



Technical Manual

MONO POWER AMPLIFIER RB-1091

Table of Contents

- Specification.....1
- Parts List.....2~5
- Destination Setting.....6
- Wiring Diagram7
- PCB Assembly8
- Schematic Diagram.....9

Specification

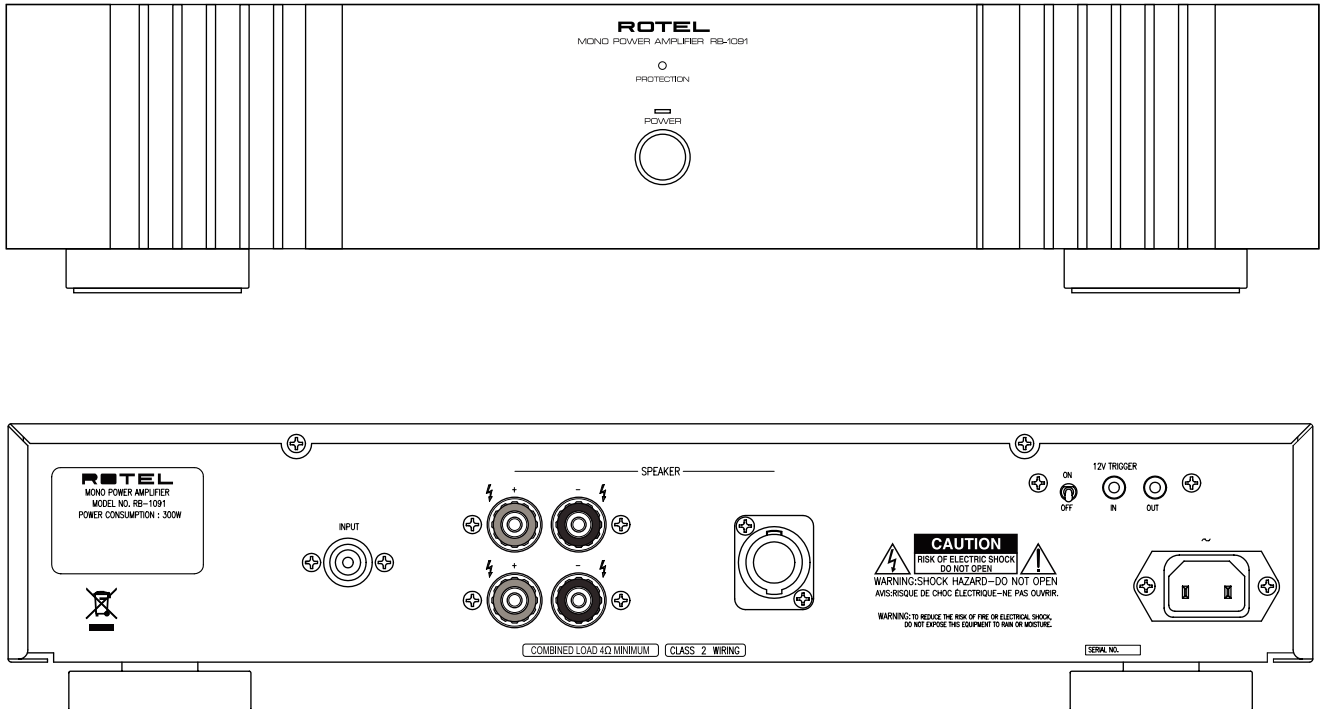
Power Configurations	1 x 500 Watts
Watts/Channel	500 watts, with 20KHz filter, 8 ohm load, 20-20 kHz, 0.03% THD
Total Harmonic Distortion (20Hz-20kHz, 8 ohms)	
Continuous Rated Power	< 0.03%
One-Half Rated Power	< 0.03%
One Watt per Channel	< 0.03%
Power Output (4 Ohms, 0.09% THD)	1000 watts
Output Peak Current	40A
Intermodulation Distortion 60 Hz:7 kHz, 4:1	< 0.03%
Damping Factor (8 ohms)	400
Amp Gain	27.2dB
Input Sensitivity/Impedance	2.2 V / 11.1 k ohms
Frequency Response	10 - 40 KHz (±3dB)
Signal to Noise Ratio (IHF A)	118 dB
Power Requirements	
USA	120 Volts, 60 Hz
Europe	230 Volts, 50 Hz
Power Consumption	300 Watts
	34 Watts - Idling
	3 Watts - Standby
Dimensions (W x H x D)	432 x 92 x 407 mm
	17 ¹ / ₈ x 3 ⁵ / ₈ x 16 ¹ / ₈ in
Panel Height (for rack mounting)	80 mm, 3 ¹ / ₈ in
Weight (net)	7.8 kg, 17.2 lb.

