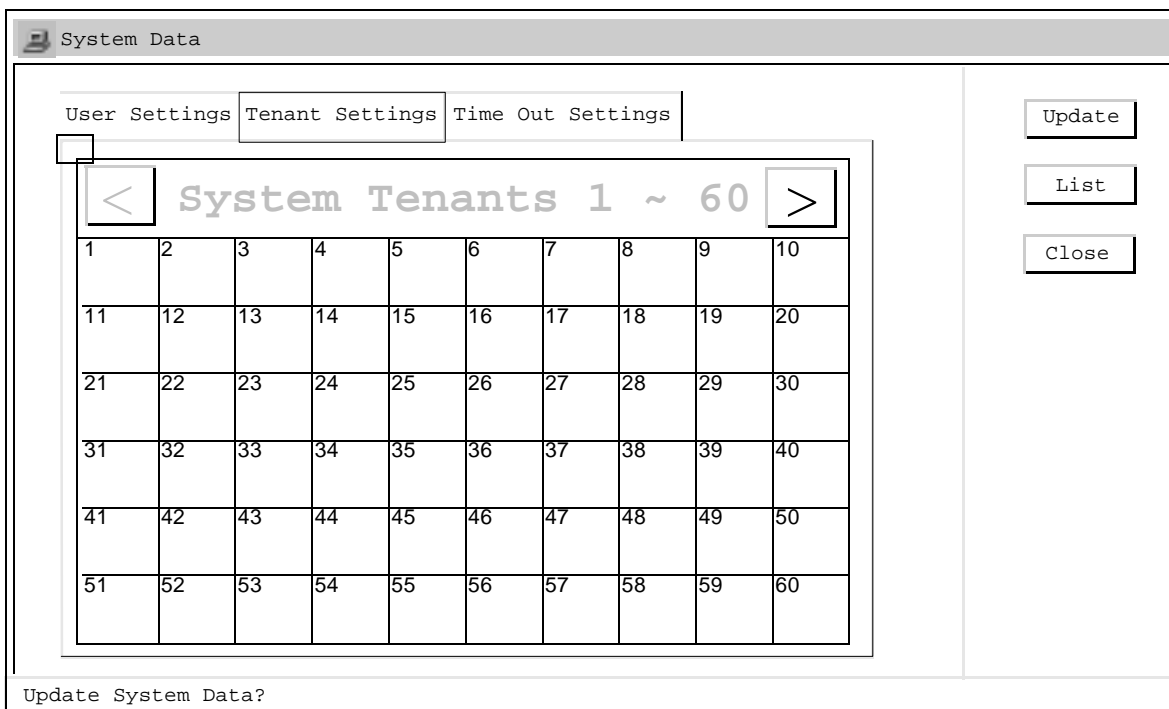
Dash
 Min Len: 1 to 16 (Default = 7)
 Index 1 ~ 5: 0 to 11

Incoming Call Msg: IQ or Iq
 Outbound Call Disp: IZ or Iz
 Reclaim IVR Call to: Music/Ring Back
 Work Key Press: Ready Mode/Disable Timer
 MIS Split Capacity: 4/16 (Default = 4)
 Use Infolink Split Information: No/Yes

Tenant Settings

1. Function

This command maintains the ACD's system data tenant table. If the system is required to accept calls from trunks/stations beyond the ACDTN range (1-10), this command allows the user to program these tenants. Note that if this table is used, all tenants from which ACD calls might originate (including tenants 1-10) must be programmed. As all ACD entities (splits, positions, etc.) must still reside in tenants 1-10, ACDTN must still be programmed to provide the necessary tenant information.



2. Parameters

System Tenants: Highlight the number of the tenant to be updated, and select the Update option.

SYSTEM INFORMATION

Time Out Settings

1. Function

This command maintains the ACD's system data for time out information. It allows custom programming of some timers used by the ACD. This data is critical to the operation of the ACD and should be modified with extreme caution.

Note: *Using the system defaults for Time Out Settings is highly recommended. Information on this screen should only be modified at the direction of a NEC Technical Support Associate.*

The screenshot shows a software interface titled 'System Data' with three tabs: 'User Settings', 'Tenant Settings', and 'Time Out Settings'. The 'Time Out Settings' tab is active. It contains the following settings:

Agent Busy Loop Time:	10	Emergency Retry Time:	5
IVR Reclaim Retry Time:	5	Call Complete Delay:	7
IVR Maximum Ring Time:	20		
Wait Time			
Announcement:	4	Force Release:	7
Called Release:	7	Monitor:	10
Call Complete:	7	OAI Release:	7
Call Monitor 1:	4	IVR Reclaim Call:	7
Call Monitor 2:	7	Call Recover:	7
Connect Call:	7	Status Check:	7
Connect Error Audit:	10		

On the right side of the window, there are three buttons: 'Update', 'List', and 'Close'. At the bottom of the window, a dialog box asks 'Update System Data?'.

Agent Busy Loop Time:	5 to 15
IVR Reclaim Retry Time:	3 to 10
IVR Maximum Ring Time:	5 to 40
Emergency Retry Time:	3 to 10
Call Complete Delay:	3 to 15

Wait Time

Announcement:	2 to 10
Called Release:	3 to 15
Call Complete:	3 to 15
Call Monitor:	2 to 10
Call Monitor 1:	3 to 15
Call Monitor 2:	3 to 15
Connect Call:	3 to 15
Connect Error Audit:	5 to 15
Force Release:	3 to 15

Monitor:	5 to 15
OAI Release:	3 to 15
IVR Reclaim Call:	3 to 15
Call Recover:	3 to 15
Status Check:	3 to 15

ACD BACKUP

ACD Backup

1. Function

This function provides the ability to save/restore the entire ACD database. The ACD database should be backed up frequently.

2. For External ACD

To back up the External ACD, use the Database Backup/Restore screen accessed using the ACD MAT Screen.

Comparison	DATE	TIME	VERSION	SWITCH NAME
File				
ACD				

Note: This screen is used for External ACD only. For Internal ACD, use the IMX MEM_HDD screen.

Parameters

Disk Drive: A to F. Normally the A drive is used for ACDBU.

Extension: File Extension (Normally LMF)

Comment: Comment (optional); 60 character maximum

Programming

None

When saving the ACD database using a floppy drive (A to F), the diskette must be previously formatted.

3. For Internal ACD

To back up the Internal ACD, use the MEM_HDD screen accessed from the IMX folder.

MEM_HDD Houseswitch

File View Help

MEM_HDD (Data control between Memory and HDD)

Direction Select

- Memory to Hard Disk
- Hard Disk to Memory
- Verify HDD against MEM
- Auto Verify Afterward

Data Type Select

- Data Memory
- Name Display
- Wireless Call Forwarding
- Call Forwarding
LP Select
- Speed Calling
LP Select
- User Assign Key
LP Select
- Number Sharing
LP Select
- ACD Data Memory
- Call Back
LP Select

Start

Close

Processing Status Log

Action / Information	Direction	Data Type
INIT SESSION		

Note: This screen is used for Internal ACD only. For External ACD, use the Database Backup/Restore screen.

Parameters

Select the following parameters and choose the Start option.

Memory to Hard Disk

ACD Data Memory

This page is for your notes.

CHAPTER 8 SYSTEM OPERATIONS

1. GENERAL

This chapter explains the operating methods of the NEAX2400 CallCenterWorX-Enterprise ACD System.

- Operation of D^{term} agent position/supervisory position
 - Log On/Log Off
 - Answer Mode
 - Work Mode
 - Break Mode
 - Tally Count
 - Trunk Trouble Report
 - Call Transfer
 - Night Service
 - Assistance
 - Emergency/Recorder
 - Monitoring/Supervisory Override
- ACD system restart processing

For operation management, refer to the NEAX2400 IMX System Operations and Maintenance Manual.

SYSTEM OPERATIONS

2. OPERATION OF D^{TERM} AGENT POSITION/SUPERVISORY POSITION

2.1 LOG ON/LOG OFF

Use the following procedures to start or end work by logging on or off.

- (a) When ID Code is Required

START

Log On (Start of work)

When VACANT is displayed, press the LOG ON/OFF key.
The lamp illuminates and LOG ON ID? is displayed.

Enter the ID code of the agent and press the # key.
The dialed digits are displayed.

HELLO XXXX (Agent Name) is displayed.

The split name is displayed, then AUTO ANSWER or MAN ANSWER is displayed according to the program mode of the split to which the agent belongs, and WORK MODE is displayed.

Press the WORK key.
READY is displayed.

Log Off (End of work)

Press the LOG ON/OFF key.

The lamp goes out, the previous display disappears, and the following messages are displayed.

- (a) GOOD BYE XXXX (Agent Name: NAME in ACDLOG)
- (b) SHIFT 08:02:37 (The time since Log on in hours, minutes and seconds)
- (c) ACD CALLS 209 (The number of incoming calls handled)
- (d) AVG TALK 01:42.6 (The average time spent with each call in minutes, seconds and tenths of a second)
- (e) T-WORK 01:23:45 (The cumulative amount of time spent in Work Mode during the shift in hours, minutes and seconds)
- (f) T-BREAK 01:02:03 (The cumulative amount of time spent in Break Mode during the shift in hours, minutes and seconds)

The display returns to VACANT.

END

(b) When ID Code is not Required

START

Log On (Start of work)

When VACANT is displayed, press the LOG ON/OFF key.
 The lamp illuminates and HELLO is displayed.
 The split name is displayed, then, AUTO ANSWER or MAN ANSWER is displayed according to the program mode of the split to which the agent belongs, and WORK MODE is displayed.

Press the WORK key.
 READY is displayed.

Log Off (End of work)

Press the LOG ON/OFF key.
 The lamp goes out, the previous display disappears, and the following messages are displayed.

