



Technical Manual

MONO POWER AMPLIFIER RB-1091

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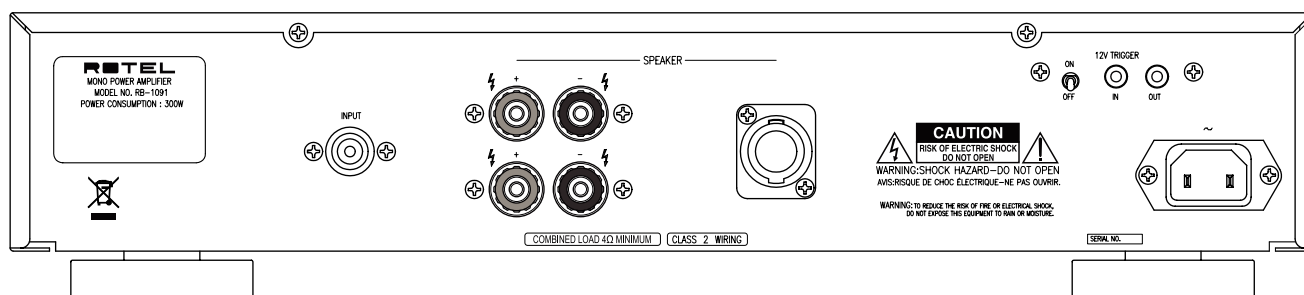
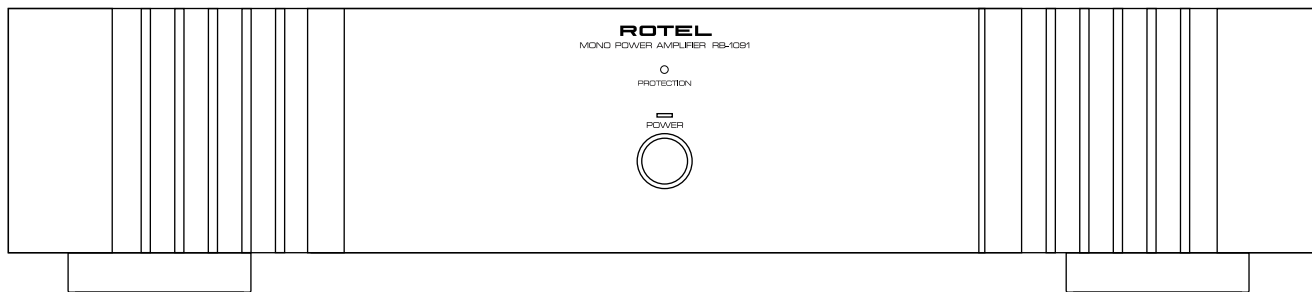
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Specification

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.