THE ROTEL CO., LTD

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

Serial. NO.

Y-387A-0610/pdf



Please be requested:

When the fault are in the 1000ASP module,
replace the module and send back the modules later.

SYMBOL	PARTS NO.	DESCRIPTION
016 X-1438A01-02 PCB ASSY		
	501 X-1438-B	PCB ASSY (SUB TRANSFORMER)
A,B	013 4TTU-13	PCB SUPPORT
T101	022 T-1075N02	SUB TRANSFORMER
IC101	031 PC817X2	IC (PHOTO COUPLER) PC817X2
Q101	032 TC3708-ST	TRANSISTOR 2SC3708AA-ST
D102,103,104,106,107	034 T1N4148-86	DIODE 1N4148TAP-50
D105	034 TRD12JST1	ZENER DIODE 12V (AB2)
D101	034 W02M	POWER DIODE 1.5A 200V
C101	041 TUTES1E471-7TS	ELECTROLYTIC CAPACITOR 25V470uF
C102,103	044 DE1307E472M	SPARK KILLER 4700pF
R105	053 CR14-221J-A	CARBON RESISTOR 1/4W 220
(R103)	053 CR14-272J-A	CARBON RESISTOR 1/4W 2.7K
(R103)	053 CR14-472J-A	CARBON RESISTOR 1/4W 4.7K
R102	053 CR16-333J-A	CARBON RESISTOR 1/4W 33K
R101,109	054 1WS120JF	MOF RESISTOR 1W 120
R104	054 1WS1KJF	MOF RESISTOR 1W 1K
R107,108	054 ERQ12AJ2R2P	FUSIBLE RESISTOR 1/2W 2.2
RY101,102	063 OZT-SS-112LM1	RELAY DC12V TV8
S101	064 C-4613A01	TOGGLE SW 200MDP1T2B2M7RE
TJ101,TJ102	065 YKB21-5103A	3.5Φ JACK
K102	068 B2B-EH	CONNECTOR POST 2P
K101	068 B3B-EH	CONNECTOR POST 3P
AC1,AC2	068 C-3683#1	PCB TERMINAL 2P P7.5 TP WE-11 I-752NA
016 X-1444A01-03 PCB ASSY		
	501 X-1444	PCB ASSY (OUTPUT TERMINAL)
L201	021 LF174A00	SPEAKER COIL
Q201,202	032 TA608-FG	TRANSISTOR 2SA608KAA-FG
Q204	032 TC3708-ST	TRANSISTOR 2SC3708AA-ST
Q203,205	032 TC536-FG	TRANSISTOR 2SC536KAA-FG
D201	034 T1N4148-86	DIODE 1N4148TAP-50
C201	041 TUTES1E470-7TF	ELECTROLYTIC CAPACITOR 25V47uF
C901	044 DE1307E472M	SPARK KILLER 4700pF
R202-206,208	053 CR14-103J-A	CONBON RESISTOR 1/4W 10K
R210	053 CR14-222J-A	CONBON RESISTOR 1/4W 2.2K
R201,207,209	053 CR14-473J-A	CONBON RESISTOR 1/4W 47K
S901	061 C-4176A08	POWER SWTCH PS3-22SPA-P7CZ TV-8 (PCB)
RY201	063 DE2TU-12	RELAY DE12D2-OT(M)
K205,206	067 C-4762A01	2P SPEAKER TERMINAL
K203,204	068 B2B-EH	CONNECTOR POST 2P
O T H E R S		
	011 FP-589-B	BLACK PANEL ASSY
	011 FP-589-S	SILVER PANEL ASSY
	011 VP3-01A00	H/S PANEL
	012 RV4-09A00	PUSH BUTTON 14Φ (BLACK)
	012 RV4-09A01	PUSH BUTTON 14Φ (SILVER)
	014 VP3-09A00	UPPER COVER
	019 C-4714A00	POWER KNOB RING 14Φ (BLACK)
	019 C-4714A01	POWER KNOB RING 14Φ (SILVER)
	019 PK4-07A00T	METAL FOOT 60Φ
	034 LTL1214A	LED (RED) 2F
	034 SEL1124R	LED (RED) 1x5
	034 SEL1E24W	LED (BLU) 1x5
	036 5HT10-R	FUSE 250V10AH
	036 5HT6.3-R	FUSE 250V6.3AH
	066 C-4641A01	1P PIN JACK (WHT)
	069 C-4629A01	AC 2P INLET 6102.3100 (WIRING)
	072 4TR-2489	3.5mm PLUG SHIELD CORD

