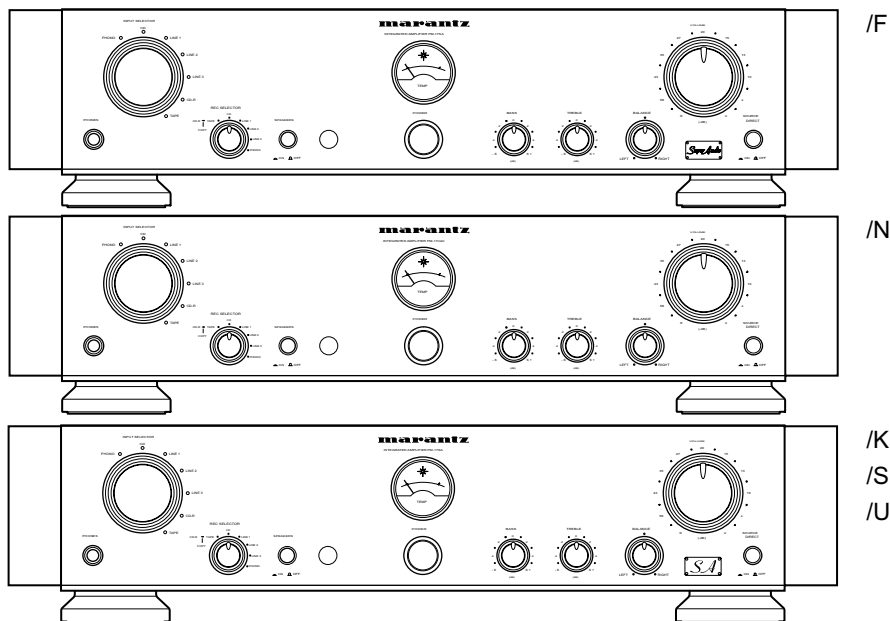


Service Manual

PM17A /F1N, /K1G, /N1G, /S1G
/N1B, /U1B
Integrated amplifier



PM-17SA / mkII

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Please use this service manual with referring to the user guide (D.F.U.) without fail.
修理の際は、必ず取扱説明書を準備し操作方法を確認の上作業を行ってください。

marantz®

PM-17SA / PM-17mkII

313J855010 MIT
3120 785 22180
First Issue 1999.10

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AURORA, ILLINOIS 60504 USA
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FAX : 630 - 820 - 8103

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LENBROOK INDUSTRIES LIMITED
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PICKERING, ONTARIO L1W 3K1
CANADA
PHONE : 905 - 831 - 6333
FAX : 905 - 831 - 6936

AUSTRALIA

JAMO AUSTRALIA PTY LTD
1 EXPO COURT, P.O. BOX 350
MT. WAVERLEY VIC 3149
AUSTRALIA
PHONE : +61 - 3 - 9543 - 1522
FAX : +61 - 3 - 9543 - 3677

THAILAND

MRZ STANDARD CO.,LTD
746 - 754 MAHACHAI ROAD.,
WANGBURAPAPIROM, PHRANAKORN,
BANGKOK, 10200 THAILAND
PHONE : +66 - 2 - 222 9181
FAX : +66 - 2 - 224 6795

SINGAPORE

WO KEE HONG (S) PTE LTD
WO KEE HONG CENTRE
NO.23, LORONG 8, TOA PAYOH
SINGAPORE 319257
PHONE : +65 2544555
FAX : +65 2502213

TAIWAN

PAI- YUING CO., LTD.
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TAIPEI, 10429, TAIWAN R.O.C.
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FAX : +886 - 2 - 25630415

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WO KEE HONG ELECTRONICS SDN. BHD.
SUITE 8.1, LEVEL 8, MENARA GENESIS,
NO. 33, JALAN SULTAN ISMAIL,
50250 KUALA LUMPUR, MALAYSIA
PHONE : +60 3 - 2457677
FAX : +60 3 - 2458180

JAPAN *Technical*

MARANTZ JAPAN, INC.
35- 1, 7- CHOME, SAGAMIONO
SAGAMIHARA - SHI, KANAGAWA
JAPAN 228-8505
PHONE : +81 42 748 1013
FAX : +81 42 741 9190

日本マランツ株式会社

本社 〒228-8505
神奈川県相模原市相模大野7-35-1
営業本部 〒150-0022
東京都渋谷区恵比寿南1-11-9

KOREA

MK ENTERPRISES LTD.
ROOM 604/605, ELECTRO-OFFICETEL, 16-58,
3GA, HANGANG-RO, YONGSAN-KU, SEOUL
KOREA
PHONE : +822 - 3232 - 155
FAX : +822 - 3232 - 154

SHOCK, FIRE HAZARD SERVICE TEST :

CAUTION : After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard No. 1492.

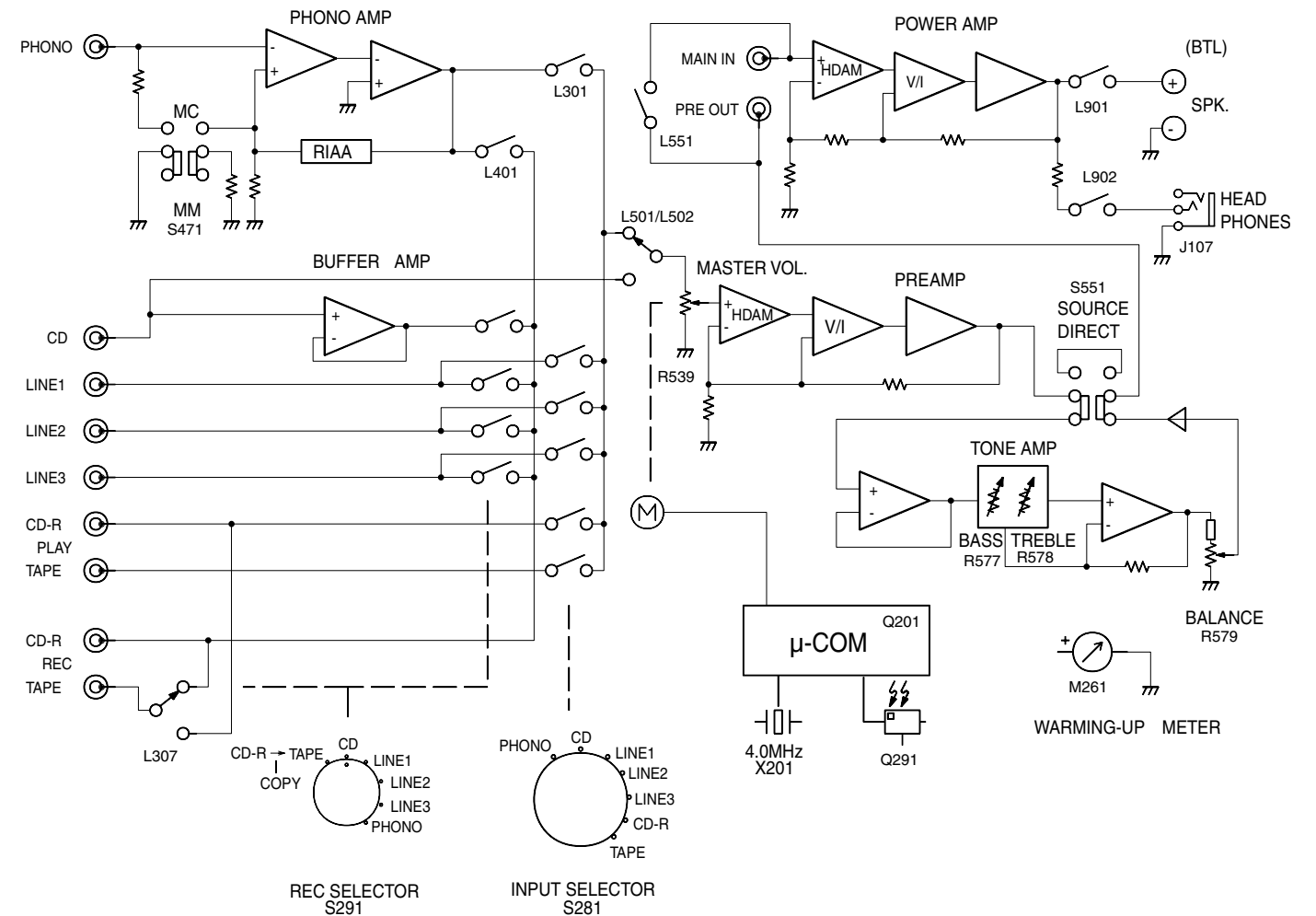
In case of difficulties, do not hesitate to contact the Technical Department at above mentioned address.

1. TECHNICAL SPECIFICATIONS

Rated power output (20 Hz to 20 kHz, 2CH simultaneous drive)	60 W x 2 (8 Ω load) 80 W x 2 (6 Ω load) 100 W x 2 (4 Ω load)
Total harmonic distortion (20 Hz to 20 kHz, 2CH drive, 8 Ω load)	0.01 %
Cross-modulation distortion (SMPTE)	0.01 %
Output bandwidth (8 Ω load, 0.04 %)	10 Hz to 50 kHz
Frequency response (CD, SOURCE DIRECT)	5 Hz to 70 kHz, +0/-1 dB
Damping factor (8 Ω load, 20 Hz to 20 kHz)	100
Input sensitivity/input impedance	
PHONE (MC)	230 μV/100 Ω
PHONE (MM)	2.5 mV/47 kΩ
HIGH LEVEL	220 mV/22 kΩ
MAIN IN	1.6 V/22 kΩ
Output voltage/output impedance	
PRE OUT	1.6 V/250 Ω
Maximum allowable PHONE input (1 kHz)	
MC	15 mV
MM	150 mV
RIAA deviation (20 Hz to 20 kHz)	±0.2 dB
S/N (IHF A network, input shorted)	
PHONE (MC)	76 dB
PHONE (MM)	90 dB
HIGH LEVEL	112 dB
Tone control	
BASS (100 Hz)	±8 dB
TREBLE (10 kHz)	±8 dB
Supply voltage	
F version	100 V AC, 50/60 Hz
/K1 version	110 V/220 V AC, 50/60 Hz
/N1, /S1 version	230 V AC, 50 Hz
/U1 version	120 V AC, 60 Hz
Power consumption	180 W
Dimensions (Maximum)	
Width	458 mm
Height	110 mm
Depth	429 mm
Weight	16 kg
Accessories	
Remote control unit (RC-17mkIIIPM)	x 1
Dimensions	
Width	44 mm
Height	239 mm
Depth	17.5 mm
Weight (without batteries)	189 g
SUM-4 (R6/ "AA" size) dry cell battery	x 2

Design and specifications are subject to change without notice.

