



Technical Manual

TEMP

STEREO POWER AMPLIFIER RB-1582

Table of Contents

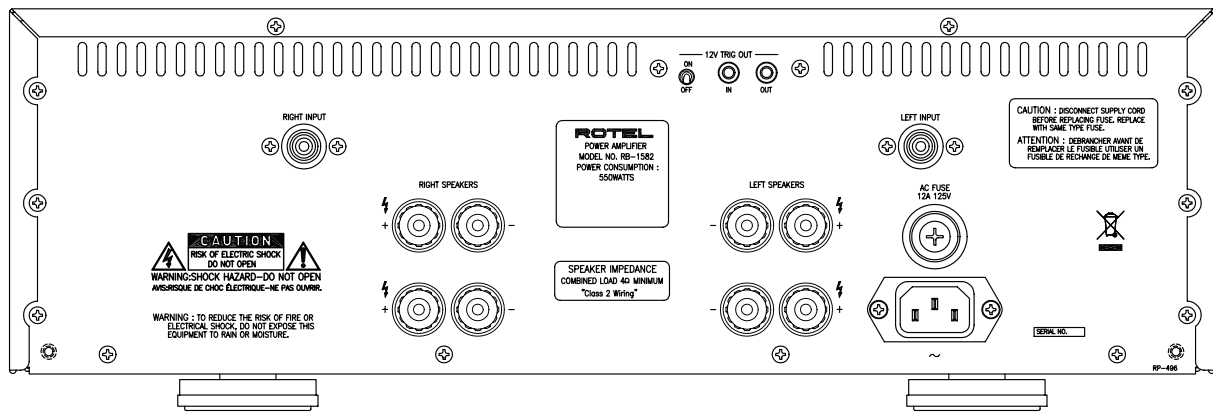
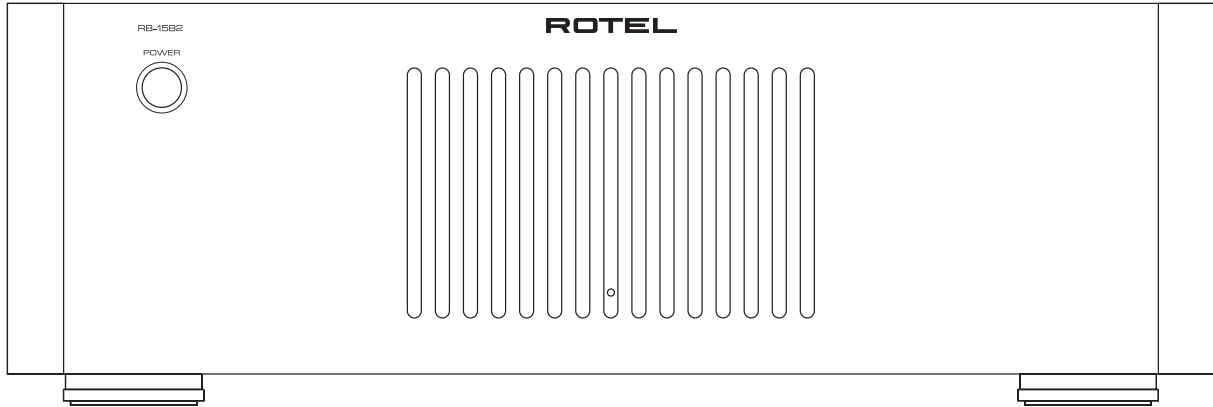
- Specification.....1
- Parts List.....2~5
- Adjustment.....6
- PCB Assembly7
- Schematic Diagram8