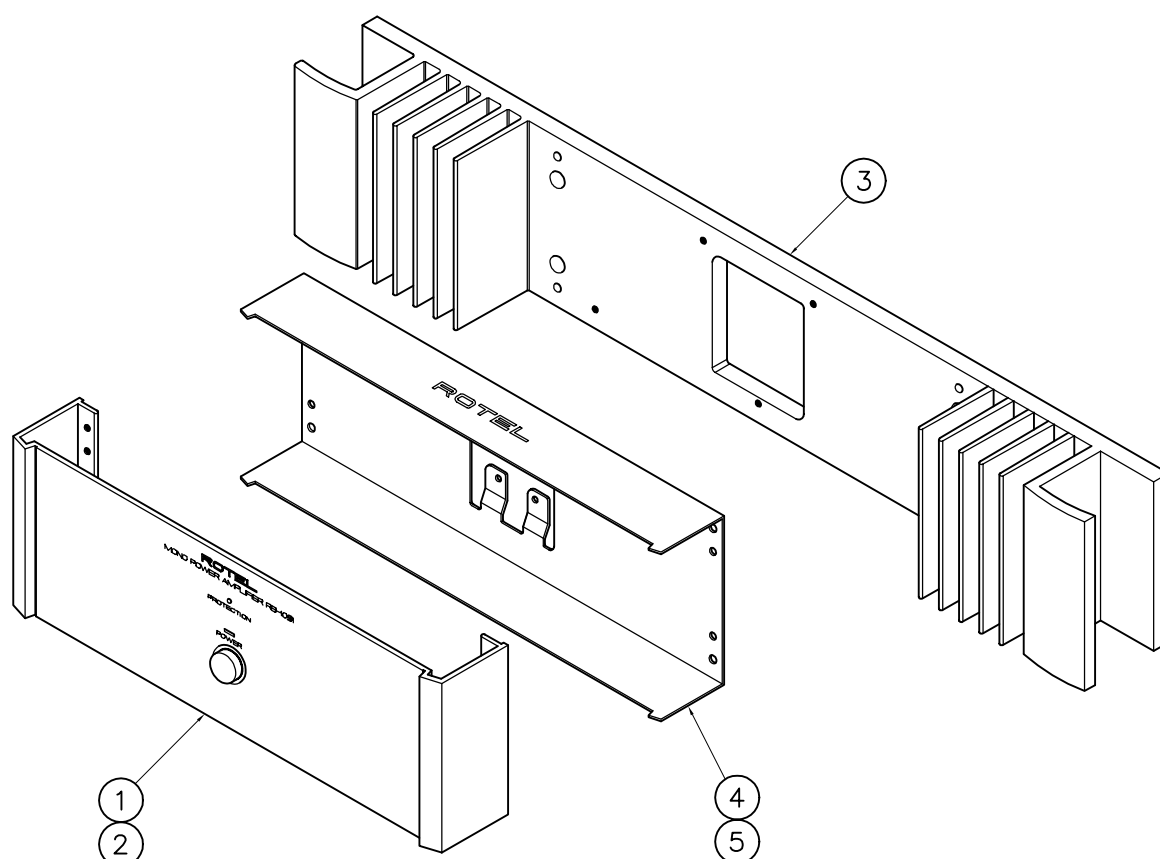
SYMBOL	PARTS NO.	DESCRIPTION
	072 C-4621A03	AC CORD SET (SJT AWG16) for RAA
	072 C-4622A02	AC CORD SET for AUSTRALIA
	072 C-4624A03	AC CORD SET for EUROPE
	072 C-4623A02	AC CORD SET for UK
	081 VP3-10A00	INSIDE CARTON
	081 VP3-11A00	SHIPPING CARTON
	081 ZE-216	ETHAFOAM MOULDING
	082 OMRB-1091-1	OWNER'S MANUAL (EFGISDSwR)
	092 ICEPOWER1000ASP	DIGITAL AMP ASSY (WITH POWER SUPPLY)