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

Parts List 2/2

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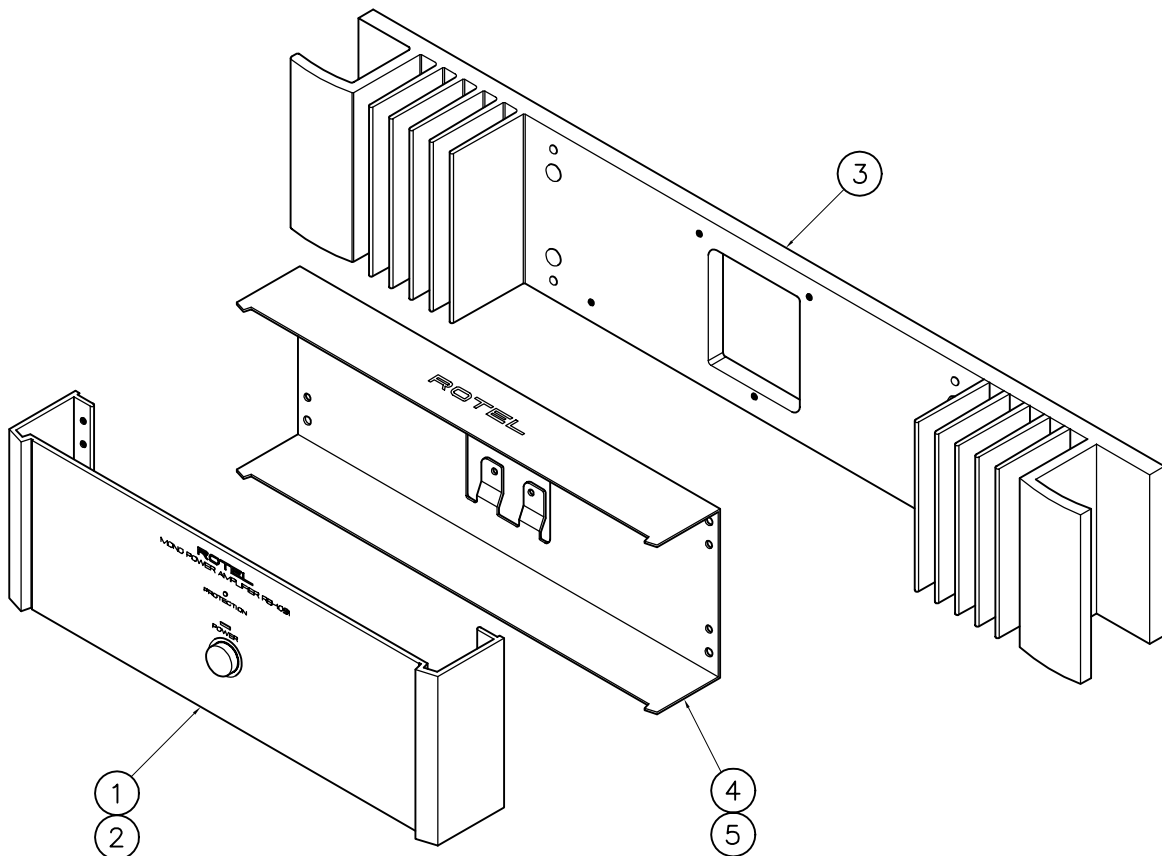
SYMBOL	PARTS NO.	DESCRIPTION
	072 C-4621A03	AC CORD SET (SJT AWG16) for RAA
	072 C-4622A02	AC CORD SET for AUSTRALIA
	072 C-4624A03	AC CORD SET for EUROPE
	072 C-4623A02	AC CORD SET for UK
	081 VP3-10A00	INSIDE CARTON
	081 VP3-11A00	SHIPPING CARTON
	081 ZE-216	ETHAFOAM MOULDING
	082 OMRB-1091-1	OWNER'S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

