



Technical Manual

SIX CHANNEL POWER AMPLIFIER RMB-1066

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Specification

Continuous Power Output Stereo Mode (20-20 kHz, <0.03%THD)	60 watts/ch into 8 ohms
Continuous Power Output Bridged Mono Mode (20-20 kHz, < 0.1% THD)	150 watts/ch into 8 ohms
Total Harmonic Distortion (20Hz-20kHz, 8 ohms)	<0.03%
Intermodulation Distortion (60 Hz : 7 kHz, 4:1)	<0.03%
Frequency Response (± 1 dB)	15 Hz-100 kHz
Damping Factor (20-20,000 Hz, 8 ohms)	150
Speaker Impedance (combined load)	Stereo mode : 4 ohms minimum Bridged Mono mode : 8 ohms minimum
Signal to Noise Ratio (IHF A network)	116 dB
Input Impedance	22 k ohms
Input Sensitivity	1.5 volt
Auto Turn On Threshold Level (if activated)	10 mV input signal
Auto Turn Off Delay Time (if activated)	5 minutes with no signal
Power Requirements	USA : 115 volts, 60 Hz Europe : 230 volts, 50Hz
Power Consumption	700 Watts
Dimensions (W x H x D)	430 x 121 x 435 mm 1615/16 x 43/4 x 171/8 in
Weight	13.5kg, 29.75 lb

THE ROTEL CO., LTD

SHINSEN-BLD. 4F 10-10 SHINSEN-CHO, SHIBUYA-KU,
TOKYO 150-0045, JAPAN

Serial. NO. Beginning

Parts List-1

SYMBOL	PARTS NO.	DESCRIPTION
X-1280 PCB ASSEMBLY		
C501.502	041 UTES1H100-FB	CAPACITOR ELEC.50V10UF
C503.504	044 S50V330PJ	CAPACITOR STYROL 50V330PF
C505.506	044 S50V220PJ	CAPACITOR STYROL 50V220PF
C507.508	041 UTES1E101-FB	CAPACITOR ELEC.25V100UF
C511.512	041 UTES1H010-FB	CAPACITOR ELEC.50V1UF
C513.514	044 S50V390PJ	CAPACITOR STYROL 50V390PF
C515-518	044 S50V150PJ	CAPACITOR STYROL 50V150PF
C519.520	041 UTES1H100-FB	CAPACITOR ELEC.50V10UF
C551	041 UTES1H100-FB	CAPACITOR ELEC.50V10UF
D501-504	034 T1N4148-86	DIODE
D551.552	034 T1N4148-86	DIODE
R501.502	054 TMF1001	RESISTOR METAL 1K
R503.504	054 TMF2702	RESISTOR METAL 27K
R505.506	054 TMF3300	RESISTOR METAL 330R
R507.508	054 TMF1501	RESISTOR METAL 1.5K
R509.510	054 TMF4700	RESISTOR METAL 470R
R511.512	054 TMF6801	RESISTOR METAL 6.8K
R513.514	054 TMF8201	RESISTOR METAL 8.2K
R515.516	054 TMF4300	RESISTOR METAL 430R
R517.518	054 TMF47R0	RESISTOR METAL 47R
R519.520	054 TMF3302	RESISTOR METAL 33K
R521.522	054 TMF1002	RESISTOR METAL 10K
R523.524	054 TMF1000	RESISTOR METAL 100R
R525.526	054 TMF2201	RESISTOR METAL 2.2K
R527.528	054 TMF6801	RESISTOR METAL 6.8K
R529-532	054 TMF2200	RESISTOR METAL 220R
R533-536	054 NIR2-0.22JF	RESISTOR METAL 2W 0.22R
R537.538	051 SFR001-222	SEMI-FIXED RESISTOR 2.2K
R539	054 TMF8201	RESISTOR METAL 8.2K
R551.552	054 TMF2202	RESISTOR METAL 22K
R553.554	054 TMF1501	RESISTOR METAL 1.5K
R555.556	054 TMF1201	RESISTOR METAL 1.2K
R557.558	054 TMF1502	RESISTOR METAL 15K
R559	054 TMF4702	RESISTOR METAL 47K
R560	054 TMF1003	RESISTOR METAL 100K
R561	054 TMF4701	RESISTOR METAL 4.7K
R562	034 TTC-503	THERMISTOR
R563	054 TMF8200	RESISTOR METAL 820R
R564	054 TMF3002	RESISTOR METAL 30K
R565	054 TMF1501	RESISTOR METAL 1.5K
T501-506	032 TA1016-FG	TRANSISTOR(2SA1016K-FG)
T507.508	032 TC1941-KL	TRANSISTOR(2SC1941-KL)
T509.510	032 TA1016-FG	TRANSISTOR(2SA1016K-FG)
T511-514	033 B631-EF	TRANSISTOR(2SB631K-EF)
T515.516	033 D600-EF	TRANSISTOR(2SD600K-EF)
T551.552	032 TC536-FG	TRANSISTOR(2SC536K-FG)
T553.554	032 TA608-FG	TRANSISTOR(2SA608K-FG)
601-.701-	AS SAME AS 501-.	
X-1282-01 PCB ASSEMBLY		
C801.802	044 50MSAN104J	CAPACITOR FILM 50V0.1UF
C811	041 UTES1E101-FB	CAPACITOR ELEC.25V100UF
C812	041 UTES1E470-FB	CAPACITOR ELEC.25V47UF
C813	041 UTES1H4R7-FB	CAPACITOR ELEC.50V4.7UF
D811	034 T1N4148-86	DIODE

