Quality Uncompromised

ROTEL®

Technical Manual

AM/FM STEREO TUNER
RT-1080

Table of Contents

Specification

FM Tuner

Usable Sensitivity:
12.2 dBf

50dB Quieting Sensitivity:
20.2 dBf (mono)
45.3 dBf (stereo)

Signal to Noise Ratio (at 65 dBf):
75 dBf (mono)
72 dBf (stereo)

Harmonic Distortion (at 65 dBf):
0.2% (mono)
0.3% (stereo)

Frequency Response:
10 Hz-15 kHz, ± 3 dB

Capture Ratio:
2.0 dB

Alternate Channel Selectivity:
47 dB (± 400 kHz)

Spurious Response Ratio:
90 dB

Image Rejection Ratio:
80 dB

IF Rejection Ratio:
80 dB

AM Suppression Ratio:
55 dB

Stereo Separation (100Hz/1 kHz/10 kHz):
40 dB/45 dB/35 dB

Output level:
1.2V

Antenna Input:
75 ohms unbalanced

AM Tuner

Usable Sensitivity:
300 µV/m

Selectivity:
25 dB

Harmonic Distortion:
0.5%

Image Rejection Ratio:
45 dB

Signal to Noise Ratio:
48 dB

Output level:
165 mV

Antenna Input:
Loop Antenna

General

Power Consumption:
10 watts

Power Requirements (AC):
115 volts, 60 Hz (USA version)
230 volts, 50 Hz (European version)

Weight:
4.7 Kg/10.4 lb.

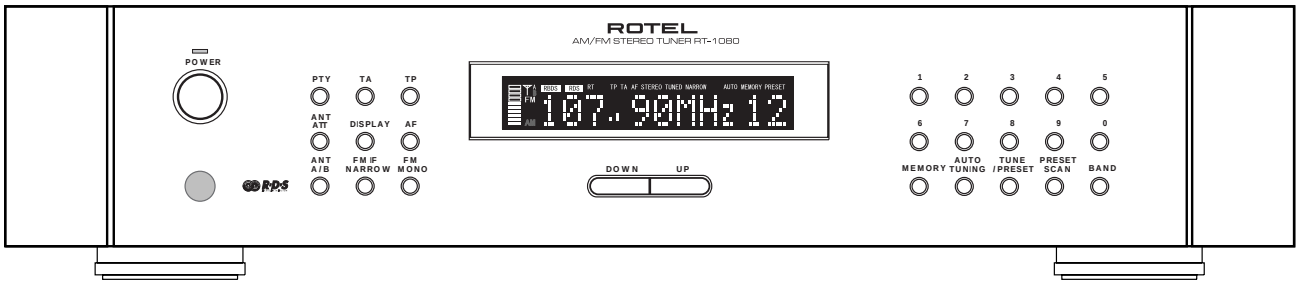
Dimensions (W x H x D):
432 x 92 x 340 mm
16 15/16" x 3 5/8" x 13 7/6"

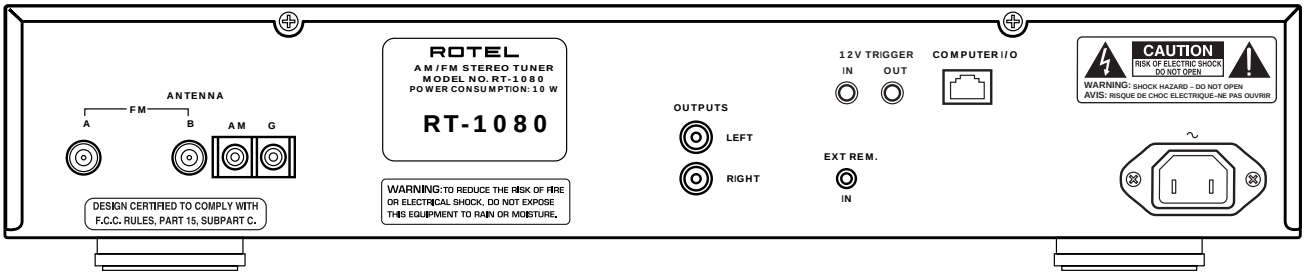
THE ROTEL CO., LTD
SHINSEN-BLD. 4F 10-10 SHINSEN-CHO, SHIBUYA-KU,
TOKYO 150-0045, JAPAN

Serial. NO.
Beginning

Y-353A-0108/W

Appearance


ROTEL
AM/FM STEREO TUNER RT-1080
POWER
PTY
TA
TP
ANT ATT
DISPLAY
AF
ANT A/B
FM IF NARROW
FM MONO
RDS
DOWN
UP
1
2
3
4
5
6
7
8
9
0
MEMORY
AUTO TUNING
TUNE /PRESET
PRESET SCAN
BAND


ANTENNA
FM
A
B
AM
G
ROTEL
AM/FM STEREO TUNER
MODEL NO. RT-1080
POWER CONSUMPTION: 10 W
RT-1080
DESIGN CERTIFIED TO COMPLY WITH F.C.C. RULES, PART 15, SUBPART C.
WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.
OUTPUTS
LEFT
RIGHT
12V TRIGGER
IN
OUT
EXT REM.
IN
COMPUTER I/O
CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN
WARNING: SHOCK HAZARD – DO NOT OPEN
AVIS: RISQUE DE CHOC ELECTRIQUE-NE PAS OUVRIR

Parts List 1/4

SYMBOL	PARTS NO.	DESCRIPTION
PCB ASSY 016X-1304A01-05		
JACK2	066 C-4764A01	2P PIN JACK
JACK1	065 YKB21-5103A	3.5F JACK
JL200,201,JR200,201	068 TD02SG-2	BASE/POST
C213,266,272,322,407,408,C201,202	043 TC16V103-A	CERA CAPACITOR AXIAL 0.01uF
C203,211,212,215,217,219,221, 223-236,243,C245,246,248,250,251,253, 257,267,273,285,C306-308,311,312, 314,319,323,324,401,C506,507,509	043 TC25V223-A	CERA CAPACITOR AXIAL 0.022uF
C238-241,255,259,263,271,304,329	043 TC50V473-A	CERA CAPACITOR AXIAL 0.047uF
C316,CL204,CR204, C207-210	043 TC50V102-A	CERA CAPACITOR AXIAL 1000PF
CL277,CR277, C237	043 TC50V101-A	CERA CAPACITOR AXIAL 100PF
CL273, CR273	043 TC50V121-A	CERA CAPACITOR AXIAL 120PF
C242	043 TC50V151-A	CERA CAPACITOR AXIAL 150PF
C302	043 TC50VCH180	CERA CAPACITOR AXIAL 18PF
C309	043 TC50V221-A	CERA CAPACITOR AXIAL 220PF
C280,CL271,CR271	043 TC50V271-A	CERA CAPACITOR AXIAL 270PF
C405, C406	043 TC16V332-A	CERA CAPACITOR AXIAL 3300PF
C276	043 TC50V331-A	CERA CAPACITOR AXIAL 330PF
C205,206	043 TC50VCH330	CERA CAPACITOR AXIAL 33PF
C328	043 TC50V471-A	CERA CAPACITOR AXIAL 470PF
C260	043 TC50V681-A	CERA CAPACITOR AXIAL 680PF
C275	043 TC50V680-A	CERA CAPACITOR AXIAL 68PF
C503,505	043 TC500V103	CERAMIC CAPACITOR 500V0.01uF
CF301	023 SFPS450H	CERAMIC FILTER (AM)
CF201,202,204	023 SFE10.7M-04	CERAMIC FILTER (FM)
CF203	023 SFE10.7M-03	CERAMIC FILTER (FM)
CF205	023 CSB456F11	CERAMIC RESONATOR
XTL401	023 CSB456F15	CERAMIC RESONATOR
TL301	021 RLV155A00	COIL 072 (RED)
TL303	021 RLV159A00	COIL 713 (YELLOW)
LFL200,LFR200	021 RLV156A00	COIL 01 (BLACK)
TL201	021 RLV164A00	COIL 5053 (WHITE)
TL202	021 RLV165A00	COIL 5054 (BLUE)
TL302	021 RLV162A00	COIL 5232 (GRN)
TL304	021 RLV163A00	COIL 5908 (BLACK)
CP204	068 B7B-PH-KS	CONNECTOR POST
CP201	068 00-8370-211	CONNECTOR POST
CP502,503	068 B2P3-VH	CONNECTOR POST
CP501	068 MO5267-07	CONNECTOR POST
CN501	068 C-4652A05	CONNECTOR W/WIRE
CN503	068 C-4695A03	CONNECTOR W/WIRE (BLK)
CN203	068 C-4750A01	CONNECTOR W/WIRE (BLK)
C540	019 C-4357A03	COVER CAP.
XTL201	023 HC49U-004	CRYSTAL 7.2MHZ
D202-205,210-212,303-305,307, 308,509,D209	034 T1N4148-86	DIODE
D201,501-505, D511	034 1N4004	DIODE
C204,216,252,282-284,321	041 UTES1C101-FB	ELECTROLYTIC CAPACITOR 16V100uF
C512	041 UTES1C221-FB	ELECTROLYTIC CAPACITOR 16V220uF
C218,222,313,402-404,511,513,514	041 UTES1C470-FB	ELECTROLYTIC CAPACITOR 16V47uF
C501	041 UTES1V332	ELECTROLYTIC CAPACITOR 35V3300uF
C261,268,269	041 UTES1HR47-FB	ELECTROLYTIC CAPACITOR 50V0.47uF
CL201,202,CR201,202	041 UTES1H220-FB	ELECTROLYTIC CAPACITOR 50V22uF
C214,325	041 UTES1H3R3-FB	ELECTROLYTIC CAPACITOR 50V3.3uF
C281	041 UTES1H330-FB	ELECTROLYTIC CAPACITOR 50V33uF
C327,502,515	041 UTES1H470-FB	ELECTROLYTIC CAPACITOR 50V47uF

