SERVICE MANUAL

PM-94

marantz

model PM-94

Stereo Amplifier

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ company has created the ultimate in stereo sound.
Only **original MARANTZ parts** can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

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

ORDERING PARTS:

Parts can be ordered either by mail or by telex. In both cases, correct part number has to be specified. If you order by mail, fulfil MARANTZ order forms.

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 telex must be signed otherwise such part order will be considered as nuli and void.

TECHNICAL ASSISTANCE

Should you require any other technical support, do not
hesitate to contact the Technical Department of P.M.A.
MARANTZ INTERNATIONAL
Quality & Service Dept.
80, Rue des Deux Gares,
B-1070 Brussels
Belgium
Phone: 02/525.70.22 or 525.70.23
Telefax: 02/525.6160
Telex: 23550 OR
61511 (PHEMB) routing: BELDMZT

PARTS OROERING

Parts may be ordered at the following addresses:

AUSTRIA
HCRNYPHON
Vertriebsgesellschaft
Wienerbergstrasse 1
A 1101 Wien
Austria
Telex: 132.332

AUSTRALIA
MARANTZ AUSTRALIA
PTY., Ltd.
19 Chard Road
Brookvale. NSW 2100
Australia
Telex: 24121

BELGIUM
SVD DIVISION MARANTZ
Industrialaan 1
1720 Groot-Bijgaarden
Belgium
Telex: 24466

CHILE
MARANTZ
DIVISION OF PHILIPS
AV. Santa Maria, 0760
Caslla 2687
Santiago
Telex: 240.239

DENMARK
MARANTZ
DIVISION OF PHILIPS
SERVICE A/S
Prags Boulevard 80
Postbox 1919
DK-2300 Kebenhavn S
Denmark
Telex: 31201

FINLAND
MARANTZ
DIVISION OF OY PHILIPS Ab
Kaivokatu 8
00100 Helsinki
Finland
Telex: 124811

FRANCE
MARANTZ FRANCE
4 Rue Bernard Palissy
92600 Asnières
France
Telex: 611651

GERMANY
MARANTZ GERMANY GmbH
Max-Planck-Strasse 22
6072 Dreieich 1
Germany
Telex: 529821

THE NETHERLANDS
Elpro b.v.
De Limiet 3
4131 NR Vianen
The Netherlands
Telex: 47679

NORWAY
MARANTZ
DIVISION OF PHILIPS A/S
Sandstuveien 40
Oslo 6
Norway
Telex: 72640

GREAT BRITAIN
MARANTZ AUDIO U.K. Ltd
Unit 15/16
Saxon Way Industriai Estate
Moor Lane
Harmondsworth UB7 OLW
Great Britain
Telex: 935196

GREECE
SHERTON ELECTRONICS S.A.
P.O.Box 21025
Hippooratus Street 188
Athens 11471
Greece
Telex: 216.795

JAPAN
MARANTZ JAPAN, Inc.
35-1,7-chome, Sagamiono
Sagamihara-shi,"Kanagawa
Japan

KUWAIT
AL ALAMIAH ELECTRONICS
Ussama Building
Fahd al Saleem Street
P.O.Box 23781
Safat-Kuwait
Telex: 22694

ITALY
MARANTZ ITALIANA S.P.A.
Via Chiese, 74
20126 Milano
Italy

SAUDI ARABIA
AL ALAMIAH ELECTRONICS
P.O.Box 5954
University Street
Riyadh 11432
Saudi Arabia
Telex: 201530

SOUTH AFRICA
MARANTZ
DIVISION OF PHILIPS S.A.
Rainer House
Ove Street, 10
Doornfontein
Johannesburg
Telex: 483.456

SPAIN
PHONO S.A.
Ignacio Iglesias 10
Badalona (Barcelona)
Spain
Telex: 59355

SWEDEN
MARANTZ
DIVISION OF PHILIPS
Försäljning AB
Tegeluddsvägen 1
S-115 84 Stockholm
Sweden
Telex: 14060

SWITZERLAND
DYNAVOX ELECTRONICS
Route de Villars 105
1701 Fribourg
Switzerland
Telex: 942377

TURKEY
DOGRUOL Ltd.
I.M.C.
6 Blok N°6310
Unkapani
Istanbul
Turkey
Telex: 22085

MALTA
CACHIA & GALEA
Republic Street, 68D
Valletta
Telex: 1682

U.S.A.
MARANTZ COMPANY, Inc.
National Service Department
P.O. Box 577
Chatsworth, CA 91311
U.S.A.

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country, in the event that there is no service location listed for your country, please, contact the nearest facility for the necessary assistance.

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

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How to use this service manual

- The "Common parts" which Marantz Japan, Inc. has established are eliminated from this service manual.
- These "Common parts" are applied to all models in the service manuals arranged and issued by **MJI.**
- To indicate clearly the common parts in the schematic diagram, a line is drawn above or under the Ref. Desig. No. of applicable parts.
- "Common parts" can be supplied from the Marantz service center as ever.

In case of ordering, please establish the parts number of 10 figures following the procedure mentioned in this service manual "How to establish the parts number for common parts".

(NOTE)

When you order parts to the Marantz parts center, please take notice of the following points.

1) Please correctly write the parts number of 10 figures following the rule.

2) Since ordering parts by the Ref. Desig. No. or ratings indicated in the schematic diagram
does not satisfy the above conditions, the Marantz parts supply system does not work properly.

As this case is apt to cause a trouble, please pay attention to it.

MODEL PM-94 STEREO AMPLIFIER

INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for the Marantz Model PM-94 Stereo Amplifier.

Servicing information and voltage data included in this manual are intended for use by knowledgeable and experienced personnel only. All instructions should be read carefully. No attempt should be made to proceed without a good understanding of circuitry operation.

The parts list furnishes complete ordering information. Most replacement parts should be ordered from the Marantz Company. However, a simple description is included for parts which can be obtained locally.

1. P.W. BOARDS

As can be seen from the circuit diagram the chassis of Model PM-94 consists of the following units. Each unit mounted on a printed circuit board is discribed within the square enclosed by a bold dotted line on the circuit diagram.

1. **Tone (L) .....mounted on P.W. Board PE01**
2. **Tone (R).....mounted on P.W. Board PE02**
3. **Flat Amp/Supply .....mounted on P.W. Board PG00**
4. **CD Direct/ Balance etc .....mounted on P.W. Board PK00**
5. **Power Transistor.....mounted on P.W. Board PL00**
6. **Comparator/Protec/ Supply.....mounted on P.W. Board PN00**
7. **Soft Start Ass'y .....mounted on P.W. Board PN50**
8. **Main Volume.....mounted on P.W. Board PQ00**
9. **Speaker Muting Relay .....mounted on P.W. Board PR00**
10. **Phono/Speaker Selector.....mounted on P.W. Board PR50**
11. **Tone/Tape 1.2/ VCR/Muting .....mounted on P.W. Board PT00**
12. **Function Selector ..... mounted on P.W. Board PV00**
13. **Tape Play/ Rce/VCR..... mounted on P.W. Board PW00**
14. **Function LED . . . . . mounted on P.W. Board PY00**
15. **Tape/VCR/Muting Indicator.....mounted on P.W. Board PZ00**
16. **Phono Amp/ Input Selector..... mounted on P.W. Board P400**
17. **Power Amp (L).....mounted on P.W. Board P600**
18. **Power Amp (R).....mounted on P.W. Board P700**

2. TEST EQUIPMENT REQUIRED FOR SERVICING

This table lists the test equipment required for servicing the Model PM-94 Stereo Amplifier.

Item	Use
Distortion Analyzer	Distortion measurements
Audio Oscillator	Sinewave and squarewave signal source
AC VTVM	Voltage measurements (AC)
Oscilloscope	Waveform analysis and trouble shooting and ASO alignment
Circuit Tester	Trouble shooting
DCVTVM	Voltage measurements (DC)
AC Wattmeter	Monitors primary power to amplifier
Line Voltmeter	Monitors potential of primary power to amplifier
Variable Autotransformer (0 ~ 140V AC, 10A)	Adjust level of primary power to amplifier
Shorting Plug	Shorts amplifier input to eliminate noise pickup

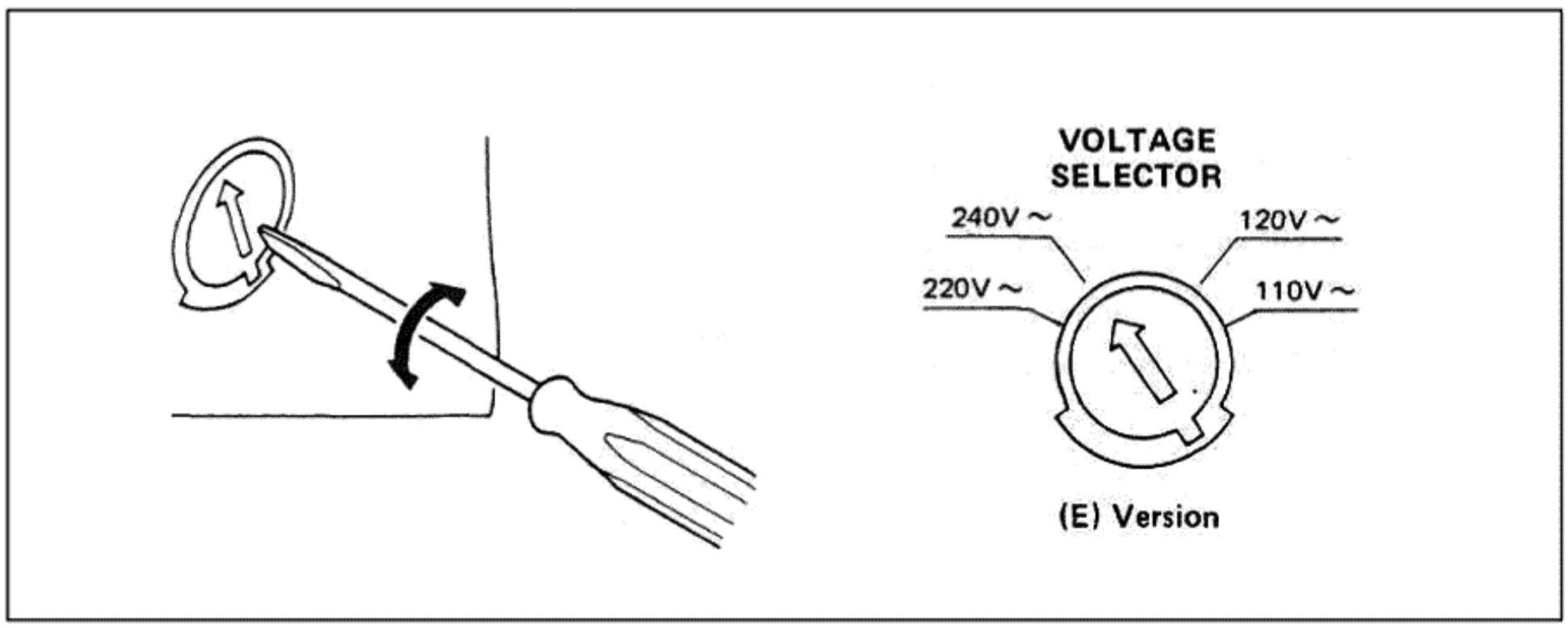
3. VOLTAGE CONVERSION

EUROPEAN MODEL ONLY

To convert the unit to a different power source voltage, change the position as illustrated in the drawing below.

CAUTION
DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.

Voltage Conversion Chart



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.

4. ADJUSTMENT PROCEDURE

1. Adjustment of output offset voltage

1) Remove the MAIN-IN and PRE-OUT plugs, and connect a digital voltmeter set to the DC range to the speaker terminals with no signal and no load on the unit.
2) Adjust R622 for L-ch and R722 for R-ch until the indication on the digital voltmeter is ±10 mV.

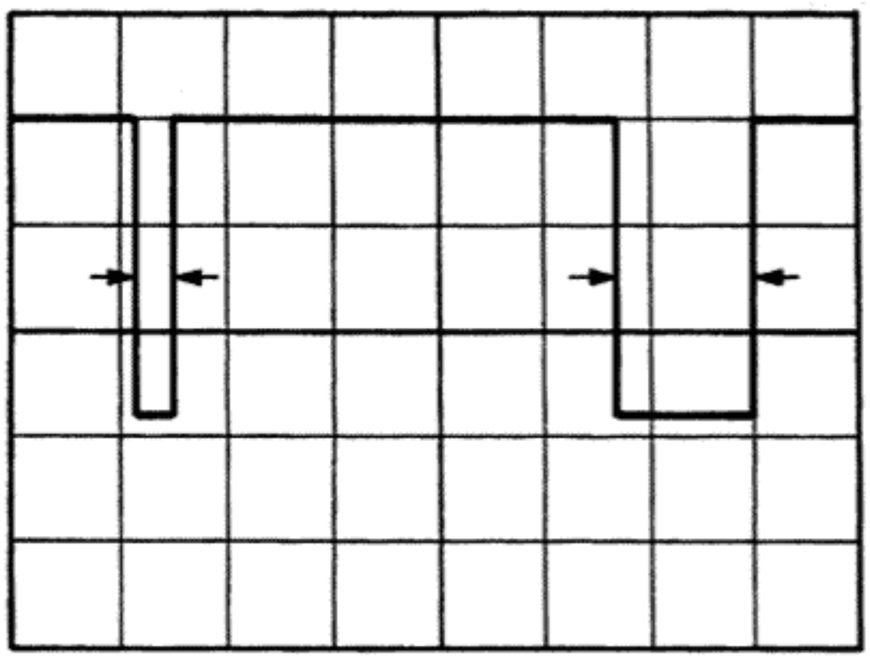
2. Idling adjustment

1) With no signal or load on the unit, short TP-1 and TP-3 on the P.W. Board (PN00).
2) Connect a digital voltmeter set to the DC range between J607 and J707 and adjust J643 and J743 for 36 mV.
3) Remove the short between TP-1 and TP-3, and R642 and R742 so that the voltage between J607 and J707 is 180 mV.

3. Adjustment of quarter "A"

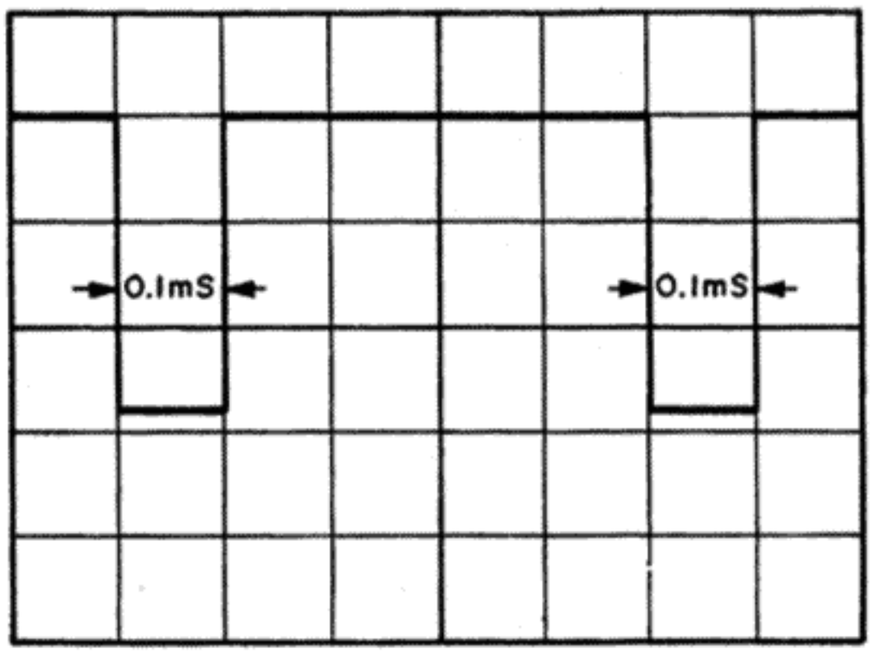
1) Connect a DC voltmeter between the emitter and base of QL07 for L-ch. (The meter range is greater than 100 V, with the polarity of the emitter (+) and base

2) Connect the oscilloscope between TP-1 and TP-2 on the P.W. Board, and monitor the waveforms at TP-2 with TP-1 as the reference.
3) Connect an 8 ohm load to each of the speaker terminals, and input a 1 kHz to the L channel MAIN-IN. Adjust the input level so that the load on L-ch gives output of 17 V.
4) Rotate RN40 (RN41) on the P.W. Board (PN00) and monitor the waveforms on the oscilloscope.



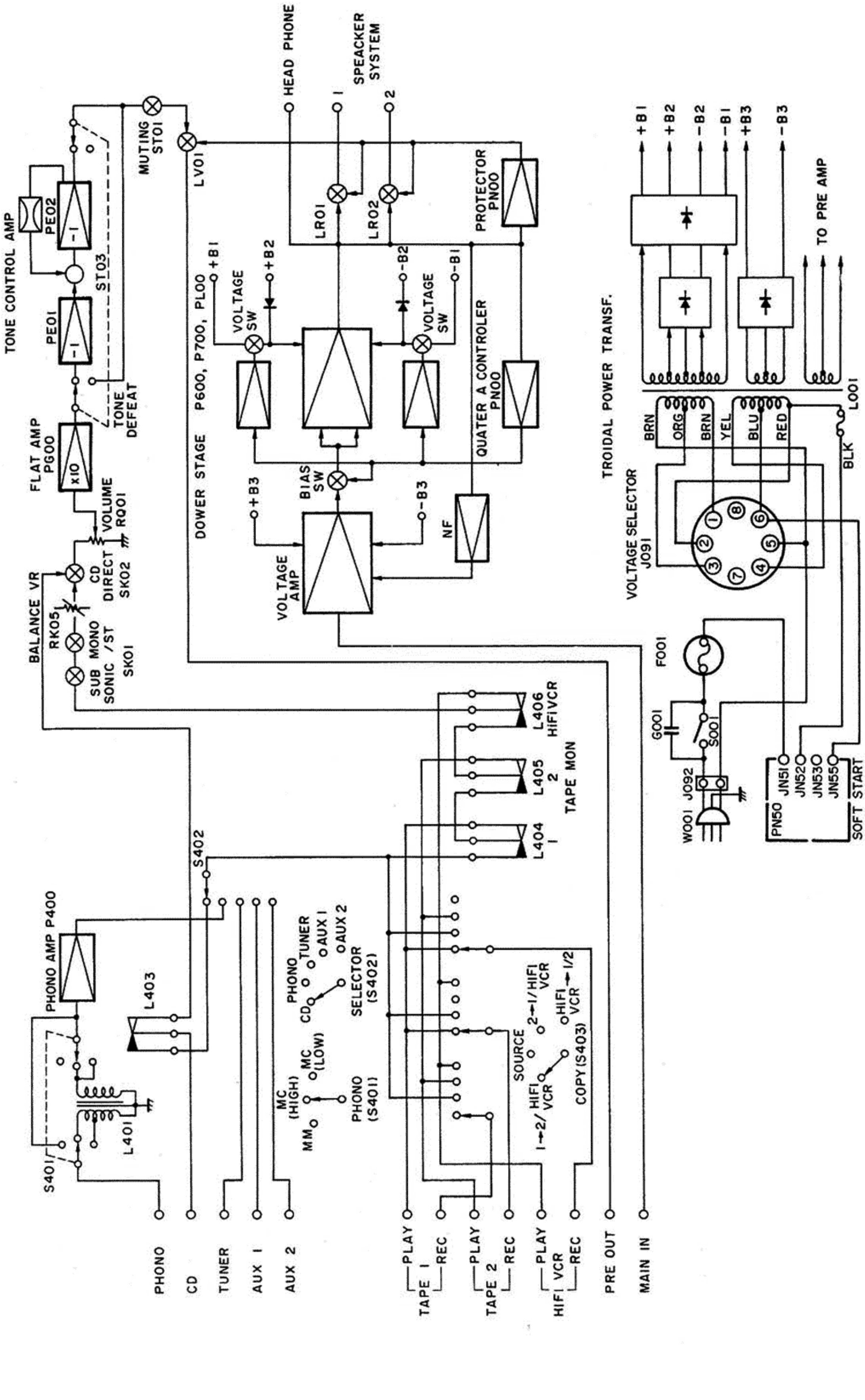
5) Adjust RN42 (RN43) so that the pulse width is the same.

6) Adjust RN40 (RN41) again to make the pulse width 0,1 ms. Confirm that the voltage at the emitter of Q107 is 63 V.



