



Technical Manual

STEREO POWER AMPLIFIER RB-1070v02

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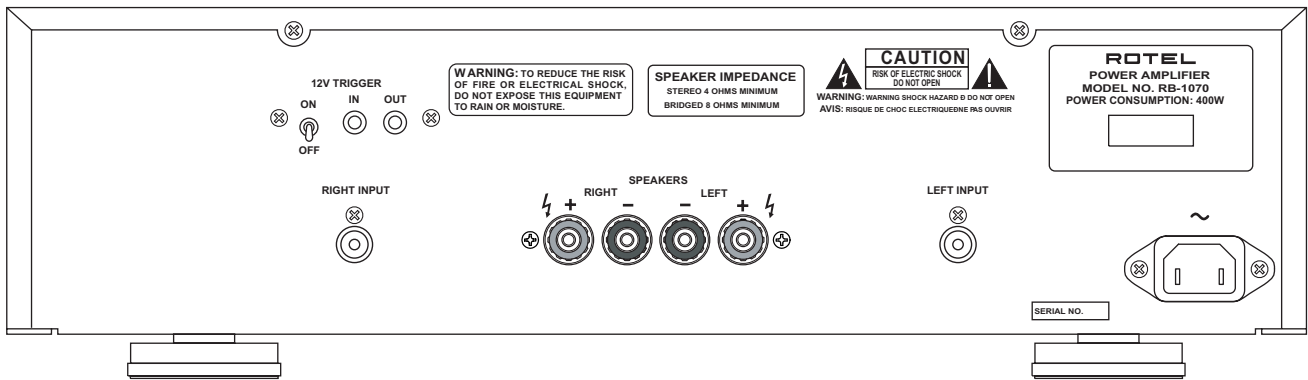
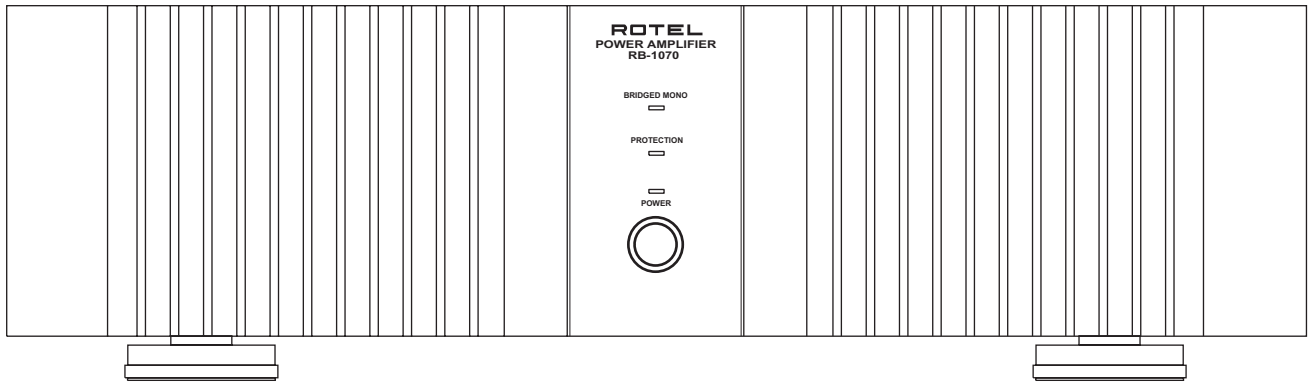
Specification

Continuous Power Output Stereo Mode (20 - 20 kHz, <0.03% THD)	130 watts/ch into 8 ohms
Bridged Mono Power Output (20 - 20 kHz, <0.1% THD)	300 watts/ch into 4 ohms
Total Harmonic Distortion (20 Hz : 20 kHz, 8 ohms)	<0.03 %
Intermodulation Distortion (60 Hz : 7 kHz, 4 : 1)	<0.03 %
Frequency Response (+0.5 db, -3 db)	4 Hz - 100 kHz
Damping Factor (20-20,000 Hz, 8 ohms)	500
Speaker Impedance (combined load)	4 ohms minimum
Signal to Noise Ratio (IHF A network)	120 dB
Input Impedance/Sensitivity	33 k ohms/1.0 volt
Power Requirements	USA: 115 volts, 60 Hz Europe: 230 volts, 50 Hz
Power Consumption	400 Watts
Dimensions (W x H x D)	430 x 121 x 350 mm 16 15/16 x 4 3/4 x 13 3/4 in
Weight (net)	11.9 kg/26.25 lb.

