



# Technical Manual

# FIVE-CHANNEL POWER AMPLIFIER RMB-1075

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### Specification

Continuous Power Output	(20-20 kHz < 0.03%, 8 ohms)	100 Watts/ch
Total Harmonic Distortion	(20-20 kHz, 8 ohms)	< 0.03%
Intermodulation Distortion	(60 Hz: 7 kHz, 4:1)	< 0.03%
Frequency Response	(± 0.5dB)	10Hz-80kHz
Damping Factor	(20-20K Hz, 8 ohms)	180
Speaker Impedance		4 ohms minimum
Signal to Noise Ratio,	(IHF A network)	115 dB
Input Impedance/Sensitivity		27 k Ohms/1.0 volt
Power Requirement		115 volts 60 Hz or 230 volts 50 Hz
Power Consumption		800 watts
Dimensions (W x H x D)		440 x 139 x 396mm 17 3/8" x 5 1/2" x 15 5/8"
Weight (net)		15.5 kg, 34.1 Lb.

**THE ROTEL CO., LTD**  
 SHINSEN-BLD. 4F 10-10 SHINSEN-CHO, SHIBUYA-KU,  
 TOKYO 150-0045, JAPAN

Serial. NO. Beginning
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# Parts List-1

SYMBOL	PARTS NO.	DESCRIPTION
	<b>X-1267-01,02 PCB ASSY</b>	
C101	041 50BGF4R7M	CAPACITOR ELEC.50V4.7UF
C102	044 TFKP2-2A681H	CAPACITOR FILM 100V680PF
C103	044 FSC160V221H	CAPACITOR STYROL 160V220PF
C104	041 25BGF100M	CAPACITOR ELEC.25V100UF
C105	041 50BGF10M	CAPACITOR ELEC.50V10UF
C106	044 FSC160V331H	CAPACITOR STYROL 160V330PF
C107.108	044 FSC160V221H	CAPACITOR STYROL 160V220PF
C109	043 TC50V050	CAPACITOR CERA.50V5PF
C111.112	041 UTES1J101	CAPACITOR ELEC.63V100UF
C113	041 UTES1H220-FB	CAPACITOR ELEC.50V22UF
C114	041 UTES1E101-FB	CAPACITOR ELEC.25V100UF
C115.116	044 50MSAN104J	CAPACITOR FILM 50V0.1UF
C117.118	041 UTES1H100-FB	CAPACITOR ELEC.50V10UF
C119	041 UTES1E101-FB	CAPACITOR ELEC.25V100UF
D101-104	034 T1N4148-86	DIODE
D105.106	034 T1N4003-TB	DIODE
D108	034 T1N4148-86	DIODE
D109	034 TRD24JST1	ZENER DIODE
D110	034 T1N4148-86	DIODE
D197	034 T1N4148-86	DIODE
IC101	031 NJM4558DD	IC
PJ1.PJ3	066 4TR-2166#5	2P PINJACK
Q101.102	033 TC2362-FG	TRANSISTOR(2SC2362K-FG)
Q103-105	033 TA1016-FG	TRANSISTOR(2SA1016K-FG)
Q106	033 TC2362-FG	TRANSISTOR(2SC2362K-FG)
Q107	033 A1209-ST	TRANSISTOR(2SA1209-ST)
Q108	033 C2911-ST	TRANSISTOR(2SC2911-ST)
Q110	033 TA1376A-LKU	TRANSISTOR(2SA1376L-LKU)
Q111	033 TC3478A-LKU	TRANSISTOR(2SC3478A-LKU)
Q118	033 TA1016-FG	TRANSISTOR(2SA1016K-FG)
Q119	032 TC536-FG	TRANSISTOR(2SC536K-FG)
Q120	033 TC2362-FG	TRANSISTOR(2SC2362K-FG)
R101	054 TMFR4001K	RESISTOR METAL 1% 1K
R102	054 TMFR4470R	RESISTOR METAL 1% 470R
R103	054 TMFR4033K	RESISTOR METAL 1% 33K
R104-107	054 TMFR401K5	RESISTOR METAL 1% 1.5K
R108	054 TMFR4560R	RESISTOR METAL 1% 560R
R109.110	054 TMFR4220R	RESISTOR METAL 1% 220R
R111	054 TMFR4047K	RESISTOR METAL 1% 47K
R112.113	054 TMFR4100R	RESISTOR METAL 1% 100R
R114	054 TMFR406K8	RESISTOR METAL 1% 6.8K
R115	054 TMFR403K9	RESISTOR METAL 1% 3.9K
R116	054 TMFR415K4	RESISTOR METAL 1% 15.4K
R117.118	054 TMFR4001K	RESISTOR METAL 1% 1K
R119	054 TMFR4047R	RESISTOR METAL 1% 47R
R120-213	054 NIR2-0.22JF	RESISTOR METAL 2W 0.22R
R125.126	054 TMFR4033R	RESISTOR METAL 1% 33R
R127	053 CR14-121J-A	RESISTOR CARBON 120R
R128	053 CR14-471J-A	RESISTOR CARBON 470R
R129.130	054 TMFR4001M	RESISTOR METAL 1% 1M
R131.132	054 TMFR4100K	RESISTOR METAL 1% 100K
R133	054 TMFR4470K	RESISTOR METAL 1% 470K
R134	053 CR14-224J-A	RESISTOR CARBON 220K
R135	053 CR14-471J-A	RESISTOR CARBON 470R
R136	053 CR14-681J-A	RESISTOR CARBON 680R