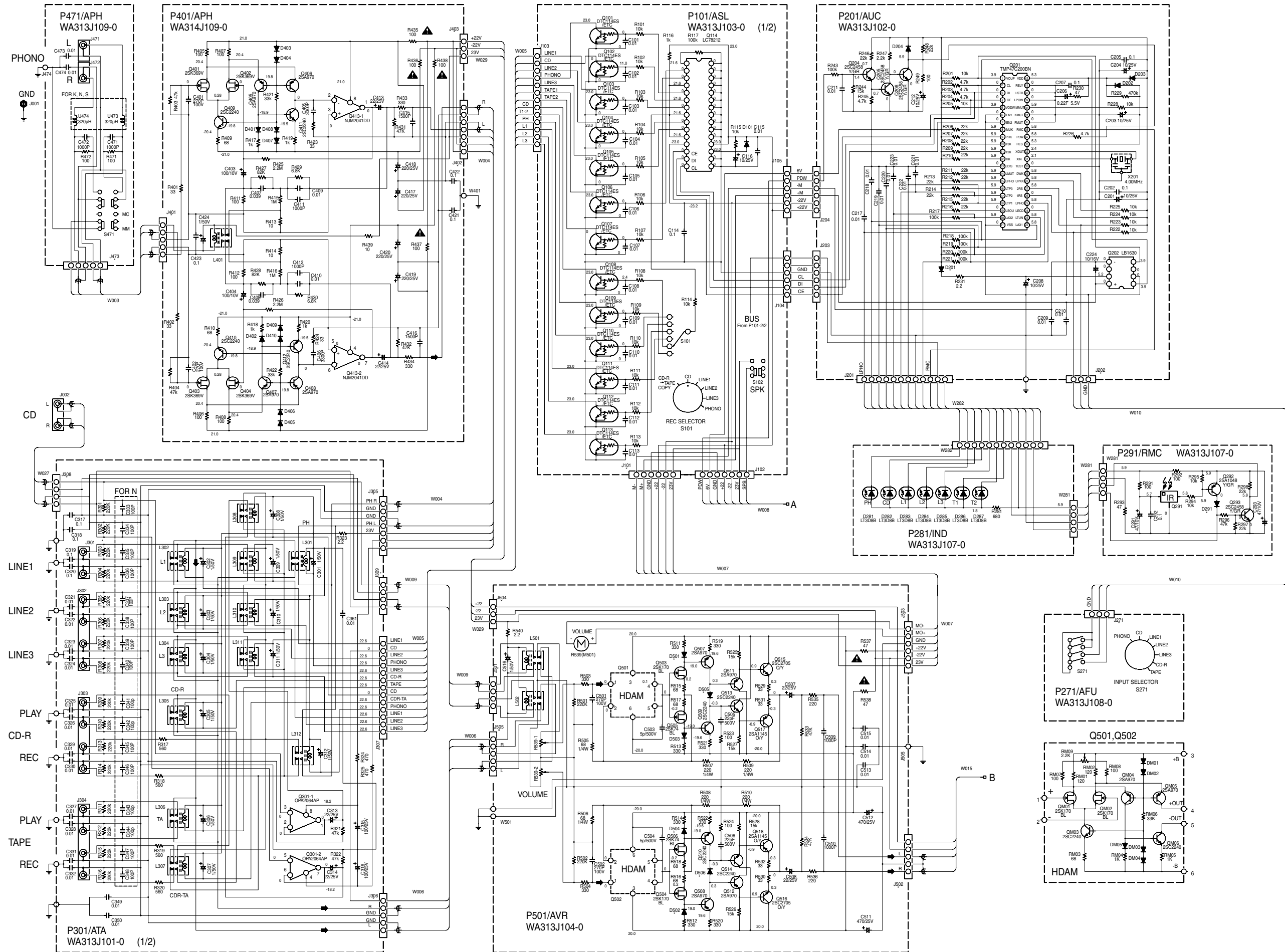
2. BLOCK DIAGRAM

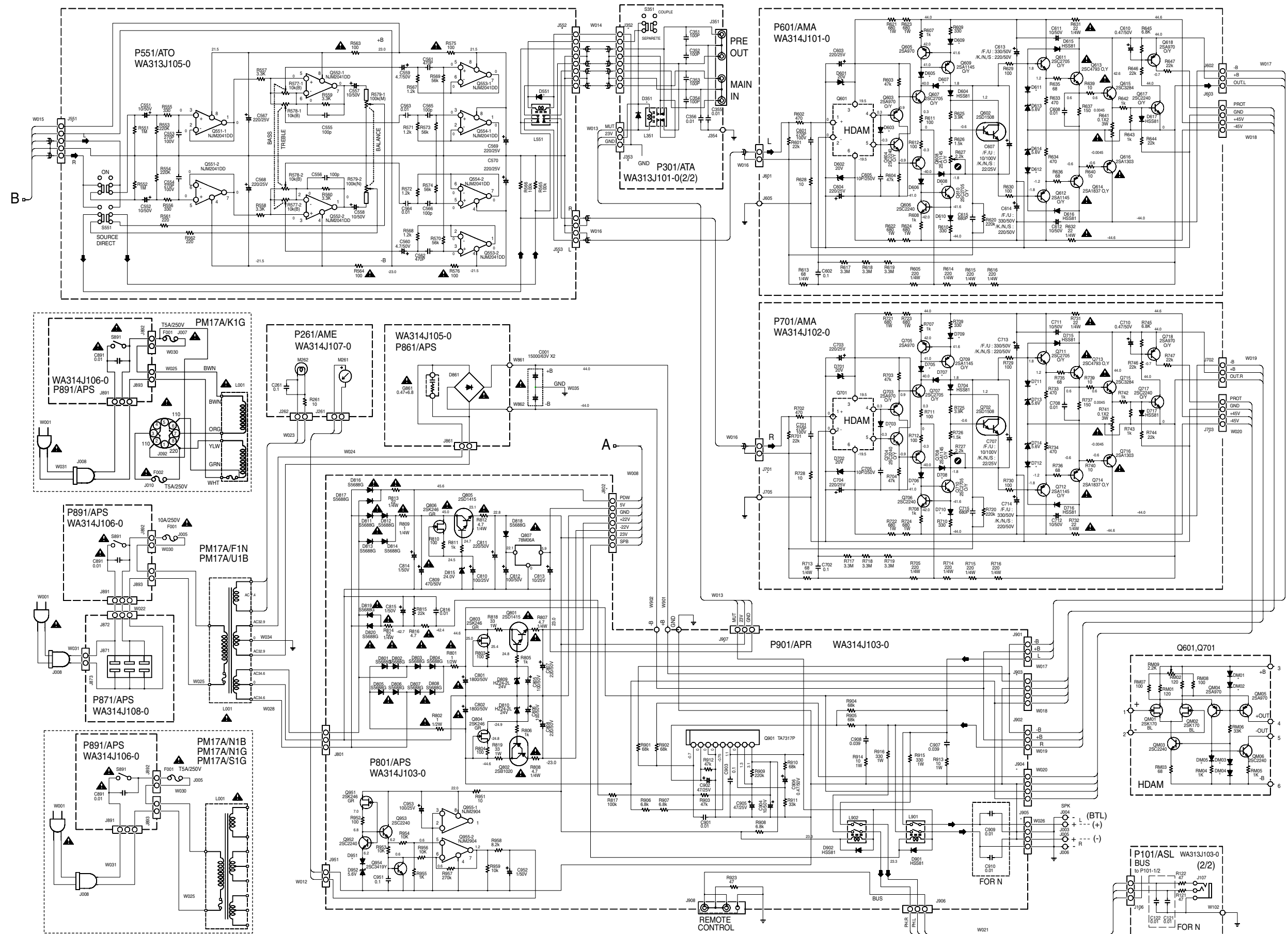


3. TEST EQUIPMENT REQUIRED FOR SERVICING

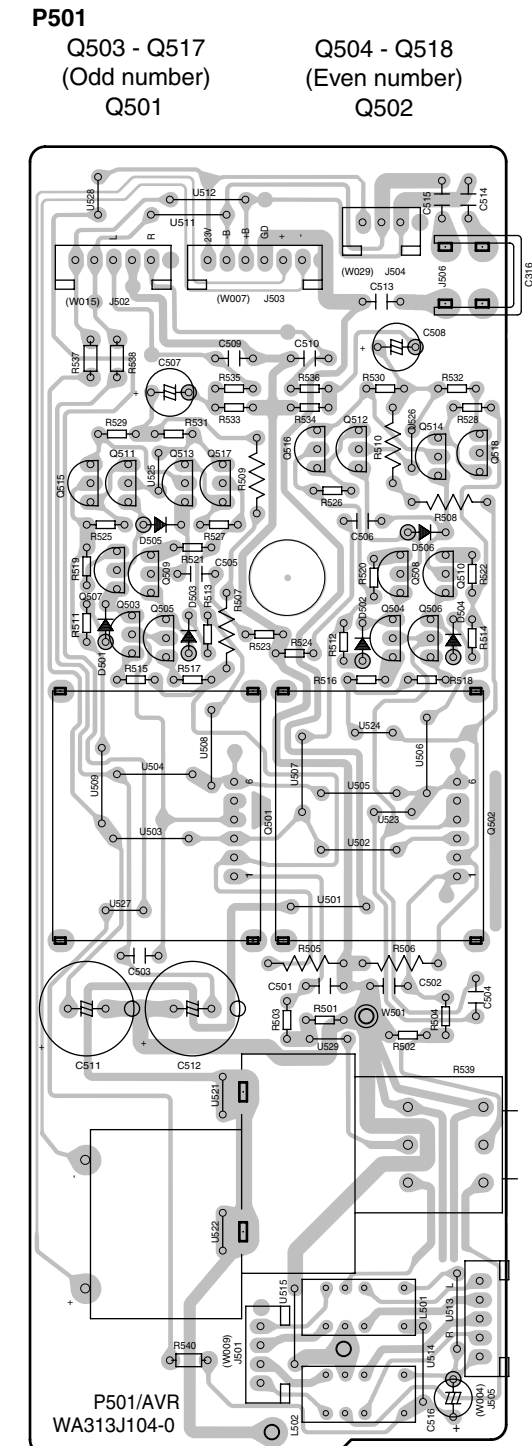
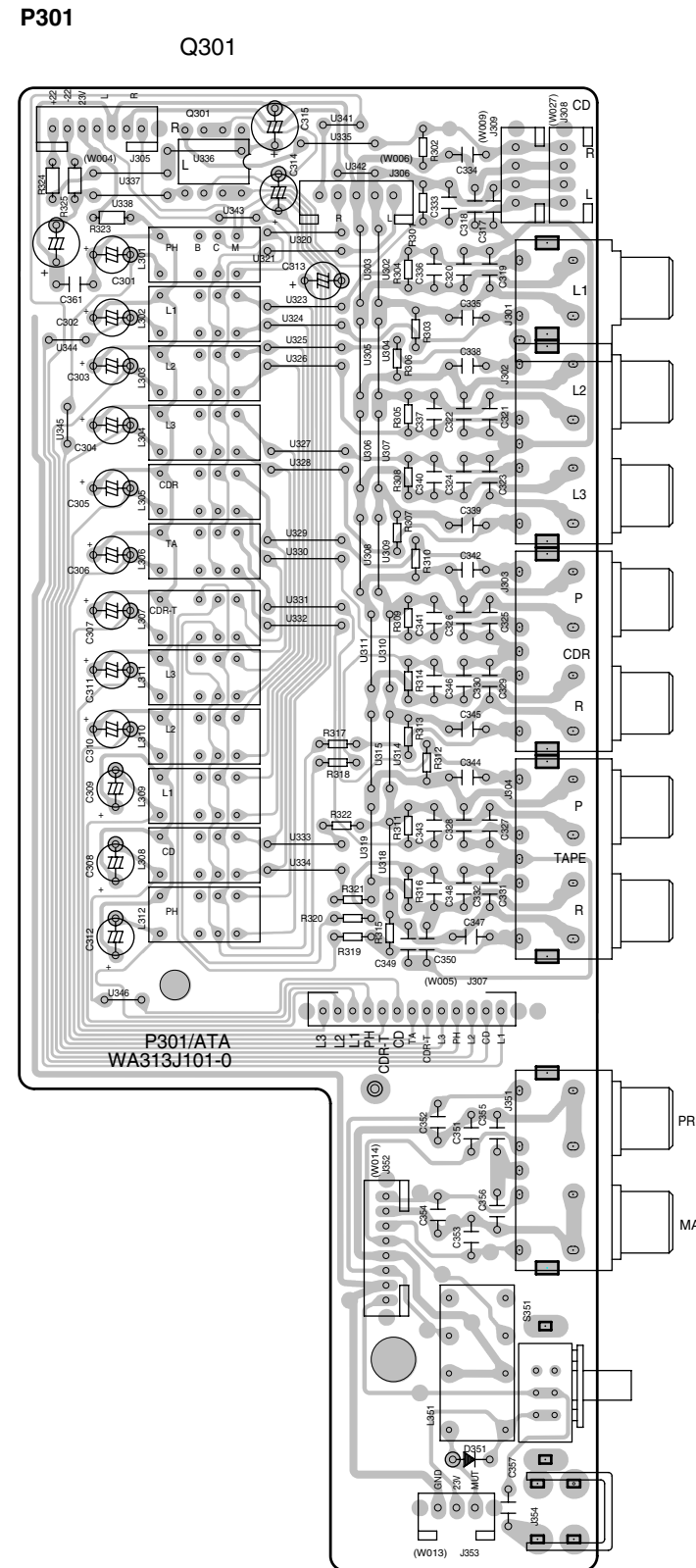
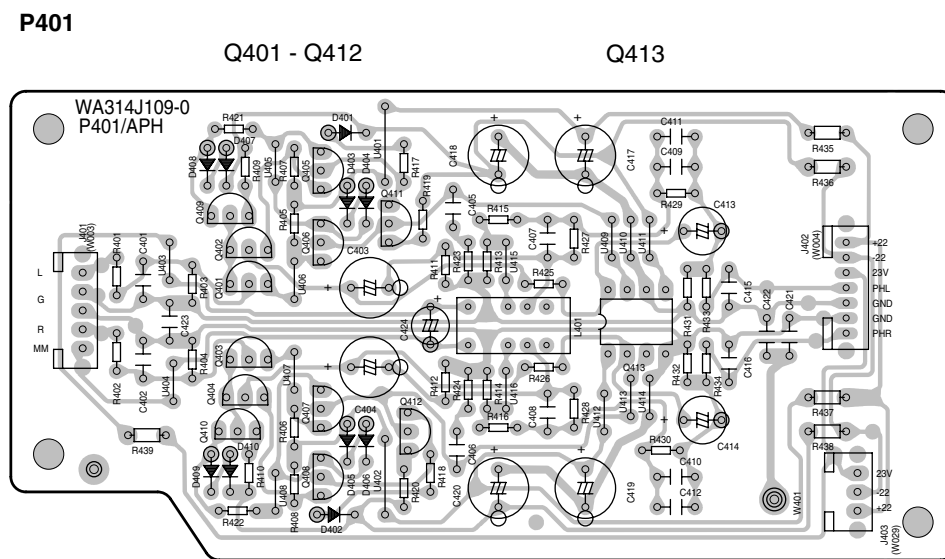
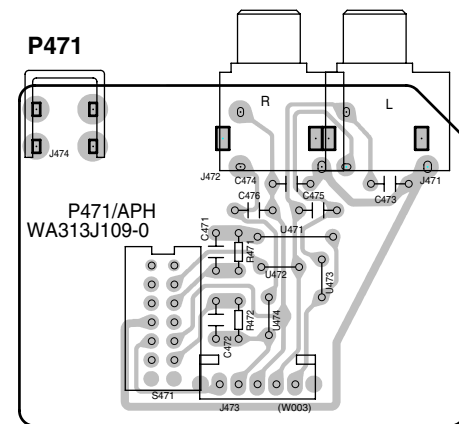
Item 項目	Use 使用方法
Distortion Analyzer 歪率計	Distortion measurements 歪の測定
Audio Oscillator 低周波発振器	Sinewave and squarewave signal source 正弦波及び矩形波の信号源
AC VTVM AC VTVM	Voltage measurements (AC) 交流電圧の測定
Oscilloscope オシロスコープ	Waveform analysis and trouble shooting and ASO alignment 波計分析、トラブルシューティング及びASOの調整
DC VTVM DC VTVM	Voltage measurements (DC) 直流電圧の測定
AC Wattmeter 交流ワットメーター	Monitors primary power to amplifier アンプの一次側消費電力のモニター
Line Voltmeter 電源電圧計	Monitors potential of primary power to amplifier アンプの一次側消費電圧のモニター
Variable Autotransformer スライダック	Adjust level of primary power to amplifier アンプの一次側電圧の調節
Circuit Tester テスター	Trouble shooting トラブルシューティング
Shorting Plug ショート用プラグ	Shorts amplifier input to eliminate noise pickup 雑音を拾わないようにアンプ入力を短絡する

