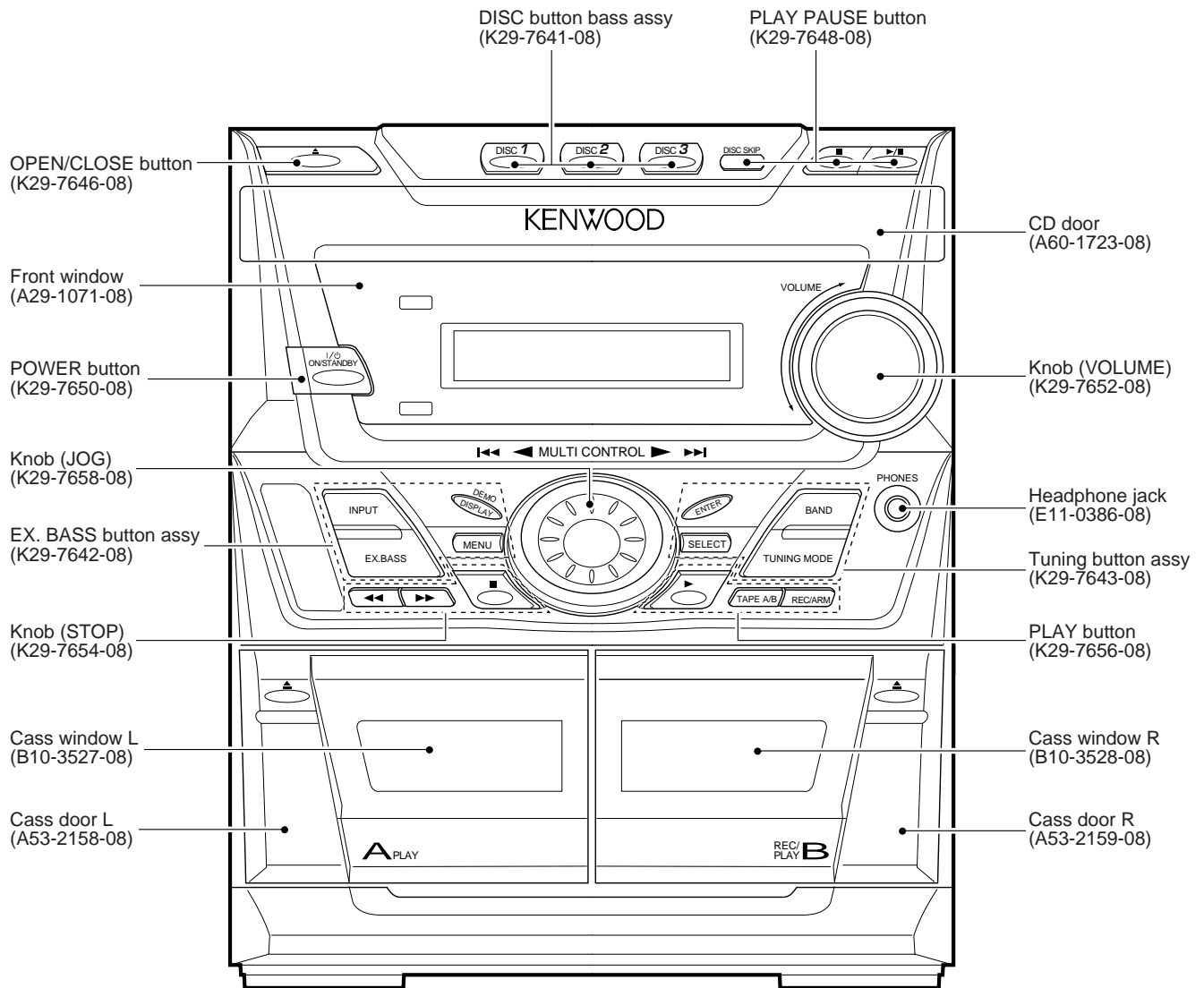


MINI HiFi COMPONENT SYSTEM
RXD-302/302E/352/352E/372S
LS-N302/N352
SERVICE MANUAL
 (XD-302/302E/352/352E/372S)**

KENWOOD

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**Refer to page 2 if you want to know system configuration.

In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

Refer to service manual RXD-251/301/301E/301W/351/351E/351W/371S (B51-5454-00), if you require CD MECHANISM OPERATION DESCRIPTION in detail.

Illust. is RXD-352M.

