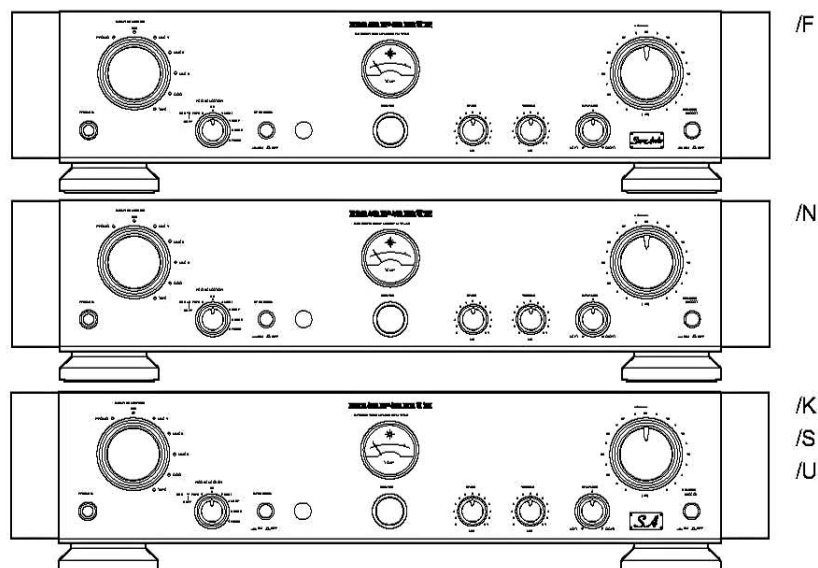


# Service Manual

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  
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First Issue 1999.10

## MARANTZ DESIGN AND SERVICE

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Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

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Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

<p><b>USA</b>  <b>MARANTZ AMERICA, INC.</b>                      440 MEDINAH ROAD                      ROSELLE, ILLINOIS 60172                      USA                      PHONE : 630 - 307 - 3100                      FAX : 630 - 307 - 2687</p>	<p><b>EUROPE / TRADING</b>  <b>MARANTZ EUROPE B.V.</b>                      P.O.BOX 80002, BUILDING SFF2                      5600 JB EINDHOVEN                      THE NETHERLANDS                      PHONE : +31 - 40 - 2732241                      FAX : +31 - 40 - 2735578</p>	<p><b>BRAZIL</b>  <b>MARANTZ BRAZIL</b>                      CAIXA POSTAL 21462                      CEP 04698-970                      SAO PAULO, SP, BRAZIL                      PHONE : 0800 - 123123(Discagem Direta Gratuita)                      FAX : +55 11 534. 8988</p>
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	<p><b>TAIWAN</b>  <b>PAI-YUING CO., LTD.</b>                      6 TH FL NO, 148 SUNG KIANG ROAD,                      TAIPEI, 10429, TAIWAN R.O.C.                      PHONE : +886 - 2 - 25221304                      FAX : +886 - 2 - 25630415</p>	<p><b>MALAYSIA</b>  <b>WO KEE HONG ELECTRONICS SDN. BHD.</b>                      SUITE 8.1, LEVEL 8, MENARA GENESIS,                      NO. 33, JALAN SULTAN ISMAIL,                      50250 KUALA LUMPUR, MALAYSIA                      PHONE : +60 3 - 2457677                      FAX : +60 3 - 2458180</p>
<p><b>JAPAN Technical</b>  <b>MARANTZ JAPAN, INC.</b>                      35- 1, 7- CHOME, SAGAMIONO                      SAGAMIHARA - SHI, KANAGAWA                      JAPAN 228-8505                      PHONE : +81 42 748 1013                      FAX : +81 42 741 9190</p>	<p><b>日本マランツ株式会社</b>                      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</p>	<p><b>KOREA</b>  <b>MK ENTERPRISES LTD.</b>                      ROOM 604/605, ELECTRO-OFFICETEL, 16-58,                      3GA, HANGANG-RO, YONGSAN-KU, SEOUL                      KOREA                      PHONE : +822 - 3232 - 155                      FAX : +822 - 3232 - 154</p>

### 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.

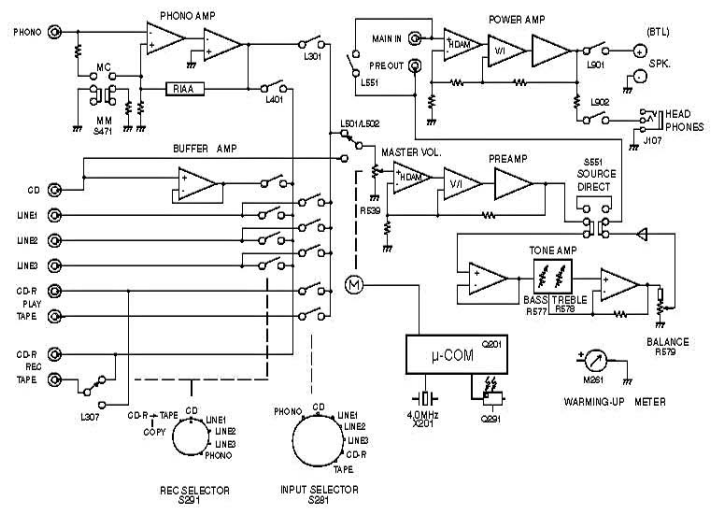
In case of difficulties, do not hesitate to contact the Technical Department at above mentioned address.

## 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
SN (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	468 mm
Height	110 mm
Depth	429 mm
Weight	16 kg
Accessories	
Remote control unit (RC-17mkII PM)	x 1
Dimensions	
Width	44 mm
Height	239 mm
Depth	17.6 mm
Weight (with out batteries)	189 g
SUM-4 (R6/"AA" size) dry cell battery	x 2

Design and specifications are subject to change without notice.