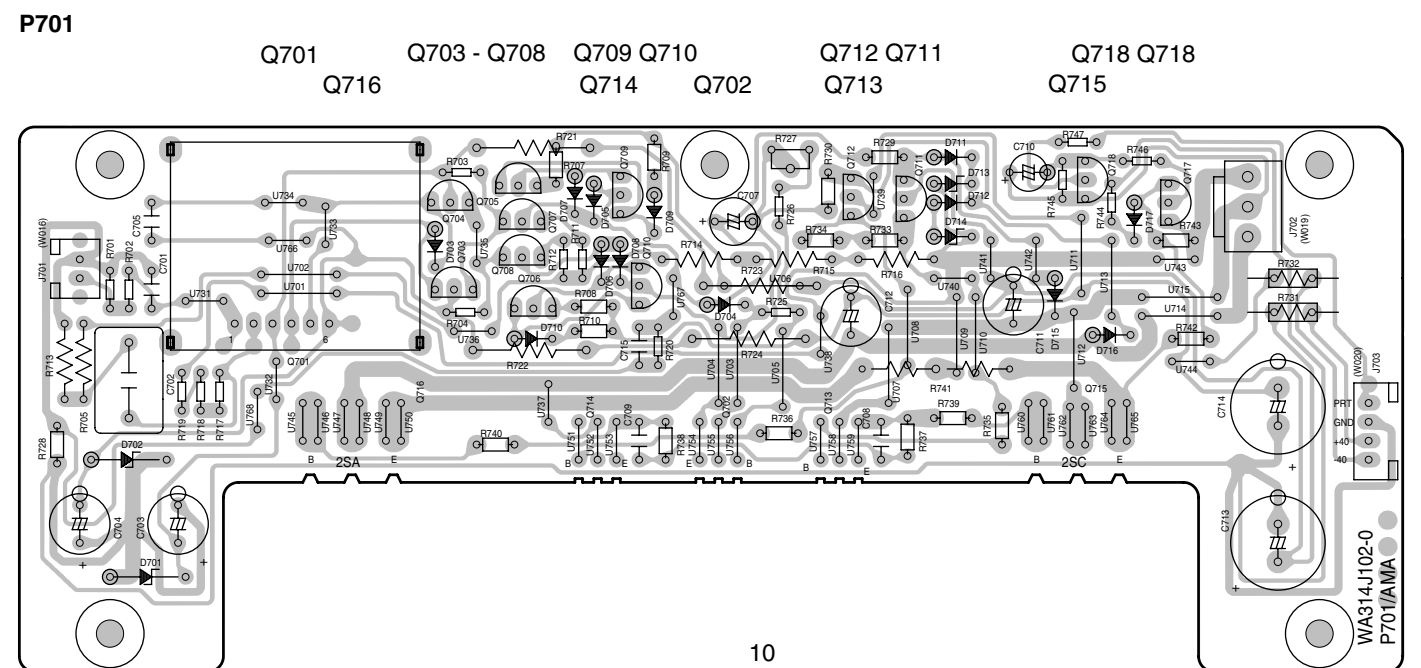
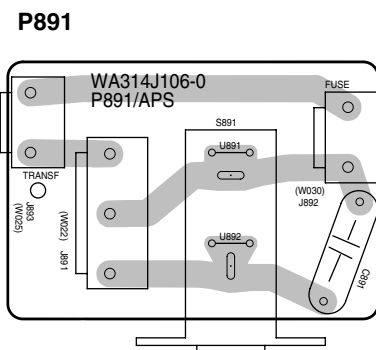
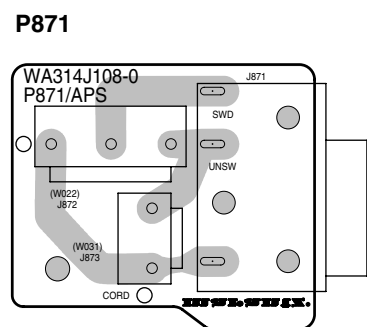
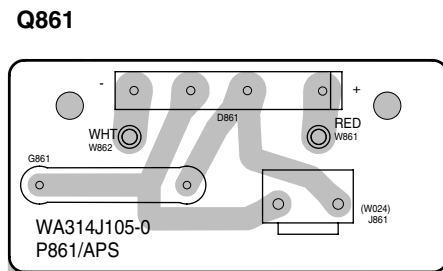
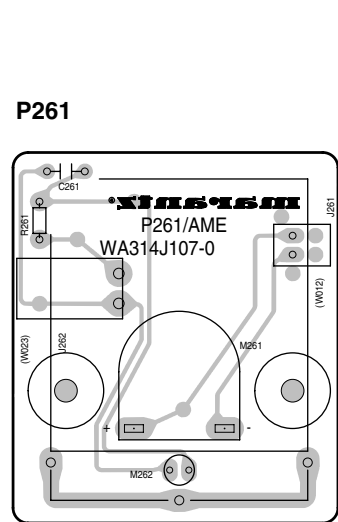
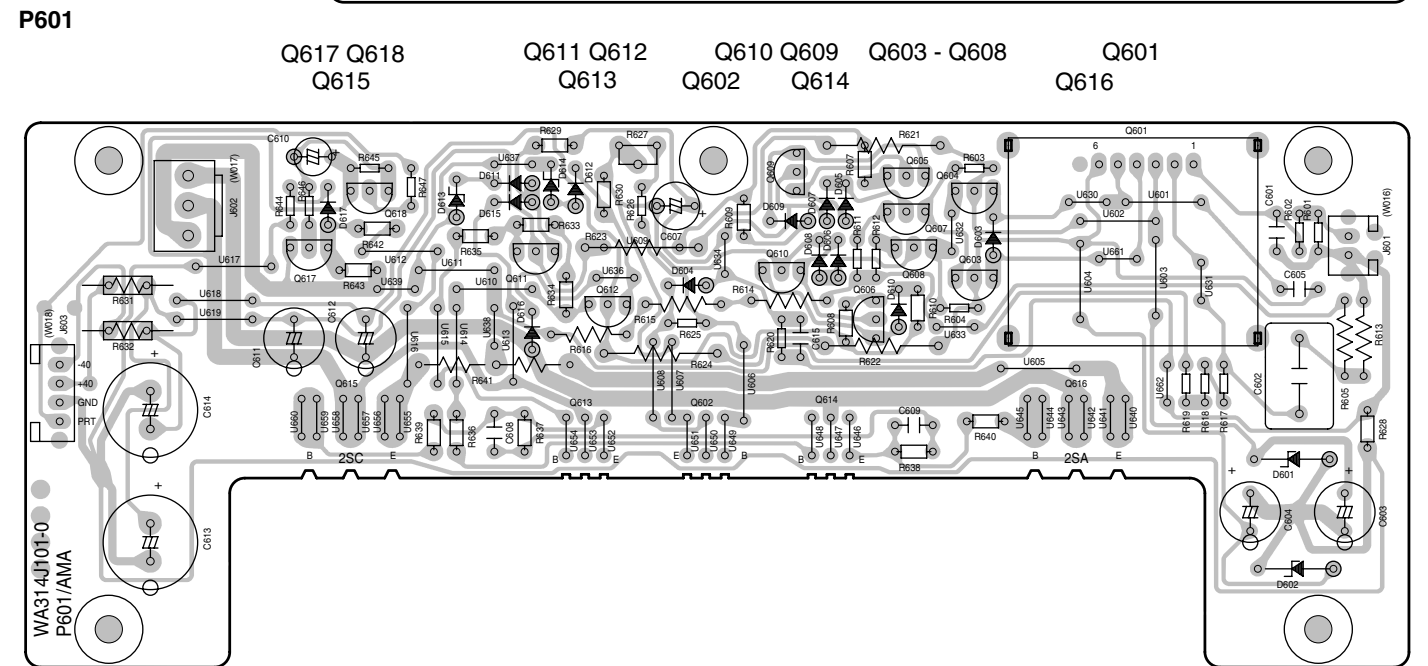
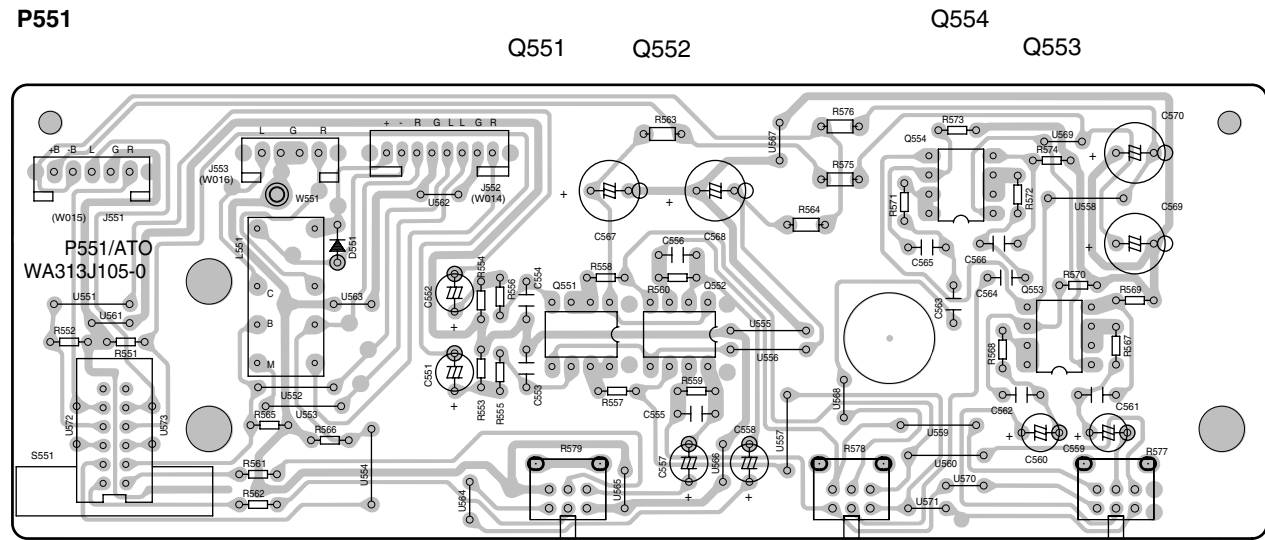
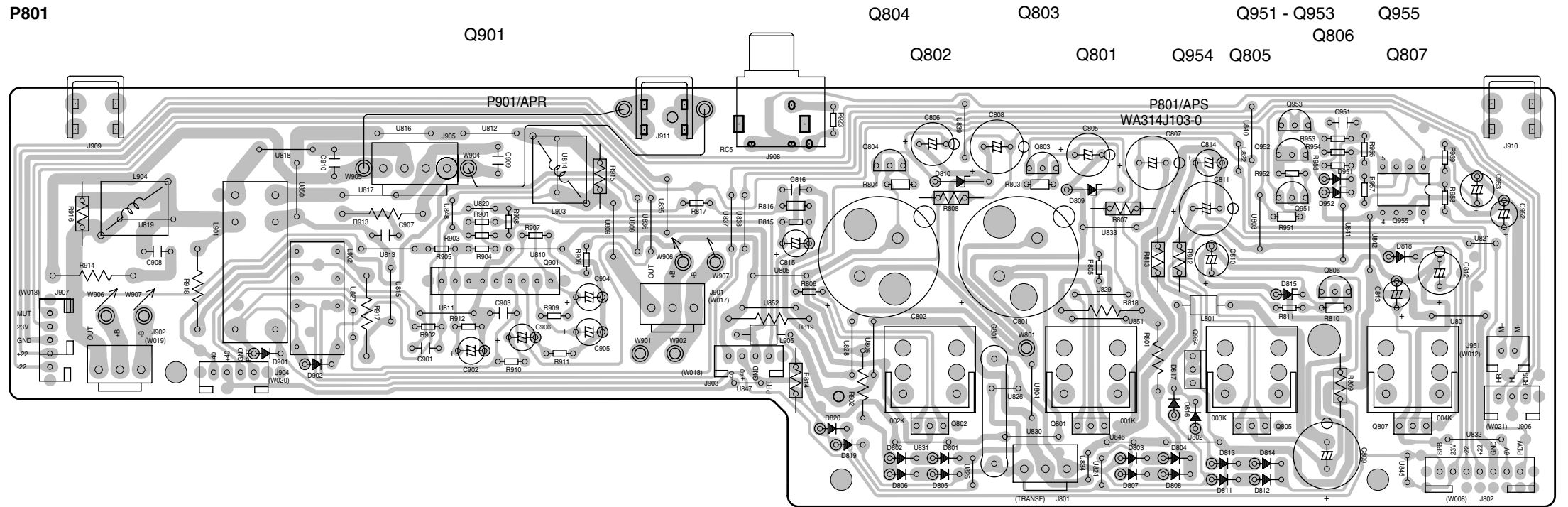
4. SCHEMATIC DIAGRAM





