



Technical Manual

FIVE-CHANNEL POWER AMPLIFIER **RMB-1075**v02

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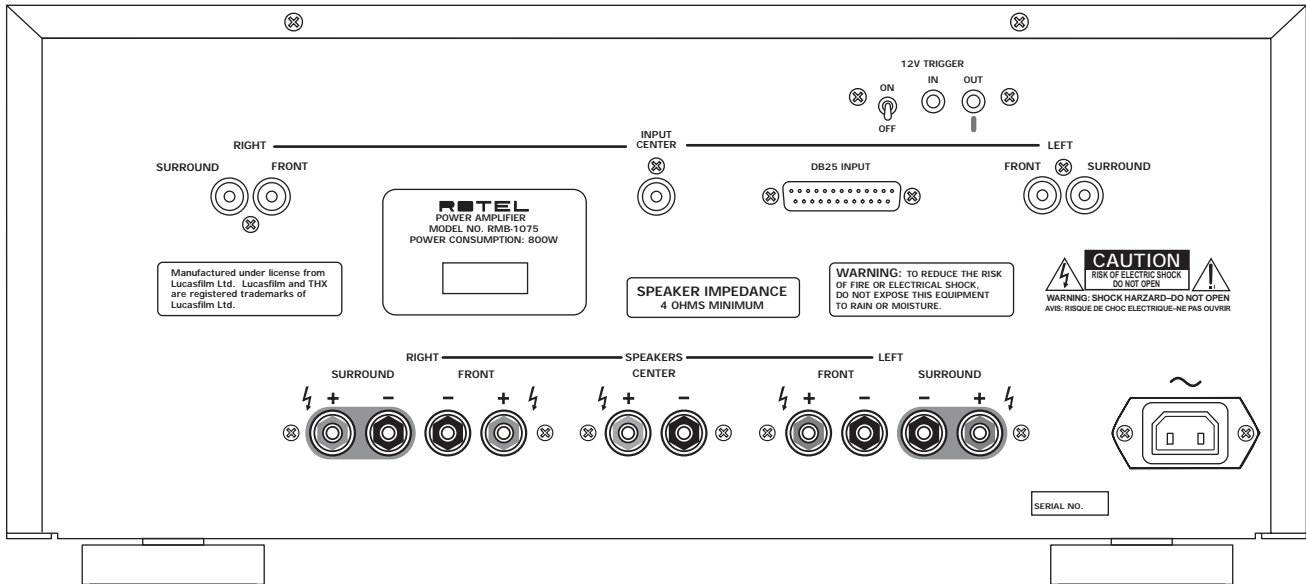
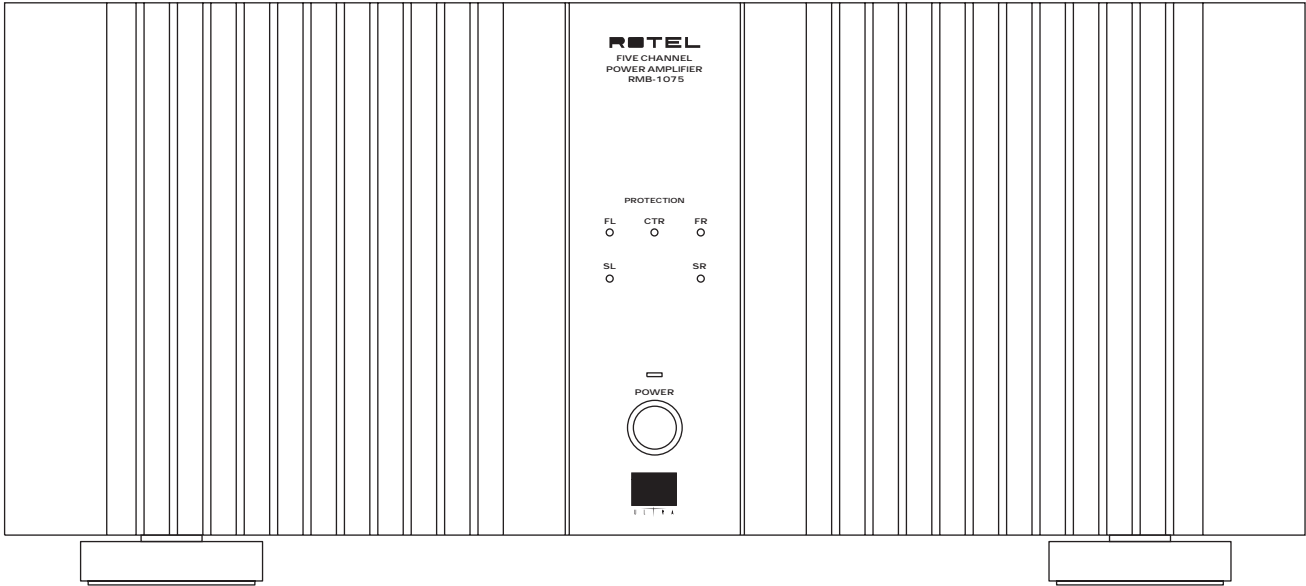
Specification

