



Technical Manual

STEREO CONTROL AMPLIFIER RC-1082

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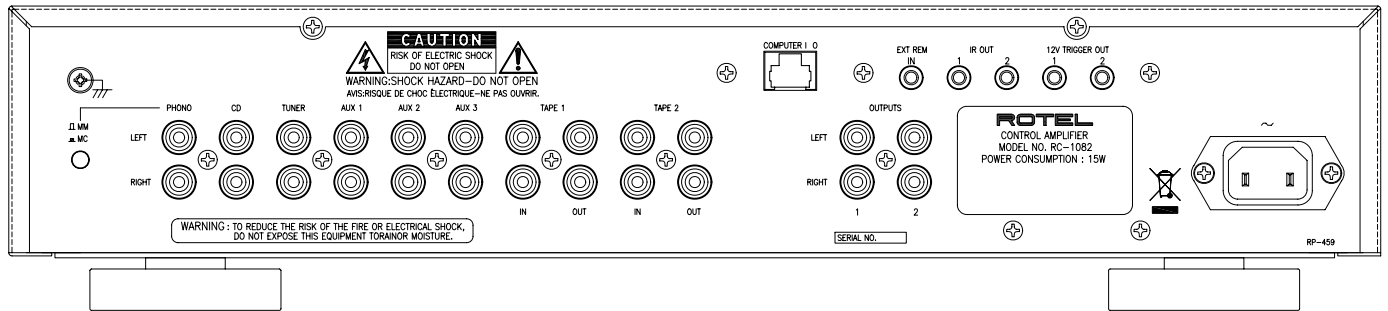
Specifications

Total Harmonic Distortion (20Hz-20kHz)	< 0.004%
Intermodulation Distortion (60 Hz : 7 kHz, 4:1)	< 0.004% at 1V output
Input Sensitivity / Impedance	
Phono - MC	250 μ V / 100 ohms
Phono - MM	2.5 mV / 47 kOhms
Line Level	150 mV / 220 kOhms
Phono Overload (MC/MM)	16 mV / 160 mV
Output Sensitivity / Impedance	1 V/ 100 Ohms
Frequency Response	
Phono Input	20Hz-20kHz, \pm 0.2dB
Line Level Input	4Hz-100kHz, \pm 0.5dB
Signal to Noise Ratio (IHF "A" weighted)	
Phono - MC/MM	70 dB/75 dB
Line Level	100 dB
Power Requirements	
USA Version	120 Volts, 60 Hz
European Version	230 Volt, 50 Hz
Power Consumption	15 Watts
Standby Power Consumption	2.5 Watts
Dimensions (W x H x D)	432 x 92 x 344 mm
	17 x 3 ⁵ / ₈ x 13 ⁹ / ₁₆ "
Weight (net)	7.5 kg, 16.53 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-1463C01-10 PCB ASSY		
	501 X-1463	PCB ASSY
H1,H2,H3,H4	017 C-4401A01	SUB HEAT SINKER H=25
Q501/503,502/504,505/507,506/508	019 C-4334A04	TRANSISTOR CAP
HI,H2,H3,H4	019 TO-126	MICA SHEET TBM-51W-15 #9524
X701	023 CSTLS8M00G53BO	CERAMIC RESONATOR
IC401,402	031 AD797ANZ	IC (OPE AMP)
IC702	031 HIN232CP	IC (RS232) HIN232CPZ
IC704	031 LB1641	IC (MOTOR DRIVE)
IC542	031 LC4966	IC (LOGIC SWITCH)
IC701	031 M37544G2AGP-C82	IC SMD (CPU) OTP
IC504	031 NJM2114D	IC (OPE DUAL)
IC601	031 NJM4556AD	IC (OPE DUAL)
IC901	031 NJM7805FA	IC (REG. +5VDC) KIA7805API
IC902	031 NJM7815FA	IC (REG. +15VDC) KIA7815API
IC903	031 NJM7915FA	IC (REG. -15VDC) KIA7915PI
IC403,404,IC301,302	031 OPA277P	IC (OPE AMP)
IC904	031 PC817X2	IC (PHOTO COUPLER) PC817X2J000F
IC705	031 RPM7138H9	IC (REMOTE RECEIVER)
IC703,706	031 TC74HC595AP	IC (8BIT SHIFT REGISTELATCH)
IC451	031 TC9163AN	IC (SWITCH ALLEY) TC9193ANG
Q401-404	032 D786-RS	TRANSISTOR 2SD786-RS
Q451-458,468	032 TA1345	TRANSISTOR 2SA1345AC
Q527,528	032 TA608-FG	TRANSISTOR 2SA608KAA-FG
Q460-467,470	032 TC3399	TRANSISTOR 2SC3399AC
Q525,526,529,530,701,903,907	032 TC536-FG	TRANSISTOR 2SC536KAA-FG
Q904	032 TD863-EF	TRANSISTOR 2SD863AE-EF
Q519,520	033 A1209-ST	TRANSISTOR 2SA1209-ST
Q409,410,521,522	033 B631-EF	TRANSISTOR 2SB631K-EF
Q517,518	033 C2911-ST	TRANSISTOR 2SC2911-ST
Q407,408,523,524	033 D600-EF	TRANSISTOR 2SD600K-EF
Q505-512,902	033 TA1016-FG	TRANSISTOR 2SA1016KAA-FG
Q905	033 TA1450-ST	TRANSISTOR 2SA1450AA-ST
Q405,406,501-504,513-516	033 TC2362-FG	TRANSISTOR 2SC2362KAA-FG
Q901,906	033 TC3708-ST	TRANSISTOR 2SC3708AA-ST
D901,902	034 BR84	POWER DIODE 400V8A
D511-514	034 E-562	CURRENT REGULATIVE DIODE 5.6mA
D509,510	034 MA27W-A	VARISTOR DIODE (MA2B027WA)
D715-730	034 SELK1E12W	LED 2F (BLUE)
D903,905	034 T1N4004-TB	DIODE 1N4004-F
D401-404,441-448,501-508,515,516,541	034 T1N4148-86	DIODE 1N4148TAP-50
D601,602,701-708,714,904,907,914	034 T1N4148-86	DIODE 1N4148TAP-50
D709-712,911	034 TRD12JST1	ZENER DIODE 12V (AB2)
D407,408	034 TRD15JST1	ZENER DIODE 15V (AB2)
D405,406,908,912	034 TRD18JST1	ZENER DIODE 18V (AB2)
D906	034 TRD4.7JST1	ZENER DIODE 4.7V (AB2)
D713	034 TRD5.6JST1	ZENER DIODE 5.6V (AB2)
F901	036 5ST2.5-R	FUSE 250V2.5A
C507,508	041 25ZA47MTZ	ELECTROLYTIC CAPACITOR 25V47uF
C501,502	041 35ZA4R7MTZ	ELECTROLYTIC CAPACITOR 35V4.7uF
C901-904	041 ALN20S1078DD	ELECTROLYTIC CAPACITOR 63V 4700uF
C708	041 FYD0H224Z	SUPER CAPACITOR 5.5V0.22F