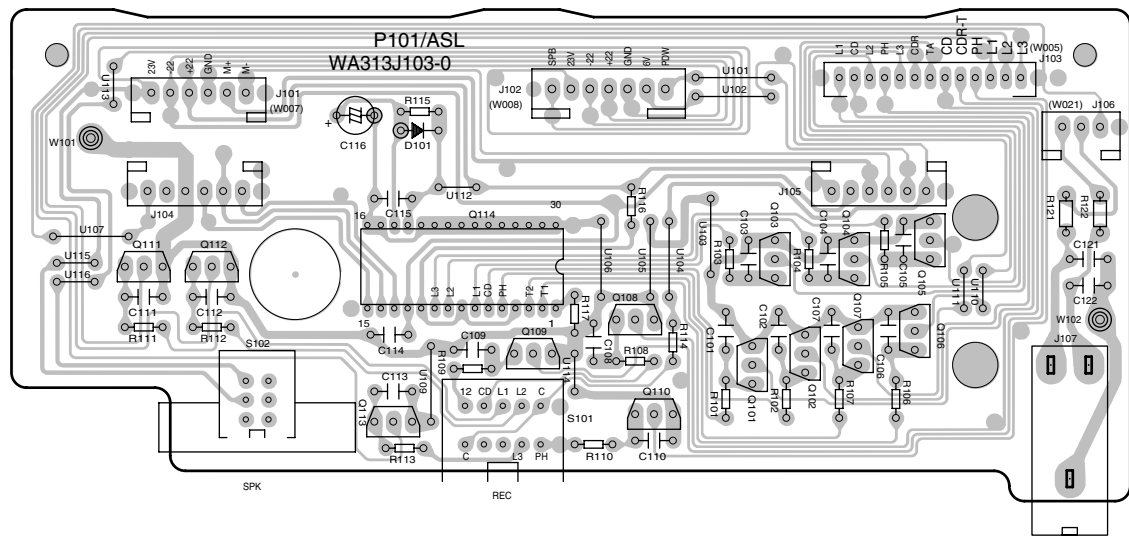
5. PARTS LOCATION (Pattern Side)





P101

Q111 Q112 Q113 Q114 Q109 Q108 Q110 Q103 Q101 Q104 Q101 Q106 Q105 Q108

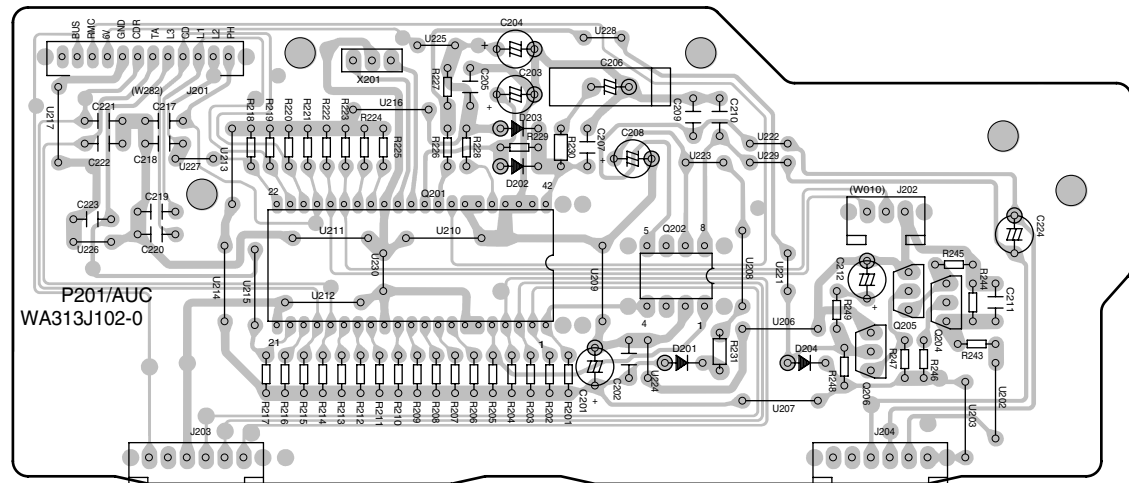


6. EXPLODED VIEW AND PARTS LIST

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
001B	/F1N		FRONT PANEL ASSY PM-17SA GOLD HAIR	313J248510	J002		4822 290 81671	TERMINAL 2P RCA PIN GL	YT02021240
001B	/K1G, /S1G		FRONT PANEL ASSY PM-17SA GOLD BLAST	313J248550	J003		4822 265 11424	TERMINAL WBT-0745 POLE TERMINA+E34L RED	YT01010360
001B	/N1G	9965 000 01834	FRONT PANEL ASSY PM-17MK2 GOLD BLAST	313J248530	J004		4822 265 11425	TERMINAL WBT-0745 POLE TERMINAL WHT	YT01010370
001B	/N1B	9965 000 01814	FRONT PANEL ASSY PM-17MK2 BLACK BLAST	313J248520	J005		4822 265 11424	TERMINAL WBT-0745 POLE TERMINAL RED	YT01010360
001B	/U1B		FRONT PANEL ASSY PM-17SA BLACK BLAST	313J248540	J006		4822 265 11425	TERMINAL WBT-0745 POLE TERMINAL WHT	YT01010370
003B	GOLD	4822 426 10497	ESCUTCHEON GOLD	269J063110	▲ J007	/F,/K,/U		JACK FUSE HOLDER 10A 250V 31.8MM	YJ08000600
003B	BLACK	4822 426 10496	ESCUTCHEON BLACK	269J063010	J007	/N,/S	4822 267 31818	JACK FUSE HOLDER H201 20MM	YJ08000610
015B	GOLD	4822 410 63898	BUTTON FOR S.D/SPEAKER GOLD	144J270010	▲ J008		4822 265 11399	JACK AC INLET SOT-16C	YJ04002360
015B	BLACK	4822 410 10227	BUTTON FOR S.D/SPEAKER BLACK	144J270110	▲ J010	/K	4822 267 31818	JACK FUSE HOLDER H201 20MM	YJ08000610
017B		4822 404 21012	JOINT LINK FOR POWER BUTTON	025J125010	J092	/K		VOLTAGE SELECT. 2POLE-2POSITION	BY05080060
018B	GOLD	4822 410 11276	POWER BUTTON GOLD	176J270150	J099	/K		JACK MAINS ADAPTER	YJ04001240
018B	BLACK	4822 410 11275	POWER BUTTON BLACK	176J270050	▲ L001	/F		MAINS TRANSFORMER	TS42002120
024B	GOLD	9965 000 01550	KNOB FOR MAS.VOL GOLD	313J154110	▲ L001	/K		MAINS TRANSFORMER	TS42002140
024B	BLACK	9965 000 01549	KNOB FOR MAS.VOL BLACK	313J154010	▲ L001	/N,/S	9965 000 01558	MAINS TRANSFORMER	TS42002130
025B	GOLD	9965 000 01552	KNOB FOR INPUT.SEL GOLD	313J154120	▲ L001	/U		MAINS TRANSFORMER	TS42002150
025B	BLACK	9965 000 01551	KNOB FOR INPUT.SEL BLACK	313J154020	▲ L002		4822 526 10691	FERRITE CORE TFCK-16-8-13	FC50160030
026B	GOLD	4822 410 12036	KNOB FOR BAL/TONE/REC GOLD	289J154140	▲ W001	/F		MAINS CORD MITY DC-302-J 12A	ZC01802080
026B	BLACK	4822 410 12035	KNOB FOR BAL/TONE/REC BLACK	289J154040	▲ W001	/K		MAINS CORD 2P 10A 250V	ZC01803090
035B	/F		SUPER AUDIO BADGE	318J251010	▲ W001	/N	4822 321 11439	MAINS CORD 2P 10A 250V CLASS2	ZC01803080
036B	GOLD	9965 000 01554	NEW MARANTZ BADGE GL	313J251110	▲ W001	/S		MAINS CORD	ZC01804070
036B	BLACK	9965 000 01553	NEW MARANTZ BADGE BL	313J251010	▲ W001	/U		MAINS CORD UL/CSA 10A 125V	ZC01803100
037B	/S, /U		S A BADGE	313J251020	001T	/F		PACKING USER GUIDE PM-17SA	313J851110
001D	GOLD	4822 442 01018	TOP LID GOLD	269J257110	001T	/K,/S	9965 000 01555	USER GUIDE PM-17SA	313J851350
001D	BLACK	4822 442 01017	TOP LID BLACK	269J257010	001T	/N	9965 000 01555	USER GUIDE PM-17MK2	313J851310
002D	GOLD	4822 502 14425	SCREW FOR TOP LID GOLD	323S010020	001T	/U	9965 000 01556	USER GUIDE PM-17SA	313J851250
002D	BLACK	4822 502 21693	SCREW FOR TOP LID BLACK	323S010030	T100			REMOTE COMMANDER RC-17MK2PM	ZK313J0010
003D	GOLD	4822 426 10499	SIDE PANEL GOLD	269J249110					
003D	BLACK	4822 426 10498	SIDE PANEL BLACK	269J249010					
004D	GOLD	4822 502 14425	SCREW FOR SIDE PANEL FRONT GL	323S010020					
004D	BLACK	4822 502 21693	SCREW FOR SIDE PANEL FRONT BL	323S010030					
009D	GOLD	4822 502 14462	SCREW FOR TOP LID REAR GOLD	318K010020					
009D	BLACK	4822 502 14461	SCREW FOR TOP LID REAR BLACK	318K010030					
010D	GOLD	4822 502 14462	SCREW FOR SIDE PANEL REAR GL	318K010020					
010D	BLACK	4822 502 14461	SCREW FOR SIDE PANEL REAR BL	318K010030					
002G			LID BOTTOM LID	313J257020					
003G		4822 462 42134	LEG LEG	291K057010					
903G		4822 410 60343	BUTTON FOR MM/MC SEL.SW.	058J270030					
▲ C001		9965 000 01557	ELECT 15000µF 63V X2 FOR AUDIO	E115906350					
▲ F001	/F		FUSE 10A 250V MITI GRU	FS11000570					
▲ F001	/K,/N,/S	4822 070 35002	FUSE 5A 250V BS LISTED	FS10500850	001S	/F,/U		NOT STANDARD SPARE PARTS PACKING CASE PM-17SA	313J801010
▲ F001	/U		FUSE 10A 250V	FS11000530	002S			CUSHION FOR LEFT	314J809010
▲ F002	/K		FUSE T5A 250V BS	FS10500850	003S			CUSHION FOR RIGHT	314J809020

