

SERVICE MANUAL

COMPACT DISC STEREO
CASSETTE RECEIVER

BASIC TAPE MECHANISM : ZZM-2 PR1NM
BASIC CD MECHANISM : AZG-1 ZA3RN1DM

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
Z-L200	CX-ZL200	SX-ZL200	RC-ZAS02

- This Service Manual is the "Supplement" and replaces "Simple Manual" Z-L200, (S/M Code No. 09-005-422-5T3).
- This Service Manual contains information about the difference between Z-L200 (LH) and Z-L200 (HA). If requiring other information, see Service Manual of Z-L100 (U) / 200 (LH), (S/M Code No. 09-99C-422-5R1).
- If requiring information about the CD mechanism, see Service Manual of AZG-1, (S/M Code No. 09-001-335-3NC).

aiwa
S/M Code No. 09-006-422-5S1

SUPPLEMENT
DATA

SPECIFICATIONS

<FM tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	13.2 dBf
Antenna terminals	75 ohms (unbalanced)

<AM tuner section>

Tuning range	530 kHz to 1710 kHz (10 kHz step) 531 kHz to 1602 kHz (9 kHz step)
Usable sensitivity	350 μ V/m
Antenna	Loop antenna

<Amplifier section>

Power output	Rated 33 W + 33 W (1 kHz, T.H.D.1%, 6 ohms) Reference : 40 W + 40 W (6 ohms, T.H.D.10%, 1 kHz)
Total harmonic distortion	0.1% (17 W, 1 kHz, 6 ohms, DIN AUDIO)

Inputs

Outputs	VIDEO/AUX/PHONO IN: 500 mV CD DIGITAL OUT (OPTICAL) SPEAKERS : accept speakers of 6 ohms or more PHONES (stereo jack) : accepts headphones of 32 ohms or more
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<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 10000 Hz
Recording system	AC bias
Heads	Deck 1 : Recording/Playback head x 1, erase head x 1 Deck 2 : Playback head x 1

<Compact disc player section>

Laser	Semiconductor laser ($\lambda = 780$ nm)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<Speaker system, SX-ZL200>

Cabinet type	3 way, bass reflex
Speakers	Woofer : 130 mm (5 ¹ / ₈ in.) cone type Tweeter : 60 mm (2 ³ / ₈ in.) cone type Super tweeter: 20 mm (¹³ / ₁₆ in.) ceramic type
Impedance	6 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	260 x 496 x 220 mm (10 ¹ / ₄ X 19 ⁵ / ₈ X 8 ³ / ₄ in.)
Weight	3.7 kg (8 lbs 3 oz.)

<General>

Power requirements	120 V/220-230 V/240 V AC (switchable), 50/60 Hz
Power consumption	70 W
Dimensions of main unit (W x H x D)	360 x 393 x 342 mm (14 ¹ / ₄ X 15 ¹ / ₂ X 13 ¹ / ₂ in.)
Weight of main unit	7.7 kg (17 lbs)

Standby power consumption

If the power-economizing mode is OFF : 17 W
If the power-economizing mode is AUTO or ON : 0.9 W

- Design and specifications are subject to change without notice.