SYMBOL	PARTS NO.	DESCRIPTION
C607,608	041 TEEUFC1E101SB	ELECTROLYTIC CAPACITOR 25V100uF
C413-420,451,452,529,530,C303-306	041 TEEUFC1E221B	ELECTROLYTIC CAPACITOR 25V220uF
C421-424,918,919	041 TEEUFC1E471B	ELECTROLYTIC CAPACITOR 25V470uF
C409,410,425,426,527,528,531,532	041 TEEUFC1H100LB	ELECTROLYTIC CAPACITOR 50V10uF
C505,506	041 TEEUFC1H1R0B	ELECTROLYTIC CAPACITOR 50V1uF
C601,602	041 TEEUFC1H4R7B	ELECTROLYTIC CAPACITOR 50V4.7uF
C509-512,908,909	041 TEEUFC1V101B	ELECTROLYTIC CAPACITOR 35V100uF
C513-516	041 TEEUFC1V471B	ELECTROLYTIC CAPACITOR 35V470uF
C701,722,912	041 TUTES1A101-7TF	ELECTROLYTIC CAPACITOR 10V100uF
C916,917,C720	041 TUTES1E101-7TF	ELECTROLYTIC CAPACITOR 25V100uF
C707	041 TUTES1E470-7TF	ELECTROLYTIC CAPACITOR 25V47uF
C713-717,910	041 TUTES1H010-7TF	ELECTROLYTIC CAPACITOR 50V1uF
C461-468,718	041 TUTES1H100-7TF	ELECTROLYTIC CAPACITOR 50V10uF
C719	041 TUTES1H2R2-7TF	ELECTROLYTIC CAPACITOR 50V2.2uF
C911	041 TUTES1V101-7TF	ELECTROLYTIC CAPACITOR 35V100uF
C915	041 TUTES1V102-7TS	ELECTROLYTIC CAPACITOR 35V1000uF
C605,606	042 TP50V103JE	MYLAR CAPACITOR 0.01uF
C525,526	042 TP50V152JE	MYLAR CAPACITOR 0.0015uF
C523,524	042 TP50V472JE	MYLAR CAPACITOR 0.0047uF
C905-907,914,923-930	043 TC500V103	CERAMIC CAPACITOR 500V0.01uF
C703-705,723	043 TC50V103	CERAMIC CAPACITOR 0.01uF
C427	043 TC50V473	CERAMIC CAPACITOR 0.047uF
C517-522	044 50MSAN104JE	STACKED FILM CAPACITOR 0.1uF
C706	044 KT18-2A104K	M.P CAPACITOR MKT1818-410/015
C411,412	044 PP160V6800PF	POLYPROPYLENE CAPACITOR 160V6800pF
C407,408	044 PP400V1000PF	POLYPROPYLENE CAPACITOR 400V1000pF
C401,402,405,406,503,504,C301,302	044 PP630V100PF	POLYPROPYLENE CAPACITOR 630V100pF
C403,404	044 PP630V330PF	POLYPROPYLENE CAPACITOR 630V330pF
C603,604	044 PP630V47PF	POLYPROPYLENE CAPACITOR 630V47pF
C533,534	044 S50V220PJ	STYROL CAPACITOR 50V220pF(J)
VR513,514	051 4TR-2774#1	VARIABLE RESISTOR 20KBX2
VR511	051 4TR-2776# 1	VARIABLE RESISTOR 100KMN
VR502	051 C-4170A33	VARIABLE RESISTOR 50KAX2 with MOTOR
R919	054 1WS100JF	MOF RESISTOR 1W 100
R902	054 1WS180JF	MOF RESISTOR 1W 180
R560,561,611	054 1WS470JF	MOF RESISTOR 1W 470
R917	054 1WS68JF	MOF RESISTOR 1W 68
R905,906	054 2WS100JF	MOF RESISTOR 2W 100
R901	054 ERQ1CJP2R2S	FUSIBLE RESISTOR 1W 2.2
R529-532	054 TGP14-010R	METAL RESISTOR GP1/4T-TC50-10R
R701,702,926	054 TMF16-1000	METAL FILM RESISTOR 1/6W 100
R451-470,922,923	054 TMF16-1001	METAL FILM RESISTOR 1/6W 1K
R721,915	054 TMF16-1002	METAL FILM RESISTOR 1/6W 10K
R474,539,540,555-557,708-711	054 TMF16-1003	METAL FILM RESISTOR 1/6W 100K
R715,717,916,R706	054 TMF16-1003	METAL FILM RESISTOR 1/6W 100K
R562	054 TMF16-1004	METAL FILM RESISTOR 1/6W 1M
R716,924,925,927	054 TMF16-10R0	METAL FILM RESISTOR 1/6W 10
R541,542	054 TMF16-1201	METAL FILM RESISTOR 1/6W 1.2K
R549-552,722,723	054 TMF16-1501	METAL FILM RESISTOR 1/6W 1.5K
R553,554	054 TMF16-1502	METAL FILM RESISTOR 1/6W 15K
R537,538,545,546	054 TMF16-2001	METAL FILM RESISTOR 1/6W 2K
R543,544	054 TMF16-2201	METAL FILM RESISTOR 1/6W 2.2K
R547,548,911-913	054 TMF16-2202	METAL FILM RESISTOR 1/6W 22K