P201

Q201 Q202 Q206 Q205 Q204



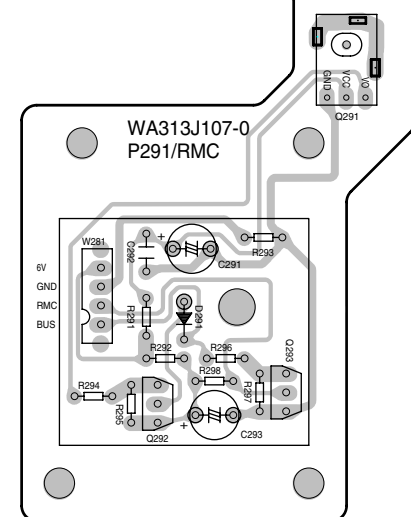
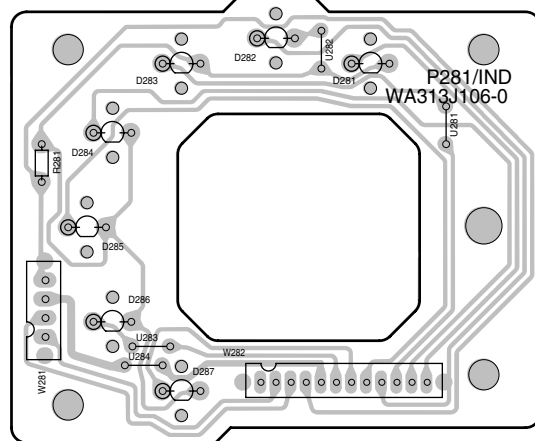
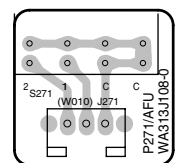
P271

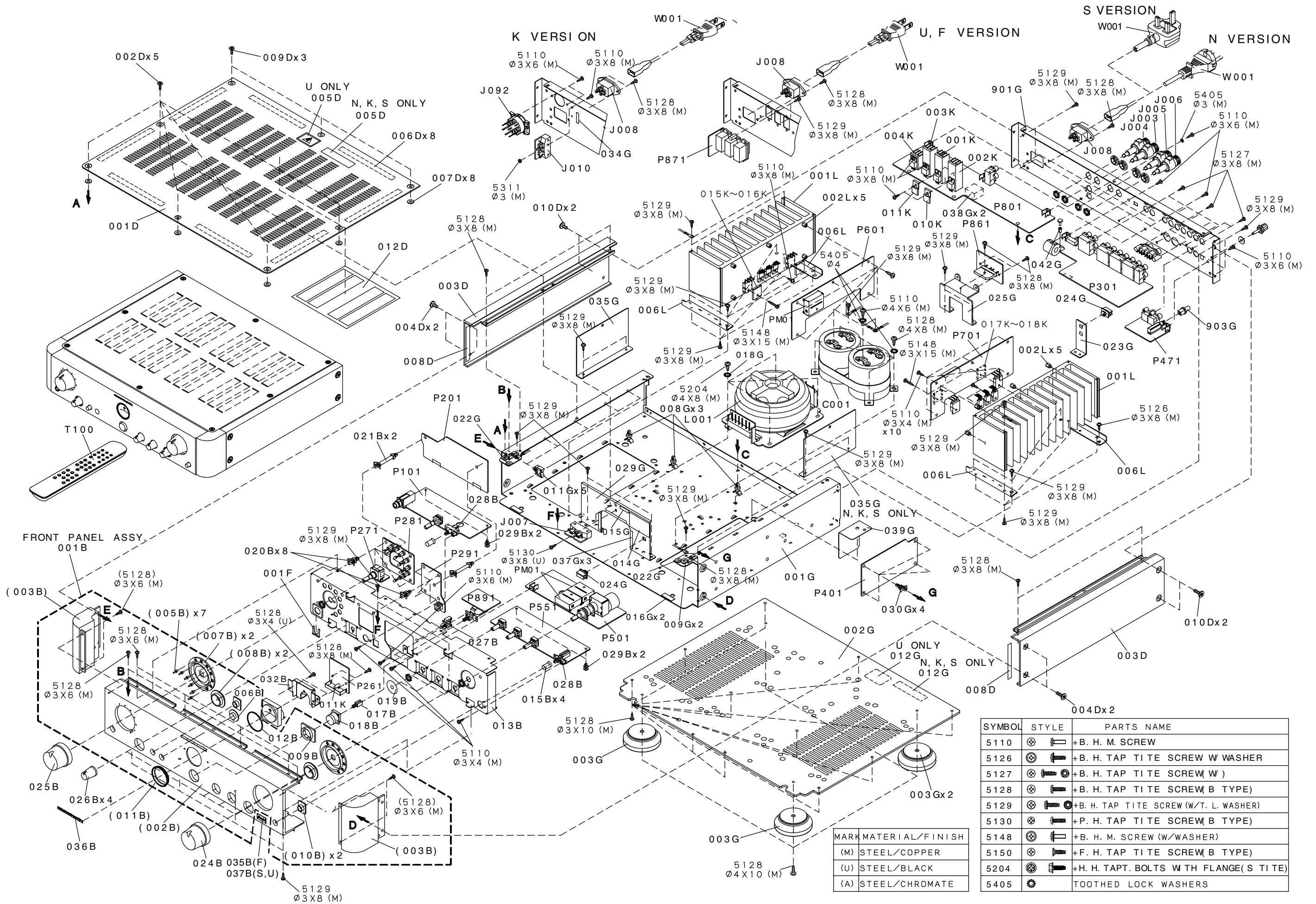
P281

P291

Q219

Q292 Q293



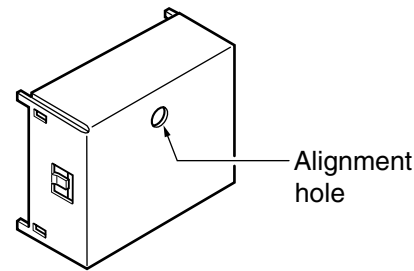


SYMBOL	STYLE	PARTS NAME
5110	⊕	+B. H. M. SCREW
5126	⊕	+B. H. TAP TITE SCREW W WASHER
5127	⊕	+B. H. TAP TITE SCREW(W)
5128	⊕	+B. H. TAP TITE SCREW(B TYPE)
5129	⊕	+B. H. TAP TITE SCREW(W/T. L. WASHER)
5130	⊕	+P. H. TAP TITE SCREW(B TYPE)
5148	⊕	+B. H. M. SCREW (W/WASHER)
5150	⊕	+F. H. TAP TITE SCREW(B TYPE)
5204	⊕	+H. H. TAPT. BOLTS W TH FLANGE(S TITE)
5405	⊕	TOOTHED LOCK WASHERS

MARK	MATERIAL/FINISH
(M)	STEEL/COPPER
(U)	STEEL/BLACK
(A)	STEEL/CHROMATE

7. DC OFFSET VOLTAGE ALIGNMENT

- Before switching the mains switch. Turn down the master volume to the minimum position and set the balance volume and tone volumes at the center positions. Set variable resistors R627(on the PCB P601:L ch) and R727(on the PCB P701:R ch) fully counterclockwise.
- Connect the digital voltage meter to the speaker terminal. And set the digital voltage meter for the DC position.
- Turn the mains switch ON. Put thin adjustment screw driver in to the hole of the HDAM (Q601:L ch / Q701:R ch) copper cover. Adjust variable resistors in the HDAM (Q601:L ch / Q701:R ch) value at 0mV±3mV with in 10 seconds after speaker relay turn ON.



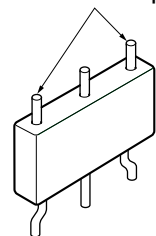
8. IDLING CURRENT ALIGNMENT

REMARK

Before "Idling current alignment", "DC offset voltage alignment" have to be done!!

- Each of cement resistor R641(on the PCB P601:Lch) and cement resistor R741(on the PCB P701:Rch) are provided with three test points. Connect the digital voltage meter, set for the DC voltage input, to the test points at the two extremities of three test points of R641(L ch) and R741(R ch).
- After the setup above, turn the mains switch ON and heat up the amplifier about 10 minutes.
- Adjust variable resistors R627(on the PCB P601:L ch) and R727(on the PCB P701:R ch) according to the digital volt meter reading. The target setting value is 9mV±1mV(45mA) for both L ch and R ch.

Measurement point



R641 / R741

DC オフセット電圧調整

- 本体の電源スイッチを入れるまえに、ボリュームを最小に、バランス及びトーンコントロールをセンターに合わせます。P601基板上のR627(L ch)及びP701基板上のR727(R ch)の半固定抵抗を反時計回りにしぼりきります。
- 本体背面のスピーカー端子にデジタルボルトメータを接続します。(レンジはDCに設定する。)
- HDAM(Q601:L ch/Q701:R ch)のカバーにあいた穴に調整用ドライバーをさし込み、中の半固定抵抗を回せるようにします。電源スイッチをオンにし、スピーカーリレーがオンになってから10秒以内に半固定抵抗を回しデジタルボルトメータの値が0mV±3mVになるように調整します。

アイドリング電流調整

【注意】

アイドリング電流の調整は必ずDCオフセット電圧の調整を終えてから行って下さい。

- P601基板上のセメント抵抗R641(L ch)及びP701基板上のセメント抵抗R741(R ch)の3本の測定用端子のうちの両端の2本にデジタルボルトメータを接続します。(レンジはDCに設定する。)
- 電源スイッチをオンにし、アイドリング電流が安定するまで、およそ10分間放置します。
- P601基板上の半固定抵抗R627(L ch)とP701基板上の半固定抵抗R727(R ch)を時計回りにまわしデジタルボルトメータの値が9mV±1mV(45mA)になるように調整します。

9. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

- R***: 1) GD05×××140, Carbon film fixed resistor, ±5% 1/4W
 R***: 2) GD05×××160, Carbon film fixed resistor, ±5% 1/6W
- ① Resistance value

Examples ;

- ① Resistance value
 0.1 Ω 001 10 Ω 100 1 kΩ 102 100 kΩ 104
 0.5 Ω 005 18 Ω 180 2.7 kΩ 272 680 kΩ 684
 1 Ω 010 100 Ω 101 10 kΩ 103 1 MΩ 105
 6.8 Ω 068 390 Ω 391 22 kΩ 223 4.7 MΩ 475

Note : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

CAPACITORS

C***: CERAMIC CAP.

- 3) DD1××××370, Ceramic capacitor
 Disc type
 Temp.coeff.P350 ~N1000, 50V
- ② Capacity value
 Tolerance

Examples ;

- ② Tolerance (Capacity deviation)
 ±0.25 pF 0
 ±0.5 pF 1
 ±5% 5

* Tolerance of COMMON PARTS handled here are as follows :

- 0.5 pF ~ 5 pF ±0.25 pF
 6 pF ~ 10 pF ±0.5 pF
 12 pF ~ 560 pF ±5%

③ Capacity value

- 0.5 pF 005 3 pF 030 100 pF 101
 1 pF 010 10 pF 100 220 pF 221
 1.5 pF 015 47 pF 470 560 pF 561

C***: CERAMIC CAP.

- 4) DK16×××300, High dielectric constant ceramic capacitor
 Disc type
 Temp.chara. 2B4, 50V
- ④ Capacity value

Examples ;

- ④ Capacity value
 100 pF 101 1000 pF 102 10000 pF 103
 470 pF 471 2200 pF 222

C***: 5) ELECTROLY CAP. (ㄩ), 6) FILM CAP. (ㄩ)

- 5) EA×××××10, Electrolytic capacitor
 One-way lead type, Tolerance ±20%
- ⑤ Capacity value
 Working voltage

Examples ;

- ⑤ Capacity value
 0.1 μF 104 4.7 μF 475 100 μF 107
 0.33 μF 334 10 μF 106 330 μF 337
 1 μF 105 22 μF 226 1100 μF 118
 2200 μF 228

⑥ Working voltage

- 6.3V 006 25V 025
 10V 010 35V 035
 16V 016 50V 050

- 6) DF15×××350 Plastic film capacitor
 DF15×××310 One-way type, Mylar ±5% 50V
 DF16×××310 Plastic film capacitor
 One-way type, Mylar ±10% 50V
- ⑦ Capacity value

Examples ;

- ⑦ Capacity value
 0.001 μF (1000 pF) 102 0.1 μF 104
 0.0018 μF 182 0.56 μF 564
 0.01 μF 103 1 μF 105
 0.015 μF 153

NOTE : 1) The above CODES (R***, R***, C***, C*** and C***) are omitted on the schematic diagram in some case.

2) On the occasion, be confirmed the common parts on the parts list.

3) Refer to "Common Parts List" for the other common parts (R105, DD4, DK4).

