

Service Manual

74PM80 /50B

Integrated stereo amplifier

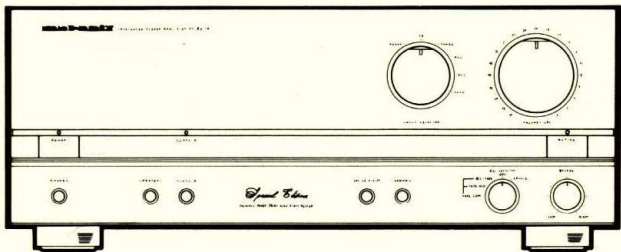


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marantz®

model PM-80mkII SE

4822 725 51061

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PCS 79 130

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 at our National Marantz Subsidiary or Agent.

MARANTZ EUROPE B.V.
P.O. Box 80002
Building SFF 2
5600 JB Eindhoven
The Netherlands
Phone : +31-40-732241
Fax : +31-40-735578

ORDERING PARTS

Parts can be ordered either by mail or by telex. 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 the 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 null and void.

ADDRESSES

AUSTRALIA MARANTZ AUSTRALIA Figtree Drive Australia Centre Homebush, NSW 2140 AUSTRALIA	FINLAND MARANTZ Kuortanegatan 1 00520 Helsingfors 52 Finland	ITALY MARANTZ ITALIANA SPA Piazza IV Novembre 3 20124 Milano Italy	NORWAY MARANTZ Postboks 7034 Assiden 3007 Drammen Norway	SPAIN MARANTZ SPAIN Martinez Villergas 2 Apartado 2065 Madrid 28027 Spain
AUSTRIA MARANTZ Hietzinger Kai 137a 1130 Wien Austria	FRANCE MARANTZ FRANCE 4 Rue Bernard Palissy 92600 Asnières France	JAPAN MARANTZ JAPAN INC. 35-1, 7-chome, Sagamiono Sagamihara-shi, Kanagawa Japan	PORTUGAL COREL Av. da Liberdade 211-2 Esq. 1200 Lisboa Portugal	SWEDEN MARANTZ Box 1324 17125 Solna Sweden
BELGIUM MARANTZ EUROPE B.V. Div. Benelux P.O.Box 80002 Building SFF 2 5600 JB Eindhoven The Netherlands	GERMANY MARANTZ GERMANY GmbH Kleine Heide 12 Postfach 4802 Halle-Westfalen Germany	KUWAIT AL ALAMIAH ELECTRONICS P.O.Box 8196 Salmiah 22052 Kuwait	SAUDI ARABIA AL ALAMIAH ELECTRONICS P.O.Box 5954 University Street Riyadh 11432 Saudi Arabia	SWITZERLAND MARANTZ SWITZERLAND Postfach 8010 Zürich-Müllingen Switzerland
CHILE MARANTZ DIVISION OF PHILIPS S.A. Av.Santa Maria 0760 Casilla 2687 Santiago Chile	GREAT BRITAIN MARANTZ HiFi UK Ltd. Kingsbridge House Padbury Oaks 575-583 Bath Road Longford Middlesex UB7 OEH, U.K.	NETHERLANDS MARANTZ EUROPE B.V. Div. Benelux P.O.Box 80002 Building SFF 2 5600 JB Eindhoven The Netherlands	SOUTH AFRICA MARANTZ S.A. 10 Bond Street Randburg 2194 P.O. Box 7703 Johannesburg 2000 South Africa	TRADING MARANTZ TRADING P.O.Box 20008 Building SFF 2 5600 JB Eindhoven The Netherlands
DENMARK MARANTZ Horsvinget 5 2630 Tastrup Denmark	GREECE ADAMCO ELECTR. SA P.O.Box 21025 Hippocratus Str. 188 Athens 11471 Greece			

All of the above locations are fully equipped to take care of your total service needs or can advise you. 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 above mentioned address.

1. TECHNICAL SPECIFICATIONS (DIN)

Power output

RMS 8 ohms (20 Hz - 20 kHz) 100 / 25 W (Class A)
DIN 8 ohms / 4 ohms 110 / 160W

IHF dynamic power

8 ohms / 4 ohms / 2 ohms 135 / 220 / 340W
THD at 8 ohms RMS rated output 0.006 %
Intermodulation distortion 0.006 %
Damping factor 120

Magnetic cartridge input

Input sensitivity impedance 2.7 mV / 47 k ohm
Accuracy of frequency response to RIAA 0.3 dB
Signal to noise ratio 90 dB

Moving coil cartridge input

Input sensitivity impedance 210 μ V / 100 ohm
Signal to noise ratio 75 dB

Tuner / CD / Aux / Tape inputs

Input sensitivity impedance 160 mV / 20 k ohm
Signal to noise ratio 111 dB
Frequency response (-1 dB limits) 10 Hz - 100 kHz
Channel separation (1 kHz / 10 kHz) > 87 dB / > 70 dB