SYMBOL	PARTS NO.	DESCRIPTION
R914	054 TMF16-3301	METAL FILM RESISTOR 1/6W 3.3K
R558,559	054 TMF16-4700	METAL FILM RESISTOR 1/6W 470
R714	054 TMF16-4701	METAL FILM RESISTOR 1/6W 4.7K
R704,705	054 TMF16-4702	METAL FILM RESISTOR 1/6W 47K
R476	054 TMF16-4703	METAL FILM RESISTOR 1/6W 470K
R707	054 TMF16-5600	METAL FILM RESISTOR 1/6W 560
R907	054 TMF1502	METAL FILM RESISTOR 1/4W 15K
R918	054 TMF2701	METAL FILM RESISTOR 1/4W 2.7K
R612	054 TMF4700	METAL FILM RESISTOR 1/4W 470
R908	054 TMF4701	METAL FILM RESISTOR 1/4W 4.7K
R910	054 TMF4702	METAL FILM RESISTOR 1/4W 47K
R477	054 TMF5600	METAL FILM RESISTOR 1/4W 560
R909	054 TMF8201	METAL FILM RESISTOR 1/4W 8.2K
R507,508,511,512	054 TMFR401K2	STANDARD METAL FILM RESISTOR 1/4W 1.2K
R435,436,920,921	054 TMFR401K5	STANDARD METAL FILM RESISTOR 1/4W 1.5K
R417,418,517,518	054 TMFR4022K	STANDARD METAL FILM RESISTOR 1/4W 22K
R421,422	054 TMFR402K7	STANDARD METAL FILM RESISTOR 1/4W 2.7K
R605,606	054 TMFR4033K	STANDARD METAL FILM RESISTOR 1/4W 33K
R433,434,535,536,609,610	054 TMFR4047K	STANDARD METAL FILM RESISTOR 1/4W 47K
R409,410	054 TMFR4047R	STANDARD METAL FILM RESISTOR 1/4W 47
R425,426	054 TMFR404K7	STANDARD METAL FILM RESISTOR 1/4W 4.7K
R431,432,601,602	054 TMFR4100K	STANDARD METAL FILM RESISTOR 1/4W 100K
R429,430	054 TMFR4100R	STANDARD METAL FILM RESISTOR 1/4W 100
R607,608	054 TMFR4150R	STANDARD METAL FILM RESISTOR 1/4W 150
R303,304	054 TMFR4220K	STANDARD METAL FILM RESISTOR 1/4W 220K
R419,420,513-516	054 TMFR4270R	STANDARD METAL FILM RESISTOR 1/4W 270
R603,604	054 TMFR4330K	STANDARD METAL FILM RESISTOR 1/4W 330K
R427,428	054 TMFR4470K	STANDARD METAL FILM RESISTOR 1/4W 470K
R471,472,519-522,R415,416	054 TMFR4470R	STANDARD METAL FILM RESISTOR 1/4W 470
R407,408	054 TMFR4560R	STANDARD METAL FILM RESISTOR 1/4W 560
R405,406	054 TPR9372-010R	METAL RESISTOR 10
R527,528	054 TPR9372-018K	METAL RESISTOR 18K
R401,402	054 TPR9372-047K	METAL RESISTOR 47K
R503,504	054 TPR9372-100K	METAL RESISTOR 100K
R403,404,501,502	054 TPR9372-100R	METAL RESISTOR 100
R301,302	054 TPR9372-560R	METAL RESISTOR 560
R533,534,R305,306	054 TRC55C1000F	METAL RESISTOR 100R
R505,506,509,510	054 TRC55C1201F	METAL RESISTOR 1.2K
R523,524	054 TRC55C2200F	METAL RESISTOR 220R
R525,526	054 TRC55C3301F	METAL RESISTOR 3.3K
R411-414	054 TRC55C5601F	METAL RESISTOR 5.6K
R423,424	054 TRC55C7502F	METAL RESISTOR 75K
S901	061 4TR-2947	PUSH SWITCH SPUN12K007
S401	061 4TR-3301	PUSH SWITCH SPUJ19A605
S701-708,711-718	061 C-4679A04	TACT SWITCH 9.5mm DARK GRAY HV061095GS
S501	061 C-4946A01	PUSH SWITCH PS005-PA022BCbK-M
RY901	063 DH2U-24	RELAY DH24D2-O(M)
RY451-458,501,502,601,602	063 EA2-24NU	RELAY
MP1	065 C-4939A01	3.5Φ MINI JACK PJ-315
HJ1	065 C-4939A02	3.5Φ MINI JACK PJ317-01
HJ901-905	065 YKB21-5103A	3.5Φ JACK (ST)
PJ1-PJ6	066 4TR-2672#3	4P PIN JACK (WHT.RED)
SKT1	066 SY010-8P/K	RJ45 TERMINAL (8P)