Specifications

Continuous Power Output <i>(20-20 kHz, < 0.03%, 8 ohms)</i>	200 watts/channel
Total Harmonic Distortion <i>(20Hz-20kHz, 8 ohms)</i>	< 0.03%
Intermodulation Distortion <i>(60 Hz : 7 kHz, 4:1)</i>	< 0.03%
Frequency Response <i>(+0.5, -3dB)</i>	15Hz - 100kHz
Damping Factor <i>(20-20,000 Hz, 8 ohms)</i>	800
Speaker Impedance	4 ohms minimum
Signal to Noise Ratio <i>(IHF A network)</i>	116 dB
Input Impedance/Sensitivity	12 k Ohms/1.9 volt
Gain	26.5 dB
Power Requirements	
U.S. version	120 Volts, 60 Hz
European version	230 Volts, 50 Hz
Power Consumption	550 Watts
Dimensions	
Width x Height x Depth	431 x 144 x 407 mm 17 x 5 ⁷ / ₈ x 16 ins.
Front Panel Height	3U / 132.6mm / 5 ¹ / ₄ ins.
Weight <i>(net)</i>	17.1kg / 37.62 lbs.

THE ROTEL CO., LTD
 SHINSEN-BLD. 4F 10-10 SHINSEN-CHO, SHIBUYA-KU,
 TOKYO 150-0045, JAPAN

Serial. NO. Beginning



SYMBOL	PARTS NO.	DESCRIPTION
016 X-1283B00 PCB ASSY		
S1,S2	501 X-1283B-6	PCB ASSY (POWER SWITCH)
C001	019 4TR-1194#1	CABLE TIE
C001	019 C-4357A03	CAPACITOR COVER (S) H=22
S901	044 DE2E3KH472MA3B	SPARK KILLER 4700PF
	061 C-4176A07	POWER SW PS3-22-P3AV TV-8
016 X-1291F01-02 PCB ASSY		
T101	501 X-1291F-10	PCB ASSY (TRIGGER)
IC101	022 T-1075N02	SUB TRANSFORMER
Q101	031 IC0012901	IC (PHOTO COUPLER) PC817X2NSZW
D101	032 TC3708-ST	TRANSISTOR 2SC3708AA-ST
D102,103,104,106	034 DB0000100	POWER DIODE W02M
D105	034 DD0000300	DIODE T1N4148-86
F101	034 DZ0020121	ZENER DIODE RD12JS-T1-AZ
F903	036 5ST500-R	FUSE 250VT500MA
C101	036 R251-375MXL	FUSE 125VF375MA
C102	041 TUTES1E471-7TS	ELECTROLYTIC CAPACITOR 25V470UF
R105	044 DE2E3KH472MA3B	SPARK KILLER 4700PF
R103,R106	053 CR14-221J-A	CARBON RESISTOR 220
R102	053 CR14-332J-A	CARBON RESISTOR 3.3K
R101	053 CR14-333J-A	CARBON RESISTOR 33K
R104	054 1WS120JF	MOF RESISTOR 1W 120
RY101	054 1WS1KJF	MOF RESISTOR 1W 1K
S101	063 OZT-SS-112LM1	RELAY DC12V TV8
TJ101,TJ102	064 C-4613A01	TOGGLE SWITCH
K101,K102	065 YKB21-5406N	3.5DIA MINTURE JACK (ST)
AC3, AC4	068 B3B-EH	CONNECTOR POST 3P
AC1, AC5, AC2	068 C-3681#1	PCB TERMINAL 2P
	068 C-4422A01	PCB TERMINAL 2P
016 X-1520B01-02 PCB ASSY		
H1-H4	501 X-1520B-2	PCB ASSY (MAIN)
H5,H6	017 C-4378A01	SUB HEAT SINKER H=35 1635
Q613-616,707,708	017 C-4401A02	SUB HEAT SINKER H=35 1035
IC701,IC702	019 TO-126	MICA BOARD TBM-51W-15#9524
Q707,708	031 IC0008601	IC SMD UPC1237C-A (PROTECTION)
Q703-706	032 D600-EF	TRANSISTOR 2SD600K-EF
Q701,702	032 TA1016-FG	TRANSISTOR 2SA1016KAA-FG
Q613,614	032 TC2362-FG	TRANSISTOR 2SC2362KAA-FG
Q615,616	033 A1209-ST	TRANSISTOR 2SA1209-ST
Q607-610	033 C2911-ST	TRANSISTOR 2SC2911-ST
Q611,612	033 TA1016-FG	TRANSISTOR 2SA1016KAA-FG
Q621,622	033 TA1016-FG	TRANSISTOR 2SA1016KAA-FG
Q601-604	033 TA1208-RST	TRANSISTOR 2SA1208AE-RST
Q605,606	033 TC2362-FG	TRANSISTOR 2SC2362KAA-FG
Q619,620	033 TC2362-FG	TRANSISTOR 2SC2362KAA-FG
D609-612	033 TC2910-RST	TRANSISTOR 2SC2910AE-RST
D601-608,701-706	034 DD0000200	DIODE 1N4004-F (AMMO) 1A 400V
TH701,TH702	034 DD0000300	DIODE 1N4148 (AMMO) WA 150mA 75V
F601-604	034 TH0000400	THERMISTOR TTC-503 50K Ω
C601,602	036 5ST8-R	FUSE 250VT8A
C607,608	041 35ZA4R7MTZ	ELECTROLYTIC CAPACITOR 35V4.7UF
C703,704	041 50ZL100M	ELECTROLYTIC CAPACITOR 50V100UF
C705,706	041 TUTES1E101-7TF	ELECTROLYTIC CAPACITOR 25V100UF
C701,702	041 TUTES1E470-7TF	ELECTROLYTIC CAPACITOR 25V47UF
C707,708	041 TUTES1H100-7TF	ELECTROLYTIC CAPACITOR 50V10UF
C623-626	041 TUTES1H4R7-7TF	ELECTROLYTIC CAPACITOR 50V4.7UF
C609,610	041 VZ2A102	ELECTROLYTIC CAPACITOR UVZ2A102MHD(STRAIGHT)
C627,628	044 FSC160V331H	POLYSTYRENE CAPACITOR 160V330PF
C603,604	044 FSC160V471H	POLYSTYRENE CAPACITOR 160V470PF
C613-616	044 FSCEX160V101H	POLYSTYRENE CAPACITOR 160V100PF
C691,692	044 FSCEX160V471H	POLYSTYRENE CAPACITOR 160V470PF
VR601,VR602	044 KT18-2A104K	M.P CAPACITOR
R691,692	051 SFR001-222	SEMI-FIXD RESISTOR
R659-662	054 2WS10JF	MOF RESISTOR 2W 10
R739,740	054 2WS6.8KJF	MOF RESISTOR 2W 6.8K
R635-654	054 2WS680JF	MOF RESISTOR 2W 680
	054 NIR2-0.22JF	NON-INDUCTIVE RESISTOR 2W 0.22