- (a) GOOD BYE
- (b) SHIFT 08:02:37 (The time since Log on in hours, minutes and seconds)
- (c) ACD CALLS 209 (The number of incoming calls handled)
- (d) AVG TALK 01:42.6 (The average time spent with each call in minutes, seconds and tenths of a second)
- (e) T-WORK 01:23:45 (The cumulative amount of time spent in Work Mode during the shift in hours, minutes and seconds)
- (f) T-BREAK 01:02:03 (The cumulative amount of time spent in Break Mode during the shift in hours, minutes and seconds)

The display returns to VACANT.

END

SYSTEM OPERATIONS

2.2 ANSWER MODE

The following procedures are used to set the ACD call answering mode of each agent position to automatic or manual.

(a) ACD Call Automatic Answer Mode

START

From the manual answer mode, press the AUTO/MAN key.
The lamp lights and AUTO ANSWER is displayed.
The agent enters the ACD call automatic answer mode.
When an ACD call comes in, a zip tone is received.
Monitor number name/Split name/Trunk group name, waiting time in the queue, and calling party's number, etc. is displayed and the time to be spent for the conversation is indicated.
When the call is over, press the RELEASE key.

END

(b) ACD Call Manual Answer Mode

START

From the automatic answer mode, press the AUTO/MAN key.
The lamp goes out and MANUAL ANSWER is displayed.
The agent enters the ACD call manual answer mode.
When an incoming ACD call is terminated, press the ACD CALL key to answer it.
Monitor number name/Split name/Trunk Group name, waiting time in the queue, and calling party's number, etc. is displayed and the time to be spent for the conversation is displayed.
When the call is over, press the RELEASE key.

END

2.3 WORK MODE

(a) Work mode manual setting

Use the following procedure to enter Work mode when the contents of the ACD call requires it.

START

- Press the WORK key during communication with an ACD call.
The lamp lights up and WORK PENDING is displayed.
- Press the RELEASE key.
WORK MODE is displayed, indicating the Work mode.
- (End of work)
- Press the WORK key.
The lamp goes off and READY is displayed.
Work mode ends, and the position becomes available for receiving the next ACD call.

END

(b) Work mode automatic setting

Use the following procedure if it is required to activate the Work mode automatically after every ACD call.

START

- Press the RELEASE key during communication with an ACD call.
An incoming ACD call is completed.
WORK MODE is displayed, indicating the Work mode.
- (End of work)
- Press the WORK key.
The lamp goes off and READY is displayed.
Work mode ends, and the position becomes available for receiving the next ACD call.

END

SYSTEM OPERATIONS

2.4 BREAK MODE

When it is required to leave the position unattended for a lunch or similar break, use the following procedure to activate the Break mode in which the ACD call handling services can be interrupted temporarily.

- (a) Set/reset during Communication with ACD Call

START

On handling an ACD call, press the BREAK key.
The lamp lights and BREAK PENDING is displayed.

Press the RELEASE key.
ON BREAK is displayed, indicating Break mode.

(Break)

Press the BREAK key.
The lamp goes off, and ON BREAK OVER XX:XX (time spent on break in minutes and seconds) is displayed. **Note 1**
Break mode ends, and the position becomes idle and available for receiving the next ACD call (READY is displayed).

END

- (b) Set/Reset when idle

START

Press the BREAK key.
The lamp lights and ON BREAK is displayed

(Break)

Press the BREAK key.
The lamp goes off, and BREAK OVER XX:XX (time spent on break in minutes and seconds) is displayed. **Note 1**
Break mode ends, and the position becomes idle and available for receiving the next ACD call (READY is displayed).

END

Note 1: *The period of time in break mode is displayed for 99 minutes and 59 seconds. When 99 min. and 59 sec. passes, the part of indicating "Minute" is displayed as "***".*

(c) Set/reset in Work Mode

START

Press the BREAK key.
The lamp lights and ON BREAK is displayed.

(Break)

Press the BREAK key.
The lamp goes off, and BREAK OVER XX:XX (time spent on break in minutes and second) is displayed. **Note 1**

Break mode ends, and the position returns to the Work mode
(WORK MODE is displayed).

END

Note 1: The period of time in break mode is displayed for 99 minutes and 59 seconds. When 99 min. and 59 sec. passes, the part of indicating "Minute" is displayed as "***".

2.5 TALLY COUNT

Use the following procedure to collect data on the communication contents according to the types.

START

Press the TALLY key.
The lamp lights and TALLY NUMBER? is displayed.

Dial the code number (1 to 9) of the subject, and press the # key.
TALLY ENTERED is displayed.

The lamp goes off, and the data is stored in the MIS.

END**2.6 TRUNK TROUBLE REPORT**

Use the following procedure to report trunk troubles, such as noise or low level, in the NEAX2400 IMX.

START

During communication with an ACD call, press the TRK TRBL key.
TROUBLE REPORTED is displayed.
The Trunk Trouble Report is automatically reported to the MIS and MAT.

END

SYSTEM OPERATIONS

2.7 CALL TRANSFER

Use the following procedure to transfer an ACD call to another split.

START

- Press the XFER key.
Special Dial Tone (SPDT) is heard.
XFR (D^{term} Series III) or XFR OPE (D^{term} Series E) is displayed.
- Dial the ACD monitoring number of the transfer destination split.
The call is immediately connected to one of the idle stations in the transfer destination split.
If all stations in the transfer destination split are busy, the transfer originator hears the Ring Back Tone (RBT) and should wait for an answering agent or release the call to complete the transfer.

END

2.8 NIGHT SERVICE

When the shift is over, the supervisory position can perform the following procedure to switch the entire split into the Night mode.

- (a) From Day mode to Night mode

START

- The supervisor presses the NIGHT key.
The lamp blinks, and ENTER NIGHT/FWD? is displayed.
- Dial 1 followed by the # key.
The lamp lights, and the split is switched to Night mode.
New incoming calls are no longer queued, and calls which have already been queuing are connected as soon as an agent position becomes idle.

END

- (b) From Night mode to Day mode

START

- The supervisor presses the NIGHT key.
The lamp blinks, and EXIT NIGHT? is displayed.
- Dial 1 followed by the # key.
The lamp goes out, and the split is switched to Day mode.

END

2.9 ASSISTANCE

The agent position can request assistance from a supervisor during an ACD call.

START

- The agent position presses the ASSIST key.
ASSIST XXXX (Supervisory position name for the position with ID code or the ACD line number for the position without ID code) is displayed.
- The supervisor answers the assistance call.
ASSIST XXXX (Agent position name for the position with ID code or the ACD line number for the position without ID code) is displayed.
- The supervisor and agent can confer while the ACD call is held with Consultation Hold.

END

2.10 EMERGENCY/RECORDER

The agent can notify the supervisory position of abnormal calls such as harassment and request monitoring. If a recorder is provided, the conversation can also be recorded.

START

- The agent presses the EMER key.
EMER XXXX (Supervisory name for the position with ID code or the ACD line number for the position without ID code) is displayed.
If a recorder is provided, recording of the call starts at the same time.
- The ACD CALL lamp and the MONITOR lamp on the supervisory position blink. When ringing starts, the supervisory confirms the display of EMER XXXX (Agent name or ACD line number), Trunk kind, Trunk number, and presses the LINE key. **Note**
- The monitoring can be terminated when the supervisor presses the RELEASE key.
The call between the ACD call and agent position continues.
The recording ends.
(When activating three-way conference, see 2.11 Monitoring/Supervisory Override)

END

Note: *When the supervisor presses MON key while the agent is being monitored, "BARGE?" is displayed. At that time, the supervisor may enter the conversation by pressing 1 + #.*

SYSTEM OPERATIONS

2.11 MONITORING/SUPERVISORY OVERRIDE

With the following procedure, the supervisory position can monitor a conversation between an agent position and ACD caller at any time, and can join the call by overriding if required.

START

Monitoring

Place Supervisor into the "Work" mode.

Supervisory presses the MON/BARGE key.
The lamp blinks.
MONITOR NUMBER? is displayed.

Dial the ID code of the agent to be monitored, or dial 0 followed by the non-ACD call station number of the agent position, and #.

(Monitoring)

Press MON/BARGE key again.
BARGE? is displayed.

Supervisory Override

Dial 1 and #.
The MON/BARGE lamp blinks.

(Three-way conference call between the ACD call, agent position and supervisory position).

Press the RELEASE or MON/BARGE key to end overriding.
"CONF" lamp goes off and Return to Monitoring.

END

3. ACD SYSTEM RESTART PROCESSING

Since the ACDP is incorporated in the NEAX2400 IMX, perform the restart procedure of the NEAX2400 IMX referring to the "Installation Manual" or "System Operations and Maintenance Manual".

CHAPTER 9 SYSTEM MAINTENANCE

1. GENERAL

This chapter explains the maintenance, diagnostics from system messages and fault recovery procedure respectively of the NEAX2400 CallCenterWorX-Enterprise ACD System. If any fault has been discovered in the course or as a result of maintenance operations, it should be diagnosed and repaired by referring to system messages concerned and the fault recovery procedure.