Parts List 2/4

SYMBOL	PARTS NO.	DESCRIPTION
C247,249,254,262,264,265	041 UTES1H010-FB	ELECTROLYTIC CAPACITOR 50V1uF
C274,278,279,409,412,508	041 UTES1H100-FB	ELECTROLYTIC CAPACITOR 50V10uF
C516	041 UTES1H2R2-FB	ELECTROLYTIC CAPACITOR 50V2.2uF
C270,326,411,413,504	041 UTES1H4R7-FB	ELECTROLYTIC CAPACITOR 50V4.7uF
FFE200	092 FTA4-460H	FRONT-END
	017 C-4755A10	HEAT SINK for IC501
IC202,203	031 LA1235	IC
IC301	031 LA1245	IC
IC401	031 LA2230	IC
IC204	031 LA3450	IC
IC201	031 LC72191M	IC
IC205	031 TL072CP	IC
IC501	031 NJM317F	IC
ICM101	031 PC817B	IC
R277	054 2WS10JF	METAL FILM RESISTOR 10R
R509	054 2WS270JF	METAL FILM RESISTOR 270R
R230	054 CR1W2M2	METAL FILM RESISTOR 2M2
R507	054 2WS330JF	METAL FILM RESISTOR 330R
R405,410	054 TMF16-3004	MF RESISTOR MF16 3M
R300	054 TMF16-1501	MF RESISTOR MF16 1.5K
R506	054 TMF16-1801	MF RESISTOR MF16 1.8K
R299	054 TMF16-1004	MF RESISTOR MF16 1M
R203,204,207,272,273,291,301,302,R309	054 TMF16-1003	MF RESISTOR MF16 100K
320,RL205,RL295,RR205,RR295,R292,R208		
R303,311,515	054 TMF16-1000	MF RESISTOR MF16 100R
R224,278,283,289,308,319,321	054 TMF16-1002	MF RESISTOR MF16 10K
R409,412,502,514,517, R508		
R284,285	054 TMF16-1200	MF RESISTOR MF16 120R
R516	054 TMF16-1202	MF RESISTOR MF16 12K
R240	054 TMF16-1500	MF RESISTOR MF16 150R
R243	054 TMF16-1502	MF RESISTOR MF16 15K
RL294,RR294	054 TMF16-1803	MF RESISTOR MF16 180K
R274, R281	054 TMF16-1802	MF RESISTOR MF16 18K
R214-218,233,276,404,406,511	054 TMF16-1001	MF RESISTOR MF16 1K
R312, R282, R205		
R505	054 TMF16-2000	MF RESISTOR MF16 200R
R222,231,232,306,307, R316,317	054 TMF16-2200	MF RESISTOR MF16 220R
R211-213		
R413, R513	054 TMF16-2202	MF RESISTOR MF16 22K
R247,298	054 TMF16-22R0	MF RESISTOR MF16 22R
R504, RM101	054 TMF16-2700	MF RESISTOR MF16 270R
R238	054 TMF16-2702	MF RESISTOR MF16 27K
R314	054 TMF16-2001	MF RESISTOR MF16 2K
R246,260,279,286,408,RL201,	054 TMF16-3301	MF RESISTOR MF16 3.3K
RL206,RR201,RR206		
R236,239,242,249,257,258,263,	054 TMF16-3300	MF RESISTOR MF16 330R
265,266,271,R226		
R411	054 TMF16-3302	MF RESISTOR MF16 33K
R244,248,262	054 TMF16-3900	MF RESISTOR MF16 390R
R261	054 TMF16-39R0	MF RESISTOR MF16 39R
R201,250,264,313,518	054 TMF16-4701	MF RESISTOR MF16 4.7K
R297,400, R501		
R241,305,RL204,RR204	054 TMF16-4700	MF RESISTOR MF16 470R
R275,520	054 TMF16-4702	MF RESISTOR MF16 47K
R225,288,407	054 TMF16-5601	MF RESISTOR MF16 5.6K
R223,401,402	054 TMF16-5600	MF RESISTOR MF16 560R
R519	054 TMF16-5602	MF RESISTOR MF16 56K