SYMBOL	PARTS NO.	DESCRIPTION
R719-722,737,738	054 TMF16-1003	METAL RESISTOR 1/6W 100K
R707,708	054 TMF16-1201	METAL RESISTOR 1/6W 1.2K
R723,724	054 TMF16-1203	METAL RESISTOR 1/6W 120K
R705,706,735,736	054 TMF16-1502	METAL RESISTOR 1/6W 15K
R701,702	054 TMF16-2702	METAL RESISTOR 1/6W 27K
R713,714	054 TMF16-3302	METAL RESISTOR 1/6W 33K
R715-718	054 TMF16-4701	METAL RESISTOR 1/6W 4.7K
R711,712	054 TMF16-4702	METAL RESISTOR 1/6W 47K
R709,710	054 TMF16-5600	METAL RESISTOR 1/6W 560
R703,704	054 TMF16-8203	METAL RESISTOR 1/6W 820K
R631,632	054 TMFR4001KI	METAL RESISTOR MFR4 1K
R731,732	054 TMFR4010KI	METAL RESISTOR MFR4 10K
R603,604	054 TMFR4012KI	METAL RESISTOR MFR4 12K
R733,734	054 TMFR4018KI	METAL RESISTOR MFR4 18K
R633,634	054 TMFR4047RI	METAL RESISTOR MFR4 47
R621,622,655,656	054 TMFR4100KI	METAL RESISTOR MFR4 100K
R623,624,629,630	054 TMFR4100RI	METAL RESISTOR MFR4 100
R611,612,619,620,667-670	054 TMFR4220RI	METAL RESISTOR MFR4 220
R665,666	054 TMFR4330RI	METAL RESISTOR MFR4 330
R657,658	054 TPR9372-012KD	AUDIO RESISTOR PR9372 12K
R601,602	054 TRC55D1001C	METAL RESISTOR RC55D 1K
R607-610,615-618	054 TRC55D1501C	METAL RESISTOR RC55D 1.5K
R627,628	054 TRC55D3901C	METAL RESISTOR RC55D 3.9K
R613,614	054 TRC55D5600C	METAL RESISTOR RC55D 560
R625,626	054 TRC55D6801C	METAL RESISTOR RC55D 6.8K
RY701,702	063 DE2TU-24	RELAY DE24D2-OT(M)
K603,604	068 B3B-EH	CONNECTOR POST 3P
016 X-1548A01-02 PCB ASSY		
	501 X-1548A-1	PCB ASSY (PROTECTION)
Q803	032 TC2362-FG	TRANSISTOR 2SC2362KAA-FG
D805,806	034 DD0000200	DIODE 1N4004-F (AMMO) 1A 400V
D801	034 DZ0025R61	ZENER DIODE RD5.6JST1
R807	053 CR14-224J-A	CARBON RESISTOR 1/4W 220K
R811,812	053 CR14-473J-A	CARBON RESISTOR 1/4W 47K
R809	054 1WS6.8KJF	MOF RESISTOR 1W 6.8K
D002	068 B2B-EH	CONNECTOR POST 2P
CON1,CON3,CON4,CON5	068 C-3683#1	PCB TERMINAL 2P
CON6	068 C-3683#3	PCB TERMINAL 4P
CON2	068 C-4422A01	PCB TERMINAL 2P
016 E-1533B00 PCB ASSY		
	501 E-1533B-16	PCB ASSY (POWER LED)
D1,D2	034 LE0002100	LED (BLU) 3F LA31534aB3YMZ-3B/380
CP1	068 S3B-PH-KS	CONNECTOR POST 3P
HEAT SINKER ASSY		
	501 X-1520B-2	HEAT SINKER ASSY
	017 PX3-06A00	HEAT SINKER BOARD
	019 TO-3P	MICA SHEET TBM-51W-15 #9043
Q617,618	032 D1953	TRANSISTOR 2SD1953
Q623-632	033 A1492-OPY	TRANSISTOR 2SA1492-OPY(PAIR 2SC3856)
Q633,634	033 B817P-DE	TRANSISTOR 2SB817P-DE (PAIR 2SD1047P)
Q637-646	033 C3856-OPY	TRANSISTOR 2SC3856-OPY(PAIR 2SA1492)
Q635,636	033 D1047P-DE	TRANSISTOR 2SD1047P-DE (PAIR 2SB817P)
OTHERS		
	011 FP-652-B	BLACK PANEL ASSY
	011 FP-652-S	SILVER PANEL ASSY
	012 RV4-09A00	PUSH BUTTON 14Φ (BLACK)
	012 RV4-09A01	PUSH BUTTON 14Φ (SILVER)
	014 C-5006B02	UPPER COVER (BLACK)
	014 C-5006B02S	UPPER COVER (SILVER)
	014 YV3-02A00	SIDE CAP 3U (132.6H) (BLACK)
	014 YV3-02A01	SIDE CAP 3U (132.6H) (SILVER)
	015 RP-496	REAR CHASSIS
	019 4TSH-19#2	PLASTIC FOOT 50F BLK 4TSH-19#2-RO
T001	022 T-1037W04-V05	POWER TRANSFORMER
D003	034 LE0000600	LED LTL1214A (BRIGHT RED) 2F
PJ601,602	066C-4641A01	1P PIN JACK AU (WHITE)