SYMBOL	PARTS NO.	DESCRIPTION
R137	053 CR14-822J-A	RESISTOR CARBON 8.2K
R138	054 TMFR4033K	RESISTOR METAL 1% 33K
R139	053 CR14-392J-A	RESISTOR CARBON 3.9K
R165	053 CR14-272J-A	RESISTOR CARBON 2.7K
RY101	063 V23106-24	RELAY (PROTECTION)
TH101	034 TTC503	THERMISTOR
VR101	051 SFR001-222	SEMI-FIXED RESISTOR 2.2K
	017 C-4401A02	HEAT SINKER
	019 TO-126	INSULATION SHEET
201-.401-.	501-. AS SAME AS 101-.	
	<b>X-1267-03 PCB ASSEMBLY</b>	
C110	044 KT18-2A104K	CAPACITOR FILM 100V0.1UF
C902-909	041 ALC20S1079DG	CAPACITOR ELEC.63V10000UF
C910.911	041 UTES1J221	CAPACITOR ELEC.63V220UF
C912.913	041 UTES1E471	CAPACITOR ELEC.25V470UF
D903-906	034 T1N4003-TB	DIODE
D907.908	034 TRD15JST1	ZENER DIODE
F101.102	036 5ST6.3	MINI FUSE 250VT500MA
L101	021 TRL-331	SPEAKER COIL
Q901	033 D600-EF	TRANSISTOR(2SD600K-EF)
Q902	033 B631-EF	TRANSISTOR(2SB631K-EF)
R124	054 2WS10JF	RESISTOR METAL 2W 10R
R901.902	054 2WS6.8KJF	RESISTOR METAL 2W 6.8K
R903.904	054 2WS820JF	RESISTOR METAL 2W 820R
R905.906	053 CR14-822J-A	RESISTOR CARBON 820R
SP1	067 C-4493A00	SPEAKER TERMINAL
SP2	067 4TR-3222#1	SPEAKER TERMINAL
SP3	067 C-4493A01	SPEAKER TERMINAL
	017 C-4401A01	HEAT SINKER
	019 TO-126	INSULATION SHEET
	069 C-3417A	FUSE CLIP
201-.301-.	401-.501-. AS SAME AS	101-.
	<b>X-1267-04 PCB ASSEMBLY</b>	
JK1	068 DBL25SBTK2NS	DB25 CONNECTOR
PJ2	066 4TR-2487#4	1P PINJACK
	<b>X-1267-05 PCB ASSEMBLY</b>	
C901	044 DE1307E472M	SPARK KILLER
SW1	061 C-4176A07	POWER SWITCH
	<b>E-1268 PCB ASSEMBLY</b>	
R339	053 CR14-822J-A	RESISTOR CARBON 8.2K
TH901.902	034 SCK2R512	SURGE CURRENT THERMISTOR
	017 C-4401A02	HEAT SINKER
	019 TO-126	INSULATION SHEET
301-. AS	SAME AS 101- (EXCEPT	R339)
	<b>X-1291-01 PCB ASSEMBLY</b>	
C101	041 UTES1E471	CAPACITOR ELEC.25V470UF
C102	044 DE1307E472M	SPARK KILLER
D101	034 W02M	BRIDGED DIODE
D102	034 T1N4148-86	DIODE
F101	036 5ST500	MINI FUSE 250VT500MA
Q101	032 TC3708-ST	TRANSISTOR
R101	054 1WS120JF	RESISTOR METAL 1W 120R
R102	053 CR14-152J-A	RESISTOR CARBON 1.5K
R103	053 CR14-333J-A	RESISTOR CARBON 33K