Addendum List for Black and Silver

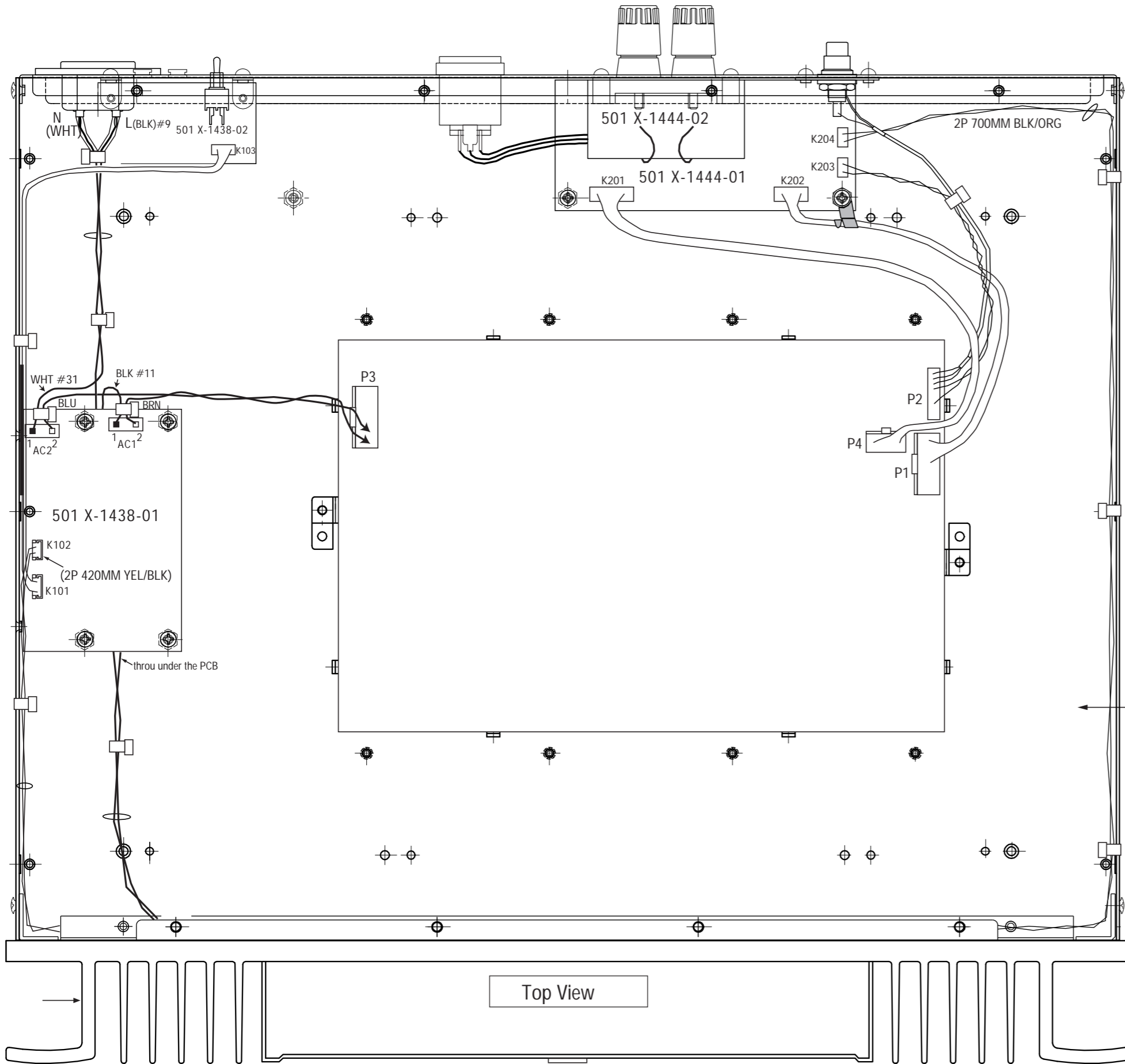
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SYMBOL	PARTS	DESCRIPTION
①	011 FP-589-B	BLACK PANEL ASSY
②	011 FP-589-S	SILVER PANEL ASSY
③	011 VP3-01A00	H/S PANEL H150
④	013 VP3-03A00	SUB PANEL HOLDER (BLK)
⑤	013 VP3-03A01	SUB PANEL HOLDER (SLV)
	012 RV4-09A00	PUSH BUTTON 14F (BLK)
	012 RV4-09A01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