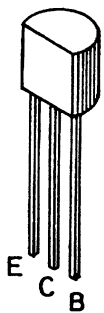
SYMBOL	PARTS NO.	DESCRIPTION
	067 C-4717A01	SPEAKER TERMINAL (RED)
	067 C-4717A02	SPEAKER TERMINAL (BLACK)
	069 C-4637A00	AC 3P INLET 0707-1-CW (FASTON)
	071 MFH4X8BK	MACHINE FLAT HEAD SCREW (BLACK)
	071 MFH4X8NI	MACHINE FLAT HEAD SCREW (SILVER)
	072 4TR-2489	3.5mm PLUG SHIELD CORD (for 12V TRIG)
	072 C-4392A04	AC CORD SET SJT AWG14 for USA
	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 ZE-221 (T/B)	ETHAFOAM MOULDING
	081 ZG3-03A00	INSIDE CARTON
	081 ZG3-04A00	SHIPPING CARTON
	082 OMRB1552/1582-81	OWNER'S MANUAL

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-1520B01 PCB	VR601	DC milli-voltmeter reads 7mV
2	TP 2	X-1520B02 PCB	VR602	

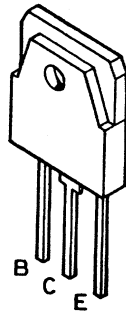
Case Outline



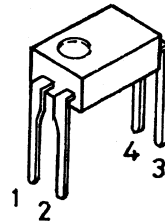
2SA1016K
2SA1208
2SC2362K
2SC3708
2SC2910