Addendum List for Black and Silver

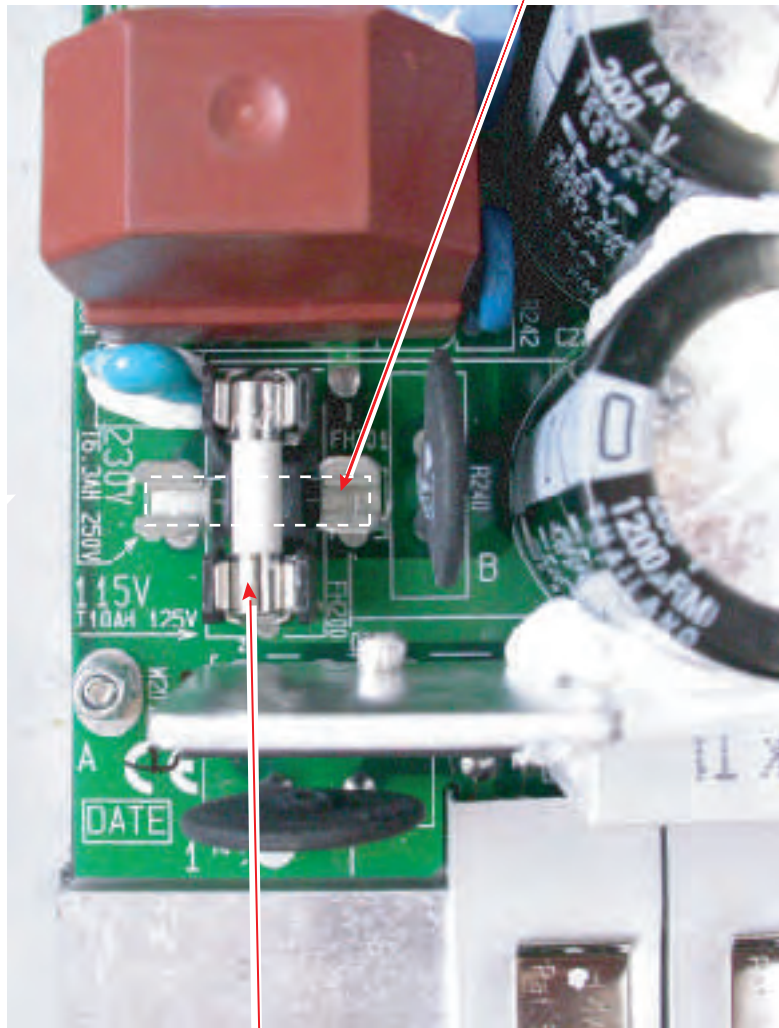
RB-1091

SYMBOL	PARTS	DESCRIPTION
①	011 FP-589-B	BLACK PANEL ASSY
②	011 FP-589-S	SILVER PANEL ASSY
③	011 VP3-01A00	H/S PANEL H150
④	013 VP3-03A00	SUB PANEL HOLDER (BLK)
⑤	013 VP3-03A01	SUB PANEL HOLDER (SLV)
	012 RV4-09A00	PUSH BUTTON 14F (BLK)
	012 RV4-09A01	PUSH BUTTON 14F (SLV)
	034 SEL1124R	LED (RED) 1X5
	034 SEL1E24W	LED (BLU) 1X5