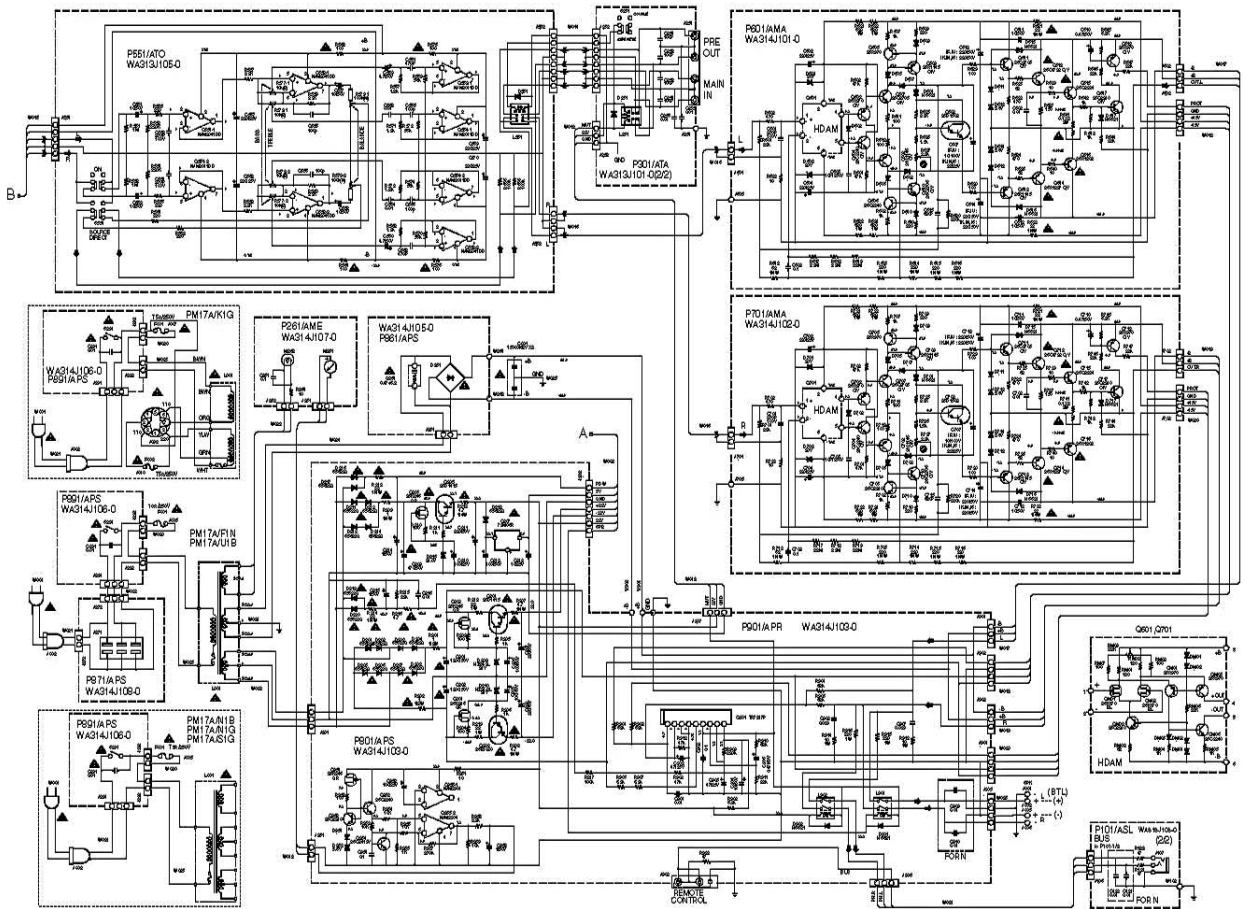
## 2. BLOCK DIAGRAM



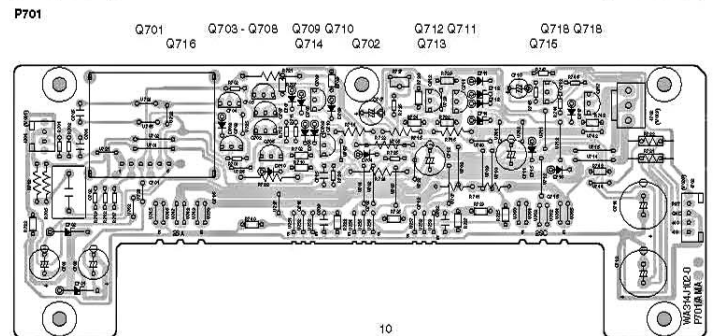
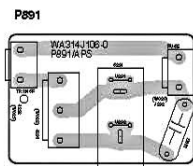
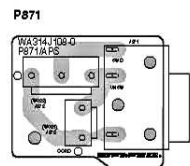
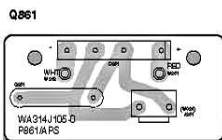
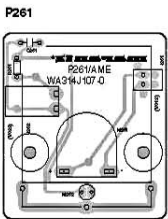
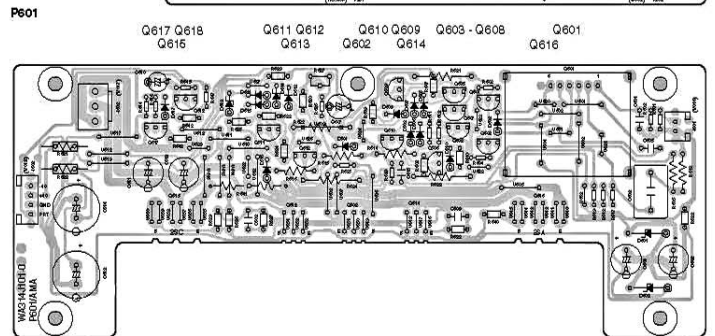
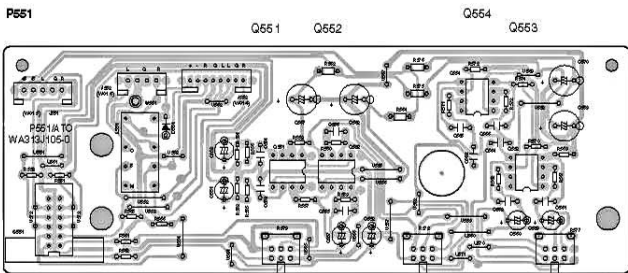
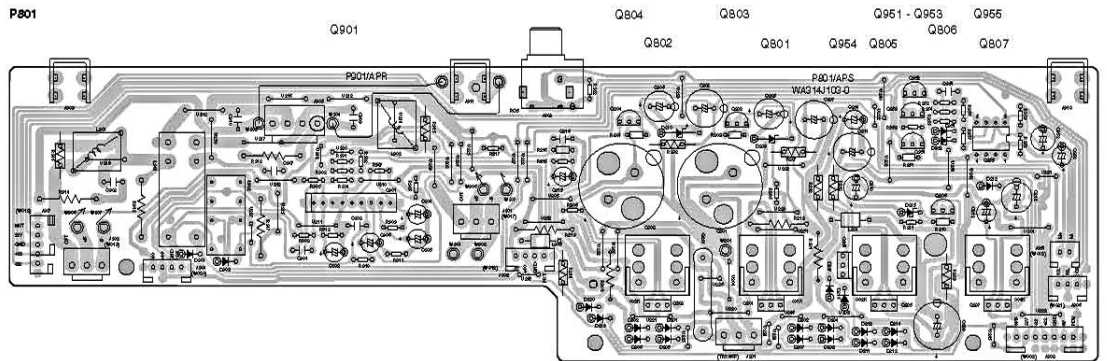
## 3. TEST EQUIPMENT REQUIRED FOR SERVICING

Item	Use
Distortion Analyzer 歪波計	Distortion measurements 波の測定
Audio Oscillator 音周波発生器	Sinewave and squarewave signal source 正弦波及び方形波の信号源
AC VTVM 交流電圧計	Voltage measurements (AC) 交流電圧の測定
Oscilloscope オシロスコープ	Waveform analysis and trouble shooting and ABO alignment 波形分析、トラブルシューティング及びABO調整
DC VTVM 直流電圧計	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 電圧電圧計	Monitors potential of primary power to amplifier アンプの一次側消費電力のモニター
Variable Autotransformer スライダック	Adjust level of primary power to amplifier アンプの一次側消費電力の調整
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