SYMBOL	PARTS NO.	DESCRIPTION
D001,D002	068 B2B-EH	CONNECTOR WAFER 2P
JP9B,JP14B,JP18B	068 B2B-PH-KS	CONNECTOR WAFER 2P
JP1B,JP2B,JP13B	068 B3B-PH-KS	CONNECTOR WAFER 3P
JP12B,JP15B	068 B4B-PH-KS	CONNECTOR WAFER 4P
JP0B	068 B5B-EH	CONNECTOR WAFER 5P
JP4B,JP11B	068 B5B-PH-KS	CONNECTOR WAFER 5P
JP16B,JP17B	068 B9B-PH-KS	CONNECTOR WAFER 9P
CON4,5	068 C-3683#2	PCB TERMINAL 3P
CON3	068 C-3683#3	PCB TERMINAL 4P
CON2	068 C-4422A01	PCB TERMINAL 2P
V11,V13,V14	068 S6B-PH-KS	CONNECTOR WAFER 6P
OTHERS		
	011 FP-617A-B	BLACK SUB PANEL
	011 FP-617A-S	SILVER SUB PANEL
	011 TF3-01B00	H/S PANEL
	012 C-4711A01	KNOB 43Φ W/LED (BLACK)
	012 C-4711A01S	KNOB 43Φ W/LED (SILVER)
	012 C-4953A01	KNOB 13Φ (BLACK)
	012 C-4953A01S	KNOB 13Φ (SILVER)
	012 RV4-09A00	PUSH BUTTON 14Φ (BLACK)
	012 RV4-09A01	PUSH BUTTON 14Φ (SILVER)
	012 VR4-06B00	PUSH BUTTON 7Φ (SILVER)
	012 VR4-06B01	PUSH BUTTON 7Φ (BLACK)
	012 WP3-04A00	TACT BUTTON 16KEY (BLACK)
	012 WP3-04A01	TACT BUTTON 16KEY (SILVER)
	019 C-4714A00	POWER KNOB RING 14Φ (BLACK)
	019 C-4714A01	POWER KNOB RING 14Φ (SILVER)
	019 C-670#18	FELT 56Φ
	019 PK4-07A00T	METAL FOOT 60Φ
	019 PR4-12B00	KNOB RING 46Φ (RED)
	019 PR4-12B01	KNOB RING 46Φ (BLU)
	019 VR4-04A00	BUTTON RING 7Φ (SILVER)
	019 VR4-04A01	BUTTON RING 7Φ (BLACK)
	022 T-1106T01	POWER TRANSFORMER
	034 SEL1124R	LED (RED) 1X5
	034 SEL1E24W	LED (BLU) 1X5
	069 C-4629A01	AC 2P INLET 6102.3100 (WIRING)
	072 4TR-2875	PIN PLUG OFC CORD
	072 C-4621A03	AC CORD SET SJT AWG16 for U.S.A.
	072 C-4622A02	AC CORD SET for AUSTRALIA
	072 C-4623A03	AC CORD SET for U.K.
	072 C-4624A03	AC CORD SET for EUROPE
	081 WP3-05A00	INSIDE CARTON
	081 WP3-06A00	SHIPPING CARTON
	081 ZE-204	ETHAFOAM MOULDING
	082 OMRC-1082-11	OWNER'S MANUAL
	092 RR-AT97	REMOTE CONTROL UNIT

Addendum List for Black and Silver

RC1082

SYMBOL	PARTS	DESCRIPTION
①	011 FP-617A-B	BLACK PANEL ASSY
②	011 FP-617A-S	SILVER PANEL ASSY
③	011 TH3-01B00	H/S PANEL H109
	012 C-4711A01	KNOB 43F (BLK)
	012 C-4711A01S	KNOB 43F (SLV)
	012 RV4-09A00	PUSH BUTTON 14F (BLK)
	012 RV4-09A01	PUSH BUTTON 14F (SLV)
	012 WP3-04A00	TACT BUTTON 16 KEY (BLK)
	012 WP3-04A01	TACT BUTTON 16 KEY (SLV)
	034 SEL1124R	LED (RED) 1X5
	034 SEL1E24W	LED (BLU) 1X5

Panel Assy is included:

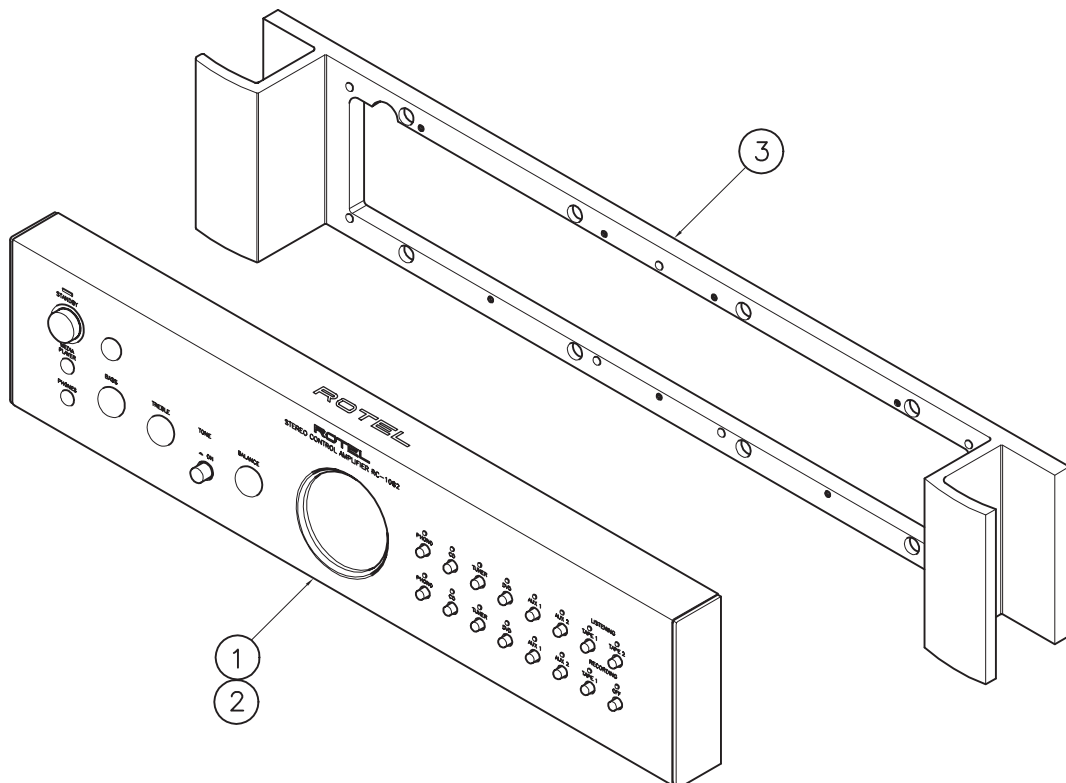
Panel Window

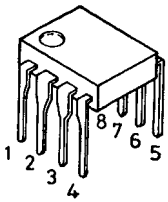
Side Cap

Knob Ring

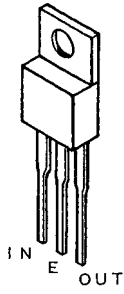
Tact buttons

LED

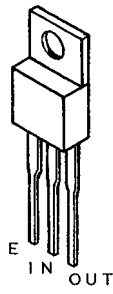




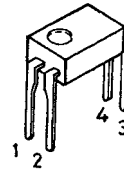
NJM4556AD
 NJM2444D
 AD797ANZ
 NJM2114D
 OPA277P