Parts List 3/4

SYMBOL	PARTS NO.	DESCRIPTION
R245,259,RL202,RR202	054 TMF16-6801	MF RESISTOR MF16 6.8K
R403	054 TMF16-6803	MF RESISTOR MF16 680K
RL203,RR203	054 TMF16-8201	MF RESISTOR MF16 8.2K
R304	054 TMF16-8200	MF RESISTOR MF16 820R
R503	054 TMF16-8202	MF RESISTOR MF16 82K
R202,318	054 TMF16-82R0	MF RESISTOR MF16 82R
L201-206, L500	021 LF160A00	MICRO INDUCTOR
L207	021 2648601430	MICRO INDUCTOR 20.8mH
JL200,JR200,	068 DM-2GM-O	MINI JUMPER PLUG (US)
JL201,JR201	068 DM-2GM-O	MINI JUMPER PLUG (EU)
C415,416	042 TP50V332J	MYLAR CAPACITOR 3300PF
CL203,CR203	042 TP50V392J	MYLAR CAPACITOR 3900PF
C417	042 TP50V682J	MYLAR CAPACITOR 6800PF
C330,414	042 TP50V223J	MYLAR CAPACITOR 0.022uF
SW201	061 C-4176A08	POWER SWITCH
RLY201,202	063 G5A-237P	RELAY
VR401	051 TRH063MC14R	SEMI-FIXD RESISTOR VOLUME 100K
VR204	051 TRH063MC16R	SEMI-FIXD RESISTOR VOLUME 1M
VR203,VR301	051 TRH063MCJ4R	SEMI-FIXD RESISTOR VOLUME 22K
VR205	051 TRH063MCS5R	SEMI-FIXD RESISTOR VOLUME 470K
VR201	051 TRH063MCS4R	SEMI-FIXD RESISTOR VOLUME 47K
VR206	051 TRH063MCS3R	SEMI-FIXD RESISTOR VOLUME 4K7
C317	044 50MSAN473J	SF CAPACITOR 0.047uF
C318	044 50MSAN563J	SF CAPACITOR 0.056uF
C540	044 DE1307E472M	SPARK KILLER
C301	044 S50V470PJ	STYROL CAPACITOR 47PF
ANT201	067 SC021058KN	TERMINAL ANTNNA
ANT200	065 YKD31-0432	TERMINAL ANTNNA
Q223	032 2K117Y	TRANSISTOR
Q212,301	032 2K192GR	TRANSISTOR
Q209,211	032 TC174OS-R	TRANSISTOR
Q222,501,504	032 TDTC114YS	TRANSISTOR
Q213-216	032 C1674-KL	TRANSISTOR
Q201,202,219,506	032 TC536-FG	TRANSISTOR
QL201,QR201	032 TC2878-A	TRANSISTOR
Q204,206,207,225,302,505	032 TDTA114YS	TRANSISTOR
Q502	032 TA608-FG	TRANSISTOR
Q503	032 TC3708-ST	TRANSISTOR
TC302	045 TZ03R200	TRIMMER (RED)
TC301	045 TZ03N100	TRIMMER (WHT)
D301,302	034 KV1236Z	VARACTOR DIODE
D208,401	034 TRD5.1JST1	ZENER DIODE
D510	034 TRD5.6JST1	ZENER DIODE
D507	034 TRD6.2JST1	ZENER DIODE
D508	034 TRD12JST1	ZENER DIODE
D506	034 TRD30JST1	ZENER DIODE
	PCB ASSY 016 X-1305B01-02	
JACK4	065 YKB21-5111A	3.5F JACK WITH SWITCH
JACK5	065 YKB21-5103A	3.5F JACK WITH SWITCH
CPM100	068 S2B-PH-KS	CONNECTOR POST
CPM103	068 S4B-PH-KS	CONNECTOR POST
CP604	068 B7B-PH-KS	CONNECTOR POST
CM101	041 UTES1H100-FB	ELECTROLYTIC CAPACITOR 50V10uF
C601-605	041 UTES1H010-FB	ELECTROLYTIC CAPACITOR 50V1uF
IC601	031 HIN232CP	IC
IC602	031 PC817B	IC
RMC201	031 SBX3010-52B	IC

Parts List 4/4

SYMBOL	PARTS NO.	DESCRIPTION
RM102	054 TMF16-1000	METAL MILM RESISTOR 100R
RM103	054 TMF16-1500	METAL MILM RESISTOR 150R
R601,602	054 TMF16-1001	METAL MILM RESISTOR 1K
R603	054 TMF16-2200	METAL MILM RESISTOR 220R
RM104	054 TMF16-4701	METAL MILM RESISTOR 4.7K
JACK3	066 SY010-8P/K	MODULAR JACK
QM101	032 TC536-FG	TRANSISTOR
D601-604	034 TRD12JST1	ZENER DIODE
	PCB ASSY 016 X-1302A00	
C110,111	043 TC50V473-A	CERAMIC CAPACITOR 0.047uF
C109,113,116	043 TC50V104-A	CERAMIC CAPACITOR 0.1uF
C118	043 TC50V102-A	CERAMIC CAPACITOR 1000PF
C101-108	043 TC50V101-A	CERAMIC CAPACITOR 100PF
C117	043 TC50V821-A	CERAMIC CAPACITOR 820PF
XT101	023 CST10.0MTW	CERAMIC RESONATOR
D101-108	034 T1N4148-86	DIODE
C112	041 UTES1H220-FB	ELECTROLYTIC CAPACITOR 50V22uF
FL101	035 SVR12MM18	FL TUBE
FPC201	068 00-8370-217	FPC WIRE CONNECTOR 21P
IC102	031 AT24C16PC-2.7	IC
IC101	031 CXP82832-310Q	IC
R137-143,145	054 TMF16-1201	METAL FILM RESISTOR 1.2K
R136,152-159,160	054 TMF16-1002	METAL FILM RESISTOR 10K
R150,151	054 TMF16-2R20	METAL FILM RESISTOR 2.2R
R144,146-149	054 TMF16-4702	METAL FILM RESISTOR 47K
CN102	068 C-4692A26	PH/SAN W/WIRE L=200
CN101	068 C-4692A29	PH/SAN W/WIRE L=300
CN103	068 C-4692A06	PH/SAN W/WIRE L=80
SW101-126	061 C-4679A01	TACT SWITCH
Q101	032 TC536-FG	TRANSISTOR
	OTHERS	
	015 RP-387	PRINTED REAR CHASSIS
	019 4TSH-19#2	PLASTIC FOOT 50F
	021 RLA145A00	AM LOOPANTENNA
	034 SEL1124R	LED
	069 C-4629A01	AC INLET
	072 4TR-2489	3.5MM PLUG SHIELD CORD
	072 4TR-2875	RCA PIN CORD
	072 4TR-3228	T TYPE ANTENNA
	072 C-4620A01	AC CORD SET for STD
	072 C-4622A01	AC CORD SET for AUSTRALIA
	072 C-4623A01	AC CORD SET for UK
	072 C-4624A01	AC CORD SET for CEE
	081 SK4-10A00	INSIDE CARTON
	081 TZ-164-1	STYROL SIDE MOULDING
	092 RR-T92	REMOTE UNIT

Adjustment

■ FM

* Necessary measurement equipment

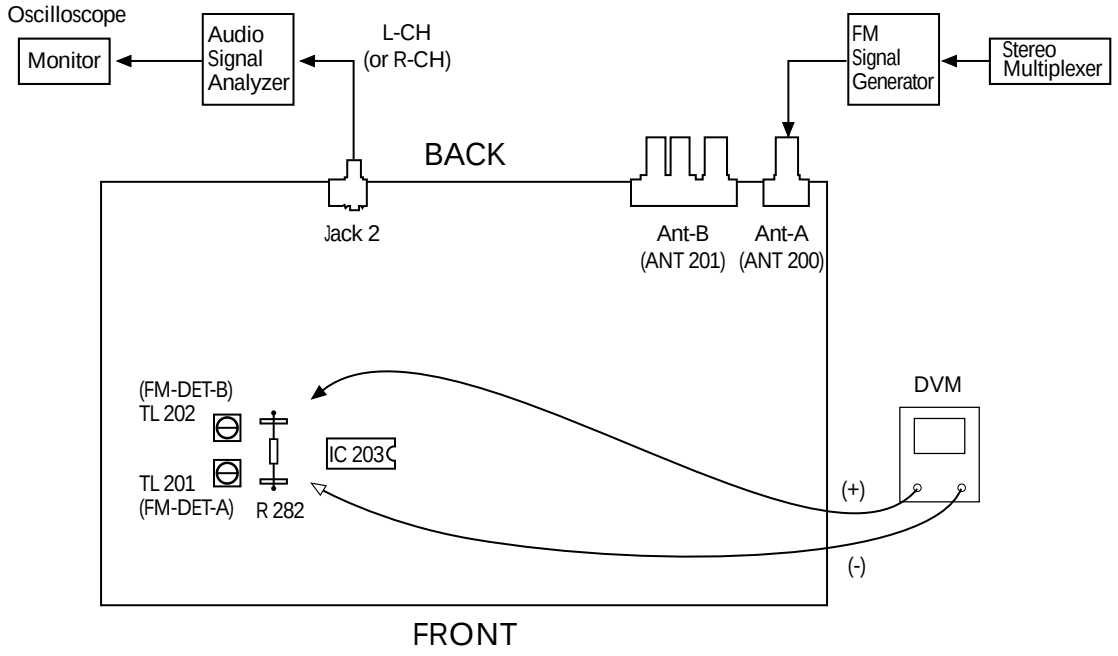
RDS/STEREO Multiplexer	1 unit
FM/AM Signal Generator	1 unit
Audio Signal Analyzer	1 unit
Oscilloscope	1 unit
Digital Volt Meter (DVM)	1 unit