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



SYMBOL.NO	PARTS NO.	DESCRIPTION
	016 X-1363A01-02 PCB ASSY	
	501 X-1363	PCB ASSY
	013 4TTU-13	PCB SUPPORT
PJ1,PJ3	066 4TR-2166#5 2P	2P PIN JACK AU (BLK.BLK)
	016 X-1267B01-05 PCB ASSY	
	501 X-1267-B	PCB ASSY
C901	019 C-4357A03	CAPACITOR COVER (S) H=22
H1-H2,H3-H6,H9-H12	019 TO-126	MICA SHEET TBM-51W-15 #9524
L101,201,301,401,501	021 TRL-331	SPEAKER COIL 1F 23T
IC101,201,401,501	031 NJM4558DD	IC (OPE DUAL)
Q119,519	032 TC536-FG	TRANSISTOR 2SC536KAA-FG
Q107,207,407,507	033 A1209-ST	TRANSISTOR 2SA1209-ST
Q902	033 B631-EF	TRANSISTOR 2SB631K-EF
Q108,208,408,508	033 C2911-ST	TRANSISTOR 2SC2911-ST
Q901	033 D600-EF	TRANSISTOR 2SD600K-EF
Q103-105,118,203-205,218	033 TA1016-FG	TRANSISTOR 2SA1016KAA-FG
Q403-405,418,503-505,518	033 TA1016-FG	TRANSISTOR 2SA1016KAA-FG
Q110,210,410,510	033 TA1376A-LKU	TRANSISTOR 2SA1376AT-LKU
Q101,102,106,120,201,202,206	033 TC2362-FG	TRANSISTOR 2SC2362KAA-FG
Q401,402,406,501,502,506,520	033 TC2362-FG	TRANSISTOR 2SC2362KAA-FG
Q111,211,411,511	033 TC3478A-LKU	TRANSISTOR 2SC3478AT-LKU
D105,106,205,206,405,406	034 T1N4003-TB	DIODE 1N4003-E
D505,506,903-906	034 T1N4003-TB	DIODE 1N4003-E
D101-104,108,110,197,201-204,297	034 T1N4148-86	DIODE 1N4148TAP-50
D401-404,408,497,501-504,510,597	034 T1N4148-86	DIODE 1N4148TAP-50
D907,908	034 TRD15JST1	ZENER DIODE 15V (AB2)
D109,509	034 TRD24JST1	ZENER DIODE 24V (AB2)
TH101,TH501	034 TTC-503	THERMISTOR 50K
F101,102,201,202,301,302	036 5ST6.3	FUSE 250VT6.3A
F401,402,501,502	036 5ST6.3	FUSE 250VT6.3A
C105,205,405,505	041 35ZA10MTZ	ELECTROLYTIC CAPACITOR 35V10uF
C101,201,401,501	041 35ZA4R7MTZ	ELECTROLYTIC CAPACITOR 35V4.7uF
C902-909	041 ALC20S1079DG	ELECTROLYTIC CAPACITOR 63V10000uF
C104,204,404,504	041 TEEUFC1E101SB	ELECTROLYTIC CAPACITOR 25V100uF
C114,119,214,219,414,419,514,519	041 TUTES1E101-TF	ELECTROLYTIC CAPACITOR 25V100uF
C912,913	041 TUTES1E471-TS	ELECTROLYTIC CAPACITOR 25V470uF
C117,118,217,218,417,418,517,518	041 TUTES1H100-TF	ELECTROLYTIC CAPACITOR 50V10uF
C113,513	041 TUTES1H220-TF	ELECTROLYTIC CAPACITOR 50V22uF
C111,112,211,212,411,412,511,512	041 TUTES1J101-TF	ELECTROLYTIC CAPACITOR 63V100uF
C910,911	041 TUTES1J221-TS	ELECTROLYTIC CAPACITOR 63V220uF
C109,209,409,509	043 TC50V050	CERAMIC CAPACITOR 50V5pF
C115,116,215,216,415,416,515,516	044 50MSAN104J	SF CAPACITOR 50V0.1uF
C901	044 DE1307E472M	SPARK KILLER 4700pF
C103,107,108,203,207,208	044 FSC160V221H	STYROL CAPACITOR 160V220pF
C403,407,408,503,507,508	044 FSC160V221H	STYROL CAPACITOR 160V220pF
C106,206,406,506	044 FSC160V331H	STYROL CAPACITOR 160V330pF
C110,210,310,410,510	044 KT18-2A104K	M.P CAPACITOR MKT1818-410/015
C102,202,402,502	044 TFKP2-2A681H	P.P CAPACITOR FKP2-100V681H
VR101,201,401,501	051 SFR001-222	SEMI-FIXED RESISTOR VM6CKPH1S-2.2K
R127,227,427,527	053 CR14-121J-A	CARBON RESISTOR 1/4W 120
R134,534	053 CR14-224J-A	CARBON RESISTOR 1/4W 220K
R165,565	053 CR14-272J-A	CARBON RESISTOR 1/4W 2.7K
R139,539	053 CR14-392J-A	CARBON RESISTOR 1/4W 3.9K
R128,135,228,428,528,535	053 CR14-471J-A	CARBON RESISTOR 1/4W 470
R136,536	053 CR14-681J-A	CARBON RESISTOR 1/4W 680
R137,537,905,906	053 CR14-822J-A	CARBON RESISTOR 1/4W 8.2K
R124,224,324,424,524	054 2WS10JF	MOF RESISTOR 2WS 10
R901,902	054 2WS6.8KJF	MOF RESISTOR 2WS 6.8K
R903,904	054 2WS820JF	MOF RESISTOR 2WS 820