SYMBOL	PARTS NO.	DESCRIPTION
D812	034 TRD5.6JST1	ZENER DIODE
K811	067 C-4493A00	SPEAKER TERMINAL
L801.802	021 TRL-331	SPEAKER COIL
R801.802	054 2WS10JF	RESISTOR METAL 2W 10R
R811	054 TMF1003	RESISTOR METAL 100K
R813	054 TMF5602	RESISTOR METAL 56K
R815	054 TMF1502	RESISTOR METAL 15K
R816.817	054 TMF1203	RESISTOR METAL 120K
R818	054 2WS1.2KJF	RESISTOR METAL 2W 1.2K
R819	053 CR14-104J-A	RESISTOR CARBON 100K
R820	053 CR14-474J-A	RESISTOR CARBON 470K
R821	054 TMF1502	RESISTOR METAL 15K
S811	063 DH2TU-24	RELAY(SPEAKER)
T811	032 TC536-FG	TRANSISTOR(2SC536K-FG)
U811	031 MPC1237HA	IC(PROTECTION)
831-.861-	AS SAME AS 801-.	
X-1282-02 PCB ASSEMBLY		
C901-904	043 TC500V103	CAPACITOR CERA.500V0.01UF
C905.906	041 50USP682 ※	CAPACITOR ELEC.50V6800UF
C931.932	043 TC500V103	CAPACITOR CERA.500V0.01UF
C933	041 TUTES1H101-TF	CAPACITOR ELEC.50V100UF
D901	034 RS403L ※	BRIDGED DIODE
D902.903	034 T1N4003-TB	DIODE
D931.932	034 T1N4003-TB	DIODE
F901.902	036 5ST6.3 ※	MINI FUSE 250VT6.3A
R901	054 TMF3R30	RESISTOR METAL 3.3R
R902	054 TMF1802	RESISTOR METAL 18K
R931	054 TMF47R0	RESISTOR METAL 47R
	069 C-3417A	FUSE CLIP
911-.921-	AS SAME AS 901-.	
X-1307-01 PCB ASSEMBLY		
C401	041 TUTES1H101-TF	CAPACITOR ELEC.50V100UF
C407-412	044 50MSAN104J	CAPACITOR FILM 50V0.1UF
C421	042 TP50V183J	CAPACITOR MYLAR 50V0.018UF
C422	041 UTES1H100-FB	CAPACITOR ELEC.50V10UF
C423	044 50MSAN104J	CAPACITOR FILM 50V0.1UF
C424	041 UTES1E101-FB	CAPACITOR ELEC.25V100UF
D421-423	034 T1N4148-86	DIODE
K401-404	066 4TR-2709#3	2P PINJACK
R401-406	054 TMF1001	RESISTOR METAL 1K
R407-412	054 TMF1003	RESISTOR METAL 100K
R415	054 TMF1502	RESISTOR METAL 15K
R418.419	054 TMF1502	RESISTOR METAL 15K
R421	054 TMF1001	RESISTOR METAL 1K
R422	054 TMF2202	RESISTOR METAL 22K
R423	054 TMF2203	RESISTOR METAL 220K
R424	054 TMF1203	RESISTOR METAL 120K
R425	054 TMF2202	RESISTOR METAL 22K
R426	054 TMF1002	RESISTOR METAL 10K
R427	054 TMF1003	RESISTOR METAL 100K
R428	054 TMF1800	RESISTOR METAL 180R
R429	054 TMF4702	RESISTOR METAL 47K
R430	054 TMF4703	RESISTOR METAL 470K
S401	064 4TR-2294	SLIDE SWITCH(INPUT A)
S402.403	064 C-4606A00	SLIDE SWITCH(INPUT B.C)