## Parts List-2

SYMBOL	PARTS NO.	DESCRIPTION
RY101	063 OZ-SH-112LM	RELAY (POWER)
T101	022 T-1075N01	SUB TRANSFORMER
	069 C-3417A	FUSE CLIP
	<b>X-1291-02 PCB ASSEMBLY</b>	
D103.104	034 T1N4148-86	DIODE
D105	034 TRD12ST1	ZENER DIODE
D106	034 T1N4148-86	DIODE
IC101	031 PC817B	PHOTO COUPLER
K103	068 C-4588A09	CONNECTOR WITH WIRE
R104	054 1WS1KJF	RESISTOR METAL 1W 1K
S101	064 C-4613A01	TOGGLE SWITCH
TJ101.102	065 YKB21-5103A	MINI JACK
	<b>HEAT SINKER ASSEMBLY</b>	
Q109	032 D1953	TRANSISTOR(2SD1953)
Q112	033 A1667-OY	DRIVER TRANSISTOR(2SA1667-OY)
Q113	033 C4381-OY	DRIVER TRANSISTOR(2SC4381-OY)
Q114	033 A1492-OPY	POWER TRANSISTOR(2SA1492-OPY)
Q115	033 C3856-OPY	POWER TRANSISTOR(2SC3856-OPY)
Q116	033 A1492-OPY	POWER TRANSISTOR(2SA1492-OPY)
Q117	033 C3856-OPY	POWER TRANSISTOR(2SC3856-OPY)
	011 TE3-01A01	HEAT SINKER PANEL
	017 TE3-07A00	HEAT SINKER BOARD
	019 TO-3P	INSULATION SHEET
209-.309-.	409-.509-.	AS SAME AS 109-.

SYMBOL	PARTS NO.	DESCRIPTION
	<b>OTHERS</b>	
	011 FP-529	FRONT PANEL ASSY
	012 RV4-09A00	PUSH KNOB 14F
	014 TE3-08A00	UPPER COVER
	015 RP-380	REAR CHASSIS
	019 4TSH-19#2	PLASTIC FOOT 50F
	022 TT-315-UR02	POWER TRANSFORMER
	034 BR254	POWER DIODE
	034 LTL1214A	LED 2F
	034 SEL1124R	LED 1X5
	069 C-4629A01	AC INLET
	072 C-4621A01	AC CORD SET for STD
	072 C-4622A01	AC CORD SET for AUSTRALIA
	072 C-4623A01	AC CORD SET for UK
	072 C-4624A01	AC CORD SET for CEE
	081 TE3-09A00	INSIDE CARTON
	081 Z-200	STYROL MOULDING

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

## Adjustment

Instruments : DC milli-voltmeter

Notes : Prior to Bias Adjustment, run about 5minutes with rated output(8ohms) and warm up Power Transistor and Heat Sink. Set input off.

Step	Coupling	Location	Adjust	Adjust for
1	TP 1	X-1267-01 PCB	VR101	DC milli-voltmeter reads 5mV
2	TP 2	X-1267-01 PCB	VR201	
3	TP 3	E-1268 PCB	VR301	
4	TP 4	X-1267-02 PCB	VR401	
5	TP 5	X-1267-02 PCB	VR501	


## Service Note

### Cautions during Inspection and Repair

1. Keep in mind the safety warnings

The safety instructions are shown as the labels or printings on the exterior, the inside chassis or the parts, etc. Refer to the instructions when proceeding with inspection or repair.

2. Use only the specified parts for replacement

The selected parts are used at critical area to reduce fire hazard or electrical shock. So when replacing these parts where designaged with  **marks or marks on the schematic diagram or the parts list**, ensure to use only the same parts.