SYMBOL.NO	PARTS NO.	DESCRIPTION
R120-123,220-223,420-423,520-523	054 NIR2-0.22JF	NIR RESISTOR 2W 0.22
R101,117,118,201,217,218	054 TMFR4001K	METAL FILM RESISTOR 1/4W 1K
R401,417,418,501,517,518	054 TMFR4001K	METAL FILM RESISTOR 1/4W 1K
R129,130,229,230,429,430,529,530	054 TMFR4001M	METAL FILM RESISTOR 1/4W 1M
R104-107,204-207,404-407,504-507	054 TMFR401K5	METAL FILM RESISTOR 1/4W 1.5
R103,138,203,238,403,438,503,538	054 TMFR4033K	METAL FILM RESISTOR 1/4W 33K
R125,126,225,226,425,426,525,526	054 TMFR4033R	METAL FILM RESISTOR 1/4W 33
R115,215,415,515	054 TMFR403K9	METAL FILM RESISTOR 1/4W 3.9K
R111,211,411,511	054 TMFR4047K	METAL FILM RESISTOR 1/4W 47K
R119,219,419,519	054 TMFR4047R	METAL FILM RESISTOR 1/4W 47
R114,214,414,514	054 TMFR406K8	METAL FILM RESISTOR 1/4W 6.8K
R131,132,231,232,431,432,531,532	054 TMFR4100K	METAL FILM RESISTOR 1/4W 100K
R112,113,212,213,412,413,512,513	054 TMFR4100R	METAL FILM RESISTOR 1/4W 100
R116,216,416,516	054 TMFR415K4	METAL FILM RESISTOR 1/4W 15.4K
R109,110,209,210,409,410,509,510	054 TMFR4220R	METAL FILM RESISTOR 1/4W 220
R133,233,433,533	054 TMFR4470K	METAL FILM RESISTOR 1/4W 470K
R102,202,402,502	054 TMFR4470R	METAL FILM RESISTOR 1/4W 470
R108,208,408,508	054 TMFR4560R	METAL FILM RESISTOR 1/4W 560
SW1	061 C-4176A07	POWER SWITCH PS3-22-L3AV TV-8
RY101,RY501	063 A24W-K	RELAY A24W-K
PJ2	066 4TR-2487#4	1P PIN JACK AU (BLK)
SP1,SP3	067 C-4761A01	4P SPEAKER TERMINAL
SP2	067 C-4762A01	2P SPEAKER TERMINAL
K7A,K8A,K9A,K10A,K11A	068 B04P-XL	CONNECTOR WAFER 4P
K2A,D001,002,004,005	068 B2B-EH	CONNECTOR WAFER 2P
K4A,K5A,K6A	068 B3B-EH	CONNECTOR WAFER 3P
K1A,K3A	068 B4B-EH	CONNECTOR WAFER 4P
TP1,TP2,TP4,TP5,E6	068 C-3681#1	WRAPPING TERMINAL 2P
Q109,209,409,509	068 C-4349A04	TRANSISTOR HOUSING WITH WIRE100mm
JK1	068 DBL25SBTK2NS	DB25 CONNECTOR
	016 E-1268A00C PCB ASSY	
	016 E-1268A00C	PCB ASSY
H7,H8	019 TO-126	MICA SHEET TBM-51W-15 #9524
IC301	031 NJM4558DD	IC (OPE DUAL)
Q319	032 TC536-FG	TRANSISTOR 2SC536KAA-FG
Q307	033 A1209-ST	TRANSISTOR 2SA1209-ST
Q308	033 C2911-ST	TRANSISTOR 2SC2911-ST
Q303,304,305,318	033 TA1016-FG	TRANSISTOR 2SA1016KAA-FG
Q310	033 TA1376A-LKU	TRANSISTOR 2SA1376AT-LKU
Q301,302,306,320	033 TC2362-FG	TRANSISTOR 2SC2362KAA-FG
Q311	033 TC3478A-LKU	TR 2SC3478AT-LKU(PAIR 2SA1376A)
TH901,902	034 SCK2R512	SURGE CURRENT THERMISTOR 2.5Ω
D305,306	034 T1N4003-TB	DIODE 1N4003-E
D301-304,308,310,397	034 T1N4148-86	DIODE 1N4148TAP-50
D309	034 TRD24JST1(AB2)	ZENER DIODE 24V (AB2)
TH301	034 TTC-503	THERMISTOR 50K
C305	041 35ZA10MTZ	ELECTROLYTIC CAPACITOR 35V10uF
C301	041 35ZA4R7MTZ	ELECTROLYTIC CAPACITOR 35V4.7uF
C304	041 TEEUFC1E101SB	ELECTROLYTIC CAPACITOR 25V100uF
C314,319	041 TUTES1E101-TF	ELECTROLYTIC CAPACITOR 25V100uF
C317,318	041 TUTES1H100-TF	ELECTROLYTIC CAPACITOR 50V10uF
C313	041 TUTES1H220-TF	ELECTROLYTIC CAPACITOR 50V22uF
C311,312	041 TUTES1J101-TF	ELECTROLYTIC CAPACITOR 63V100uF
C309	043 TC50V050	CERAMIC CAPACITOR 50V5pF
C315,316	044 50MSAN104J	SF CAPACITOR 50V0.1uF
C303,307,308	044 FSC160V221H	STYROL CAPACITOR 160V220pF
C306	044 FSC160V331H	STYROL CAPACITOR 160V330pF
C302	044 TFKP2-2A681H	P.P CAPACITOR FKP2-100V681H
VR301	051 SFR001-222	SEMI-FIXED RESISTOR VM6CKPH1S-2.2K

SYMBOL.NO	PARTS NO.	DESCRIPTION
R327	053 CR14-121J-A	CARBON RESISTOR 1/4W 120
R334	053 CR14-224J-A	CARBON RESISTOR 1/4W 220K
R365	053 CR14-272J-A	CARBON RESISTOR 1/4W 2.7K
R328,335	053 CR14-471J-A	CARBON RESISTOR 1/4W 470
R336	053 CR14-681J-A	CARBON RESISTOR 1/4W 680
R337,339	053 CR14-822J-A	CARBON RESISTOR 1/4W 8.2K
R320,321,322,323	054 NIR2-0.22JF	NIR RESISTOR 2W 0.22
R301,317,318	054 TMFR4001K	METAL FILM RESISTOR 1/4W 1K
R329,330	054 TMFR4001M	METAL FILM RESISTOR 1/4W 1M
R304,305,306,307	054 TMFR401K5	METAL FILM RESISTOR 1/4W 1.5K
R303,338	054 TMFR4033K	METAL FILM RESISTOR 1/4W 33K
R325,326	054 TMFR4033R	METAL FILM RESISTOR 1/4W 33
R315	054 TMFR403K9	METAL FILM RESISTOR 1/4W 3.9K
R311	054 TMFR4047K	METAL FILM RESISTOR 1/4W 47K
R319	054 TMFR4047R	METAL FILM RESISTOR 1/4W 47
R314	054 TMFR406K8	METAL FILM RESISTOR 1/4W 6.8K
R331,332	054 TMFR4100K	METAL FILM RESISTOR 1/4W 100K
R312,313	054 TMFR4100R	METAL FILM RESISTOR 1/4W 100
R316	054 TMFR415K4	METAL FILM RESISTOR 1/4W 15.4K
R309,310	054 TMFR4220R	METAL FILM RESISTOR 1/4W 220
R333	054 TMFR4470K	METAL FILM RESISTOR 1/4W 470K
R302	054 TMFR4470R	METAL FILM RESISTOR 1/4W 470
R308	054 TMFR4560R	METAL FILM RESISTOR 1/4W 560
RY301	063 A24W-K	RELAY A24W-K
D003	068 B2B-EH	CONNECTOR WAFER 2P
TP3	068 C-3681#1	WRAPPING TERMINAL 2P
CON2	068 C-3683#1	PCB TERMINAL 2P P7.5 TP WE-11 I-752NA
CON3,CON4	068 C-3683#2	PCB TERMINAL 3P P7.5 TP WE-12 I-753NA
CON1	068 C-4422A01	PCB TERMINAL 2P P10 TP WF-21 I-102NA
	016 X-1291E01-02 PCB ASSY	
	501 X-1291-A	PCB ASSY
T101	022 T-1075NO2	SUB TRANSFORMER
IC101	031 PC817B	IC (PHOTO COUPLER)
Q101	032 TC3708-ST	TRANSISTOR 2SC3708AA-ST
D102,103,104,106	034 T1N4148-86	DIODE 1N4148TAP-50
D105	034 TRD12JST1	ZENER DIODE 12V (AB2)
D101	034 W02M	POWER DIODE 200V1.5A
F101	036 5ST500	FUSE 250VT500mA
F903	036 R251-250	FUSE F250MA
C101	041 TUTES1E471-TS	ELECTROLYTIC CAPACITOR 25V470uF
C102	044 DE1307E472M	SPARK KILLER 4700pF
(R103)	053 CR14-152J-A	CARBON RESISTOR 1/4W 1.5K
R105	053 CR14-221J-A	CARBON RESISTOR 1/4W 220
R102	053 CR14-333J-A	CARBON RESISTOR 1/4W 33K
(R103)	053 CR14-472J-A	CARBON RESISTOR 1/4W 4.7K
R101	054 1WS120JF	MOF RESISTOR 1WS 120
R104	054 1WS1KJF	MOF RESISTOR 1WS 1K
RY101	063 OZT-SS-112LM1	RELAY DC12V TV8
S101	064 C-4613A01	TOGGLE SW 200DP1T2B2M7RE
TJ101,TJ102	065 YKB21-5103A	3.5Φ MINIATURE JACK (ST)
K102	068 B2B-EH	CONNECTOR WAFER 2P
K101	068 B3B-EH	CONNECTOR WAFER 3P
AC3.AC4	068 C-3681#1	WRAPPING TERMINAL 2P
AC1.AC5.AC2	068 C-4422A01	PCB TERMINAL 2P P10 TP WF-21 I-102NA
K103	068 C-4588A09	CONNECTOR WIRE 3P 420mm
	HEAT SINK ASSEMBLY	
	017 TE3-07A00	HEAT SINKER BOARD
	032 D1953	TRANSISTOR 2SD1953
	033 A1492-OPY	TRANSISTOR 2SA1492-OPY