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C60	87-010-403-080		CAP, ELECT 3.3-50V M 11L SME
	8A-NFA-615-010		C-IC,M38B57MCH-E236FP	C61	87-010-260-080		CAP, ELECT 47-25V M 11L SME
	87-A21-397-010		IC,STK490-070	C97	87-010-196-080		C-CAP,S 0.1-25 ZF
	87-A21-482-010		IC,RPM6938-H4	C101	87-010-182-080		C-CAP,S 2200P-50 KB
	87-A21-419-040		C-IC,NJM14558MD-TE2	C102	87-010-182-080		C-CAP,S 2200P-50 KB
	87-A21-443-040		C-IC,M62495AFP	C103	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
	87-A21-560-010		IC,LA1844L-A	C104	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
	87-070-127-110		IC,LC72131 D	C105	87-010-178-080		CHIP CAP 1000P-50 KB
				C106	87-010-178-080		CHIP CAP 1000P-50 KB
				C107	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
TRANSISTOR				C108	87-010-404-080		CAP, ELECT 4.7-50V M 11L SME
	87-026-609-080		TR,KTA1266GR	C109	87-012-156-080		C-CAP,S 220P-50 J CH
	89-213-702-010		TR,2SB1370E	C110	87-012-156-080		C-CAP,S 220P-50 J CH
	87-026-610-080		TR,KTC3198GR	C111	87-010-391-080		CAP,E 10-35 M 11L SME
	87-A30-076-080		C-TR,2SC3052F	C112	87-010-391-080		CAP,E 10-35 M 11L SME
	87-A30-075-080		C-TR,2SA1235F	C113	87-010-405-080		CAP, ELECT 10-50V M 11L SME
	87-026-245-080		TR,DTC114ES	C114	87-010-405-080		CAP, ELECT 10-50V M 11L SME
	87-A30-198-080		TR,KTC3199GR	C115	87-010-149-080		C-CAP,S 5P-50 C CH
	87-A30-090-080		FET,2SK2541	C116	87-010-149-080		C-CAP,S 5P-50 C CH
	87-A30-107-070		C-TR,CMBT5401	C119	87-010-197-080		CAP, CHIP 0.01-25 KB
	87-A30-106-040		C-TR,CMBT5551	C120	87-010-197-080		CAP, CHIP 0.01-25 KB
	87-A30-062-080		CHIP-TR,KRC104S	C125	87-012-368-080		C-CAP,S 0.1-50 ZF
	87-A30-091-080		FET,2SJ460	C126	87-012-368-080		C-CAP,S 0.1-50 ZF
	87-A30-318-080		TR,CSA952K	C127	87-012-368-080		C-CAP,S 0.1-50 ZF
	89-333-317-880		TR,2SC3331 (T/U)	C128	87-012-368-080		C-CAP,S 0.1-50 ZF
	87-A30-234-080		TR,CSC4115BC	C129	87-010-191-080		C-CAP,S 0.015-50 ZF GRM
	89-327-143-080		TR,2SC27140	C130	87-010-191-080		C-CAP,S 0.015-50 ZF GRM
	87-A30-489-080		C-TR,KRA107S	C131	87-010-197-080		CAP, CHIP 0.01-25 KB
				C132	87-010-197-080		CAP, CHIP 0.01-25 KB
				C133	87-010-186-080		CAP,CHIP 4700P-50 KB
DIODE				C140	87-010-182-080		C-CAP,S 2200P-50 KB
	87-A40-393-090		DIODE,1N5402GW (F20)	C301	87-010-180-080		CHIP CAP 1500P-50 KB
	87-A40-455-080		DIODE,RL203 GW	C302	87-010-180-080		CHIP CAP 1500P-50 KB
	87-A40-553-080		DIODE,IN4003 LES	C303	87-010-180-080		CHIP CAP 1500P-50 KB
	87-A40-776-080		ZENER,UZ27BSD	C304	87-010-180-080		CHIP CAP 1500P-50 KB
	87-A40-768-080		ZENER,UZ16BSA	C305	87-010-198-080		CAP, CHIP 0.022-25 KB
	87-A40-764-080		ZENER,UZ10BSC	C307	87-010-263-080		CAP, ELECT 100-10V M 11L SME
	87-A40-313-080		C-DIODE,MC 2840	C308	87-010-263-080		CAP, ELECT 100-10V M 11L SME
	87-A40-270-080		C-DIODE,MC2838	C309	87-010-318-080		C-CAP,S 47P-50 CH GRM
	87-A40-269-080		C-DIODE,MC2836	C310	87-010-318-080		C-CAP,S 47P-50 CH GRM
	87-A40-291-080		DIODE,1N4148M (CPT)	C311	87-010-598-080		C-CAP,S 0.068-16VRK
	87-020-465-080		DIODE,1SS133	C312	87-010-598-080		C-CAP,S 0.068-16VRK
	87-017-154-080		ZENER,HZS6C3L	C313	87-010-187-080		CAP CHIP S5600P-50 KB
	87-A40-739-080		ZENER,UZ2.7BSA	C314	87-010-187-080		CAP CHIP S5600P-50 KB
	87-017-149-080		ZENER,HZS6A2L	C315	87-010-263-080		CAP, ELECT 100-10V
				C317	87-010-400-080		CAP, ELECT 0.47-50V M 11L SME
				C318	87-010-400-080		CAP, ELECT 0.47-50V M 11L SME
				C326	87-010-198-080		CAP, CHIP 0.022-25 KB
				C327	87-010-196-080		CHIP CAPACITOR,0.1-25
				C360	87-010-401-080		CAP, ELECT 1-50V M 11L SME
MAIN C.B				C399	87-012-140-080		CAP 470P-50 J CH
C3	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF	C401	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C4	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF	C402	87-010-544-080		CAP, ELECT 0.1-50V M 11L SME
C5	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF	C403	87-012-145-080		CAP, CHIP S 270P-50 CH
C6	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF	C404	87-012-145-080		CAP, CHIP S 270P-50 CH
C9	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF	C405	87-010-197-080		CAP, CHIP 0.01-25 DM
C10	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF	C406	87-010-197-080		CAP, CHIP 0.01-25 DM
C11	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF	C407	87-010-197-080		CAP, CHIP 0.01-25 DM
C12	87-012-368-080		CHIP CAPACITOR,0.1-50 ZF	C408	87-010-197-080		CAP, CHIP 0.01-25 DM
C19	87-010-917-000		CAP,E 3300-50 M SMG	C409	87-010-182-080		C-CAP,S 2200P-50 B
C20	87-010-917-000		CAP,E 3300-50 M SMG	C410	87-010-182-080		C-CAP,S 2200P-50 B
C21	87-010-389-090		CAP,E 2200-25 M SMG	C411	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C22	87-010-389-090		CAP,E 2200-25 SMG	C412	87-010-405-080		CAP, ELECT 10-50V M 11L SME
C25	87-010-385-080		CAP, ELECT 220-25V M 11L SME	C452	87-010-382-080		CAP, ELECT 22-25V M 11L SME
C26	87-010-247-080		CAP, ELECT 100-50V M 11L SME	C453	87-010-183-080		C-CAP,S 2700P-50 B
C30	87-010-430-080		CAP, ELECT 100-63	C454	87-010-183-080		C-CAP,S 2700P-50 B
C31	87-010-263-080		CAP, ELECT 100-10V M 11L SME	C455	87-010-183-080		C-CAP,S 2700P-50 B
C32	87-010-197-080		CAP, CHIP 0.01-25 KB	C456	87-010-197-080		CAP, CHIP 0.01-25 DM
C34	87-010-384-080		CAP, ELECT 100-25V M 11L SME	C458	87-010-178-080		CHIP CAP 1000P-50
C35	87-010-380-080		CAP, ELECT 47-16 M 11L SME	C459	87-010-175-080		CAP 560P-50
C36	87-010-381-080		CAP, ELECT 330-16 M SME				
C38	87-010-197-080		C-CAP,S 0.01-25 KB				