Parts List-2

SYMBOL	PARTS NO.	DESCRIPTION
S404	064 C-4660A00	SLIDE SWITCH(SIGNAL SENS.)
T421.422	032 TC536-FG	TRANSISTOR(2SC536K-FG)
T423	032 TA608-FG	TRANSISTOR(2SA608K-FG)
U421	031 PC817B	PHOTO COUPLER
X-1307-02 PCB ASSEMBLY		
C951-954	043 TC500V103	CAPACITOR CERA.500V0.01UF
C955	041 UTES1H471	CAPACITOR ELEC.50V470UF
C956	041 UTES1E101-FB	CAPACITOR ELEC.25V100UF
C957	041 UTES1E221-FB	CAPACITOR ELEC.25V220UF
C958	042 TP50V103J	CAPACITOR MYLAR 50V0.01UF
C991.992	044 DE1307E472M ※	SPARK KILLER
D951-954	034 T1N4003-TB	DIODE
D955	034 TRD15JST1	ZENER DIODE
D956	034 T1N4148-86	DIODE
F991	036 5ST250 ※	MINI FUSE 250VT250mA
L951	022 T-1070N01 ※	SUB TRANSFORMER
R951	054 TMF3901	RESISTOR METAL 3.9K
R952	054 1WS1KJF	RESISTOR METAL 1W 1K
R953	054 TMF8203	RESISTOR METAL 820K
R954	054 TMF4702	RESISTOR METAL 47K
R955	054 TMF1004	RESISTOR METAL 1M
R956.957	054 TMF1003	RESISTOR METAL 100K
R958	054 TMF4702	RESISTOR METAL 47K
R959	054 2WS470JF	RESISTOR METAL 2W 470R
R960	054 TMF2202	RESISTOR METAL 22K
S992	063 DH1U-24 ※	RELAY(POWER)
T951-953	032 TC536-FG	TRANSISTOR(2SC536K-FG)
U951	031 NJM555D	IC(TIMER)
	069 C-3417A	FUSE CLIP
X-1307-03 PCB ASSEMBLY		
R451-453	051 C-4170A34	VARIABLE RESISTOR 50K BX2
X-1307-04 PCB ASSEMBLY		
D481-483	034 LTL4262N	LED
D486	034 LTL4262N	LED
D489	034 LTL4262N	LED
D492	034 LTL4262N	LED
	019 4TR-3213	LED HOLDER

SYMBOL	PARTS NO.	DESCRIPTION
X-1307-05 PCB ASSEMBLY		
K431	065 YKB21-5103A	MINI JACK
K433	065 YKB21-5103A	MINI JACK
R431	053 CR14-223J-A	RESISTOR CARBON 22K
R432	053 CR14-104J-A	RESISTOR CARBON 100K
R433	053 CR14-471J-A	RESISTOR CARBON 470R
T431	032 TA608-FG	TRANSISTOR(2SA608K-FG)
HEAT SINKER ASSEMBLY		
	017 SQ4-16A00	HEAT SINKER BOARD
	019 TO-220	INSULATION SHEET(S)
	019 TO-3PL	INSULATION SHEET(L)
	032 D600-EF	TRANSISTOR(2SD600K-EF)
	033 A1943-RO	POWER TRANSISTOR(2SA1943-RO)
	033 C5200-RO	POWER TRANSISTOR(2SC5200-RO)
OTHERS		
	011 FP-541	FRONT PANEL ASSY
	011 TS3-01A00	H/S PANEL ASSY
	012 RV4-09A00	PUSH BUTTON 14F
	014 TS3-11A00	UPPER COVER
	015 RP-388	REAR CHASSIS
	019 4TR-2823#2	PLASTIC FOOT 24F
	019 4TSH-19#2	PLASTIC FOOT 50F
	022 T-1076N01 ※	POWER TRANSFORMER
	061 C-4176A02 ※	POWER SWITCH
	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 U.K
	072 C-4624A01 ※	AC CORD SET for CEE
	081 TS3-12A00	INSIDE CARTON
	081 Z-205	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-meter