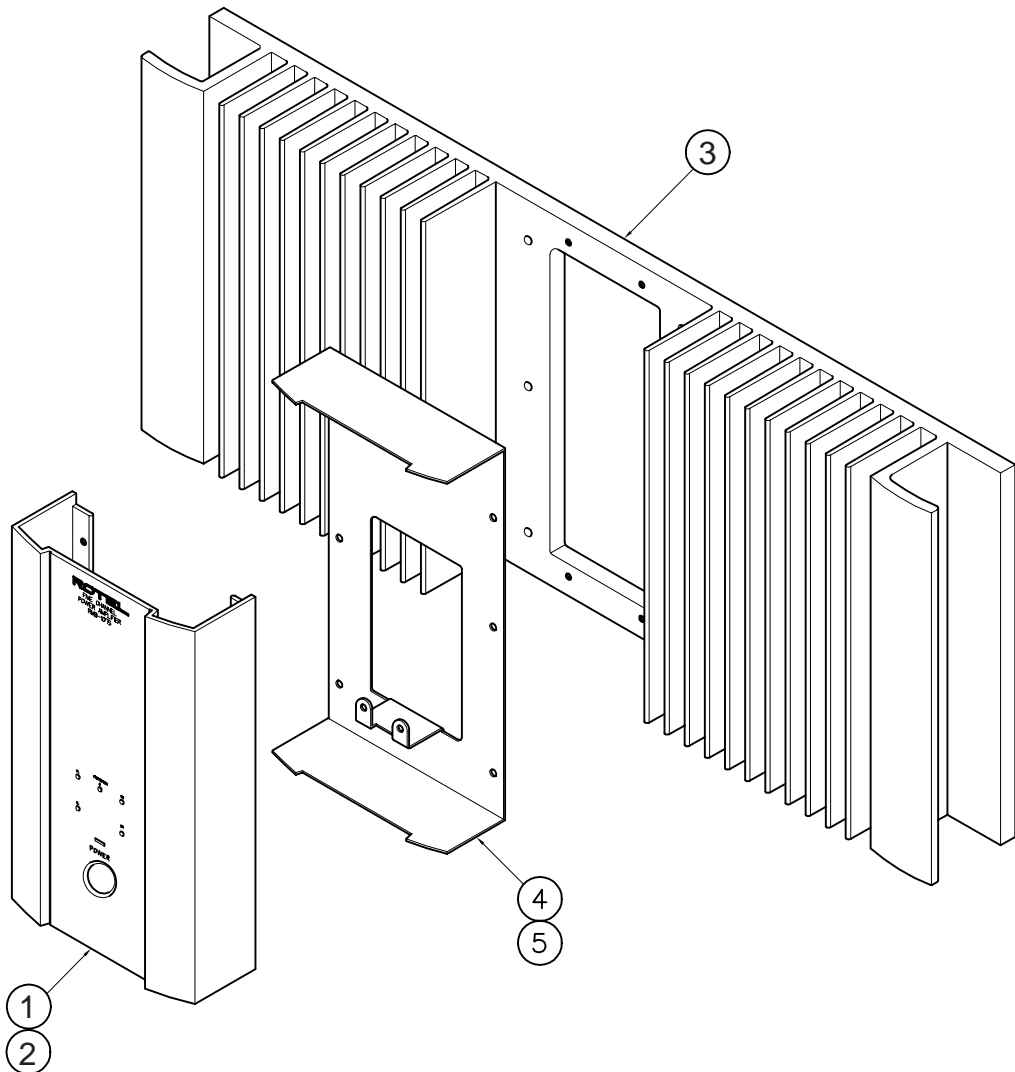
SYMBOL.NO	PARTS NO.	DESCRIPTION
	033 A1667-OY	TRANSISTOR 2SA1667-OY
	033 C3856-OPY	TRANSISTOR 2SC3856-OPY
	033 C4381-OY	TRANSISTOR 2SC4381-OY
	019 TO-3P	MICA SHEET TBM-51W-15 #9043
	067 C-4761A01	4P SPEAKER TERMINAL
	067 C-4762A01	2P SPEAKER TERMINAL
	066 4TR-2166#5	2P PIN JACK AU (BLK.BLK)
OTHERS		
	011 FP-529-B	BLACK PANEL ASSY
	011 FP-529-S	SILVER PANEL ASSY
	011 TE3-01A00	H/S PANEL
	012 RV4-09A00	PUSH BUTTON 14Φ (BLACK)
	012 RV4-09A01	PUSH BUTTON 14Φ (SILVER)
	013 TE3-04A00	PANEL HOLDER (BLACK)
	013 TE3-04A01	PANEL HOLDER (SILVER)
	014 TE3-08A00	UPPER COVER
	019 4TSH-19#2	PLASTIC FOOT 50Φ (BLACK)
	022 TT-315-UR02	POWER TRANSFORMER
	034 BR254	POWER DIODE 400V25A
	034 LTL1214A	LED (BRIGHT RED) 2Φ
	034 SEL1124R	LED (RED) 1X5
	034 SEL1E24W	LED (BLU) 1X5
	069 C-4629A01	AC 2P INLET 6102.3100 (WIRING)
	072 C-4621A01	AC CORD SET for USA
	072 C-4622A01	AC CORD SET for AUSTRALIA
	072 C-4623A01	AC CORD SET for U.K
	072 C-4624A01	AC CORD SET for EUROPE
	081 SG4-24A00	PACKING (for INSIDE CARTON)
	081 TE3-09B00	INSIDE CARTON
	081 TE3-10B00	SHIPPING CARTON
	081 Z-200	STYROL MOULDING
	082 OMRMB-1075	OWNER'S MANUAL(E)