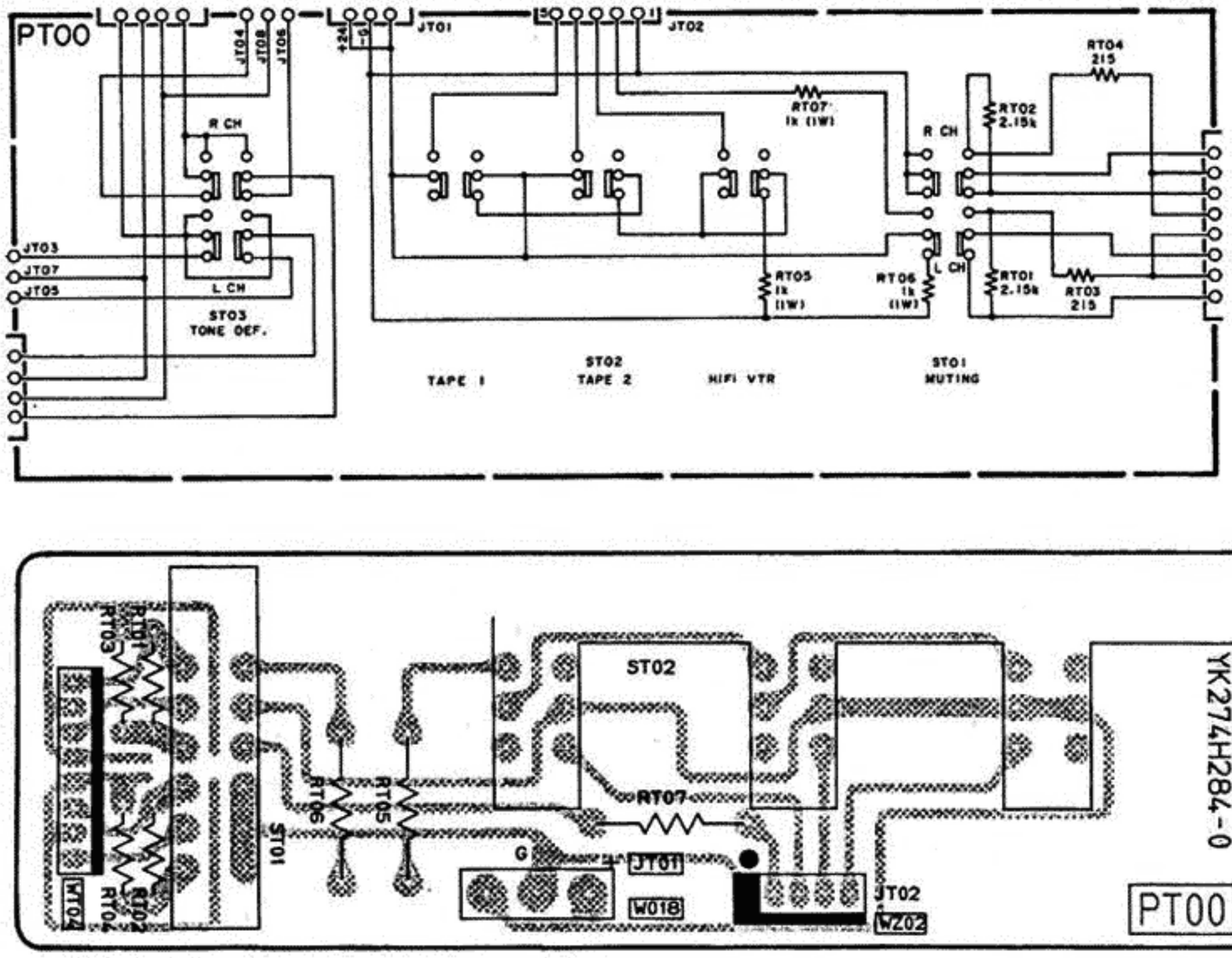
7) Lower the input signal and confirm that the voltage at the speaker terminal is 16 V — 16,5 V and the voltage at the emitter of QL07 is 29 V at the point where the pulse disappears.
8) Next, connect the DC voltmeter between the emitter and base of QL08 for R-ch. (The meter range is greater than 100 V, with the polarity of the emitter (−) and base (+).)
9) Input a 1 kHz to the R channel MAIN-IN. Adjust the input level so that the load on R-ch gives output of 17 V.
10) Adjust items 4 to 7 in the same manner as L-ch. The adjustment locations are those shown in parenthesis.

5. BLOCK DIAGRAM

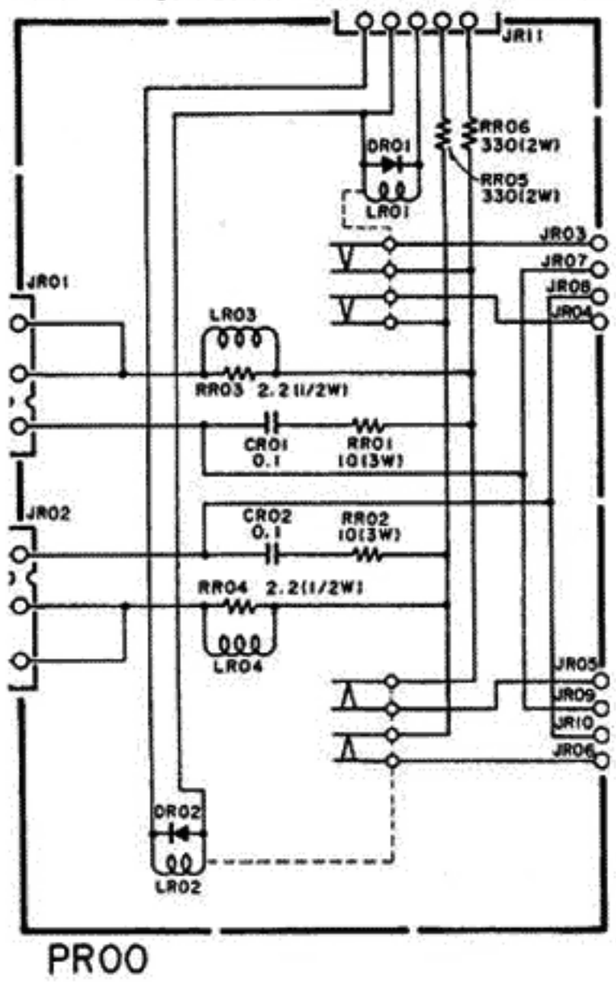


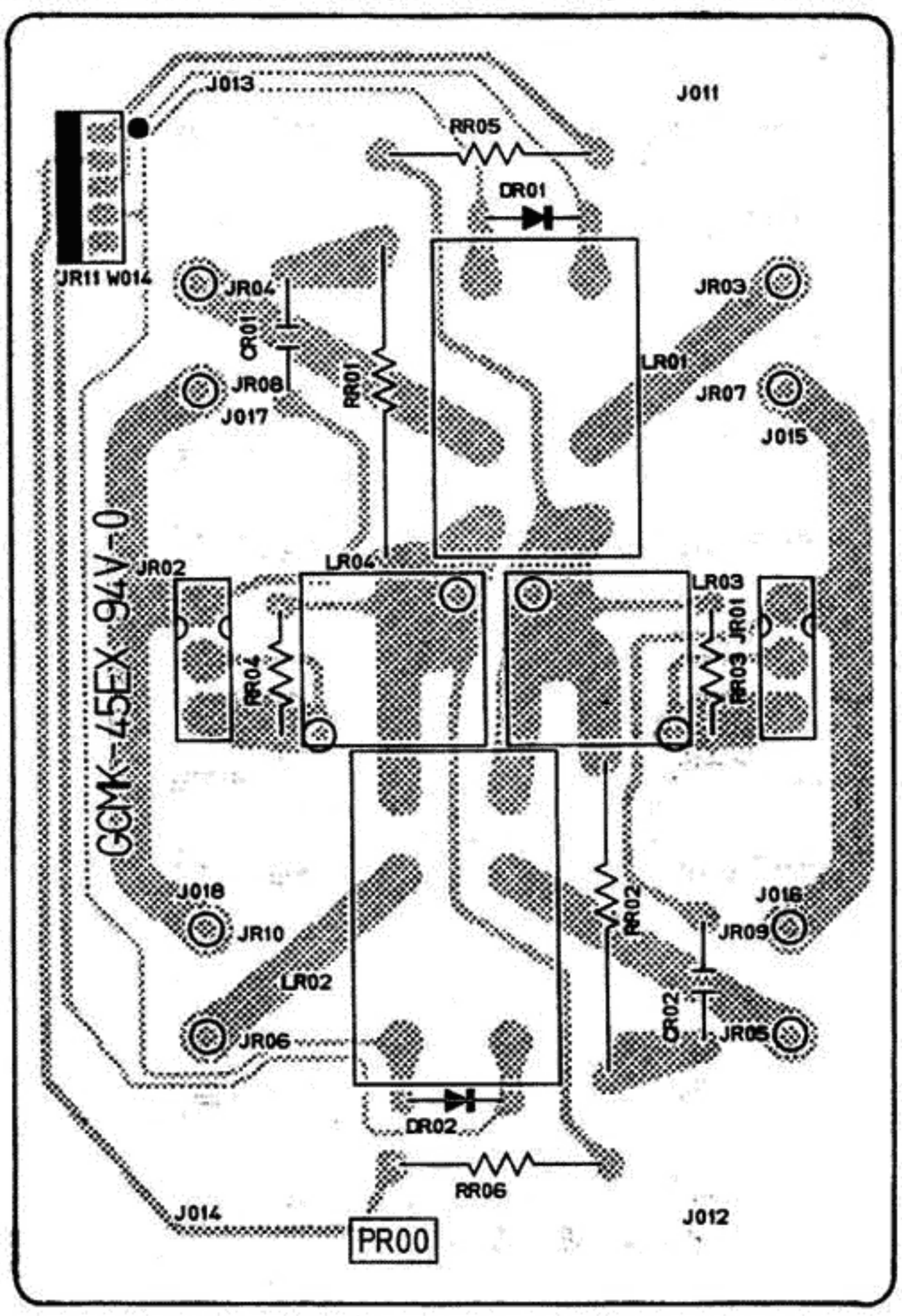
6. SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS

6.1 Tone/Tape 1, 2/VCR/Muting Assembly (PT00) Schematic Diagram and Component Locations

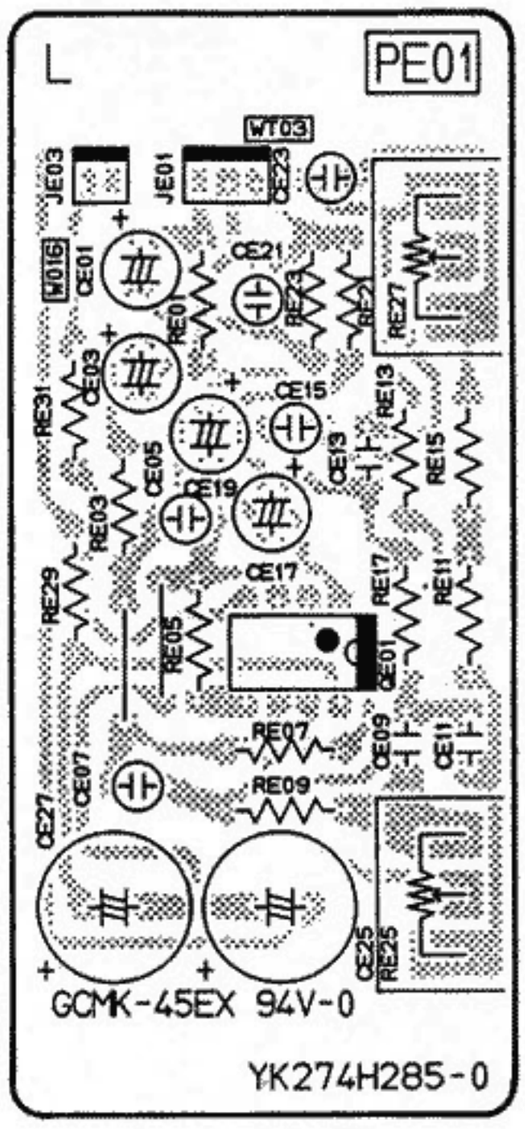


6.2 Speaker Muting Pelay Assembly (PR00) Schematic Diagram and Component Locations

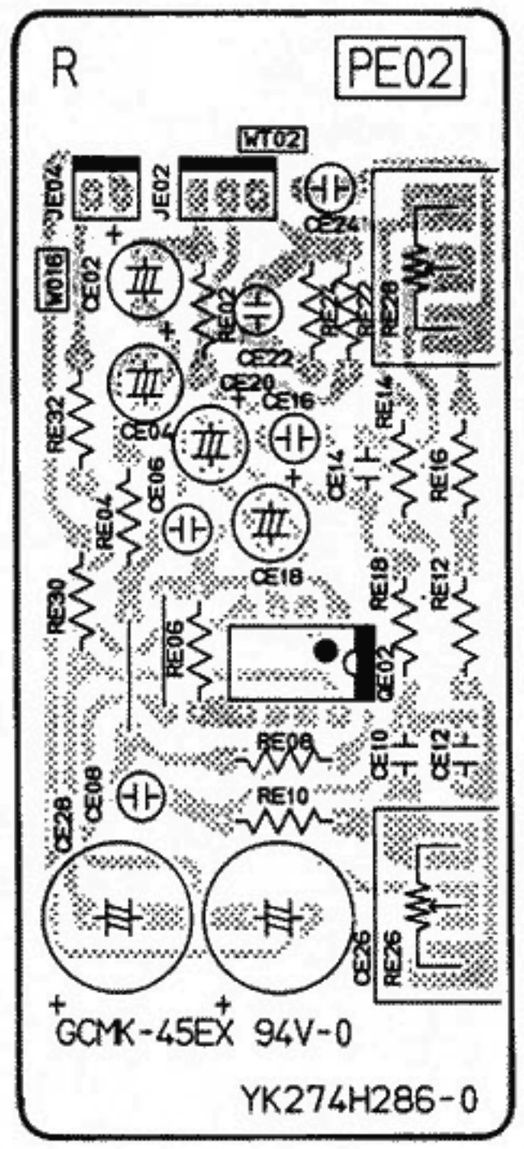




6.3 Tone (L) Assembly (PE01) Schematic Diagram and Component Locations



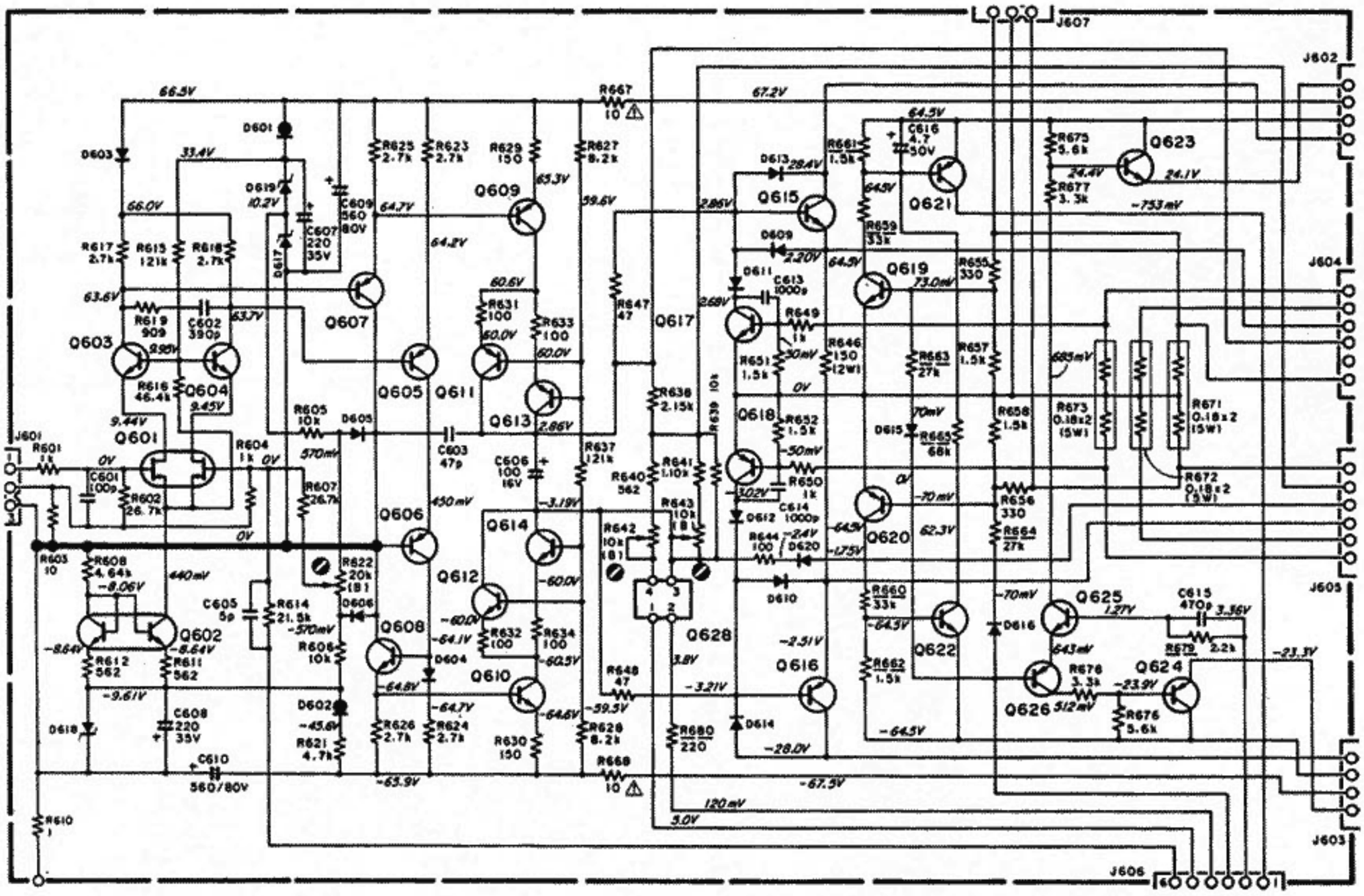
6.4 Tone (R) Assembly (PE02) Schematic Diagram and Component Locations



6.5 Phone/Speaker Selector Assembly (PR50) Schematic Diagram and Component Locations

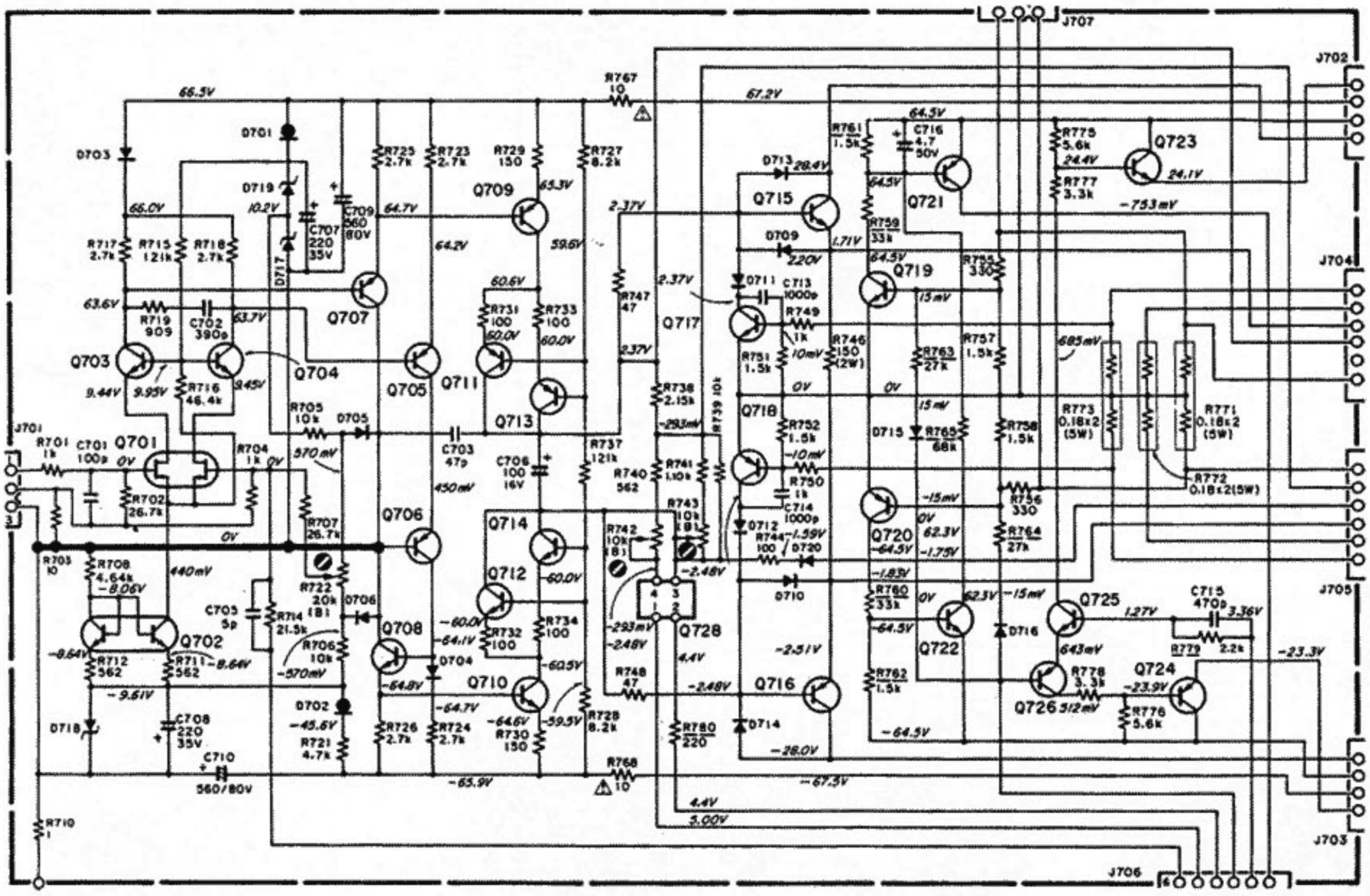
6.6 Power Amp.(L) Assembly (P600) Schematic Diagram and Component Locations