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

Step	Coupling	Location	Adjust	Adjust for
1	K31	X-1280-01 PCB	R537	DC milli-voltmeter Reads 4mV
2	K32	X-1280-01 PCB	R538	
3	K33	X-1280-02 PCB	R637	
4	K34	X-1280-02 PCB	R638	
5	K35	X-1280-03 PCB	R737	
6	K36	X-1280-03 PCB	R738	

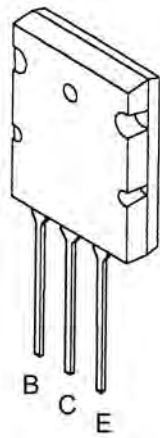
Service Note

Cautions during Inspection and Repair

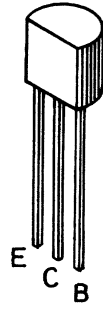
1. Keep in mind the safety warnings
The safety instructions are shown as the labels or printings on the exterior, the inside chassis or the parts, etc. Refer to the instructions when proceeding with inspection or repair.
2. Use only the specified parts for replacement
The selected parts are used at critical area to reduce fire hazard or electrical shock. So when replacing these parts where designated 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.

Case Outline

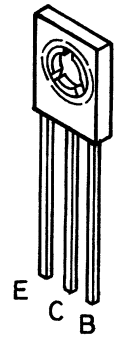
PCB Assembly-1



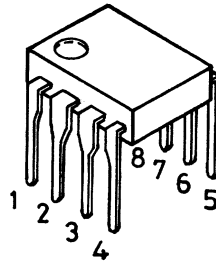
2SA1943
2SC5200



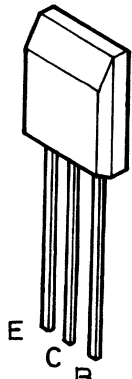
2SC536K
2SA608K
2SA1016K



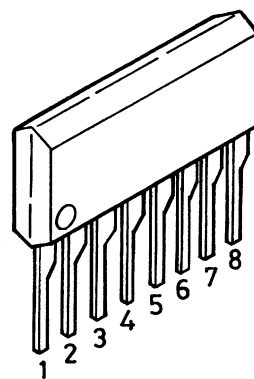
2SB631K
2SD600K



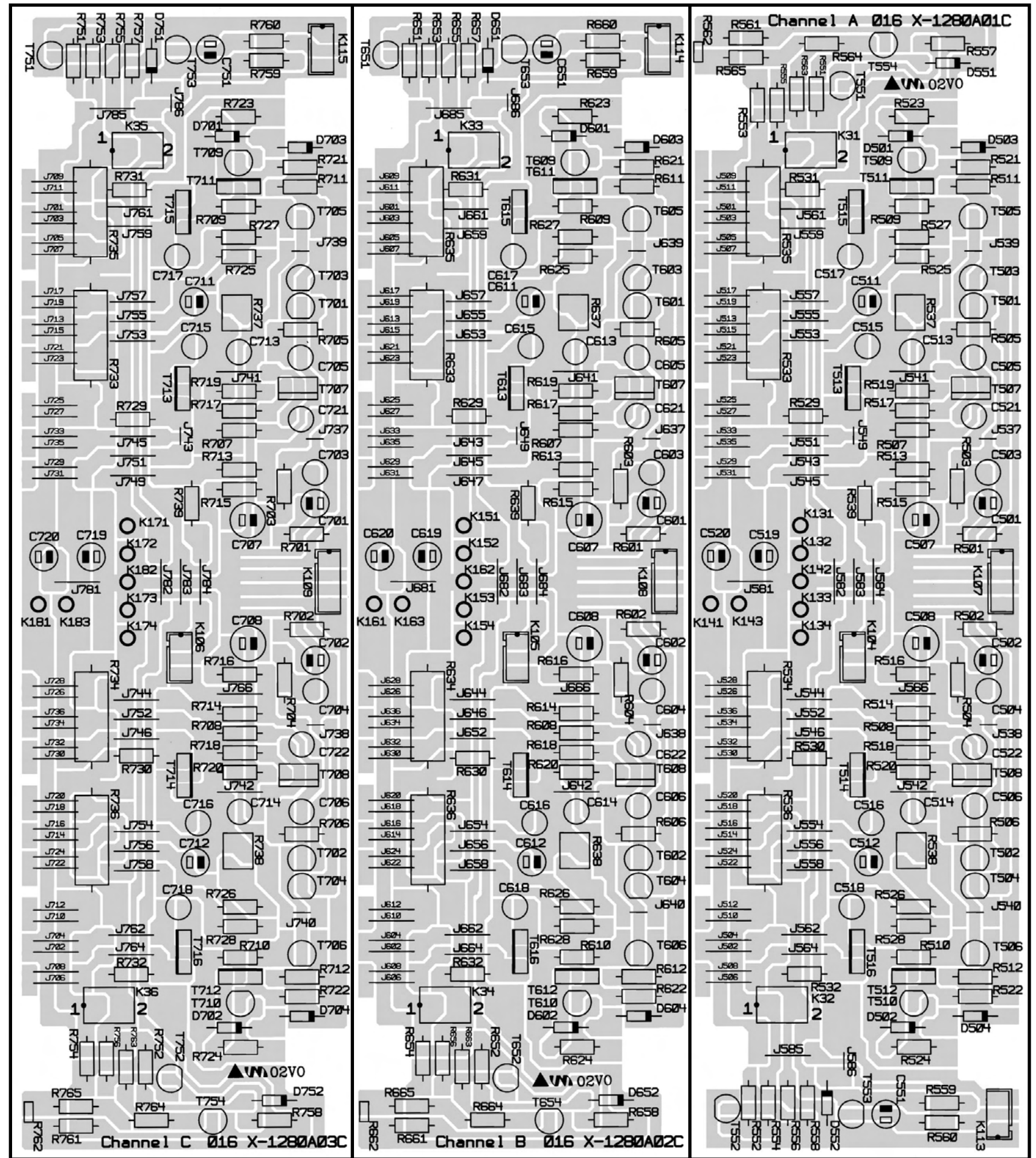
NJM555D

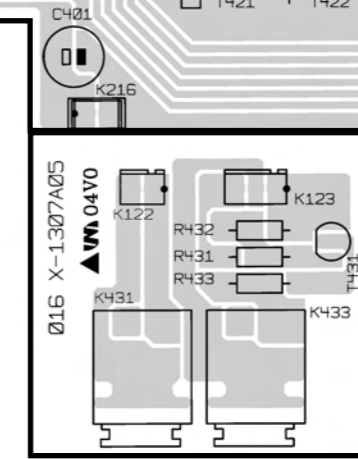
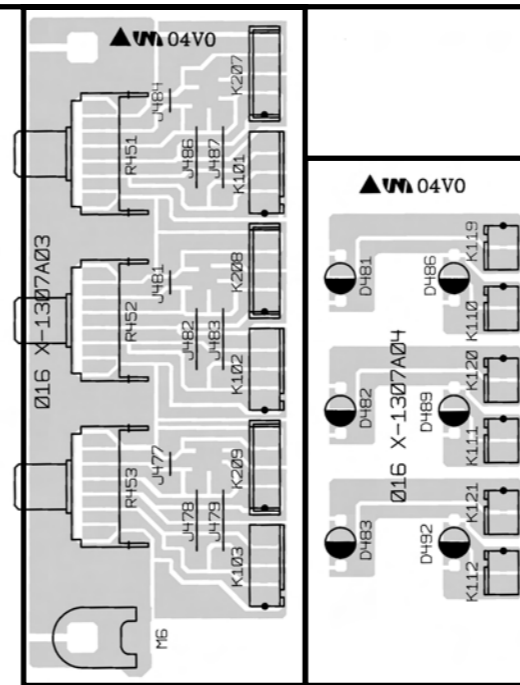
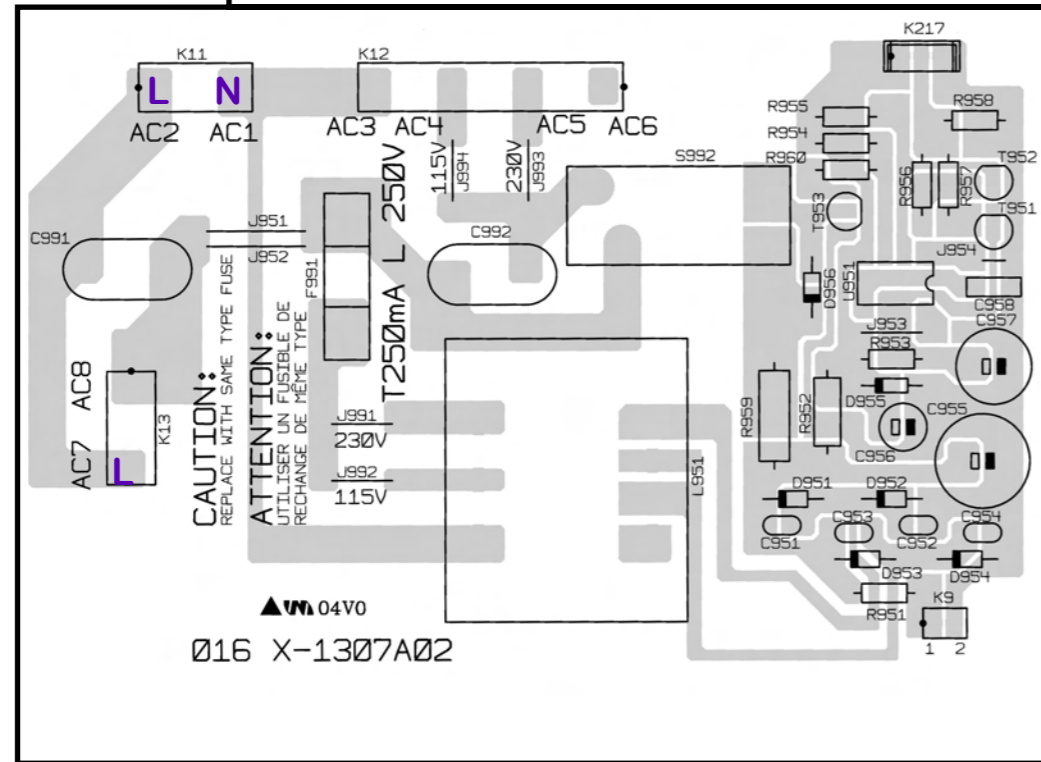
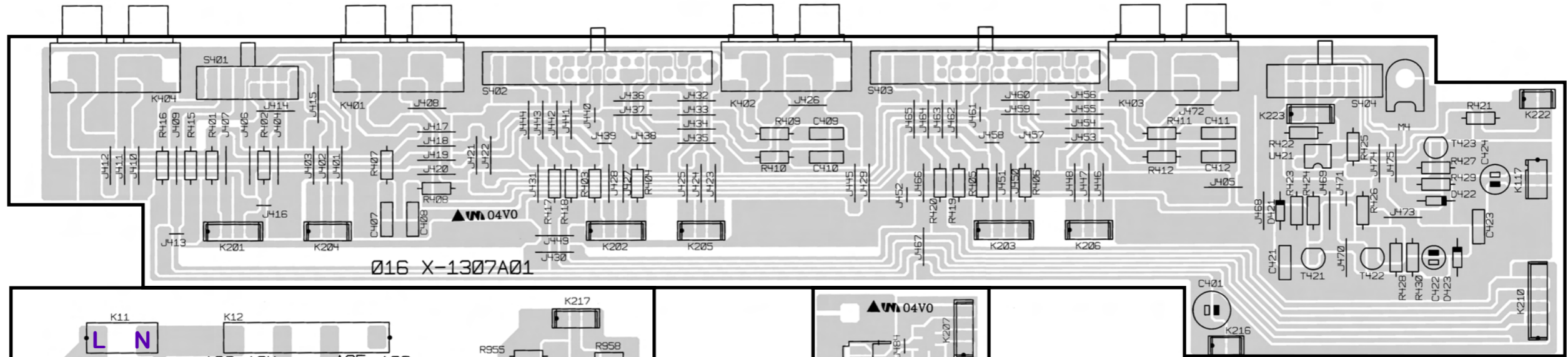