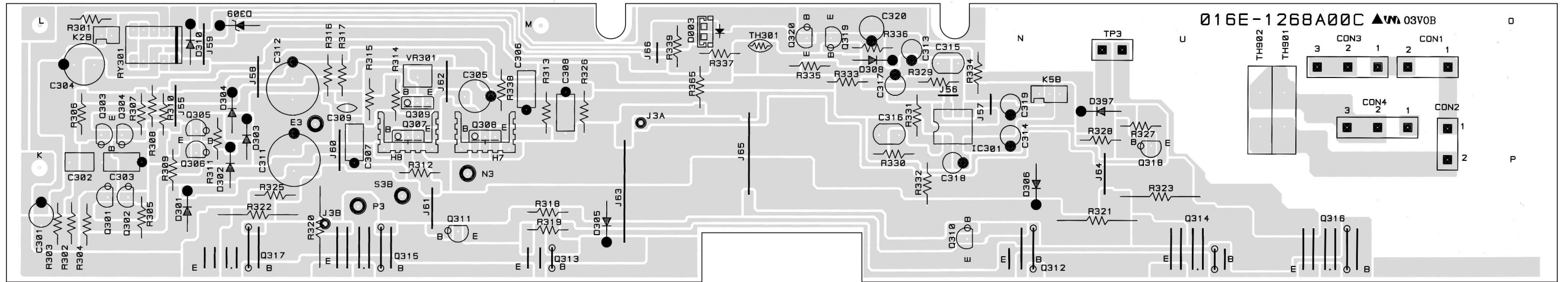
3. Ensure to dress back the AC (Mains) cord to the original position

If for some reason, the AC cord is moved or partially disassembled, ensure to re-route or assemble back to the original position. The AC cord area is protected and secured by tubing and insulation materials for the sake of safety, so that no loose wire will touch and cause fire hazard and electrical shock.

