



Technical Manual

STEREO POWER AMPLIFIER **RB-1080v04**

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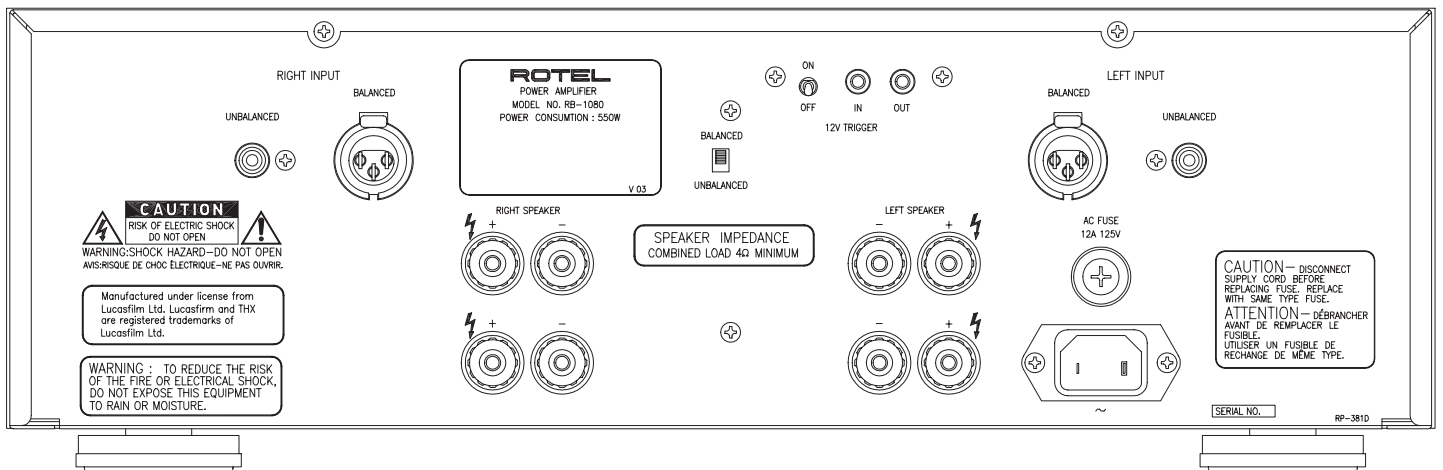
Specifications

Continuous Power Output (20-20 kHz, < 0.03%)	200 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 (+0.5 dB, -3 dB)	15Hz-100kHz
Damping Factor (20-20,000 Hz, 8 ohms)	1000
Speaker Impedance	4 ohms minimum
Signal to Noise Ratio (IHF A network)	116 dB
Input Impedance/Sensitivity	32 k Ohms/1.5 volt
Power Requirements	120 Volts, 60 Hz (U.S. version) 230 Volts, 50 Hz (European version)
Power Consumption	550 Watts
Dimensions (W x H x D)	432 x 139 x 400 mm 17 ¹⁵ / ₁₆ x 5 ¹ / ₂ x 15 ³ / ₄ in
Weight (net)	16.8 kg, 37.03 lb.