General

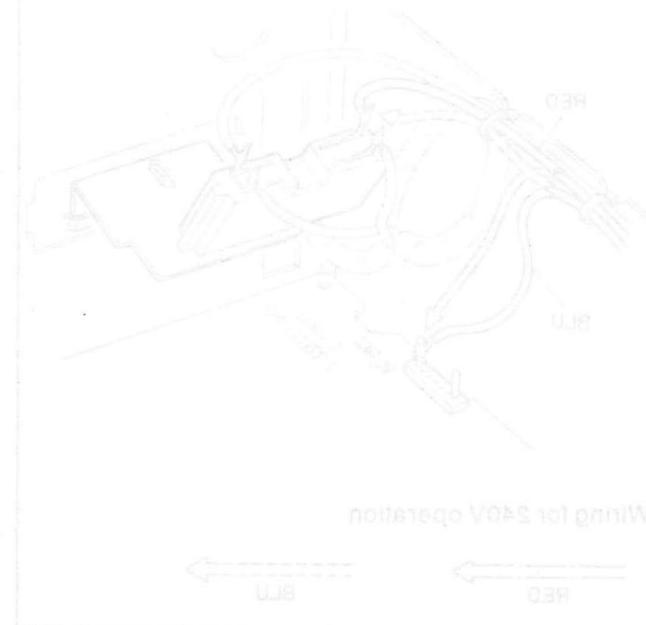
Power Requirements

/ 50B version 230 V AC, 50 / 60 Hz

Dimensions

Panel width 420 mm
Panel Height 165 mm
Depth 392 mm
Weight
Unit alone 12.5 kg

Specifications subject to change without prior notice.



Class AB	
Idle current setting value	Time elapsed after power ON
0V	30 sec - 1 min
10 mV	1 min - 2 min
20 mV	2 min - 3 min
30 mV	3 min - 5 min

Class A	
Idle current setting value	Time elapsed in class A
0V	30 sec - 1 min
10 mV	1 min - 2 min
20 mV	2 min - 3 min
30 mV	3 min - 5 min

2. IDLING CURRENT ADJUSTMENTS

- (1) With the power OFF, set the Master Volume control to the minimum position and the Balance control to the center position. Set all switches to the OFF position and set the input selector to the CD position. Also, set semi-fixed resistors R751 / R753 (L CH) and R752 / R754 (R CH) on the PC board (P701) to the fully counterclockwise positions.
- (2) Connect a digital voltmeter set for the DC voltage range across the pins of cement resistors R781 and R783 (L CH) or R782 and R784 (R CH) on the PC board (P701).
- (3) After making the setups above, proceed to the adjustment of Class AB idling current as described below.
Turn power ON and turn semi-fixed resistor R751 (L CH) or R752 (R CH) on the PC board (P701) clockwise while observing the digital voltmeter. The target setting is 18 mV (50 mA) with both L and R CH.
- (4) After the Class AB idling current adjustment, proceed to the adjustment of Class A idling current as described below.
Press the Class A switch, then turn semi-fixed resistor R753 (L CH) or R754 (R CH) on the PC board (P701) clockwise while observing the digital voltmeter. The target setting is 90 mV (250 mA) with both L and R CH.

Note :

- (1) Before proceeding to the idling current adjustment, be sure to observe the current with two cement resistors for each of the L CH and R CH, and use the cement resistor which provides a higher current value in the actual adjustment.
- (2) Be sure to perform the idling adjustment of Class AB before proceeding to that of Class A. Always follow this procedure even when only the adjustment of Class A is required.
- (3) Set the supply voltage exactly to 230 V AC (/50B VER.).

Class AB

Time elapsed after power ON	idling current setting value
30 sec. - 1 min	20 mV
1 min. - 2 min.	23 mV
2 min. - 3 min.	26 mV
3 min. - 5 min.	27 mV

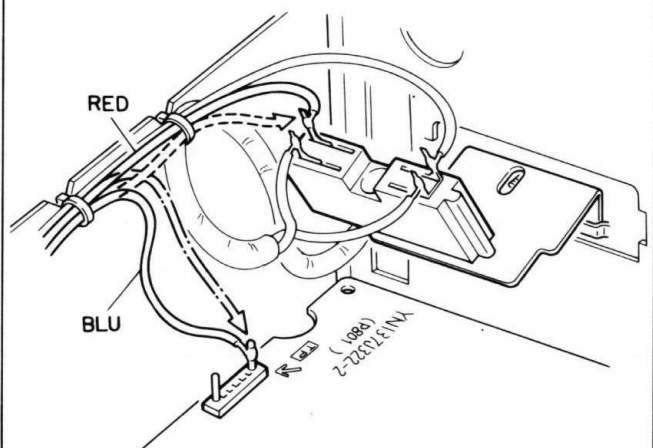
Class A

Time elapsed in class A	idling current setting value
30 sec. - 1 min	120 mV
1 min. - 2 min.	116 mV
2 min. - 3 min.	112 mV
3 min. - 5 min.	108 mV

- (5) When proceeding to the idling current adjustment the next time, for example after heat run, aging or servicing, leave the unit with no signal, no load and power ON for about 30 minutes, then set the idling current to the setting values which are 18 mV for Class AB and 90 mV for Class A.