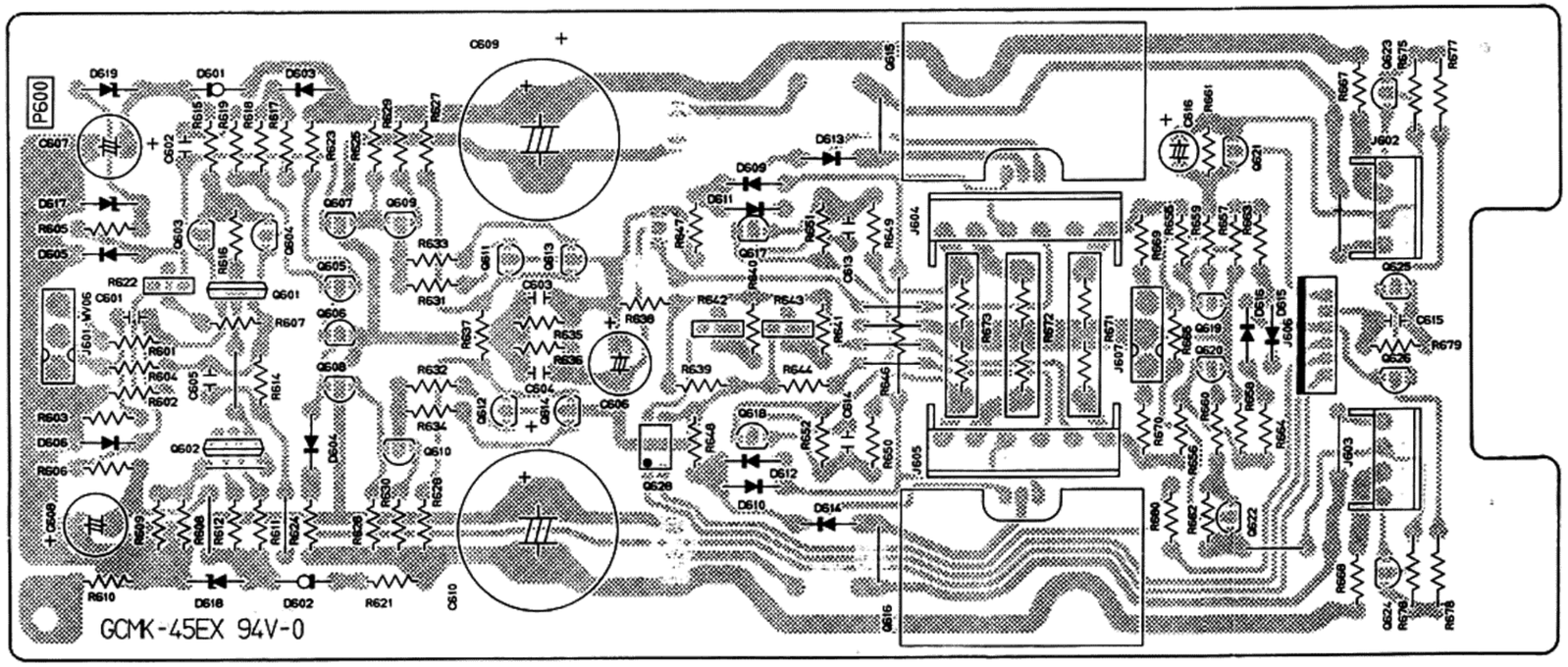
P600 (CH-L) (CLASS A)

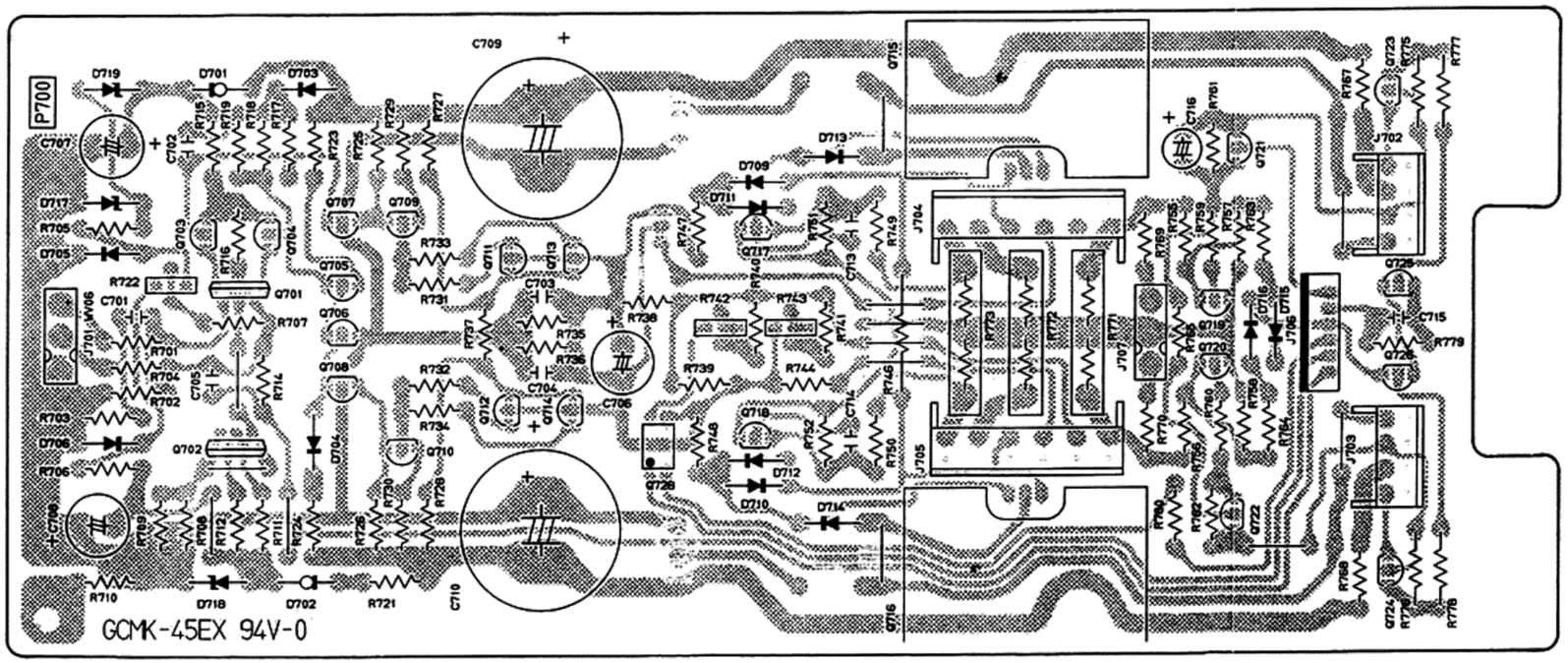


6.7 Power Amp.(R) Assembly (P700) Schematic Diagram and Component Locations

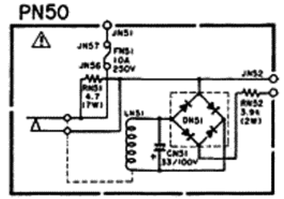
P700(CH-R) (CLASS B)

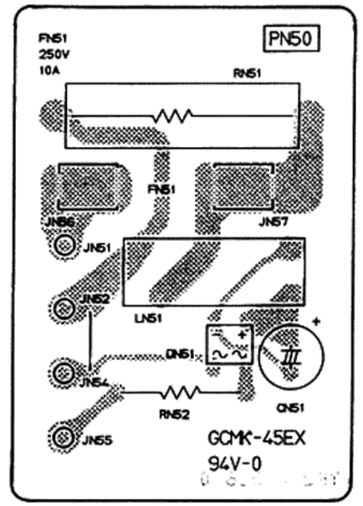




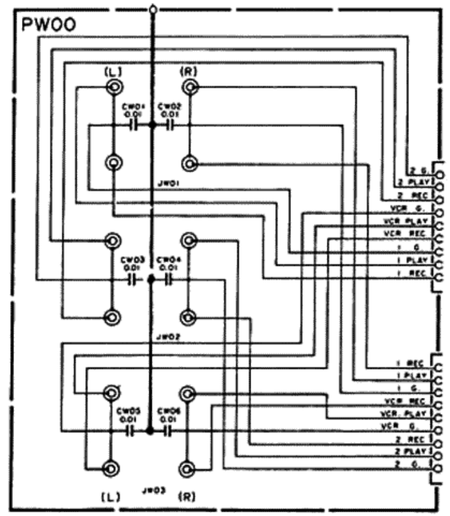


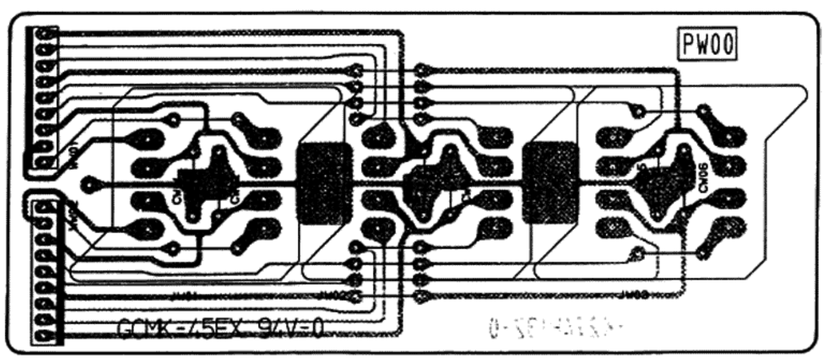
6.8 Soft Start Assembly (PN50) Schembly Diagram and Component Locations



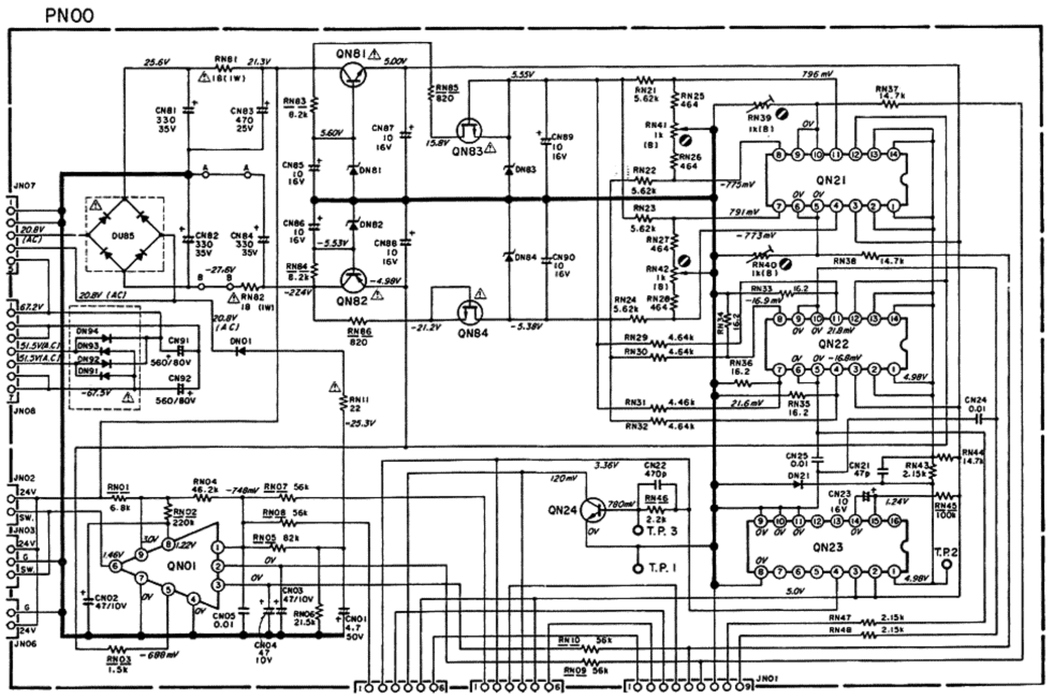


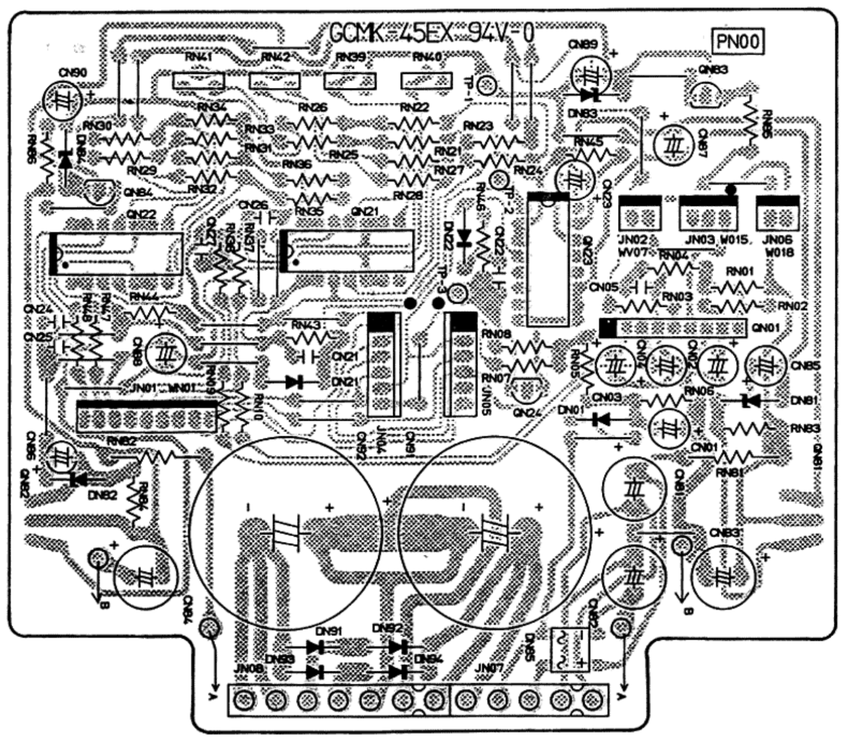
6.9 Tape Play/Rec/VCR Assembly (PW00) Schematic Diagram and Component Locations



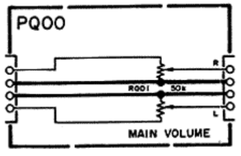


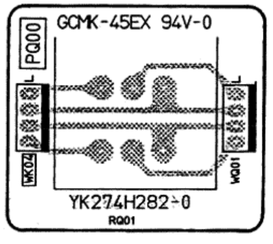
6.10 Comparator/Protec/Supply Assembly (PN00) Schematic Diagram and Component Locations



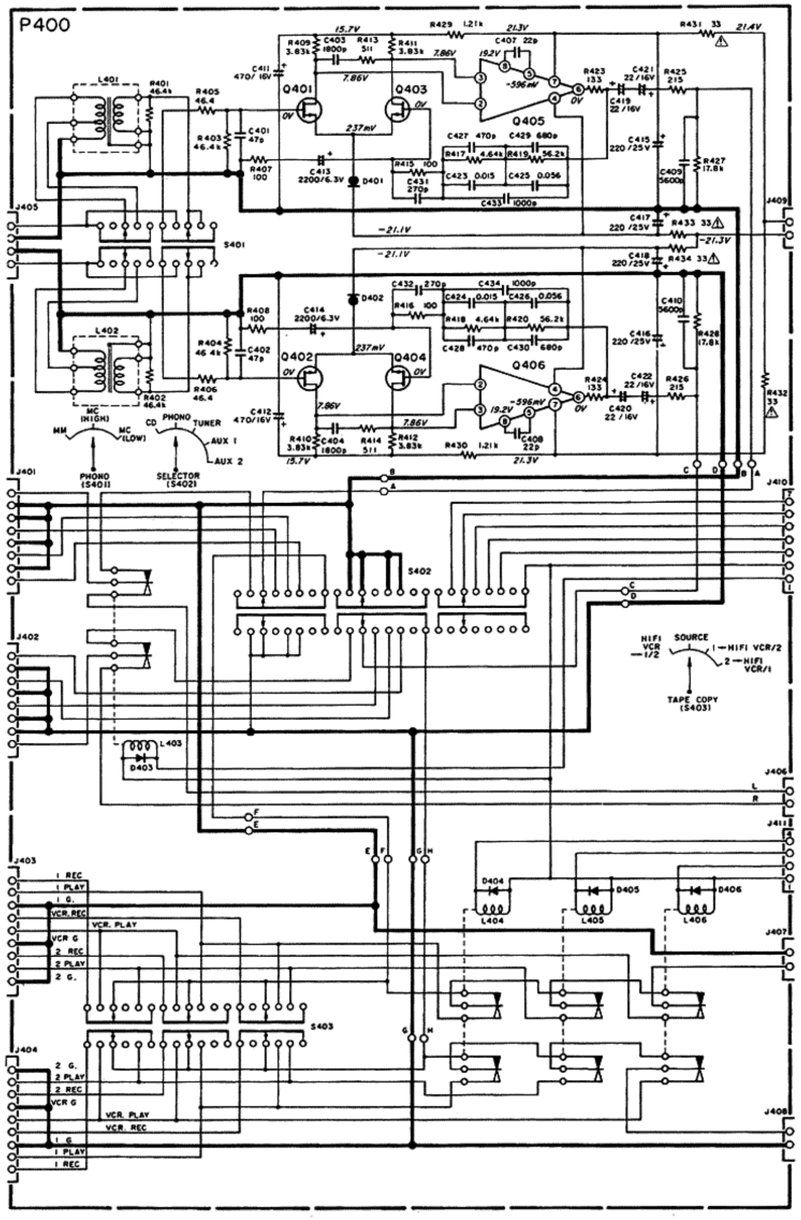


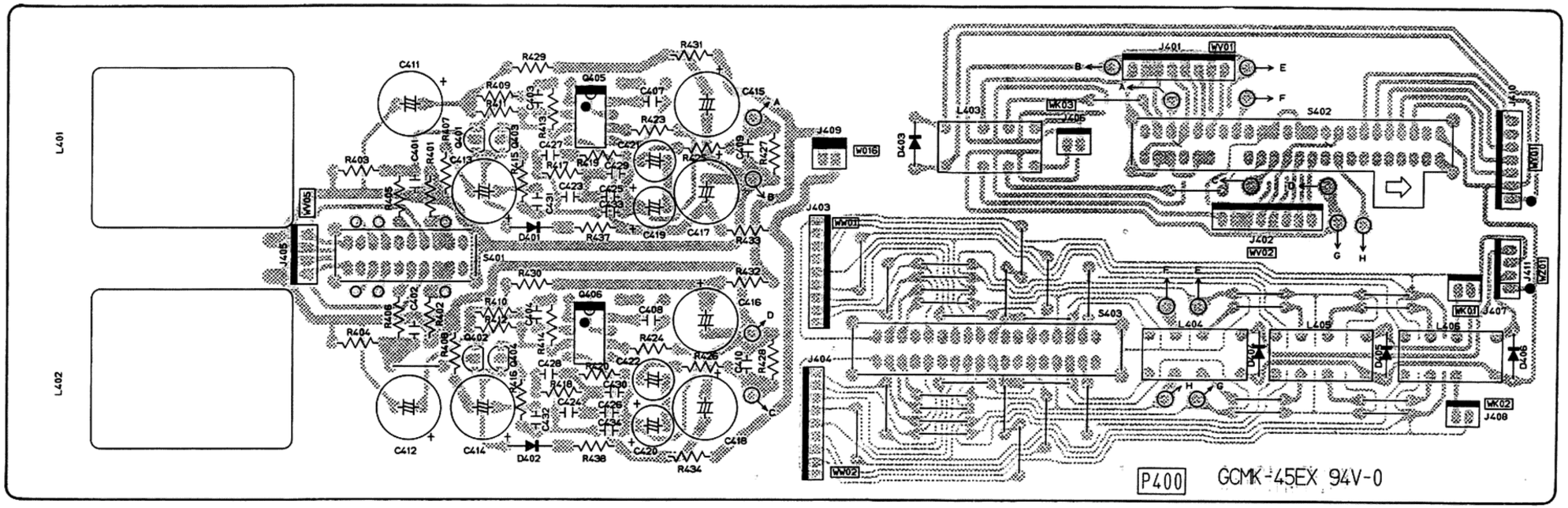
6.11 Main Volume Assembly (PQ00) Schematic Diagram and Component Locations