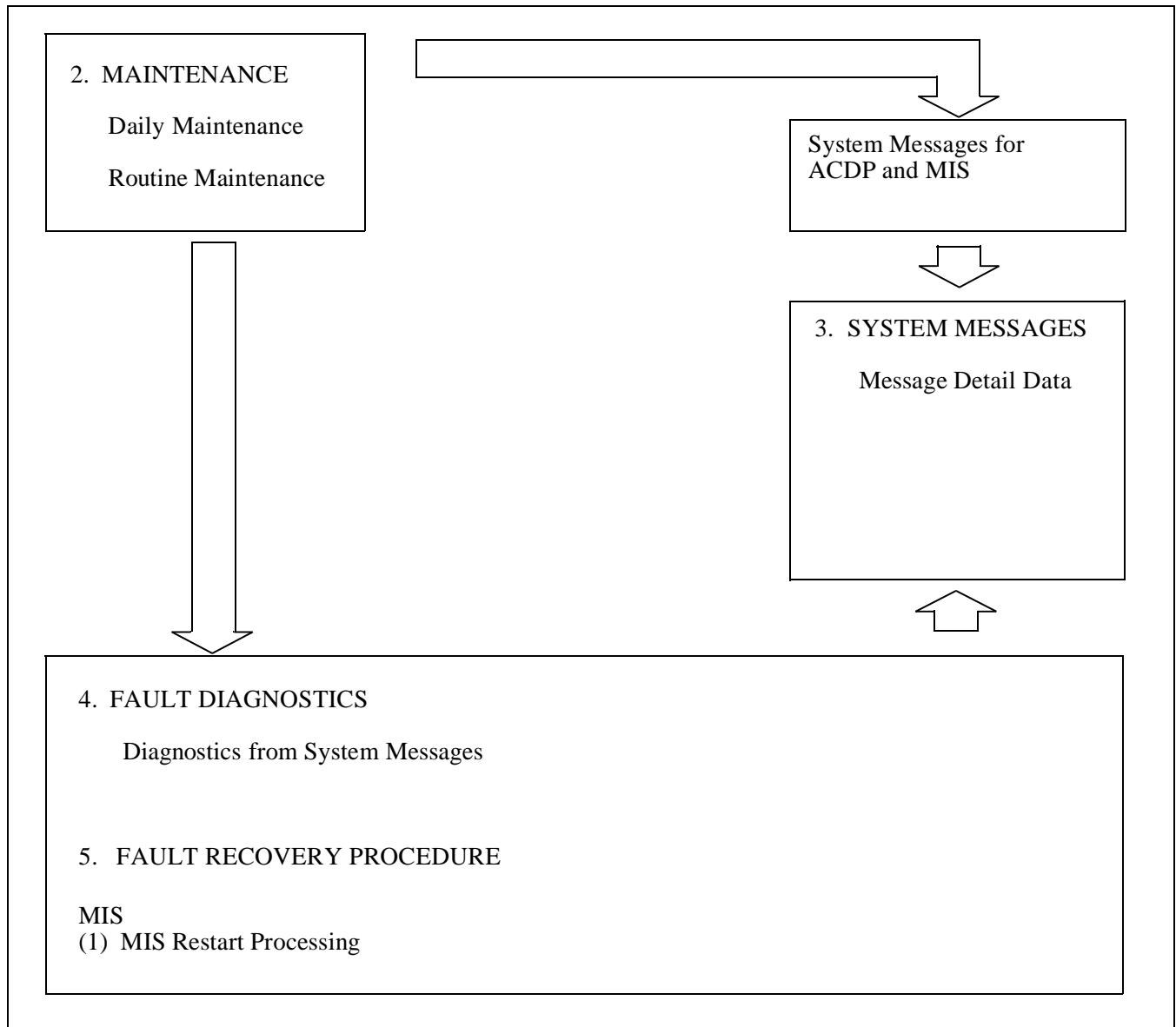


Figure 9-1 Flow of Maintenance Work

SYSTEM MAINTENANCE

2. MAINTENANCE

2.1 DAILY MAINTENANCE

The daily maintenance of the ACD System consists of the following checking.

Checking if the following system messages related to ACD system is displayed.

4-R: TCP/IP Link Failure

65-Q: ACD-MIS LOCK UP

6H: Bad Call Notification (ACD)

26-V: LAN Interface Error Report

2.1.1 THE RELATIONSHIP BETWEEN SYSTEM MESSAGES AND LAMP INDICATIONS

When the system has detected a fault, the corresponding system message is given and simultaneously, the related lamp on the TOPU illuminates.

Table 9-1 shows the relationship between system messages and lamp indications.

Table 9-1 System Messages and Lamp Indications on the TOPU

SYSTEM MESSAGE		LAMP ON THE TOPU				REMARKS
NO.	NAME	MJ	MN	SUP	NON	
4-R	TCP/IP Link Failure			×		
5-Q	ACD-MIS LOCK UP				×	
6-H	Bad Call Notification			×		
26-V	LAN Interface Error Report			×		

3. SYSTEM MESSAGES

3.1 SYSTEM MESSAGES AND THEIR MEANINGS

The system messages shown in [Table 9-2](#) is displayed when faults occur with the ACD within the IMX system. This table shows the system messages and their meaning.

Table 9-2 System Messages for MIS

SYSTEM MESSAGE	MEANING	FAULT CONTENTS
4-R	TCP/IP Link Failure	A fault has occurred to the UAP or to the line connected with the external computer.
5-Q	ACD-MIS LOCK UP	Abnormal occurrence, and the communication between ACDP and MIS has locked up. (To be displayed when ASYD command, SYS 1, INDEX 42, b2 = "1".)
6-H	Bad Call Notification	This message is issued to indicate the result of Bad Call Notification.
26-V	LAN Interface Error Report	A fault, related to the TCP/IP connection between the PBX and MIS/HOST, occurred.

SYSTEM MAINTENANCE

3.2 MESSAGE DETAIL DATA

This section describes the detailed information on the faults indicated by system messages (message detail data).

3.2.1 MESSAGE DETAIL DATA OF SYSTEM MESSAGE "4-R"

System Message 4-R: TCP/IP Link Failure

1. Print-out Format

SYSTEM MESSAGE 4 - R								TCP/IP Link Failure									
NEC - ESD								DEC 22 21:32									
1:	xx	xx	xx	xx	xx	xx	xx	xx	2:	xx	xx	xx	xx	xx	xx	xx	xx
	①	②	③	④	⑤	⑥	⑦	⑧		⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯

2. Print-out information (typical)

■ When the PBX software Series 7300 and the ACD software R1 or earlier software are installed

- ① Fault port number: 0-5
- ② Communication Protocol: 03 = ETHER + TCP/IP
- ③ Error Code (ERR): Refer to the table below

② PROTOCOL	③ ERROR CODE	CONTENT OF FAULT
03 (ETHER + TCP/IP)	01	TCP Connection disconnected (Normal) Note 1
	02	Reception of a text which cannot be analyzed Note 2
	03~09	Not used
	10 (0A)	TCP Connection disconnected (on the way) Note 2
	11 (0B)	Transmission to PZ-PC19 (LANI) is disabled (Permanent) Note 2
	12 (0C)	Abnormal UAP is detected by Heart Beat function
	13 (0D)	Not used
	14 (0E)	TCP/IP Connection Error (B-level Infinite Loop, etc.)
	15 (0F) ~ 255 (FF)	Not used

Note 1: This error code shows that the Host (UAP) is down manually. The option not to output this detail message at some offices can be programmed using SYS1, INDEX864, b1 in ASYDL (Messages other than ERR = 01 are output when TCP connection disconnected is not output).

Note 2: This data is output when using PBX software Series 7300 or earlier. If installing PBX software Series 7300 or later, this information is output in the system message "26-V".

④ Fault logical channel number (LCID): 01~10H (00 means the data is invalid)

Relation between LCID and PBX TCP port number

LCID	TCP port number of the PBX
01	60030

■ When the PBX software Series 7300 and the ACD software R2 or the later software are installed

- ① Fault port number: 0-5
- ② Communication Protocol: 03 = ETHER + TCP/IP
- ③ Error Code (ERR): Refer to the table below

② PROTOCOL	③ ERROR CODE	CONTENT OF FAULT
03 (ETHER + TCP/IP)	01	TCP Connection disconnected (Normal) Note 1
	12 (0C)	Abnormal UAP is detected by Heart Beat function
	13 (0D) ~ 255 (FF)	Not used

Note 1: This error code shows that the Host (UAP) is down manually. The option not to output this detail message at some offices can be programmed using SYS1, INDEX864, b1 in ASYDL (Messages other than ERRK = 01 are output when TCP connection disconnected is not output).

④ Fault logical channel number (LCID): 01~10H (00 means the data is invalid)

Relation between LCID and PBX TCP port number

LCID	TCP port number of the PBX
01	60030

⑤ ~ ⑧ IP address

SYSTEM MAINTENANCE

3.2.2 MESSAGE DETAIL DATA OF SYSTEM MESSAGE “5-Q”

System Message 5-Q: ACD-MIS LOCK UP

This message is output when the PBX software release 5 and the ACD software release 1 or the later software are installed.

(1) Print-out Format

SYSTEM MESSAGE 5 - Q	ACD-MIS LOCK UP
NEC - ESD	MAY 11 22:30
1: 00 00 00 00 00 00 00 00	2: 00 00 00 00 00 00 00 00

(2) Print-out information (typical)

Each data is always displayed as “0”.

3.2.3 MESSAGE DETAIL DATA OF SYSTEM MESSAGE “6-H”

System Message 6-H: Bad Call Notification (ACD)

1. Print-out Format

SYSTEM MESSAGE 6 - H								BAD CALL NOTIFICATION							
NEC - ESD								AUG 14 17:00							
1: XX	XX	XX	XX	XX	XX	XX	XX	2: XX	XX	XX	XX	XX	XX	XX	XX
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯

2. Print-out information (typical)

- ① Bad Call Notification
20=ACD trunk connection
- ② ACD Trouble Kind
01=ACD trunk trouble key
14=ACD reset start
15=Insufficient ACD memory
16=Insufficient ACD call record
17=Excessive business station on ACD calls
18=Excessive calls queued
21=Unknown Pilot No. called
24=Illegal execution of ACD timeout procedure
30=ACD pointer error detection and recovery
33=ACDP reset completion
34=Call recovery failure on unknown Pilot No.
37=ACD Traffic (incoming) Capacity Over **Note**
99=Illegal ACD processing - trace stored

Note: Since the PBX software Series 7300 and the ACD software release 2.