(A) Center adjust

❏ RDS/STEREO Multiplexer Setting
- – MODE : MONO
- – Audio Frequency : 1KHz

❏ FM Signal Generator Setting
- – Deviation : 75KHz
- – Radio Frequency : 98.0MHz
- – Output Level : 66dB

❏ RT955 Setting
- – FM Frequency : 98.0MHz
- – Antenna Selection : A
- – FM MODE : MONO
- – IF MODE : WIDE



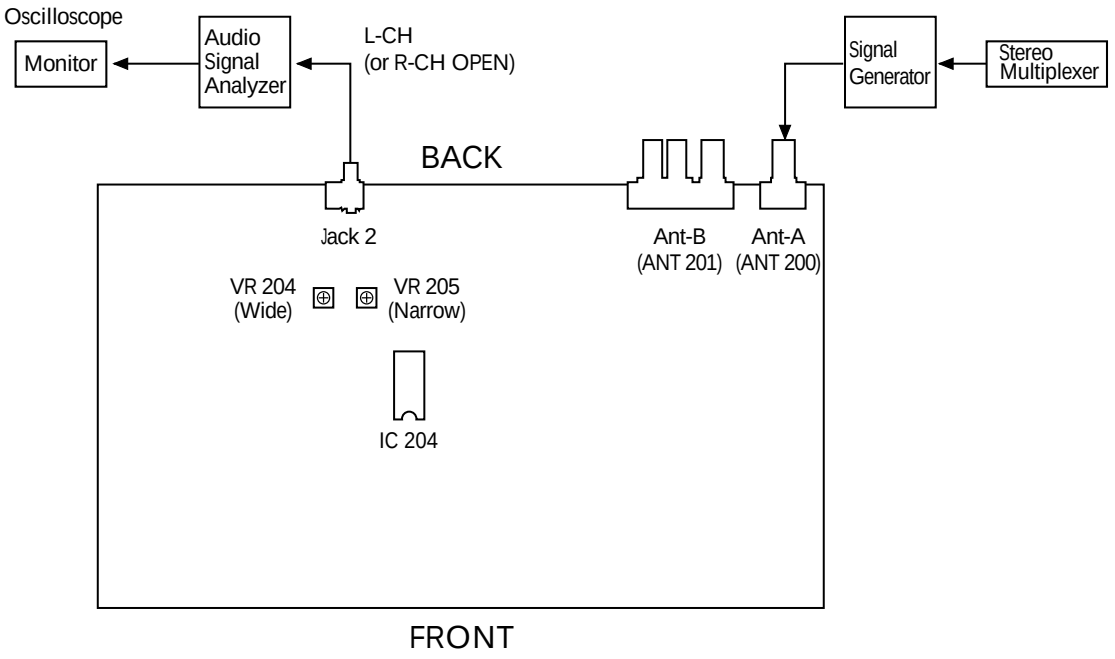
① Turn FM Signal Generator Modulation on
② Connect DVM (+)(-) terminals to both ends of resistor R282 and measure the volt.
③ Make this measured volt '0' by adjusting TL201(FM-DET-A Coil).
(The adjustment should be within ±2mV)
④ After this adjustment, measure THD(Total Harmonic Distortion) with Audio Signal Generator.
⑤ Adjust THD to minimum point with TL202(FM-DET-B Coil).
(THD should be within 0.5%)

(B) Channel Separation adjust

❏ RDS/STEREO Multiplexer Setting
- – MODE : STEREO (ONLY L-CH Signal OUT)
- – Audio Frequency : 1KHz

❏ FM Signal Generator Setting
- – Deviation : 75KHz
- – Radio Frequency : 98.0MHz
- – Output Level : 66dB

❏ RT955 Setting
- – FM Frequency : 98.0MHz
- – Antenna Selection : A
- – FM MODE : STEREO
- – IF MODE : WIDE



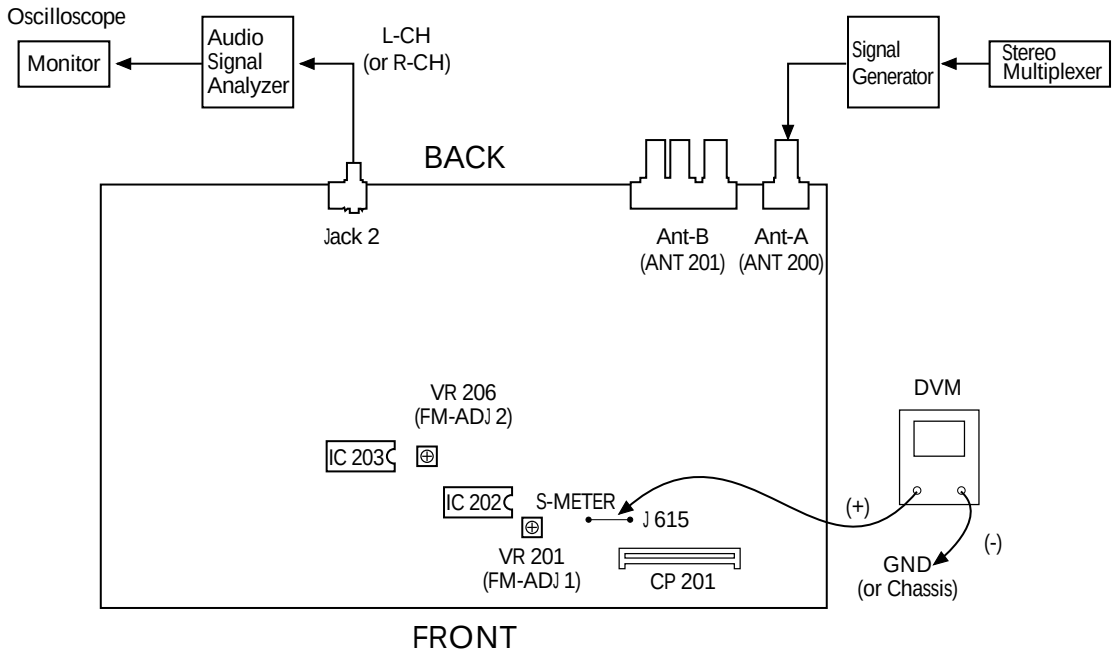
① Turn FM Signal Generator Modulation on after modulating only L-CH at STEREO Multiplexer.
② Confirm if 'STEREO' indicator is turned 'ON' on the display in the WIDE MODE.
③ Measure output level via Audio Signal Analyzer and make the level as standard.
④ Turn FM Signal Generator Modulation on after modulating only R-CH at STEREO Multiplexer.
⑤ Measure output level via Audio Signal Analyzer (measure per a dB)
⑥ Adjust output level to minimum position with VR204 (WIDE MODE CH-SEPA. ADJ.). (lower than -40dB)
⑦ Change RT955 IF MODE to NARROW.
⑧ Repeat the above ①~⑤
⑨ Adjust output level to minimum point with VR205(NARROW MODE CH-SEPA. ADJ). (lower than -38dB)

(C) TUNED Level adjust

❏ RDS/STEREO Multiplexer Setting
- – MODE : STEREO
- – Audio Frequency : 1KHz

❏ FM Signal Generator Setting
- – Deviation : 75KHz
- – Radio Frequency : 98.0MHz
- – Output Level : 26dB

❏ RT955 Setting
- – FM Frequency : 98.0MHz
- – Antenna Selection : A
- – FM MODE : STEREO
- – IF MODE : WIDE