Addendum List for Black and Silver

RMB1075/V02

SYMBOL	PARTS	DESCRIPTION
①	011 FP-529-B	BLACK PANEL ASSY
②	011 FP-529-S	SILVER PANEL ASSY
③	011 TE3-01A00	H/S PANEL H176
	012 RV4-09A00	PUSH BUTTON 14F (BLK)
	012 RV4-09A01	PUSH BUTTON 14F (SLV)
④	013 TE3-04A00	SUB PANEL CHASSIS (BLK)
⑤	013 TE3-04A01	SUB PANEL CHASSIS (SLV)
	034 SEL1124R	LED (RED) 1X5
	034 SEL1E24W	LED (BLU) 1X5

Panel Assy is included:
 Knob Ring
 POWER buttons
 LED



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.

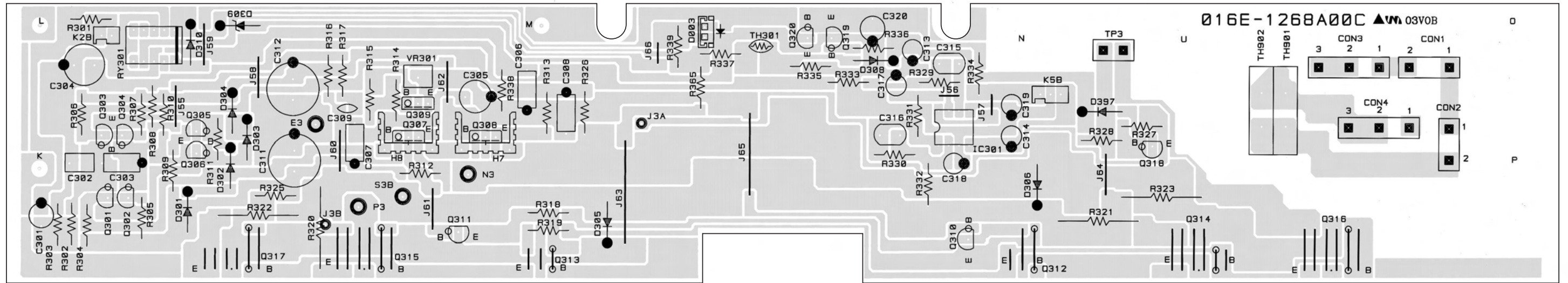
Step	Coupling	Location	Adjust	Adjust for
1	TP 1	X-1267-01 PCB	VR101	DC milli-voltmeter reads 5mV
2	TP 2	X-1267-01 PCB	VR201	
3	TP 3	E-1268 PCB	VR301	
4	TP 4	X-1267-02 PCB	VR401	
5	TP 5	X-1267-02 PCB	VR501	

Service Note

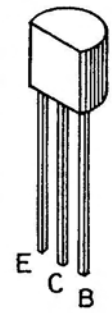
Cautions during Inspection and Repair

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.

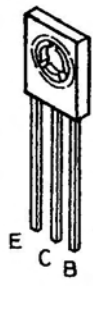
PCB Assembly



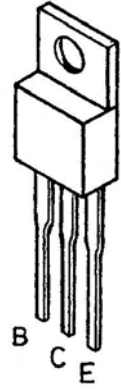
Case Outlines



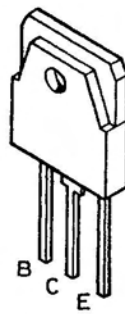
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2SC536K
2SC2362K
2SC3478A
2SC3708



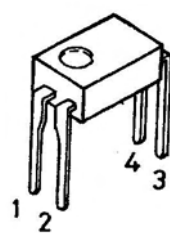
2SB631K
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2SD1953
2SD600K
2SC2911