[When ② = 01 (Hex)]

- ③ ~ ⑥ : Information on Calling Party
 - Station
 - ③ ~ ⑤ : My Line No. (Station)
 - ⑥ : 00
 - Trunk
 - ③ ~ ④ : Route No.
 - ⑤ ~ ⑥ : Trunk No.
- ⑦ ~ ⑧ : 00 00
- ⑨ ~ ⑫ : Information on Calling Party
 - Station
 - ⑨ ~ ⑪ : Station No.
 - ⑫ : 00
 - Trunk
 - ⑨ ~ ⑩ : Route No.
 - ⑪ ~ ⑫ : Trunk No.

SYSTEM MAINTENANCE

- ⑬ ~ ⑯ : Information on Held Party or 3rd Station/Trunk in 3-party connection
– Station
 ⑬ ~ ⑮ : Station No.
 ⑯ : 00
– Trunk
 ⑬ ~ ⑭ : Route No.
 ⑮ ~ ⑯ : Trunk No.

[When ② = 14 (Hex)]

- ③ : Issue of ACDP (First digit of decimal place)
④ : Issue of ACDP (Second digit of decimal place)

[When ② = 21 (Hex)]

- ③ ~ ⑥ : Information on Calling Party
– Station
 ③ ~ ⑤ : My Line No. (Station)
 ⑥ : 00
– Trunk
 ③ ~ ④ : Route No.
 ⑤ ~ ⑥ : Trunk No.

⑦ ~ ⑧ : 00 00

- ⑨ ~ ⑫ : Information on Unknown Pilot No.
– Station:
 ⑨ ~ ⑪ : Unknown Pilot No. called
 ⑫ : 00

[When ② = 24 or 99 (Hex)]

- ③ ~ ⑥ : 00 00 00 00
⑦ ~ ⑧ : Error Counter

[When ② = 30 (Hex)]

- ③ ~ ⑥ : Pointer Address
⑦ : 00
⑧ : Error Kind

[When ② = 33 (Hex)]

- ③ : ACDP Data Memory: 00=Used
 01=Not used
④ : ACDP System Capacity: 02=50 Agent Positions
 04=200 Agent Positions
 07=500 Agent Positions
 12=900 Agent Positions
 15=2,000 Agent Positions

[When ② = 34 (Hex)]

- ③ ~ ⑥ : Information on Unknown Pilot No.
 ③ ~ ⑤ : Unknown Pilot No. called
 ⑥ : 00

3. Bad Call Notification Codes.

Print code	Tally-Oh Ref. No.	Description
2001	Auto-print	Trunk Trouble key
2002		(Removed)
2003	03	Caller abandon during agent ringing
2004	04	Direct call to agent's ACD line
2005	05	Call connect failed, requeued
2006	06	Call connect failed, dropped after multiple attempts (Bad calling party)
2007	07	Call re-connect attempt
2008	08	Call connect error audit loop
2009	09	Agent force logoff (via Tally-Oh code)
2010	10	Supervisor forced agent to logoff (via Tally-Oh code)
2011	11	Supervisor forced agent to Break (via Tally-Oh code)
2012	12	Supervisor forced agent to Ready (via Tally-Oh code)
2013	13	Supervisor forced agent to Work mode (via Tally-Oh code)
2014	Auto-print	ACD initialization started
2015	Auto-print	Insufficient ACD memory
2016	Auto-print	Insufficient ACD call records
2017	Auto-print	Excessive business stations, agent PBX lines, and Att's. on ACD calls
2018	Auto-print	Excessive calls queued
2019		(Reserved)
2020		(Reserved)
2021	Auto-print	Unknown pilot number called
2022	22	Count free call records (once per hour if enabled)
2023	23	Invalid tenant specified for agent
2024	Auto-print	Illegal execution of ACD time-out procedure
2025	25	Pilot number illegally removed (not by MAT)
2026	26	Attendant called pilot without held party
2027	27	Position audit corrected locked agent (enabling turns on audit)
2028	28	Call record audit corrected locked call record (enabling turns on audit)
2029	29	Call recovered
2030	Auto-print	Pointer corruption detected and corrected
2031	31	Call abandoned while on hold
2032	32	Count total number of incoming messages (once per hour if enabled)
2033	Auto-print	ACD initialization complete
2034	Auto-print	Recover call failure due to bad pilot number
2099	Auto-print	Illegal ACD process, trace stored

SYSTEM MAINTENANCE

4. Auto-Print and Tally-Oh Codes

Some Bad Call Notifications are always printed on the MAT because of their importance. These codes are marked as Auto-print in the above table. All codes not marked Auto-print are turned off when ACD is initialized, but can be manually turned on using the Tally-Oh code 075. To use, press the Tally key on any agent or supervisor phone and enter:

- 075;
- the two-digit reference number listed in the above table;
- either 0 (Off) or 1 (On);
- the # key.

For example, to turn on the Bad Call Notification print-out for “Call Recovered,” press TALLY 075291#.

To change all Bad Call Notifications, use the reference number 00. For example, pressing TALLY 075000 turns off all codes.

5. Examples

- Agent 4031 reported trunk trouble while connected to route 134, trunk 10, with the held station 4302.

1: 20 01 4A 31 00 00 00 00 2: 01 34 00 1A 43 A2 00 00

- Route 5 trunk 14 abandoned after ringing 72 seconds at agent position 5432.

1: 20 03 54 32 00 00 00 72 2: 00 05 00 14 00 00 00 00

- Station 4003 has placed a direct call to the ACD line on station 5144.

1: 20 04 51 44 00 00 00 00 2: 4A A3 00 00 00 00 00 00

- An attempt to connect route 7 trunk 3 to agent 6640 has failed. Caller is being re-queued.

1: 20 05 66 4A 00 00 00 00 2: 00 07 00 03 00 00 00 00

- Successive attempts to connect route 3 trunk 15 have failed. Caller was dropped.

1: 20 06 00 00 00 00 00 00 2: 00 03 00 15 00 00 00 00

- A second attempt is being made to connect route 3 trunk 15 to agent 5677.

1: 20 07 56 77 00 00 00 00 2: 00 03 00 15 00 00 00 00

- A connection attempt to agent 2002 has failed. Checking agent for valid status.

1: 20 08 2A A2 00 00 00 00 2: 00 00 00 00 00 00 00 00

- Agent 78300 used Tally-Oh code to forcibly logoff.

1: 20 09 78 3A A0 00 00 00 2: 00 00 00 00 00 00 00 00

- Supervisor 3888 used Tally-Oh code to force logoff of agent 3005.

1: 20 10 3A A5 00 00 00 00 2: 38 88 00 00 00 00 00 00

- Supervisor 3888 used Tally-Oh code to force agent 3005 into break mode.

1: 20 11 3A A5 00 00 00 00 2: 38 88 00 00 00 00 00 00

- Supervisor 3888 used Tally-Oh code to force agent 3005 into ready mode.

1: 20 12 3A A5 00 00 00 00 2: 38 88 00 00 00 00 00 00

- Supervisor 3888 used Tally-Oh code to force agent 3005 into work mode.
 1: 20 13 3A A5 00 00 00 00 2: 38 88 00 00 00 00 00 00
- The ACD has started the initialization process of release 2.12. Last initialization (prior to this one) was on September 25 at 7:15 pm. This msg will be followed by the number 33 ACD Initialization Complete msg.
 1: 20 14 02 12 00 00 00 00 2: 00 00 00 00 00 00 00 00
- The ACD has exhausted available memory, new trunks will not be accepted.
 1: 20 15 00 00 00 00 00 00 2: 00 00 00 00 00 00 00 00
- The ACD has exhausted available call records, new calls will receive ring-back tone.
 1: 20 16 00 00 00 00 00 00 2: 00 00 00 00 00 00 00 00
- The ACD has exhausted available station records, additional ACD calls from business stations, agent PBX lines, or attendants will not be accepted.
 1: 20 17 00 00 00 00 00 00 2: 00 00 00 00 00 00 00 00
- The ACD has exhausted available queue records, additional queueing of ACD calls will not be processed.
 1: 20 18 00 00 00 00 00 00 2: 00 00 00 00 00 00 00 00
- Route 9 trunk 2 called the monitored number 4359, which is not listed as a pilot number in the ACD database.
 1: 20 21 00 09 00 02 00 00 2: 43 59 00 00 00 00 00 00
- This is a count of available call records. The ACD could accept 293 more calls. Printed once per hour, on the hour.
 1: 20 22 00 00 00 00 02 93 2: 00 00 00 00 00 00 00 00
- Invalid ACD tenant. Agent 3211 has a different tenant between ACD and PBX.
 1: 20 23 32 11 00 00 00 00 2: 00 00 00 00 00 00 00 00
- Internal ACD sequence error. This error has now been reported 7 times.
 1: 20 24 00 00 00 00 00 07 2: 00 00 00 00 00 00 00 00
- The pilot number 4350 was illegally removed by the ACD. (Does not include removal from the MAT)
 1: 20 25 43 5A 00 00 00 00 2: 00 00 00 00 00 00 00 00
- Attendant 2 called pilot number 4350 without a held party.
 1: 20 26 20 00 00 00 00 00 2: 43 5A 00 00 00 00 00 00
- Position audit found agent 4301 in a bad state and corrected it. The position's state was #14 and it was pointing to a call record containing route 9 trunk 2, and 4302. The position audit is turned on by enabling this printout. The audit does not run otherwise.
 1: 20 27 43 A1 00 00 00 14 2: 00 09 00 02 00 00 43 A2
- Call record audit found a call record in a bad state and corrected it. The three parties in the call record were 4301, 4350, and route 52 trunk 7. The call record audit is turned on by enabling this printout. The audit does not run otherwise.
 1: 20 28 43 A1 00 00 00 00 2: 43 5A 00 00 00 52 00 07

SYSTEM MAINTENANCE

- Call was recovered after ringing too long at an agent's ACD line. The ringing time can be set with the ACDSPL MAT command. The agent was 4301, the ringing time was 45 seconds, the split number was 2, the calling party was station 5800, and the held party was route 17 trunk 4.

```
1: 20 29 43 A1 00 00 45 02          2: 58 AA 00 00 00 17 00 04
```