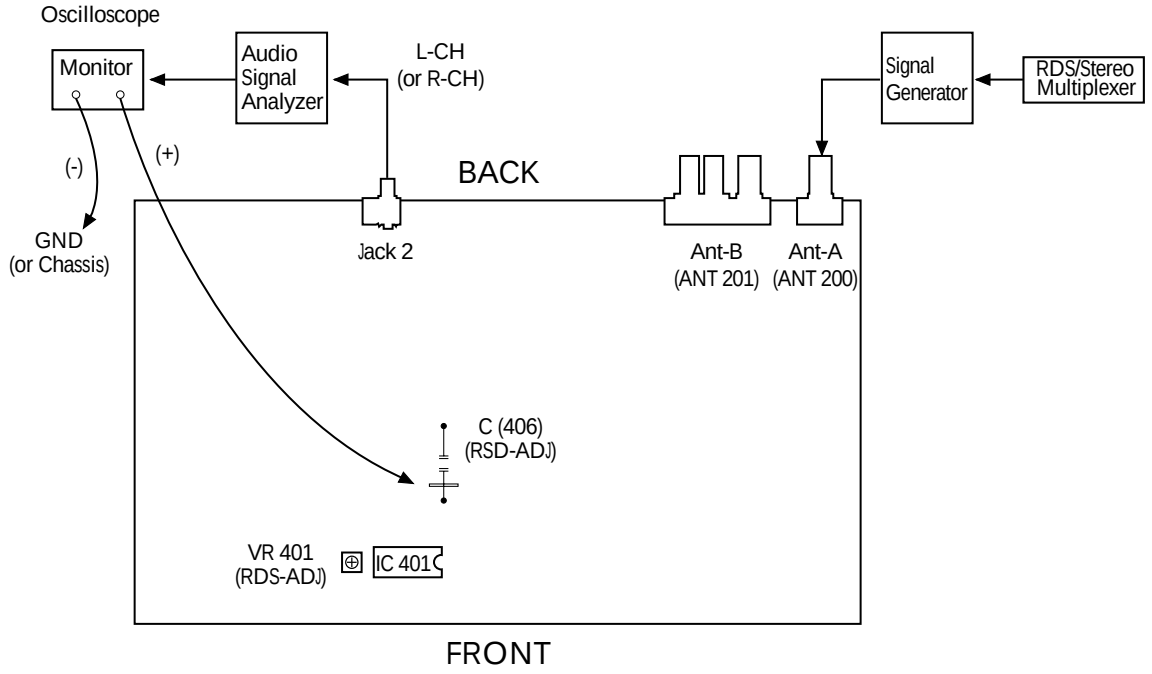
① Turn FM Signal Generator Modulation 'ON' (confirm if output level is 26dB)
② measure volt while connecting DVM (-) terminal to GND (or Chassis) & connecting (+) terminal to Jumper J615(S-METER).
③ Adjust volt to 1.2V with VR201 (FM-ADJ1).
④ Adjust VR206(FM-ADJ2) up to the moment where 'STEREO' & 'TUNED' indicator turns OFF & ON again.
⑤ Confirm if 'STEREO' & 'TUNED' turn OFF when decreasing the output level slowly from 26dB to 25dB, 24dB~~~.
(Repeat the above ③~④ if not OFF in lower than 24dB.)
⑥ Set RT955's Search by MODE to AUTO at Signal Generator Output Level 26dB and start Auto search Tuning Encoder.
Confirm if search stops at FM Frequency 98.0MHz.
(Examine both of High Freq. →98.0MHz search, Low Freq. →98.0MHz search)

(D) RDS Level adjust

❏ RDS/STEREO Multiplexer Setting
- – MODE : STEREO
- – Audio Frequency : 1KHz
- – RDS MODE : ON

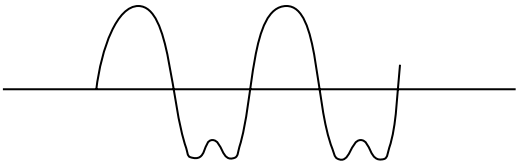
❏ FM Signal Generator Setting
- – Deviation : 75KHz
- – Radio Frequency : 98.0MHz
- – Output Level : 35dB

❏ RT955 Setting
- – FM Frequency : 98.0MHz
- – Antenna Selection : A
- – FM MODE : STEREO
- – IF MODE : WIDE



① Make sure that RDS/STEREO Multiplexer RDS Modulation is ON and turn FM Signal Generator Modulation ON

② Connect oscilloscope terminal to low measuring point of C406(RDS ADJ) and measure. Make sure that the following waveform is output.



③ Adjust waveform to maximum level with VR401(RDS ADJ).

④ Confirm if 'RDS' indicator is ON.

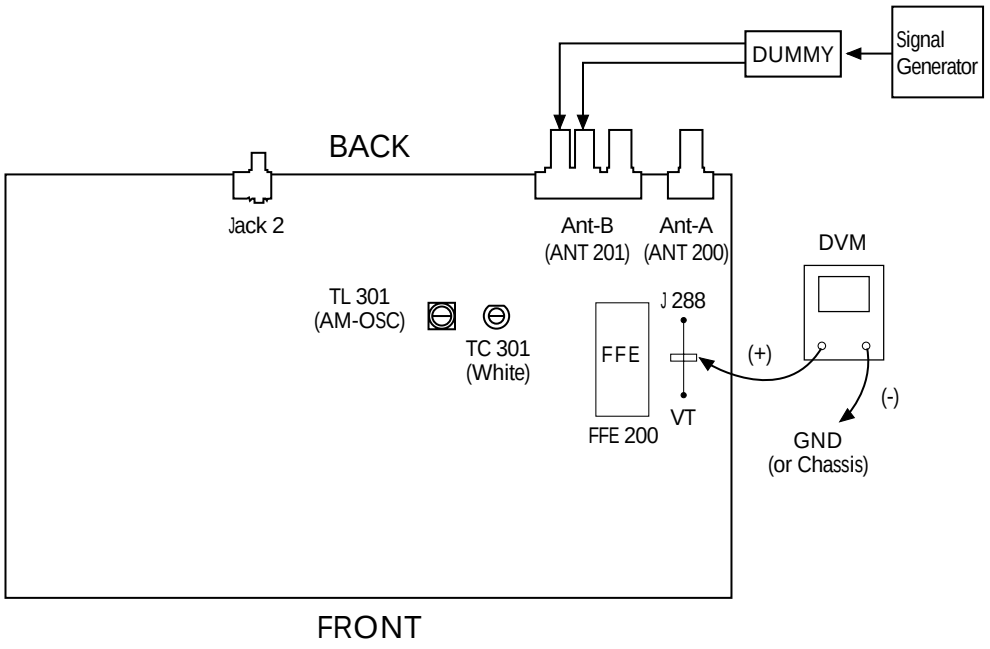
■ AM

* Necessary measurement equipment

AM Signal Generator	1 unit
Audio Signal Analyzer	1 unit
DUMMY	1 unit
Oscilloscope	1 unit
Digital Volt Meter (DVM)	1 unit