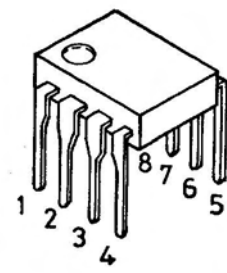
2SA1667
2SC4381



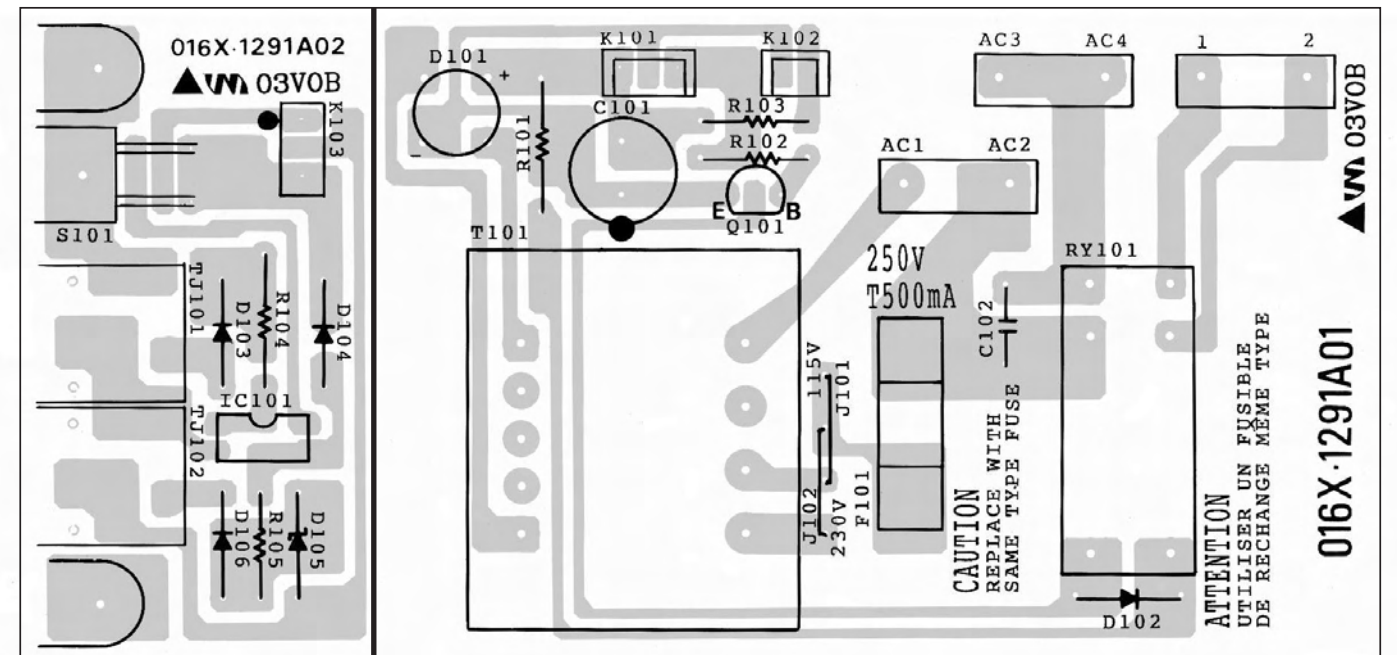
2SA1492
2SC3856