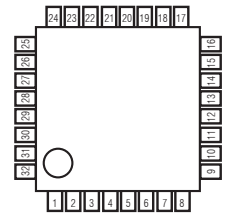
NJM78XXFA



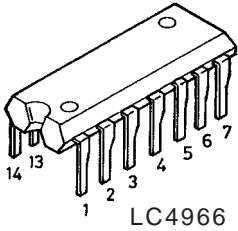
NJM79XXFA



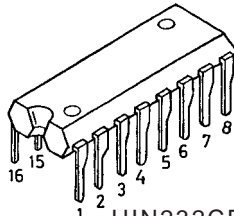
PC817X2



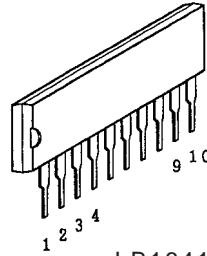
M37544G2AGP-C82



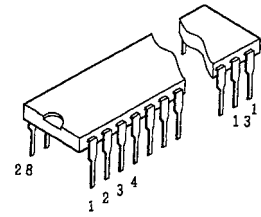
LC4966



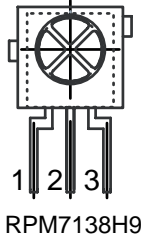
HIN232CP
 TC74HC595AP



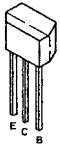
LB1641



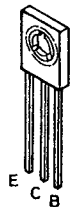
TC9163AN



RPM7138H9



2SA1345
 2SC3399
 2SD786



2SB631K
 2SA1209
 2SD600K
 2SC2911



2SA608K
 2SA1016K
 2SA1450
 2SC536K
 2SC2362K
 2SC3708
 2SD863

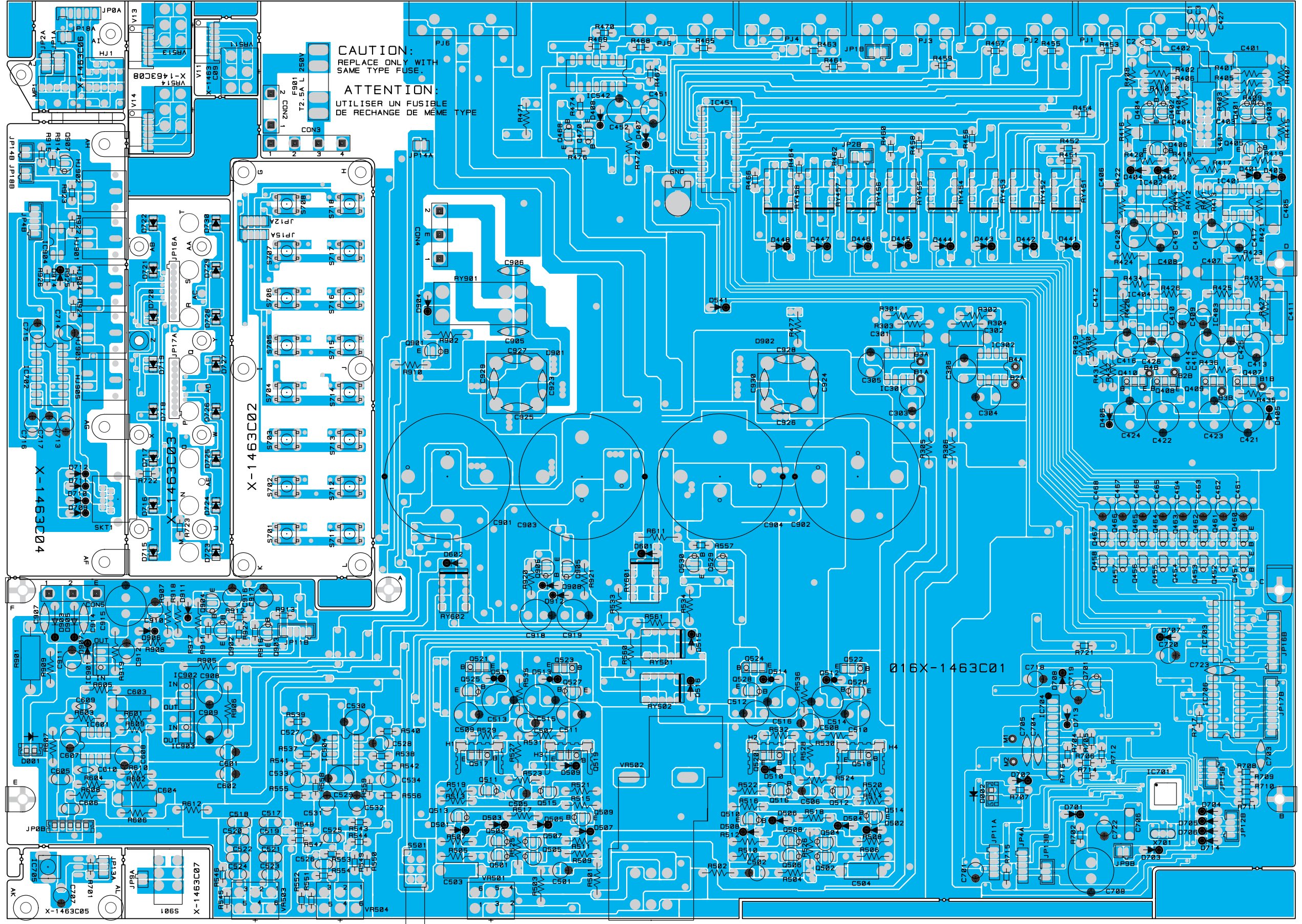
Safety Caution

Cautions during Inspection and Repair

1. Keep in mind the safety warnings
 The safety instructions are shown as the labels or printings on the exterior, the inside chassis or the parts, etc. Refer to the instructions when proceeding with inspection or repair.
2. Use only the specified parts for replacement
 The selected parts are used at critical area to reduce fire hazard or electrical shock. So when replacing these parts where designaged with **⚠ marks or ✖ marks on the schematic diagram or the parts list**, ensure to use only the same parts.
3. Ensure to dress back the AC (Mains) cord to the original position
 If for some reason, the AC cord is moved or partially disassembled, ensure to re-route or assemble back to the original position. The AC cord area is protected and secured by tubing and insulation materials for the sake of safety, so that no loose wire will touch and cause fire hazard and electrical shock.
4. Check for safety aspects after inspection or repair
 Ensure all parts, such as screws or wires, removed during inspection or repair are secured back to the original positions, and check visually for any anomaly. Also check for any electrical leakage or resistance to maintain the safety.