(A) VT adjust

❏ AM Signal Generator Setting



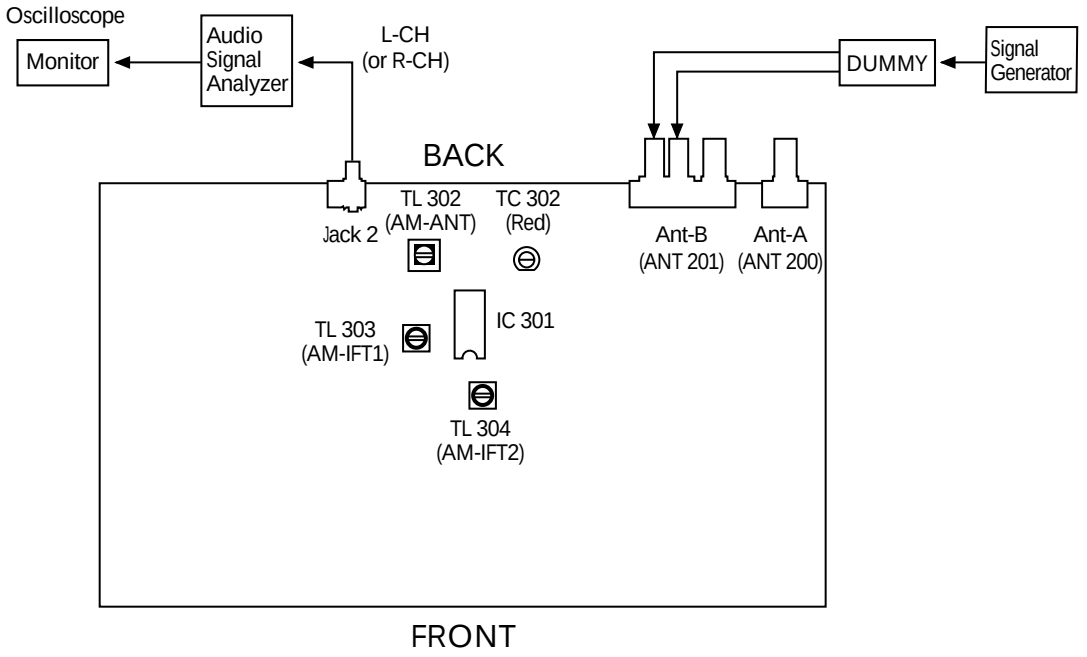
① Adjust AM Frequency of RT-955 to 522KHz.
② Connect (-) terminal of DVM with GND (or chassis) and connect (+) terminal with Jumper J288 (VT CHECK) and measure voltage. (Low Freq. VT)
③ Adjust VT to 1.1V with TL301 (AM-OSC Coil).
④ Adjust AM Frequency of RT-955 to 1611KHz.
⑤ Measure VT and adjust VT to 7.5V with TC301 (WHITE Trimmer). (High Freq. VT)
⑥ Repeat above ② ~⑤ steps 2 or 3 times until VT becomes 1.1V at AM Freq. 522KHz, and VT becomes 7.5V at 1611KHz.

*In case of USA version, AM freq. Range is 520KHz ~ 1710KHz, adjust as below.
at 520KHz, VT = 1.1V (Low Freq. VT)
at 1710KHZ VT = 8.5V(High Freq. VT)

(B) Output Level adjust

❏ AM Signal Generator Setting
- – Modulation : 30%
- – Audio Frequency : 400Hz
- – Radio Frequency : 603KHz / 1404KHz / 999KHz
- – Output Level : 84dB

❏ RT955 Setting
- – AM Frequency : 603KHz



① Turn AM Signal Generator Modulation ON
② Adjust RT955 AM Freq. to 603KHz and measure output level with Audio Signal analyzer.
③ Adjust output level to maximum point with TL302 (AM-ANT).
④ Adjust AM Signal Generator & RT955 AM Freq. to 1404KHz and measure output level.
⑤ Adjust output level to maximum point with TC302 (RED Trimmer).
⑥ Repeat above ② ~ ③ steps 2~3 times until adjusting to best output level.
⑦ Adjust AM Signal Generator & RT955 AM Freq. to 999KHz and measure output level.
⑧ Adjust level to maximum position with TL303 (AM-IFT1).
⑨ Adjust output level of AM Signal Generator to 100dB and measure THD.
⑩ Adjust THD to minimum position with TL304 (AM-IFT2).
(Lower than 1.2%)

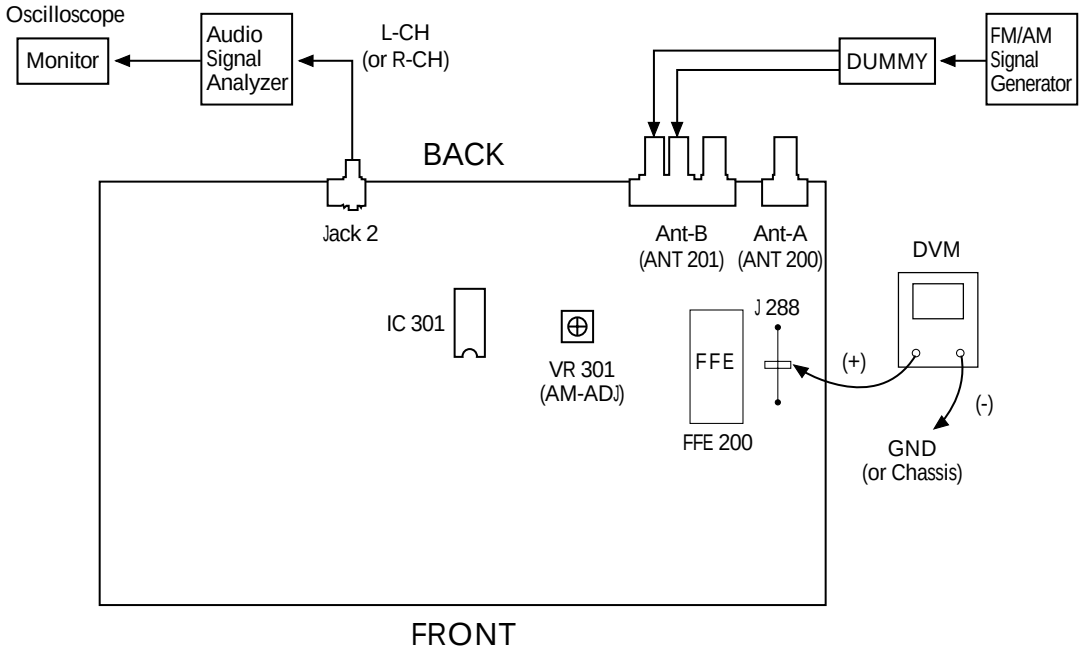
*In case of USA version, AM Freq. step is 10KHz. So, change the standard freq. as below.
522KHz → 520KHz,
1404KHz → 1400KHz,
999KHz → 1000KHz,

(C) TUNED Level adjust

– Audio Frequency : 1KHz

❏ AM Signal Generator Setting
- – Modulation : 30%
- – Audio Frequency : 400Hz
- – Radio Frequency : 999KHz
- – Output Level : 84dB

❏ RT955 Setting
- – AM Frequency : 999KHz



① Turn AM Signal Generator Modulation ON (Make sure if Output level is 84dB)
② Adjust VR301 (AM-ADJ) up to the moment where 'TUNED' indicator turns turns OFF & ON again.
③ Confirm if 'TUNED' turns OFF when decreasing the output level of AM signal Generator slowly from 84dB to 80dB.
④ Set RT955's Search MODE to AUTO at AM Signal Generator Output Level 84dB and start Auto search by Tunning Encoder.
Confirm if search stops at AM Frequency 999KHz.
(Check with both of High Freq. → 999KHz search, Low Freq. → 999KHz search)

*In case of USA version, AM Freq. Step is 10KHz.
So, check above steps with 1000KHz instead of 999KHz.