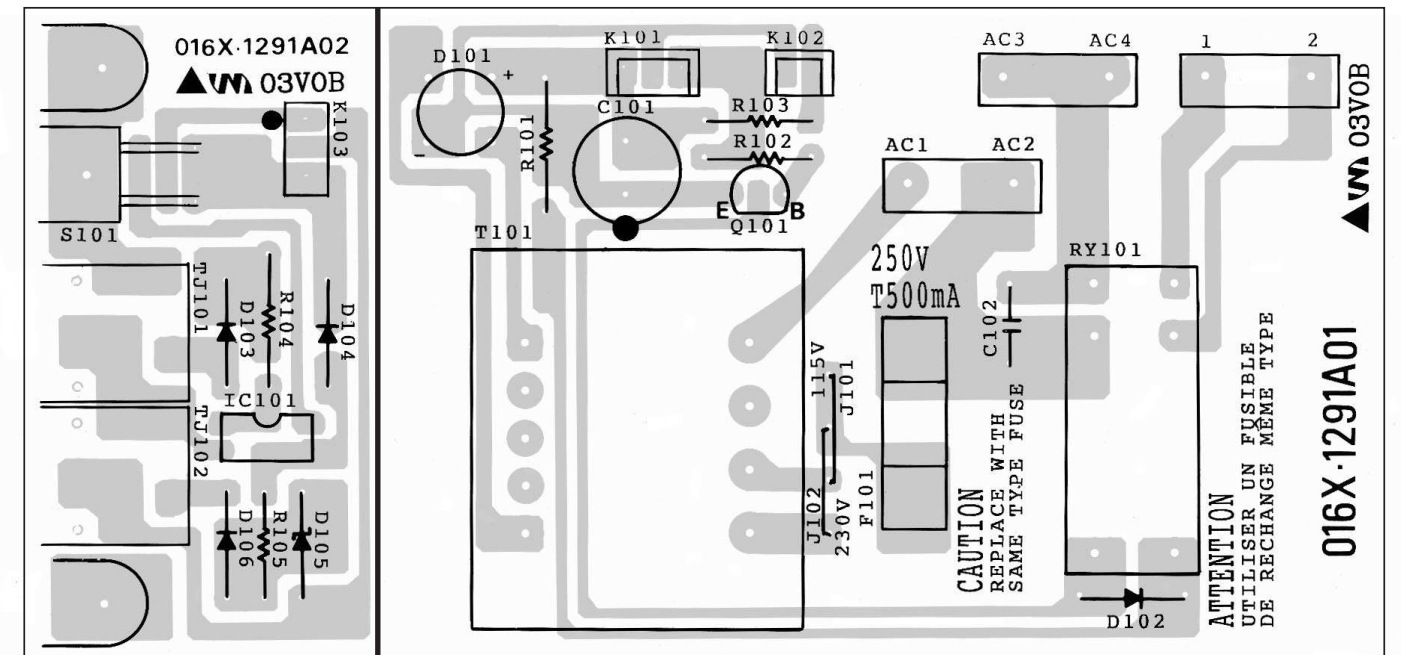
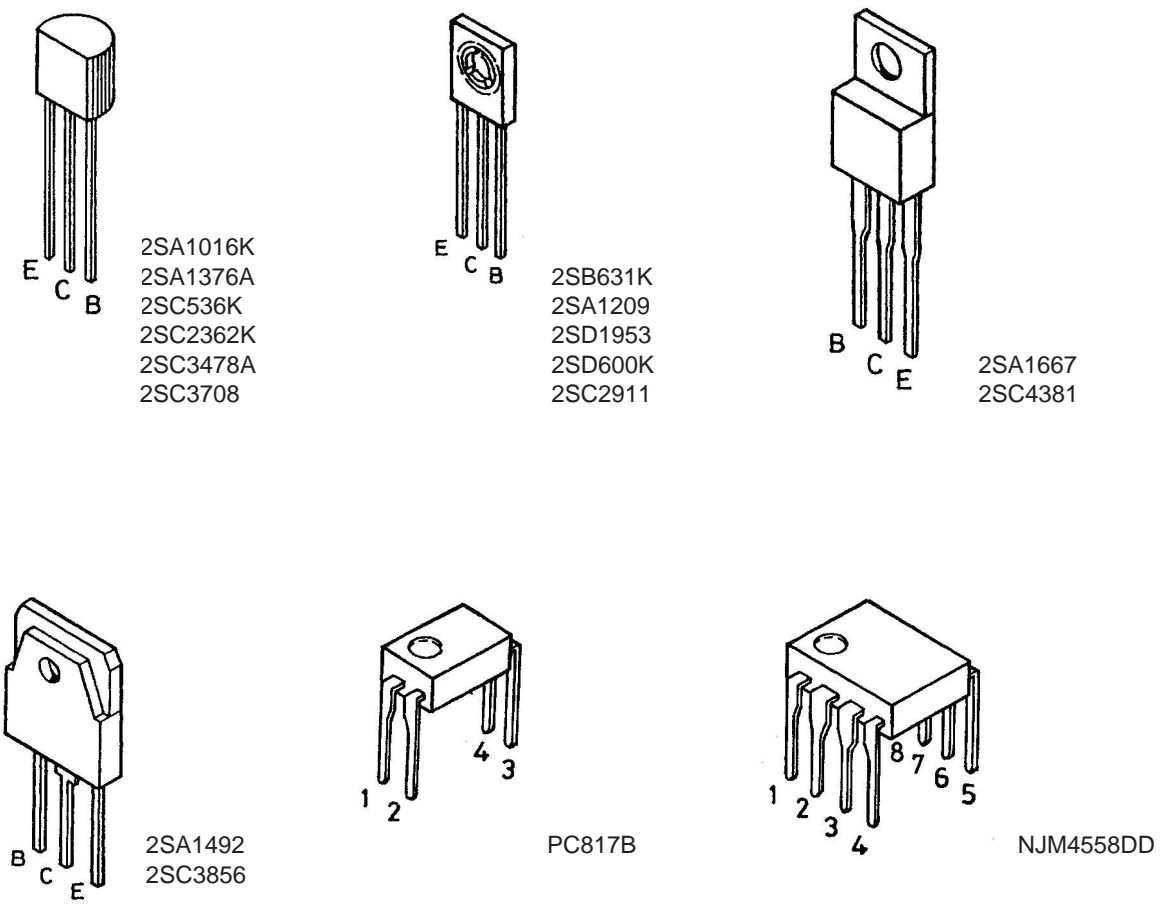
4. Check for safety aspects after inspection or repair

Ensure all parts, such as screws or wires, removed during inspection or repair are secured back to the original positions, and check visually for any anomaly. Also check for any electrical leakage or resistance to maintain the safety.