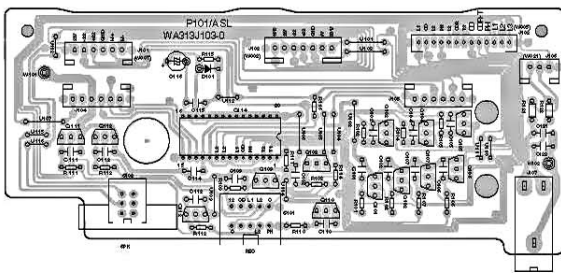






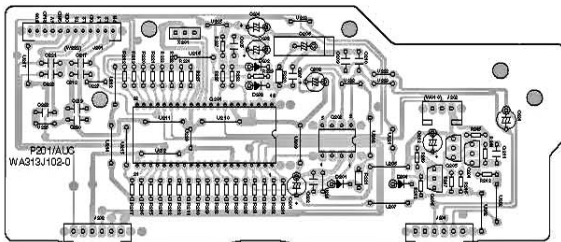
P101

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



P201

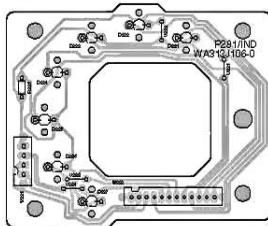
Q201 Q202 Q206 Q205 Q204



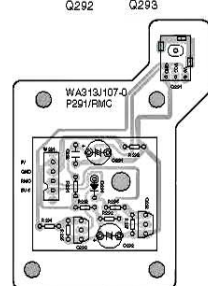
P271



P281



P291



6. EXPLODED VIEW AND PARTS LIST

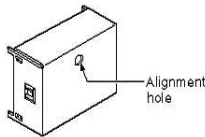
POS. NO.	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MU)	POS. NO.	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MU)
001B	/FIN		FRONT PANEL ASSY PM-17SA GOLD HAIR	31.3J246510	J002		4622 290 81671	TERMINAL 2P RCA PIN GL	YT02021240
001B	/K/G, /S/G		FRONT PANEL ASSY PM-17SA GOLD BLAST	31.3J246550	J003		4622 286 11424	TERMINAL WBT-0746	YT01010360
001B	/N/G	9965 000 01634	FRONT PANEL ASSY PM-17MK2 GOLD BLAST	31.3J246530	J004		4622 286 11425	POLE TERMINAL WHT-0745	YT01010370
001B	/N/B	9965 000 01614	FRONT PANEL ASSY PM-17MK2 BLACK BLAST	31.3J246520	J005		4622 286 11424	TERMINAL WBT-0746	YT01010380
001B	/U/B		FRONT PANEL ASSY PM-17SA BLACK BLAST	31.3J246540	J006		4622 286 11425	POLE TERMINAL WHT	YT01010370
003B	GOLD	4622 426 10497	ESCUTCHEON GOLD	269J063110	▲ J007	/F/K,U		TERMINAL WBT-0746	YJ00000600
003B	BLACK	4622 426 10496	ESCUTCHEON BLACK	269J063010	J007	/N/S	4622 287 31618	JACK FUSE HOLDER 10A 250V 31 8MM	YJ08000610
016B	GOLD	4622 410 10227	BUTTON FOR S. SPEAKER GOLD	144J270010	▲ J008	/K	4622 286 11399	JACK FUSE HOLDER H201 20MM	YJ04002360
017B	BLACK	4622 404 21012	JOINT LINK FOR S. SPEAKER BLACK	026J126010	▲ J010	/K	4622 287 31618	JACK FUSE HOLDER H201 20MM	YJ08000610
018B	GOLD	4622 410 11278	POWER BUTTON GOLD	176J270050	J099	/K		VOLTAGE SELECT. 2POLE 2POSITION JACK MAINS ADAPTER	YJ04001240
018B	BLACK	4622 410 11276	POWER BUTTON BLACK	176J270050	▲ L001	/F		MAINS TRANSFORMER	TS42002120
024B	GOLD	9965 000 01650	KNOB FOR MAS VOL GOLD	31.3J164110	▲ L001	/K		MAINS TRANSFORMER	TS42002140
026B	GOLD	9965 000 01652	KNOB FOR INPUT SEL GOLD	31.3J164120	▲ L001	/N,S	9965 000 01656	MAINS TRANSFORMER	TS42002130
026B	BLACK	9965 000 01651	KNOB FOR INPUT SEL BLACK	31.3J164120	▲ L001	/U		MAINS TRANSFORMER	TS42002160
026B	GOLD	4622 410 12036	KNOB FOR BALANCE/REC GOLD	269J164040	L002		4622 626 10691	FERRITE CORE TFC-16-8-13	FC01600030
026B	BLACK	4622 410 12036	KNOB FOR BALANCE/REC BLACK	269J164040	▲ W001	/F		MAINS CORD MITY DC-3023-12A	Z016030080
036B	/F		SUPER AUDIO BADGE	316J261010	▲ W001	/K		MAINS CORD 2P 10A 250V	Z016030090
036B	GOLD	9965 000 01654	NEW MARANTZ BADGE GL	31.3J261010	▲ W001	/N	4622 321 11439	MAINS CORD 2P 10A 250V CLASS2	Z016030080
036B	BLACK	9965 000 01653	NEW MARANTZ BADGE BL	31.3J261010	▲ W001	/S		MAINS CORD UL/CSA 10A 125V	Z016040010
037B	/S, /U		S A BADGE	31.3J261020	▲ W001	/U		MAINS CORD UL/CSA 10A 125V	Z016031000
001D	GOLD	4622 442 01018	TOP LID GOLD	269J261110	001T	/F		PACKING USER GUIDE PM-17SA	31.3J651110
001D	BLACK	4622 442 01017	TOP LID BLACK	269J261010	001T	/K,S		USER GUIDE PM-17SA	31.3J651260
002D	GOLD	4622 602 14426	SCREW FOR TOP LID G OLD	325S010020	001T	/U	9965 000 01656	USER GUIDE PM-17MK2	31.3J651260
002D	BLACK	4622 602 21693	SCREW FOR TOP LID BLACK	325S010030	001T	/U	9965 000 01656	REMOTE COMMANDER RC-17 MK2PM	31.3J651260
003D	GOLD	4622 426 10499	SIDE PANEL G OLD	269J249910	T100				
003D	BLACK	4622 426 10498	SIDE PANEL BLACK	269J249010					
004D	GOLD	4622 602 14426	SCREW FOR SIDE PANEL FRONT GL	325S010020					
004D	BLACK	4622 602 21693	SCREW FOR SIDE PANEL FRONT BL	325S010030					
009D	GOLD	4622 602 14462	SCREW FOR TOP LID REAR G OLD	316K010020					
009D	BLACK	4622 602 14461	SCREW FOR TOP LID REAR BLACK	316K010030					
010D	GOLD	4622 602 14462	SCREW FOR SIDE PANEL REAR GL	316K010020					
010D	BLACK	4622 602 14461	SCREW FOR SIDE PANEL REAR BL	316K010030					
002G			LID BOTTOM LID	31.3J267020					
003G		4622 462 42134	LEG LEG	261N067010					
903G		4622 410 60343	BUTTON FOR M/M/MC SEL SW	056J270030					
▲ C001		9965 000 01657	ELECT 16000uf 63V X2 FOR AUDIO	E169003650					
▲ F001	/F		FUSE 10A 250V MTTI GRU	F311000570					
▲ F001	/K,N,S		FUSE 6A 250V BS LISTED	F310500680	001S	/F,U		PACKING CASE PM-17SA	31.3J651010
▲ F001	/U	4622 070 36002	FUSE 10A 250V	F311000630	002S			CUSHION FOR LEFT	31.4J650010
▲ F002	/K		FUSE T6A 250V B.S	F310500680	003S			CUSHION FOR RIGHT	31.4J650020





## 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  $0mV \pm 3mV$  with in 10 seconds after speaker relay turn ON.



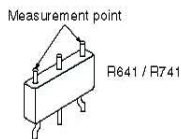
## DC オフセット電圧調整

- 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ツ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)のカバーに穴をあけ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すようにします。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ツメータの値が $0mV \pm 3mV$ になるように調整します。

## 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  $9mV \pm 1mV (45mA)$  for both L ch and R ch.



## アイドル電流調整

**【注意】**  
アイドル電流調整の際は必ずDCオフセット電圧の調整を済ませ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本にデジタルボルツ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、アイドル電流調整が安定するまで、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ツメータの値が $9mV \pm 1mV (45mA)$ になるように調整します。

## 9. ELECTRICAL PARTS LIST

### ASSIGNMENT OF COMMON PARTS CODES.

#### RESISTORS

- ① 1) GD05 × × × 140, Carbon film fixed resistor, ±5% 1/4W  
② 2) GD05 × × × 180, Carbon film fixed resistor, ±5% 1/6W