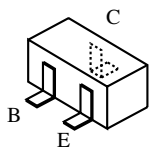
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C118	87-010-248-040		CAP,E 220-10 SME	S309	87-A90-095-080		SW, TACT EVQ11G04M
C119	87-010-248-040		CAP,E 220-10 SME	S321	87-A90-095-080		SW, TACT EVQ11G04M
C120	87-018-123-080		CAP, TC U 220P-50V KB	S322	87-A90-095-080		SW, TACT EVQ11G04M
C123	87-A11-148-080		CAP TC U 0.1-50 ZF	S323	87-A90-095-080		SW, TACT EVQ11G04M
C124	87-A11-148-080		CAP TC U 0.1-50 ZF	S324	87-A90-095-080		SW, TACT EVQ11G04M
C125	87-010-405-040		CAP,E 10-50 M 11L SME	S325	87-A90-095-080		SW, TACT EVQ11G04M
C126	87-A11-148-080		CAP TC U 0.1-50 ZF	S326	87-A90-095-080		SW, TACT EVQ11G04M
C130	87-010-405-040		CAP,E 10-50 M 11L SME	S327	87-A90-095-080		SW, TACT EVQ11G04M
C201	87-018-118-080		CAP,TC-U 82P-50 B	S328	87-A90-095-080		SW, TACT EVQ11G04M
C202	87-018-117-080		CAP,TC-U 68P-50 SL	S329	87-A90-095-080		SW, TACT EVQ11G04M
C205	87-018-117-080		CAP,TC-U 68P-50 SL	S330	87-A90-095-080		SW, TACT EVQ11G04M
C208	87-018-117-080		CAP,TC-U 68P-50 SL	S331	87-A90-095-080		SW, TACT EVQ11G04M
C209	87-018-117-080		CAP,TC-U 68P-50 SL	SFR701	87-024-352-080		SFR, 4.7K H EVN DJAA03
C210	87-018-117-080		CAP,TC-U 68P-50 SL				
C211	87-A11-147-080		CAPACTOR TC U 0.047-50 F				
C212	87-010-404-040		CAP,E 4.7-50 SME				
C213	87-010-404-040		CAP,E 4.7-50 SME	PT C.B			
C216	87-A11-147-080		CAPACTOR TC U 0.047-50 F	C15	87-010-387-080		CAP,E 470-25 SME
C701	87-010-384-040		CAP,E 100-25 SME	C16	87-010-403-080		CAP, ELECT 3.3-50V
CN101	88-NF9-658-010		CONN,30P BLK TYK-B(P)	CN1	87-A61-110-010		CONN,9P V TID-A
CN701	87-A60-673-010		CONN,9P H 2MM JMT	PT1	8A-MA6-663-010		PT,AMA-6 LH
CN801	87-099-015-010		CONN,13P V BLK 6216	PT2	8A-NF8-673-010		PT, SUB ANF-8 (H) KAMI
FC801	88-913-271-110		FF-CABLE,13P 1.25	RY1	87-A91-300-010		RELAY,AC 12V-ALA2PF12
FL201	8A-NFA-604-010		FL,10-BT-224GNK	S1	87-A90-165-010		SW,SL 1-2-3 SWS2301
L101	87-A50-050-010		COIL,CLK 4.19M(COI)	T1	87-A60-317-010		TERMINAL, 1P MSC
LED101	87-A40-317-080		LED,SLR-342VCT31 RED	T2	87-A60-317-010		TERMINAL, 1P MSC
S101	87-A91-623-010		SW, RTRY EC12E2430403-25MM				
S301	87-A90-095-080		SW, TACT EVQ11G04M				
S302	87-A90-095-080		SW, TACT EVQ11G04M				
S303	87-A90-095-080		SW, TACT EVQ11G04M				
S304	87-A90-095-080		SW, TACT EVQ11G04M				
S305	87-A90-095-080		SW, TACT EVQ11G04M				
S306	87-A90-095-080		SW, TACT EVQ11G04M				
S307	87-A90-095-080		SW, TACT EVQ11G04M				
S308	87-A90-095-080		SW, TACT EVQ11G04M				

TRANSISTOR ILLUSTRATION



E C B

CSA952

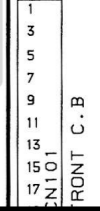
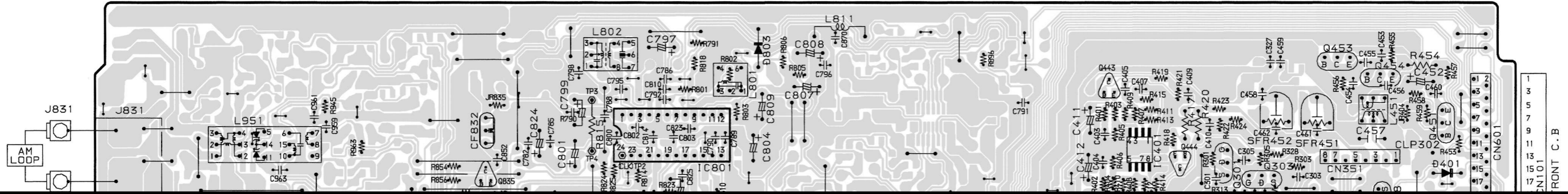
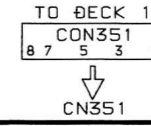
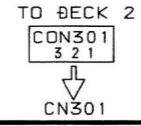


KRC104S
KRA107S

WIRING - 1 (MAIN)

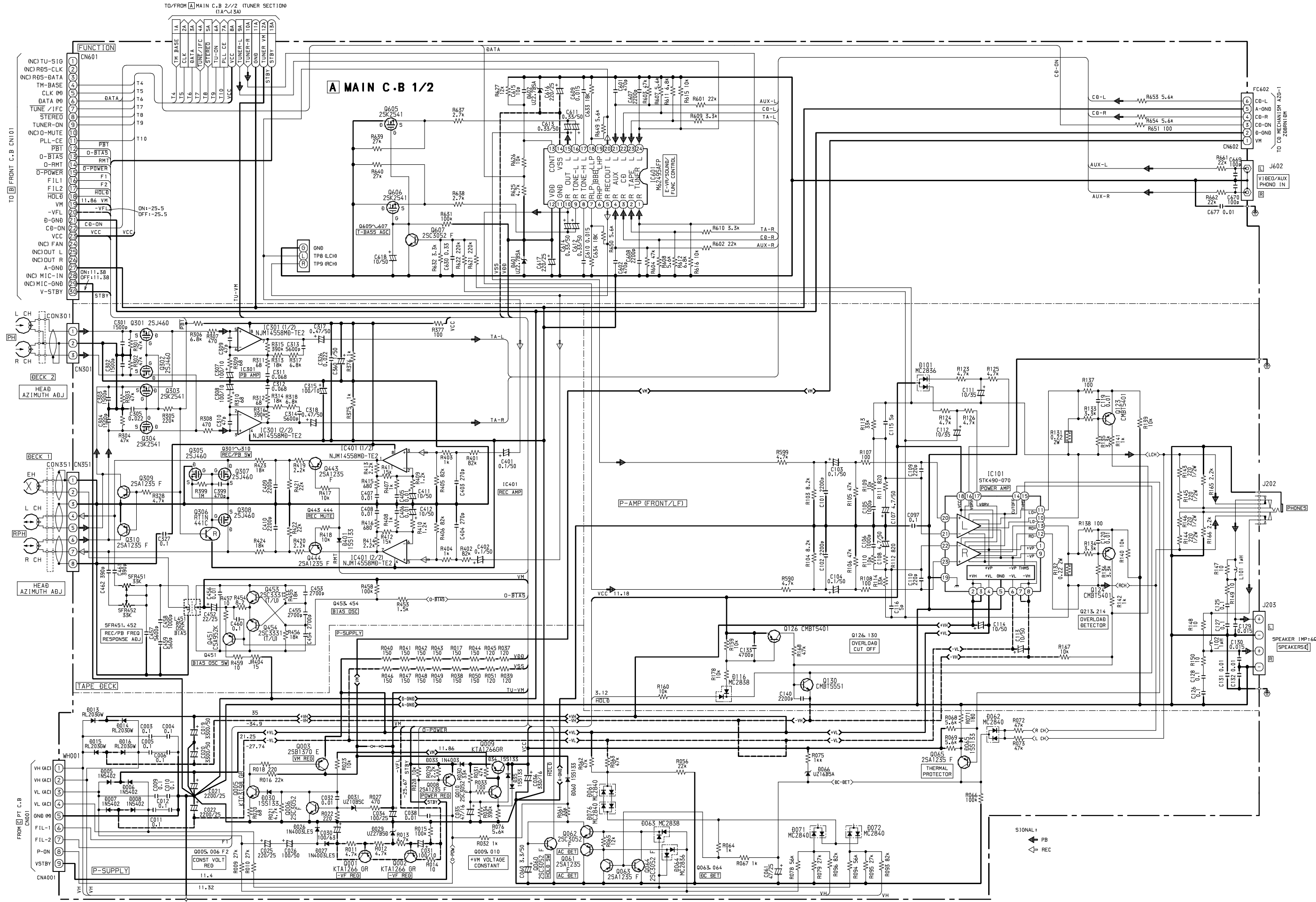
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A MAIN C.B