THE ROTEL CO., LTD

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

Serial. NO. Beginning	2161001 ~
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SYMBOL	PARTS NO.	DESCRIPTION
016 X-1240E01C-02C PCB ASSY		
	501 X-1240-D	PCB ASSY (MAIN)
Q613,614	033 A1209-ST	TRANSISTOR 2SA1209-ST
Q615,616	033 C2911-ST	TRANSISTOR 2SC2911-ST
Q607-612	033 TA1016-FG	TRANSISTOR 2SA1016KAA-FG
Q621,622	033 TA1376A-LK	TRANSISTOR 2SA1376A-T-A-LK
Q601-606,801-803	033 TC2362-FG	TRANSISTOR 2SC2362KAA-FG
Q619,620	033 TC3478A-LK	TRANSISTOR 2SC3478A-T-A-LK
D901,902	034 BR84	POWER DIODE 400V8A
D609-612,803-806	034 T1N4004-TB	DIODE 1N4004-F
D601-608,801,807,808	034 T1N4148-86	DIODE 1N4148TAP-50
D802	034 TRD6.2JST1	ZENER DIODE 6.2V (AB2)
TH601,602	034 TTC-503	THERMISTOR 50K
F601-604	036 5ST5	FUSE 250V5A
C611,612	041 35ZA10MTZ	ELECTROLYTIC CAPACITOR 35V10uF
C601,602	041 35ZA4R7MTZ	ELECTROLYTIC CAPACITOR 35V4.7uF
C909-912	041 ALC20S1023XX	ELECTROLYTIC CAPACITOR 63V10000uF
C607,608	041 TEEUFC1E101SB	ELECTROLYTIC CAPACITOR 25V100uF
C802	041 TUTES1E101-TF	ELECTROLYTIC CAPACITOR 25V100uF
C803	041 TUTES1J221-TS	ELECTROLYTIC CAPACITOR 63V220uF
C804	041 TUTES2A220-TF	ELECTROLYTIC CAPACITOR 100V22uF
C901-908	043 TC500V103	CERAMIC CAPACITOR 500V0.01uF
C605,606	044 FSC160V221H	STYROL CAPACITOR 160V220pF
C609,610	044 FSC160V331H	STYROL CAPACITOR 160V330pF
C617,618	044 FSC160V471H	STYROL CAPACITOR 160V470pF
C613-616	044 FSC160V561H	STYROL CAPACITOR 160V560pF
C623,624	044 KT18-2A104K	M.P CAPACITOR MKT1818-410/015
C603,604	044 TFKP2-2A681H	P.P CAPACITOR FKP2-100V681H
VR601,602	051 SFR002-222	SEMI-FIXED RESISTOR VM6CKPV1S-2.2K
R803,805,807,811,812	053 CR14-104J-A	CARBON RESISTOR 1/4W 100K
R804	053 CR14-154J-A	CARBON RESISTOR 1/4W 150K
R813,814	053 CR14-183J-A	CARBON RESISTOR 1/4W 18K
R815,816	053 CR14-222J-A	CARBON RESISTOR 1/4W 2.2K
R808	053 CR14-272J-A	CARBON RESISTOR 1/4W 2.7K
R817,818	053 CR14-273J-A	CARBON RESISTOR 1/4W 27K
R806	053 CR14-333J-A	CARBON RESISTOR 1/4W 33K
R801	054 1WS4.7KJF	MOF RESISTOR 1W 4.7K
R809,819	054 1WS6.8KJF	MOF RESISTOR 1W 6.8K
R647,648	054 2WS10JF	MOF RESISTOR 2W 10
R821,822	054 ERQ14AJ2R2P	FUSIBLE RESISTOR 1/4W 2.2
R635-646	054 NIR2-0.22JF	NON-INDUCTIVE RESISTOR 2W 0.22
R653,654	054 TMF3300	MOF RESISTOR 330
R631,632	054 TMFR4001K	METAL FILM RESISTOR 1/4W 1K
R651,652,661	054 TMFR4018K	METAL FILM RESISTOR 1/4W 18K
R607-610,615-618	054 TMFR401K5	METAL FILM RESISTOR 1/4W 1.5K
R627,628	054 TMFR403K9	METAL FILM RESISTOR 1/4W 3.9K
R621,622	054 TMFR4047K	METAL FILM RESISTOR 1/4W 47K
R633,634	054 TMFR4047R	METAL FILM RESISTOR 1/4W 47
R625,626	054 TMFR406K8	METAL FILM RESISTOR 1/4W 6.8K
R623,624,629,630	054 TMFR4100R	METAL FILM RESISTOR 1/4W 100
R611-612,619-620,655-658	054 TMFR4220R	METAL FILM RESISTOR 1/4W 220
R613,614	054 TMFR4560R	METAL FILM RESISTOR 1/4W 560
R601,602	054 TRC55C1001F	METAL FILM RESISTOR 1K
R603,604	054 TRC55C3302F	METAL FILM RESISTOR 33K
R605,606	054 TRC55C4700F	METAL FILM RESISTOR 470R
RY801	063 A24W-K	RELAY A24W-K