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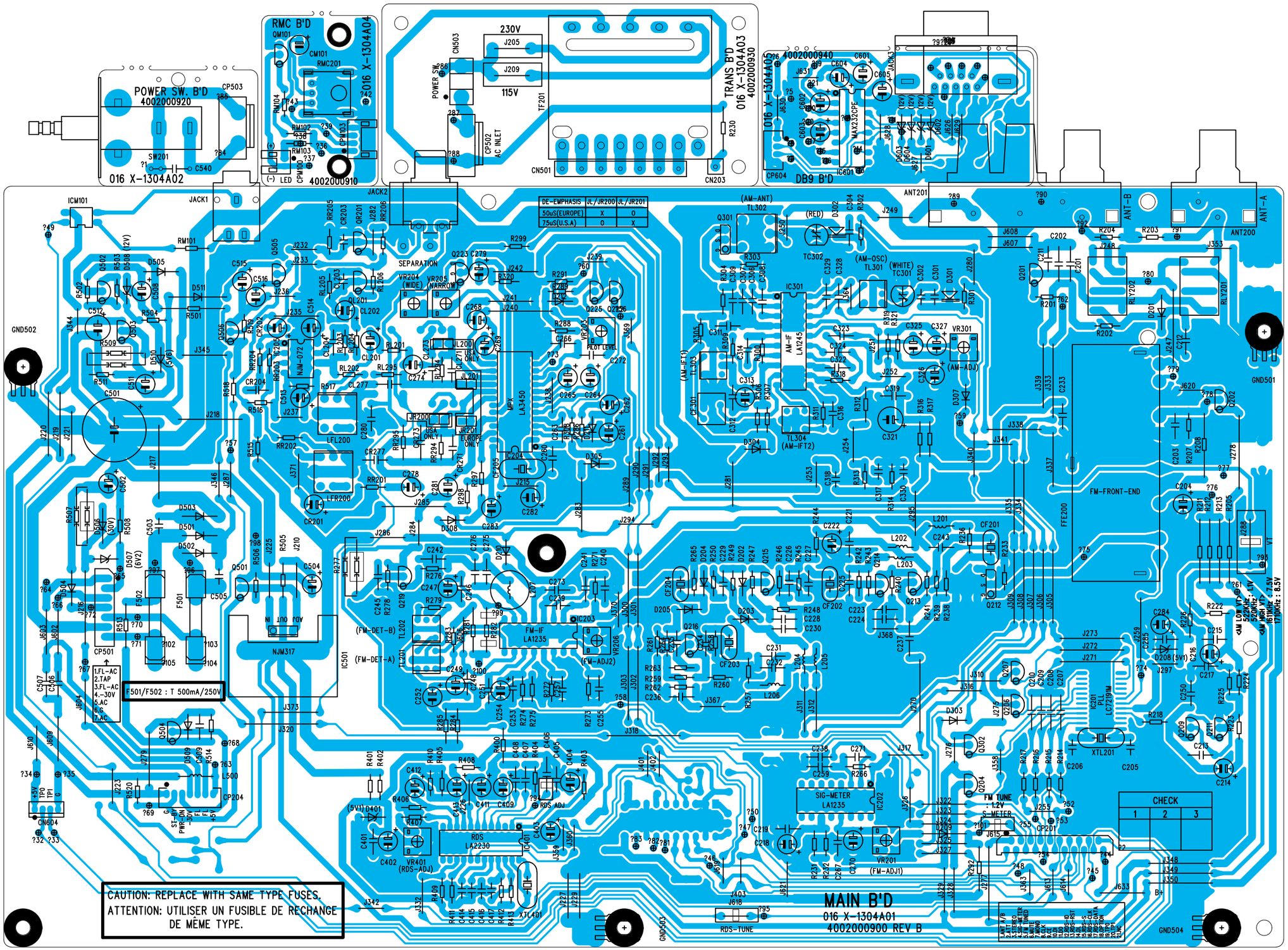
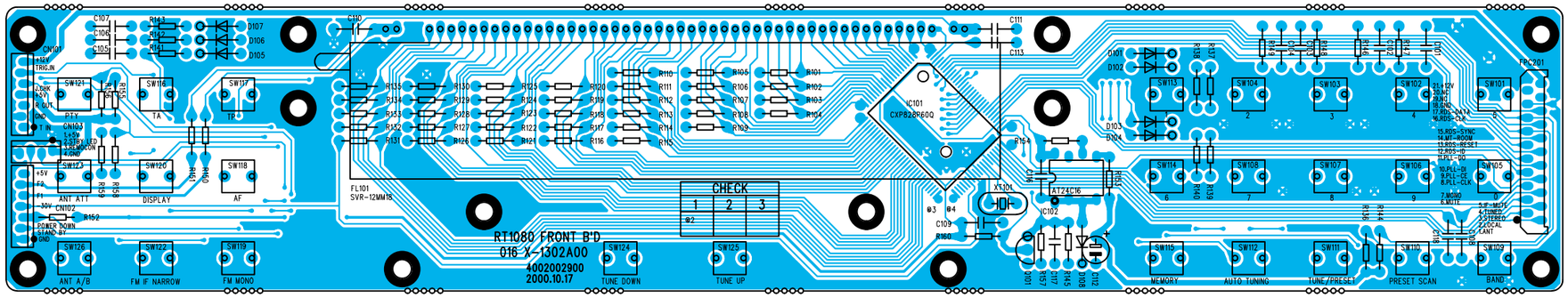
PCB Assembly - 1 Main PCB X-1304