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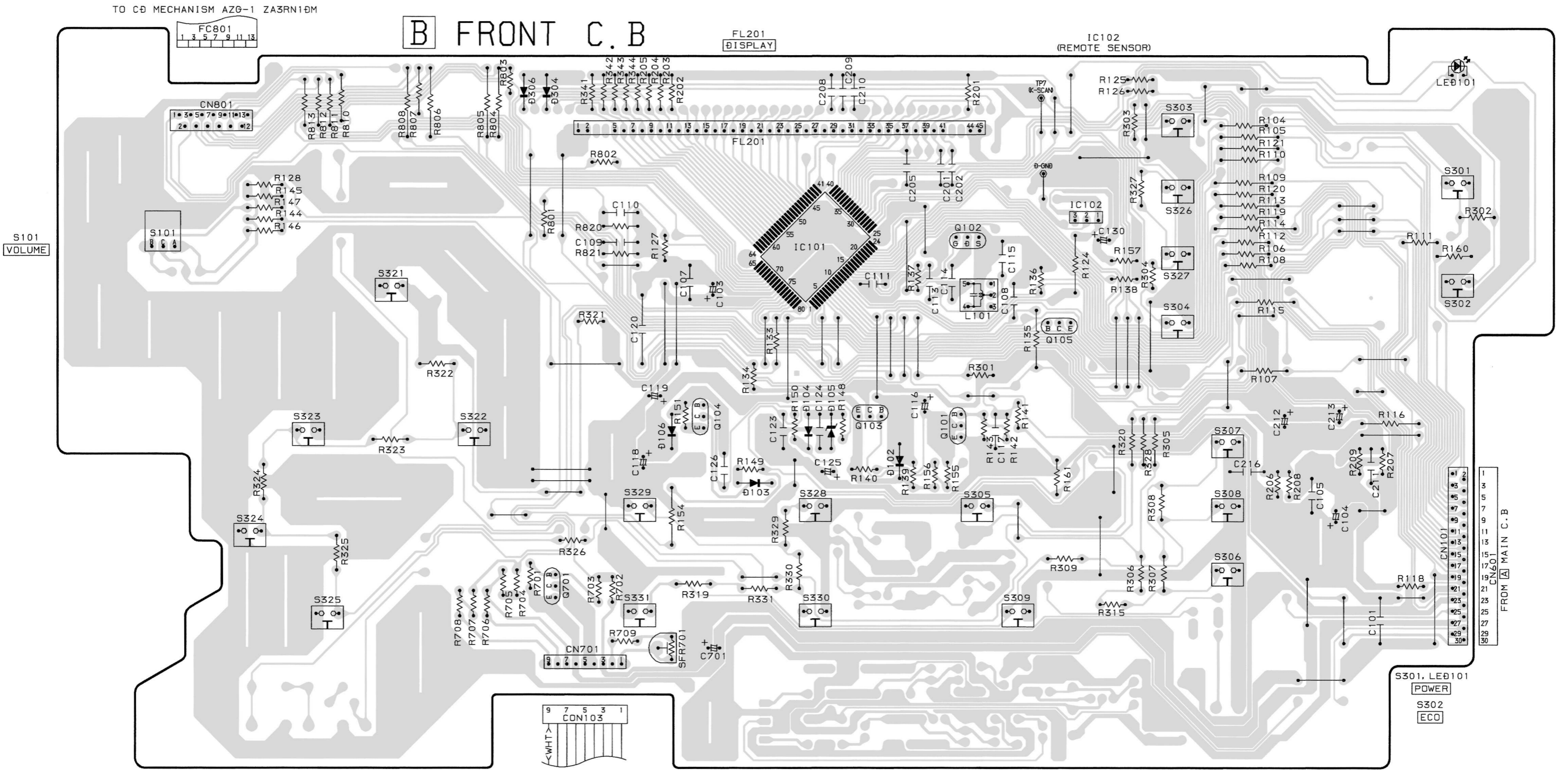
SCHEMATIC DIAGRAM - 1 (MAIN 1/2)



WIRING - 2 (FRONT)