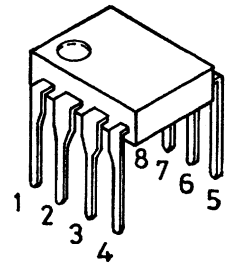
2SB631K
2SA1209
2SD1953
2SD600K
2SC2911



2SA1492
2SB817
2SC3856
2SD1047

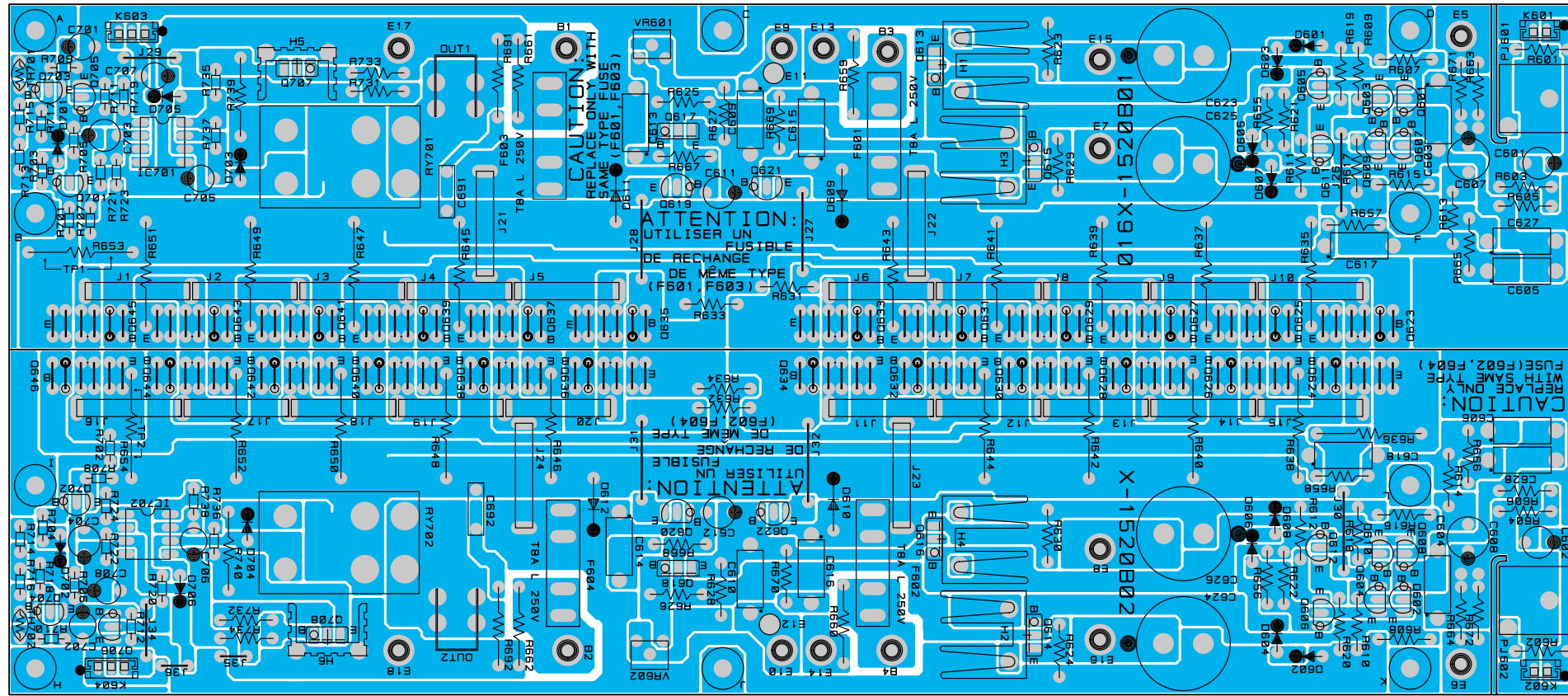