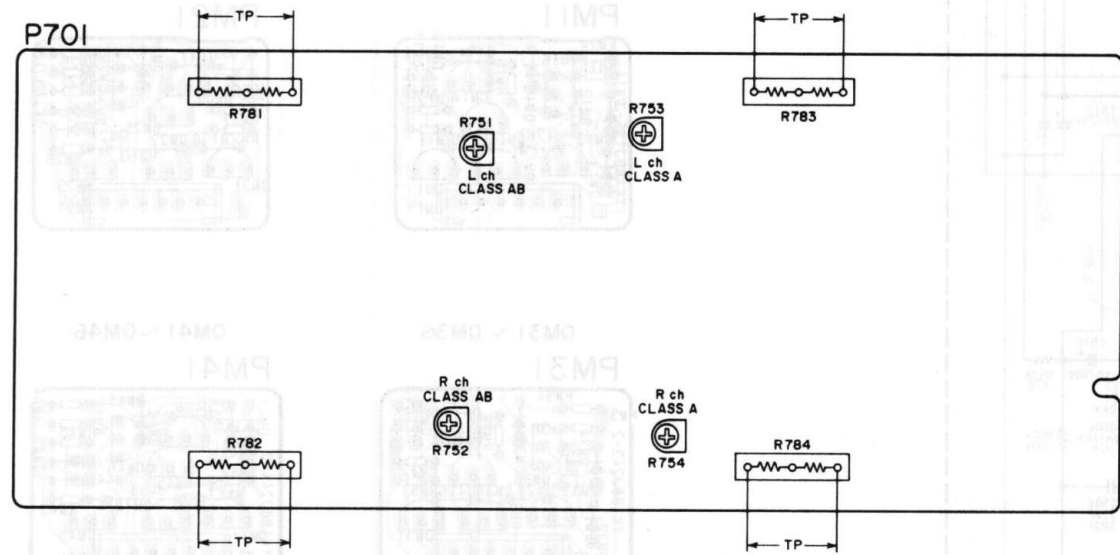
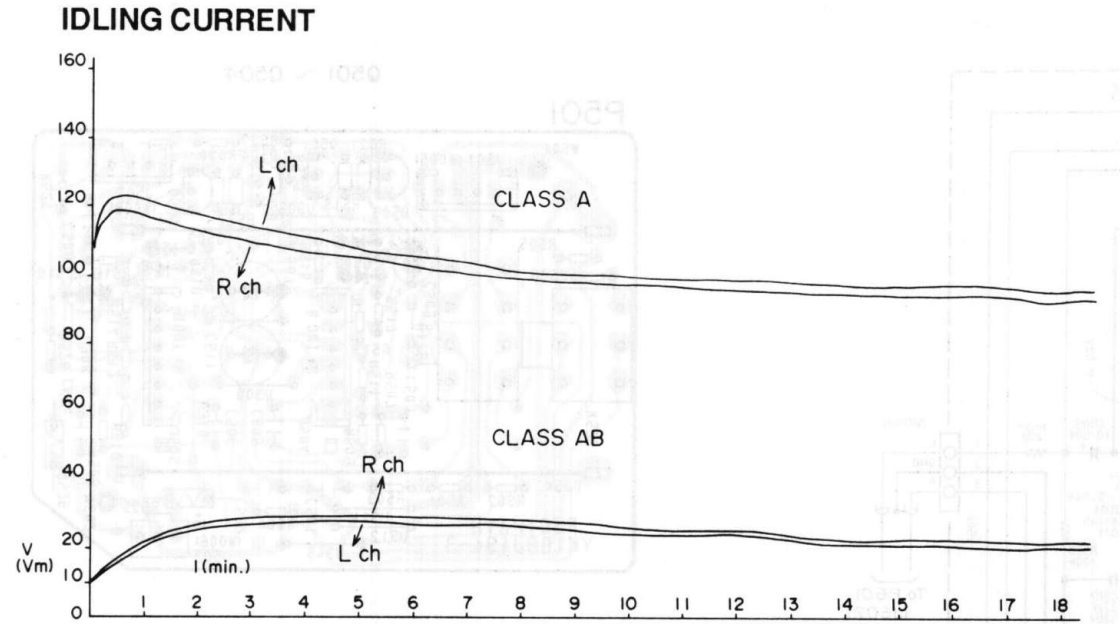
Note :

To change the primary voltage from 230V to 240V, change the connection of the lead wire from power transformer L001 as shown in the illustration below. In the position where the wire is to be soldered, be sure to bind it before soldering. After having changed the connection, be sure to fix and bundle wires securely as they were originally.