Panel Assy is included:
Knob Ring
LED



Wiring Diagram

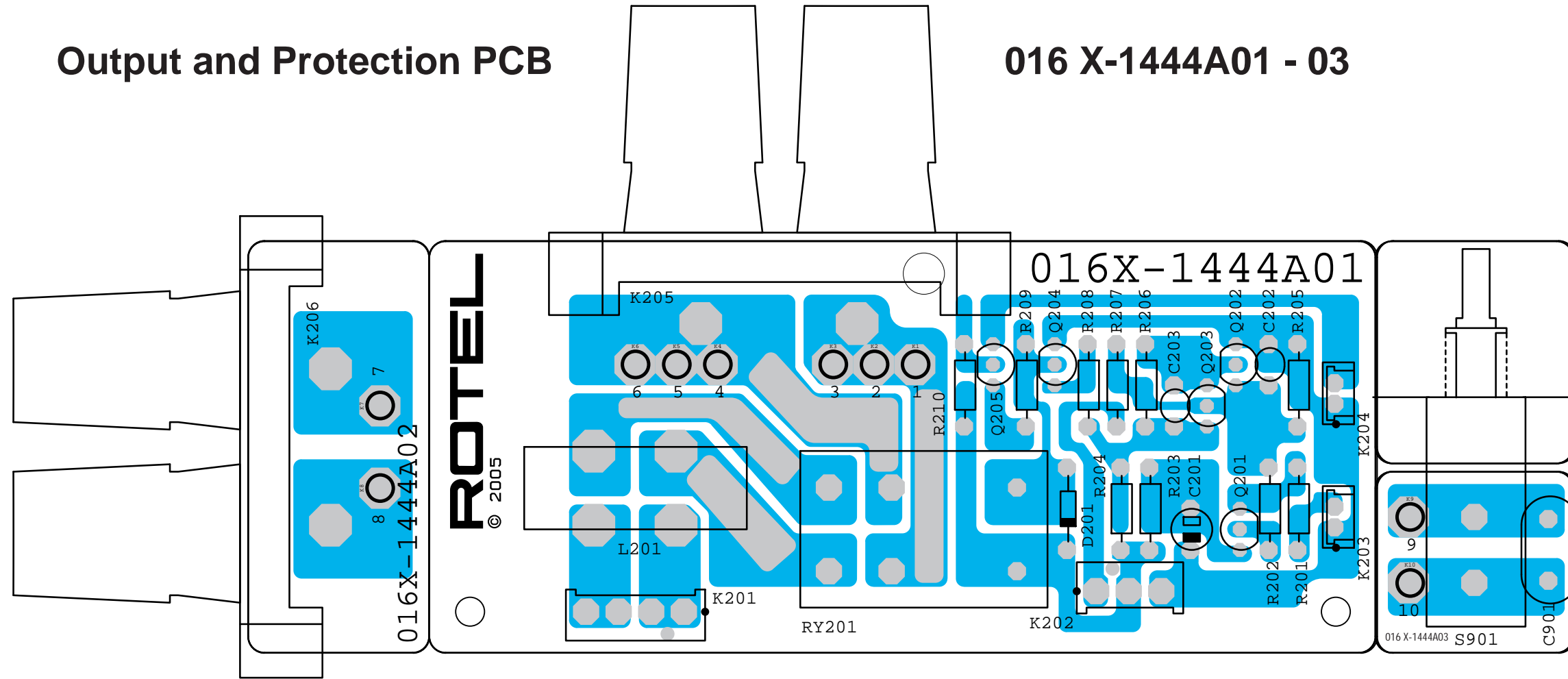


Wiring-1					
	CNT ASSY	PCB,etc	1000ASP	X-1444-01	X-1438-01
1	068 C-4897A02 (9P-2P3P 160mm)	PIN JACK	→ P2	→ K203	
2	068 C-4896A02 (4P 300mm)	X-1444-01(K201)	→ P4		
3	068 C-4896A04 (6P-3P 200mm)	X-1444-01(202)	→ P1		
4	068 C-4588A09 (3P 420mm)	X-1438-02(K103)			→ K101
5	068 C-4666A06 (6P 170mm)	1000ASP(P3)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