SYMBOL	PARTS NO.	DESCRIPTION
PJ2	066 4TR-2487#7	1P PIN JACK (RED)
PJ1	066 4TR-2487#8	1P PIN JACK (WHT)
SP1	067 C-4761A01	4P SPEAKER TERMINAL
D002,003	068 B2B-EH	CONNECTOR POST 2P
TP2	068 C-3681#1	PCB TERMINAL 2P P5.0
CON1	068 C-3683#2	PCB TERMINAL 3P P7.5
CON3,CON4	068 C-3683#3	PCB TERMINAL 4P P7.5
CON2,TP1	068 C-4422A01	PCB TERMINAL 2P P10
S601-603	068 DM-2GM-O	MINI JUMPER 2P
S601-603	068 TD-03SG	3P CONNECTOR POST
J22,32,49,50	069 4TR-2368B	JUMPER PLATE 20mm
016 X-1283B00 PCB ASSY		
	501 X-1283-C	PCB ASSY (POWER SWITCH)
C001	019 C-4357A03	CAPACITOR COVER (S) H=22
C001	044 DE1307E472M	SPARK KILLER 4700pF
S901	061 C-4176A08	POWER SWITCH PS3-22SPA-P7CZ TV-8 (PCB)
016 X-1291E01-02 PCB ASSY		
	501 X-1291-C	PCB ASSY (TRIGGER CIRCUIT)
	013 4TTU-13	PCB SUPPORT
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	FUSE 250V500mA
F903	036 R251-250 Delete	FUSE (AXIAL) F250MA R251-250MRT1L
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 1W 120
R104	054 1WS1KJF	MOF RESISTOR 1W 1K
RY101	063 OZT-SS-112LM1	RELAY DC12V TV8
S101	064 C-4613A01	TOGGLE SWITCH 200MDP1T2B2M7RE
TJ101,TJ102	065 YKB21-5103A	3.5Φ JACK
K102	068 B2B-EH	CONNECTOR POST 2P
K101	068 B3B-EH	CONNECTOR POST 3P
AC3.AC4	068 C-3681#1	PCB TERMINAL 2P P5.0
AC1.AC5,AC2	068 C-4422A01	PCB TERMINAL 2P P10
HEAT SINKER ASSY		
	505 HSRB-1070-V02	HEAT SINKER ASSY
	019 TO-126	INSULATION SHEET #9524
	019 TO-3P	INSULATION SHEET #9043
Q617,Q618	032 D1953	TRANSISTOR 2SD1953
Q633 - Q638	033 A1492-OPY	TRANSISTOR 2SA1492-OPY
Q625,Q626	033 A1667-OY	TRANSISTOR 2SA1667-OY
Q627- Q632	033 C3856-OPY	TRANSISTOR 2SC3856-OPY
Q623,Q624	033 C4381-OY	TRANSISTOR 2SC4381-OY
OTHERS		
	011 FP-509-B	BLACK PANEL ASSY
	011 FP-509-S	SILVER PANEL ASSY
	011 SN4-04B00	H/S PANEL