PC817B

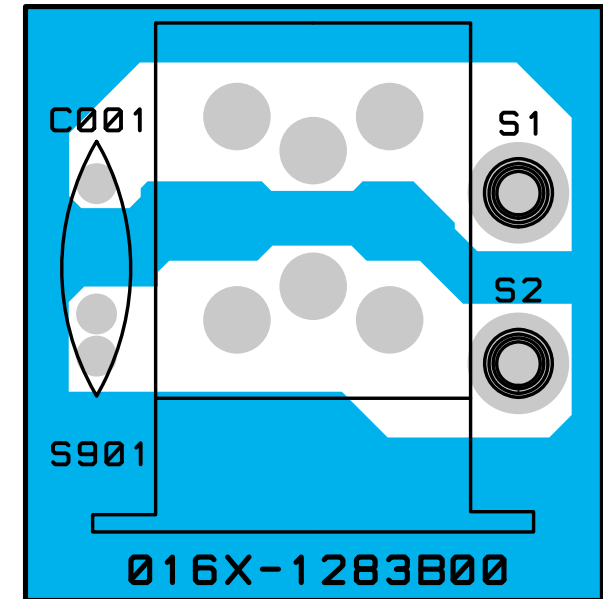


AD711JN
OPA134PA

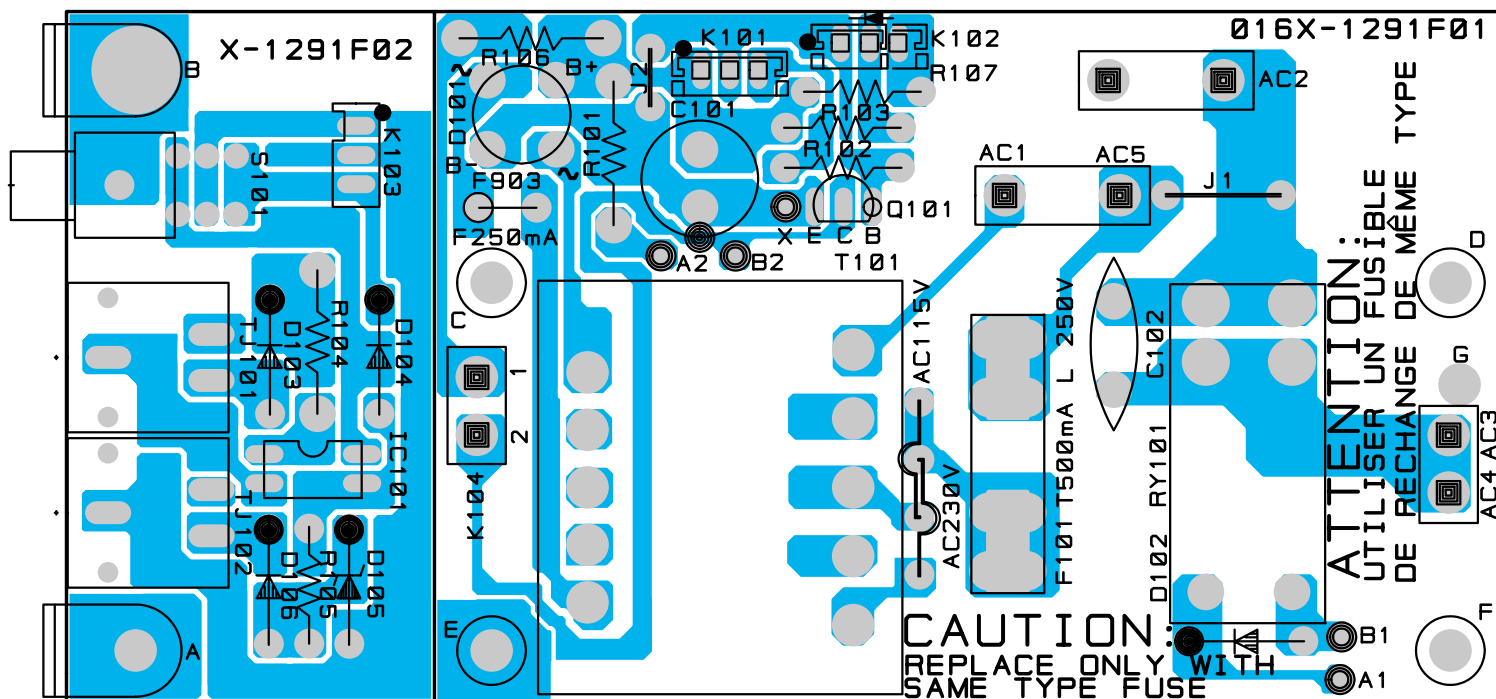
Main PCB 016 X-1520B01~02