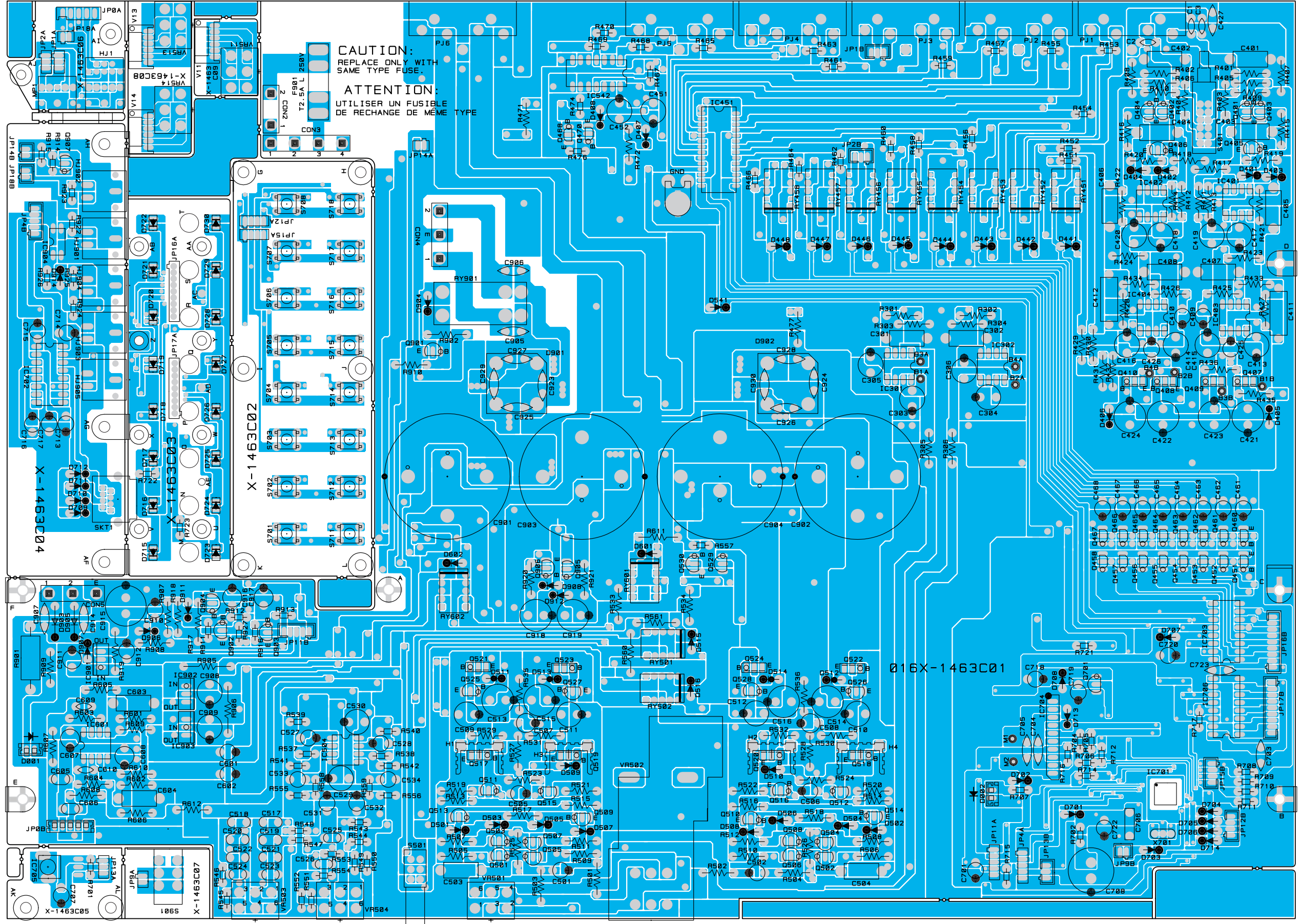
MAIN PCB (1/2) 016 X-1463C01~09

Bottom Pattern



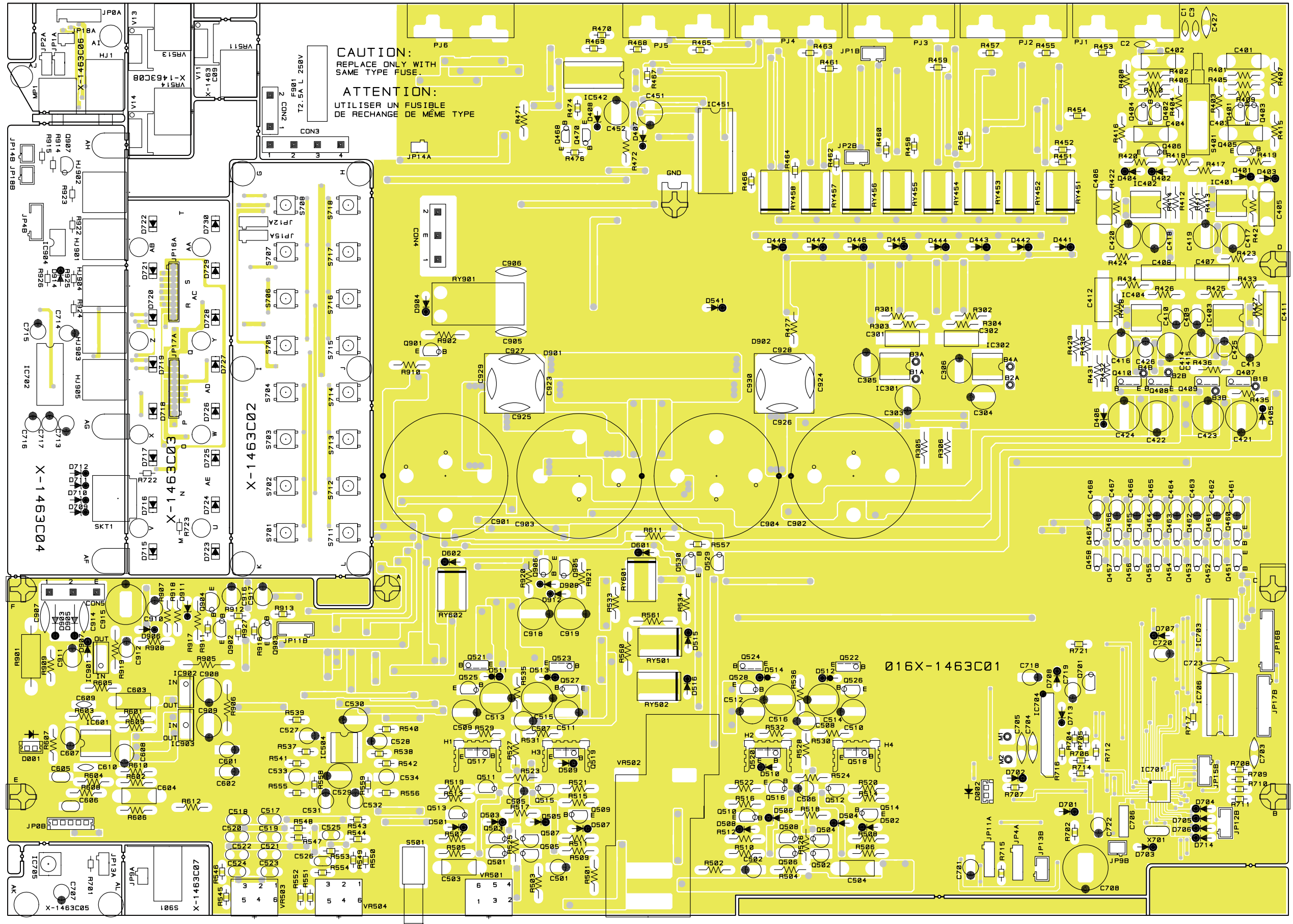
CAUTION:
REPLACE ONLY WITH
SAME TYPE FUSE.
ATTENTION:
UTILISER UN FUSIBLE
DE RECHANGE DE MEME TYPE

016X-1463C01



MAIN PCB (2/2) 016 X-1463C01~09

Top Pattern



CAUTION:
REPLACE ONLY WITH
SAME TYPE FUSE.