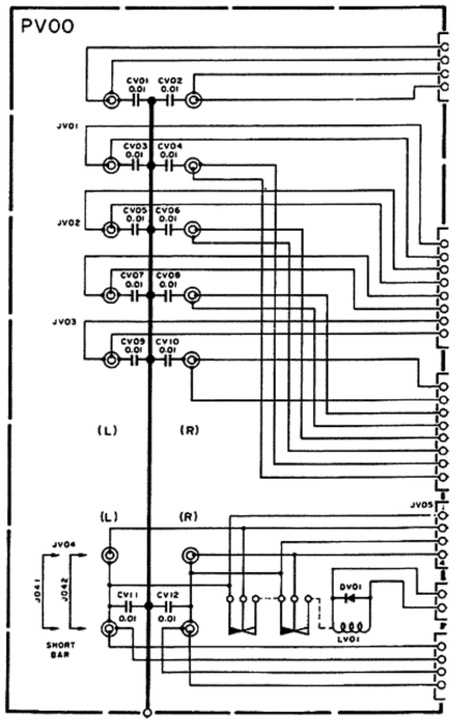


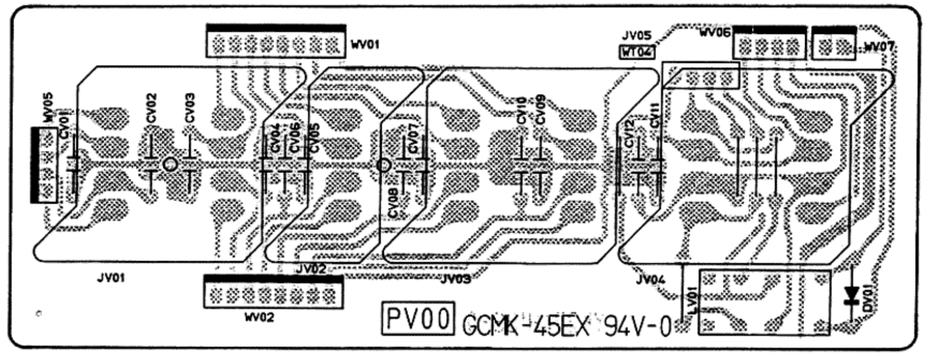
6.12 Phono Amp/Input Selector Assembly (P400) Schematic Diagram and Component Location



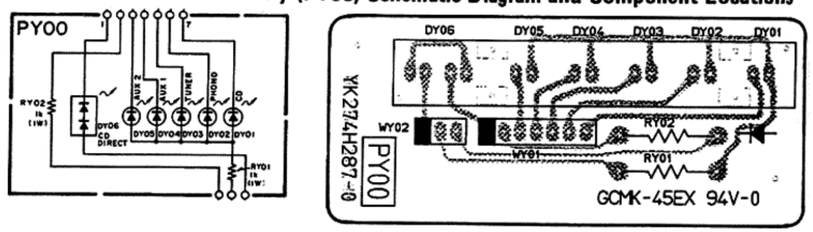


6.13 Function Selector Assembly (PV00) Schematic Diagram and Component Locations

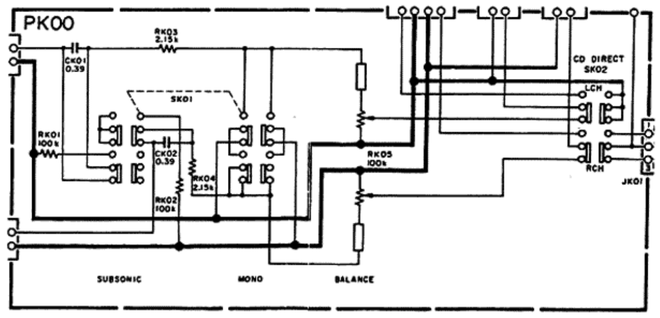


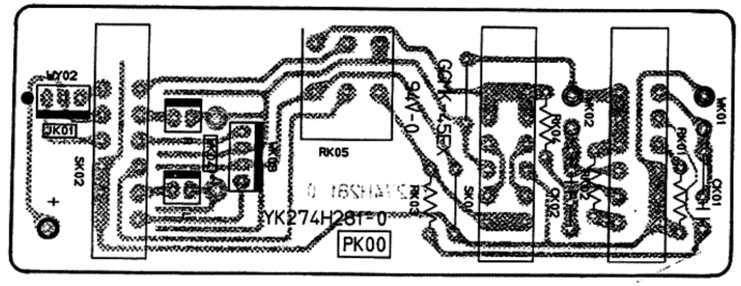


6.14 Function LED Assembly (PY00) Schematic Diagram and Component Locations

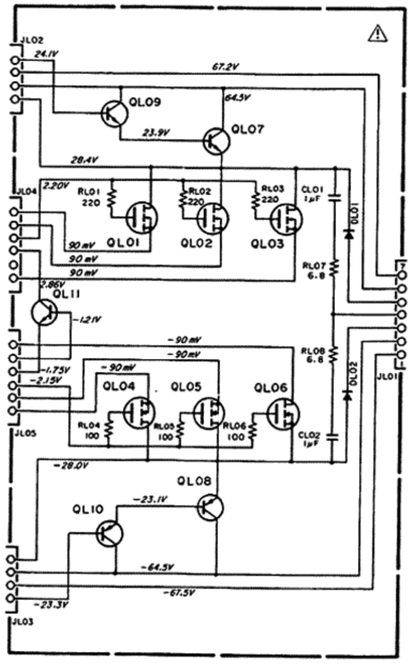


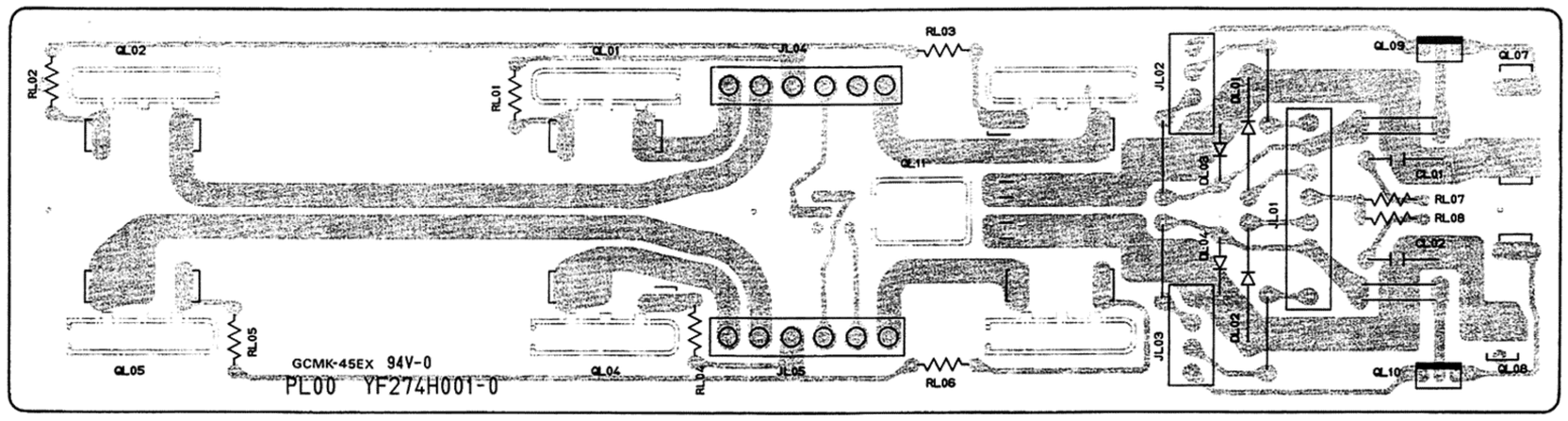
6.15 CD Direct/Balance etc. Assembly (PK00) Schematic Diagram and Component Locations



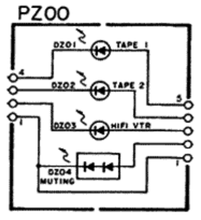


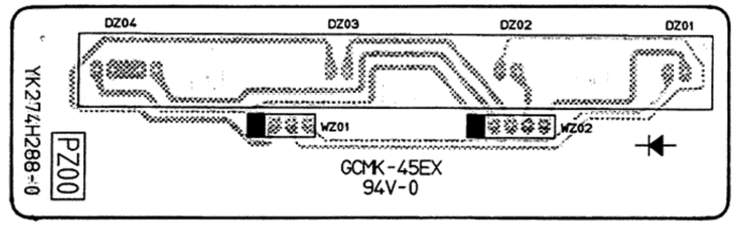
6.16 Power Transistor Assembly (PL00) Schematic Diagram and Component Locations



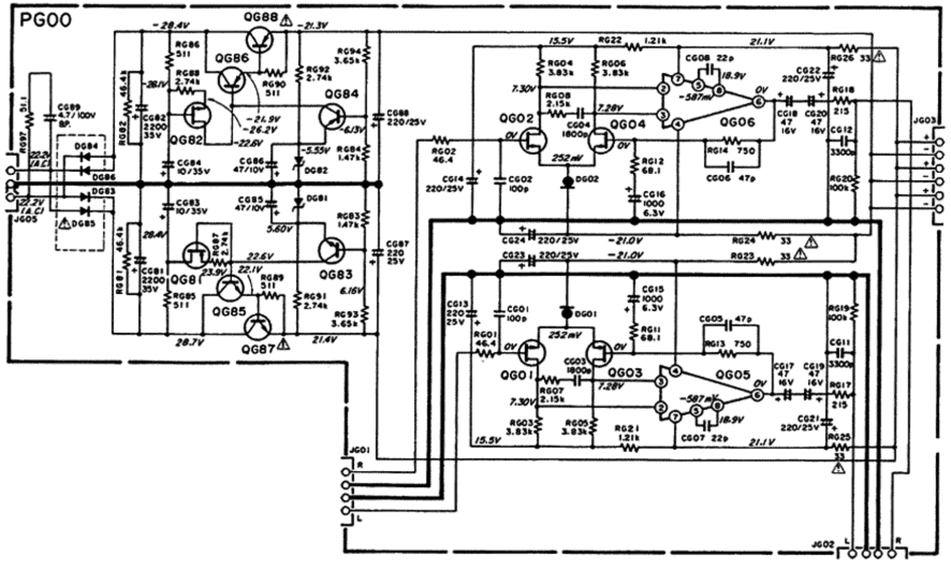


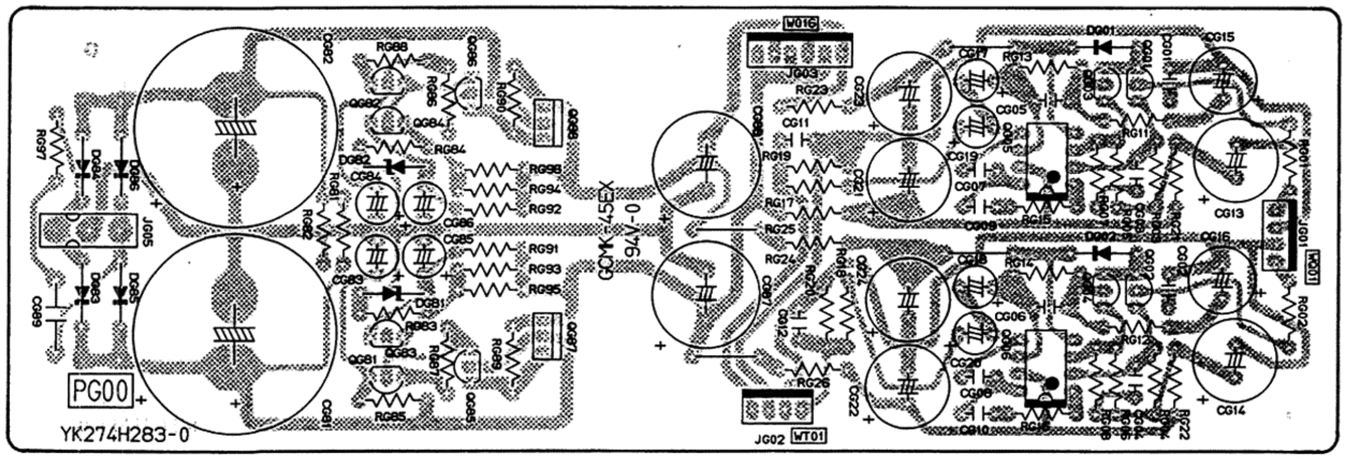
6.18 Tape/VCR/Muting Indicator Assembly (PZ00) Schematic Diagram and Component Locations





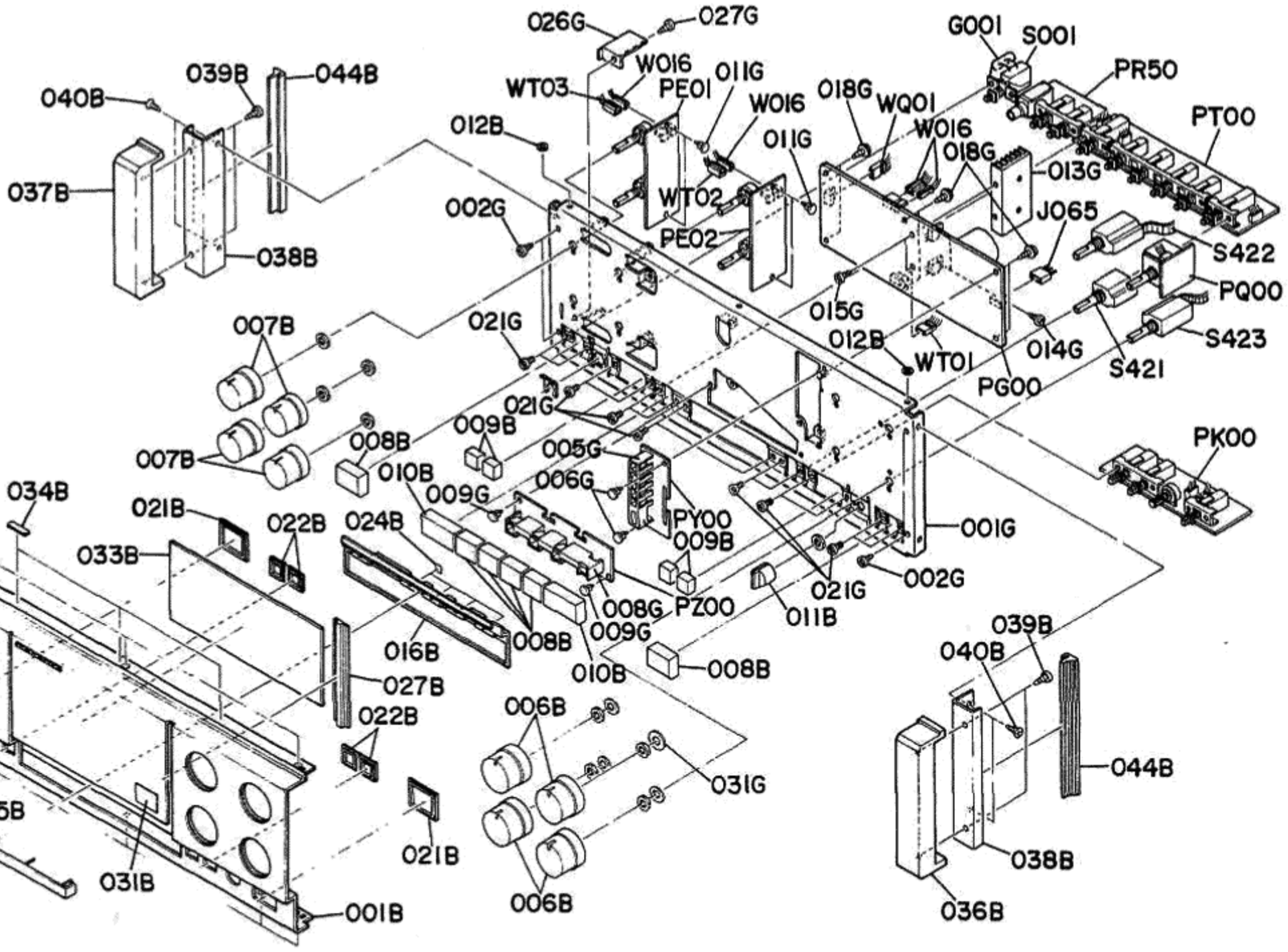
6.17 Flat Amp/Supply Assembly (PG00) Schematic Diagram and Component Locations





7. EXPLODEDVIEW AND PARTS LIST

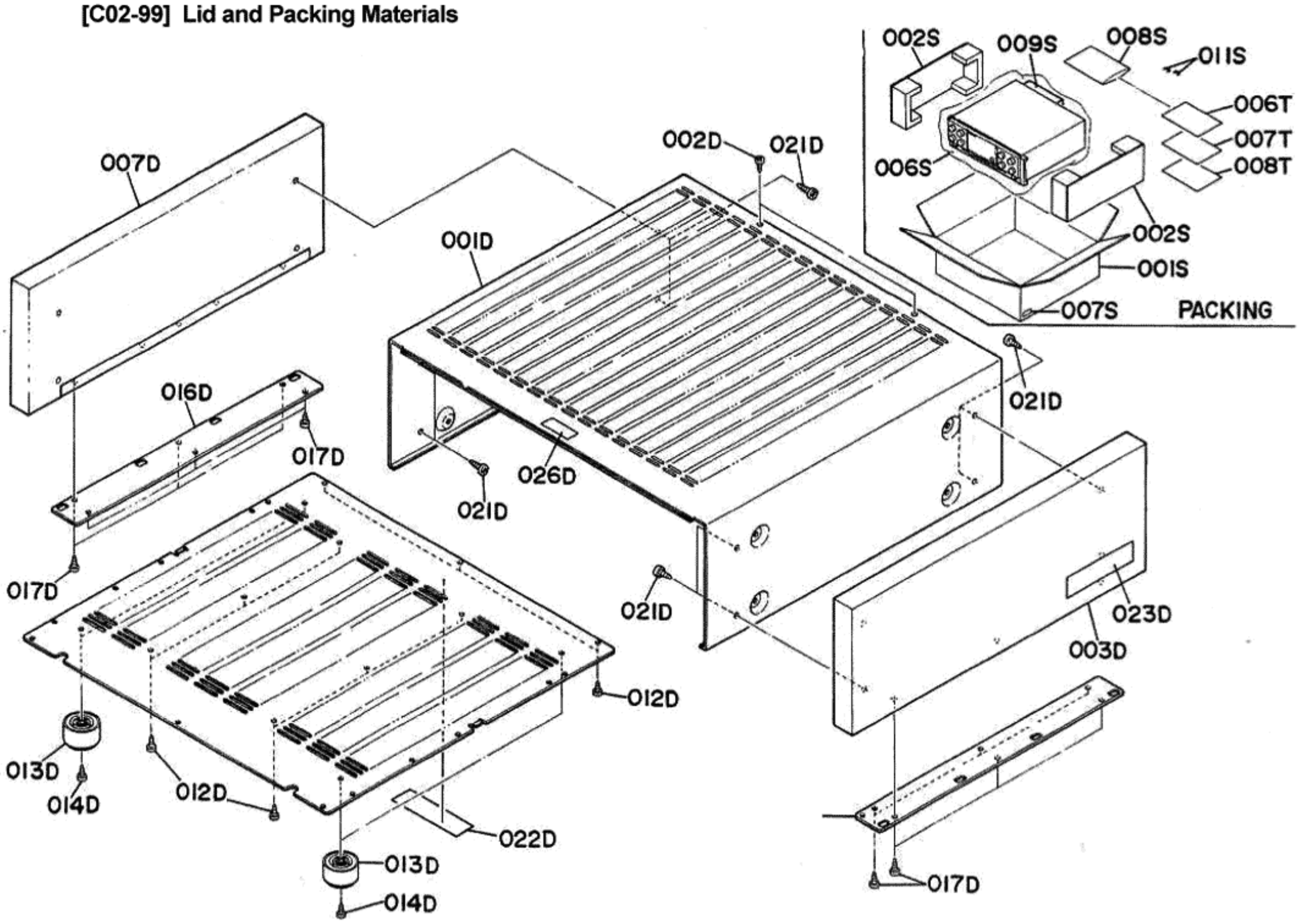
- **[C01-99] Front Panel and Chassis**



REF. DESIG.	PART NO.	DESCRIPTION
A	274H248400	Front Panel Assembly
001B	274H248510	Front Panel, K
016B	274H259510	Bushing, K
019B	274H053010	Cover, Tape Monitor
021B	242H259120	Bushing, Power/CD Direct
022B	242H259130	Bushing, SPK./Subsonic/Mono
027B	274H158010	Window, Function
031B	274H251010	Badge, MOS FET
033B	274H120030	Insulator
004B	51500308M0	F.H. Taptite Screw F3 × 8
005B	51280306M0	B.H. Tapped Screw B3 × 6
006 B	242H154210	Knob, Volume/Function
007B	242H154220	Knob, Tone
008 B	242H270110	Button, Power/CD/Tape Monitor
009 B	242H270120	Button, SPK./Subsonic/Mono
010B	274H270010	Button, Tone/Muting
011B	263H154130	Knob, Balance
012B	2232118300	Spacer
024B	274H151010	Introducer
034B	032C056010	Buffer
036B	274H063010	Escutcheon, Side (R)
037B	274H063020	Escutcheon, Side (L)
038B	274H160050	Bracket, Side Escutcheon
039B	51280308M0	B.H. Tapped Screw B3 × 8
040B	51280308M0	B.H. Tapped Screw B3 × 8
044B	274H067010	Cap, Side