Wiring for 240V operation

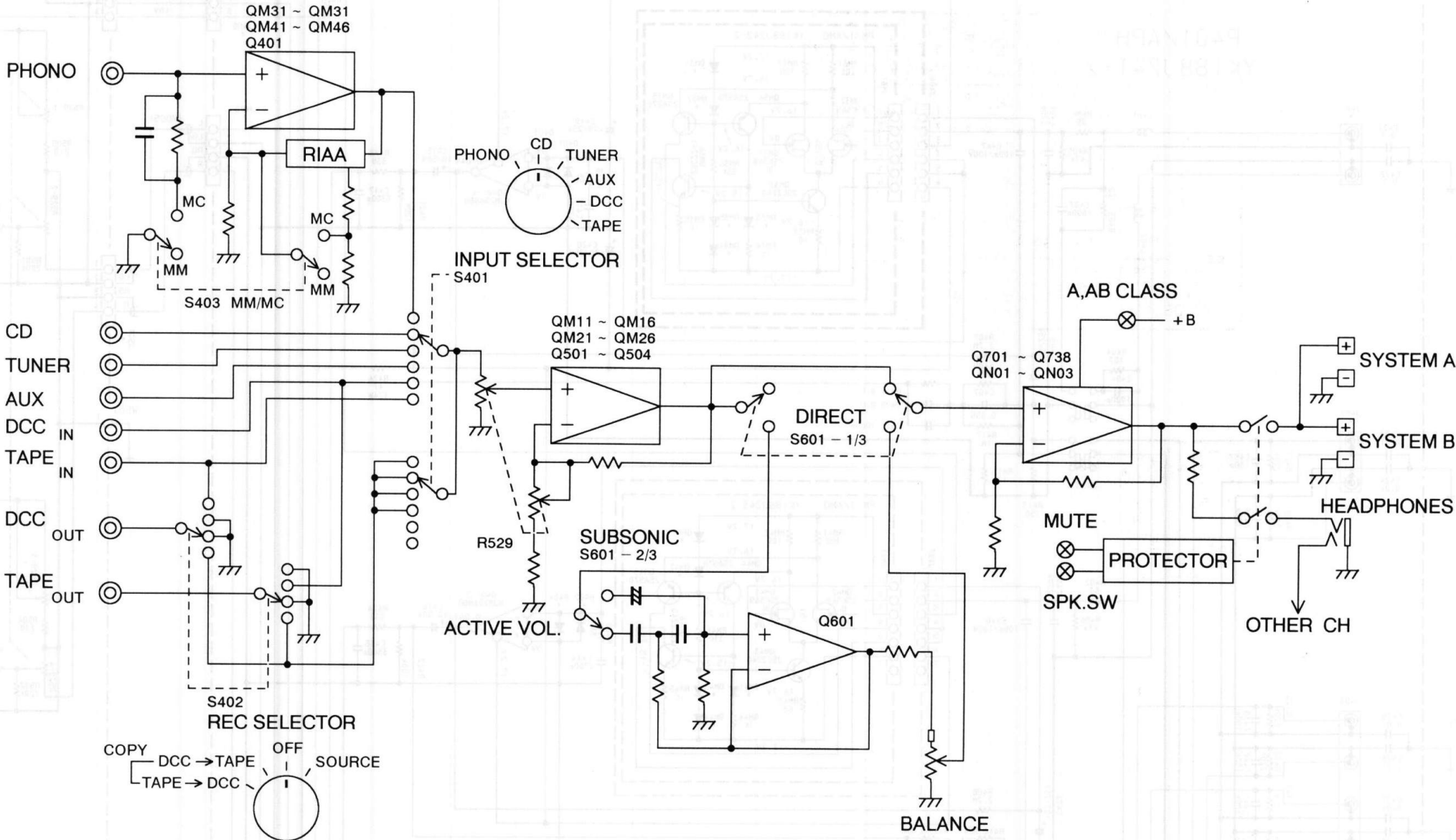




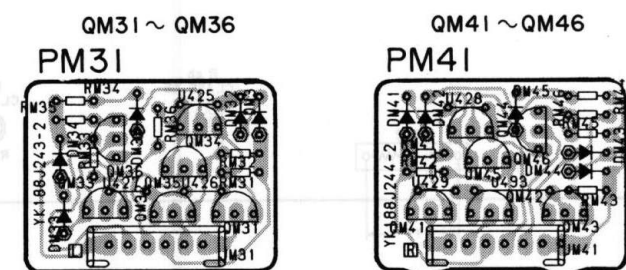
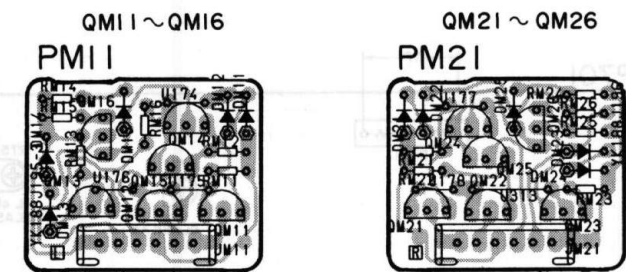
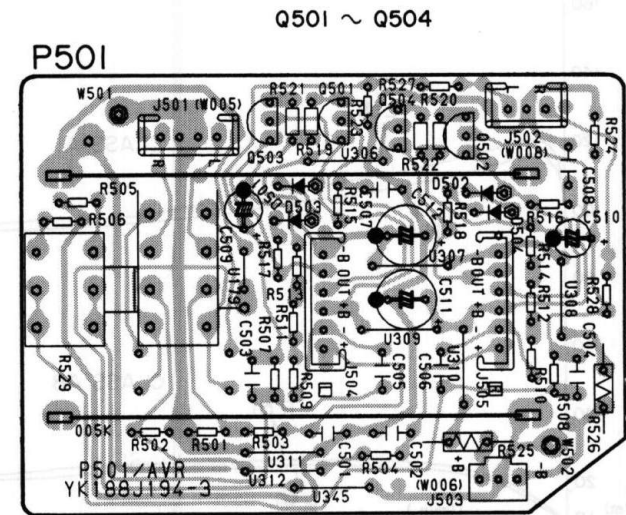
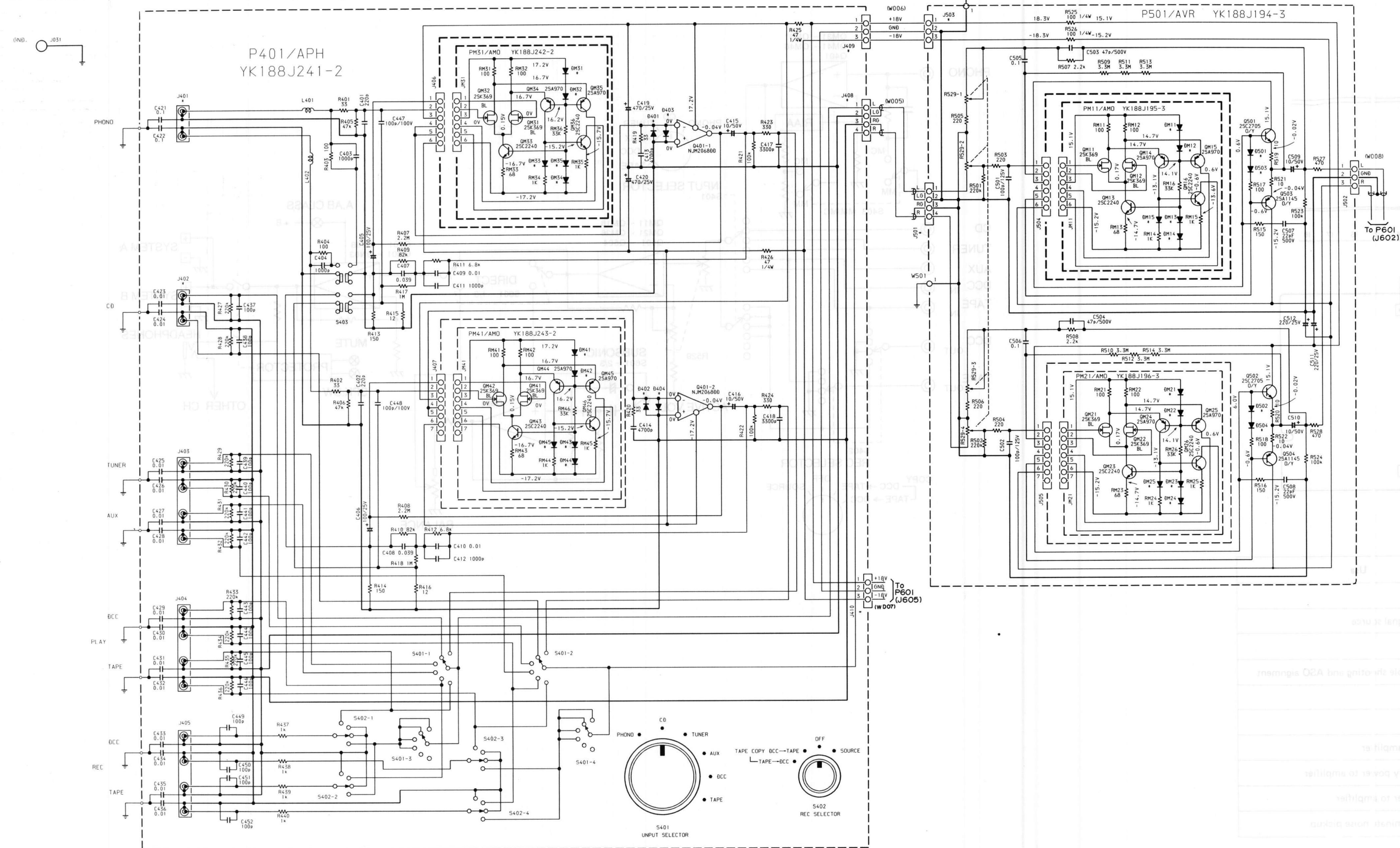
3. TEST EQUIPMENT REQUIRED FOR SERVICING

Item	Use
Distortion Analyzer	Distortion measurements
Audio Oscillator	Sinewave and squarewave signal source
ACVTVM	Voltage measurements (AC)
Oscilloscope	Waveform analysis and trouble shooting and ASO aignment
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	Adjust level of primery power to amplifier
Shorting Plug	Shorts amplifier input to eliminate noise pickup