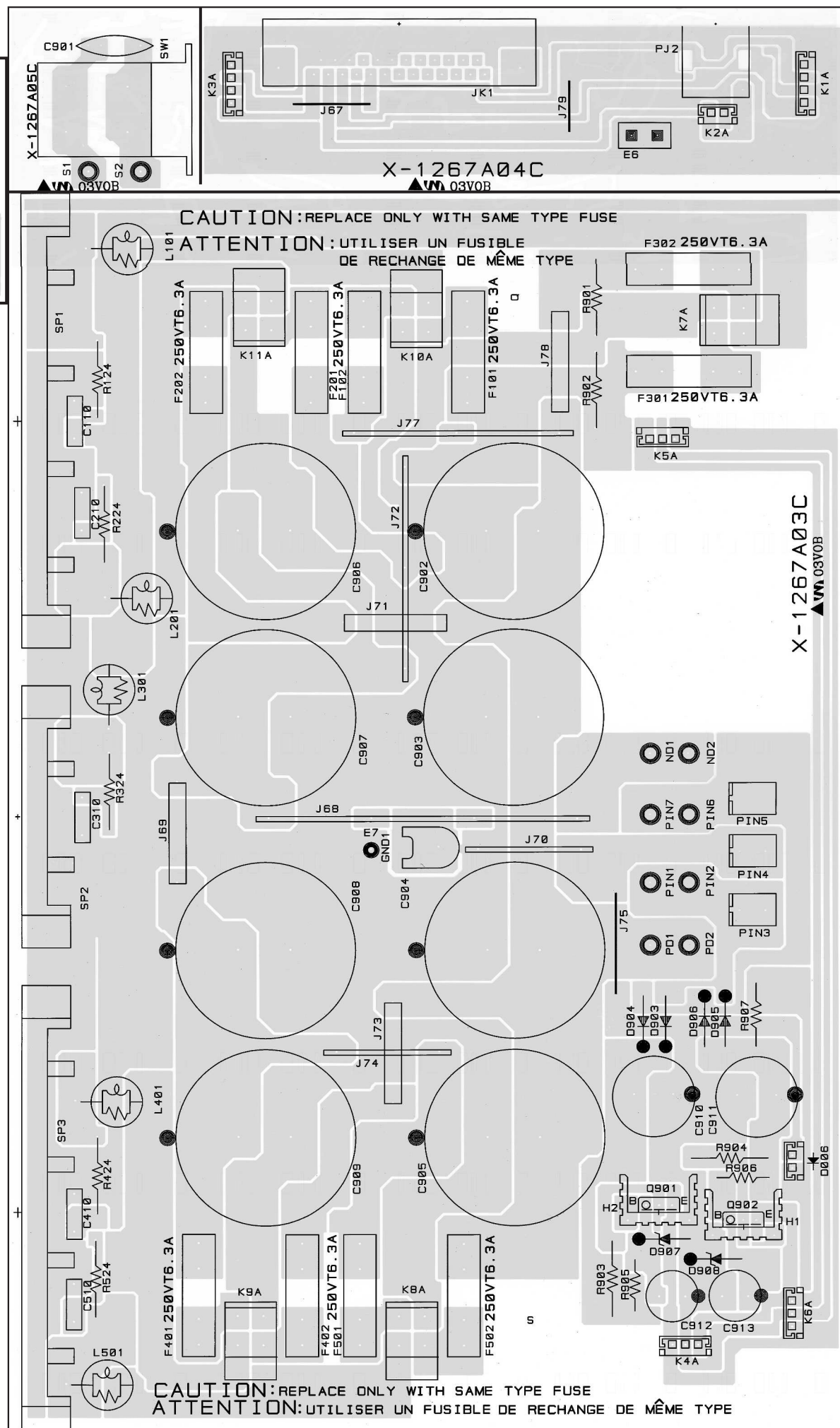
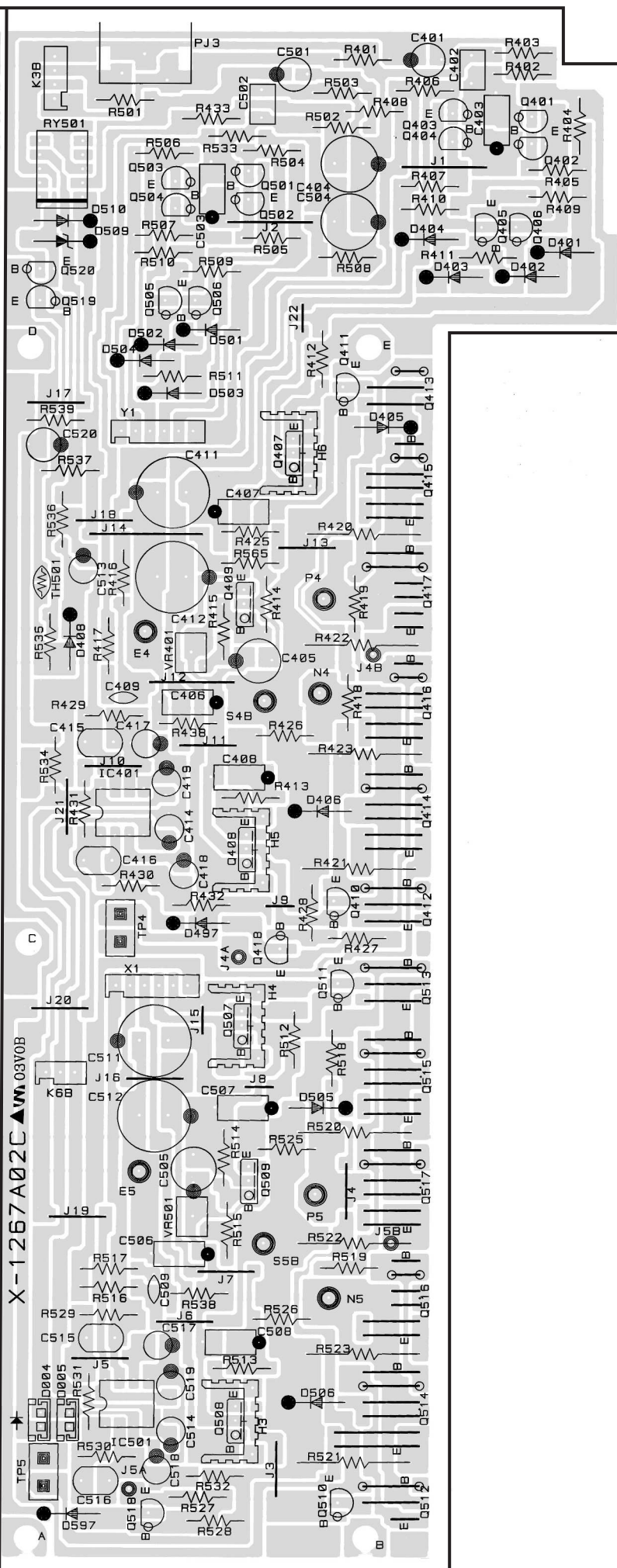