ATTENTION:
UTILISER UN FUSIBLE
DE RECHANGE DE MÊME TYPE

X-1463C04

X-1463C03

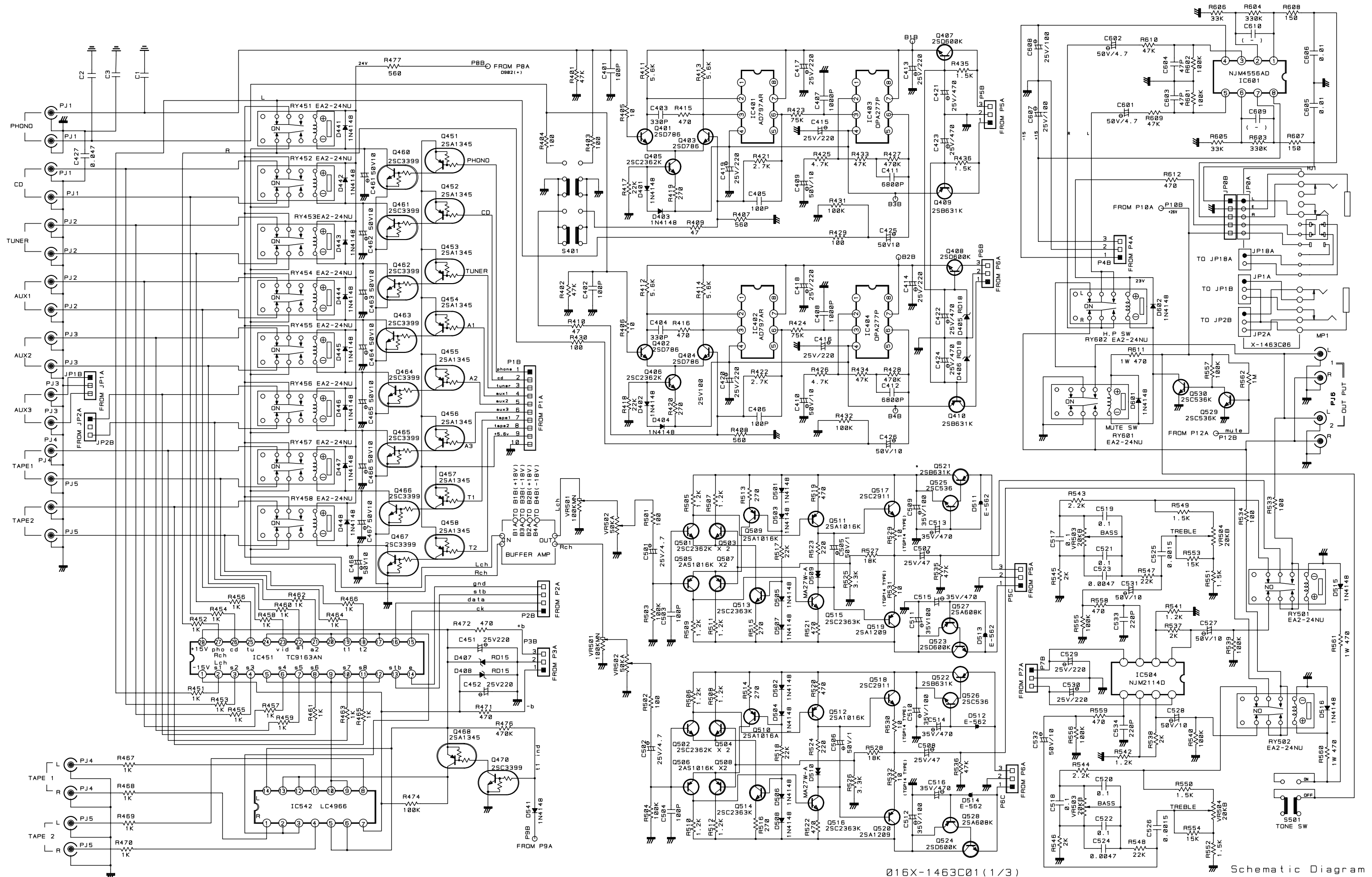
X-1463C02

X-1463C07

X-1463C05

016X-1463C01

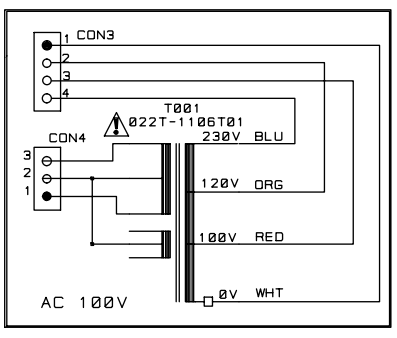
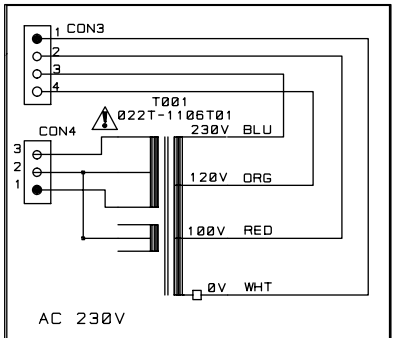