- The ACD detected corruption in the list of critical pointers. The pointer was 8000:1234 and the corruption type was #2. The corruption has been corrected and should not cause future problems.

```
1: 20 30 80 00 12 34 00 02          2: 00 00 00 00 00 00 00 00
```

- An ACD call released from an agent while on hold. The agent was 4301, three minutes and 20 seconds have elapsed since the caller was put on hold, and the caller was route 15 trunk 7.

```
1: 20 31 43 A1 00 00 03 20          2: 00 15 00 07 00 00 00 00
```

- Count of incoming messages from the PBX to the ACD. This printout will be done once an hour, on the hour. There are 10 counters, each of which count messages for 6 minute blocks. In the first 6 minutes of the hour, there were (hex) 482B messages. There were (hex) A655 messages in the second 6 minutes, etc. This is used primarily for determining a relative traffic count.

```
1: 20 32 2B 48 55 A6 1C 56          2: 3F 62 98 B0 26 4D EF 78
```

- ACD initialization completed. This message will follow the #14 ACD Initialization Started msg.

```
1: 20 33 00 00 00 00 00 00          2: 00 00 00 00 00 00 00 00
```

- Recover Call failed due to a bad pilot number. When a call is recovered from an agent position after ringing the specified amount of time, the caller is reconnected to the first pilot number in the ACD database until another agent becomes available. If this pilot number is bad (doesn't exist in the PBX database, etc.), the recover will fail and this message will be printed. In this case, the pilot number 4350 is being reported. The pilot number should be removed or reprogrammed correctly.

```
1: 20 34 43 5A 00 00 00 00          2: 00 00 00 00 00 00 00 00
```

- Internal ACD error. Trace snapshot saved in buffer. 27th occurrence of this error.

```
1: 20 99 00 00 00 00 00 27          2: 00 00 00 00 00 00 00 00
```

3.2.4 MESSAGE DETAIL DATA OF SYSTEM MESSAGE “26-V”

System Message 26-V: LAN Interface Error Report (OAI/MIS)

This message is output when the PBX software Series 7300 and the ACD software release 2 or the later software are installed.

1. Print-out Format

SYSTEM MESSAGE 26 - V								LAN INTERFACE ERROR REPORT								
NEC - ESD								JULY 25 19:30								
TCP/IP Part								Application Part								
1:	xx	xx	xx	xx	xx	xx	xx	2:	xx	xx	xx	00	00	00	00	00
	①	②	③	④	⑤	⑥	⑦		⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯

2. Print-out information (typical)

- TCP/IP Part -

- ① ~ ④ IP address of the error-detected OAI/MIS terminal
- ⑤ ~ ⑥ Port No.
- ⑦ Used socket No.
- ⑧ Error Code (TCP/IP part)

- Application Part -

- ⑨ Application Type
05=OAI
07=MIS
- ⑩ Faulty Logical Port No.
- ⑪ Error Kind (ERR)
01=SEND Execution Error
02=RECEIVE Execution Error
03=TCP/IP Connection Error
04=Connection Error (B-level Infinite Loop, etc.)
05=TCP/IP Port Capacity Over

SYSTEM MAINTENANCE

4. FAULT DIAGNOSTICS

4.1 FAULT INFORMATION AND FAULT DIAGNOSTICS

Alarms are indicated or system messages are displayed if errors occur within the NEAX2400 IMX CallCenter WorX-Enterprise (ACD) system. By collecting fault information promptly, the fault can be diagnosed and recovery operations can be started quickly. [Figure 9-2](#) shows the flow from the occurrence of a fault to its diagnostics.

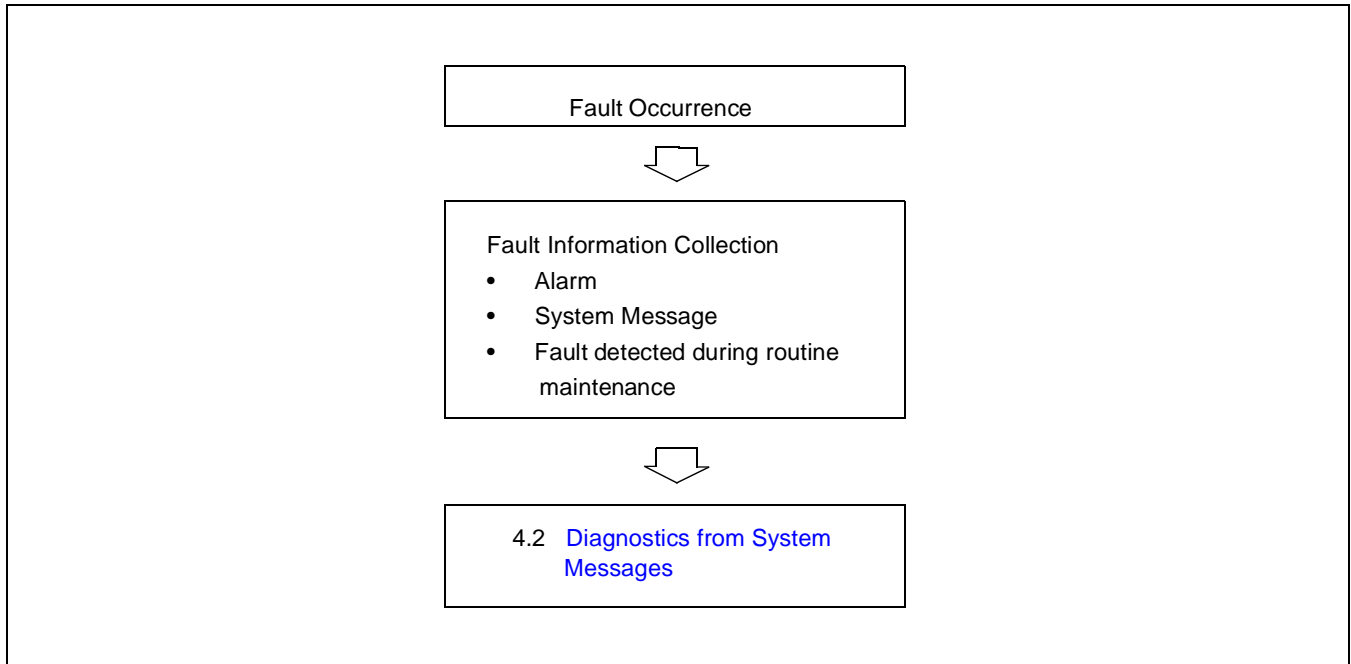


Figure 9-2 Flow from Fault Occurrence to Fault Diagnostics

4.2 DIAGNOSTICS FROM SYSTEM MESSAGES

Figure 9-3 shows the operations from the diagnostics based on system messages to the identification of the cause of fault.

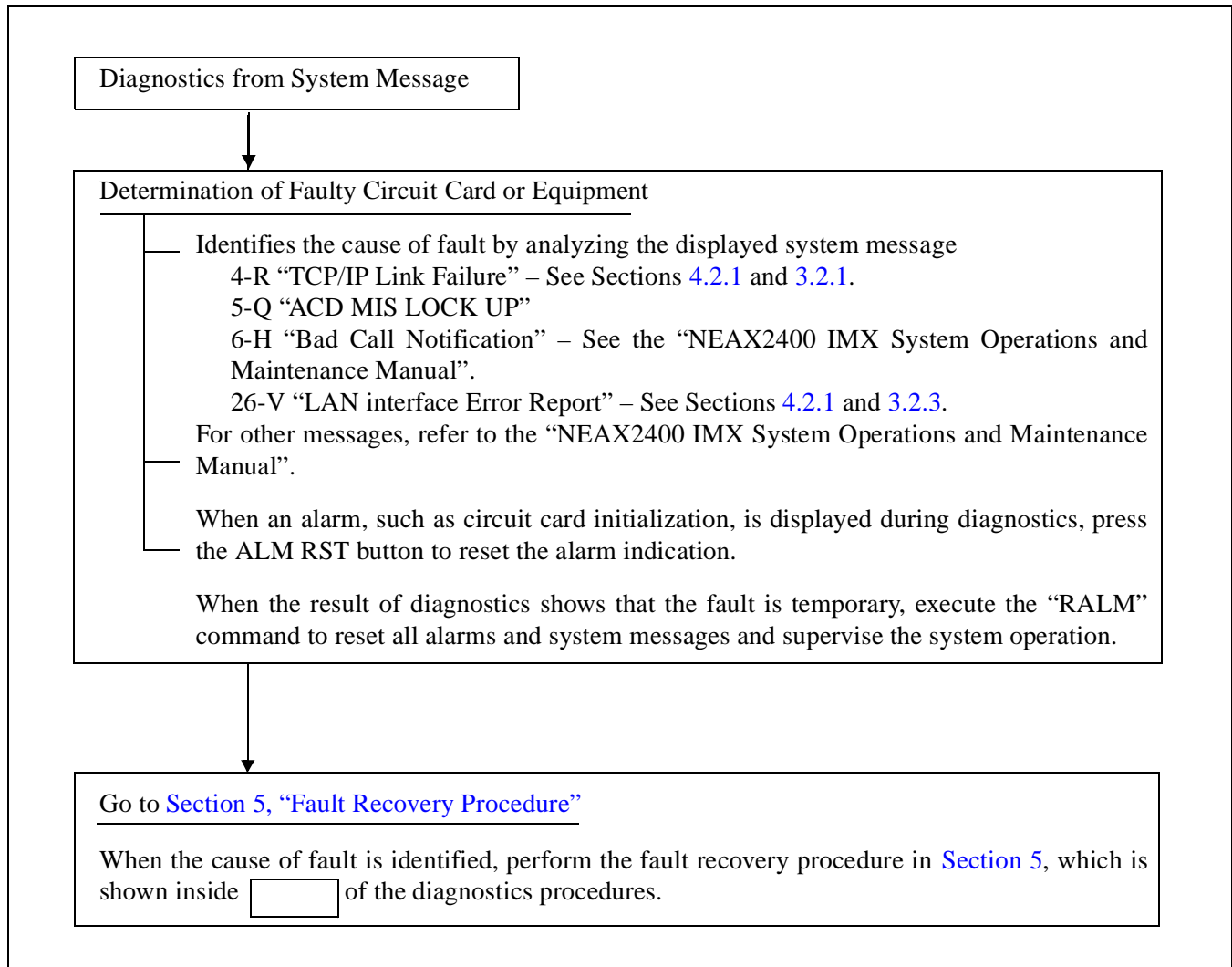


Figure 9-3 Flow of Diagnostics from System Message

SYSTEM MAINTENANCE

4.2.1 TCP/IP LINK FAILURE

For details of System Message “4-R” and “26-V”, see [Section 3.2.1](#) and [Section 3.2.3](#) in this Chapter.