NOTE ON SAFETY FOR FUSIBLE RESISTOR :

The suppliers and their type numbers of fusible resistors are as follows;

1. KOA Corporation

- | Part No. (MJI) | Type No. (KOA) | Description |
|----------------|----------------|-------------|
| NH05×××140 | RF25S××××ΩJ | (±5% 1/4W) |
| NH05×××120 | RF50S××××ΩJ | (±5% 1/2W) |
| NH85×××110 | RF73B2A××××ΩJ | (±5% 1/10W) |
| NH95×××140 | RF73B2E××××ΩJ | (±5% 1/4W) |
- * Resistance value Resistance value (0.1 Ω - 10 kΩ)

2. Matsushita Electronic Components Co., Ltd

- | Part No. (MJI) | Type No. (MEC) | Description |
|----------------|----------------|-------------|
| NF05×××140 | ERD-2FCJ××× | (±5% 1/4W) |
| RF05×××140 | | |
| NF02×××140 | ERD-2FCG××× | (±2% 1/4W) |
| RF02×××140 | | |
- * Resistance value * Resistance value

Examples ;

- * Resistance value
 0.1 Ω 001 10 Ω 100 1 kΩ 102 100 kΩ 104
 0.5 Ω 005 18 Ω 180 2.7 kΩ 272 680 kΩ 684
 1 Ω 010 100 Ω 101 10 kΩ 103 1 MΩ 105
 6.8 Ω 068 390 Ω 391 22 kΩ 223 4.7 MΩ 475

ABBREVIATION AND MARKS

ANT. : ANTENNA	BATT. : BATTERY
CAP. : CAPACITOR	CER. : CERAMIC
CONN. : CONNECTING	DIG. : DIGITAL
HP : HEADPHONE	MIC. : MICROPHONE
μ-PRO : MICROPROCESSOR	REC. : RECORDING
RES. : RESISTOR	SPK : SPEAKER
SW : SWITCH	TRANSF. : TRANSFORMER
TRIM. : TRIMMING	TRS. : TRANSISTOR
VAR. : VARIABLE	XTAL : CRYSTAL

NOTE ON SAFETY :

Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意 :

⚠がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
C101 }		9965 000 01569	P101-SW & HP CIRCUIT BOARD P101-CAPACITORS CER. 0.01µF +80%-20% DC50V	DD38103010	Q201		9965 000 01584	MICROPROCESSOR 4BIT 2K TMP47C200BN-1A68(Z)	HU313JT000
C113		4822 122 40617	CER. 0.1µF +80%-20% DC50V	DD38104010	Q202		4822 209 73287	IC LB1630	HC10235030
C114		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010	Q204		4822 130 60839	TRS. 2SC2458 Y OR GR	HT324582B0
C115		4822 124 41534	ELECT. 10µF M 25V RA-2	OA10602520	Q205		4822 130 60839	TRS. 2SC2458 Y OR GR	HT324582B0
C116		4822 124 12276	FILM 0.01µF ± 5%	OF15103540	Q206		4822 130 60839	TRS. 2SC2458 Y OR GR	HT324582B0
C121	/K,/S	4822 124 12276	FILM 0.01µF ± 5%	OF15103540	X201		4822 242 72527	P201-MISCELLANEOUS CERAMIC VIB. CERALOCK CST4.00MGW	FQ04004030
C122	/N	4822 124 12276	FILM 0.01µF ± 5%	OF15103540				P261-METER & LAMP CIRCUIT BOARD	
R121		4822 052 10479	P101-RESISTORS 47Ω ±5%1/6W	GG05470160	C261		4822 122 40617	CER. 0.1µF +8%-20% DC50V	DD38104010
R122		4822 052 10479	47Ω ±5%1/6W	GG05470160	M261		4822 344 14034	D.C METER MG-28	IM11030030
R***			P101-RESISTORS (COMMON) CARBON FILM FIXED RES. ±5% 1/6W : R101-R117		M262		4822 134 40925	LAMP 8V 100mA DC IGN.BLUE	IN10080680
			P101-SEMICONDUCTORS		▲ R261		4822 052 10109	10Ω ±5%1/6W	GG05100160
D101		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000				P271-FUNCTION SELECTOR CIRCUIT BOARD	
Q101 }		4822 130 60588	DIG.TRS. DTC114ES UN4211 10k 10k	BA20001000	R271		4822 050 21021	100Ω ±5%1/4W	GG05101140
Q113		4822 209 32553	IC LC7822N	HC10309030	S271		4822 273 20368	ROTARY SW. SRRSIC	SR01120070
Q114								P281-INDICATOR LED CIRCUIT BOARD	
J107	GOLD	4822 267 31692	JACK HLJ0540-01-410 GRY	YJ01003880	D281		4822 130 80326	L.E.D. LT3D8B RED 30	HI10062320
J107	BLACK	9965 000 11662	JACK HLJ0540-01-410 BLK	YJ01003870	D282		4822 130 80326	L.E.D. LT3D8B RED 30	HI10062320
S101		9965 000 01579	ROTARY SW. SRBM16N-F1020	SR01060100	D283		4822 130 80326	L.E.D. LT3D8B RED 30	HI10062320
S102		9965 000 01580	PUSH SW. SPUP12-2N-*W2	SP02012290	D284		4822 130 80326	L.E.D. LT3D8B RED 30	HI10062320
			P201-U-COM CIRCUIT BOARD P201-CAPACITORS		D285		4822 130 80326	L.E.D. LT3D8B RED 30	HI10062320
C201		4822 124 41534	ELECT. 10µF M 25V RA-2	OA10602520	D286		4822 130 80326	L.E.D. LT3D8B RED 30	HI10062320
C202		4822 122 40617	CER. 0.1µF +8%-20% DC50V	DD38104010	D287		4822 130 80326	L.E.D. LT3D8B RED 30	HI10062320
C203		4822 124 41534	ELECT. 10µF M 25V RA-2	OA10602520	▲ R281		4822 052 10681	680Ω ±5%1/6W	GG05681160
C204		4822 124 41534	ELECT. 10µF M 25V RA-2	OA10602520	C291		9965 000 00603	P291-IR SENSOR CIRCUIT BOARD	
C205		4822 122 40617	CER. 0.1µF +8%-20% DC50V	DD38104010	C292		4822 122 40617	ELECT 47µF 10V	EG47601050
C206		4822 124 90406	BIG ELECT FMOH223ZTP16	EX22300530	C293		9965 000 00603	CER. 0.1µF +8%-20% DC50V	DD38104010
C207		4822 122 40617	CER. 0.1µF +8%-20% DC50V	DD38104010				ELECT 47µF 10V	EG47601050
C208		4822 124 41534	ELECT. 10µF M 25V RA-2	OA10602520	D291		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
C209		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010					
C210		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010	Q291		4822 209 16735	PHOTO UNIT PNA4655M00HB	HW10006020
C211		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010	Q292		4822 130 60107	IR SENSOR	HT110482B0
C212		4822 124 41534	ELECT. 10µF M 25V RA-2	OA10602520	Q293		4822 130 60839	TRS. 2SA1048 Y OR GR	HT324582B0
C217 }		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010				P301-INPUT JACK CIRCUIT BOARD P301-CAPACITORS	
C223					C301 }		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020
C224		4822 124 11947	ELECT 10µF 16V	EQ10601630	C312				
R230		4822 052 10479	P201-RESISTORS 47Ω ±5%1/6W	GG05470160	C313		9965 000 01581	ELECT. 22µF M 25V RA-2	OA22602520
R231		4822 052 10228	2.2Ω ±5%1/6W	GG05022160	C314		9965 000 01581	ELECT. 22µF M 25V RA-2	OA22602520
R***			P201-RESISTORS (COMMON) CARBON FILM FIXED RES. ±5% 1/6W : R201-R227 R228 R229 R246-249 R291-R298		C315		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520
			P201-SEMICONDUCTORS		C316		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520
D201					C317				
D203		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000	C319		4822 122 40617	CER. 0.1µF +80%-20% DC50V	DD38104010
D204					C320				
					C333 }	/K,/N,/S	9965 000 01344	FILM 100pF ±5%100V	OF15101540
					C348	/K,/N,/S			
					C349		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJ)
C350		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010
C351		9965 000 01344	FILM 100pF ±5%100V	OF15101540
C354				
C355		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010
C361				
R323		4822 052 10228	2.2Ω ±5%1/6W	GG05022160
R324		4822 052 10471	470Ω ±5%1/6W	GG05471160
R325		4822 052 10471	470Ω ±5%1/6W	GG05471160
R***			P301-RESISTORS (COMMON) CARBON FILM FIXED RES. ±5% 1/6W : R301-R322	
D351		4822 130 32362	P301-SEMICONDUCTORS DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
Q301		4822 209 16926	IC OPA2604AP BURR-BROWN	HC10008610
J301		4822 290 81598	P301-MISCELLANEOUS TERMINAL 2P RCA JACK YKC21-3255 GOLD	YT02021130
J302		4822 290 81599	TERMINAL YKC21-3269 GOLD	YT02040970
J303		4822 290 81599	TERMINAL YKC21-3269 GOLD	YT02040970
J304		4822 290 81599	TERMINAL YKC21-3269 GOLD	YT02040970
J351		4822 290 81599	TERMINAL YKC21-3269 GOLD	YT02040970
L301		9965 000 01570	RELAY ED2-24	LY20240470
L312				
L351		9965 000 01576	RELAY MR82-24USR	LY20240480
S351		9965 000 01582	SLIDE SW. SSSU12	SS02020950
C401		9965 000 01560	P401-PHONO AMP CIRCUIT BOARD P401-CAPACITORS FILM 270pF ±5%100V OFC	OF55271540
C402		9965 000 01560	FILM 270pF ±5%100V OFC	OF55271540
C403		9965 000 01567	ELECT. 100µF 10V ARA	OA10701050
C404		9965 000 01567	ELECT. 100µF 10V ARA	OA10701050
C409		4822 124 12276	FILM 0.01µF ± 5%	OF15103540
C410		4822 124 12276	FILM 0.01µF ± 5%	OF15103540
C411		4822 121 70437	FILM 1000pF ±5%100V APSV	OF15102540
C412		4822 121 70437	FILM 1000pF ±5%100V APSV	OF15102540
C413		4822 124 81151	ELECT. 22µF 25V ARA	OA22602550
C414		4822 124 81151	ELECT. 22µF 25V ARA	OA22602550
C415		9965 000 01568	FILM 1500pF ±5%100V APSV	OF15152540
C416		9965 000 01568	FILM 1500pF ±5%100V APSV	OF15152540
C417		4822 124 90365	ELECT. 220µF M 25V RA-2	OA22702520
C420				
C421		4822 122 40617	CER. 0.1µF DC50V +80 -20%	DD38104010
C422		4822 122 40617	CER. 0.1µF DC50V +80 -20%	DD38104010
C423		4822 122 40617	CER. 0.1µF DC50V +80 -20%	DD38104010
C424		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020
C***			P401-CAPACITORS (COMMON) PLASTIC FILM CAPACITOR ±5% 50V : C504-C408	
R405		9965 000 01571	100Ω ± 1% 1/6W	GM11610000
R408				

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJ)
▲ R435		4822 052 10101	100Ω ±5%1/6W	GG05101160
▲ R438				
R439		4822 052 10109	10Ω ±5%1/6W	GG05100160
R***			P401-RESISTORS (COMMON) CARBON FILM FIXED RES. ±5% 1/6W : R401-R404 R409-R434 R471 R472	
D401		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D410				
Q401		4822 130 43547	F.E.T. 2SK369 V VGDS-40V PD0.4W	HF203691V0
Q404				
Q405		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
Q408				
Q409		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
Q412				
Q413		4822 209 81565	IC NJM-2041-DD	HC10026090
L401		9965 000 01570	P401-MISCELLANEOU RELAY ED2-24	LY20240470
C471		4822 121 70437	FILM 1000pF ±5%100V APSV	OF15102540
C472		4822 121 70437	FILM 1000pF ±5%100V APSV	OF15102540
C473		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010
C474		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010
J471		4822 290 81638	P471-PHONO RCA JACK CIRCUIT BOARD P471-CAPACITORS TERMINAL 14X14 RA 1L1P BLK AU FLM-GND	YT02010790
J472		4822 290 81638	TERMINAL 14X14 RA 1L1P BLK AU FLM-GND	YT02010790
S471		4822 276 13409	PUSH SW. SPUP19-4N-W2.0	SP04010660
U473	/K,/N,/S	4822 158 60606	CHOKO COIL 22µH 5R200PN	LC12030050
U474	/K,/N,/S	4822 158 60606	CHOKO COIL 22µH 5R200PN	LC12030050
C501		9965 000 01560	P501-MASTER VOL. & AMP CIRCUIT BOARD P501-CAPACITORS FILM 270pF ±5%100V OFC	OF55271540
C502		9965 000 01560	FILM 270pF ±5%100V OFC	OF55271540
C503		9965 000 01585	MICA 5pF 500V FE922H	DF31050520
C504		9965 000 01585	MICA 5pF 500V FE922H	DF31050520
C505		9965 000 01586	MICA 22pF ±5%500V FE	DF35220520
C506		9965 000 01586	MICA 22pF ±5%500V FE	DF35220520
C507	/F,/U	9965 000 02015	ELECT. 22µF 25V ARA	OA22602550
C507	/K,/N,/S		ELECT. 22µF 25V ARS	OA22602540
C508	/F,/U	9965 000 02015	ELECT. 22µF 25V ARA	OA22602550
C508	/K,/N,/S		ELECT. 22µF 25V ARS	OA22602540
C511		4822 124 90051	ELECT. 220µF M 25V ARA	OA22702550
C512		4822 124 90051	ELECT. 220µF M 25V ARA	OA22702550
C513		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010
C514		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010
C515		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010
C516		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020
R505		9965 000 01565	P501-RESISTORS 68Ω ± 1% 1/4W ERD	NR01680140
R506		9965 000 01565	68Ω ± 1% 1/4W ERD	NR01680140