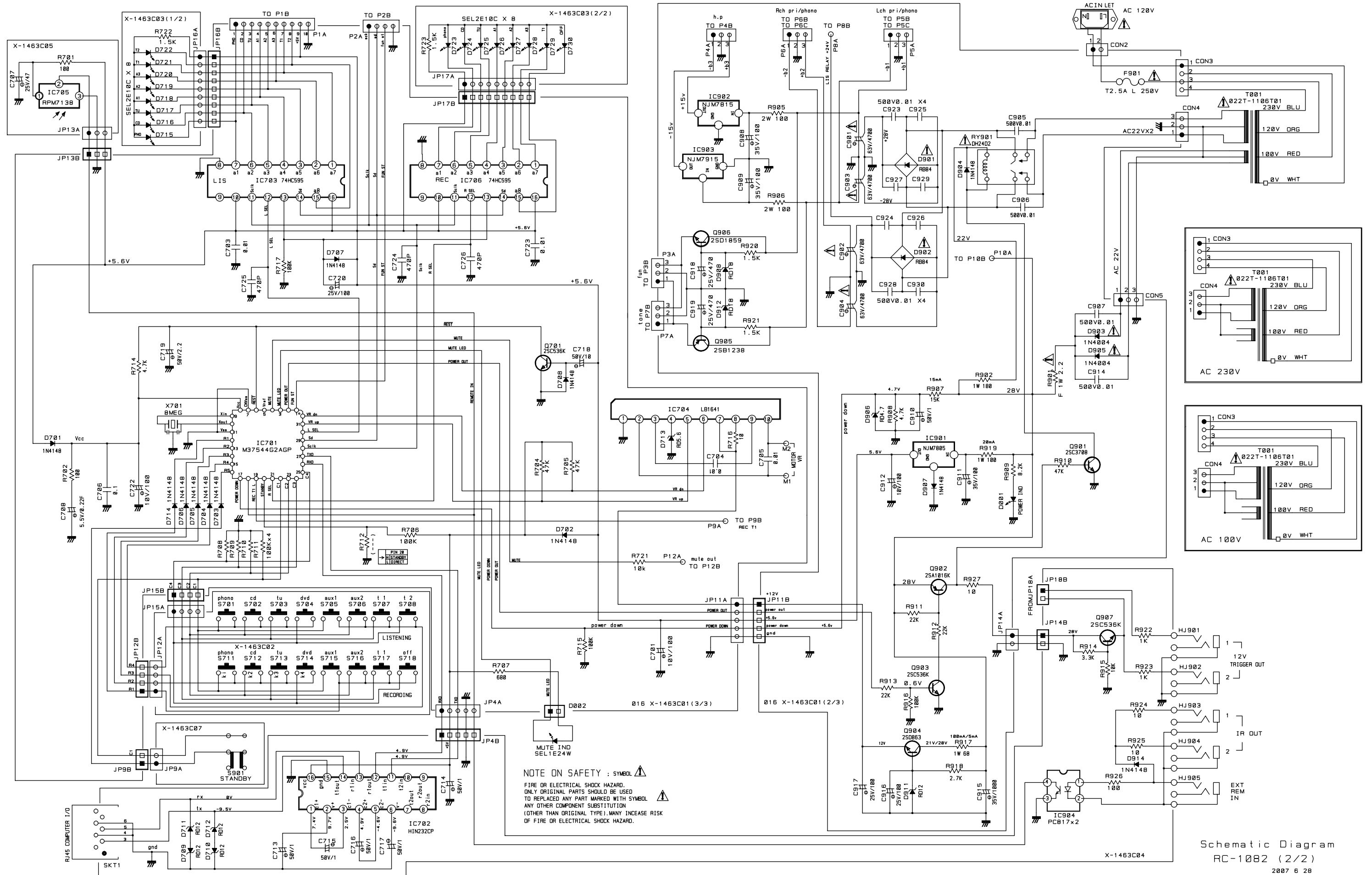
MAIN PCB (1/3) 016 X-1463C01~09



016X-1463C01 (1/3)

Schematic Diagram RC-1082 (1/2) 2007 7 23

MAIN PCB (2/3) 016 X-1463C01~09



Schematic Diagram RC-1082 (2/2)

MAIN PCB (3/3) 016 X-1463C01~09