START

According to each fault situation, perform the repairing procedure referring to the table below.

- When the PBX software Series 7300 and the ACD software R1 or the earlier software are installed.

Table 9-3 Repairing Procedure for TCP/IP Link Failure (Message “4-R”) (1/2)

ERR	Detail information of ERR	Check Item
01	TCP/IP connection is down for the TCP connection disconnection ordered from Host.	Restart the Host
0C	According to Heart Beat function of Host, abnormal status of the Host system operation is detected.	Check system operation of the Host
0D	Not used	
0E	TCP port is released due to the detection of abnormal state in the TCP/IP part (such as B-level Infinite Loop. etc.)	Re-check the operation status of Host.
0F~FF	Not used	

- When the PBX software Series 7300 and the ACD software R2 or the later software are installed.

Table 9-3 Repairing Procedure for TCP/IP Link Failure (Message “4-R”) (2/2)

ERR	Detail information of ERR	Check Item
01	TCP/IP connection is down for the TCP connection disconnection ordered from MIS or IVR/Host.	Restart the MIS or IVR/Host
0C	According to Heart Beat function of MIS or IVR/Host, abnormal status of the MIS or IVR/Host system operation is detected.	Check system operation of the MIS or IVR/Host
0D~FF	Not used	

- When Message, “26-V” is displayed:

Table 9-4 Repairing Procedure for TCP/IP Link Failure (Message “26-V”)

ERR	Error Situation	Check Item
01	TCP/IP connection is down because the text is not transmitted continuously.	[1] Check the TCP/IP Transmission capacity on the UAP side is proper or not.
		[2] Check on the operation status on the UAP side is normal.
02	Incorrect text format is received.	[1] Check the software operation on the Host side.
		[2] Check the LAN cable connection status.
03	TCP/IP connection is released due to the TCP port disconnection order from the Host.	Re-start the Host computer.
04	TCP port is released due to the detection of abnormal state in the Host operation.	Re-check the operation status of Host.
05	TCP/IP connection cannot be established due to the connection port capacity over.	The number of allowed ports for application use via TCP/IP must be 16 or less. Adjust the total port number within this range.

Host is still in abnormal status?

If yes, Host is out of order. Repair the Host computer.

If no, PZ-PC19 (LANI) card is out of order. For the replacement procedure, see the “NEAX2400 IMX System Operations and Maintenance Manual”.

4.2.2 BAD CALL NOTIFICATION

Perform the diagnostic work followed by “System Operations and Maintenance Manual”.

5. FAULT RECOVERY PROCEDURE

5.1 BEFORE STARTING FAULT RECOVERY

After the fault diagnostics based on fault information such as the alarm and system messages, the next procedure to be done is the fault recovery. Before proceeding to this, it is required to examine when it should be started by comparing the emergency of repair and its influences. Particularly, when the fault is determined in the ST-BY system, the work should be done at night when the ACD system is operated less frequently. The fault recovery procedures can be divided into those on the ACD system and those on the MIS, as shown below.

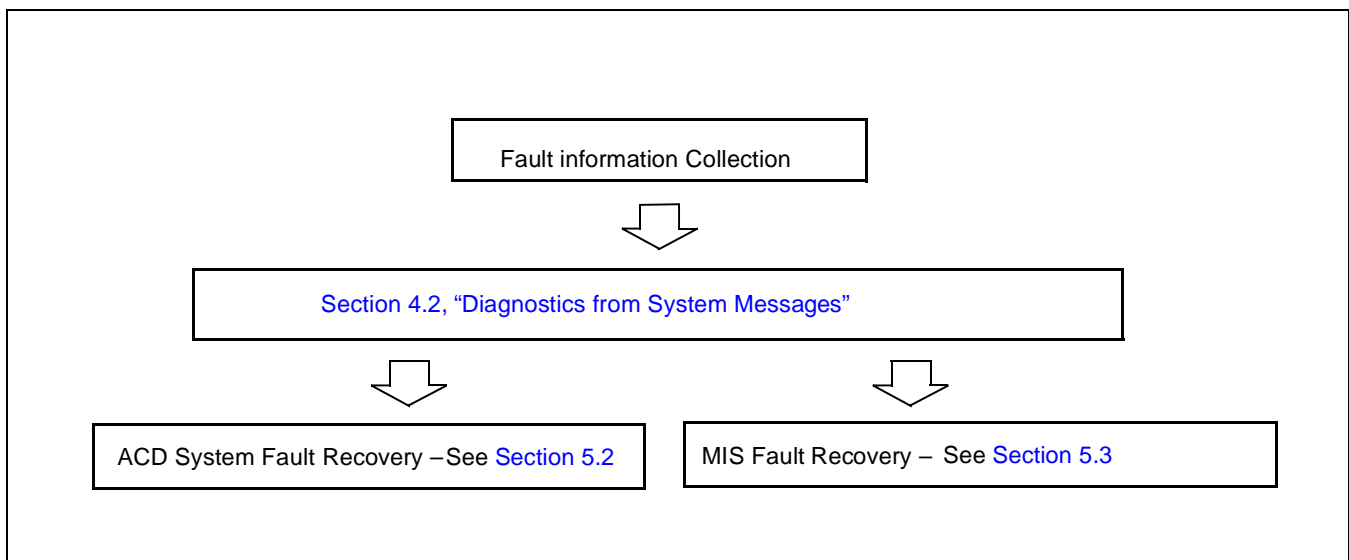


Figure 9-4 Flow of Fault Recovery Procedures

5.2 ACD SYSTEM FAULT RECOVERY PROCEDURES

See the “NEAX2400 IMX System Operations and Maintenance Manual” for the fault recovery procedure related to the ACD system shown below.

1. ACDP of Fault - Fault occurs intermittently at ACT side
2. ACDP of Fault - ST-BY side is faulty

SYSTEM MAINTENANCE

5.3 MIS FAULT RECOVERY PROCEDURES

This paragraph describes the fault recovery procedures related to the MIS in the order shown below.

1. MIS Restart Processing

Step 1: By selecting MIS System Stop, cause the MIS to cease operating.

Step 2: Turn off the power supply to the MIS. After 5 ~ 6 seconds, turn on the power supply again.

Step 3: The MIS starts up.

Step 4: Perform operation tests of the MIS.

2. Check on Connection Cables

Check to see if the cable is connected between the MIS and the NEAX2400 IMX.

APPENDIX A GLOSSARY

ACD	Automatic Call Distribution.
ACDP	Automatic Call Distribution Processor. (For the NEAX2400 IMX, the ACDP is built in the CPU of the PBX)
ACD line	Virtual line of an ACD position.
ACD MAT	Maintenance Administration Terminal (MAT) on which the ACD commands are loaded.
After call mode	Selection of ACD position availability after ACD call completion. In Work mode, an ACD position becomes unavailable to receive ACD calls upon release from the previous ACD call. In Available mode, an ACD position becomes available to receive ACD calls upon release from the previous call.
Agent Personal Queue	Queues for calls that are directed to a specific ACD position.
Answer mode	Answer mode for ACD positions: either Auto or Manual. In Manual mode, incoming calls ring at the position and are required to be answered manually. In Auto mode, calls are connected using the headset or handset, and are introduced by a Zip Tone.
Auto Work mode	Occurs when the ACD position receives or places a call on the PBX line.
Call Control Vector (CCV)	A list of instructions or steps for handling incoming ACD calls.
Circuits	The number of trunks in a trunk group that are designated as ACD trunks.
Conditional threshold	Threshold values set for call acceptance of conditional queue calls into the queue of a target split.
Default language	The language that will be shown on the display of an ACD position that is logged onto the ACD system.
Directory number	Night, Assist and Emergency destination programmed in split data (ACDSPL).
Do Not Disturb	Occurs when none of the ACD positions of an ACD split are logged on.
Hardware type	Specifies if the position is a D ^{term} or analog agent.
Holiday	A date designated as a holiday within the ACD system, subject to holiday call handling procedures (see ACDHC and ACDHS).
I-ACD	Integrated ACD.
I/O type	Defines which type of MIS or Infolink will be used on the input/output port.
Infolink	A data communications link between the ACD system and external computer equipment such as host and IVRs.
Internal priority	Priority at which an internal call will be handled.
IVR	Interactive Voice Response unit. A voice prompting unit that can be guided through menus via DTMF signalling.
Language	Language to be used for ACD terminal display (D ^{term}).
Logon ID	ID code used to logon to the ACD system.