THE ROTEL CO., LTD

10-10 SHINSEN-CHO, SHIBUYA-KU,
TOKYO 150-0045, JAPAN

Serial. NO.	8111001~
Beginning	



SYMBOL	PARTS NO.	DESCRIPTION
016 X-1520A01-02 PCB ASSY		
	501 X-1520A-1	PCB ASSY (MAIN L CH/ R CH)
H1-H4	017 C-4378A01	SUB HEAT SINKER H=35 1635
H5,H6	017 C-4401A02	SUB HEAT SINKER H=35 1035
Q613-616,707,708	019 TO-126	MICA SHEET TBM-51W-15 #9524
IC701,702	031 IC0008601	IC UPC1237C-A SMD (PROTECTION)
Q707,708	032 D600-EF	TRANSISTOR 2SD600K-EF
Q703-706	032 TA1016-FG	TRANSISTOR 2SA1016KAA-FG
Q701,702	032 TC2362-FG	TRANSISTOR 2SC2362KAA-FG
Q613,614	033 A1209-ST	TRANSISTOR 2SA1209-ST
Q615,616	033 C2911-ST	TRANSISTOR 2SC2911-ST
Q607,610	033 TA1016-FG	TRANSISTOR 2SA1016KAA-FG
Q621,622	033 TA1208-RST	TRANSISTOR 2SA1208AE-RST
Q601-604	033 TC2362-FG	TRANSISTOR 2SC2362KAA-FG
Q619,620	033 TC2910-RST	TRANSISTOR 2SC2910AE-RST
D609-612	034 T1N4004-TB	DIODE 1N4004-F
D601-608,701-706	034 T1N4148-86	DIODE 1N4148TAP-50
TH701,702	034 TTC-503	THERMISTOR 50K
F601-604	036 5ST8-R	FUSE 250VT8A
C601,602	041 35ZA4R7MTZ	ELECTROLYTIC CAPACITOR ZA 35V4.7uF
C607,608	041 50ZL100M	ELECTROLYTIC CAPACITOR ZL 50V100uF
C703,704	041 TUTES1E101-7TF	ELECTROLYTIC CAPACITOR 25V100uF TF-TAPING
C705,706	041 TUTES1E470-7TF	ELECTROLYTIC CAPACITOR 25V47uF TF-TAPING
C701,702	041 TUTES1H100-7TF	ELECTROLYTIC CAPACITOR 50V10uF TF-TAPING
C707,708	041 TUTES1H4R7-7TF	ELECTROLYTIC CAPACITOR 50V4.7uF TF-TAPING
C623-626	041 VZ2A102	ELECTROLYTIC CAPACITOR UVZ2A102MHD
C605,606	044 FSC160V221H	STYROL CAPACITOR 160V220pF
C609,610	044 FSC160V331H	STYROL CAPACITOR 160V330pF
C613-616,627,628	044 FSC160V471H	STYROL CAPACITOR 160V470pF
C603,604	044 FSC160V681H	STYROL CAPACITOR 160V680pF
C691,692	044 KT18-2A104K	M.P CAPACITOR MKT1818-410/015
VR601,602	051 SFR001-222	SEMI-FIXED RESISTOR VM6CKPH1S-2.2K
R663,664	054 1WS10JF	MOF RESISTOR 1W 10R
R691,692	054 2WS10JF	MOF RESISTOR 2W 10R
R659-662	054 2WS6.8KJF	MOF RESISTOR 2W 6.8K
R739,740	054 2WS680JF	MOF RESISTOR 2W 680R
R635-654	054 NIR2-0.22JF	NON-INDUCTIVE RESISTOR 2W 0.22R
R719-722	054 TMF16-1003	MOF RESISTOR 1/6W 100K
R707,708	054 TMF16-1201	MOF RESISTOR 1/6W 1.2K
R723,724	054 TMF16-1203	MOF RESISTOR 1/6W 120K
R705,706,735,736	054 TMF16-1502	MOF RESISTOR 1/6W 15K
R701,702	054 TMF16-2702	MOF RESISTOR 1/6W 27K
R713,714	054 TMF16-3302	MOF RESISTOR 1/6W 33K
R715-718	054 TMF16-4701	MOF RESISTOR 1/6W 4.7K
R711,712	054 TMF16-4702	MOF RESISTOR 1/6W 47K
R709,710	054 TMF16-5600	MOF RESISTOR 1/6W 560R
R737,738	054 TMF16-5602	MOF RESISTOR 1/6W 56K
R703,704	054 TMF16-8203	MOF RESISTOR 1/6W 820K
R665,666	054 TMF3300	MOF RESISTOR 330R
R631,632	054 TMFR4001K	METAL FILM RESISTOR 1/4W 1K
R731,732	054 TMFR4010K	METAL FILM RESISTOR 1/4W 10K
R733,734	054 TMFR4018K	METAL FILM RESISTOR 1/4W 18K