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	
R507 }		4822 111 20413	220Ω ± 1% 1/4W ERD	NR01221140	R579		4822 100 30138	VAR. 100kΩ MN FOR BALANCE VOLUME	RM01041310	
R510					R***			P551-RESISTORS (COMMON) CARBON FILM FIXED RES. ±5% 1/6W : R551-R562 R565-R574		
R537		4822 052 10479	47Ω ±5%1/6W	GG05470160						
R538		4822 052 10479	47Ω ±5%1/6W	GG05470160						
R539		9965 000 01587	VAR. RK18112MC-30K DX2	RM03030050						
R540		4822 052 10228	2.2Ω ±5%1/6W	GG05022160						
R***			P501-RESISTORS (COMMON) CARBON FILM FIXED RES. ±5% 1/6W : R501-R505 R511-R536		D551		4822 130 32362	P551-SEMICONDUCTORS DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000	
D501 }		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000	Q551 }		4822 209 81565	IC NJM-2041-DD	HC10026090	
D506					Q554					
Q501			IC NEW HDAM	KH313J1010	L551		9965 000 01576	P551-MISCELLANEOUS RELAY MR82-24USR	LY20240480	
Q502			IC NEW HDAM	KH313J1010	S551		4822 276 13065	PUSH SW. SPUP24V1A STROK=2MM NON-SHORT	SP04010650	
Q503 }		4822 130 62649	F.E.T. 2SJ74 BL VGDS=25V PD=24W	HF100741G0				P601-POWER AMP L CIRCUIT BOARD P601-CAPACITORS FILM 270pF ±5%100V OFC FILM 0.1μF ±5%100V OFC ELECT. 220μF M 25V RA-2 ELECT. 220μF M 25V RA-2 MICA 10pF ± 0.5pF 500V FE ELECT. 10μF M 100V RA-2 ELECT. 22μF M 25V ARS FILM 0.01μF ± 5% ELECT. 0.47μF M 50V RA-2 ELECT. 10μF M 50V RA2BP ELECT. 10μF M 50V RA2BP ELECT. 330μF M 50V RA-2 ELECT. 220μF M 50V ARS ELECT. 330μF M 50V RA-2 ELECT. 220μF M 50V ARS ELECT. 330μF M 50V RA-2 FILM 680pF ±5%100V OFC		
Q506					C601		9965 000 01560			OF55271540
Q507		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0	C602		4822 121 10867			OF55104540
Q508		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0	C603		4822 124 90365			OA22702520
Q509		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0	C604		4822 124 90365			OA22702520
Q510		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0	C605		9965 000 01561			DF31100520
Q511		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0	C607	/F,/U				OA10610020
Q512		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0	C607	/K,/N,/S	9965 000 02015			OA22602540
Q513		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0	C608		4822 124 12276			OF15103540
Q514		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0	C610		4822 124 22273			OA47405020
Q515		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0	C611		9965 000 01562			EQ10605090
Q516		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0	C612		9965 000 01562			EQ10605090
Q517		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0	C613	/F,/U				OA33705020
Q518		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0	C613	/K,/N,/S	9965 000 02014			OA22705040
L501		9965 000 01570	RELAY ED2-24	LY20240470	C614	/F,/U				OA33705020
L502		9965 000 01570	RELAY ED2-24	LY20240470	C614	/K,/N,/S	9965 000 02014		OA22705040	
			P501-MISCELLANEOUS RELAY ED2-24		C615		9965 000 01564		OF55681540	
			P551-TONE AMP CIRCUIT BOARD P551-CAPACITORS ELECT. 10μF M 50V RA-2 ELECT. 10μF M 50V RA-2 FILM 270pF ±5%100V OFC FILM 270pF ±5%100V OFC FILM 100pF ±5%100V FILM 100pF ±5%100V ELECT. 10μF M 50V RA-2 ELECT. 10μF M 50V RA-2 ELECT. 4.7μF M 50V RA-2 ELECT. 4.7μF M 50V RA-2 FILM 0.047μF ±5%50V MTFV FILM 0.047μF ±5%50V MTFV FILM 0.01μF ± 5% FILM 0.01μF ± 5% FILM 100pF ±5%100V FILM 100pF ±5%100V		R605		4822 111 20413	220Ω ± 1% 1/4W ERD	NR01221140	
C551		5322 124 21731	ELECT. 10μF M 50V RA-2	OA10605020	▲ R607		4822 052 10102	1kΩ ±5%1/6W	GG05102160	
C552		5322 124 21731	ELECT. 10μF M 50V RA-2	OA10605020	▲ R608		4822 052 10102	1kΩ ±5%1/6W	GG05102160	
C553		9965 000 01560	FILM 270pF ±5%100V OFC	OF55271540	▲ R609		4822 111 31001	330Ω ±5%1/6W	GG05331160	
C554		9965 000 01560	FILM 270pF ±5%100V OFC	OF55271540	▲ R610		4822 111 31001	330Ω ±5%1/6W	GG05331160	
C555		9965 000 01344	FILM 100pF ±5%100V	OF15101540	R613		9965 000 01565	68Ω ± 1% 1/4W ERD	NR01680140	
C556		9965 000 01344	FILM 100pF ±5%100V	OF15101540	R614		4822 111 20413	220Ω ± 1% 1/4W ERD	NR01221140	
C557		5322 124 21731	ELECT. 10μF M 50V RA-2	OA10605020	R615		4822 111 20413	220Ω ± 1% 1/4W ERD	NR01221140	
C558		5322 124 21731	ELECT. 10μF M 50V RA-2	OA10605020	R616		4822 111 20413	220Ω ± 1% 1/4W ERD	NR01221140	
C559		4822 124 80067	ELECT. 4.7μF M 50V RA-2	OA47505020	R617		4822 050 23308	3.3MΩ ±5%1/6W	GD05335160	
C560		4822 124 80067	ELECT. 4.7μF M 50V RA-2	OA47505020	R618		4822 050 23308	3.3MΩ ±5%1/6W	GD05335160	
C561		9965 000 01583	FILM 0.047μF ±5%50V MTFV	OF15473040	R619		4822 050 23308	3.3MΩ ±5%1/6W	GD05335160	
C562		9965 000 01583	FILM 0.047μF ±5%50V MTFV	OF15473040	R621					
C563		4822 124 12276	FILM 0.01μF ± 5%	OF15103540	}		4822 053 10681	680Ω ±5%1W	GA05681010	
C564		4822 124 12276	FILM 0.01μF ± 5%	OF15103540	R624					
C565		9965 000 01344	FILM 100pF ±5%100V	OF15101540	R627		9965 000 01566	TRIM. VARIABLE 2.2kΩ	RA02220760	
C566		9965 000 01344	FILM 100pF ±5%100V	OF15101540	R628		4822 052 10109	10Ω ±5%1/6W	GG05100160	
C567					R629		4822 052 10101	100Ω ±5%1/6W	GG05101160	
C570		4822 124 90365	ELECT. 220μF M 25V RA-2	OA22702520	R630		4822 052 10101	100Ω ±5%1/6W	GG05101160	
▲ R563 }					▲ R631		4822 050 22209	22Ω ±5%1/4W	GG05220140	
▲ R576		4822 052 10101	100Ω ±5%1/6W	GG05101160	▲ R632		4822 050 22209	22Ω ±5%1/4W	GG05220140	
R577		4822 101 30735	VAR. 10kΩ X2 B	RM01030720	R633		4822 052 10471	470Ω ±5%1/6W	GG05471160	
R578		4822 101 30735	VAR. 10kΩ X2 B	RM01030720	R634		4822 052 10471	470Ω ±5%1/6W	GG05471160	
					R635		4822 050 26809	68Ω ±5%1/6W	GG05680160	
					R636		4822 050 26809	68Ω ±5%1/6W	GG05680160	
					▲ R637		4822 052 10151	150Ω ±5%1/6W	GG05151160	
					R638			JUMPER JUMPER WIRE 5MM	75060501P0	
					R639		4822 052 10109	10Ω ±5%1/6W	GG05100160	

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MUJ)
R640		4822 052 10109	10Ω ±5%1/6W	GG05100160
▲ R641		4822 111 91402	FIXED 0.10Ω x 2 3W	BZ10102010
R642		4822 052 10102	1kΩ ±5%1/6W	GG05102160
R643		4822 052 10102	1kΩ ±5%1/6W	GG05102160
R***			P601-RESISTORS (COMMON) CARBON FILM FIXED RES. ±5% 1/6W : R601-R604 R611 R612 R620 R625 R626 R644-R647	
			P601-SEMICONDUCTORS	
D601		4822 130 83385	ZENER DIODE HZ20L-1	HD30020010
D602		4822 130 83385	ZENER DIODE HZ20L-1	HD30020010
D603		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D604		4822 130 80837	DIODE HSS81TD 150V 150mA	HD20027010
D605		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D612		4822 130 33948	ZENER DIODE 5.6V	HD30561000
D613		4822 130 33948	ZENER DIODE 5.6V	HD30561000
D614		4822 130 80837	DIODE HSS81TD 150V 150mA	HD20027010
D615		4822 130 80837	DIODE HSS81TD 150V 150mA	HD20027010
D616		4822 130 80837	DIODE HSS81TD 150V 150mA	HD20027010
D617		4822 130 80837	DIODE HSS81TD 150V 150mA	HD20027010
K601			TRS. KIT 2SA1837 & 2SC4793 HFE SELECTED RANK	HK183719C0
Q601			IC NEW HDAM	KH313J1010
Q602		4822 130 60526	TRS. 2SD1508 DARLINGTON TR.HFE>4000	HT415080A0
Q603		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
Q604		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
Q605		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
Q606		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
Q607		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
Q608		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
Q609		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
Q610		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
Q611		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
Q612		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
▲ Q613		4822 130 63635	TRS. 2SC4793 O Y	HT347932A0
▲ Q614		4822 130 63634	TRS. 2SA1837 O Y	HT118372A0
▲ Q615		4822 130 60741	TRS. 2SC3284 O P Y 125W FMG112	HT332843D0
▲ Q616		4822 130 63674	TRS. 2SA1303 O P Y 125W FMG112	HT113033D0
Q617		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
Q618		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
			P701-POWER AMP R CIRCUIT BOARD	
			P701-CAPACITORS	
C701		9965 000 01560	FILM 270pF ±5%100V OFC	OF55271540
C702		4822 121 10867	FILM 0.1μF ±5%100V OFC	OF55104540
C703		4822 124 90365	ELECT. 220μF M 25V RA-2	OA22702520
C704		4822 124 90365	ELECT. 220μF M 25V RA-2	OA22702520
C705		9965 000 01561	MICA 10pF ± 0.5pF 500V FE	DF31100520
C707	/F,/U		ELECT. 10μF M 100V RA-2	OA10610020
C707	/K,/N,/S	9965 000 02015	ELECT. 22μF M 25V ARS	OA22602540
C708		4822 124 12276	FILM 0.01μF ± 5%	OF15103540
C710		4822 124 22273	ELECT. 0.47μF M 50V RA-2	OA47405020
C711		9965 000 01562	ELECT. 10μF M 50V RA2BP	EQ106605090
C712		9965 000 01562	ELECT. 10μF M 50V RA2BP	EQ106605090
C713	/F,/U		ELECT. 330μF M 50V RA-2	OA33705020
C713	/K,/N,/S	9965 000 02014	ELECT. 220μF M 50V ARS	OA22705040
C714	/F,/U		ELECT. 330μF M 50V RA-2	OA33705020
C714	/K,/N,/S	9965 000 02014	ELECT. 220μF M 50V ARS	OA22705040
C715		9965 000 01564	FILM 680pF ±5%100V OFC	OF55681540