GLOSSARY

Logon required	Specifies whether ID entry is required for an ACD position to gain access to the ACD system.
MAT	Maintenance Administration Terminal.
Maximum queue depth	The number of calls that can be placed in queue.
MIS	Management Information System.
MIS I/O port	Designates the I/O port(s) used for MIS.
PBX line	The My Line of an ACD position.
Pilot number	A number used for routing calls to a CCV or a Week Schedule.
Queue priority	Priority at which a trunk call is placed in queue to a split.
Route To	Defines the routing method for pilot number, such as CCV or Week Schedule. (See ACDCCV and ACDWS.)
Split	A hunt group of ACD positions.
Splits Allowed	Specifies which splits a position can take calls from.
Tenant	A software delineation between multiple groups that share a PBX or ACD system, e.g., multiple companies which share the same switch, or separate divisions of one company that share an ACD systems.
Tenant name	Name associated with the occupant or user of an ACD system.
Tenant number	Number associated with the occupant or user of an ACD system.
Transfer priority	Priority at which a transferred call will be handled.
Trunk group	Route number associated with ACD.
Week schedule	A schedule consisting of a list of CCVs to be used in routing calls when the Week Schedule method of routing has been designated. (See ACDWS, ACDPLT, and ACDCCV commands.)

APPENDIX B FIELD VALUES FOR ACD SCREENS

Table B-1 Field Values for ACD Screens (1/8)

FIELD NAME	DESCRIPTION	VALUES	DEFAULT SETTING	REQUIRED /OPTIONAL
ACD Line	Line that receives all of the ACD calls for this position (via pilot numbers). (Virtual line)	Up to 5 digits	none	required
After call mode	The state the position will be in after finishing a call from this split. If available mode is selected, the position will become available immediately upon disconnect from the previous call. If work mode is selected, the position will go into work mode.	available/ work	available	required
Agent priority queueing	Determines whether to use priorities when queueing available agents.	Priorities/ No Priorities	No Priorities	required
Alternate night destination CCV	Specifies the CCV to use for the pilot number's alternate night destination.	Index: 0 ~ 900 (0 = not used) Step: 1 ~ 20	0	optional
Analog agent access code	Number that invokes an ACD feature for an analog agent.	up to 5 digits	none	required
Analog agent break type	Break type to be associated with an analog agent access code.	1 ~ 9	none	optional
Analog agent feature	The feature associated with an analog agent access code. Possible values are: Logon with ID, Logon without ID, Logoff, Ready Mode, Work Mode, Break Mode, Tally Code, Trunk Trouble.	(see list at left)	none	required
Analog agent logon ID	Logon ID of agent or supervisor.	up to 9 digits	none	optional
Analog agent tally code	Tally code associate with the dialed analog agent access code.	up to 9 digits	none	optional
Analog agent work mode timeout	The maximum time (in seconds) that an analog agent can stay in Work mode. (0 = indefinite.)	0 ~ 9999	0	optional
Analog position	Specifies whether this position is analog or not.	Yes/No	No	optional

FIELD VALUES FOR ACD SCREENS

Table B-1 Field Values for ACD Screens (2/8)

FIELD NAME	DESCRIPTION	VALUES	DEFAULT SETTING	REQUIRED /OPTIONAL
Answer mode	Determines how the position can answer ACD calls for this split. If Manual is selected, the position must answer calls manually by pressing the Answer button or the ACD Line key. If Auto is selected, calls are connected automatically; the position will hear Zip Tone when a new call is connected.	manual/ auto	manual	required
Assist directory number	The directory number that will be dialed when an agent presses the Assist button while on an ACD call.	Up to 5 digits	none	optional
Assist key is:	Defines the function of the Assist key.	Assist/ Monitor	Assist	required
Auto work mode for IC PBX	Automatic work mode, which removes the position from receiving ACD queued calls while receiving an incoming call on the PBX line.	Yes/No	No	required
Auto work mode for OG PBX	Automatic work mode, which removes the position from receiving ACD queued calls while placing an outgoing call on the PBX line.	Yes/No	No	required
Break type	Specifies whether agents should be prompted for break type when entering Break mode.	1 (no prompt)/ 9 (prompt)	1	required
Call recover time	Sets the amount of time (in seconds) an ACD call can ring at an agent position before being recovered. (0 = feature not used)	0 ~ 255	0	optional
Call waiting chime (ACDLOG)	Defines how the call waiting chime will function for personal queue calls. Off = no chime. First = chime will sound for the first call placed in queue. All = chime will sound for each call placed in queue.	Off/ First/ All	Off	required
Call waiting light threshold	The minimum number of calls in queue to this split before the call waiting lamp will light steadily.	0 ~ 999 (0 = off)	0	optional
Call waiting flash threshold	The minimum number of calls in queue to this split before the call waiting lamp will flash.	0 ~ 999 (0 = off)	0	optional
CCV index	The index (reference number) to a specific CCV.	1 ~ 900	none	required

Table B-1 Field Values for ACD Screens (3/8)

FIELD NAME	DESCRIPTION	VALUES	DEFAULT SETTING	REQUIRED /OPTIONAL
CCV step	One of up to 20 steps in a Call Control Vector. (See ACDCCV command for details.) Possible steps are listed below.	See below	none	required
ACTION	ARGUMENT	DESCRIPTION		
Queue To	split number	Offer the call to the split		
Dequeue From	split number	Stop offering the call to the split		
Conditional Queue	split number	Offer the call to the split if it meets a conditional threshold		
If Not Queued Go To	CCV index and step	If the split queue is full, go to Busy or specified CCV index and step		
Go To	CCV index and step	Go to the specified CCV index and step		
Transfer To	1 ~ 10	Route the call to a number (up to 22 digits)		
New Priority	priority (1 ~ 250)	Change the call's priority to the specified value		
Up Priority	amount (1 ~ 250)	Change the call's priority by the specified amount		
Announcement	number (1 ~ 58)	Route the call to an announcement		
Hang Up	—	Disconnect the call		
Pause	seconds (1 ~ 999)	Pause before performing the next step		
End	—	End of CCV		
Skip	percentage (1 ~ 99)	Skip percentage to next step		
IVR Announcement	number (1 ~ 99)	Connect call to IVR for customized announcement		
Individual IVR	IVR access number	Individual IVR port number in a CCV step basis		
ETA Less	seconds (1 ~ 9999)	Do next step if estimated time to answer is less than specified time		
ETA Greater	seconds (1 ~ 9999)	Do next step if estimated time to answer is greater than specified time		
ETA Less in a specified split	split (1 ~127)/ seconds (1 ~ 511)	Do next step if estimated time to answer is less than specified time in a specified split		
ETA Greater in a specified split	split (1 ~127)/ seconds (1 ~ 511)	Do next step if estimated time to answer is greater than specified time in a specified split		
Ring Delay	seconds (1 ~ 15)	Delay time to start ringing for the next incoming call		
Chime (ACDSPL)	Call Waiting chime that sounds when the call waiting threshold is met.	On/Off	Off	required
Conditional threshold method	Method for accepting calls into the split: <ul style="list-style-type: none"> No Calls Accepted: no calls are accepted into the queue. Agents Available: calls are accepted depending on the number of available positions. Calls in Queue: calls are accepted depending on the number of unanswered calls in queue. 	No Calls/ Agents Available/ Calls in Queue	No Calls Accepted	required
Conditional threshold value	Value used in conjunction with the method (described above): <ul style="list-style-type: none"> Agents Available: the number of positions that must be available before calls will be accepted. Calls in Queue: the least amount of unanswered calls in the queue before calls will be accepted. 	1 ~ 250 (Agents Available) 1 - 699 (Calls in Queue)	none	optional

FIELD VALUES FOR ACD SCREENS

Table B-1 Field Values for ACD Screens (4/8)

FIELD NAME	DESCRIPTION	VALUES	DEFAULT SETTING	REQUIRED /OPTIONAL
Default language	The language used on a logged-off ACD position.	English/ Japanese/ Spanish/ Italian/ French/ German	English	required
Do Not Disturb	Specifies how ACD calls will be handled when there are no positions logged onto the split.	Queue/ Do Not Queue	Queue	required
Emergency directory number	The directory number that will be dialed when the agent presses the EMERGENCY button while on an ACD call.	up to 5 digits	none	optional
Emergency recorder number	Number of the recorder that will be connected to the call in progress when an agent requires and emergency recording to be made.	0 ~ 5 (0 = none)	0 (none)	optional
File comment (remark)	Any supplementary remarks you wish to be associated with the file.	up to 60 characters	none	optional
Go to CCV (forward/full)	Defines action (CCV index and step) to be taken if the referenced logon ID is not logged on the system (forward), or if the personal queue is full (full).	CCV index (1 ~ 900) and step (1 ~ 20)	none	optional
Go to CCV (overflow)	Defines action (CCV index and step) to be taken when there is an overflow timeout.	CCV index (1 ~ 900) and step (1 ~ 20)	none	optional
Holiday CCV list	A list of entries to be followed when a Holiday Schedule is used. Each entry consists of a start time and a CCV index and step.	Time (HH:MM) CCV index and step	none	optional
Holiday date	The month and day that is defined as a holiday.	Date MM/DD	none	optional
Holiday schedule number	Reference number for a holiday schedule.	1 ~ 3	none	optional
Hot split	Specifies whether this split is to be used for hot positions.	Yes/No	No	optional
Internal priority	Priority that a station call will receive when queued within the local system, when presented to the pilot number.	1 (high) ~ 250 (low)	15	required

Table B-1 Field Values for ACD Screens (5/8)