SYMBOL	PARTS NO.	DESCRIPTION
R627,628	054 TMFR403K9	METAL FILM RESISTOR 1/4W 3.9K
R633,634	054 TMFR4047R	METAL FILM RESISTOR 1/4W 47
R625,626	054 TMFR406K8	METAL FILM RESISTOR 1/4W 6.8K
R621,622,655,656	054 TMFR4100K	METAL FILM RESISTOR 1/4W 100K
R623,624,629,630	054 TMFR4100R	METAL FILM RESISTOR 1/4W 100
R657,658	054 TMFR415K4	METAL FILM RESISTOR 1/4W 15.4K
R611,612,619,620,667-670	054 TMFR4220R	METAL FILM RESISTOR 1/4W 220
R601,602	054 TRC55D1001F	RESISTOR RC55D 1K
R607-610,615,618	054 TRC55D1501F	RESISTOR RC55D 1K5
R603,604	054 TRC55D3302F	RESISTOR RC55D 33K
R605,606	054 TRC55D4700F	RESISTOR RC55D 470R
R613,614	054 TRC55D5600F	RESISTOR RC55D 560R
RY701,702	063 DE2TU-24	RELAY DE24D2-OT(M)
PJ602	066 4TR-2487#7	1P PIN JACK AU (RED)
PJ601	066 4TR-2487#8	1P PIN JACK AU (WHT)
K601,602	068 B2B-EH	CONNECTOR WAFER 2P (4428502586)
K603,604	068 B3B-EH	CONNECTOR WAFER 3P (4428503586)
Q617,618	068 C-4349A04	TRANSISTOR HOUSING WITH WIRE100MM
J1-24	069 4TR-2368B	JUMPER PLATE 20MM
OUT1,OUT2	069 C-4446A00	PCB TERMINAL Y-105
016 X-1237A02-06 PCB ASSY		
	501 X-1237A-3	PCB ASSY (BALANCED, MUTE)
Q901,902	019 TO-126	MICA SHEET TBM-51W-15 #9524
IC501,502	031 IC0001401	IC (OPAMP) AD711JN
Q803	032 TC2362-FG	TRANSISTOR 2SC2362KAA-FG
Q902	033 B631-EF	TRANSISTOR 2SB631K-EF
Q901	033 D600-EF	TRANSISTOR 2SD600K-EF
D809	034 RD5.6JST1	ZENER DIODE RD5.6JST
D901,902	034 RD16EB	ZENER DIODE RD16E-AZ(B3)
D805,806	034 T1N4004-TB	DIODE 1N4004-F
C505-508	041 EEUFC1E101SB	ELECTROLYTIC CAPACITOR 25V100uF
C901,902	041 EEUFC1E471B	ELECTROLYTIC CAPACITOR 25V470uF
C501,502,503,504	044 S50V100PJ	STYROL CAPACITOR 50V100pF
R807	053 CF14-224J-A	CARBON RESISTOR 1/4W 220K
R811,812	053 CR14-473J-A	CARBON RESISTOR 1/4W 47K
R901,902	054 1WS2.2KJF	MOF RESISTOR 1W 2.2K
R903,904	054 1WS5.6KJF	MOF RESISTOR 1W 5.6K
R809	054 1WS6.8KJF	MOF RESISTOR 1W 6.8K
R509,510	054 TMFR4001K	METAL FILM RESISTOR 1/4W 1K
R505,506,507,508	054 TMFR4010K	METAL FILM RESISTOR 1/4W 10K
R501,502,503,504	054 TMFR4022K	METAL FILM RESISTOR 1/4W 22K
S901	064 4TR-2341	SLIDE SWITCH SS010-P022BAb-PA9
DJ1,DJ2	066 C-4575B01	3P CANNON JACK YKF52-5006V
K801(4P),K802(3P)	068 C-4995A01	CONNECTOR W/WIRE
K901,902	068 C-4588A53	CONNECTOR W/WIRE
K507,508	068 4TR-2787#5	PC JOINER CONNECTOR BASE 5P
CON1,CON3,CON4,CON5	068 C-3683#1	WRAPPING TERMINAL 2P
CON6	068 C-3683#3	WRAPPING TERMINAL 4P
CON2	068 C-4422A01	WRAPPING TERMINAL 2P
D002	068 TD02SG	2P CONNECTOR WAFER
1,2	069 C-4370A00	PCB TERMINAL Y-102
016 X-1283B00 PCB ASSY		