Examples:  
① Resistance value  
0.1 Ω ... 001 10 Ω ... 100 1 kΩ ... 102 100 kΩ ... 104  
0.5 Ω ... 005 15 Ω ... 150 2.7 kΩ ... 272 560 kΩ ... 564  
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

- ③ CERAMIC CAP  
3) DD1 × × × × 370, Ceramic capacitor  
Disc type  
Temp.coef P360 ~N1000, 50V

Examples:  
② Tolerance (Capacity deviation)  
±0.25 pF ... 0  
±0.5 pF ... 1  
±5% ... 5  
③ Capacity value  
0.5 pF ... 005 5 pF ... 030 100 pF ... 101  
1 pF ... 010 10 pF ... 100 220 pF ... 221  
1.5 pF ... 015 47 pF ... 470 560 pF ... 561

④ 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%

#### CERAMIC CAP

- ④ DK16 × × × × 500, High dielectric constant ceramic capacitor  
Disc type  
Temp.chara. 2B4, 50V

Examples:  
② Capacity value  
100 pF ... 101 1000 pF ... 102 10000 pF ... 103  
470 pF ... 471 2200 pF ... 222

#### ELECTROLYTIC CAP (E) FILM CAP (F)

- ⑤ EA × × × × × × 10, Electrolytic capacitor  
One-way lead type, Tolerance ±20%

Examples:  
② 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 ... 223 1100 μF ... 116  
2200 μF ... 229

③ Working voltage  
6.3V ... 006 25V ... 025  
10V ... 010 35V ... 035  
16V ... 016 50V ... 050

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

Examples:  
② 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 (①, ②, ③, ④, ⑤, ⑥) are omitted on the schematic diagram in some cases.  
2) On the occasion, be confirmed the common parts on the parts list.  
3) Refer to "Common Parts List" for the other common parts (R106, DD4, DK4).

### NOTE ON SAFETY FOR FUSIBLE RESISTOR:

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

- KOA Corporation  
Part No. (M/J) Type No. (KOA) Description  
NH05 × × × 140 → RF2S3 × × × × DJ (±5% 1/4W)  
NH05 × × × 120 → RF60S × × × × DJ (±5% 1/2W)  
NH85 × × × 110 → RF73B2A × × × × DJ (±5% 1/10W)  
NH95 × × × 140 → RF73B2E × × × × DJ (±5% 1/4W)

- Matsushita Electronic Components Co., Ltd.  
Part No. (M/J) Type No. (MEC) Description  
NF05 × × × 140 → ERD-2FCJ × × × × (±5% 1/4W)  
RF05 × × × 140 → ERD-2FOG × × × × (±2% 1/4W)  
RF05 × × × 140 → ERD-2FOG × × × × (±2% 1/4W)

Examples:  
② Resistance value  
0.1 Ω ... 001 10 Ω ... 100 1 kΩ ... 102 100 kΩ ... 104  
0.5 Ω ... 005 15 Ω ... 150 2.7 kΩ ... 272 560 kΩ ... 564  
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
μPRO	: 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 replace 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 } C113 C114 C115 C116 C121 C122	/K,/S /N	9965 000 01569	<b>P101-SW &amp; HP CIRCUIT BOARD P101-CAPACITORS</b>		Q201		9965 000 01584	MICROPROCESSOR 4BIT 2K TMP47C200BN-1A68(Z)	HU313JT000			
			CER. 0.01µF +80%-20% DC50V	DD38103010			Q202	4822 209 73287	IC LB1630	HC10235030		
			CER. 0.1µF +80%-20% DC50V	DD38104010			Q204	4822 130 60839	TRS. 2SC2458 Y OR GR	HT324582B0		
		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010	X201	4822 242 72527	P201-MISCELLANEOUS CERAMIC VIB. CERALOCK CST4.00MGW	FQ04004030	9965 000 01581	ELECT. 22µF M 25V RA-2	OA22602520	
			4822 124 41534	ELECT. 10µF M 25V RA-2								OA10602520
			4822 124 12276	FILM 0.01µF ± 5%								OF15103540
		R121 R122		4822 052 10479	<b>P101-RESISTORS</b>	GG05470160	C261		4822 122 40617	CER. 0.1µF +8%-20% DC50V	DD38104010	
					4822 052 10479	47Ω ±5%1/6W			GG05470160			
		R***			<b>P101-RESISTORS (COMMON)</b> CARBON FILM FIXED RES. ±5% 1/6W : R101-R117		M261		4822 344 14034	D.C METER MG-28	IM11030030	
					4822 130 32362	<b>P101-SEMICONDUCTORS</b>	HD20002000		M262	4822 134 40925	LAMP 8V 100mA DC IGN.BLUE	IN10080680
						DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000		▲ R261	4822 052 10109	10Ω ±5%1/6W	GG05100160
		D101		4822 130 32362	<b>P101-MISCELLANEOUS</b> JACK HLJ0540-01-410 GRY JACK HLJ0540-01-410 BLK	YJ01003880 YJ01003870	R271		4822 050 21021	<b>P271-FUNCTION SELECTOR CIRCUIT BOARD</b> 100Ω ±5%1/4W	GG05101140	
Q101 } Q113 Q114	GOLD BLACK	4822 130 60588	DIG.TRS. DTC114ES UN4211 10k 10k IC LC7822N	BA20001000 HC10309030	S271				4822 273 20368	ROTARY SW. SRRSIC	SR01120070	
J107 J107		4822 267 31692 9965 000 11662	ROTARY SW. SRBM16N-F1020 PUSH SW. SPUP12-2N-*W2	SR01060100 SP02012290	D281 D282 D283 D284 D285 D286 D287		▲ R281		4822 130 80326	L.E.D. LT3D8B RED 30	HI10062320	
S101 S102	9965 000 01579 9965 000 01580	<b>P201-U-COM CIRCUIT BOARD P201-CAPACITORS</b>		4822 130 80326	L.E.D. LT3D8B RED 30	HI10062320						
C201 C202 C203 C204 C205 C206 C207 C208 C209 C210 C211 C212 C217 } C223 C224		4822 124 41534	ELECT. 10µF M 25V RA-2	OA10602520	C291		9965 000 00603	ELECT 47µF 10V	EG47601050			
			4822 122 40617	CER. 0.1µF +8%-20% DC50V			DD38104010	C292	4822 122 40617	CER. 0.1µF +8%-20% DC50V	DD38104010	
			4822 124 41534	ELECT. 10µF M 25V RA-2			OA10602520	C293	9965 000 00603	ELECT 47µF 10V	EG47601050	
		4822 124 41534	ELECT. 10µF M 25V RA-2	OA10602520	D291	4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000	9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010	
			4822 124 90406	BIG ELECT FMOH223ZTP16								EX22300530
			4822 122 40617	CER. 0.1µF +8%-20% DC50V								DD38104010
		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010	Q291	4822 209 16735	PHOTO UNIT PNA4655M00HB IR SENSOR	HW10006020	9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010	
			4822 124 41534	ELECT. 10µF M 25V RA-2								OA10602520
			4822 124 41534	ELECT. 10µF M 25V RA-2								OA10602520
		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010	Q292	4822 130 60107	TRS. 2SA1048 Y OR GR	HT110482B0	9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010	
			4822 124 41534	ELECT. 10µF M 25V RA-2								OA10602520
			4822 124 41534	ELECT. 10µF M 25V RA-2								OA10602520
C217 } C223 C224		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010	Q293	4822 130 60839	TRS. 2SC2458 Y OR GR	HT324582B0				
			4822 124 11947	ELECT 10µF 16V					EQ10601630			
			4822 124 11947	ELECT 10µF 16V					EQ10601630			
R230 R231		4822 052 10479 4822 052 10228	<b>P201-RESISTORS</b> 47Ω ±5%1/6W 2.2Ω ±5%1/6W	GG05470160 GG05022160	C301 } C312 C313 C314 C315 C316 C317 C319 C320 C333 } C348 C349		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020			
R***			<b>P201-RESISTORS (COMMON)</b> CARBON FILM FIXED RES. ±5% 1/6W : R201-R227 R228 R229 R246-249 R291-R298				9965 000 01581	ELECT. 22µF M 25V RA-2	OA22602520			
			4822 130 32362	<b>P201-SEMICONDUCTORS</b>			HD20002000	9965 000 01581	ELECT. 22µF M 25V RA-2	OA22602520		
				DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000	4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520				
D201 D203 D204		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000	C316	/K,/N,/S } /K,/N,/S	4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520			
D201 D203 D204		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000	C317		4822 122 40617	CER. 0.1µF +80%-20% DC50V	DD38104010			
					C319			4822 122 40617	CER. 0.1µF +80%-20% DC50V	DD38104010		
					C320							
					C333	/K,/N,/S	9965 000 01344	FILM 100pF ±5%100V	OF15101540			
					C348	/K,/N,/S	9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010			
					C349		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010			