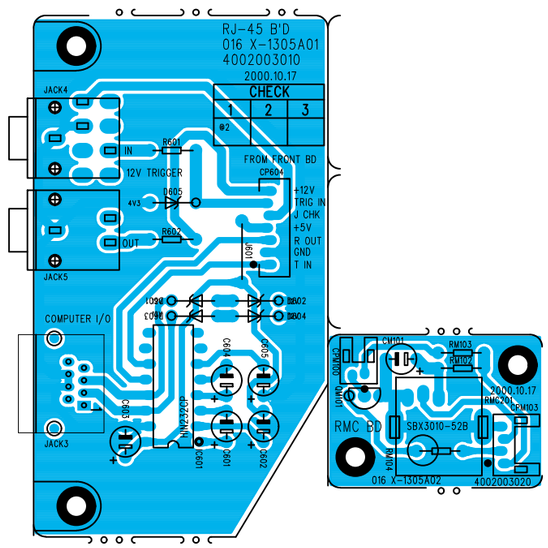


PCB Assembly - 2

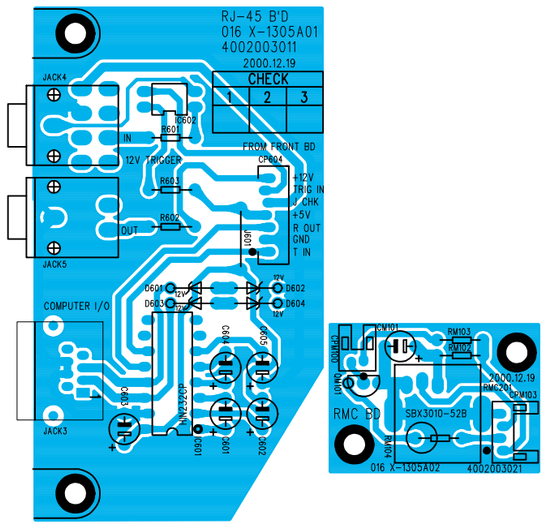
Front PCB X-1302A00



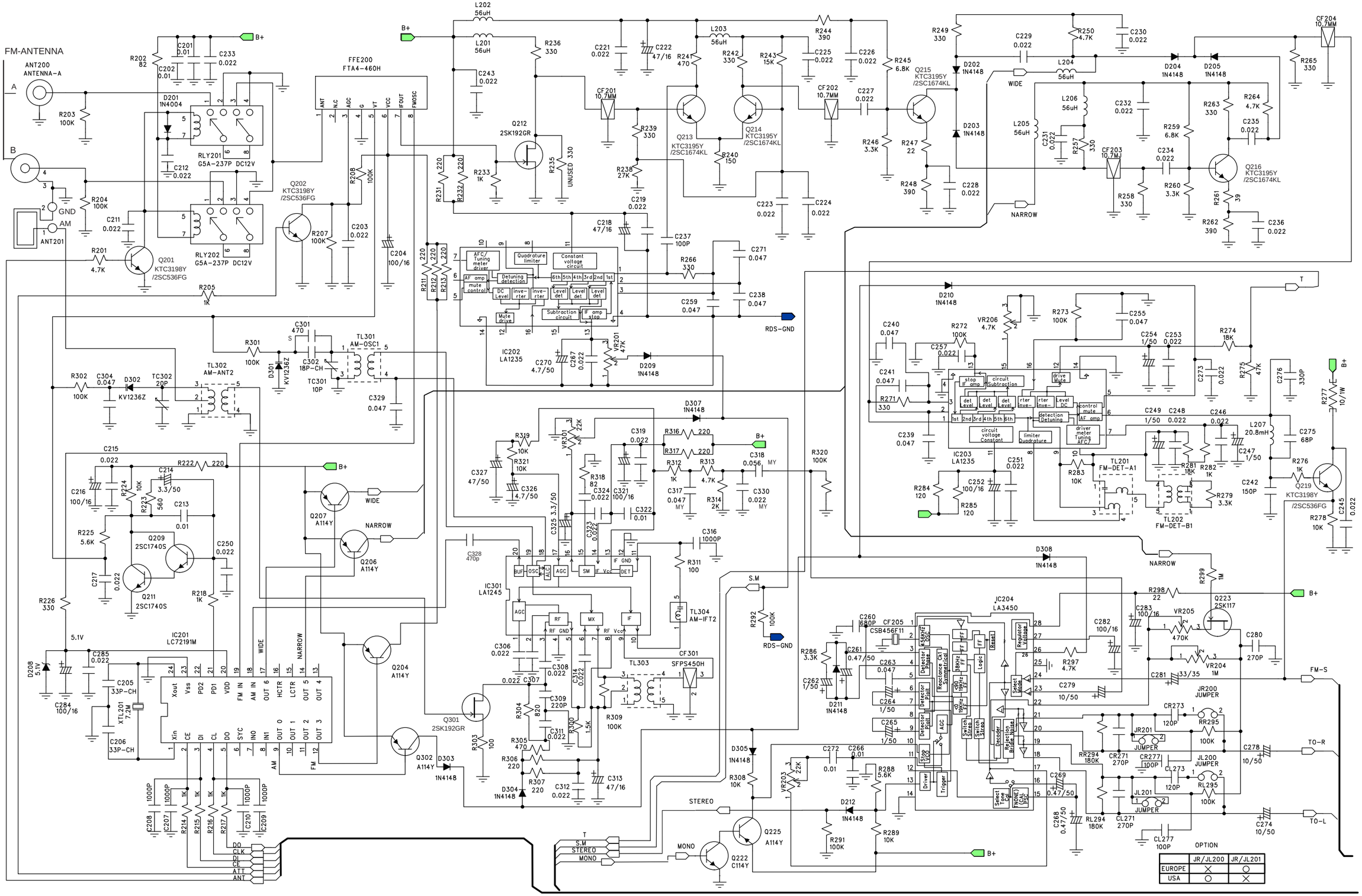
Terminal PCB X-1305A01



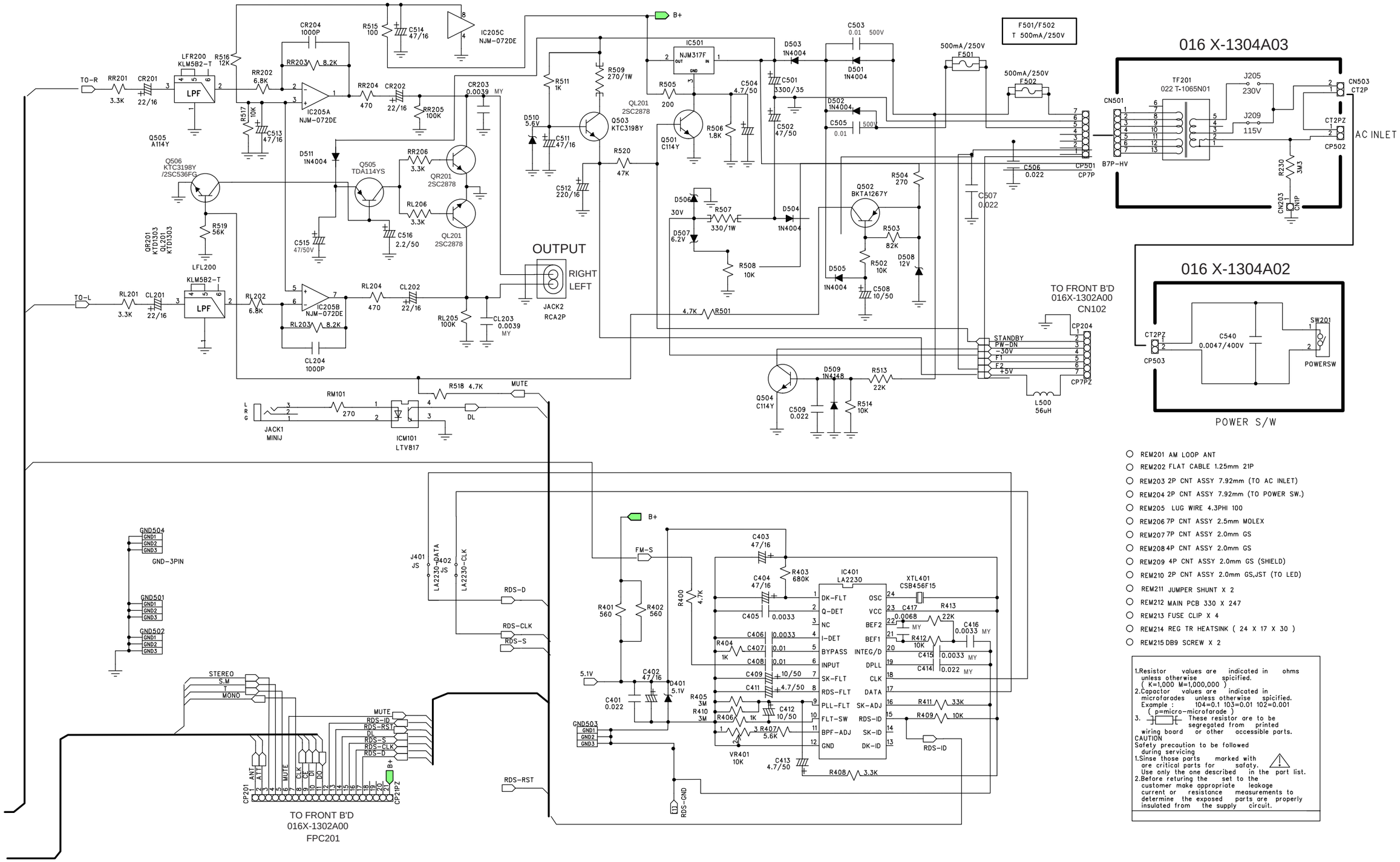
Terminal PCB X-1305A01 (Revised)



Schematic Diagram - 1 Main PCB X-1304 (1/2)



Schematic Diagram - 2 Main PCB X-1304 (2/2)



- REM201 AM LOOP ANT
- REM202 FLAT CABLE 1.25mm 21P
- REM203 2P CNT ASSY 7.92mm (TO AC INLET)
- REM204 2P CNT ASSY 7.92mm (TO POWER SW.)
- REM205 LUG WIRE 4.3PHI 100
- REM206 7P CNT ASSY 2.5mm MOLEX
- REM207 7P CNT ASSY 2.0mm GS
- REM208 4P CNT ASSY 2.0mm GS
- REM209 4P CNT ASSY 2.0mm GS (SHIELD)
- REM210 2P CNT ASSY 2.0mm GS,JST (TO LED)
- REM211 JUMPER SHUNT X 2
- REM212 MAIN PCB 330 X 247
- REM213 FUSE CLIP X 4
- REM214 REG TR HEATSINK (24 X 17 X 30)
- REM215 DB9 SCREW X 2

1.Resistor values are indicated in ohms unless otherwise spicified.
(K=1,000 M=1,000,000)
2.Capactor values are indicated in microfarades unless otherwise spicified.
Example : 104=0.1 103=0.01 102=0.001
(p=micro-microfarade)
3. These resistor are to be segregated from printed wiring board or other accessible parts.

CAUTION
Safety precaution to be followed during servicing
1.Sinse those parts marked with are critical parts for safaty. Use only the one described in the part list.
2.Before returing the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

Schematic Diagram -3