SYMBOL	PARTS NO.	DESCRIPTION
	501 X-1283B-5	PCB ASSY (POWER SWITCH)
C001	019 C-4357A03	CAPACITOR COVER (S) H=22
C001	044 DE2E3KH472MA3B	SPARK KILLER 4700pF
S901	061 C-4176A07	POWER SWITCH TV-8
016 X-1291E01-02 PCB ASSY		
	501 X-1291E-8	PCB ASSY (TRIGGER, SUB TRANSFORMER)
T101	022 T-1075N02	SUB TRANSFORMER
IC101	031 PC817X2	IC (PHOTO COUPLER) PC817X2J000F
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-R	FUSE 250V500MA
F903	036 R251-375MXL	FUSE 375MA
C101	041 TUTES1E471-7TS	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 1W 120
R104	054 1WS1KJF	MOF RESISTOR 1W 1K
RY101	063 OZT-SS-112LM1	RELAY 12V TV8
S101	064 C-4613A01	TOGGLE SWITCH 200MDP1T2B2M7RE
TJ101,TJ102	065 YKB21-5406N	3.5Φ JACK (ST)
K102	068 B2B-EH	2P CONNECTOR WAFER
K101	068 B3B-EH	3P CONNECTOR WAFER
AC3.AC4	068 C-3681#1	WRAPPING TERMINAL 2P
AC1.AC5,AC2	068 C-4422A01	WRAPPING TERMINAL 2P P=10
OTHERS		
	011 FP-530-B	BLACK PANEL ASSY
	011 FP-530-S	SILVER PANEL ASSY
	011 RV4-02A05	H/S PANEL
	012 RV4-09A00	PUSH BUTTON 14Φ (BLACK)
	012 RV4-09A01	PUSH BUTTON 14Φ (SILVER)
	013 RV4-05A00	PANEL HOLDER (BLACK)
	013 RV4-05A01	PANEL HOLDER (SILVER)
	014 RV3-07B01	UPPER COVER
	015 RP-381D	REAR CHASSIS
	019 4TSH-19#2	PLASTIC FOOT 50Φ (BLACK)
	019 RV4-10A00	14Φ BUTTON RING (BLACK)
	019 RV4-10A01	14Φ BUTTON RING (SILVER)
T001	022 T-1037W04	POWER TRANSFORMER
D01,02	034 BR154	POWER DIODE 400V15A
	034 SEL1124R	LED (RED) 1X5
	034 SEL1E24W	LED (BLU) 1X5
F001*	036 3AG125V12A	LONG FUSE 125V12A (for 120V)
F001*	036 5ST8	MINI FUSE 250V 8A (for 230V)
C002,003,004,005	041 ALS30S1077XX	EELECTROLYTIC CAPACITOR 80V15000uF
R001	054 2WS100JF	MOF RESISTOR 2W 100
	067 C-4717A01	SPEAKER TERMINAL (RED)
	067 C-4717A02	SPEAKER TERMINAL (BLK)

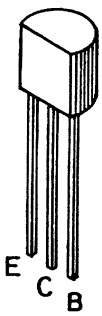
SYMBOL	PARTS NO.	DESCRIPTION
(F001)*	069 C-4200A01	FUSE HOLDER LONG for 120V
(F001)*	069 C-4595A00	FUSE HOLDER MINI for 230V
	069 C-4637A00	AC 3P INLET 0707-1-CW (FASTON)
	072 4TR-2489	3.5mm PLUG SHIELD CORD (12V TRIG)
	072 C-4392A04	AC CORD SET (SJT AWG14) for U.S.A.
	072 C-4393A04	AC CORD SET for EUROPE
	072 C-4423A04	AC CORD SET for AUSTRALIA
	072 C-4639A02	AC CORD SET for U.K.
	081 RV4-15A03	INSIDE CARTON
	081 RV4-16A03	SHIPPING CARTON
	081 ZE-200	ETHAFOAM MOULDING
	082 OMRB-1080-61	OWNER'S MANUAL

Instruments : DC millivoltmeter

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

Step	Coupling	Location	Adjust	Adjust for
1	TP 3 - TP 1	X-1177-01 PCB	VR601	DC millivoltmeter reads 7mV
2	TP 4 - TP 2	X-1177-02 PCB	VR602	

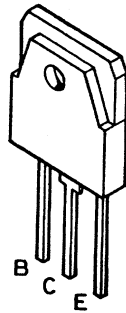
Case Outline



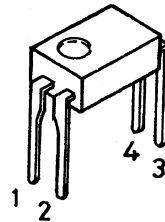
2SA1016K
2SA1208
2SC2362K
2SC3708
2SC2910