KENWOOD-Crop. certifies this equipment conforms to DHHS Regulations No. 21 DFR 1040. 10, Chapter 1, Subchapter J.

DANGER : Laser radiation when open and interlock defeated. AVOID DIRECT EXPOSURE TO BEAM

RXD-302/302E/352/352E/372S

CONTENTS / ACCESSORIES / CAUTIONS


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Accessories

----- FM indoor antenna (1) -----

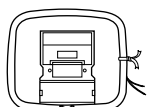
Europe and U.K. (T90-0836-05): TEE2E3E4	Other countries (T90-0847-08): MXYM2
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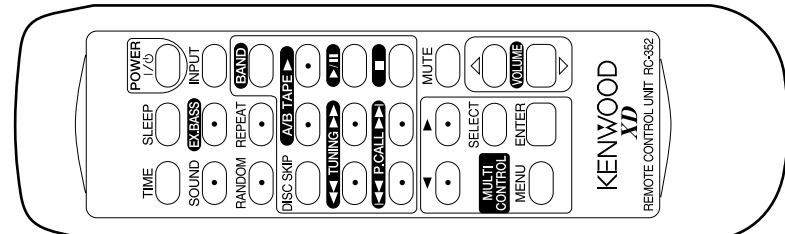
Batteries (R6/AA) (2)




AM loop antenna (1)
(T90-0815-08)



Remote control unit (1)
(A70-1320-08) : RC-352



AC plug adaptor (1)
(E03-0115-05)



Use to adapt the plug on the power cord to the shape of the wall outlet.
(Accessory only for regions where use is necessary.)

System configuration

SYSTEM	MAIN UNIT	DESTINATION	SPEAKER
XD-302	RXD-302	E3	LS-N302
XD-302E	RXD-302E	E4	LS-N302
XD-352	RXD-352	TEMXY	LS-N352
XD-352E	RXD-352E	E2	LS-N352
XD-372S	RXD-372S	M2	LS-N352

Cautions

Operation to reset

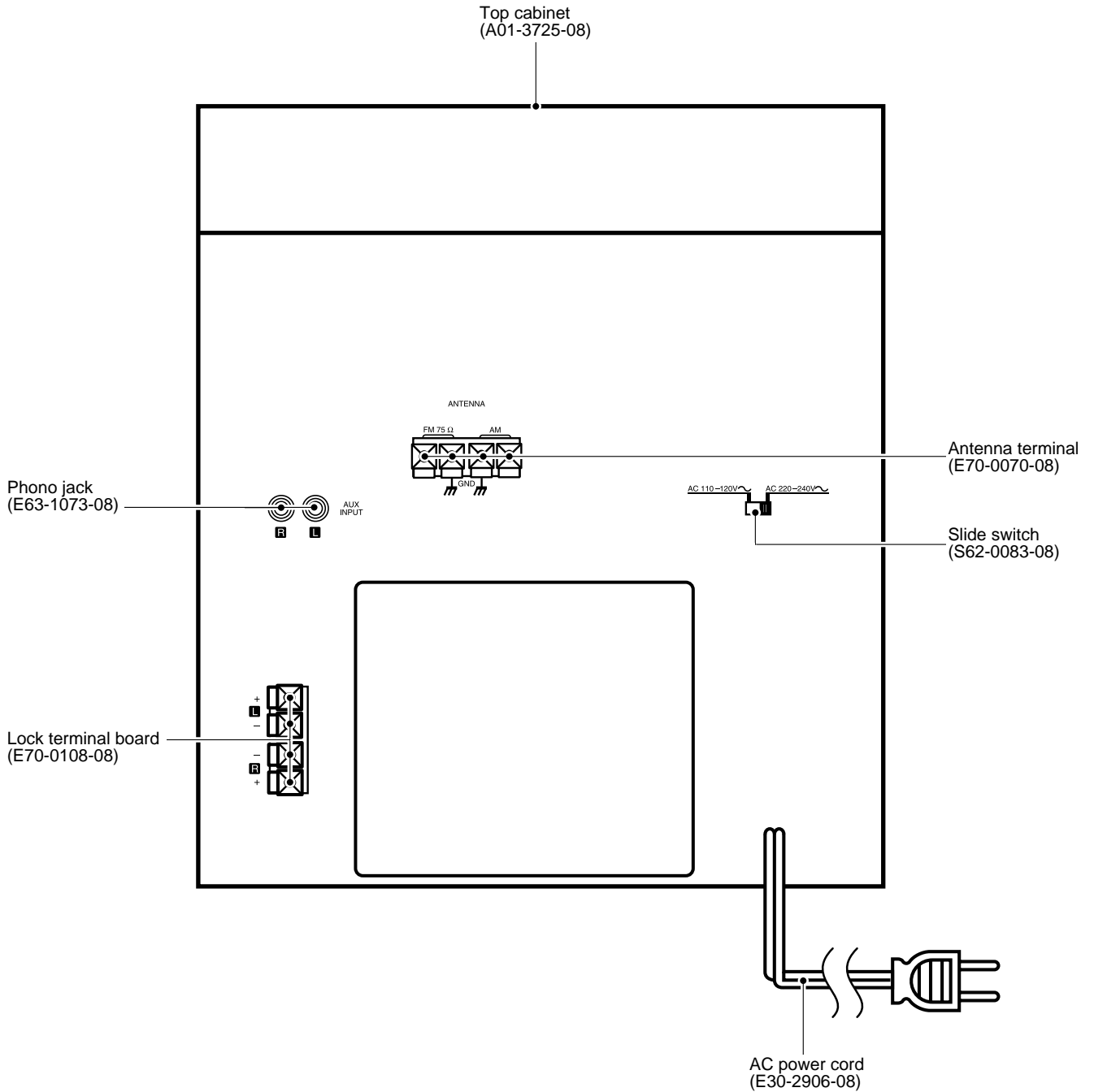
The microcomputer may fall into malfunction (impossibility to operate, erroneous display, etc.) when the power cord is unplugged while power is ON or due to an external factor. In this case, execute the following procedure to reset the microcomputer and return it to normal condition.