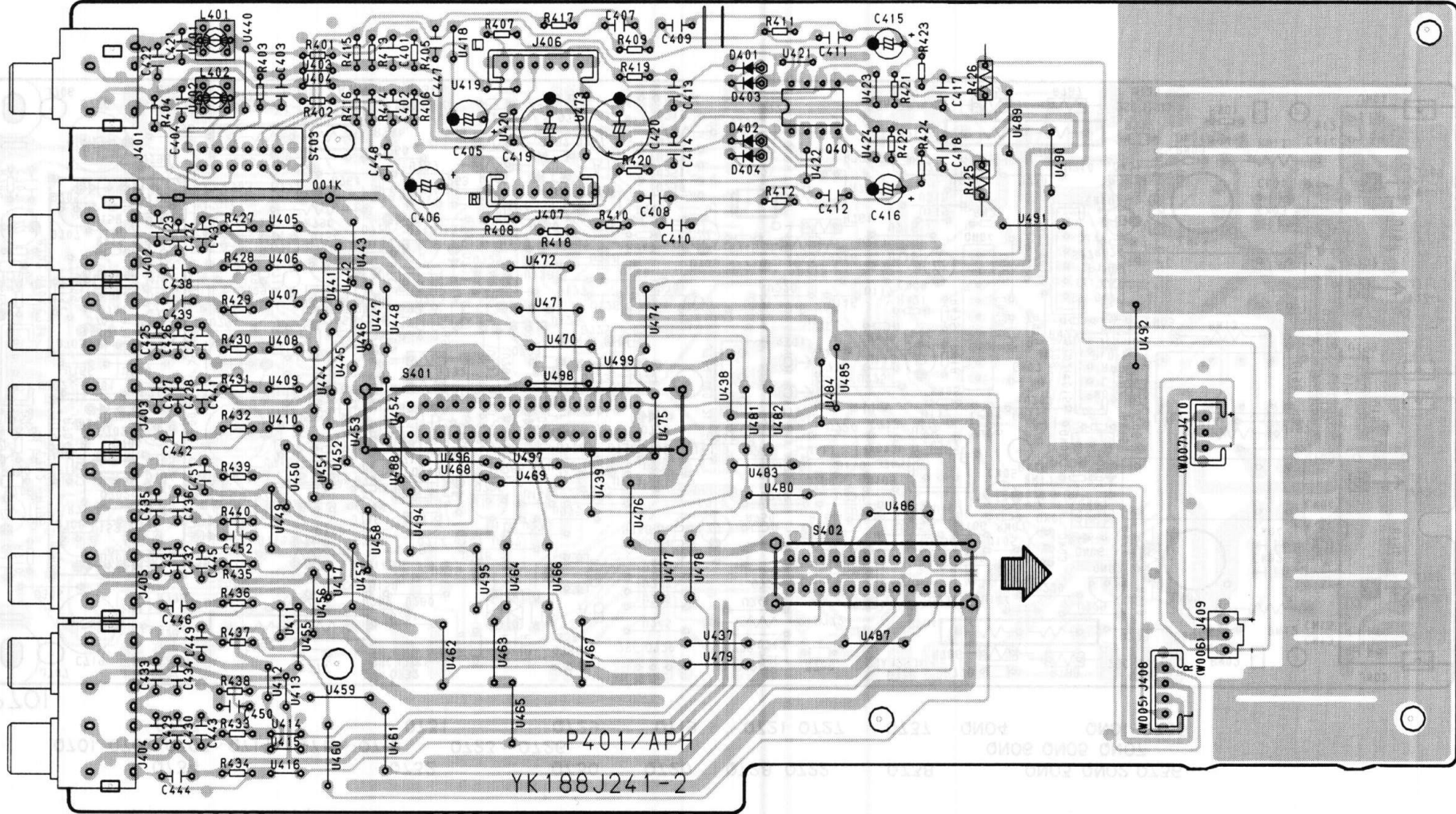
4. BLOCK DIAGRAM



5. SCHEMATIC DIAGRAM AND PARTS LOCATION (Pattern Side)

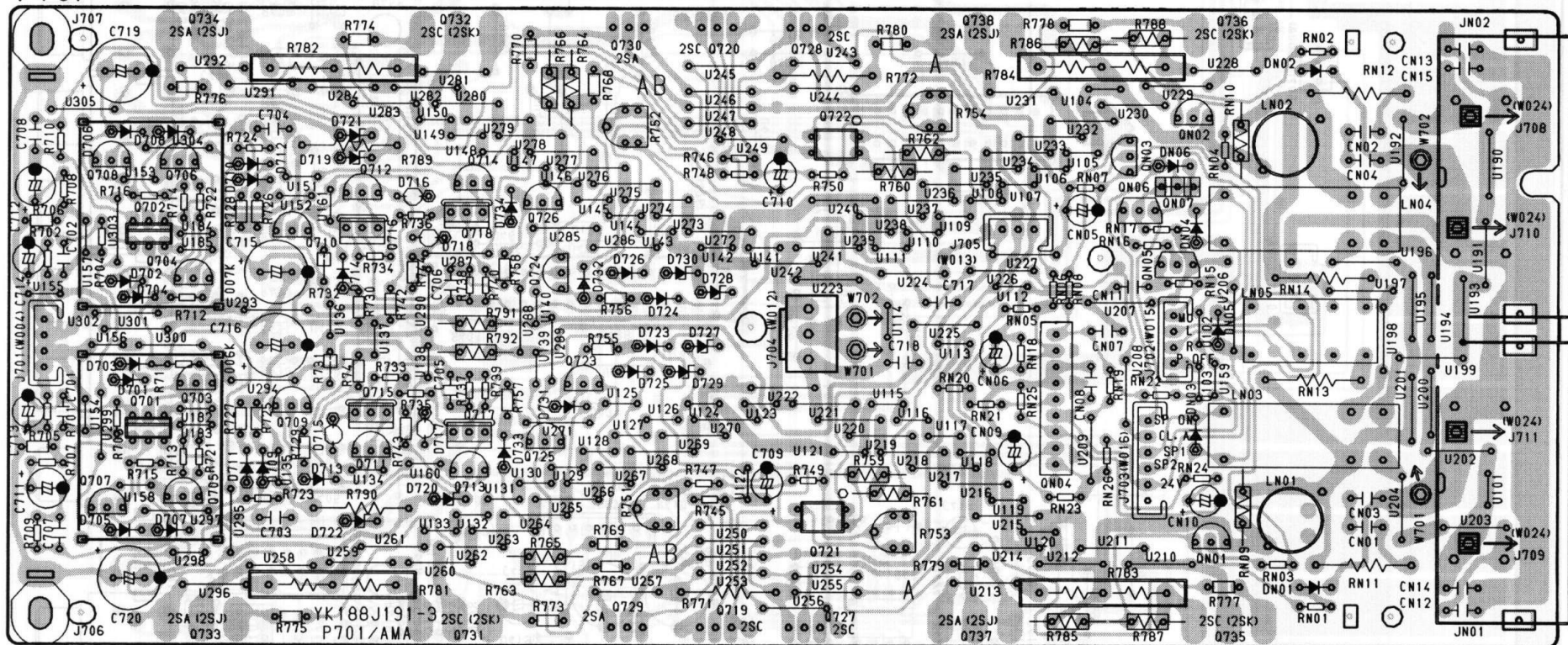