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
C350		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010	▲ R435		4822 052 10101	100Ω ±5%/1/6W	GG05101160
C351		9965 000 01344	FILM 100pF ±5%100V	OF15101540	▲ R438		4822 052 10109	10Ω ±5%/1/6W	GG05100160
C354					R439				
C355		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010	<b>R***</b>			<b>P401-RESISTORS (COMMON)</b> CARBON FILM FIXED RES. ±5% 1/6W : R401-R404 R409-R434 R471 R472	
C361								<b>P401-SEMICONDUCTORS</b>	
R323		4822 052 10228	2.2Ω ±5%/1/6W	GG05022160	D401		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
R324		4822 052 10471	470Ω ±5%/1/6W	GG05471160	D410				
R325		4822 052 10471	470Ω ±5%/1/6W	GG05471160	Q401		4822 130 43547	F.E.T. 2SK369 V VGDS-40V PD0.4W	HF203691V0
<b>R***</b>			<b>P301-RESISTORS (COMMON)</b> CARBON FILM FIXED RES. ±5% 1/6W : R301-R322		Q404		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
D351		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000	Q405		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
Q301		4822 209 16926	IC OPA2604AP BURR-BROWN	HC10008610	Q408		4822 209 81565	IC NJM-2041-DD	HC10026090
J301		4822 290 81598	TERMINAL 2P RCA JACK YKC21-3255 GOLD	YT02021130	Q409				
J302		4822 290 81599	TERMINAL YKC21-3269 GOLD	YT02040970	Q412				
J303		4822 290 81599	TERMINAL YKC21-3269 GOLD	YT02040970	Q413				
J304		4822 290 81599	TERMINAL YKC21-3269 GOLD	YT02040970	L401		9965 000 01570	<b>P401-MISCELLANEOU</b> RELAY ED2-24	LY20240470
J351		4822 290 81599	TERMINAL YKC21-3269 GOLD	YT02040970				<b>P471-PHONO RCA JACK</b> <b>CIRCUIT BOARD</b>	
L301		9965 000 01570	RELAY ED2-24	LY20240470	C471		4822 121 70437	FILM 1000pF ±5%100V APSV	OF15102540
L312		9965 000 01576	RELAY MR82-24USR	LY20240480	C472		4822 121 70437	FILM 1000pF ±5%100V APSV	OF15102540
L351		9965 000 01576	RELAY MR82-24USR	LY20240480	C473		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010
S351		9965 000 01582	SLIDE SW. SSSU12	SS02020950	C474		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010
C401		9965 000 01560	FILM 270pF ±5%100V OFC	OF55271540	J471		4822 290 81638	TERMINAL 14X14 RA 1L1P BLK AU FLM-GND	YT02010790
C402		9965 000 01560	FILM 270pF ±5%100V OFC	OF55271540	J472		4822 290 81638	TERMINAL 14X14 RA 1L1P BLK AU FLM-GND	YT02010790
C403		9965 000 01567	ELECT. 100µF 10V ARA	OA10701050	S471		4822 276 13409	PUSH SW. SPUP19-4N-W2.0	SP04010660
C404		9965 000 01567	ELECT. 100µF 10V ARA	OA10701050	U473	/K,/N,/S	4822 158 60606	CHOKE COIL 22µH 5R200PN	LC12030050
C409		4822 124 12276	FILM 0.01µF ± 5%	OF15103540	U474	/K,/N,/S	4822 158 60606	CHOKE COIL 22µH 5R200PN	LC12030050
C410		4822 124 12276	FILM 0.01µF ± 5%	OF15103540				<b>P501-MASTER VOL. &amp; AMP</b> <b>CIRCUIT BOARD</b>	
C411		4822 121 70437	FILM 1000pF ±5%100V APSV	OF15102540	C501		9965 000 01560	FILM 270pF ±5%100V OFC	OF55271540
C412		4822 121 70437	FILM 1000pF ±5%100V APSV	OF15102540	C502		9965 000 01560	FILM 270pF ±5%100V OFC	OF55271540
C413		4822 124 81151	ELECT. 22µF 25V ARA	OA22602550	C503		9965 000 01585	MICA 5pF 500V FE922H	DF31050520
C414		4822 124 81151	ELECT. 22µF 25V ARA	OA22602550	C504		9965 000 01585	MICA 5pF 500V FE922H	DF31050520
C415		9965 000 01568	FILM 1500pF ±5%100V APSV	OF15152540	C505		9965 000 01586	MICA 22pF ±5%500V FE	DF35220520
C416		9965 000 01568	FILM 1500pF ±5%100V APSV	OF15152540	C506		9965 000 01586	MICA 22pF ±5%500V FE	DF35220520
C417		4822 124 90365	ELECT. 220µF M 25V RA-2	OA22702520	C507	/F,/U	9965 000 02015	ELECT. 22µF 25V ARA	OA22602550
C420		4822 122 40617	CER. 0.1µF DC50V +80 -20%	DD38104010	C507	/K,/N,/S	9965 000 02015	ELECT. 22µF 25V ARS	OA22602550
C421		4822 122 40617	CER. 0.1µF DC50V +80 -20%	DD38104010	C508	/F,/U	9965 000 02015	ELECT. 22µF 25V ARA	OA22602550
C422		4822 122 40617	CER. 0.1µF DC50V +80 -20%	DD38104010	C508	/K,/N,/S	9965 000 02015	ELECT. 22µF 25V ARS	OA22602550
C423		4822 122 40617	CER. 0.1µF DC50V +80 -20%	DD38104010	C511		4822 124 90051	ELECT. 220µF M 25V ARA	OA22702550
C424		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020	C512		4822 124 90051	ELECT. 220µF M 25V ARA	OA22702550
<b>C***</b>			<b>P401-CAPACITORS (COMMON)</b> PLASTIC FILM CAPACITOR ±5% 50V : C504-C408		C513		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010
R405		9965 000 01571	100Ω ± 1% 1/6W	GM11610000	C514		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010
R408					C515		9965 000 01569	CER. 0.01µF +80%-20% DC50V	DD38103010
			<b>P401-RESISTORS</b>		C516		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020
					R505		9965 000 01565	<b>P501-RESISTORS</b> 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. (MJJ)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJJ)	
R507 }		4822 111 20413	220Ω ± 1% 1/4W ERD	NR01221140	R579		4822 100 30138	VAR. 100kΩ MN FOR BALANCE VOLUME	RM01041310	
R510					<b>R***</b>			<b>P551-RESISTORS (COMMON)</b>		
R537		4822 052 10479	47Ω ±5%1/6W	GG05470160				CARBON FILM FIXED RES.		
R538		4822 052 10479	47Ω ±5%1/6W	GG05470160				±5% 1/6W : R551-R562		
R539		9965 000 01587	VAR. RK18112MC-30K DX2	RM03030050				R565-R574		
R540		4822 052 10228	2.2Ω ±5%1/6W	GG05022160				<b>P551-SEMICONDUCTORS</b>		
<b>R***</b>			<b>P501-RESISTORS (COMMON)</b>			D551		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
			CARBON FILM FIXED RES. ±5% 1/6W : R501-R505 R511-R536			Q551 }		4822 209 81565	IC NJM-2041-DD	HC10026090
			<b>P501-SEMICONDUCTORS</b>			Q554				
D501 }		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000		L551		9965 000 01576	<b>P551-MISCELLANEOUS</b> RELAY MR82-24USR	LY20240480
D506						S551		4822 276 13065	PUSH SW. SPUP24V1A STROK=2MM NON-SHORT	SP04010650
Q501			IC NEW HDAM	KH313J1010				<b>P601-POWER AMP L CIRCUIT BOARD</b>		
Q502			IC NEW HDAM	KH313J1010				<b>P601-CAPACITORS</b>		
Q503 }		4822 130 62649	F.E.T. 2SJ74 BL VGDS=25V PD=24W	HF100741G0	C601		9965 000 01560	FILM 270pF ±5%100V OFC	OF55271540	