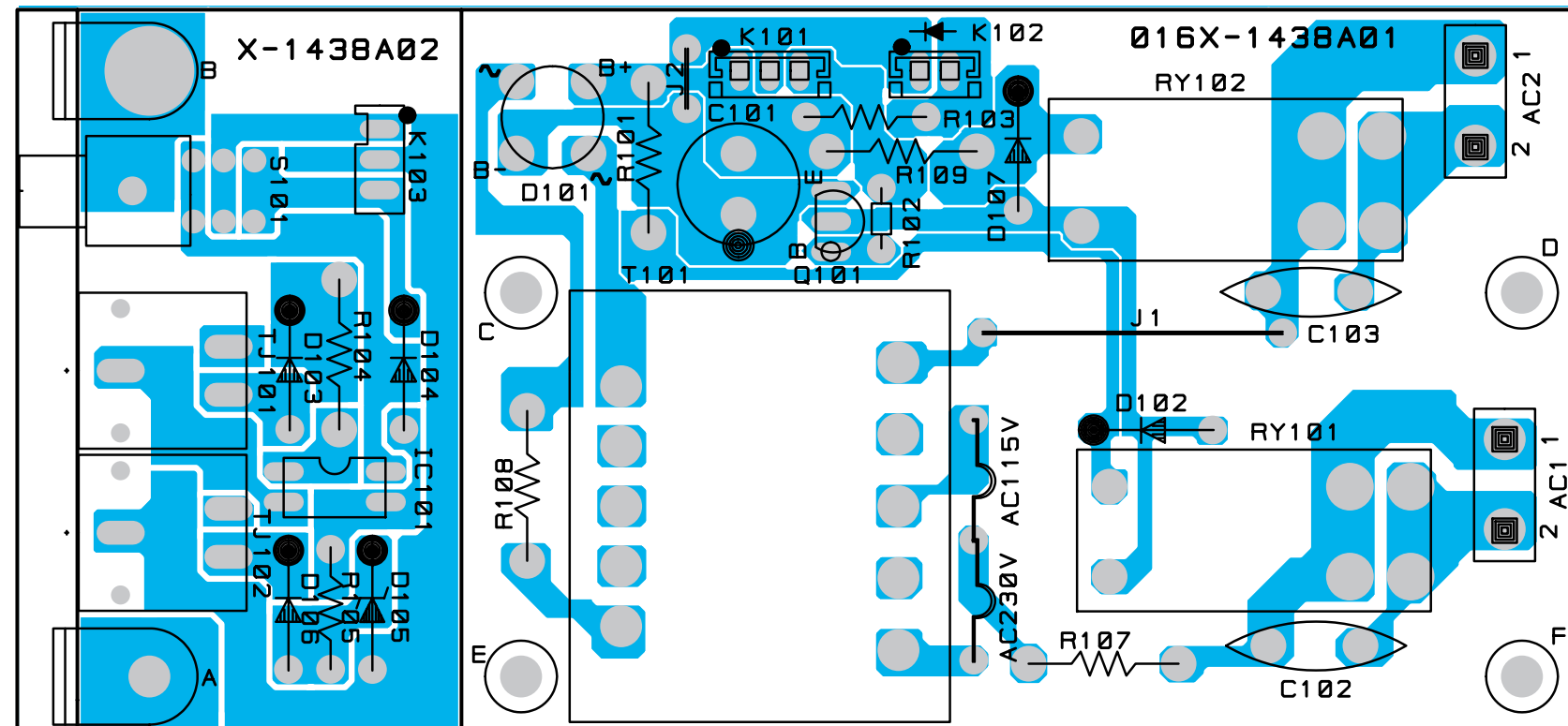
Wiring-2					
	CNT ASSY	PCB,etc	X-1438-01	X-1444-01	ACINLET
6	068 C-4586A06 (2P 420MM YEL/BLK)	POWER LED	→ K102		
7	068 C-4586A07 (2P 700MM BLK/ORG)	PROTECTION LED		→ K204	
8	#9(BLK 500MM)	X-1444-03(9)			→ L
9	#11(BLK 440MM)	X-1444-03(10)		→ AC1-1	
10	#31(WHT 160MM)	ACINLET(N)		→ AC2-1	