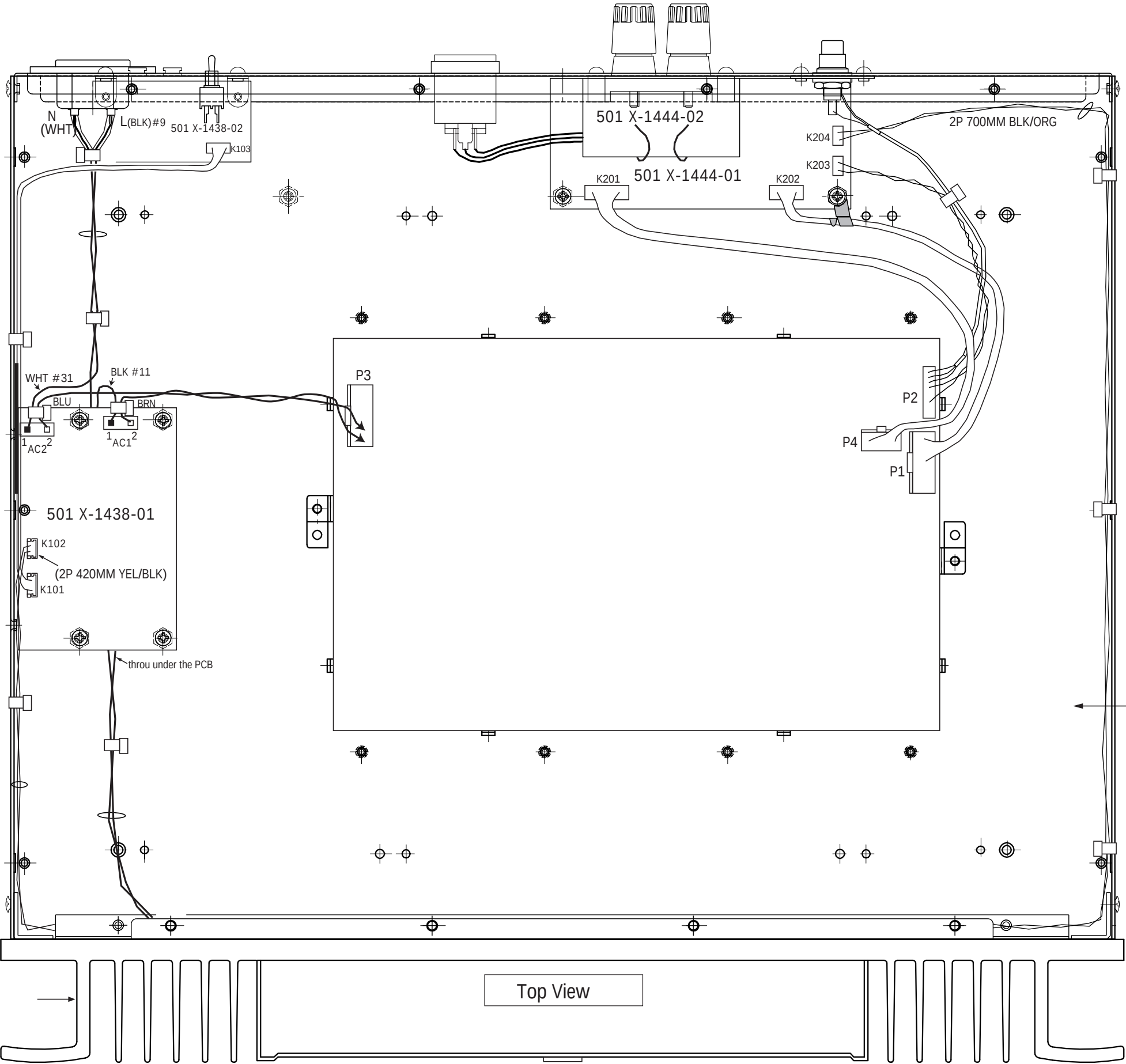
Panel Assy is included:
Knob Ring
LED



- ### Connecting Fuse 5HT6.3-R for 230V destination



6

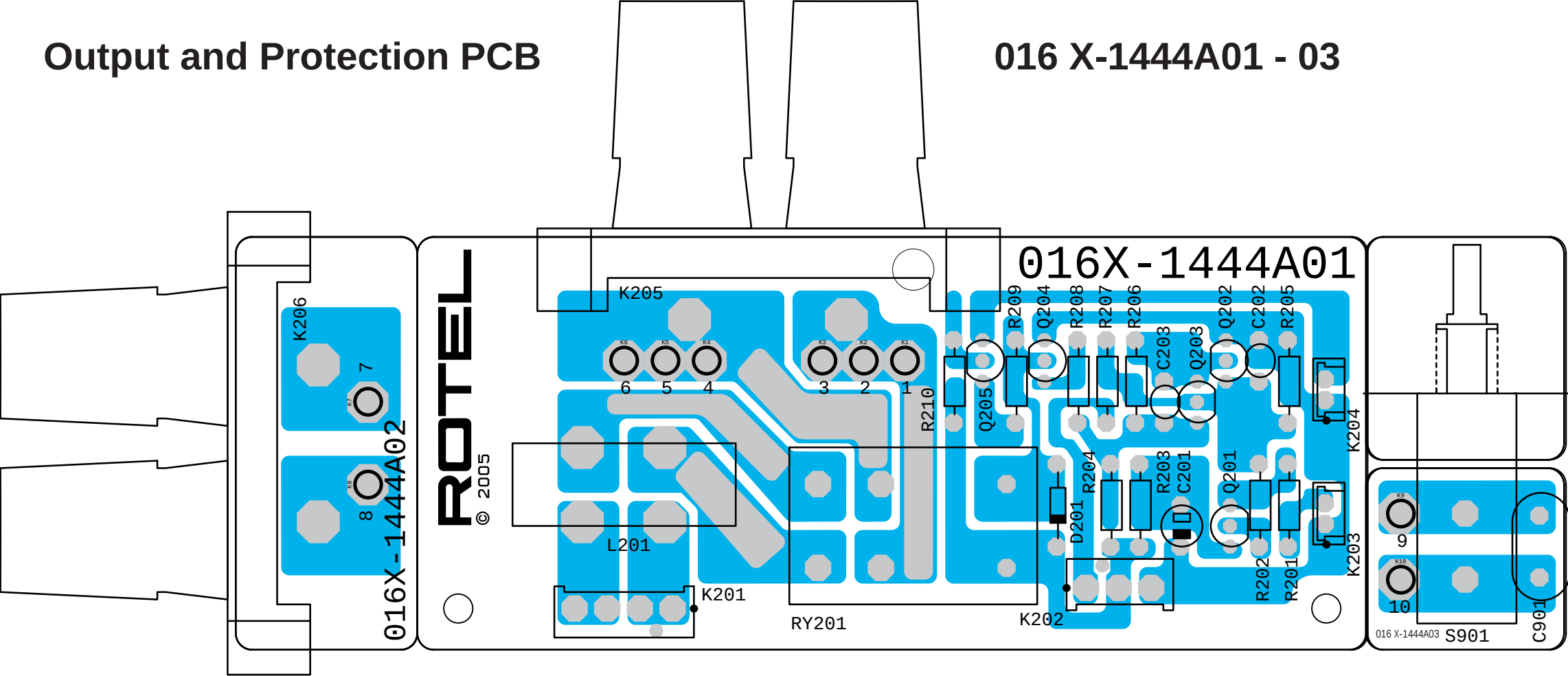


Wiring-1					
	CNT ASSY	PCB,etc	1000ASP	X-1444-01	X-1438-01
1	068 C-4897A02 (9P-2P3P 160mm)	PIN JACK	→ P2	→ K203	
2	068 C-4896A02 (4P 300mm)	X-1444-01(K201)	→ P4		
3	068 C-4896A04 (6P-3P 200mm)	X-1444-01(202)	→ P1		
4	068 C-4588A09 (3P 420mm)	X-1438-02(K103)			→ K101
5	068 C-4666A06 (6P 170mm)	1000ASP(P3)	← (connector)		→ AC1-2(BRN) → AC2-2(BLU)