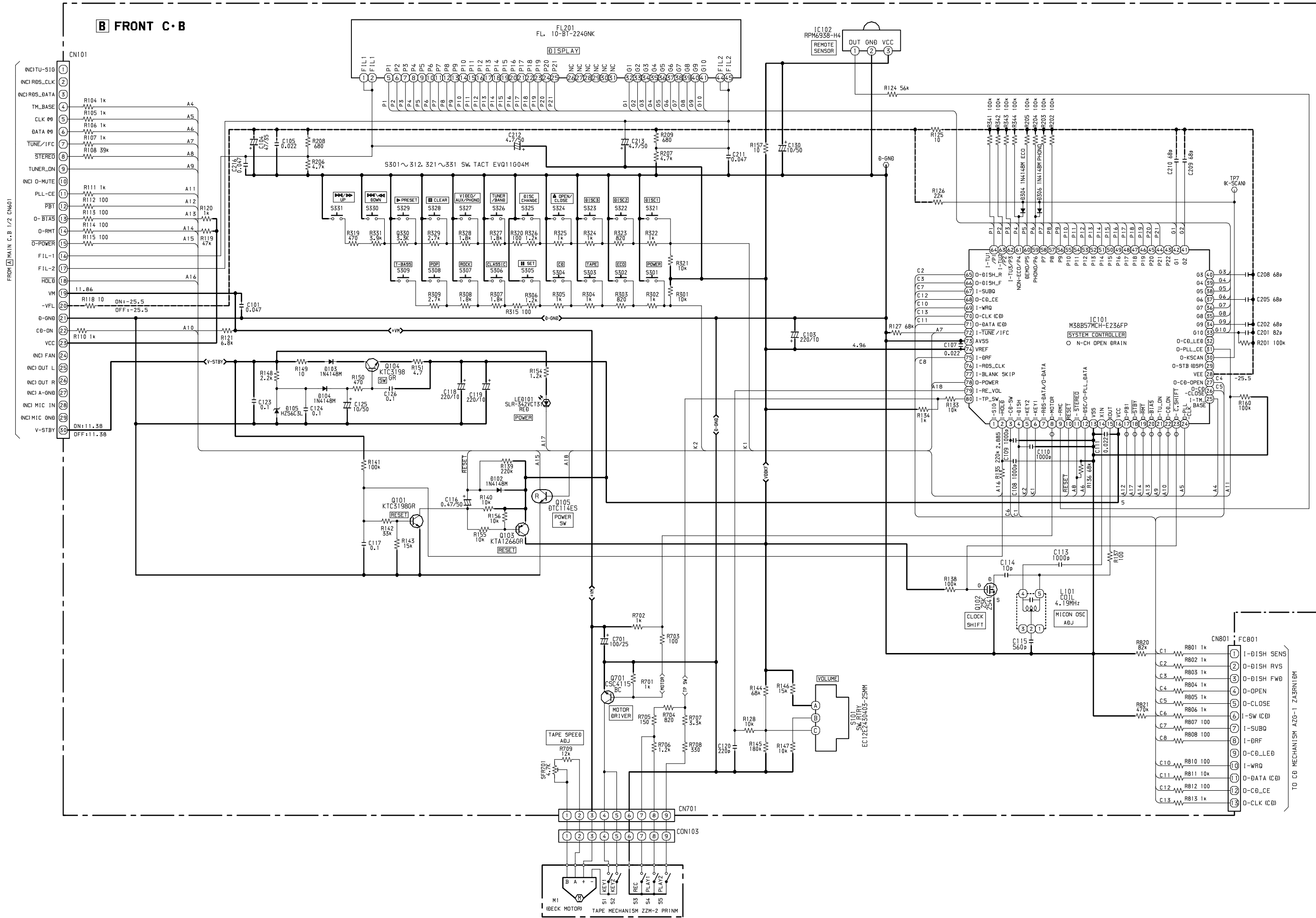
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| S325
DISC CHANGE | S324
OPEN/CLOSE | S323
DISC 3 | S322
DISC 2 | S321
DISC 1 | S320
DISC DIRECT PLAY 1-3 | S319
PRESET | S318
UP | S317
DOWN | S316
T-BASS | S315
SET | S314
CLEAR | S313
CLASSIC | S312
POP | S311
ROCK | S310
TAPE | S309
TUNER/BAND | S308
VIDEO/AUX/PHONO | S307
CD |
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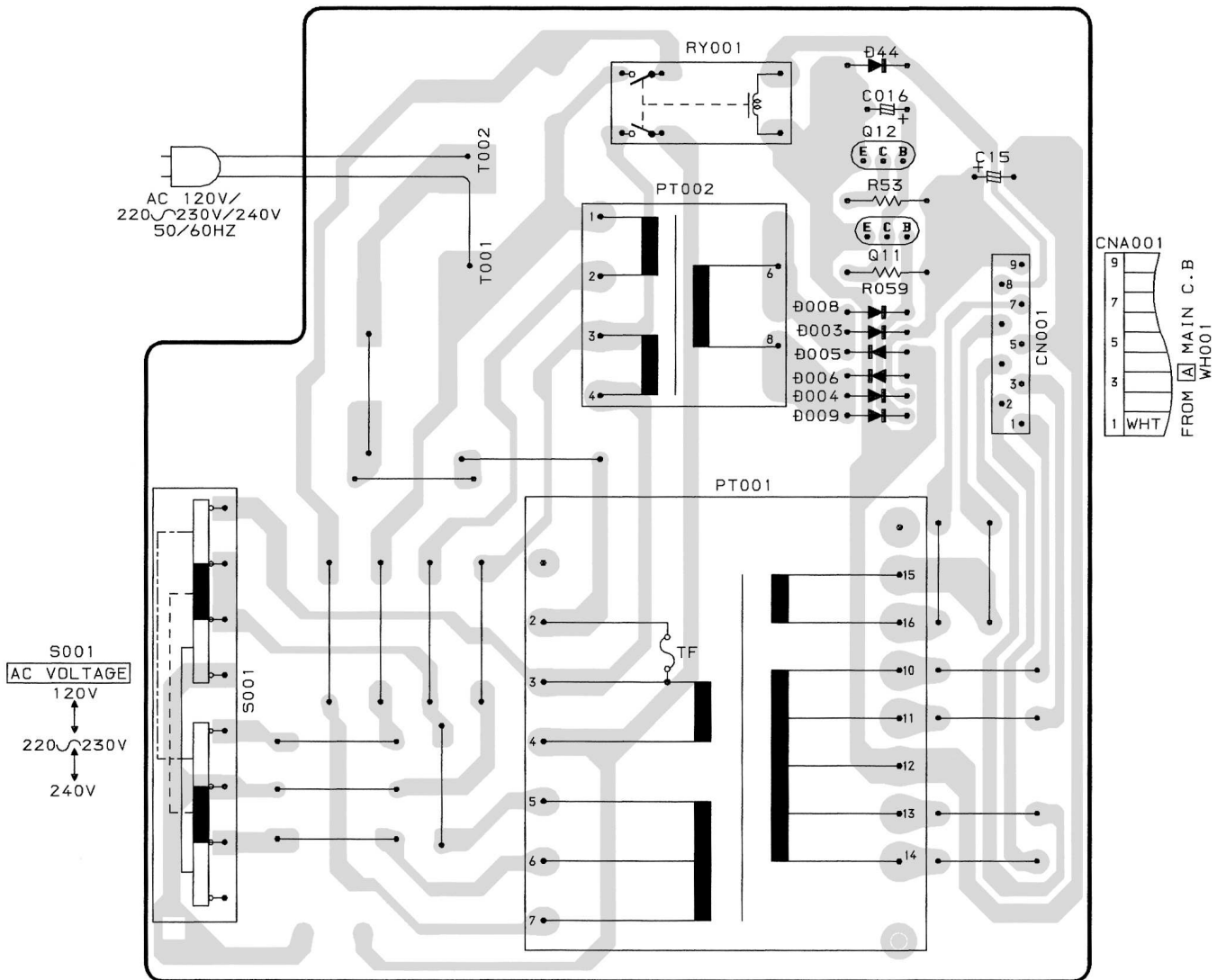
SCHEMATIC DIAGRAM - 3 (FRONT)