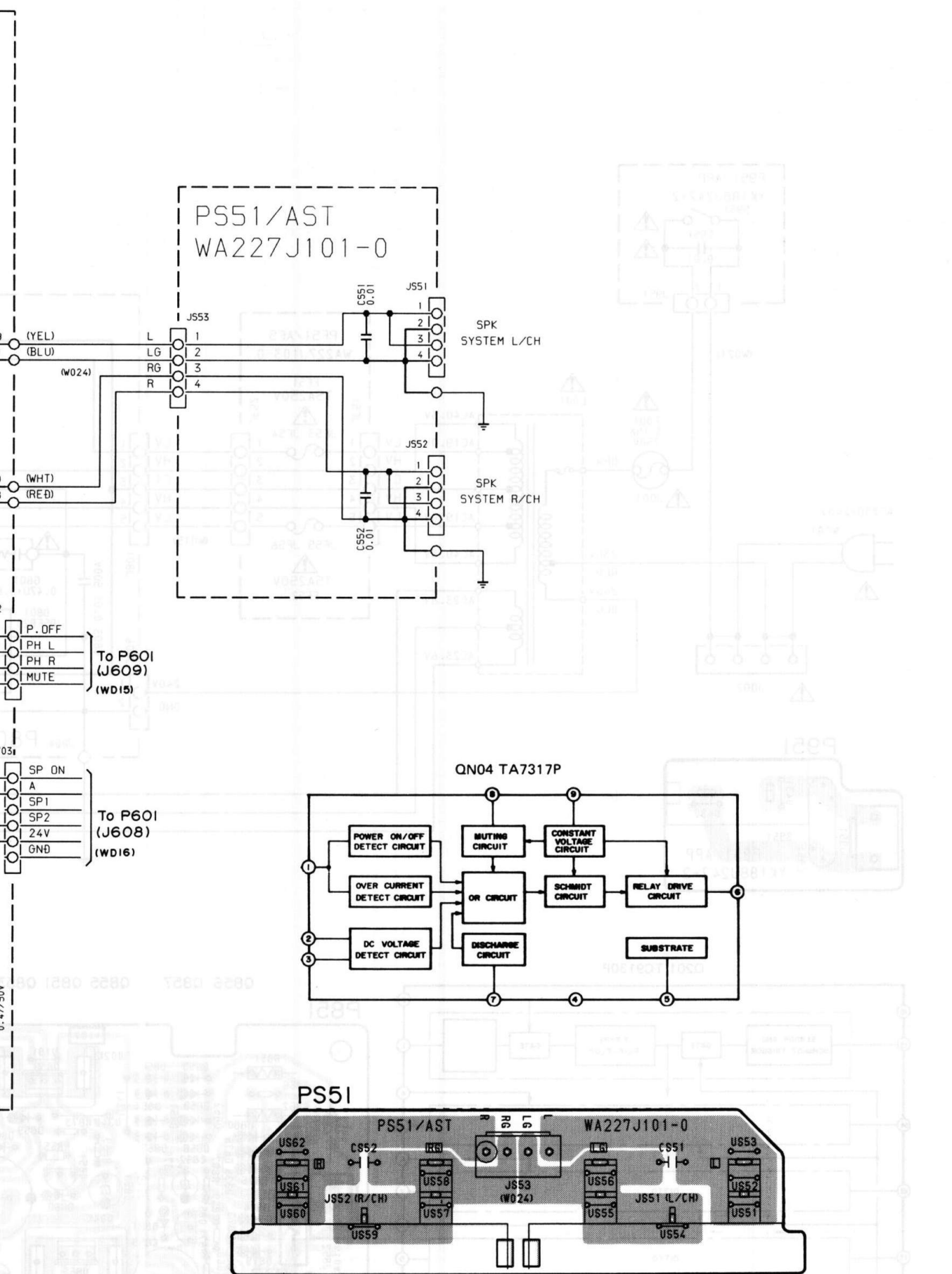
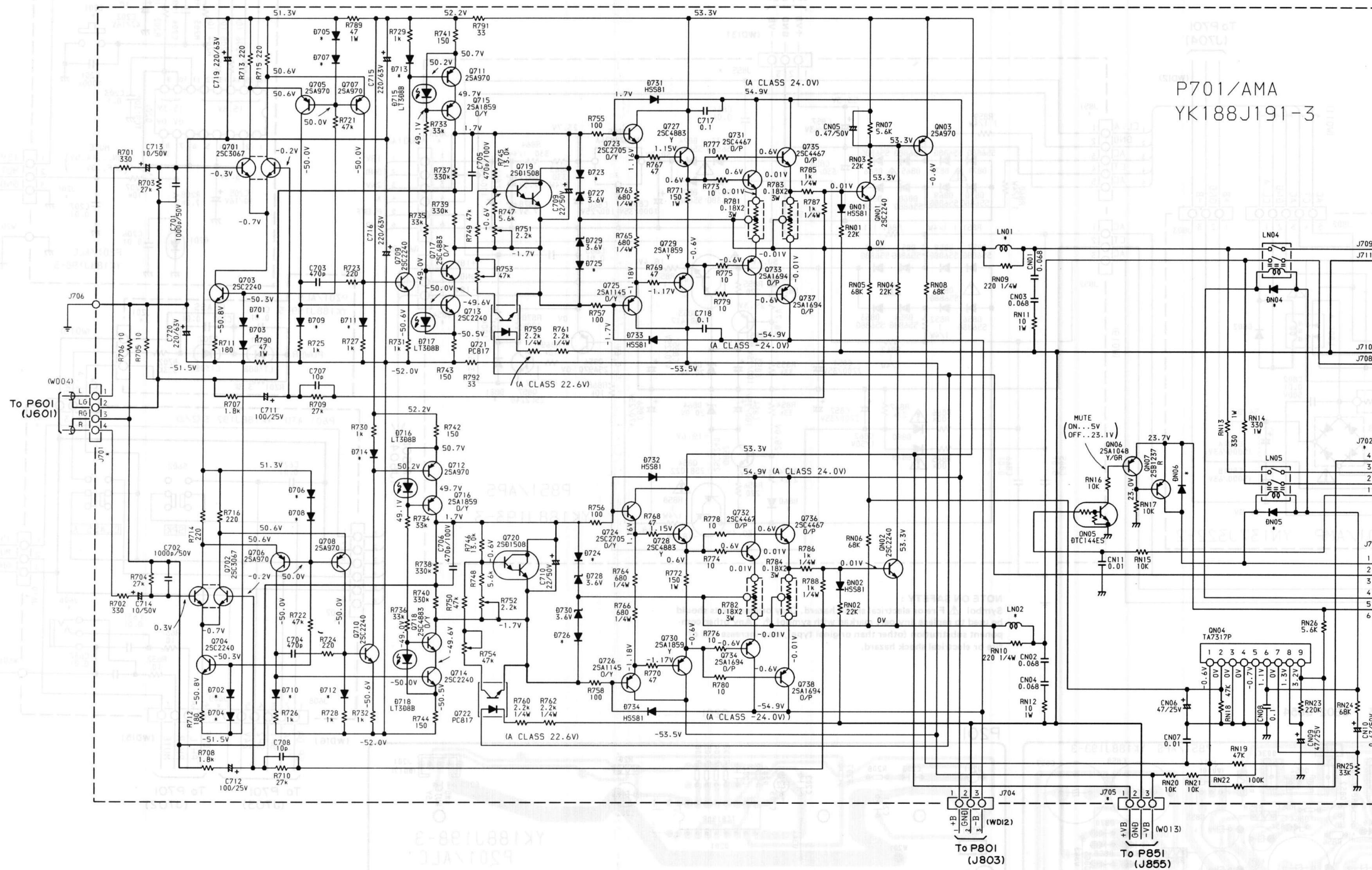
P401



Q734 Q732 Q730 Q720 Q728 Q722 Q738 QN03 QN02 Q736
 Q701 Q702 Q703~Q714 Q715~Q718 Q723~Q726 Q729 Q719 Q721 Q727 Q737 QN04 QN06 QN05 QN07
 Q733 Q731 Q735 QN01 Q735

P701





6. EXPLODED VIEW AND PARTS LIST