Press the "POWER" key while holding the Stop (■) key of the CD section pressed, to switch off the power, and then switch the power on again after a few seconds.

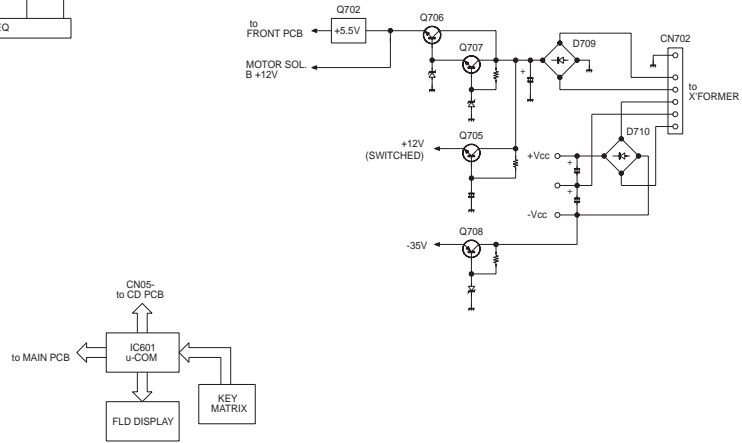
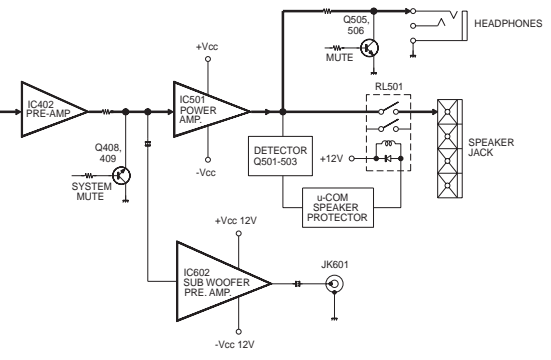
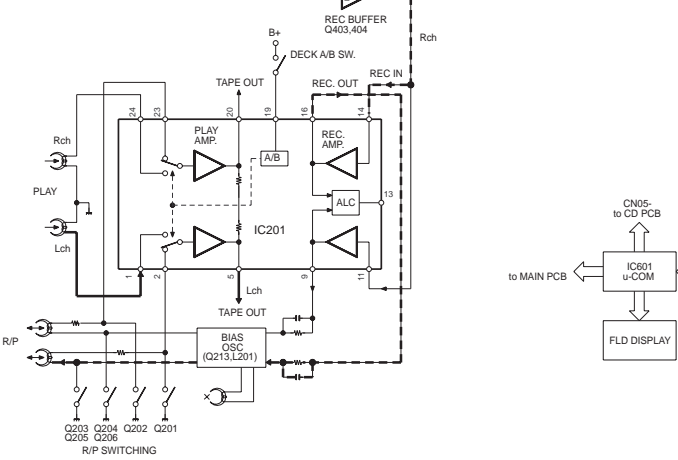