Q506					C602		4822 121 10867	FILM 0.1μF ±5%100V OFC	OF55104540	
Q507		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0	C603		4822 124 90365	ELECT. 220μF M 25V RA-2	OA22702520	
Q508		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0	C604		4822 124 90365	ELECT. 220μF M 25V RA-2	OA22702520	
Q509		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0	C605		9965 000 01561	MICA 10pF ± 0.5pF 500V FE	DF31100520	
Q510		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0	C607	/F,/U		ELECT. 10μF M 100V RA-2	OA10610020	
Q511		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0	C607	/K,/N,/S	9965 000 02015	ELECT. 22μF M 25V ARS	OA22602540	
Q512		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0	C608		4822 124 12276	FILM 0.01μF ± 5%	OF15103540	
Q513		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0	C610		4822 124 22273	ELECT. 0.47μF M 50V RA-2	OA47405020	
Q514		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0	C611		9965 000 01562	ELECT 10μF M 50V RA2BP	EQ10605090	
Q515		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0	C612		9965 000 01562	ELECT 10μF M 50V RA2BP	EQ10605090	
Q516		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0	C613	/F,/U		ELECT. 330μF M 50V RA-2	OA33705020	
Q517		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0	C613	/K,/N,/S	9965 000 02014	ELECT. 220μF M 50V ARS	OA22705040	
Q518		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0	C614	/F,/U		ELECT. 330μF M 50V RA-2	OA33705020	
L501		9965 000 01570	RELAY ED2-24	LY20240470	C614	/K,/N,/S	9965 000 02014	ELECT. 220μF M 50V ARS	OA22705040	
L502		9965 000 01570	RELAY ED2-24	LY20240470	C615		9965 000 01564	FILM 680pF ±5%100V OFC	OF55681540	
			<b>P501-MISCELLANEOUS</b>					<b>P601-RESISTORS</b>		
			RELAY ED2-24	LY20240470	R605		4822 111 20413	220Ω ± 1% 1/4W ERD	NR01221140	
			RELAY ED2-24	LY20240470	▲ R607		4822 052 10102	1kΩ ±5%1/6W	GG05102160	
			<b>P551-TONE AMP CIRCUIT BOARD</b>		▲ R608		4822 052 10102	1kΩ ±5%1/6W	GG05102160	
			<b>P551-CAPACITORS</b>		▲ R609		4822 111 31001	330Ω ±5%1/6W	GG05331160	
C551		5322 124 21731	ELECT. 10μF M 50V RA-2	OA10605020	▲ R610		4822 111 31001	330Ω ±5%1/6W	GG05331160	
C552		5322 124 21731	ELECT. 10μF M 50V RA-2	OA10605020	R613		9965 000 01565	68Ω ± 1% 1/4W ERD	NR01680140	
C553		9965 000 01560	FILM 270pF ±5%100V OFC	OF55271540	R614		4822 111 20413	220Ω ± 1% 1/4W ERD	NR01221140	
C554		9965 000 01560	FILM 270pF ±5%100V OFC	OF55271540	R615		4822 111 20413	220Ω ± 1% 1/4W ERD	NR01221140	
C555		9965 000 01344	FILM 100pF ±5%100V	OF15101540	R616		4822 111 20413	220Ω ± 1% 1/4W ERD	NR01221140	
C556		9965 000 01344	FILM 100pF ±5%100V	OF15101540	R617		4822 050 23308	3.3MΩ ±5%1/6W	GD05335160	
C557		5322 124 21731	ELECT. 10μF M 50V RA-2	OA10605020	R618		4822 050 23308	3.3MΩ ±5%1/6W	GD05335160	
C558		5322 124 21731	ELECT. 10μF M 50V RA-2	OA10605020	R619		4822 050 23308	3.3MΩ ±5%1/6W	GD05335160	
C559		4822 124 80067	ELECT. 4.7μF M 50V RA-2	OA47505020	R621					
C560		4822 124 80067	ELECT. 4.7μF M 50V RA-2	OA47505020	}		4822 053 10681	680Ω ±5%1W	GA05681010	
C561		9965 000 01583	FILM 0.047μF ±5%50V MTFV	OF15473040	R624					
C562		9965 000 01583	FILM 0.047μF ±5%50V MTFV	OF15473040	R627		9965 000 01566	TRIM. VARIABLE 2.2kΩ	RA02220760	
C563		4822 124 12276	FILM 0.01μF ± 5%	OF15103540	R628		4822 052 10109	10Ω ±5%1/6W	GG05100160	
C564		4822 124 12276	FILM 0.01μF ± 5%	OF15103540	R629		4822 052 10101	100Ω ±5%1/6W	GG05101160	
C565		9965 000 01344	FILM 100pF ±5%100V	OF15101540	R630		4822 052 10101	100Ω ±5%1/6W	GG05101160	
C566		9965 000 01344	FILM 100pF ±5%100V	OF15101540	▲ R631		4822 050 22209	22Ω ±5%1/4W	GG05220140	
C567 }		4822 124 90365	ELECT. 220μF M 25V RA-2	OA22702520	▲ R632		4822 050 22209	22Ω ±5%1/4W	GG05220140	
C570					R633		4822 052 10471	470Ω ±5%1/6W	GG05471160	
▲ R563 }		4822 052 10101	100Ω ±5%1/6W	GG05101160	R634		4822 052 10471	470Ω ±5%1/6W	GG05471160	
▲ R577					R635		4822 050 26809	68Ω ±5%1/6W	GG05680160	
R577		4822 101 30735	VAR. 10kΩ X2 B	RM01030720	R636		4822 050 26809	68Ω ±5%1/6W	GG05680160	
R578		4822 101 30735	VAR. 10kΩ X2 B	RM01030720	▲ 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. (MJI)
R640		4822 052 10109	10 $\Omega$ $\pm$ 5%/1/6W	GG05100160
▲ R641		4822 111 91402	FIXED 0.10 $\Omega$ x 2 3W	BZ10102010
R642		4822 052 10102	1k $\Omega$ $\pm$ 5%/1/6W	GG05102160
R643		4822 052 10102	1k $\Omega$ $\pm$ 5%/1/6W	GG05102160
<b>R***</b>			<b>P601-RESISTORS (COMMON)</b> CARBON FILM FIXED RES. $\pm$ 5% 1/6W : R601-R604 R611 R612 R620 R625 R626 R644-R647	
			<b>P601-SEMICONDUCTORS</b>	
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				
D613		4822 130 33948	ZENER DIODE 5.6V	HD30561000
D614		4822 130 33948	ZENER DIODE 5.6V	HD30561000
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
			<b>P701-POWER AMP R CIRCUIT BOARD</b>	
			<b>P701-CAPACITORS</b>	
C701		9965 000 01560	FILM 270pF $\pm$ 5%100V OFC	OF55271540
C702		4822 121 10867	FILM 0.1 $\mu$ F $\pm$ 5%100V OFC	OF55104540
C703		4822 124 90365	ELECT. 220 $\mu$ F M 25V RA-2	OA22702520
C704		4822 124 90365	ELECT. 220 $\mu$ F M 25V RA-2	OA22702520
C705		9965 000 01561	MICA 10pF $\pm$ 0.5pF 500V FE	DF31100520
C707	/F,/J		ELECT. 10 $\mu$ F M 100V RA-2	OA10610020
C708	/K,/N,/S	9965 000 02015	ELECT. 22 $\mu$ F M 25V ARS	OA22602540
C709		4822 124 12276	FILM 0.01 $\mu$ F $\pm$ 5%	OF15103540
C710		4822 124 22273	ELECT. 0.47 $\mu$ F M 50V RA-2	OA47405020
C711		9965 000 01562	ELECT 10 $\mu$ F M 50V RA2BP	EQ10605090
C712		9965 000 01562	ELECT 10 $\mu$ F M 50V RA2BP	EQ10605090
C713	/F,/J		ELECT. 330 $\mu$ F M 50V RA-2	OA33705020
C713	/K,/N,/S	9965 000 02014	ELECT. 220 $\mu$ F M 50V ARS	OA22705040
C714	/F,/J		ELECT. 330 $\mu$ F M 50V RA-2	OA33705020
C714	/K,/N,/S	9965 000 02014	ELECT. 220 $\mu$ F M 50V ARS	OA22705040
C715		9965 000 01564	FILM 680pF $\pm$ 5%100V OFC	OF55681540