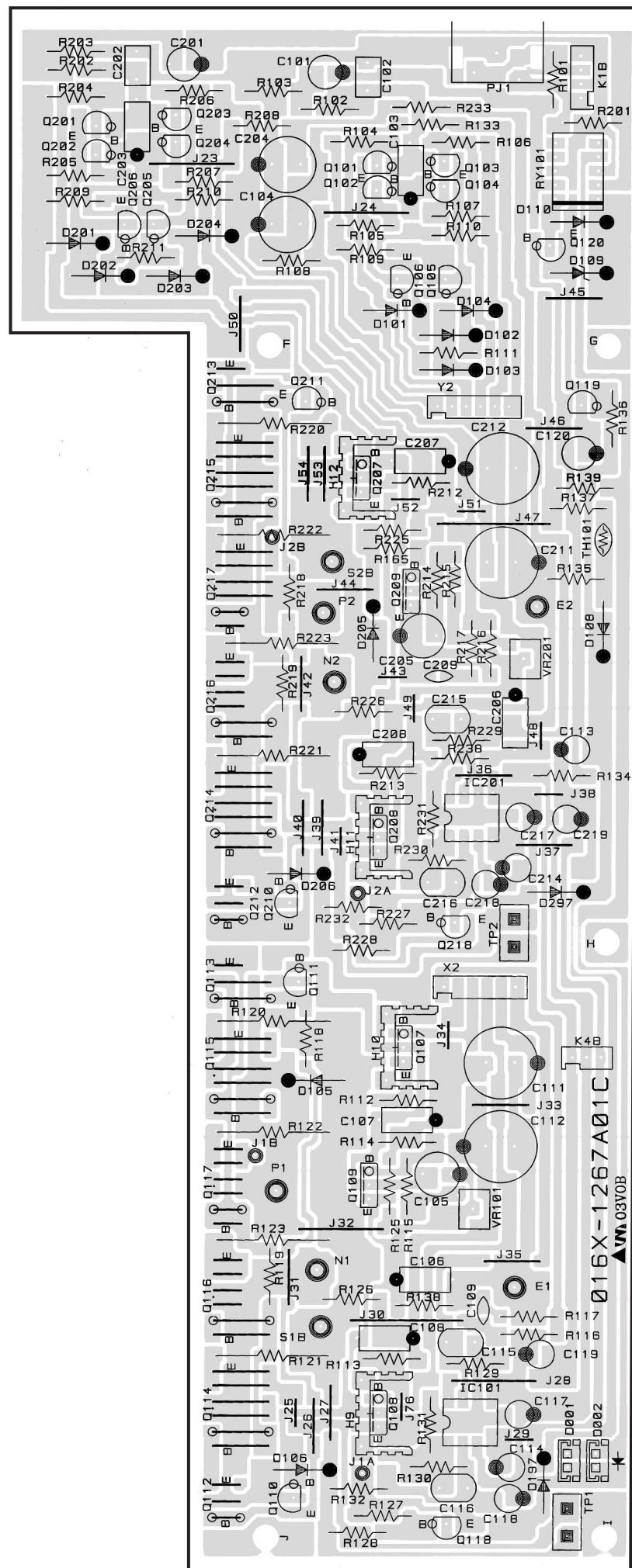
# PCB Assembly