Output and Protection PCB

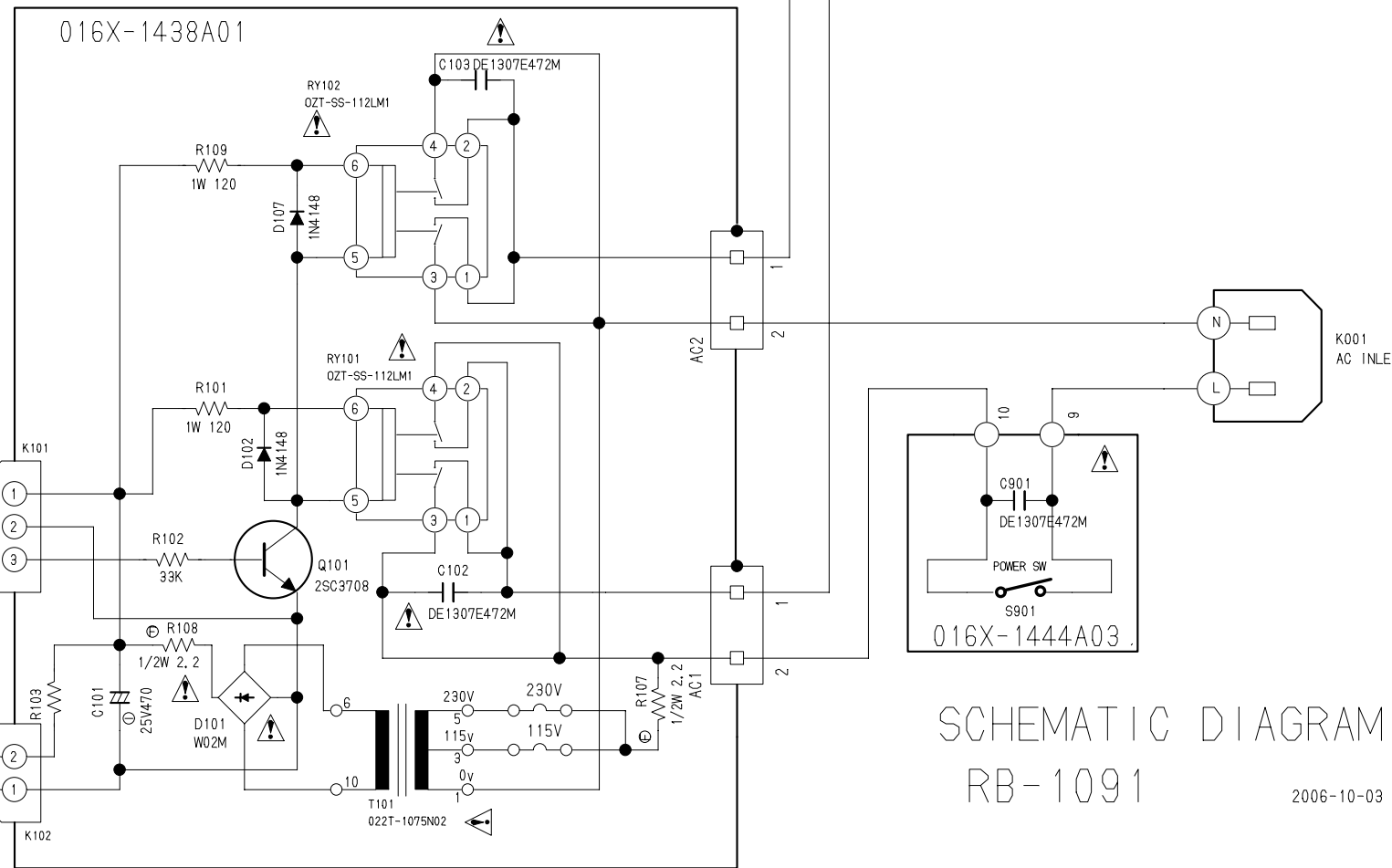
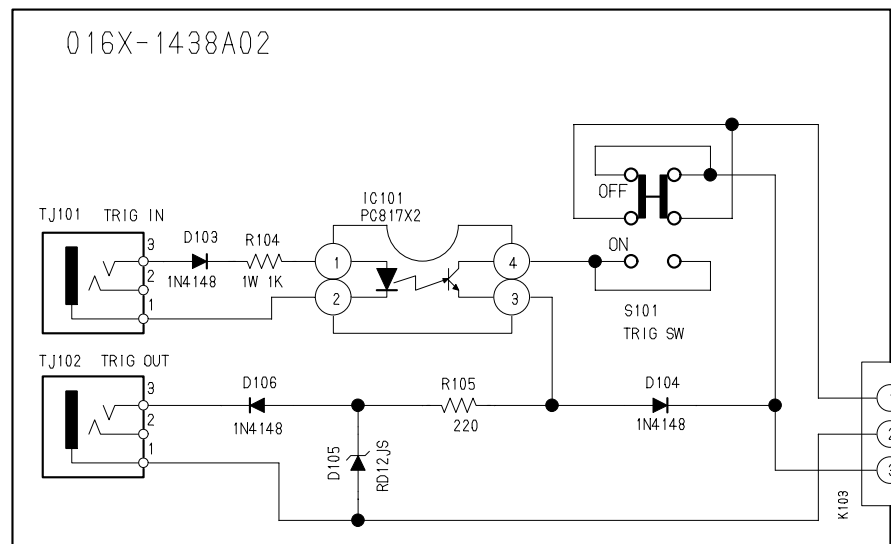
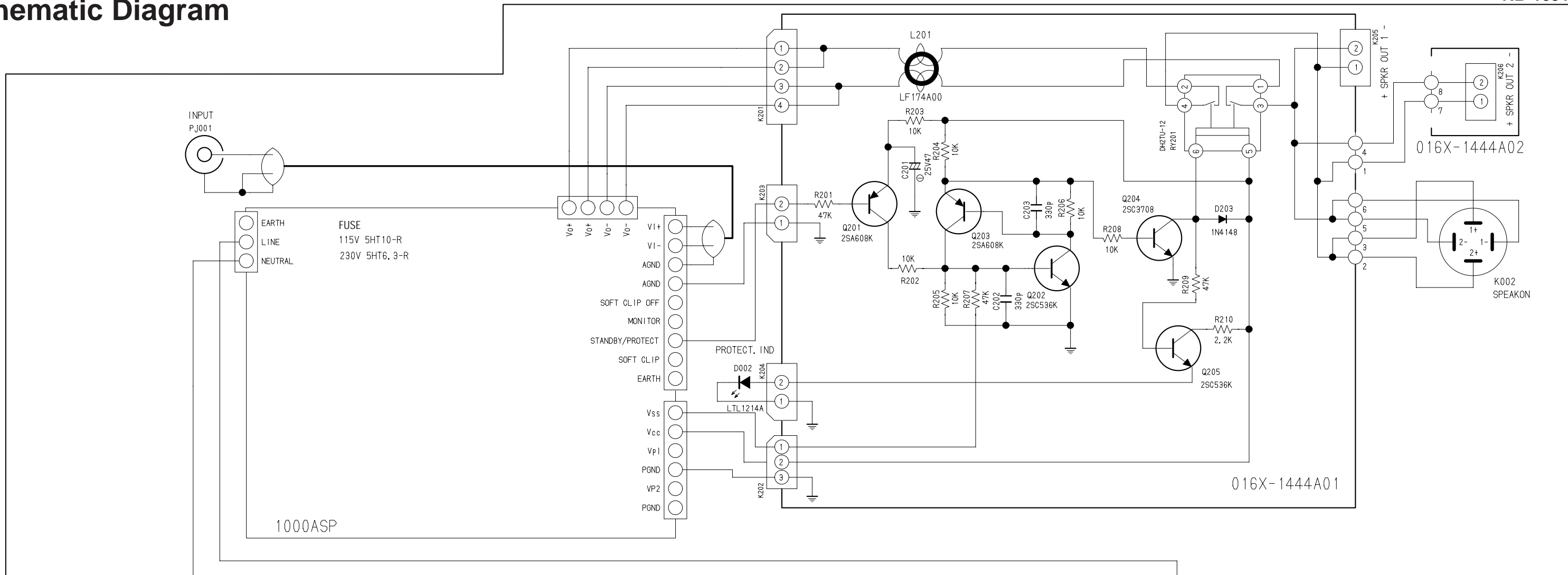
016 X-1444A01 - 03





Sub Transformer PCB
016 X-1438A01 -02



Schematic Diagram



NOTE ON SAFETY : 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), MANY INCREASE RISK
 OF FIRE OR ELECTRICAL SHOCK HAZARD.

R103 = 1.5K (RED)
 R103 = 4.7K (BLU)
 D001 = SEL1124R (RED)
 D001 = SEL1E24W (BLU)

SCHEMATIC DIAGRAM
 RB-1091

2006-10-03