REF. DESIG.	PART NO.	DESCRIPTION
001G	274H105020	Chassis, Front
002G	51280308M0	B.H. Tapped Screw B3 × 8
005G	274H271010	Holder, Selector LED
006G	2276005050	damper, Selector P.W. Board
008G	274H271020	Holder, Tape Monitor LED
009G	2276005050	damper. Tape Monitor P.W. Board
011G	2276005050	damper, Tone P.W. Board
013G	274H267030	Heatsink, Front P.W. Board
014G	51280308M0	B.H. Tapped Screw B3 × 8
015G	51280306MO	B.H. Tapped Screw B3 × 6
018G	51260306MO	B.T. Screw B3 × 6
021G	51100306M0	B.H.M. Screw B3 × 6
026G	274H109030	Shield, Power Switch
027G	51280308M0	B.H. Tapped Screw B3 × 8
031G	274H012010	Washer, Volume
⚠G001	BF10400060	Cap. Composite
⚠S001	SP01010820	Push Switch, Power
J065	YJ06001040	Jack, 3P
W016	YB00560030	Connective Cord
WT01	YB00160230	Connective Cord, 4P
WT02	YB00220210	Connective Cord, 3P
WT03	YB00300920	Connective Cord, 3P
WQ01	YB00430020	Connective Cord, 4P
S421	SR04030380	Rotary Switch Assembly, Phono
S422	SR06050230	Rotary Switch Assembly, Selector
S423	SR06040220	Rotary Switch Assembly, Tape Copy

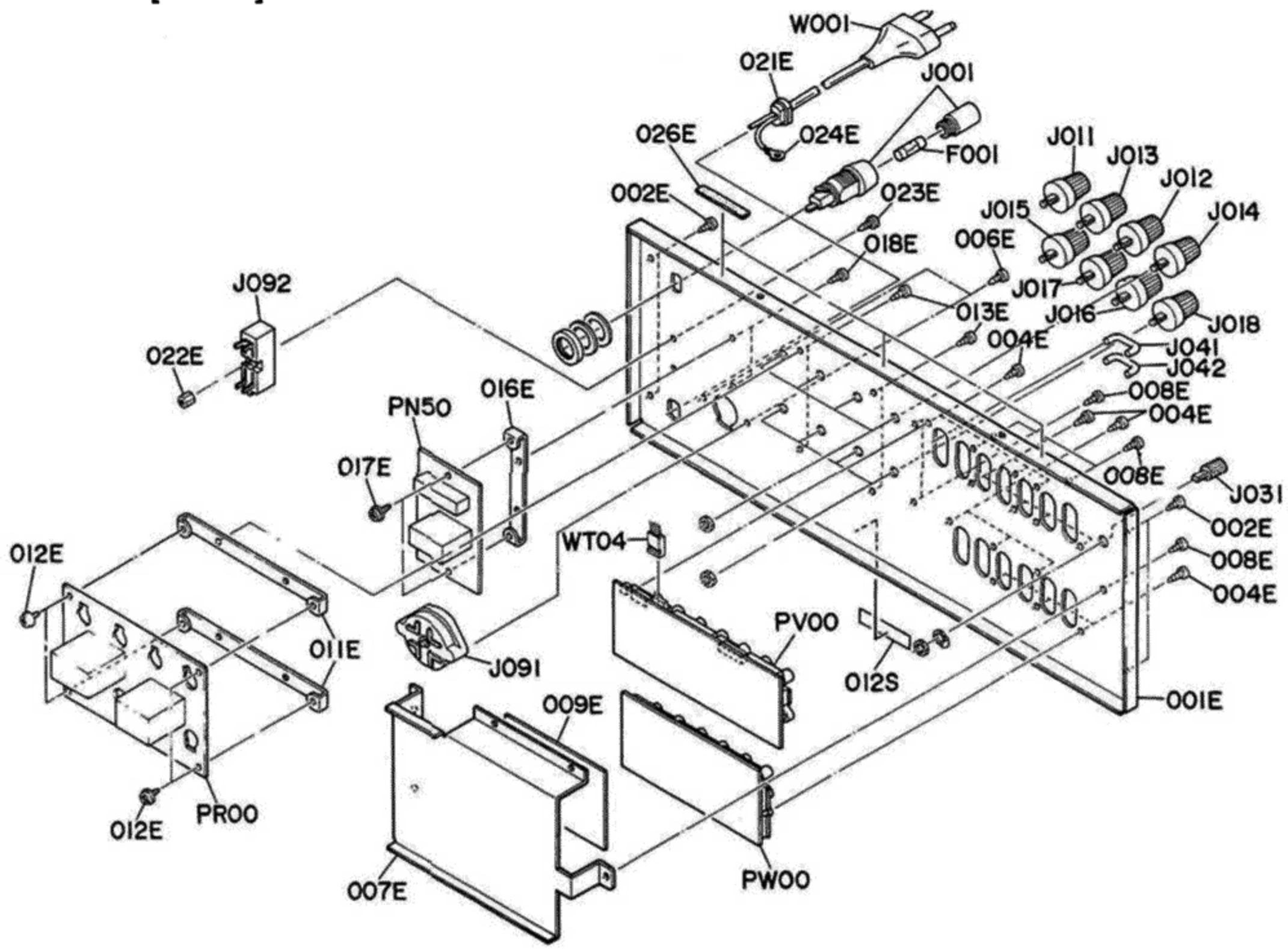
- **[C02-99] Lid and Packing Materials**



REF. DESIG.	PART NO.	DESCRIPTION
001D	274H257010	Lid, Top Cover
002D	274H010010	Screw
003D	274H249530	Side Panel, Wood (K) [R]
007 D	274H249540	Side Panel, Wood (K) [L]
011D	274H257020	Lid, Bottom Cover
012D	51280308M0	B.H. Tapped Screw B3 × 8
013D	238H057010	Leg
014D	51280412M0	B.H. Tapped Screw B4 × 12
016D	274H160070	Bracket
017D	512803Q8M0	B.H. Tapped Screw B3 × 8
021D	51280412M0	B.H. Tapped Screw B3 × 8
022D	2911861110	Label
023D	2911861140	Label
026D	222H861020	Label, Caution

REF. DESiG.	PART NO.	DESCRIPTION
		PACKING
001S	274H801020	Packing Case
002S	274H809520	Cushion, (K)
006S	9091111030	Polyethylene
007S	9526019060	Sheet Serial No. Card
008S	9012540010	Polyethylene Bag
009S	2864804010	Sleeve
011S	YQ01000020	Shote Plug
006T	274H851310	User Manual
007T	274H851320	User Manual Spec.
008T	274H856010	Circuit Diagram

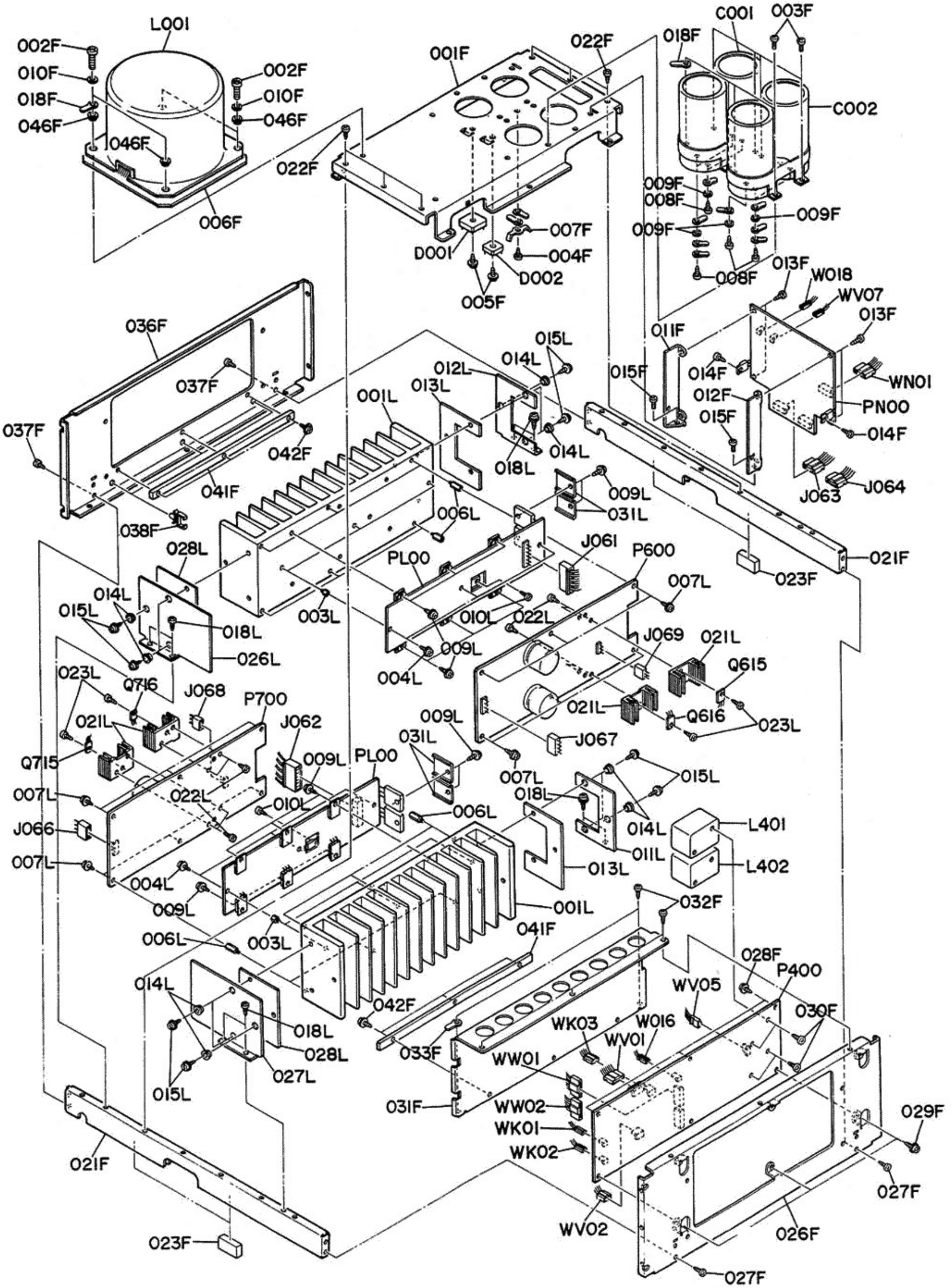
- **[C03-99] Rear Panel**



REF. DESIG.	PART NO.	DESCRIPTION	
001E	274H250020	Rear Panel	
002E	5123030SM0	B.H. Tapped Screw	B3 × 8
004E	51280308M0	B.H. Tapped Screw	B3 × 8
006 E	51280308M0	B.H. Tapped Screw	B3 × 8
007E	274H109010	Shield	
008E	51280308M0	B.H. Tapped Screw	B3 × 8
009E	274H120020	Insulator	
011E	274H160030	Bracket, Speaker P.W. Board	
012E	51480306M0	F. Washer Screw	F3 × 6
013E	51100306M0	8.H.M. Screw	B3 × 6
016E	274H160040	Bracket. Soft Start P.W. Board	
017E	51480306M0	F. Washer Screw	F3 × 6
018E	51100306M0	B.H.M. Screw	B3 × 6
021 E	1455259050	Bushing, AC Power Cord	
022E	274H101030	Support	
023E	51100306M0	B.H.M. Screw	B3 × 6
024 E	62030049W0	Lug	
026E	2965118010	Spacer	
012S	2112265110	Indicator Serial No.	

REF. DESIG.	PART NO.	DESCRIPTION
F001	FS10500800	Fuse, 5A
J001	YJ08000290	Jack, Fuse Holder
J011	YT01010100	Terminal, Speaker 1; CH-L(+)
J012	YT01010100	Terminal, Speaker 1; CH-R(+)
J013	YT01010110	Terminal, Speaker 1; CH-L(−)
J014	YT01010110	Terminal, Speaker 1; CH-R(−)
J015	YT01010100	Terminal, Speaker 2; CH-L(+)
J016	YT01010100	Terminal, Speaker 2; CH-R(+)
J017	YT01010110	Terminal, Speaker 2; CH-L(−)
J01S	YT01010110	Terminal, Speaker 2; CH-R(−)
J031	YT01010150	Terminal, GND
J041	YQ01000070	Shote Plug
J042	YQ01000070	Shote Plug
J091	BY05080050	Voltage Selector
J093	YL09040020	Terminal
AW001	YC01900090	AC Power Cord
WT04	YB00740010	Connective Cord

• [P01-99] Main Chassis



REF. DESIG.	PART NO.	DESCRIPTION
001F	274H105010	Chassis, Main
002F	51280412M0	B.H Tapped Screw B4 × 12
003F	51280406M0	B.H. Tapped Screw B4 × 6
004F	51280412M0	B.H. Tapped Screw B4 × 12
005F	51260312M0	B.T. Screw B3 × 12
006F	274H120060	Insulator, Power Transformer
007F	274H123010	Contactor, Earth
008F	51100408M0	B.H.M. Screw B4 × 8
009F	274H118010	Spacer
010F	54020401M0	Flat Washer, P.
011F	274H160010	Bracket, (L)
012F	274H160020	Bracket, (R)
013F	51260306M0	B.T. Screw B3 × 6
014F	51280308M0	B.H. Tapped Screw B3 × 8
015F	51280308M0	B.H. Tapped Screw B3 × 8
018F	4220005040	Clamper
021F	274H126010	Stay
022F	51280406M0	B.H Tapped Screw B4 × 6
023F	100H056010	Buffer
026F	274H105030	Chassis, Side (R)
027F	51280308M0	B.H. Tapped Screw B3 × 8
028F	2276005050	Clamper, Phono Amp P.W. Board
029F	51260306M0	B.T. Screw B3 × 6
030F	51100205E0	B.H.M. Screw B2 × 5
031F	274H109020	Shield, Side
032F	51280308M0	B.H. Tapped Screw B3 × 8
033F	62030049W0	Lug, Earth
036F	274H105040	Chassis, Side (L)
037F	51280308M0	B.H. Tapped Screw B3 × 8
038F	274H005010	Clamper
041F	274H056010	Buffer
042F	51260308M0	B.T. Screw B3 × 8
046F	203H259020	Bushing
001L	274H267010	Heatsink, Main
003L	274H101010	Support, Power Transistor P.W. Board
004L	51480306M0	F. Washer Screw F3 × 6
006L	274H101020	Support, Power Amp P.W. Board
007L	51480306M0	F. Washer Screw F3 × 6
009L	51260312M0	B.T. Screw B3 × 12
010L	51280308M0	B.H. Tapped Screw B3 × 8
011L	274H104010	Retainer, 1; Heatsink
012L	274H104020	Retainer, 2; Heatsink
013L	274H120010	Insulator, 1; Heatsink
014L	223H259020	Bushing
015L	51260312M0	B.T. Screw B3 × 12
018L	51280308M0	B.H. Tapped Screw B3 × 8
021L	274H267020	Heatsink, Transistor
022L	51280308M0	B.H. Tapped Screw B3 × 8
023L	51280308M0	B.H. Tapped Screw B3 × 8
026L	274H104110	Retainer, 3; Heatsink
027L	274H104120	Retainer, 4; Heatsink
028L	274H120020	Insulator, 2; Heatsink
031L	274H053020	Cover, Transistor

REF. DESIG.	PART NO.	DESCRIPTION
⚠C001	EI18908010	Elect Cap. 18000 µF 80V
⚠C002	EI27905010	Elect Cap. 27000 µF 50V
⚠D001	HE20014290	Diode S10VB-20
⚠D002	HE20015290	Diode S4VB-20
J061	YB00250330	Connective Cord, 7P
J062	YB00270130	Connective Cord, 7P
J063	YJ06001250	Jack, 5P
J064	YJ06001260	Jack, 7P
J066	YJ06001040	Jack, 3P
J067	YJ06001040	Jack, 3P
J068	YJ06001040	Jack, 3P
J069	YJ06001040	Jack, 3P
⚠L001	TS40601020	Power Transformer
Q615	HT326823A0	Transistor 2SC2682(P, Q, R)
Q616	HT111423A0	Transistor 2SA1142(P, Q, R)
Q715	HT326823A0	Transistor 2SC2682(P, Q, R)
Q716	HT111423A0	Transistor 2SA1142(P, Q, R)
W016	YB00560030	Connective Cord
W018	YB00600310	Connective Cord, 2P
WK01	YB00280310	Connective Cord, 2P
WK02	YB00240100	Connective Cord, 2P
WK03	YB00230240	Connective Cord, 4P
WN01	YB00220190	Connective Cord, 9P
WV01	YB00400510	Connective Cord, 8P
WV02	YB00480060	Connective Cord, 8P
WV05	YB00140200	Connective Cord, 4P
WV07	YB00180240	Connective Cord, 2P
WW01	YB00340050	Connective Cord, 9P
WW02	YB00280300	Connective Cord, 9P
L401	TI11606010	Input Transformer, CH-L
L402	TI11606010	Input Transformer, CH-R

ASSIGNMENT OF COMMON PARTS CODES.

RESISTOR

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

└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	680kΩ ...684
1 Ω ...010	100 Ω ...101	10 kΩ ...103	1 MkΩ ...105
6,8Ω ...068	390 Ω ...391	22 kΩ ...223	4,7MkΩ ...475

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

C***: CERAMIC CAP.

(1) DD1 - - - 370. Ceramic condenser
Disc type
Temp, coeff. P350 ~ N1000, 50V

② Capacity value
③Tolerance

Examples

③ 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 %

② Capacity value

0,5 pF ... 005	3 pF ... 030	100 pF ... 101
1 pF ... 010	10 pF ... 100	220 pF ... 221
15 pF ... 015	47 pF ... 470	560 pF ... 561

C***: CERAMIC CAP.