WIRING - 3 (PT)

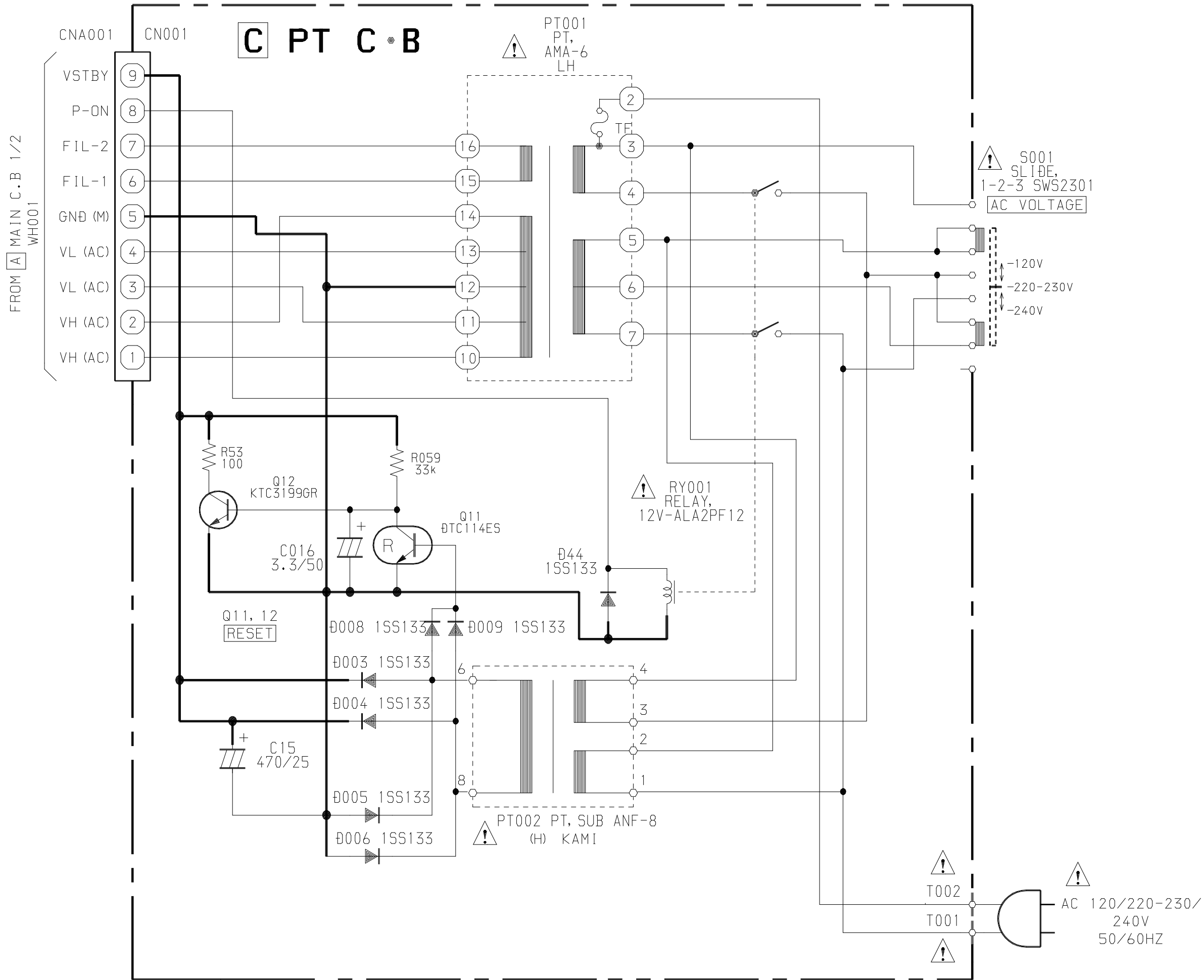
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C PT C.B