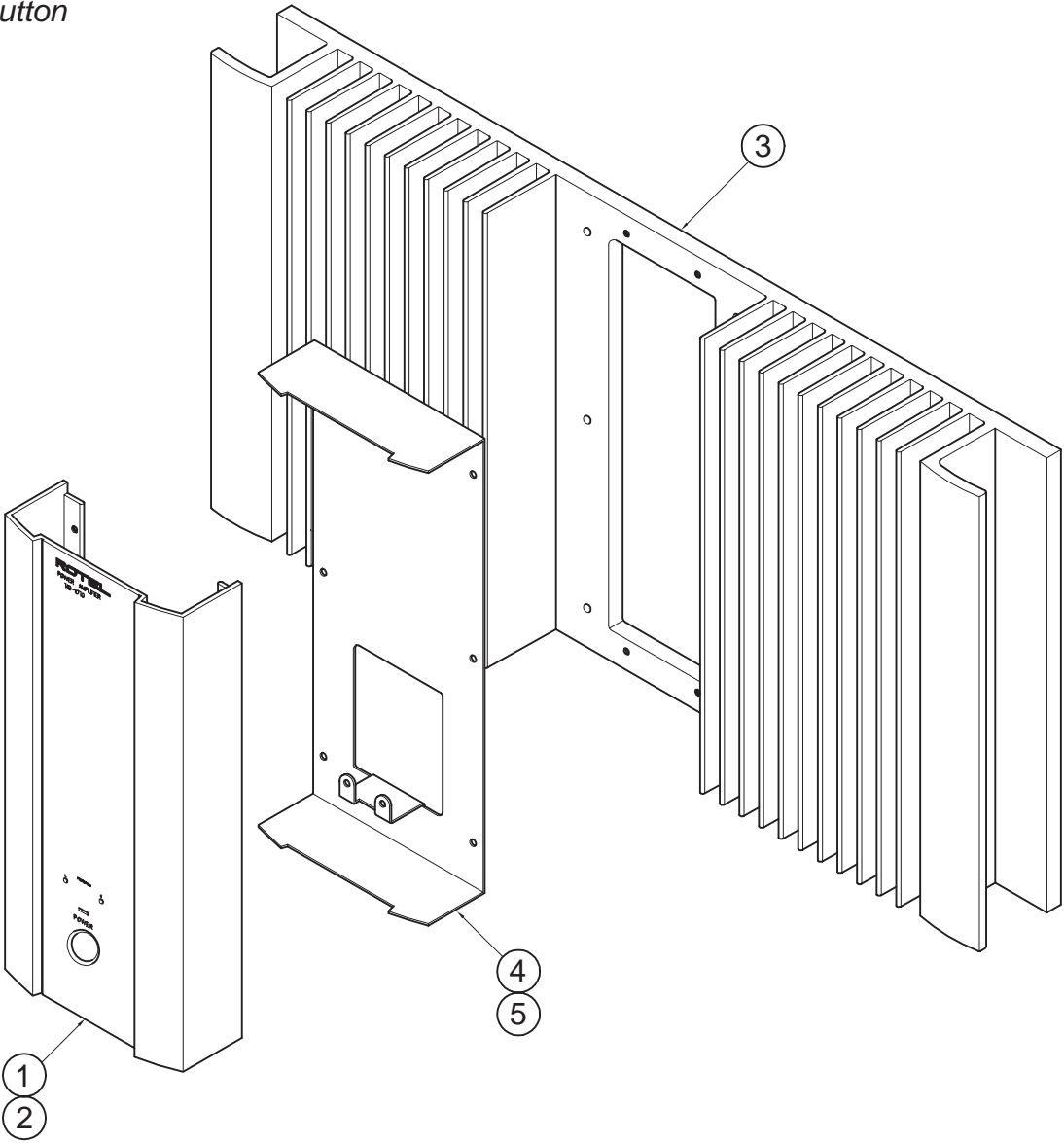
SYMBOL	PARTS NO.	DESCRIPTION
T001	012 RV4-09A00	PUSH BUTTON 14Φ (BLACK)
	012 RV4-09A01	PUSH BUTTON 14Φ (SILVER)
	013 SN4-06A00	SUB PANEL SUPPORT (BLACK)
	013 SN4-06A01	SUB PANEL SUPPORT (SILVER)
	014 SN3-12B00	UPPER COVER
	015 RP-373C	REAR CHASSIS
	019 4TR-2823#2	PLASTIC FOOT 24Φ (ABS)
	019 4TSH-19#2	PLASTIC FOOT 50Φ (BLACK)
	019 C-4720A01	INSULATION SHEET 72X60
	022 T-1052W04	POWER TRANSFORMER
	034 SEL1124R	LED (RED) 1X5
	034 SEL1E24W	LED (BLU) 1X5
	069 C-4629A01	AC 2P INLET 6102.3100 (WIRING)
	072 4TR-2489	3.5mm PLUG SHIELD CORD (for 12V TRIG)
	072 C-4621A03	AC CORD SET (SJT AWG16) for USA
	072 C-4622A02	AC CORD SET for AUSTRALIA
	072 C-4623A02	AC CORD SET for UK
	072 C-4624A03	AC CORD SET for EUROPE
	081 SN4-24D00	INSIDE CARTON
	081 SN4-25D00	SHIPPING CARTON
	081 ZE-204	ETHAFOAM MOULDING
	082 OMRB-1070-V01	OWNER'S MANUAL (EFGSD)

Addendum List for Black and Silver

RB-1070/ V01/ V02

SYMBOL	PARTS	DESCRIPTION
①	011 FP-509-B	BLACK PANEL ASSY
②	011 FP-509-S	SILVER PANEL ASSY
③	011 SN4-04B00	H/S PANEL
④	013 SN4-06A00	SUB PANEL SUPPORT (BLK)
⑤	013 SN4-06A01	SUB PANEL SUPPORT (SLV)

Panel Assy is included:
 Knob Ring
 Power button
 LED

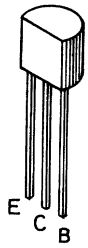


Instruments : DC milli-voltmeter

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	TP1	X-1240 PCB	VR601	DC milli-voltmeter reads 4mV
2	TP2	X-1240 PCB	VR602	

Case Outline



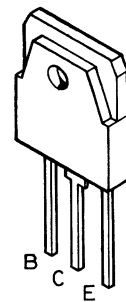
2SA1016K
2SC2362K
2SA1209
2SC2911
2SA1376A
2SC3478A



2SD1953



2SA1667
2SC4381



2SA1492
2SC3856

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