(1) DK16 - - - 300, High dielectric constant ceramic condenser
Disc type
Temp chara. 2B4, 50V

④ Capacity value

④ Capacity value

100 pF ... 101	1000 pF ... 102	l0000 pF ... 103
470 pF ... 471	2200 pF ... 222	

C***: ELECTROLY CAP. (⏚). FILM CAP. (⏚)

(1) EA - - - - - - 10. Electrolytic condenser
One-way lead type, Tolerance ±20%

⑤ Dielectric strength
⑥ Capacity value

Examples

⑥ Capacity value

0,1 µF ... 004	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 ... 108
		2200 µF ... 228

⑤ Working voltage

6,3 V ... 006	25 V ... 025
10 V ... 010	35 V ... 035
16 V ... 016	50 V ... 050

(2) DF15 - - - 35O, Plastic film condenser
One-way type. Mylar ±5% 50 V

⑦ Capacity value

Examples

⑦ Capacity value

0,001 µF ... 002	0,1 µF ... 104
0,0018 µF ... 182	0,56 µF ... 564
0,01 µF ... 103	0,1 µF ... 105
0,015 µF ... 153	

8. ELECTRICAL PARTS LIST

REF. DESIG.	PART NO.	DESCRIPTION			
		P400PHONO AMP/INPUT SELECTOR CIRCUIT BOARD			
P400	YK274H1310	P.W. Board Phono Amp/Input Selector			
	ZZ274H8310	P.W. Board Assembly			
		P400-CAPACITORS			
C401	DF56470530	Film	47 pF	±10%	125 V
C402	DF56470520	Film	47 pF	±10%	125 V
C403	OF55182520	Film	1800 pF	±5%	125 V
C404	0F55182520	Film	1800 pF	±5%	125 V
C407	DF56220520	Film	22 pF	±10%	125 V
C408	DF56220520	Film	22 pF	±10%	125 V
C409	OF15562520	Film	5600 pF	±5%	100 V
C410	OF15562520	Film	5600 pF	±5%	100 V
C411	OA47701650	Elect	47O µF		16 V
C412	OA47701650	Elect	470 µF		16 V
C413	OA22800610	Elect	2200 µF		6,3 V
C414	OA22800610	Elect	2200 µF		6,3 V
C415	OA2270255O	Elect	220 µF		25 V
C416	OA22702550	Elect	220 µF		25 V
C417	OA25702550	Elect	220 µ F		25 V
C418	OA22702550	Elect	220 µ F		25 V
C419	EA22601660	Elect	22 µF		16 V
C420	EA22601660	Elect	22 µF		16 V
C421	EA22601660	Elect	22 µF		16 V
C422	EA22601660	Elect	22 µF		16 V
C423	OF15153520	Film	0.015 µF	±5%	100 V
C424	OF1S153520	Film	0.015 µF	±5%	100 V
C425	OF15563520	Film	0.056 µF	±5%	100 V
C426	OF15563520	Film	0.056 µF	±5%	100 V
C337	DF55471520	Film	470 pF	±5%	125 V
C42S	DF55471520	Film	470 pF	±5%	125 V
C429	DF55681520	Film	68O pF	±5%	125 V
C430	OF55681520	Film	680 pF	±5%	125 V
C431	DF55271520	Film	270 pF	±5%	125 V
C432	DF55271520	Film	270 pF	±5%	125 V
C433	OF15102520	Film	1000 pF	±5%	100 V
C434	OF15102520	Film	1000 pF	±5%	100 V
		P400-RESISTORS			
		(All Resistor are ±2% and ¼W)			
R401	GM21446420	46,4 kΩ			
R402	GM21446420	46,4 kΩ			
R403	GM21446420	46,4 kΩ			
R404	GM21446420	46,4 kΩ			
R405	GM214464G0	46,4 Ω			
R406	GM214464G0	46,4 Ω			
R407	GM21410000	100 Ω			
R408	GM21410000	100 Ω			
R409	GM21438310	3,83 kΩ			
R410	GM21438310	3,83 kΩ			
R411	GM21438310	3,83 kΩ			
R412	GM21438310	3,83 kΩ			
R413	GM21451100	511 Ω			
R414	GM21451100	511 Ω			
R415	GM21410000	100 Ω			
R416	GM21410000	100 Ω			
R417	GM21446410	4,64 kΩ			
R413	GM21446410	4,64 kΩ			
R419	GM21456220	56,2 kΩ			
R420	GM21456220	56,2 kΩ			

REF. DESIG.	PART NO.	DESCRIPTION			
R423	GM21413300	133Ω			
R424	GM21413300	133 Ω			
R425	GM21421S00	215 Ω			
R426	GM21421500	215 Ω			
R427	GM21417620	17,8 kΩ			
R428	GM21417820	17,8 kΩ			
R429	GM21412110	1,21 kΩ			
R430	GM2141211D	1,21KI2			
⚠R431	GG05330140	33 Ω	±5%		
⚠R432	GG05330140	33 Ω	±5%		
⚠R433	GG05330140	33 Ω	±5%		
⚠R434	GG05330140	33 Ω	±5%		
		P400-SEMICONDUCTORS			
D401	H060007100	Diode, C.R.	10YD4.5C		
D402	HD60007100	Diode, C.R.	10YD4.5C		
D403	HO20011050	Diode	1S1555		
D404	HD20011050	Diode	1S1555		
D405	HD20011050	Diode	1S1555		
D406	HD2001105(1	Diode	1S1555		
Q401	HF203691BQ	F.E.T.	2SK369(BL)		
O402	HF203691BO	F.E.T.	2SK369(BL)		
Q403	HF203S91BO	F.E.T.	2SK369(BL)		
Q404	HF203691B0	F.E.T.	2SK369(BL)		
Q405	HC10027090	IC	5534D		
Q406	HC10027090	IC	5534D		
		P400-MISCELLANEOUS			
J401	YP01001080	Plug. 8P			
J402	YP01001080	Plug. 8P			
J403	YP01001090	Plug. 9P			
J404	YPO1001090	Plug, 9P			
J405	YPO1001040	Plug,4P			
J406	YP01001020	Plug, 4P			
J407	YP01001020	Plug, 4P			
J40S	YP01001020	Plug, 4P			
J409	YP01001930	Plug			
J410	YJ07001570	Jack, 4P			
J411	YJ07001540	Jack, 4P			
L401	Til 1606010	Input Transformer, CH-L			
L402	TI11606010	Input Transformer, CH-R			
L403	LY20240230	Relay			
L404	LY20240230	Relay			
L405	LY20240230	Relay			
L406	LY20240230	Relay			
S401	SS04030230	Slide Switch, Phono Select			
S402	SS06060100	Slide Switch, Function			
S403	SS06O4005O	Slide Switch, Tape Monitor			
		P600-POWER AMP., CH-L CIRCUIT BOARD			
P600	YK274H3610	P.W. Board, Power Amp; CH-L			
	ZZ274H8610	P.W. Board Assembly			
		P600-CAPACITORS			
C601	OF55101520	Film	100 pF	±5%	125 V
C602	OF55391520	Film	390 pF	±5%	125 V
C603	OF56470520	Film	47 pF	±10%	125 V
C605	OF56050520	Film	5 pF	±10%	125 V
C606	OA10701650	Elect	100 µF		16 V
C607	OA22703550	Elect	220 µF		35 V
C608	OA22703550	Elect	220 µF		35 V
C609	E856708010	Elect	560 µF		80 V
C610	EB56708010	Elect	560 µF		80 V
C613	OF1S10252O	Film	1000 pF	±5%	100 V

REF. DESIG.	PART NO.	DESCRIPTION			
C614	OF15102520	Film	1000 pF	±5%	100V
C615	OF15222520	Film	0,0022 µF	±5%	100V
C616	OA47505010	Elect	4,7 µF		50V
		P600-RESLSTORS			
		(All Resistors are ±2% and WW)			
R601	GM21410010	1 kΩ			
R602	GM21426720	26,7 kΩ			
R603	GM214100G0	10 Ω			
R604	GM21410010	1 kΩ			
R605	GM21410020	10 kΩ			
R606	GM21410020	10 kΩ			
R607	GM21426720	26,7 kΩ			
R608	GM21446410	4,64 kΩ			
R610	GG05010140	1 Ω	±5%		
R611	GM2145620O	562 Ω			
R612	GIV121456200	562 Ω			
R614	GM2142152O	21,5 kΩ			
R615	GM21412130	121 kΩ			
R616	GM21446420	46,4 kΩ			
R617	GG05272140	2,7 kΩ	±5%		
R618	GG05272140	2,7 kΩ	±5%		
R619	GM21490900	909 Ω			
R621	GG05472140	4,7 kΩ	±5%		
R622	RA02030260	20 kΩ(B)	Trimming		
R623	GG05272140	2,7 kΩ	±5%		
R624	GG05272140	2,7 kΩ	±5%		
R625	GG05272140	2,7 kΩ	±5%		
R626	GG05272140	2,7 kΩ	±5%		
R627	GG05822140	8,2 kΩ	±5%		
R628	GG05822140	8,2 kΩ	±5%		
R629	GG05151140	150 Ω	±5%		
R630	GG05151140	150 Ω	±5%		
R631	GG05101140	100 Ω	±5%		
R632	GGO510114O	100 Ω	±5%		
R633	GG05101140	100 Ω	±5%		
R634	GG05101140	100 Ω	±5%		
R637	GM21412130	121 kΩ			
R638	GM21421510	2,15 kΩ			
R640	GM21456200	562 Ω			
R641	GM21411O10	1,1 kΩ			
R642	RA01030720	10 kΩ(B)	Trimming		
R643	RA01030720	10 kΩ(B)	Trimming		
R644	GM21410000	100 Ω			
R646	GA05151020	150 Ω	±5%		2W
R647	GG05470140	47 Ω	±5%		
R648	GG05470140	47 Ω	±5%		
R649	GG05102140	1 kΩ	±5%		
R650	GG0510214O	1 kΩ	+5%		
R651	GG05152140	1,5 kΩ	±5%		
R652	GG05152140	1,5 kΩ	±5%		
R655	GG05331140	330 Ω	±5%		
R656	GG05331'40	330 Ω	±5%		
R657	GG05152140	1,5 kΩ	±5%		
R658	GG05152140	1,5 kΩ	±5%		
⚠R667	GG05100140	10 Ω	±5%		
⚠R668	GG05100140	10 Ω	±5%		
R671	BW10000080	0,18 Ω×2	±10%		5W
R672	BW10000080	0,18 Ω×2	±10%		5W
R673	BW10000080	0,18 Ω×2	±10%		5W
R675	GG05562120	5,6 kΩ	±5%		½W
R676	GG05562120	5,6 kΩ	±5%		½W
R677	GG05332120	3,3 kΩ	±5%		½W
R678	GG05332120	3,3 kΩ	±5%		½W

REF. DESIG.	PART NO.	DESCRIPTION			
		P600-SEMICONDUCTORS			
D601	HD60007100	Diode, CR	10YD4.5C		
D602	HD60007100	Diode, CR	10YD4.5C		
D603	H020011050	Diode	1S1555		
D604	H020011050	Diode	1S1555		
D605	HD20011050	Diode	1S1555		
D606	HD20011050	Diode	1S1555		
D609	HD20011050	Diode	1S1555		
D610	HD20011050	Diode	1S1555		
D611	HD20011050	Diode	1S1555		
D612	HD20011050	Diode	1S1555		
D613	HD20014010	Diode	1SS81		
D614	HD20014010	Diode	1SS81		
D615	HD20014010	Diode	1SS81		
D616	HD20014010	Diode	1SS81		
D617	HD30028010	Zener	H211A-3L		
D618	HD30028010	Zener	HZ11A-3L		
D619	HD30031010	Zener	HZ22L-2		
D620	HD20011050	Diode	1S1555		
Q601	HF203892A0	F.E.T.	2SK389IGR, BLI		
Q602	HT333812A0	Transistor	2SC3381 (GR, BL)		
Q603	HT322402A0	Transistor	2SC2240IGR, 8L)		
Q604	HT322402A0	Transistor	2SC2240IGR, BL)		
Q605	HT109702A0	Transistor	2SA970IGB, BL)		
Q606	HTT09702A0	Transistor	2SA970IGR, 6L)		
Q607	HT109702A0	Transistor	2SA970IGR, 6L)		
Q60B	HT322402A0	Transistor	2SC22401GR, BL)		
Q609	HT109702A0	Transistor	2SA970(GR. BL)		
Q610	HT322402A0	Transistor	2SC2240IGR. BL)		
Q611	HT111451O0	Transistor	2SA1145(0)		
Q612	HT327051O0	Transistor	2SC2705(O)		
Q613	HT111451O0	Transistor	2SA1145(0)		
Q614	HT327051O0	Transistor	2SC2705(O)		
Q615	HT326823A0	Transistor	2SC2682(P, Q, R)		
Q616	HT111423A0	Transistor	2SA1142(P, Q, R)		
Q617	HT318152A0	Transistor	2SC1815(O, Y)		
Q618	HT110152A0	Transistor	2SA1015(O, Y)		
Q619	HT329092B0	Transistor	2SC2909(S. T)		
Q620	HT112072B0	Transistor	2SA1207(S, T)		
Q621	HT109702A0	Transistor	2SA970(GR, BL)		
Q622	HT329092A0	Transistor	2SC2909(D, E)		
Q623	H1322401B0	Transistor	2SC2240(BL)		
Q624	HT109701B0	Transistor	2SA970(BL)		
Q625	HT322402A0	Transistor	2SC2240(GR, BL)		
Q626	HT109702A0	Transistor	2SA970(GR, BL)		
Q628	HW10006320	Photo Unit	PC-817		
		P600-MISCELLANEOUS			
J601	YP06001040	Plug, 3P			
J602	YP06003540	Plug, 4P			
J603	YP06003540	Plug. 4P			
J604	YJ06003550	Jack, 6P			
J605	YJ06003550	Jack, 6P			
J606	YJ07001560	Jack, 6P			
J607	YP06001040	Plug, 3P			
		P600-POWER AMP, CH-R CIRCUIT BOARD			
P700	YK274H3620	P.W. Board, Power Amp; CH-R			
	ZZ274H8620	P.W. Board Assembly			
		P700-CAPACITORS			
C701	OF55101520	Film	100 pF	±5%	125 V
C702	OF55391520	Film	390 pF	±5%	125 V
C703	OF56470520	Film	47 pF	±10%	125 V
C705	OF56050520	Film	5 pF	±10%	125 V
C706	OA10701650	Elect	100 µF		16 V
C707	OA22703550	Elect	220 µF		35 V
C708	OA22703550	Elect	220 µF		35 V
C709	EB56708O10	Elect	560 µF		80 V
C710	EB56708010	Elect	560 µF		80 V
C713	OF15102520	Film	1000 pF	±5%	100 V
C714	OF15102520	Film	1000 pF	±5%	100 V
C715	OF15222520	Film	0.0022 µF	±5%	100 V
C716	OA47505010	Elect	4,7 µF		50 V
		P700-RESISTORS			
		(All Resistors are ± 2% and ¼W)			
R701	GM21410010	1 kΩ			
R702	GM2U26720	26,7 kΩ			
R703	GM214100G0	10 Ω			
R704	GM21410010	1 kΩ			
R705	GM21410O20	10 kΩ			
R706	GM21410020	10 kΩ			
R707	GM21426720	26,7 kΩ			
R708	GM21446410	4,64 kΩ			
R710	GGQ5010140	1 Ω	±5%		
R711	GM21456200	562 Ω			
R712	GM214562D0	562 Ω			
R714	GM21421520	21,5 kΩ			
R71B	GM21412130	121 kΩ			
R716	GM21446420	46,4 kΩ			
R717	GG05272140	2,7 kΩ	±5%		
R718	GG05272140	2,7 kΩ	±5%		
R719	GM21490900	909 Ω			
R721	GG05472140	4,7 kΩ	±5%		
R722	RA02030260	20 kΩ(B), Trimming			
R723	GG05272140	2,7 kΩ	±5%		
R724	GG05272140	2,7 kΩ	±5%		
R725	GG05272140	2,7 kΩ	±5%		
R726	GG05272140	2,7 kΩ	±5%		
R727	GG05822140	8,2 kΩ	±5%		
R728	GG05822140	8,2 kΩ	±5%		
R729	GG05151140	150 Ω	±5%		
R730	GG05151140	150 Ω	±5%		
R731	GG05101140	100 Ω	±5%		
R732	GG05101140	100 Ω	±5%		
R733	GG05101140	100 Ω	±5%		
R734	GG05101140	100 Ω	±5%		
R737	GM21412130	121 kΩ			
R738	GM21421510	2,15 kΩ			
R740	GM21456200	562 kΩ			
R741	GM21411010	1,1 kΩ			
R742	RA0103 0720	10 kΩ(B), Trimming			
R743	RA01030720	10 kΩ(B), Trimming			
R744	GM21410000	100 Ω			
R746	GA05151020	150 Ω	±5%		2W
R747	GG05470140	47 Ω	±5%		
R748	GG05470140	47 Ω	±5%		
R749	GG05102140	1 kΩ	±5%		
R750	GG05102140	1 kΩ	±5%		
R751	GG05152140	1,5 kΩ	±5%		
R752	GG05152140	1,5 kΩ	±5%		
R755	GG05331140	330 Ω	±5%		
R756	GG0S331140	330 Ω	±5%		
R757	GG05152140	1,5 kΩ	±5%		
R758	GG05152140	1,5 kΩ	±5%		
⚠R767	GG05100140	10 Ω	±5%		

REF. DESIG.	PART NO.	DESCRIPTION			
⚠R768	GGO51OO140	10 Ω	±5%		
R771	BW100D0D8O	0,18 Ω×2	±10%	5W	
R772	BW10000080	0,18 Ω×2	+10%	5W	
R773	BW10000030	0,18 Ω×2	±10%	5W	
R775	GG05562120	5,6 kΩ	±5%	½W	
R776	GG05562120	5,6 kΩ	±5%	½W	
R777	GG05332120	3,3 kΩ	±5%	½W	
R773	GG05332120	3,3 kΩ	±5%	½W	
		P700-SEMICONDUCTORS			
D701	HD60007100	Diode, CR	10YD4.5C		
D702	HD60007100	Diode, CR	10YD4.5C		
D703	HD20011050	Diode	1S1555		
D704	HD2OO110S0	Diode	1S1555		
D705	HD2OO11050	Diode	1S1555		
D706	HD20011050	Diode	1S1555		
0709	HQ2O011105O	Diode	1S1555		
0710	HD2Q011O5O	Diode	1S1555		
D711	HD2OO11O5O	Diode	1S1555		
0712	HD200110S0	Diode	1S1555		
D713	HD20014010	Diode	1SS81		
D714	HD20014010	Diode	1SS81		
D71S	HD20014010	Diode	1SS81		
D716	HD20014010	Diode	1SS81		
D717	HD3 0028010	Zener	HZ11A-3L		
D718	HD30028010	Zener	HZ11A-3L		
D719	HD30031010	Zener	HZ22L-2		
D720	HD20011050	Diode	1S15S5		
0701	HF203892A0	F.E.T.	2SK389(GR. BL)		
Q702	HT333312A0	Transistor	2SC3381(GR. BL)		
Q703	HT322402AO	Transistor	2SC2240(GR. BL)		
Q704	HT322402A0	Transistor	2SC2240(GR. BL)		
0705	HT109702A0	Transistor	2SA970(GR. BL)		
Q7O6	HT109702A0	Transistor	2SA970(GR. BL)		
Q707	HT109702A0	Transistor	25A970(GR. BL)		
Q708	HT322402AO	Transistor	2SC2240(GR. BL)		
Q709	HT109702AO	Transistor	2SA970(GR. BL)		
Q710	HT322402A0	Transistor	2SC2240(GR. BL)		
Q711	HT11145100	Transistor	2SA1145(O)		
Q712	HT327051O0	Transistor	2SC2705(O)		
0.713	HT111451O0	Transistor	2SA1145(0)		
Q714	HT327051O0	Transistor	2SC2705(O)		
Q715	HT326823A0	Transistor	2SC2632(P, O, H)		
Q716	HT111423A0	Transistor	2SA1142(P. Q. R)		
Q717	HT318152A0	Transistor	2SC1815(O, Y)		
Q718	HT110152A0	Transistor	2SA1015(0, Y)		
Q719	HT329092B0	Transistor	2SC2909(S, T)		
Q720	HT112072B0	Transistor	2SA1207(S, T)		
Q721	HT109702AO	Transistor	2SA970(GR, BL)		
Q722	HT3 29092 AD	Transistor	2SC2909(O, E)		
0723	HT322401B0	Transistor	2SC2240(BL)		
Q724	HT10970160	Transistor	2SA970(BL)		
Q725	HT322402A0	Transistor	25C2240(GR, BL)		
Q726	HT109702A0	Transistor	2SA970(GR, BL)		
Q72S	HW10006320	Photo Unit	PC-817		
		P700-MISCELLANEOUS			
J701	YP06OO1Q4O	Plug, 3P			
J702	YP06003540	Plug, 4P			
J703	YP06003540	Plug, 4P			
J704	YJ0G003550	Jack, 6P			
J705	YJ06003550	Jack, 6P			
J706	YJ07001560	Jack, 6P			
J707	YP06001040	Plug, 3P			