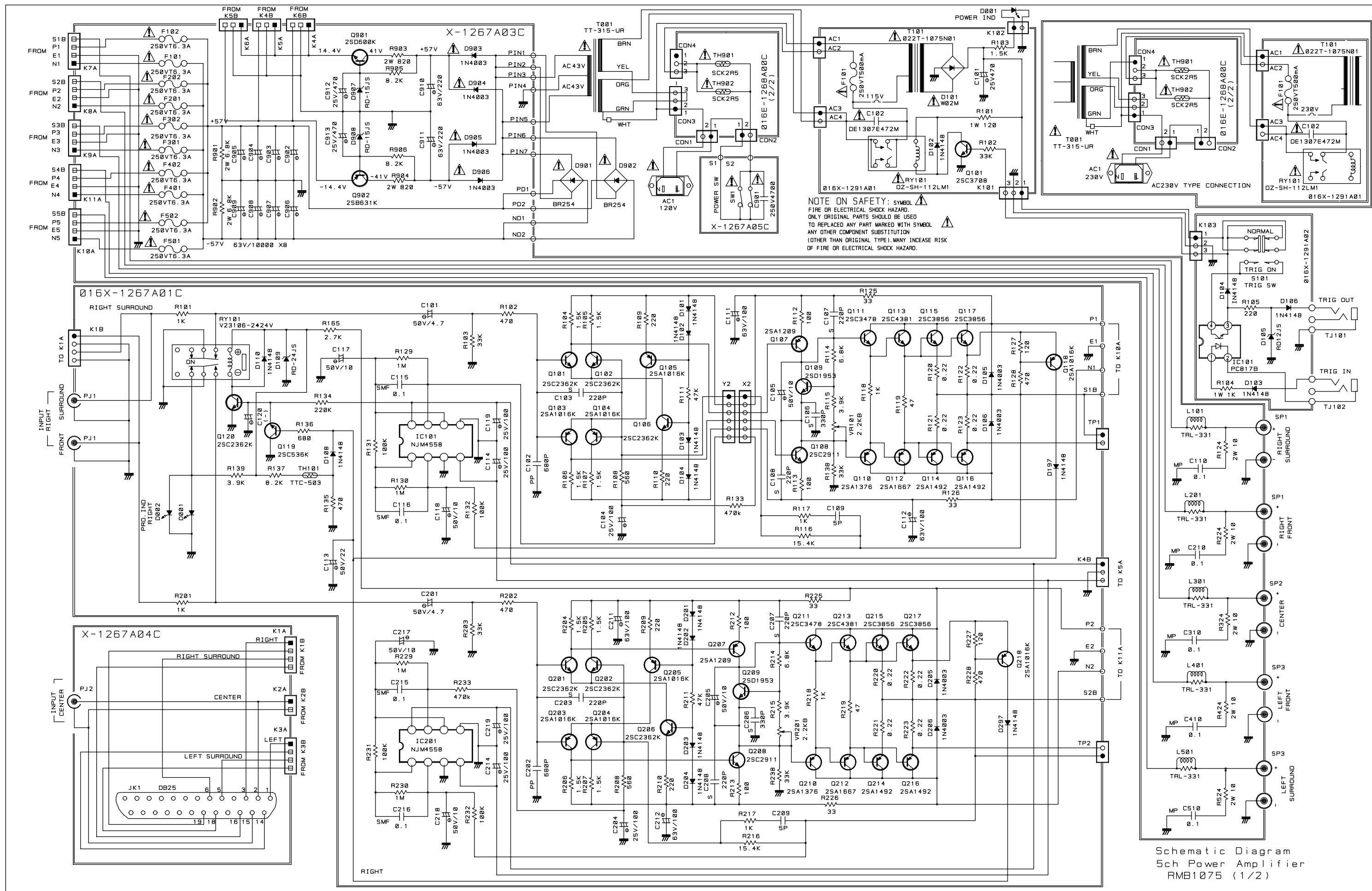
# Case Outlines







# Schematic Diagram



Schematic Diagram  
5ch Power Amplifier  
RMB1075 (1/2)