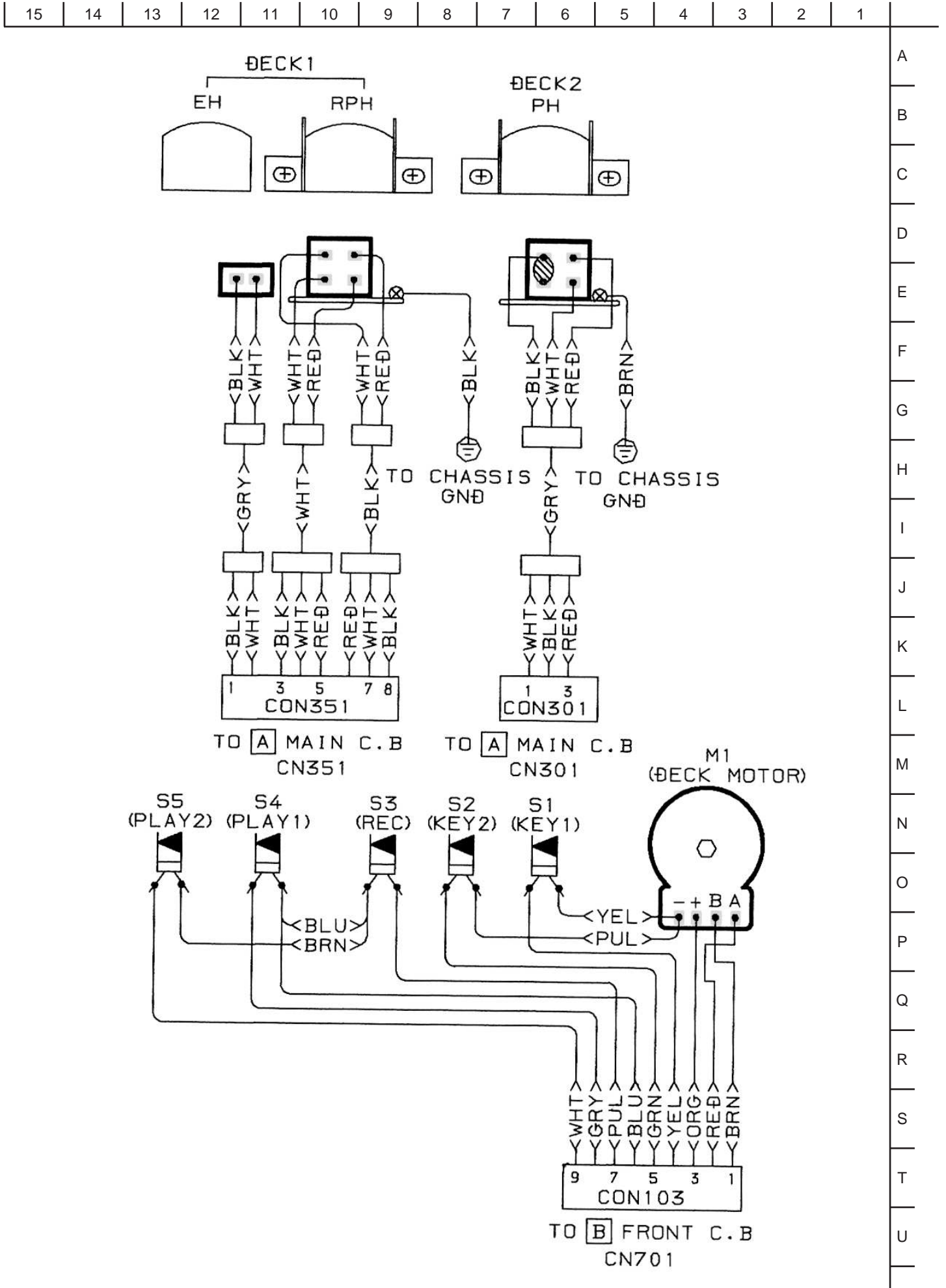


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SCHEMATIC DIAGRAM - 4 (PT)



WIRING - 4 (DECK)



ADJUSTMENT <TUNER>

7. DC Balance / Mono Distortion Adjustment

Settings : • Test point : TP3, TP4 (DC Balance)

TP8 (Lch), TP9 (Rch) (Distortion)

- Adjustment location : L801
- Input level : 60dB μ V

Method : Set to FM 98.0MHz and adjust L801 so that the voltage between TP3 and TP4 becomes 0V \pm 300mV.

Next, check that the distortion is minimum.