2SC1941

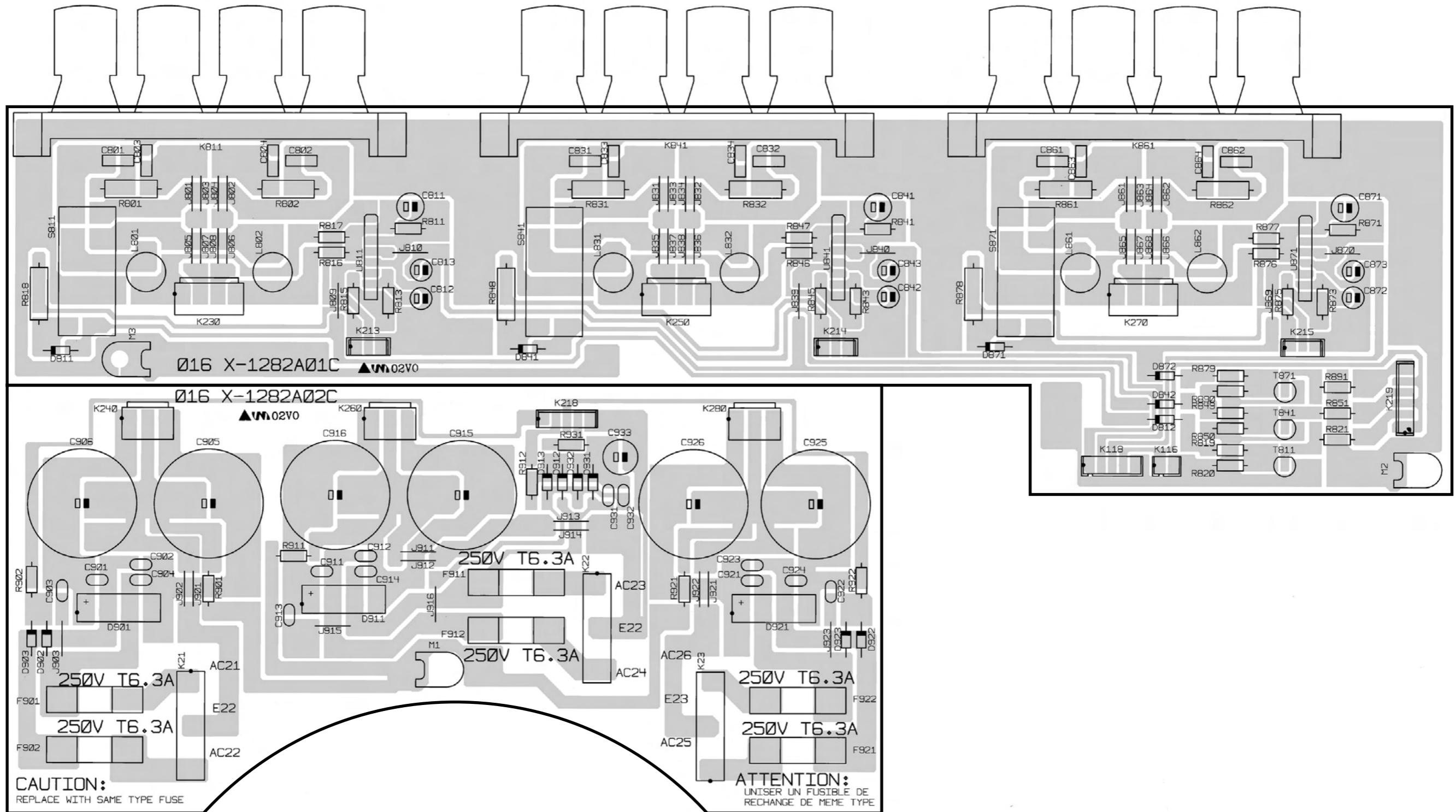


MPC1237HA





PCB Assembly-3



Schematic Diagram