REF. DESIG.	PART NO.	DESCRIPTION			
		PE01-TONE, CH-L			
		CIRCUIT BOARD			
PE01	YK274H2850	P.W. Board. Tone; CH-L			
	Z2274H2350	P.W. Board Assembly			
		PE01-CAPACITORS			
CE01	EA47 503560	Elect	4,7 µF		35 V
CE03	EA475O3660	Elect	4,7 µF		35 V
CE05	OF55101520	Film	100 pF	±5%	125 V
CE07	OF55101520	Film	100 pF	±5%	125 V
CE09	OF1 5103520	Film	0,01 µF	±5%	100 V
CE11	Of 15103520	Film	0,01 µF	±5%	100 V
CE13	OF1 5102520	Film	100 pF	±5%	100 V
CE15	DF564 70530	Film	47 pF	±10%	125 V
CE17	OA226016T0	Elect	220 µF		16 V
CE19	OA22601610	Elect	220 µF		16 V
CE21	OF 15182520	Film	1800 pF	±5%	100 V
CE23	DF55101530	Film	100 pF	±5%	125 V
CE25	OA22702510	Elect	220 µF		25 V
CE27	OA22702510	Elect	220 µF		25 V
		PE01-RESISTORS			
		(All Resistors are ±2% and ¼W)			
RE01	GM21410030	100 kΩ			
RE03	GM2141OO20	10 kΩ			
RE05	GM21446410	4,64 kΩ			
RE07	GM21410020	10 kΩ			
RE09	GM21438320	38,3 kΩ			
RE11	GWI21438320	38,3 kΩ			
RE13	GWI2141O020	10 kΩ			
RE1B	GWI21410020	10 kΩ			
RE17	GM21410020	10 kΩ			
RE21	GM21421500	215 Ω			
RE23	GM21410030	100 kΩ			
RE25	RK01040280	100 kΩ(B)	Variable; Bass		
RE27	RK01040230	100 kΩ(B)	Variable; Treble		
⚠RE29	GG05152140	1,5 kΩ		±5%	
⚠RE31	GG051S2140	1,5 kΩ		±5%	
		PE01-SEMICONDUCTOR			
QE01	HC10021090	IC4560DD			
		PE01-MISCELLANEOUS			
JE01	YP01001030	Plug, 3P			
JE03	YP10001980	Plug, 2P			
		PE02-TONE, CH-R			
		CIRCUIT BOARD			
PE02	YK274H2860	P.W Board. Tone; CH-R			
	ZZ274H8860	P.W. Board Assembly			
		PE02-CAPACITORS			
CE02	EA47503560	Elect	4,7 µF		35V
CE04	EA47503560	Elect	4,7 µF		35V
CE06	OF55101520	Film	100 pF	±5%	125V
CE08	OF55101520	Film	100 pF	±5%	125V
CE10	OF15103520	Film	0,01 µF	±5%	100V
CE12	OF15103520	Film	0,01 µF	±5%	100V
CE14	OF 15102520	Film	100 pF	±5%	100V
CE16	DF56470530	Film	47 pF	±10%	125V
CE18	OA22601610	Elect	22 µF		16V
CE20	OA22601610	Elect	22 µF		16V

REF. DESIG.	PART NO.	DESCRIPTION			
CE22	OF15182520	Film	1800 pF	±5%	100 V
CE24	DF5510153O	Film	100 pF	+5%	125 V
CE26	OA227025JO	Elect	220 µF	25 V	
CE28	OA227O2510	Elect	220 µF	25 V	
		PE02-RESISTORS			
		(All Resistors are ± 2% and VSW)			
RE03	GM2141O030	100 kΩ			
RE04	GM21410020	10 kΩ			
RE06	GM2T44641O	4,64 kΩ			
RE08	GM21410020	10 kΩ			
RE10	GM21438320	38,3 kΩ			
RE12	GM21438320	38,3 kΩ			
RE14	GM21410020	10 kΩ			
REI6	GM21410020	10 kΩ			
RE18	GM21410020	10 kΩ			
RE22	GM21421500	215 Ω			
RE24	GM21410030	100 kΩ			
RE26	RK01040280	100 kΩ(B)	Variable; Bass		
RE28	RK01Q40280	100 kΩ(B)	Variable; Treble		
⚠RE30	GG05152140	1,5 kΩ	±5%		
⚠RE32	GG05152140	1,5 kΩ	±5%		
		PE02-SEMICON DUCTOR			
QE02	HC10021090	IC	4560DD		
		PE02-MISCELLANEOUS			
JE02	YP01001030	Plug, 3P			
JE04	YP10001980	Plug, 2P			
		PG00-FLAT AMP/SUPPLY CIRCUIT BOARD			
PGOO	YK274H2830	P.W. BoardFlat Amp/Supply			
	ZZ274H8B3C	P.W. BoardAssembly			
		PG00-CAPACITORS			
CCO1	OF55101520	Film	100 pF	±5%	126V
CG02	OF55101520	Film	100 pF	±5%	125V
CGO3	OF55182520	Film	1800 pF	±5%	125V
CG04	OF55182520	Film	1800 pF	±5%	125V
CGO5	OF56470520	Film	47 pF	±10%	125V
CG06	OF56470S20	Film	47 pF	±10%	125V
CGO7	OF56220520	Film	22 pF	±10%	125V
CG08	OF56220520	Film	22 pF	±10%	125V
CG11	OF15332520	Film	3300 pF	±5%	100V
CG12	OF15332520	Film	3300 pF	±5%	100V
CG13	OA22702510	Elect	220 µF		25V
CG14	OA22702510	Elect	220 µF		25V
CGI 5	OA10300610	Elect	1000 µF		6,3V
CG16	OA10800610	Elect	1000 µF		6,3V
CG17	OA47 602550	Elect	47 µF		25V
CGI 8	OA47602550	Elect	47 µF		25V
CGI 9	OA47602550	Elect	47 µF		25V
CG2O	OA47602550	Elect	47 µF		25V
CG21	OA22702550	Elect	220 µF		25V
CG22	OA22702550	Elect	220 pF		25V
CG23	OA22702550	Elect	220 µF		25V
CG24	OA227O2550	Elect	220 µF		25V
CG81	EB22803560	Elect	2200 µF		35V
CG82	EB22803560	Elect	2200 µF		35V
CG83	OA10603510	Elect	10 µF		35V
CG84	OA10603510	Elect	10 µF		35V
CG8S	OA476O1O10	Elect	47 µF		10V
CG36	OA47601010	Elect	47 µF		10V
CG87	OA22702550	Elect	220 µF		25V
CG88	OA22702550	Elect	220 µF		25V
CG89	EQ47510030	Elect	4,7 µF		100V

REF. DESIG.	PART NO.	DESCRIPTION	
		PG00-RESISTORS	
		(All Resistors are +2% and ¼W}	
RG01	GM214464G0	46,4 Ω	
RG02	GM214464G0	46,4 Ω	
RG03	GM2T438310	3,83 kΩ	
RG04	GM21438310	3,83 kΩ	
RG05	GM21438310	3,83 kΩ	
RG06	GM21438310	3,83 kΩ	
RG07	GM21421510	2,15 kΩ	
RG08	GM2142151O	2,15 kΩ	
RG11	GM214681G0	68,1 Ω	
RG12	GM2146B1G0	68,1 Ω	
RG13	GM21475000	750 Ω	
RG14	GM21475000	750 Ω	
RG17	GM21421500	215 Ω	
RG18	GW21421500	215 Ω	
RG19	GM2141OQ30	100 kΩ	
RG20	GM21410030	100 kΩ	
RG21	GM21412110	1,21 kΩ	
RG22	GM21412110	1,21 kΩ	
⚠RG23	GG05330H0	33 Ω	±5%
⚠RG24	GG05330I40	33 Ω	±5%
⚠RG25	GG05330140	33 Ω	±5%
⚠RG26	GG05330140	33 Ω	±5%
RG81	GM21446420	46,4 kΩ	
RG82	GM21446420	46,4 kΩ	
RG83	GM2141471O	1,47 kΩ	
RG84	GM2141471O	1,47 kΩ	
RG85	GM21451100	511 Ω	
RG86	GM21451100	511 Ω	
RG87	GM21427410	2,74 kΩ	
RG88	GM21427410	2,74 kΩ	
RG89	GM2145110O	511 Ω	
RG90	GM21451100	511 Ω	
RG91	GM21427410	2,74 kΩ	
RG92	GM21427410	2,74 kΩ	
RG93	GM21436510	3,65 kΩ	
RG94	GM21436510	3,65 kΩ	
RG97	GA0556OO1O	56 Ω	
		PG00-SEMICONDUCTORS	
DG01	HD60007100	Diode, CR	10YD4.5C
DG02	HD60007100	Diode, CR	10YD4.5C
DG81	HD30O21O1O	Zener	HZ6A-3L
DG82	HD30021010	Zener	H26A-3L
⚠DG83	HD200280B0	Diode	EP01Z
⚠DG84	HD20028080	Diode	EP01Z
⚠DG85	HD20028080	Diode	EP01Z
⚠DG86	HD20028080	Diode	EP01Z
QG01	HF203691BO	F.E.T.	2SK369(BL)
QG02	HF203691B0	F.E.T.	2SK369IBL)
QG03	HF 203691 BO	F.E.T.	2SK369IBL)
QG04	HF203691B0	F.E.T.	2SK369IBL)
QG05	HC10027090	IC	5534D
QG06	HC10027090	IC	5534D
QG81	HF202461C0	F.E.T.	2SK246IGR)
QG82	HF202461C0	F.E.T.	2SK24SIGR)
QG83	HT318151B0	Transistor	2SC1815(Y1
QG84	HT110151BO	Transistor	2SA1015IY]
QG85	HT318151B0	Transistor	2SC1B151YI
QG86	HTn0151B0	Transistor	2SA1015IY1
⚠QG87	HT334222A0	Transistor	2SC3422(O, Y)
⚠QG88	HT113592A0	Transistor	2SA1359IO, Y)

REF. DESIG.	PART NO.	DESCRIPTION
		PGOO-MISCELLANEOUS
JG01	YPO1001040	Plug, 4P
JG02	YPO1001040	Plug, 4P
JG05	YP06001040	Plug, 3P
		PK00-SUB/MONO/BA LANCE/ CD DIRECT CIRCUIT BOARD
PK00	YK274H2810	P.W. Board, Sub/Mono/Balance/CD Direct
	ZZ274H8810	P.W. Board Assembly
		PKOO-CAPACITORS
CK01	OF15394010	Film 0,39 µF ±5%
CK02	OF15394010	Film 0,39 µF ±5%
		PK00-RESISTORS
RK01	GM21410030	100 kΩ ±2% ¼W
RK02	GM21410030	100 kΩ ±2% ¼W
RK03	GM2T421510	2,15 kΩ ±2% ¼W
RK04	GM21421510	2,15 kΩ ±2% ¼W
RK05	RM01040890	100 kΩ, Variable; Balance
		PK00-MISCELLANEOUS
JK01	YJ07001E30	Jack, 3P
SK01	SP04020470	Push Switch, Subsonic/Mono
SK02	SP04010500	Push Switch, CD Direct
WK01	YB00280310	Connective Cord, 2P
WK02	YB00240100	Connective Cord. 2P
WK03	YB00230240	Connective Cord, 4P
WK04	YB00150510	Connective Cord. 4P
		PL00-POWER TRANSISTOR CIRCUIT BOARD
PL00	YF274H0010	P.W, Board, Power Transistor
	ZZ274H0010	P.W. Board Assembly
		PL00-CAPACITORS
⚠CL01	DF16105540	Film 1 µF ±10% 100V
⚠CL02	DF16105540	Film 1 µF ±10% 100V
		PL00-RES1STORS **(All Resistors are ±5% and ¼W)**
⚠RL01	NH05221140	220 Ω, Fusible
⚠RL02	NH05221140	220 Ω, Fusible
⚠RL03	NH05221140	220 Ω, Fusible
⚠RL04	NH05101140	100 Ω, Fusible
⚠RL05	NH05101140	100 Ω, Fusible
⚠RL06	NH05101140	100 Ω, Fusible
⚠RL07	GG05068140	6,8 Ω
⚠RL08	GG05068140	6,8 Ω
		PL00-SEMICONDUCTORS
⚠DL01	HD200271OO	Diode 30DF-2
⚠DL02	HD20O27100	Diode 30DF-2
⚠QL01	HF20405100	F.E.T. 2SK405(O)
⚠QL02	HF204051O0	F.E.T. 2SK405(0)
⚠QL03	HF20405100	F.E.T. 2SK405(O)
⚠QL04	HF10115100	F.E.T. 2SJ115(0)
⚠QL05	HF10115100	F.E.T. 2SJ115(0)
⚠QL06	HF10115100	F.E.T. 2SJ115(O)
⚠QL07	HT332802A0	Transistor 2SC3280(R, O)
⚠QL08	HT113012A0	Transistor 2SA1301(R, 0)
⚠QL09	HT329S32A0	Transistor 2SC2983(O, Y)
⚠QL10	HT112252A0	Transistor 2SA1225(O, Y)
⚠QL11	HT334191Y0	Transistor 2SC3419(Y)

REF. DESIG.	PART NO.	DESCRIPTION
		PL01-MISCELLANEOUS
JL01	YP06003560	Plug, 7P
JL02	YP06003540	Plug, 4P
JL03	YP06003540	Plug, 4P
JL04	YP06003550	Plug, 6P
JL05	YP06003550	Plug. 6P
		PN00-COMPARATOR/PROTECTOR/ SUPPLY CIRCUIT BOARD
PNOO	YK274H3630	P.W. Board, Comparator/Protector/ Supply
	ZZ274H8630	P.W. Board Assembly
		PN00-CAPACITORS
CN01	OA47505010	Elect 4,7 µF 50V
CN02	OA47601010	Elect 47 µF 10V
CN03	OA47601010	Elect 47 µF 10V
CN04	OA47601010	Elect 47 µF 10V
CN05	OF15103520	Film 0,01 µF ±5% 100V
CN21	DF56470530	Film 47 pF ±10% 125V
CN22	OFI5471520	Film 470 pF ±5% 100V
CN23	OA10601610	Elect 10 µF 16V
CN24	OF15103520	Film 0,01µF ±5% 100V
CN2S	OF15103520	Film 0,01 µF +5% 100V
CN81	OA33703510	Elect 330 µF 35V
CN82	OA33703510	Elect 330 µF 35V
CN83	OA47702510	Elect 470 µF 25V
CN84	OA33703510	Elect 330 µF 35V
CN85 ↕ CN90	OA10601610	Elect 10 µF 16V
CN91	EB56708010	Elect 560 µF 80V
CN92	EB56708010	Elect 560 µF 80V
		PN00-RESISTORS **(All Resistors are ±2% and ¼W)**
HN04	GM21446420	46,4 kΩ
RM06	GM21421520	21,5 kΩ
⚠RP11	NH05220140	22 Ω ±5%, Fusible
RN21	GM21456210	5,62 kΩ
BN22	GM21456210	5,62 kΩ
BN23	GW121456210	5,62 kΩ
RN24	GM21456210	5,62 kΩ
RN25	GM21446400	464 Ω
RN26	GM21446400	464 Ω
RN27	GW121446400	464 Ω
RN28	GM21446400	464 Ω
RN29	GM21446410	4,64 kΩ
RN30	GM21446410	4,64 kΩ
RW31	GM21446410	4,64 kΩ
RN32	GM21446410	4,64 kΩ
RM33	GM214162G0	16,2 Ω
RN34	GM214162G0	16,2 Ω
RN35	GM214162G0	16,2 Ω
RM36	GM214162G0	16,2 Ω
RM37	GM21414720	14,7 kΩ
RN38	GM21414720	14,7 kΩ
RN39	RA01020460	1 kΩ(B), Trimming
RN40	RA01020460	1 kΩ(B), Trimming
RN41	RA01020460	1 kΩ(B), Trimming
RN42	RA01020460	1 kΩ(B), Trimming
RM43	GM21421510	2,15 kΩ
RW44	GM21414720	14,7 kΩ
RN47	GG05222140	2,2 kΩ
RN48	GG05222140	2,2 kΩ
⚠RN81	GA05022010	2,2 Ω ±5% 1W
⚠RN82	GA05180010	18 Ω ±5% 1W

REF. DESIG.	PAHT NO.	DESCRIPTION			
		PN00-SEM1CONDUCTORS			
DN01	HD20016210	Diode	1SR35-200A		
DN21	HD20011050	Diode	1S1555		
DNS1	HD30021010	Zener	HZ6A-3L		
DN82	HD30021D10	Zener	HZ6A-3L		
DN83	HD30021010	Zener	HZ6A-3L		
DN84	H030021010	Zener	HZ6A-3L		
⚠DN85	HE20002030	Diode	DB6106		
⚠DN91	HD20028080	Diode	EP01Z		
⚠DN92	HD20028080	Diode	EP01Z		
⚠DM93	HD20028080	Diode	EPOJZ		
⚠DN94	HD20028080	Diode	EPD1Z		
QM01	HC10042050	IC	TA731PA		
QN21	HC10009090	IC	NJM2901		
QN22	HC10009090	IC	NJM29O1		
QN23	HC712301A0	IC	HD74LS123		
QN24	HT318151B0	Transistor	2SC1815(Y)		
⚠QN81	HT334222A0	Transistor	2SC3422(0, Y)		
⚠QN82	HT113592A0	Transistor	2SA1359(O, Y)		
⚠QN83	HF202461DO	F.E.T.	2SK246(BL)		
⚠QN84	HF202461D0	F.E.T.	2SK246(BL)		
		PN00-MISCELLANEOUS			
JN01	YP01001090	Plug, 9P			
JN02	YP01001980	Plug, 2P			
JN03	YJ07001530	Jack, 3P			
JN06	YP10001980	Plug, 2P			
JN07	YP060G0580	Plug, 5P			
JN08	YP06000590	Plug, 7P			
WN04	YU06180260	Jumper Lead, 6P			
WN05	YU06180260	Jumper Lead, 6P			
		PN50-SO FT START CIRCUIT BOARD			
PN50	YK274H3660	P.W. Board, Soft Start			
	ZZ274H8660	P.W. Board Assembly			
⚠CN51	OA33610010	Elect Cap.	33µF	100V	
⚠RN51	GR050470S0	Resistor	4,7Ω	±5%	7W
⚠RN52	GA05472020	Resistor	4,7kΩ	±5%	2W
⚠DN51	HE20004030	Diode	DBB10C		
⚠FN51	F611000600	Fuse	10A	250V	
JN56	YJ08D00170	Jack, Fuse Holder			
JN57	YJ08000170	Jack. Fuse Holder			
⚠LN51	LY10480030	Relay			
		PQ00-MAIN VOLUME CIRCUIT BOARD			
PQ00	YK274H2820	P.W. Board, Main Volume			
	ZZ274H8820	P.W. Board Assembly			
RQ01	RM05031210	Variable Resistor	5OKΩ		
WQ01	YB00430020	Connective Cord, 4P			
		PR00-SPEAKER/MUTING RELAY CIRCUIT BOARD			
PR00	YK274H3650	P.W. Board, Speaker/Muting Relay			
		PR00-CAPACITORS			
CR01	DF16104510	Film	O,1µF	±10% 200V	
CR02	DF16104510	Film	O,1µF	±10% 200V	

REF. DESIG.	PART NO.	DESCRIPTION			
		PR00-RESISTORS			
RR01	GA05100030	10 Ω	±5 %	3 W	
RR02	GA05100030	10 Ω	±5 %	3 W	
RR03	GG05022120	2,2 Ω	±5 %	½ W	
RR04	GG05022120	2,2 Ω	±5 %	½ W	
RR05	GA05331020	330 Ω	±5 %	2 W	
RR06	GA05331020	330 Ω	±8 %	2 W	
		PR00-SEMICONDUCTORS			
DH01	HD20011050	Diode	1S1555		
DR02	HD20011050	Diode	1S1555		
		PR00-MISCELLANEOUS			
JR01	YP06001040	Plug, 3P			
JR02	YF06001040	Plug, 3P			
JR03	Y800060110	Connective Cord, 1P			
JR04	YB00170140	Connective Cord, 1P			
JR05	YB00170150	Connective Cord, 1P			
JR06	YB00060100	Connective Cord, 1P			
JR07	YB00060090	Connective Cord, 1P			
JR08	Y600150490	Connective Cord, 1P			
JR09	YB00150490	Connective Cord, 1P			
JR10	YB00060090	Connective Cord, 1P			
JR11	YJ07OO155O	Jack, 5P			
LR01	LY20240150	Relay, Speaker			
LH02	LY20240150	Relay, Speaker			
LH03	LJ31115080	Coil, Output			
LRO4	LJ31115080	Coil, Output			
WN01	YB0O220190	Connective Cord, 9P			
		PR50-PHONE/SPEAKER SELECT CIRCUIT BOARD			
PR50	YK274H3640	P.W. Board, Phone/Speaker Select			
	ZZ274H8640	P.W. Board Assembly			
RR51	GA05102010	Resistor	1 kΩ	±5%	1 W
RH52	GA05102010	Resistor	1 kΩ	±5%	1 W
JR51	YJ01002080	Jack, Phone			
SR51	SP02020860	Push Switch, Speaker Select			
		PT00-TONE/TAPE 1, 2/VCR/ MUTING CIRCUIT BOARD			
PT00	YK274H2840	P.W. Board, Tone/Tape 1,2/VCR/Muting			
		PT00-RESISTORS			
RT01	GM21421510	2.15 kΩ	±2%	¼ W	
RT02	GM21421510	2.15 kΩ	±2%	¼ W	
RT03	GM21421500	215 Ω	±2%	¼ W	
RT04	GM21421500	215 Ω	±2%	¼ W	
RT05	GA05102010	1 kΩ	±5%	1 W	
RT06	GA05102010	1 kΩ	±5%	1 W	
RT07	GA05102010	1 kΩ	±5%	1 W	
		PT00-MISCELLANEOUS			
JT01	YP06001040	Plug, 3P			
JT02	YJ07O01550	Jack, 5P			
ST01	SP04010480	Push Switch, Muting			
ST02	SP02040330	Push Switch, Tape 1, 2/VCR			
ST03	SP04010480	Push Switch, Tone Defeat			
WT01	YB00160230	Connective Cord. 4P			
WT02	YB00220210	Connective Cord, 3P			
WT03	YB00300920	Connective Cord, 3P			
WT04	YBO0740010	Connective Cord, 8P			