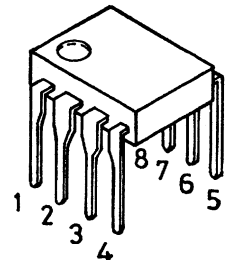
2SB631K
2SA1209
2SD1953
2SD600K
2SC2911



2SA1492
2SB817
2SC3856
2SD1047



PC817B



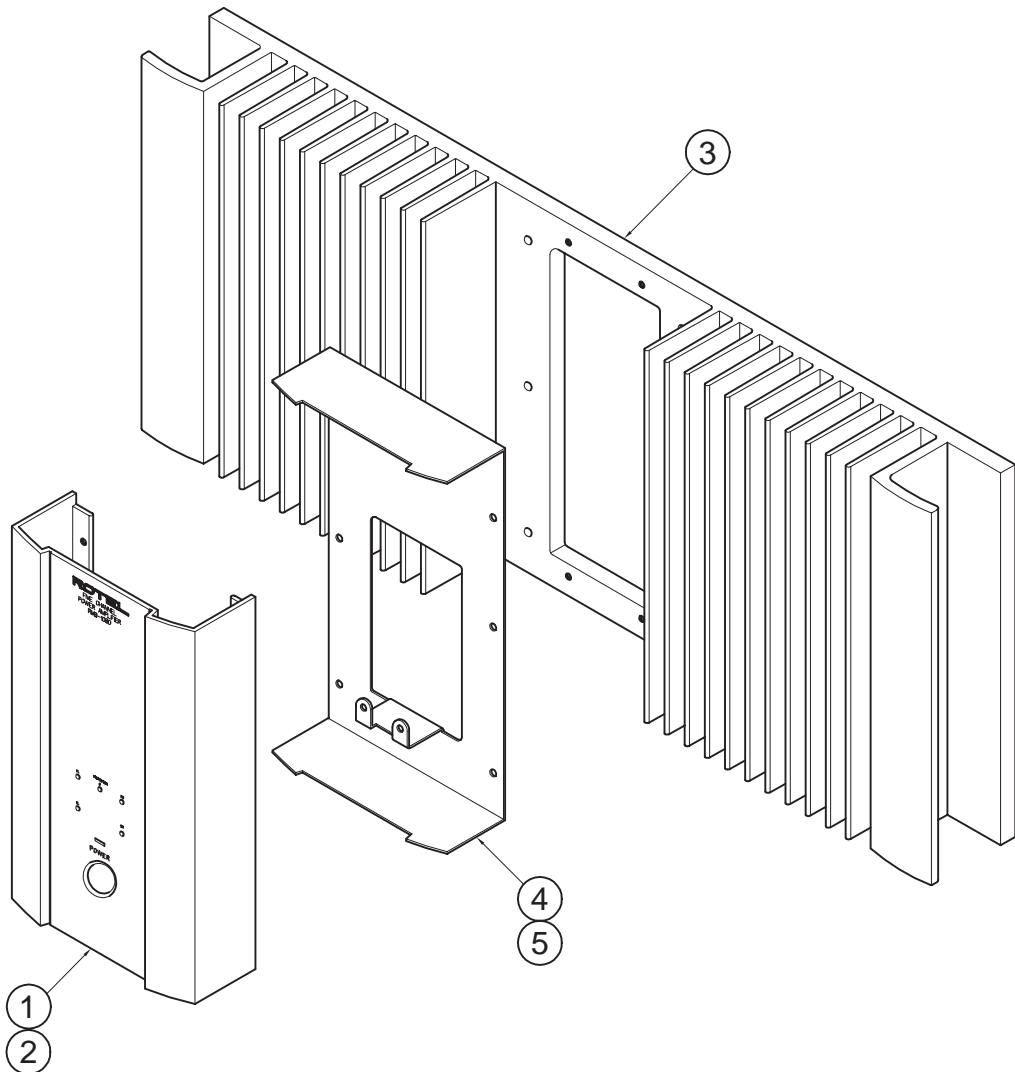
AD711JN
OPA134PA

Addendum List for Black and Silver

RB1080/ V02/ V03/ V04

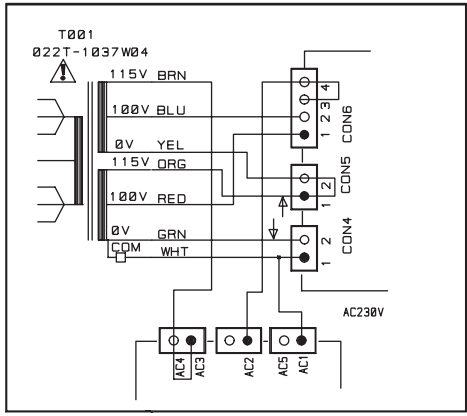
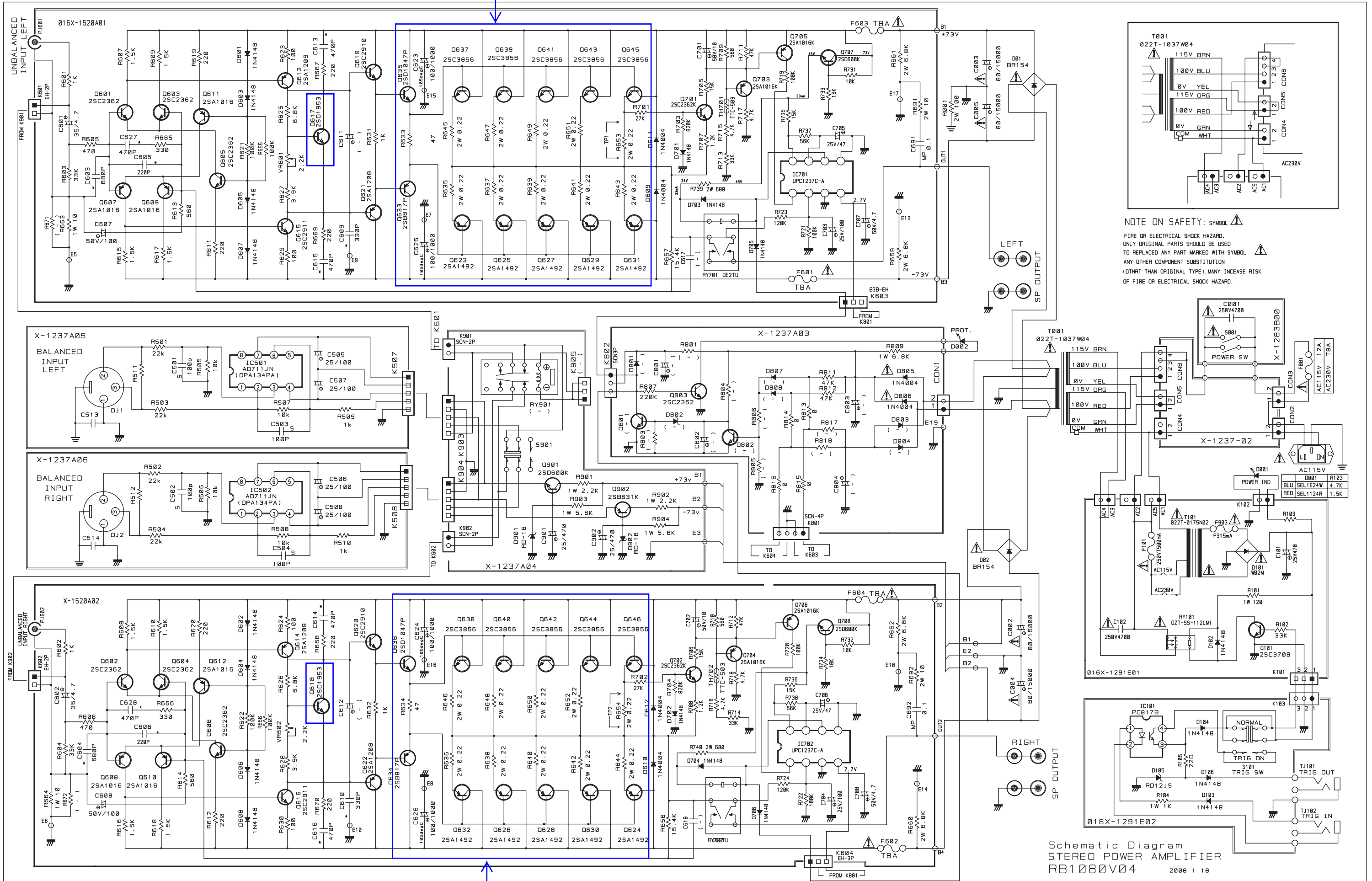
SYMBOL	PARTS	DESCRIPTION
①	011 FP-530-B	BLACK PANEL ASSY
②	011 FP-530-S	SILVER PANEL ASSY
③	011 RV4-02A05	H/S PANEL
	012 RV4-09A00	PUSH BUTTON 14F (BLK)
	012 RV4-09A01	PUSH BUTTON 14F (SLV)
④	013 RV4-05A00	SUB PANEL CHASSIS (BLK)
⑤	013 RV4-05A01	SUB PANEL CHASSIS (SLV)
	034 SEL1124R	LED (RED) 1X5
	034 SEL1E24W	LED (BLU) 1X5

Panel Assy is included:
 Knob Ring
 Power buttons
 LED



On Heatsink

On Heatsink



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), MANY INCREASE RISK
OF FIRE OR ELECTRICAL SHOCK HAZARD.

Schematic Diagram
STEREO POWER AMPLIFIER
RB1080V04
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