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MUJ)
R705		4822 111 20413	220Ω ± 1% 1/4W ERD	NR01221140
▲ R707		4822 052 10102	1kΩ ±5%1/6W	GG05102160
▲ R708		4822 052 10102	1kΩ ±5%1/6W	GG05102160
▲ R709		4822 111 31001	330Ω ±5%1/6W	GG05331160
▲ R710		4822 111 31001	330Ω ±5%1/6W	GG05331160
R713		9965 000 01565	68Ω ± 1% 1/4W ERD	NR01680140
R714		4822 111 20413	220Ω ± 1% 1/4W ERD	NR01221140
R715		4822 111 20413	220Ω ± 1% 1/4W ERD	NR01221140
R716		4822 111 20413	220Ω ± 1% 1/4W ERD	NR01221140
R717		4822 050 23308	3.3MΩ ±5%1/6W	GD05335160
R718		4822 050 23308	3.3MΩ ±5%1/6W	GD05335160
R719		4822 050 23308	3.3MΩ ±5%1/6W	GD05335160
R721		4822 053 10681	680Ω ±5%1W	GA05681010
R724				
R727		9965 000 01566	TRIM. VARIABLE 2.2kΩ	RA02220760
R728		4822 052 10109	10Ω ±5%1/6W	GG05100160
R729		4822 052 10101	100Ω ±5%1/6W	GG05101160
R730		4822 052 10101	100Ω ±5%1/6W	GG05101160
▲ R731		4822 050 22209	22Ω ±5%1/4W	GG05220140
▲ R732		4822 050 22209	22Ω ±5%1/4W	GG05220140
R733		4822 052 10471	470Ω ±5%1/6W	GG05471160
R734		4822 052 10471	470Ω ±5%1/6W	GG05471160
R735		4822 050 26809	68Ω ±5%1/6W	GG05680160
R736		4822 050 26809	68Ω ±5%1/6W	GG05680160
▲ R737		4822 052 10151	150Ω ±5%1/6W	GG05151160
R738			JUMPER WIRE 5MM	75060501P0
R739		4822 052 10109	10Ω ±5%1/6W	GG05100160
R740		4822 052 10109	10Ω ±5%1/6W	GG05100160
▲ R741		4822 111 91402	0.100HMx2 3W	BZ10102010
R742		4822 052 10102	1kΩ ±5%1/6W	GG05102160
R743		4822 052 10102	1kΩ ±5%1/6W	GG05102160
R***			P701-RESISTORS (COMMON) CARBON FILM FIXED RES. ±5% 1/6W : R701-R704 R711 R712 R720 R725 R726 R744-R747	
			P701-SEMICONDUCTORS	
D701		4822 130 83385	ZENER DIODE HZ20L-1	HD30020010
D702		4822 130 83385	ZENER DIODE HZ20L-1	HD30020010
D703		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D704		4822 130 80837	DIODE HSS81TD 150V 150MA	HD20027010
D705		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D712		4822 130 33948	ZENER DIODE 5.6V	HD30561000
D713		4822 130 33948	ZENER DIODE 5.6V	HD30561000
D714		4822 130 80837	DIODE HSS81TD 150V 150mA	HD20027010
D715		4822 130 80837	DIODE HSS81TD 150V 150mA	HD20027010
D716		4822 130 80837	DIODE HSS81TD 150V 150mA	HD20027010
D717		4822 130 80837	DIODE HSS81TD 150V 150mA	HD20027010
K701			TRS. KIT 2SA1837 & 2SC4793 HFE SELECTED RANK	HK183719C0
Q701			IC NEW HDAM	KH313J1010
Q702		4822 130 60526	TRS. 2SD1508 DARLINGTON TR.HFE>4000	HT415080A0
Q703		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
Q704		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
Q705		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
Q706		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
Q707		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
Q708		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
Q709		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
Q710		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
Q711		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
Q712		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	
▲ Q713		4822 130 63635	TRS. 2SC4793 O Y	HT347932A0	▲ D801			P801-SEMICONDUCTORS		
▲ Q714		4822 130 63634	TRS. 2SA1837 O Y	HT118372A0	▲ D808					
▲ Q715		4822 130 60741	TRS. 2SC3284 O P Y	HT332843D0	▲ D809		4822 130 80839		DIODE S5688G	HD20029050
Q716		4822 130 63674	TRS. 2SA1303 O P Y	HT113033D0	D810		4822 130 10851		VRM=400V I0=1A	HD30012010
Q717		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0	D811		4822 130 10851		ZENER DIODE HZ24-2L	HD30012010
Q718		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0	D812		4822 130 80839		ZENER DIODE HZ24-2L	HD20029050
			P801-POWER SUPPLY & PROTECTOR CIRCUIT BOARD		D813		4822 130 80839		DIODE S5688G	HD20029050
C801		9965 000 01577	P801-CAPACITORS		▲ D814		4822 130 80839		VRM=400V I0=1A	HD20029050
C802		9965 000 01577	ELECT 1800µF 50V FOR AUDIO	EB18805020	▲ D815		4822 130 80116		VRM=400V I0=1A	HD20029050
C805		4822 124 90355	ELECT. 100µF M 50V RA-2	OA10705020	D816		4822 130 80839		ZENER DIODE 24V EQUIVALENT	HD32401000
C806		4822 124 90355	ELECT. 100µF M 50V RA-2	OA10705020	▲ D817		4822 130 80839		DIODE S5688G	HD20029050
C807		4822 124 90366	ELECT. 220µF M 50V RA-2	OA22705020	▲ D818		4822 130 80839		VRM=400V I0=1A	HD20029050
C808		4822 124 90366	ELECT. 220µF M 50V RA-2	OA22705020	D819		4822 130 80839		DIODE S5688G	HD20029050
C809		4822 124 41542	ELECT. 470µF M 50V RA-2	OA47705020	▲ D820		4822 130 80839		VRM=400V I0=1A	HD20029050
C810		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520	D901		4822 130 80837		DIODE S5688G	HD20029050
C811		4822 124 90366	ELECT. 220µF M 50V RA-2	OA22705020	D902		4822 130 80837		VRM=400V I0=1A	HD20029050
C812		4822 124 90355	ELECT. 100µF M 50V RA-2	OA10705020	D951		4822 130 32362		DIODE S5688G	HD20029050
C813		4822 124 41534	ELECT. 10µF M 25V RA-2	OA10602520	D952		4822 130 33948		VRM=400V I0=1A	HD20029050
C814		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020					DIODE S5688G	HD20029050
C815		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020					VRM=400V I0=1A	HD20029050
C816		4822 124 12276	FILM 0.01µF ± 5%	OF15103540	Q801		4822 130 11605	DIODE HSS81TD 150V 150mA	HD20027010	
C901		4822 124 12276	FILM 0.01µF ± 5%	OF15103540	▲ Q802		4822 130 11604	DIODE HSS81TD 150V 150mA	HD20027010	
C902		4822 124 22698	ELECT. 47µF M 25V RA-2	OA47602520	Q803		4822 130 42836	DIODE 1SS176 MA165 1SS254	HD20002000	
C903		4822 122 40617	CER. 0.1µF +8%-20% DC50V	DD38104010	Q804		4822 130 42836	30V 0.1A	HD30561000	
C904		5322 124 21731	ELECT. 10µF M 50V RA-2	OA10605020	▲ Q805		4822 130 11605	ZENER DIODE 5.6V EQUIVALENT		
C905		4822 124 22698	ELECT. 47µF M 25V RA-2	OA47602520	Q806		4822 130 42836			
C906		4822 124 22273	ELECT. 0.47µF M 50V RA-2	OA47405020	▲ Q807		4822 209 83821			
C907		9965 000 01575	FILM 0.039µF ±5%100V OFC	OF55393540	Q901		4822 209 83312	IC NJM78M06FA	HC38506090	
C908		9965 000 01575	FILM 0.039µF ±5%100V OFC	OF55393540	Q951		4822 130 42836	IC TA7317P	HC10042050	
C909	/K,/N,/S	4822 124 12276	FILM 0.01µF ± 5%	OF15103540	Q952		4822 130 42836	F.E.T. 2SK246 GR	HF202461C0	
C910	/K,/N,/S	4822 124 12276	FILM 0.01µF ± 5%	OF15103540	Q953		4822 130 43233	F.E.T. 2SK246 GR	HF202461C0	
C951		4822 122 40617	CER. 0.1µF +8%-20% DC50V	DD38104010	Q954		4822 130 60117	TRS. 2SD1415	HT41415100	
C952		4822 124 41543	ELECT. 1µF M 50V	OA10505020	Q955		4822 209 83679	TRS. 2SB1020	HT21020100	
C953		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520				F.E.T. 2SK246 GR	HF202461C0	
			P801-RESISTORS					F.E.T. 2SK246 GR	HF202461C0	
▲ R801		4822 050 21108	1Ω ±5%1/2W	GG05010120	▲ Q807		4822 209 83821	TRS. 2SD1415	HT41415100	
▲ R802		4822 050 21108	1Ω ±5%1/2W	GG05010120	Q901		4822 209 83312	TRS. 2SB1020	HT21020100	
▲ R803		4822 052 10101	100Ω ±5%1/6W	GG05010160	Q951		4822 130 42836	F.E.T. 2SK246 GR	HF202461C0	
▲ R804		4822 052 10101	100Ω ±5%1/6W	GG05010160	Q952		4822 130 42836	F.E.T. 2SK246 GR	HF202461C0	
▲ R807		4822 050 24708	4.7Ω ±5%1/4W	GG05047140	Q953		4822 130 43233	TRS. 2SD1415	HT41415100	
▲ R808		4822 050 24708	4.7Ω ±5%1/4W	GG05047140	Q954		4822 130 60117	F.E.T. 2SK246 GR	HF202461C0	
▲ R809		4822 117 10158	1Ω ±5%1/4W	GG05010140				IC NJM78M06FA	HC38506090	
▲ R810		4822 052 10101	100Ω ±5%1/6W	GG05010160	Q901		4822 209 83312	IC TA7317P	HC10042050	
▲ R812		4822 050 24708	4.7Ω ±5%1/4W	GG05047140	Q951		4822 130 42836	F.E.T. 2SK246 GR	HF202461C0	
▲ R813		4822 113 90119	FUSE 22Ω G 1/4W	NF02220140	Q952		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0	
▲ R814		4822 113 90119	FUSE 22Ω G 1/4W	NF02220140	Q953		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0	
▲ R816		4822 052 10478	4.7Ω ±5%1/6W	GG05047160	Q954		4822 130 60117	TRS. 2SC3419 Y 40V 0.8A	HT334191Y0	
▲ R818		4822 053 10339	33Ω ±5%1W	GA05330010				PC=1.2W 5W		
▲ R819		4822 053 10339	33Ω ±5%1W	GA05330010				IC NJM2904 DUAL OP-AMP	HC10030090	
R913		4822 053 10109	10Ω ±5%1W	GA05100010	▲ G801		4822 121 20263	P801-MISCELLANEOUS		
R914		4822 053 10109	10Ω ±5%1W	GA05100010	J908		4822 267 41009	CAP.COMP. 0.47µF + 6.8Ω	BF47400010	
R917		4822 053 10331	330Ω ±5%1W	GA05331010	L801		4822 158 60605	NOISE KILLER		
R918		4822 053 10331	330Ω ±5%1W	GA05331010	L901		4822 280 70354	TERMINAL 2P RCA PIN JACK	YT02020890	
R951		4822 052 10109	10Ω ±5%1/6W	GG05100160	L902		4822 158 60605	FERRIT BEADS B-01-RT	FC90050060	
			P801-RESISTORS (COMMON)		L905		4822 158 60605	RELAY VB 24MBU-510	LY20240310	
			CARBON FILM FIXED RES.		U804		9965 000 01576	5A/240VAC	LY20240480	
			±5% 1/6W : R805 R806 R811				4822 158 60605	RELAY MR82-24USR	LY20240480	
			R815 R817 R901-R912 R923					FERRIT BEADS B-01-RT	FC90050060	
			R952-R959					FERRITE BEADS B-01-RT	FC90050060	
					▲ D861		9965 000 01578	P861-RECTIFIER CIRCUIT BOARD		
					▲ G861		4822 121 20263	DIODE D25XB60	HE20029290	
								600V 25A BRIDGE-DI		
								CAP.COMP. 0.47µF + 6.8Ω	BF47400010	
								NOISE KILLER		

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
▲ J871	/F,/U	482226731417	P871-AC-OUTLET CIRCUIT BOARD [F,U VERSION] JACK AC OUTLET CCT1306-0212	YJ04001840
▲ C891 S891		4822 121 43732 4822 276 12647	P891-POWER SW CIRCUIT BOARD FILM 0.1μF M 250V AC PUSH SW. POWER ESB-99753V-4 TV-8	DF77103500 SP01011470
RM09		4822 100 20681	PM01-HDAM CIRCUIT BOARD FOR Q501 Q502 Q601 Q701 PM01-RESISTOR TRIM. 2.2kΩ RH0638C14R	RA02220780
R***			PM01-RESISTORS (COMMON) CARBON FILM FIXED RES. ±5% 1/6W : RM01-RM08	
DM01 S DM05		4822 130 32362	PM01-SEMICONDUCTORS DIODE 1SS176 A165 1SS254 30V 0.1A	HD20002000
QM01		5322 130 41844	F. E. T. 2SK170 BL VGDS=-40V PD=0.4V	HF201701G0
QM02		5322 130 41844	F. E. T. 2SK170 BL VGDS=-40V PD=0.4V	HF201701G0
QM03		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
QM04		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
QM05		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
QM06		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0

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