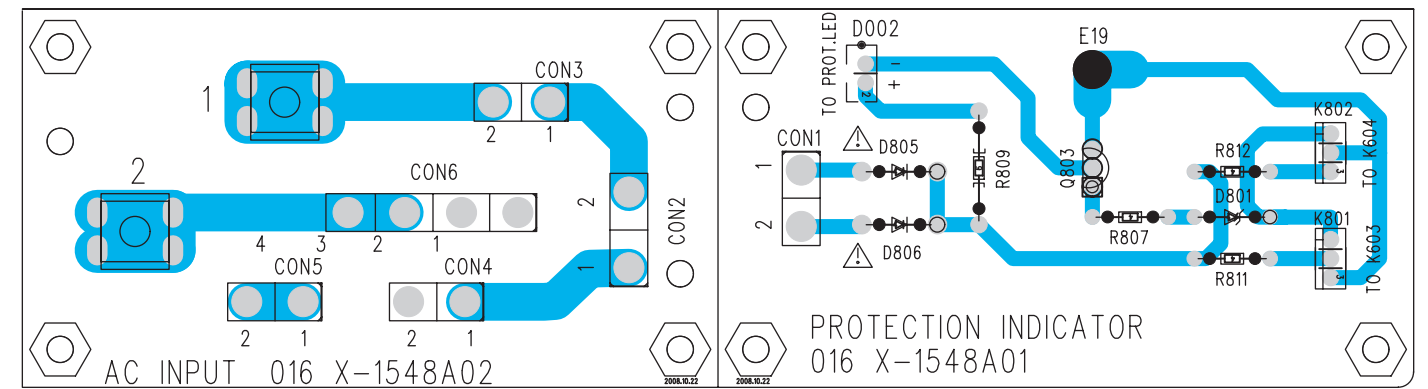
Power Switch PCB 016 X-1283B00



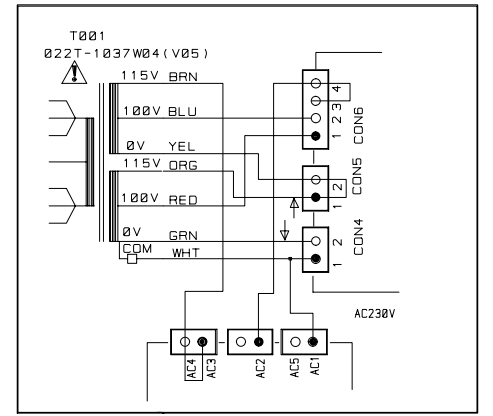
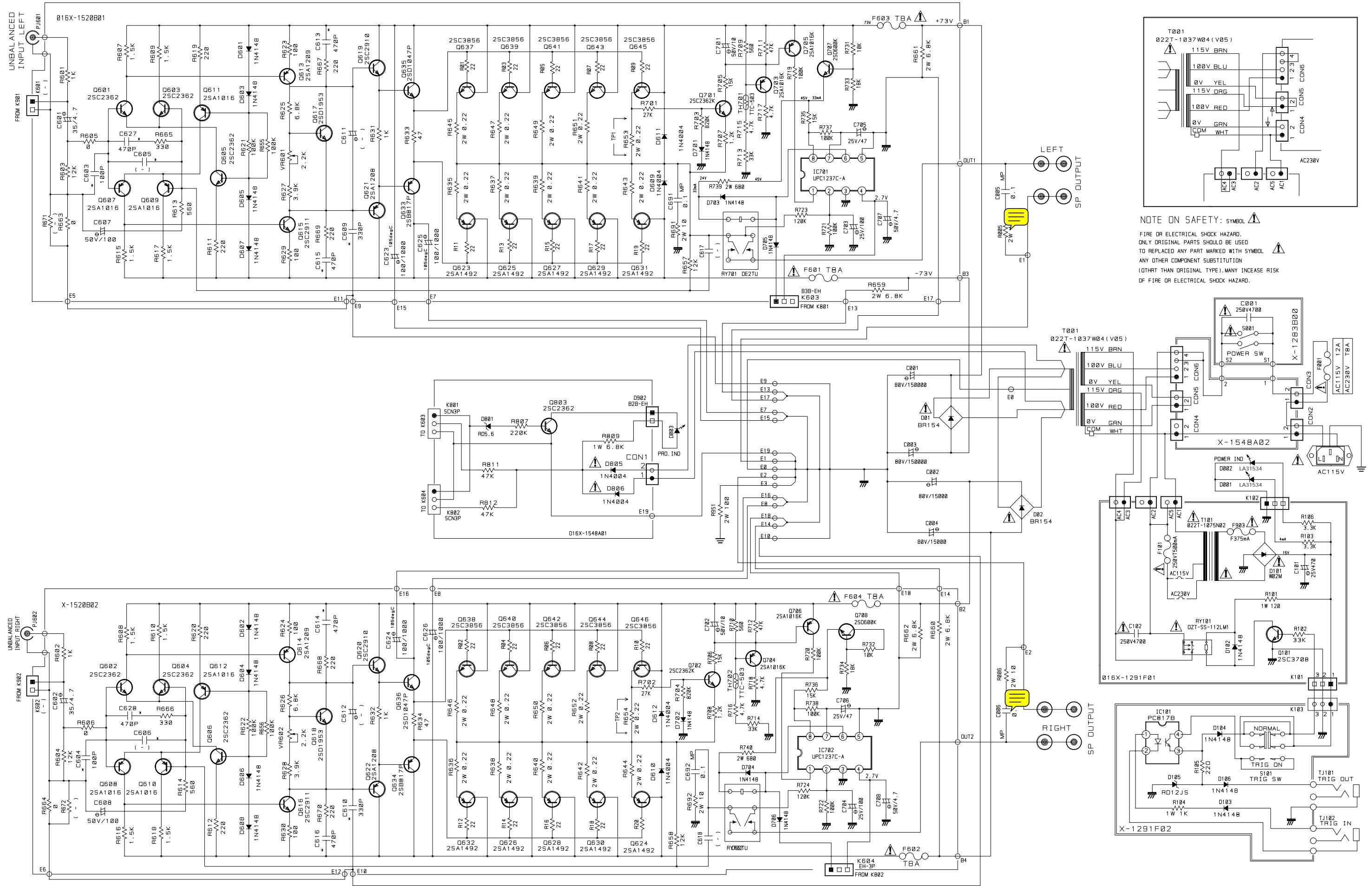
Trigger PCB 016 X-1291F01~02



AC INPUT PCB 016 X-1548A01~02



Schematic Diagram



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.