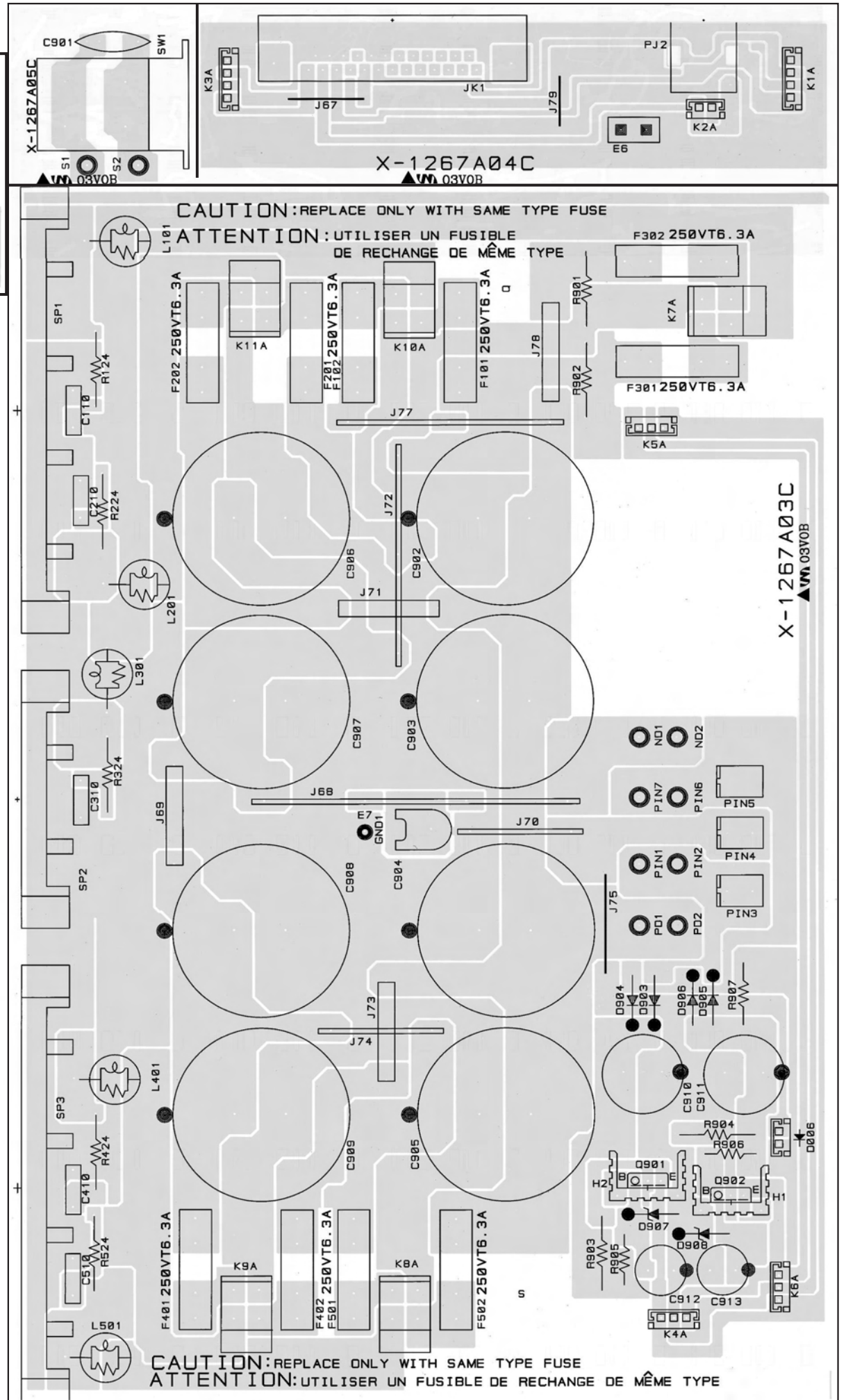
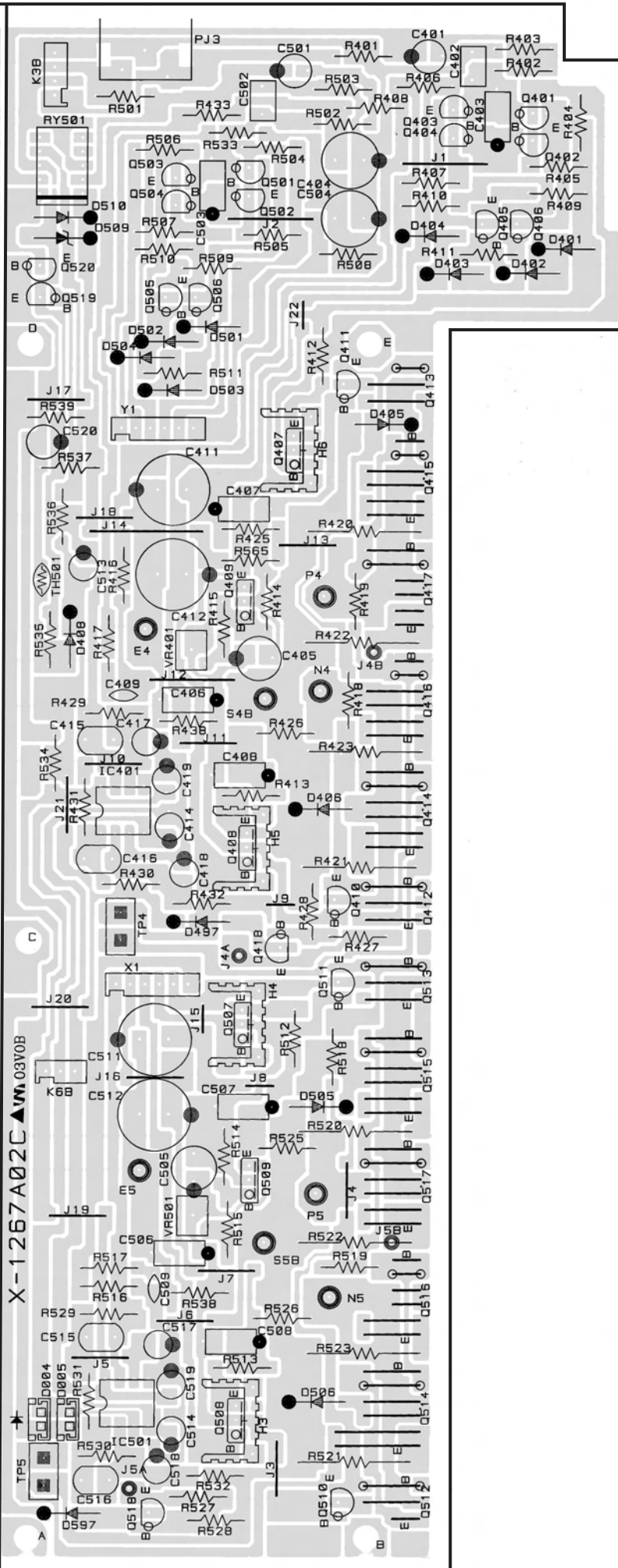
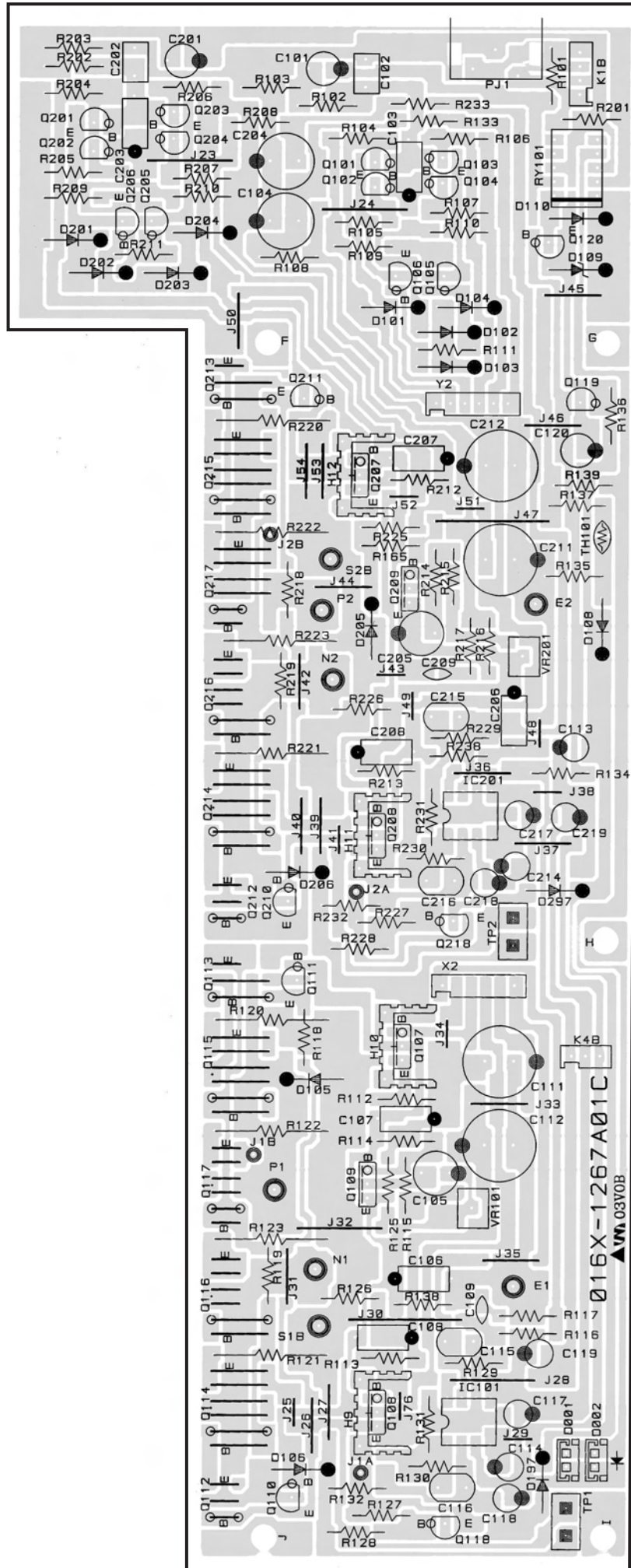