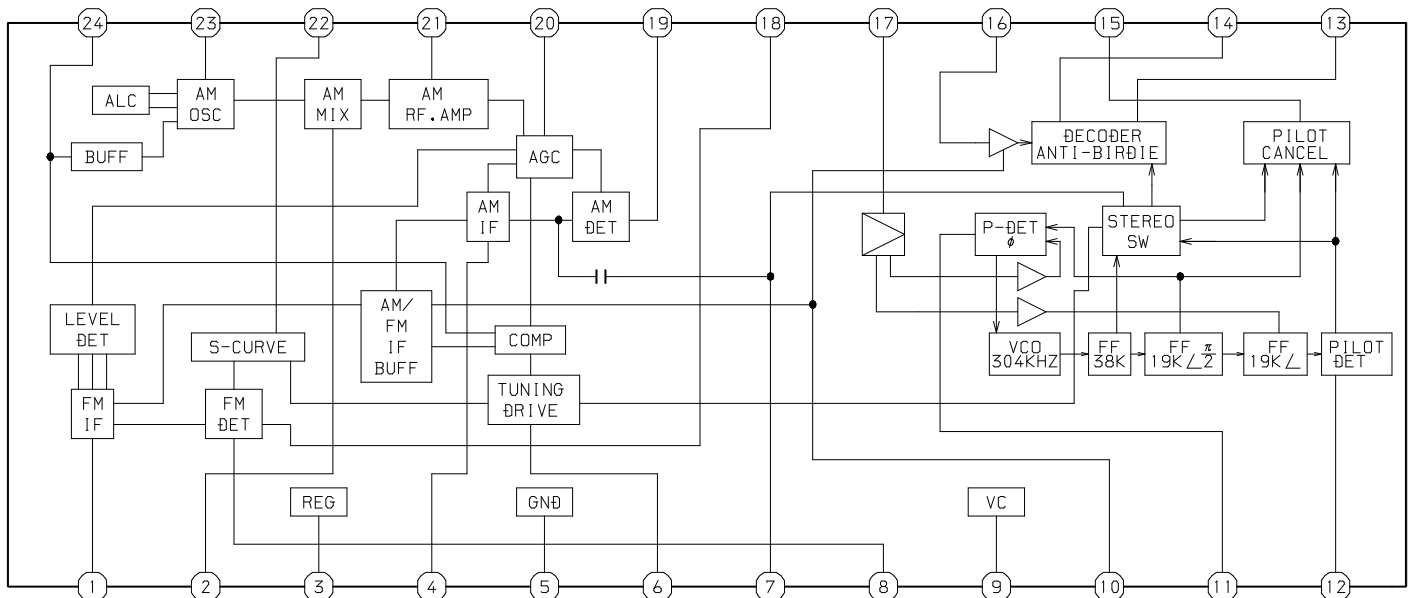
IC DESCRIPTION

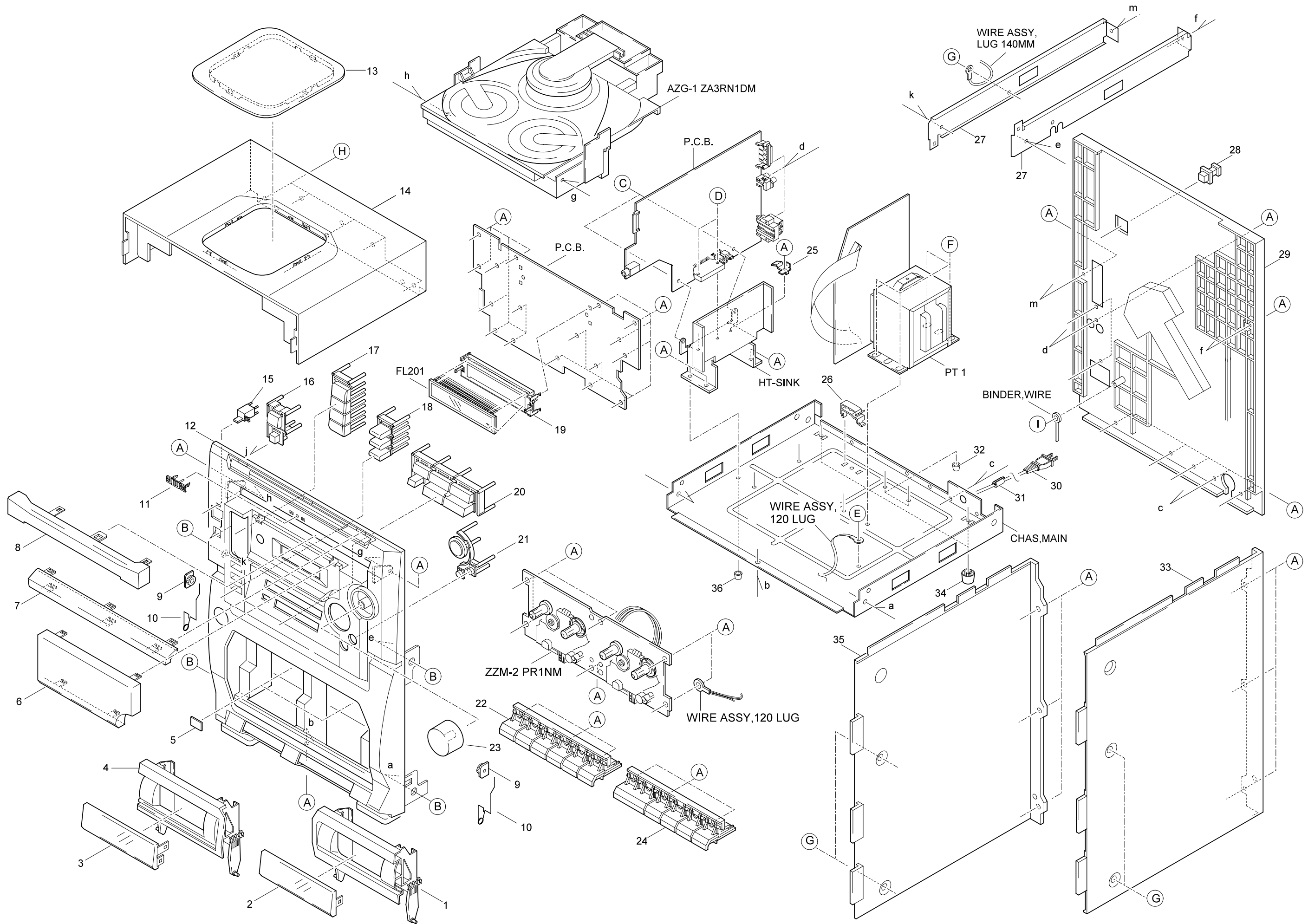
IC, M38B57MCH-E236FP

The IC DESCRIPTION for IC, M38B57MCH-E236FP is the same as IC M38B59MFH-E250FP.

IC BLOCK DIAGRAM

IC, LA1844L-A





MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MA6-007-010		BOX, CASS R	26	87-NF4-221-010		HLDR, CABLE
2	8A-MA6-017-010		WINDOW, CASS R	27	88-MA1-208-210		JOINT, CABI
3	8A-MA6-016-010		WINDOW, CASS L	28	84-ZG1-245-210		CAP, OPTICAL
4	8A-MA6-006-010		BOX, CASS L	29	8A-MA6-024-010		CABI, REAR LH
5	81-532-080-010		LABEL, CASS. COMPT	△ 30	87-A80-105-010		AC CORD ASSY, AZ
6	8A-MA6-015-010		WINDOW, DISP	31	87-085-185-010		BUSHING, AC CORD (E)
7	8A-MA6-014-010		WINDOW, CD	32	8Z-NB8-240-010		COVER, PL
8	8A-MA6-011-010		PANEL, CD	33	8A-MA5-046-010		PANEL, SIDE R 5
9	86-NFZ-231-010		DMPR, 70	34	87-MA3-062-010		FOOT, H17
10	8Z-CL8-209-010		SPR-T, CASS	35	8A-MA5-045-010		PANEL, SIDE L 5
11	87-B00-002-010		BADGE, AIWA 30 ABS SIL	36	8Z-NB8-254-010		COVER, PL M3
12	8A-MA6-003-110		CABI, FR LH	A	87-067-703-010		TAPPING SCREW, BVT2+3-10
13	8A-MA3-057-010		WINDOW, TOP	B	87-591-095-410		TAPPING SCREW, QIT+3-8 (GLD)
14	8A-MA6-018-110		CABI, TOP	C	87-NF4-224-010		S-SCREW, IT3B+3-8 CU
15	8A-MA6-032-010		REFLECTOR, POWER	D	87-067-581-010		TAPPING SCREW, BVT2+3-15
16	8A-MA6-031-010		KEY, POWER	E	87-067-688-010		BVTT+3-6
17	8A-MA6-033-010		KEY, FUNCTION	F	87-067-586-010		TAPPING SCREW, BVT2+4-8
18	8A-MA6-034-110		KEY, GEQ	G	87-067-641-010		UTT2+3-8 (W/O SLOT) BL
19	8A-NFA-208-010		GUIDE, FL 100-25 ANFA	H	87-067-758-010		BVT2+3-12 W/O SLOT
20	8A-MA6-035-010		KEY, PLAY	I	87-067-579-010		TAPPING SCREW, BVT2+3-8
21	8A-MA6-036-010		KEY, CD				
22	8A-MA6-041-010		KEY, CASS L				
23	8A-MA6-039-010		KNOB, RTRY VOL				
24	8A-MA6-042-010		KEY, CASS R				
25	8A-NF8-205-010		HLDR, IC				

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange		

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