FIELD NAME	DESCRIPTION	VALUES	DEFAULT SETTING	REQUIRED /OPTIONAL
IVR directory number	The PBX directory number that allows ACD to access a port on an Interactive Voice Response (IVR) unit.	up to 5 digits	none	required
IVR pilot number	The PBX directory number used by ACD to access ports on an Interactive Voice Response (IVR) unit.	up to 5 digits	none	required
IVR port number	Associates a port on the IVR unit with the IVR directory number.			required
Language	The language a position's messages will be displayed in when a position is logged on.	English/ Japanese/ Spanish/ Italian/ French/ German	English	required
Logon ID	The agent's ID code used when logging on to the ACD system.	up to 9 digits	none	required
Logon ID is ?	Used to control access to the split.	Required/ Not Used	Required	required
Logon Name	The name to be displayed when logging on with a logon ID. (Displayed on ACD position's display.)	up to 20 characters	blank	optional
Max. queue depth	The maximum number of calls that can be queued to this split or personal pilot number.	1 ~ 999	99	required
Multi-split	Defines whether this logon ID has access to multiple splits simultaneously.	Yes/No	No	optional
Night directory number	The directory number to which calls will be routed when the split is in Night mode. (Must be a valid pilot number.)	up to 5 digits	none	optional
Operator access code	Defines the access code programmed for the operator in the PBX database.	up to 5 digits	0	required
Outbound call answer timer	Time allowed for outbound calls to be considered successfully completed	0 ~ 60 seconds	30	required
Overflow timeout	Defines how long a call will stay in queue to the personal pilot number before it overflows. (0 = Indefinite.)	0 ~ 9999	none	required
PBX incoming	Specifies whether agents should be forced into Work mode upon receiving an incoming call on their PBX line.	Yes/No	No	required
PBX outgoing	Specifies whether agents should be forced into Work mode upon receiving dial tone for an outgoing call on their PBX line.	Yes/No	No	required
Personal assist request number	Overrides the assist request number programmed in ACDSPL.	up to 5 digits	none	optional

FIELD VALUES FOR ACD SCREENS

Table B-1 Field Values for ACD Screens (6/8)

FIELD NAME	DESCRIPTION	VALUES	DEFAULT SETTING	REQUIRED /OPTIONAL
Personal emergency request number	Overrides the emergency request number programmed in ACDSPL.	up to 5 digits	none	optional
Personal pilot number	Defines the number programmed in AMNO/AMNOL/AMNON. (Not programmed in ACDPLT.)	up to 5 digits	none	optional
Personal queue announcement number	Defines the announcement used for calls directed to personal queue (for the entire tenant).	1 ~ 58	none	optional
Personal queue overflow/forward priority	Defines the priority for calls that overflow from a personal queue.	1 ~ 250	1	optional
Pilot name	Name displayed when a call is answered at positions.	up to 20 characters	blank	optional
Pilot number (ACDPLT)	A directory number that calls can be presented to. (Personal pilot numbers are not programmed here.)	up to 5 digits	none	required
Position	The My Line of the ACD position.	up to 5 digits	none	required
Queue priority	Priority at which a call from this trunk group (route) is placed in the queue.	1 (high) ~ 250 (low)	1	required
Route to:	Method used to route a call when presented to this pilot number. Options are: <ul style="list-style-type: none"> • CCV: index and step number • Week Schedule: reference number 	CCV index (1 ~ 900) and step (1 ~ 20)/ week schedule (1 ~ 10)	CCV index 1, step 1	required
Split name	Name displayed at positions at logon time.	up to 20 characters	blank	optional
Split number	Number that references a split.	1 ~ 250	1	required
Split priority	Used when assigning calls to agents in multi-split mode.	1 ~ 250	1	required
Splits (ACDTN)	Maximum number of splits assigned to this tenant.	1 ~ 250	1	required

Table B-1 Field Values for ACD Screens (7/8)

FIELD NAME	DESCRIPTION	VALUES	DEFAULT SETTING	REQUIRED /OPTIONAL
Splits (ACDLOG)	Designates what splits are allowed.	All, or up to 4 different splits	All	required
Splits allowed (ACDPSN)	Number of splits allowed to position.	1 ~ 250 or Any	1	required
Stranded calls CCV index	Designates the CCV index to use when recovering stranded calls. (0 = not used.)	0 ~ 900	0	optional
Successful feature activation announcement	Specifies the announcement to be connected to an analog agent notifying that a feature activation was successful. (0 = none.)	0 ~ 58	0	optional
Supervisor tally-oh codes	Specifies whether this position is allowed to use supervisor Tally-Oh codes.	Allow/ Do Not Allow	Do Not Allow	optional
Tenant name	Name printed at the top of reports.	up to 20 characters	blank	optional
Tenant number	Reference number for the tenant.	1 ~ 10	none	required
Transfer priority	Priority of a transferred call when presented to a pilot number.	1 (high) ~ 250 (low)	15	required
Transfer numbers	Digits to be dialed for each "TransferTo" CCV step that references this number. Only digits 0 ~ 9 are allowed. This is only required when there is a "TransferTo" step referencing it.	up to 22 digits	blank	optional
Trunk group name	Name to be displayed when a call is answered at an ACD position.	up to 20 characters	blank	optional
Trunk group number	Number that references a trunk group (route).	1 ~ 254	1	required
Trunk circuits	Used for activating/deactivating the trunk's circuits as ACD circuits (trunks).	1 ~ 255	1 to 1	required
Trunk priority	The priority used when queueing ACD trunk calls to a pilot number.	1 (high) ~ 250 (low)	1	required
Week schedule CCV list	A list of entries to be followed when a week schedule is used. Each entry consists of a start time and the CCV index and step to be followed.	Time (HH:MM) CCV index and step number	none	optional

FIELD VALUES FOR ACD SCREENS

Table B-1 Field Values for ACD Screens (8/8)

FIELD NAME	DESCRIPTION	VALUES	DEFAULT SETTING	REQUIRED /OPTIONAL
Week schedule number	Number that reference a week schedule.	1 ~ 10	1	required
Work mode	A mode that exempts the agent/position from receiving ACD calls in queue without logging out. Restricted or allowed on a per-split basis.	Allow/ Restrict	Allow	required
Work mode timeout	Total time that an ACD position will be allowed to stay in Work mode. (0 = indefinite.)	0 ~ 9999 seconds	0	optional

APPENDIX C ACD SERVICE IN FUSION NETWORK

The table below shows Available or Not Available for each ACD feature described in [Chapter 5](#) when those services are activated between two fusion nodes within a Fusion Network.

Table C-1 ACD Service List in Fusion Network

○ : Available, × : Not available, – : Not applicable

FEATURE CODE	SERVICE NAME	FCCS	
		Series 7300 (Release 5) or earlier	Series 7300 (Release 7) or later (Note)
A-31A	Abandoned Call Search - ACD	–	○
A-34A	Assistance - ACD Agent - ACD	×	○
A-35A	Automatic Answer - ACD	–	○
A-37A	Availability - ACD Position - ACD	–	○
A-80A	Announcements - ACD	○	○
A-85A	Agent Personal Queue - ACD	○	○
A-86A	Auto Work Mode for PBX Calls - ACD	–	○
A-91A	Analog ACD Position - ACD	×	○
A-93A	Alternate Night CCV - ACD	○	○
A-133A	Agent Anywhere - ACD	×	○
B-20A	Break Mode - ACD	–	○
B-21A	Bad Call Notifications - ACD	–	○
C-35A	Call Distribution to Agents - ACD	×	○
C-67A	Call Transfer to Split Queue - ACD	×	○
C-68A	Call Waiting Indication - LCD Display/CW Lamp - ACD	–	○
C-70A	Calling Party Identification - ACD	–	○
C-108A	Call Control Vector - ACD	–	–
C-110A	Call Waiting Lamp with Chime - ACD	–	○
C-127A	Call Forwarding - Split - ACD	○	○
C-191A	Call Recover - ACD	–	○
C-199A	Connection Displays - ACD	–	○
D-133A	Do Not Disturb - Split - ACD	–	○
E-6A	Emergency/Recorder - ACD	×	○

Note: When the "AGENT ANYWHERE" data is programmed.

ACD SERVICE IN FUSION NETWORK

Table C-1 ACD Service List in Fusion Network (Continued)

○ : Available, × : Not available, – : Not applicable

FEATURE CODE	SERVICE NAME	FCCS	
		Series 7300 (Release 5) or earlier	Series 7300 (Release 7) or later (Note)
F-10A	Function Groups (Splits) - ACD	×	○
F-25A	Flexible ID Codes - ACD	–	–
H-20A	Holiday Scheduling - ACD	–	–
H-31A	Hot Split - ACD	×	○
I-99A	Infolink Data Messages - ACD	–	×
L-19A	Logon/Logoff Position - ACD	–	○
L-48A	Language Default - ACD	–	–
L-92A	Logoff Warning - ACD	×	×
M-28A	Monitoring - ACD Supervisor - ACD	×	○
M-29A	Multiple Customer Groups - ACD	×	○
M-79A	Multiple Supervisor Groups (Splits) - ACD	×	×
M-88A	MIS Operator Selection - ACD	×	○
M-89A	Monitor Me - ACD	×	○
M-90A	Multi-Split Agent - ACD	–	○
N-12A	Night Service - ACD	–	○
N-14A	Non-ACD Call - ACD	○	○
O-10A	Overflow Outside - ACD	○	○
P-21A	Priority Queuing - ACD	–	○
P-40A	Pilot Numbers - ACD	○	○
P-45A	Personal Emergency and Assist - ACD	×	○
Q-1A	Queuing - ACD	○	○
R-19A	Release - ACD Position - ACD	–	○
R-145A	Ring Delay - ACD	×	×
S-91A	Splits - ACD	×	○
S-97A	Split Display - ACD Position - ACD	–	–
S-98A	Split Selection - ACD	×	○
S-108A	Stranded Call Routing - ACD	–	○

Note: When the “AGENT ANYWHERE” data is programmed.

Table C-1 ACD Service List in Fusion Network (Continued)

○ : Available, × : Not available, – : Not applicable

FEATURE CODE	SERVICE NAME	FCCS	
		Series 7300 (Release 5) or earlier	Series 7300 (Release 7) or later (Note)
T-24A	Trunk Trouble Report - MIS - ACD	–	○
T-49A	Tally Count - ACD	–	○
T-50A	Time of Day/Week Routing - ACD	–	–
T-85A	Tally Required - ACD	×	×
W-5A	Work Mode - ACD	–	○
W-6A	Work Mode Time Limit - ACD	–	○
Z-1A	Zip Tone - ACD	–	○

Note: When the "AGENT ANYWHERE" data is programmed.

This page is for your notes.

Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>