PC817B

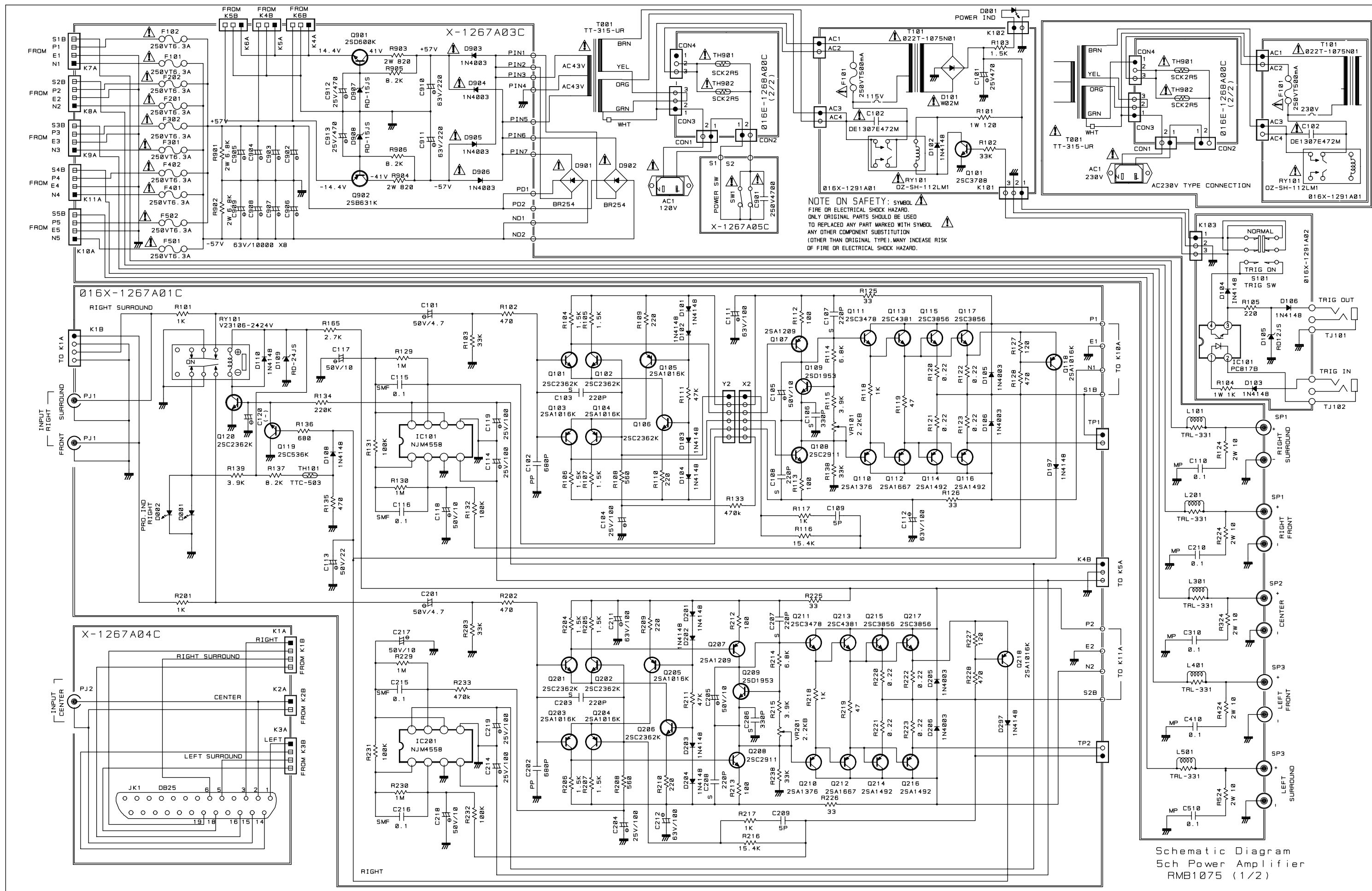


NJM4558DD

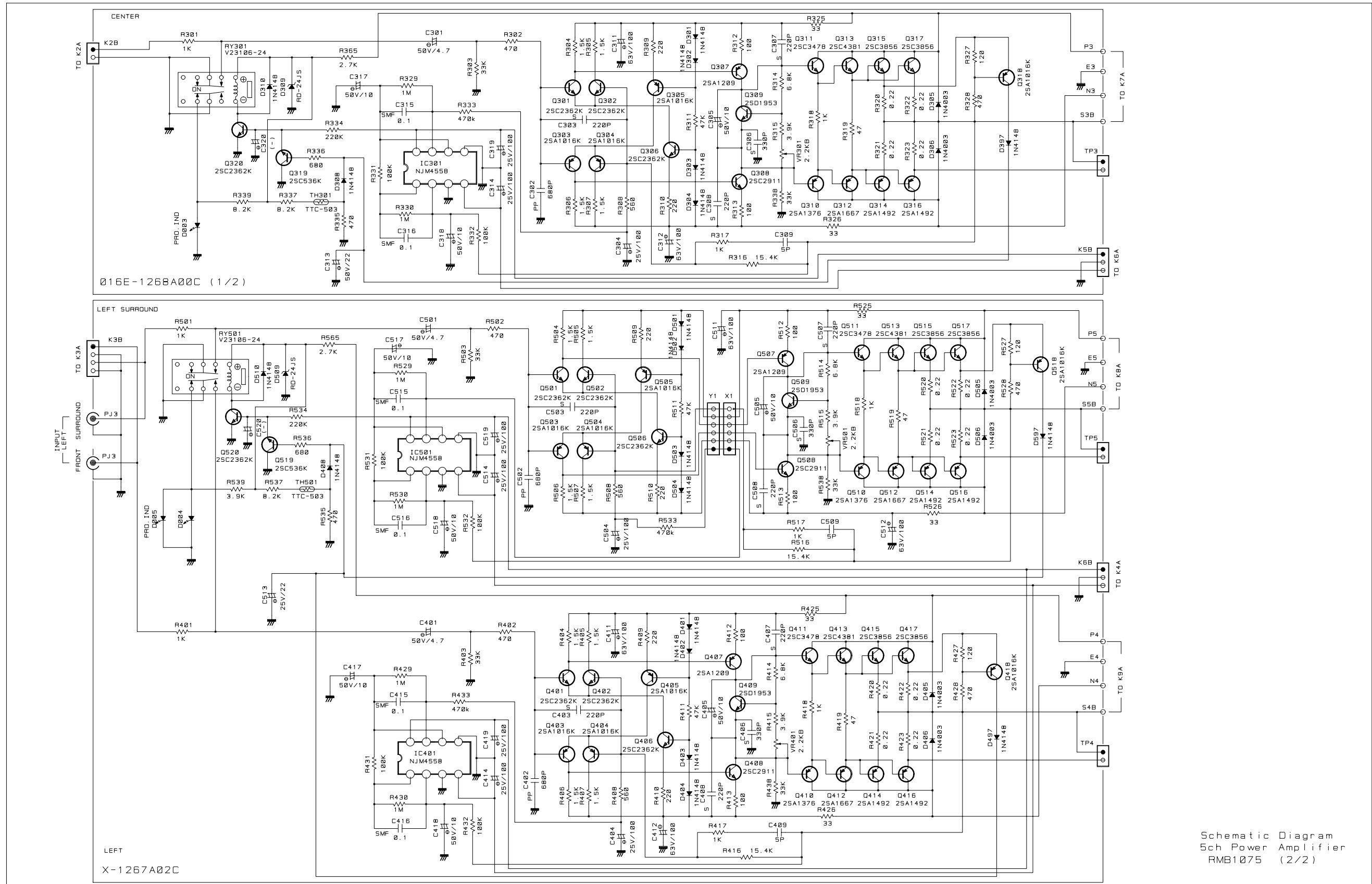




Schematic Diagram



Schematic Diagram



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