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
R705		4822 111 20413	<b>P701-RESISTORS</b> 220 $\Omega$ $\pm$ 1% 1/4W ERD	NR01221140
▲ R707		4822 052 10102	1k $\Omega$ $\pm$ 5%/1/6W	GG05102160
▲ R708		4822 052 10102	1k $\Omega$ $\pm$ 5%/1/6W	GG05102160
▲ R709		4822 111 31001	330 $\Omega$ $\pm$ 5%/1/6W	GG05331160
▲ R710		4822 111 31001	330 $\Omega$ $\pm$ 5%/1/6W	GG05331160
R713		9965 000 01565	68 $\Omega$ $\pm$ 1% 1/4W ERD	NR01680140
R714		4822 111 20413	220 $\Omega$ $\pm$ 1% 1/4W ERD	NR01221140
R715		4822 111 20413	220 $\Omega$ $\pm$ 1% 1/4W ERD	NR01221140
R716		4822 111 20413	220 $\Omega$ $\pm$ 1% 1/4W ERD	NR01221140
R717		4822 050 23308	3.3M $\Omega$ $\pm$ 5%/1/6W	GD05335160
R718		4822 050 23308	3.3M $\Omega$ $\pm$ 5%/1/6W	GD05335160
R719		4822 050 23308	3.3M $\Omega$ $\pm$ 5%/1/6W	GD05335160
R721				
∫		4822 053 10681	680 $\Omega$ $\pm$ 5%1W	GA05681010
R724				
R727		9965 000 01566	TRIM. VARIABLE 2.2k $\Omega$	RA02220760
R728		4822 052 10109	10 $\Omega$ $\pm$ 5%/1/6W	GG05100160
R729		4822 052 10101	100 $\Omega$ $\pm$ 5%/1/6W	GG05101160
R730		4822 052 10101	100 $\Omega$ $\pm$ 5%/1/6W	GG05101160
▲ R731		4822 050 22209	22 $\Omega$ $\pm$ 5%/1/4W	GG05220140
▲ R732		4822 050 22209	22 $\Omega$ $\pm$ 5%/1/4W	GG05220140
R733		4822 052 10471	470 $\Omega$ $\pm$ 5%/1/6W	GG05471160
R734		4822 052 10471	470 $\Omega$ $\pm$ 5%/1/6W	GG05471160
R735		4822 050 26809	68 $\Omega$ $\pm$ 5%/1/6W	GG05680160
R736		4822 050 26809	68 $\Omega$ $\pm$ 5%/1/6W	GG05680160
▲ R737		4822 052 10151	150 $\Omega$ $\pm$ 5%/1/6W	GG05151160
R738			JUMPER WIRE 5MM	75060501P0
R739		4822 052 10109	10 $\Omega$ $\pm$ 5%/1/6W	GG05100160
R740		4822 052 10109	10 $\Omega$ $\pm$ 5%/1/6W	GG05100160
▲ R741		4822 111 91402	0.10OHM X2 3W	BZ10102010
R742		4822 052 10102	1k $\Omega$ $\pm$ 5%/1/6W	GG05102160
R743		4822 052 10102	1k $\Omega$ $\pm$ 5%/1/6W	GG05102160
<b>R***</b>			<b>P701-RESISTORS (COMMON)</b> CARBON FILM FIXED RES. $\pm$ 5% 1/6W : R701-R704 R711 R712 R720 R725 R726 R744-R747	
			<b>P701-SEMICONDUCTORS</b>	
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				
D713		4822 130 33948	ZENER DIODE 5.6V	HD30561000
D714		4822 130 33948	ZENER DIODE 5.6V	HD30561000
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			<b>P801-SEMICONDUCTORS</b>		
▲ Q714		4822 130 63634	TRS. 2SA1837 O Y	HT118372A0	▲ D801		4822 130 80839		DIODE S5688G	HD20029050
▲ Q715		4822 130 60741	TRS. 2SC3284 O P Y	HT332843D0	▲ D808				VRM=400V IO=1A	
Q716		4822 130 63674	TRS. 2SA1303 O P Y	HT113033D0	D809		4822 130 10851		ZENER DIODE HZ24-2L	HD30012010
Q717		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0	D810		4822 130 10851		ZENER DIODE HZ24-2L	HD30012010
Q718		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0	D811		4822 130 80839		DIODE S5688G	HD20029050
					D812		4822 130 80839		VRM=400V IO=1A	HD20029050
			<b>P801-POWER SUPPLY &amp; PROTECTOR CIRCUIT BOARD</b>		▲ D813		4822 130 80839		DIODE S5688G	HD20029050
C801		9965 000 01577	<b>P801-CAPACITORS</b> ELECT 1800µF 50V FOR AUDIO	EB18805020	▲ D814		4822 130 80839		DIODE S5688G	HD20029050
C802		9965 000 01577	ELECT 1800µF 50V FOR AUDIO	EB18805020	D815		4822 130 80116		VRM=400V IO=1A ZENER DIODE 24V EQUIVALENT	HD32401000
C805		4822 124 90355	ELECT. 100µF M 50V RA-2	OA10705020	▲ D816		4822 130 80839	DIODE S5688G	HD20029050	
C806		4822 124 90355	ELECT. 100µF M 50V RA-2	OA10705020	▲ D817		4822 130 80839	VRM=400V IO=1A	HD20029050	
C807		4822 124 90366	ELECT. 220µF M 50V RA-2	OA22705020	▲ D818		4822 130 80839	DIODE S5688G	HD20029050	
C808		4822 124 90366	ELECT. 220µF M 50V RA-2	OA22705020	D818		4822 130 80839	VRM=400V IO=1A	HD20029050	
C809		4822 124 41542	ELECT. 470µF M 50V RA-2	OA47705020	▲ D819		4822 130 80839	DIODE S5688G	HD20029050	
C810		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520	▲ D820		4822 130 80839	DIODE S5688G	HD20029050	
C811		4822 124 90366	ELECT. 220µF M 50V RA-2	OA10505020	D901		4822 130 80837	VRM=400V IO=1A	HD20027010	
C812		4822 124 90355	ELECT. 100µF M 50V RA-2	OA10705020	D902		4822 130 80837	DIODE HSS81TD 150V 150mA	HD20027010	