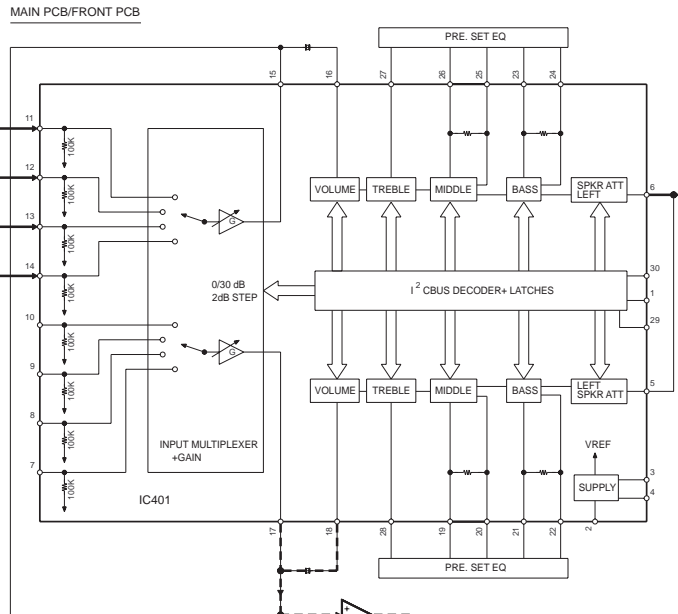
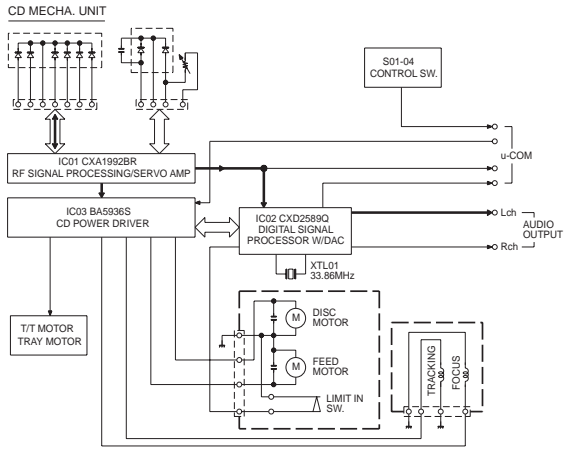
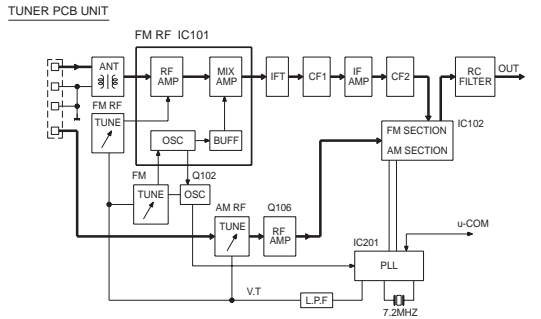
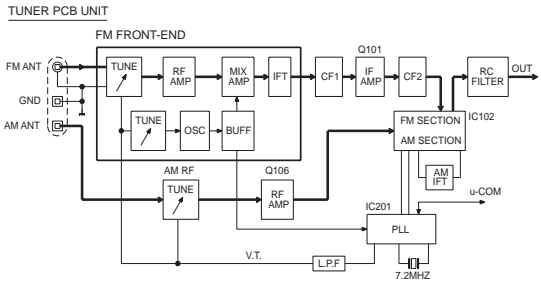
- Please note that resetting the microcomputer clears the contents stored in and returns and to condition when it left the factory.