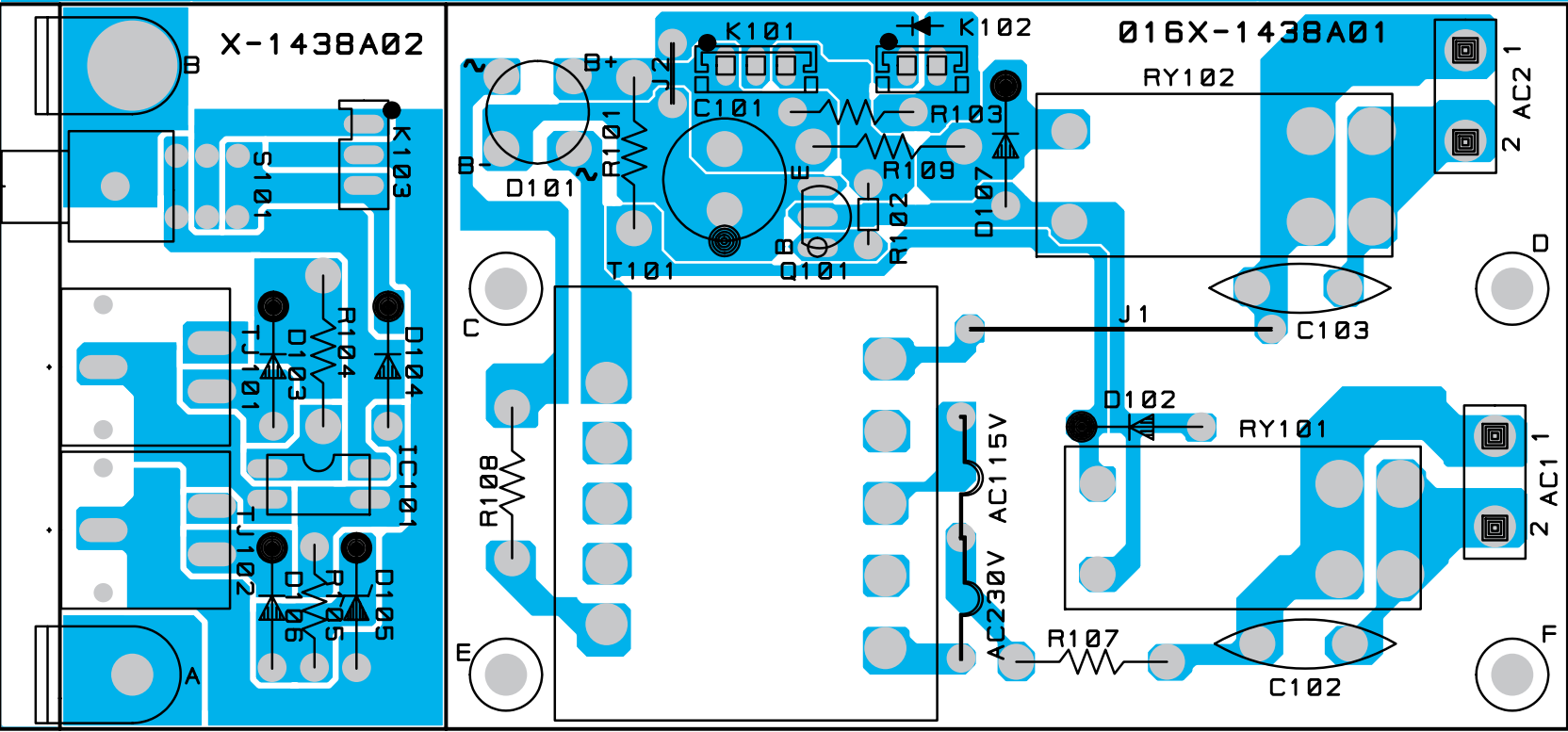
Wiring-2					
	CNT ASSY	PCB,etc	X-1438-01	X-1444-01	ACINLET
6	068 C-4586A06 (2P 420MM YEL/BLK)	POWER LED	→ K102		
7	068 C-4586A07 (2P 700MM BLK/ORG)	PROTECTION LED		→ K204	
8	#9(BLK 500MM)	X-1444-03(9)			→ L
9	#11(BLK 440MM)	X-1444-03(10)	→ AC1-1		
10	#31(WHT 160MM)	ACINLET(N)	→ AC2-1		

Output and Protection PCB

016 X-1444A01 - 03



Sub Transformer PCB
016 X-1438A01 -02



Schematic Diagram