REF. OESIG.	PART NO.	DESCRIPTION
		PVOO-PHONO/CD/TUNER/AUX 1;2 CIRCUIT BOARD
PV00	YK274H1320	P.W. Board, Phono/CD/Tuner/AUX 1; 2
	ZZ274H8320	P.W. Board Assembly
		PV00-CAPACITORS
CV01 ↕ CV12	DA17103010	Ceramic 0,01 µF ±20% 25 V
		PV00-SEMICONDUCTORS
DVO1	HD200110E0	Diode 1S1555
		PVQ0-MI5CELLANEOUS
JV01	YT02040570	Terminal, Phono/CD
JV02	YT02020470	Terminal, Tuner
JV03	YT02040530	Terminal, AUX 1, AUX 2
JV04	YT02010580	Terminal, Pri-OUT/Main-IN
JV05	YP06002010	Plug, 4P
LV01	LY20240230	Relay, Pri-OUT
WV01	YB00400510	Connective Cord, 8P
WV02	Y600480060	Connective Cord, 8P
WV05	YB00140200	Connective Cord, 4P
WV06	YB00670010	Connective Cord, 4P
WV07	YBOO180240	Connective Cord, 2P
		PWO0-TAPE PLAY/REC/VCR CIRCUIT BOARD
PW00	YK274H1330	P.W. Board, Tape Play/Rec/VCR
	ZZ274H8330	P.W. Board Assembly
CW01 ↕ CW06	DA17103010	Ceramic Cap. 0,01µF ±20% 25V
JW01	YT02040580	Terminal, Tape 1
JW02	YT02040580	Terminal. Tape 2
JW03	YT02040580	Terminal, HIFI VCR
WW01	YB00340050	Connective Cord, 9P
WW02	YB00280300	Connective Cord, 9P

(W01-99)	Assembly and Wiring
(T01-99)	Adjustment
(X01-00)	Correction

		PY00-FUNCTION IND. CIRCUIT BOARD
PY00	YK274H2870	P.W. Board, Function IND.
	ZZ274H8870	P.W. Board Assembly
RY01	GA05102D10	Resistor 1kΩ ±5% 1W
RY02	GA05102010	Resistor 1kΩ ±5% 1W
DY01	HI10048320	L.E.D. GL-3HD7, CD
DY02	HI10048320	L.E.D. GL-3HD7, Phono
DY03	HI10048320	L.E.D. GL-3HD7, Tuner
DY04	HH0048320	L.E.D. GL-3HD7, AUX 1
DY05	H110048320	L.E.D. GL-3HD7, AUX 2
DY06	H110037320	L.E.D. LT-9200N, CD Direct
WY01	YU07220260	Jumper Lead, 7P
WY02	YU03180260	Jumper Lead, 3P
		PZOO-TAPE/VCR/MUTING IND. CIRCUIT BOARD
PZ00	YK274H2880	P.W. Board, Tape/VCR/Muting IND.
	ZZ274H8880	P-W. Board Assembly
DZ01	HI10048330	L.E.D. GL-3HD7, Tape 1
DZ02	HI10048320	L.E.D. GL-3HD7, Tape 2
DZ03	HI10048320	L.E.D. GL-3HD7, VCR
DZ04	HI10037320	L.E.D. LT-9200N, Muting
WZ01	YUQ4260260	Jumper Lead, 4P
WZ02	YU05100260	Jumper Lead, 5P

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.

9. TECHNICALSPECIFICATIONS

AUDIO SECTION

IHF Dynamic Power

4 OHMS.....310 W
8 OHMS .....180 W

POWER OUTPUT PER CHANNEL

DIN 4 OHMS AT 1 kHz.....240 W
RMS 4 OHMS FTC.....220 W
DIN 8 OHMS AT 1 kHz.....150 W
RMS 8 OHMS FTC .....140 W
TOTAL HARMONIC DISTORTION AT RMS 8 OHMS .....0,01 %
I.M. DISTORTION .....0,01 %
DAMPING FACTOR S OHMS (1 kHz)..... 200

MAIN IN Sensitivity .....1,5 V
MAIN IN Impedance.....27 k ohms
Frequency Response (MAIN IN).....10 Hz ~ 100 kHz
Signal to Noise Ratio, MAIN IN (A weighted) at 1 W Output .....97 dB

MM CARTR1DGE INPUT

Frequency Response (IEC RIAA) .....±0,2 dB
Signal-to-Noise Ratio (A weighted) ..... 92 dB
Input Impedance.....47 k ohms
Input Capacitance ..... 100 pF
Input Sensitivity .....2,5 mV
Equivalent Input Noise (A weighted) .....0,07 µV
Dynamic Range.....130 dB

MCCARTRIDGE INPUT

Input Sensitivity .....125 (Low MC)/350 (High MC) µV
Input Impedance ..... 3 (Low MC)/40 (High MC) ohms

CD, AUX. INPUT

Input Impedance ..... 25 k ohms
Input Sensitivity .....150 inV
Frequency Response..... 10 Hz – 70 kHz
Signal to Noise Ratio (A weighted)..... 98 dB

OUTPUT VOLTAGE

Tape Out [PHONO (MM) 7,75 mV 1 kHz Input]..... 465 mV
Preamplifier Output [AUX, 150 mV 1 kHz Input] .....1,5 V

OUTPUTIMPEDANCE

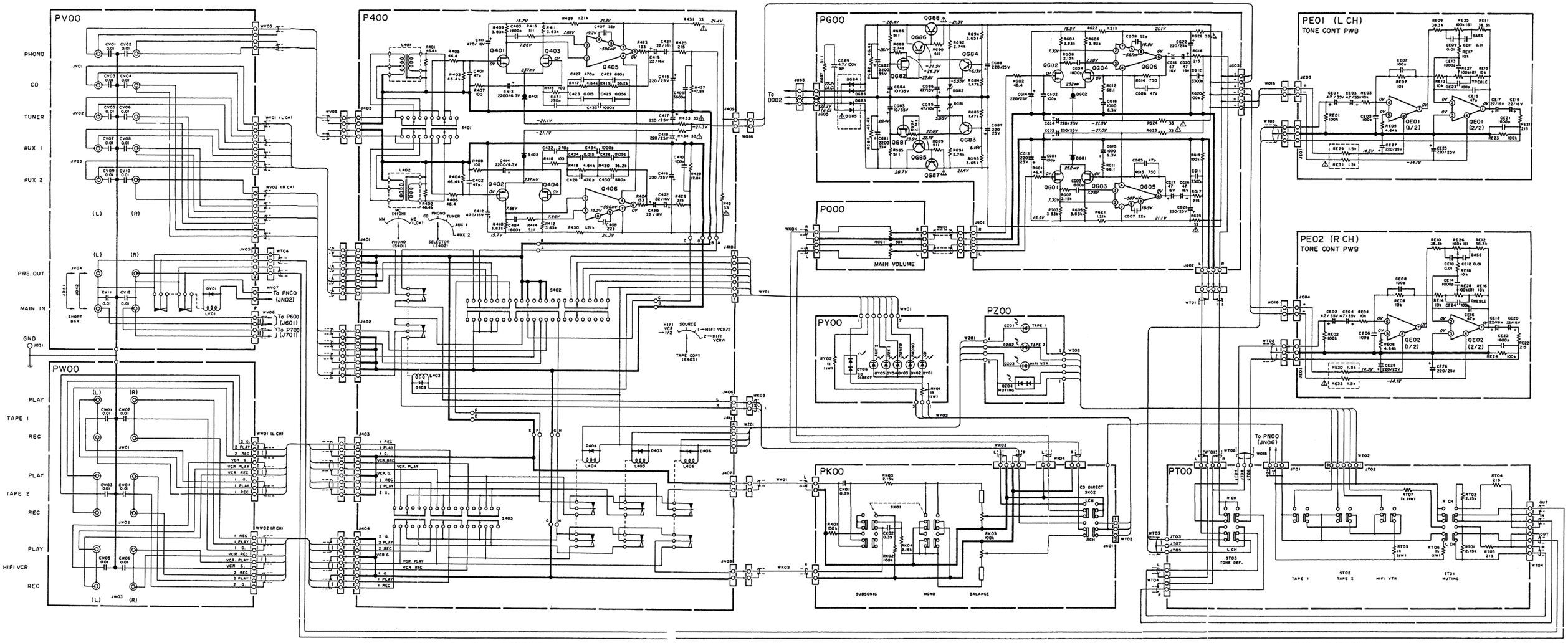
Tape Out (at Phono Position) .....220 ohms
Preamplifier Output .....220 ohms

GENERAL

Power Requirements (E Version)..... 110/120/220/240 V AC, 50/60 Hz
Power Consumption at Rated Output, both Channels Operating at 8 ohms load ..... 490 W
Dimensions
- Panel Width..... 465 mm
- Panel Height.....146 mm
- Depth.....410 mm

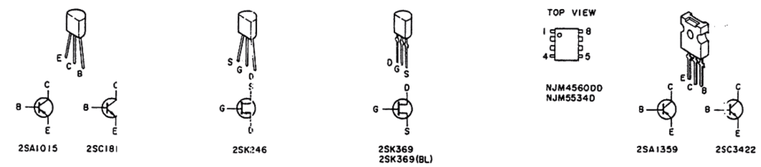
Weight
- Unit Alone ..... 23 kg

Model PM-94



QG01 ~ QG04	QG83, QG85	QG88
HF20369180	HT31815180	HT113592A0
2SK369	2SC1815	2SA1359
QG05, QG06, Q405, Q406	QG84, QG86	QE01, QE02
HC10027090	HT11015180	HC10021090
5534D	2SA1015	456DDD
QG81, QG82	QG87	Q401 ~ Q404
HF20246IC0	HT334222A0	HF20369180
2SK246	2SC3422	2SK369(BL)

DY01 ~ DY05	D401, D402	DG81, DG82
DZ01 ~ DZ03	HD60007100	HD30021010
HI10048320	10YD4.5C	HZ6A-3L
GL-3HD7		
DY06, DZ04	D403 ~ D406	DG83 ~ DG86
HI10037320	HD20011050	HD20028060
LT-9200N	1S1555	EP01Z
DV01	DG01, DG02	
HD20011050	HD60007100	
1S1555	10YD4.5C	



F001	FS10500800	FUSE
L001	TS40601020	POWER TRANSF.
S001	SP01010820	PUSH SWITCH POWER
S421	SR04030380	ROTARY SWITCH PHONO SELECT
S422	SR06050230	ROTARY SWITCH FUNCTION
S423	SR06040220	ROTARY SWITCH TAPE MONITOR
LN51	LY10480030	RELAY SOFT START
RE25		
≀	RK01040280	VARIABLE 100KΩ (B)
RE28		
RK05	RM01040890	VARIABLE 100KΩ BALANCE

SK01	SP04020470	PUSH SWITCH SUBSONIC/MONO
SK02	SP04010500	PUSH SWITCH CD DIRECT
RN39		
≀	RA01020460	TRIMMING 1KΩ (B)
RN42		
RQ01	RM05031210	VARIABLE 50KΩ
LR01	LY20240150	RELAY SPEAKER
LR02	LY20240150	RELAY SPEAKER
SR51	SP02020860	PUSH SWITCH SPEAKER SELECT
ST01	SP04010480	PUSH SWITCH MUTING
ST02	SP02040330	PUSH SWITCH TAPE 1, 2 / VCR
ST03	SP04010480	PUSH SWITCH TONE DEFEAT
LV01	LY20240230	RELAY PRI-OUT

L401	TI11606010	INPUT TRANSF. MC-L CH
L402	TI11606010	INPUT TRANSF. MC-R CH
L403		
≀	LY20240230	RELAY
L406		
S401	SS04030230	SLIDE SWITCH PHONO SELECT
S402	SS06060100	SLIDE SWITCH FUNCTION
S403	SS06040050	SLIDE SWITCH TAPE MONITOR
R622	RA02030260	TRIMMING 20KΩ (B)
R642	RA01030720	TRIMMING 10KΩ (B)
R643	RA01030720	TRIMMING 10KΩ (B)
R722	RA02030260	TRIMMING 20KΩ (B)
R742	RA01030720	TRIMMING 10KΩ (B)
R743	RA01030720	TRIMMING 10KΩ (B)

"SERVICE INFORMATION IS FOR USE BY QUALIFIED RERSONNEL ONLY – ANY MISADJUSTMENT OR MISALIGNMENT MAY BE TREATED AS A NON-WARRANTY REPAIR BY ANY MARANTZ SERVICE CENTRE – "

Kind of Common Parts

RESISTOR

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

C*** : **CERAMIC CAP.**
(1) DD1 - - - - 370, Ceramic condenser, disc type (titan condenser) Temp. coeff. P350 ~ N1000 50V

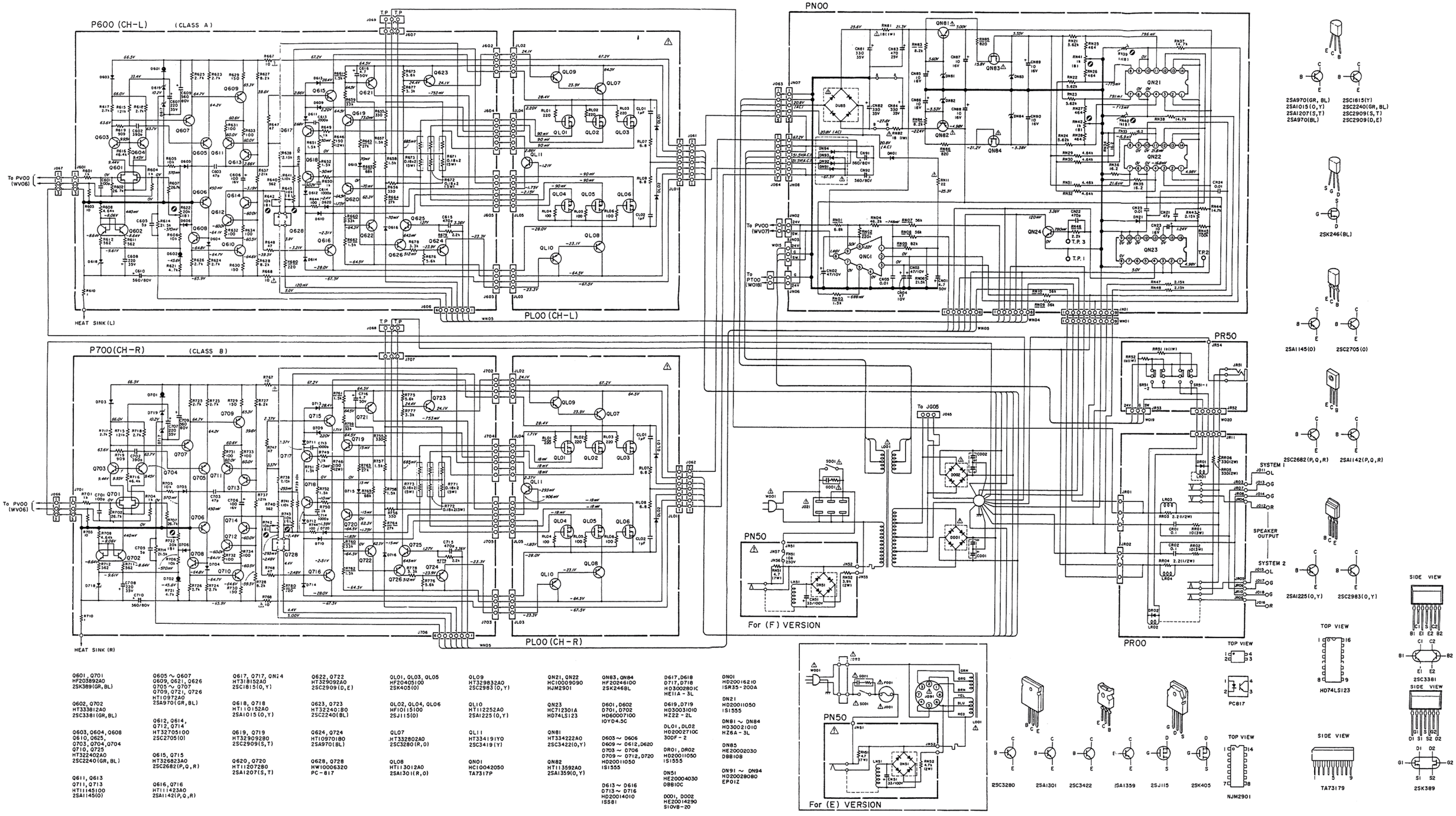
C*** : **CERAMIC CAP.**
(1) DK16 - - - 300, High dielectric constant ceramic condenser, disc type (titan variable) Temp. chara. 2B4 50V

C*** : **ELECTROLY CAP. (⫫) / FILM CAP. (⫤)**
(1) EA - - - - - - 10, Electrolytic condenser, one-way lead type, tolerance ±20%
(2) DF15 - - - 350, Plastic film condenser, one-way type, Mylar, ±5% 50V

* In case of ordering the common parts, please establish the correct parts number of 10 figures by the procedure "ASSIGNMENT OF COMMON PARTS CODES"

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.

Components and wiring are subject to change for modification without notice.



Q601, Q701
HF203892A0
2SK389(GR, BL)

Q602, Q702
HT33381A0
2SC3381(GR, BL)

Q603, Q604, Q608
Q610, Q625,
Q703, Q704, Q704
Q710, Q725
HT32402A0
2SC2240(GR, BL)

Q611, Q613
Q711, Q713
HT111451O0
2SA1145(O)

Q605 ~ Q607
Q609, Q621, Q626
Q705 ~ Q707
Q709, Q721, Q726
HT10972A0
2SA970(GR, BL)

Q612, Q614,
Q712, Q714
HT32705100
2SC2705(O)

Q615, Q715
HT32682A0
2SC2682(P, Q, R)

Q616, Q716
HT111423A0
2SA1142(P, Q, R)

Q617, Q717, QN24
HT318152A0
2SC1815(O, Y)

Q618, Q718
HT111052A0
2SA1015(O, Y)

Q619, Q719
HT32909280
2SC2909(S, T)

Q620, Q720
HT11207280
2SA1207(S, T)

Q622, Q722
HT329092A0
2SC2909(D, E)

Q623, Q723
HT32240:BO
2SC2240(BL)

Q624, Q724
HT109701B0
2SA970(BL)

Q628, Q728
HW10006320
PC-817

QL01, QL03, QL05
HF20405100
2SK405(O)

QL02, QL04, QL06
HF101151O0
2SJ115(O)

QL07
HT332802A0
2SC3280(R, O)

QL08
HT113012A0
2SA1301(R, O)

QL09
HT3298832A0
2SC2983(O, Y)

QL10
HT112252A0
2SA1225(O, Y)

QL11
HT334191Y0
2SC3419(Y)

QN01
HC10042050
TA7317P

QN21, QN22
HC10009090
HJM2901

QN23
HC712301A
HD74LS123

QN81
HT334222A0
2SC3422(O, Y)

QN82
HT113592A0
2SA1359(O, Y)

QN83, QN84
HF20246100
2SK246(BL

D601, D602
D701, D702
HD600071O0
1OYD4.5C

D603 ~ D606
D609 ~ D612, D620
D703 ~ D706
D709 ~ D712, D720
HD20011050
1S1555

D613 ~ D616
D713 ~ D716
HD20014010
1SS81

D617, D618
D717, D718
HD3002801C
HE11A - 3L

D619, D719
HD3031010
HZ22 - 2L

DL01, DL02
HD2002710C
30DF - 2

DR01, DR02
HD20011050
1S1555

DU51
HE20004030
D8B10C

DU01, DU02
HE20014290
S10V8-20

DN01
HD20016210
ISR35 - 200A

DN21
HD20011050
1S1555

DN81 ~ DN84
HD3002010
HZ6A - 3L

DN85
HE20002030
D8B10B

DN91 ~ DN94
HD2002080
EP01Z

Kind of Common Parts

RESISTOR

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

C*** : **CERAMIC CAP.**
(1) DD1 - - - - 370, Ceramic condenser, disc type (titan condenser) Temp. coeff. P350 ~ N1000 50V

C*** : **CERAMIC CAP.**
(1) DK16 - - - 300, High dielectric constant ceramic condenser, disc type (titan variable) Temp. chara. 2B4 50V

C*** : **ELECTROLY CAP. (⇌) / FILM CAP. (=)**
(1) EA - - - - - - 10, Electrolytic condenser, one-way lead type, tolerance ±20%
(2) DF15 - - - 350, Plastic film condenser, one-way type, Mylar, ±5% 50V

*In case of ordering the common parts, please establish the correct parts number of 10 figures by the procedure "ASSIGNMENT OF COMMON PARTS CODES"

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.

Components and wiring are subject to change for modification wit