C813		4822 124 41534	ELECT. 10µF M 25V RA-2	OA10602520	D951		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000	
C814		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020	D952		4822 130 33948	ZENER DIODE 5.6V EQUIVALENT	HD30561000	
C815		4822 124 41543	ELECT. 1µF M 50V RA-2	OA10505020	▲ Q801		4822 130 11605	TRIS. 2SD1415	HT41415100	
C816		4822 124 12276	FILM 0.01µF ± 5%	OF15103540	▲ Q802		4822 130 11604	TRIS. 2SB1020	HT21020100	
C901		4822 124 12276	FILM 0.01µF ± 5%	OF15103540	Q803		4822 130 42836	F.E.T. 2SK246 GR	HF202461C0	
C902		4822 124 22698	ELECT. 47µF M 25V RA-2	OA47602520	Q804		4822 130 42836	F.E.T. 2SK246 GR	HF202461C0	
C903		4822 122 40617	CER. 0.1µF +8%-20% DC50V	DD38104010	▲ Q805		4822 130 11605	TRIS. 2SD1415	HT41415100	
C904		5322 124 21731	ELECT. 10µF M 50V RA-2	OA10605020	Q806		4822 130 42836	F.E.T. 2SK246 GR	HF202461C0	
C905		4822 124 22698	ELECT. 47µF M 25V RA-2	OA47602520	▲ Q807		4822 209 83821	IC NJM79M06FA	HC38506090	
C906		4822 124 22273	ELECT. 0.47µF M 50V RA-2	OA47405020	Q901		4822 209 83312	IC TA7317P	HC10042050	
C907		9965 000 01575	FILM 0.039µF ±5%100V OFC	OF55393540	Q951		4822 130 42836	F.E.T. 2SK246 GR	HF202461C0	
C908		9965 000 01575	FILM 0.039µF ±5%100V OFC	OF55393540	Q952		4822 130 43233	TRIS. 2SC2240 GR OR BL	HT322402A0	
C909	/K,N,S	4822 124 12276	FILM 0.01µF ± 5%	OF15103540	Q953		4822 130 43233	TRIS. 2SC2240 GR OR BL	HT322402A0	
C910	/K,N,S	4822 124 12276	FILM 0.01µF ± 5%	OF15103540	Q954		4822 130 60117	TRIS. 2SC3419 Y 40V 0.8A PC=1.2W 5W	HT334191Y0	
C951		4822 122 40617	CER. 0.1µF +8%-20% DC50V	DD38104010	Q955		4822 209 83679	IC NJM2904 DUAL OP-AMP	HC10030090	
C952		4822 124 41543	ELECT. 1µF M 50V	OA10505020						
C953		4822 124 41535	ELECT. 100µF M 25V RA-2	OA10702520						
			<b>P801-RESISTORS</b>		▲ G801		4822 121 20263	<b>P801-MISCELLANEOUS</b> CAP.COMP. 0.47µF + 6.8Ω NOISE KILLER	BF47400010	
▲ R801		4822 050 21108	1Ω ±5%1/2W	GG05010120	J908		4822 267 41009	TERMINAL 2P RCA PIN JACK	YT02020890	
▲ R802		4822 050 21108	1Ω ±5%1/2W	GG05010120	L801		4822 158 60605	FERRIT BEADS B-01-RT	FC90050060	
▲ R803		4822 052 10101	100Ω ±5%1/6W	GG05101160	L901		4822 280 70354	RELAY VB 24MBU-510 5A/240VAC	LY20240310	
▲ R804		4822 052 10101	100Ω ±5%1/6W	GG05101160	L902		9965 000 01576	RELAY MR82-24USR	LY20240480	
▲ R807		4822 050 24708	4.7Ω ±5%1/4W	GG05047140	L905		4822 158 60605	FERRIT BEADS B-01-RT	FC90050060	
▲ R808		4822 050 24708	4.7Ω ±5%1/4W	GG05047140	U804		4822 158 60605	FERRITE BEADS B-01-RT	FC90050060	
▲ R809		4822 117 10158	1Ω ±5%1/4W	GG05010140						
▲ R810		4822 052 10101	100Ω ±5%1/6W	GG05101160	▲ D861		9965 000 01578	<b>P861-RECTIFIER CIRCUIT BOARD</b> DIODE D25XB60	HE20029290	
▲ R812		4822 050 24708	4.7Ω ±5%1/4W	GG05047140	▲ G861		4822 121 20263	600V 25A BRIDGE-DI CAP.COMP. 0.47µF + 6.8Ω NOISE KILLER	BF47400010	
▲ R813		4822 113 90119	FUSE 22Ω G 1/4W	NF02220140						
▲ R814		4822 113 90119	FUSE 22Ω G 1/4W	NF02220140						
▲ R816		4822 052 10478	4.7Ω ±5%1/6W	GG05047160						
▲ R818		4822 053 10339	33Ω ±5%1W	GA05330010						
▲ R819		4822 053 10339	33Ω ±5%1W	GA05330010						
R913		4822 053 10109	10Ω ±5%1W	GA05100010						
R914		4822 053 10109	10Ω ±5%1W	GA05100010						
R917		4822 053 10331	330Ω ±5%1W	GA05331010						
R918		4822 053 10331	330Ω ±5%1W	GA05331010						
R951		4822 052 10109	10Ω ±5%1/6W	GG05100160						
			<b>P801-RESISTORS (COMMON)</b> CARBON FILM FIXED RES. ±5% 1/6W : R805 R806 R811 R815 R817 R901-R912 R923 R952-R959							

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJ)
▲ J871	/F,/U	482226731417	<b>P871-AC-OUTLET CIRCUIT BOARD [F,U VERSION]</b> JACK AC OUTLET CCT1306-0212	YJ04001840
▲ C891 S891		4822 121 43732 4822 276 12647	<b>P891-POWER SW CIRCUIT BOARD</b> FILM 0.1μF M 250V AC PUSH SW. POWER ESB-99753V-4 TV-8	DF77103500 SP01011470
RM09		4822 100 20681	<b>PM01-HDAM CIRCUIT BOARD FOR Q501 Q502 Q601 Q701</b> <b>PM01-RESISTOR</b> TRIM. 2.2kΩ RH0638C14R	RA02220780
<b>***</b>			<b>PM01-RESISTORS (COMMON)</b> CARBON FILM FIXED RES. ±5% 1/6W : RM01-RM08	
DM01 S DM05		4822 130 32362	<b>PM01-SEMICONDUCTORS</b> 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