RXD-302/302E/352/352E/372S

EXTERNAL VIEW



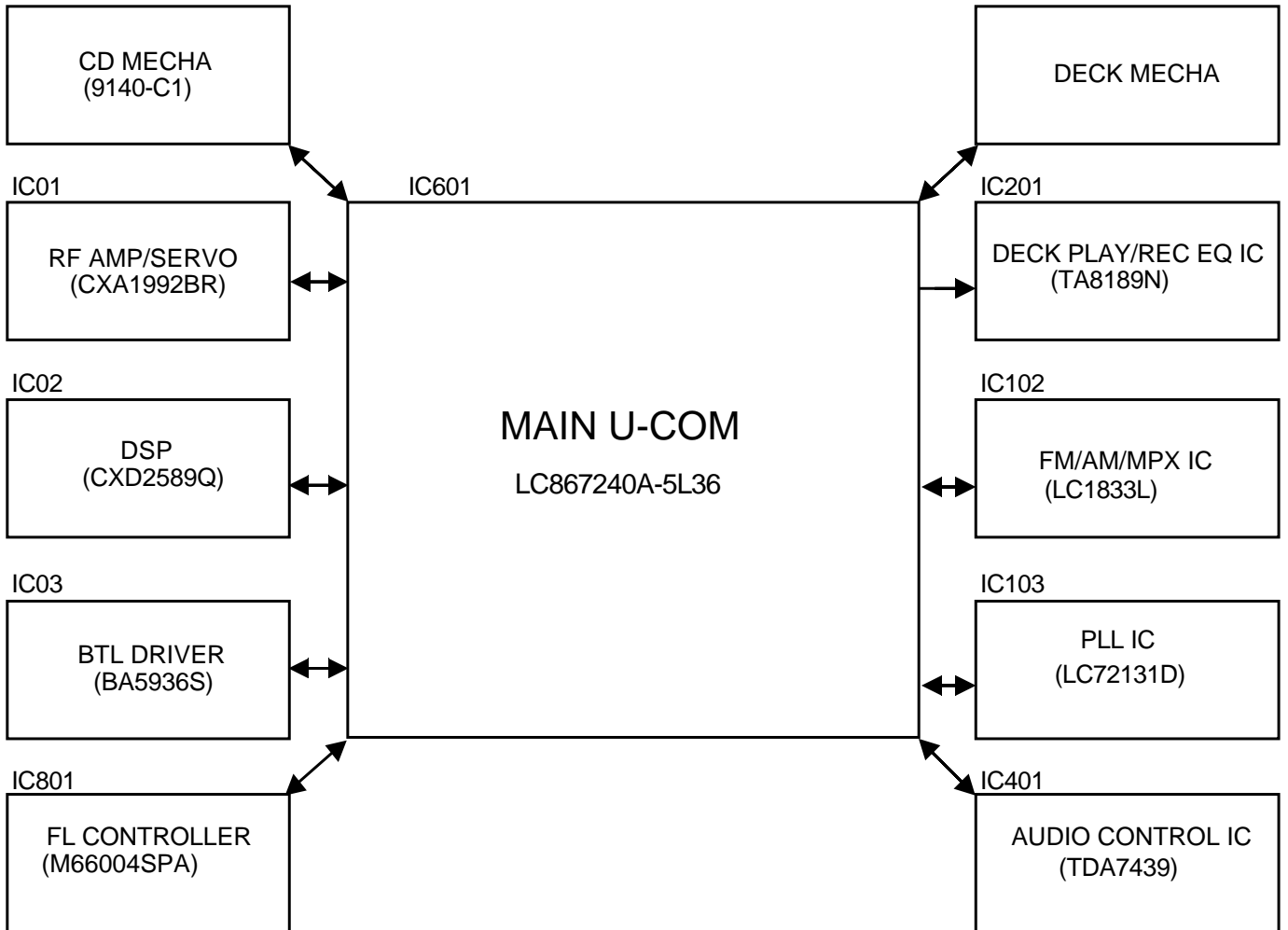
Illust. is RXD-352M.



CIRCUIT DESCRIPTION

1. Main microprocessor LC867240A-5L36(IC601)

1-1 Microprocessor periphery block diagram



1-2 VOLTAGE KEY/BAND MATRIX

INPUT VOLTAGE (V)	KEY 1 Pin19	KEY 2 Pin20	KEY 3 Pin21	DECK MODE SW Pin25	BAND SW Pin26
0	POWER	BAND	PLAY/PAUSE	1WAY/1WAY	M,M2,I,Y,X
0.29	INPUT	TUNING MODE	CD STOP	1WAY//REV.	K,P
0.61	EX. BASS	REC/ARM	DISC SKIP	REV./REV.	H
0.99	DISPLAY/DEMO	TAPE A/B	DISC 3	—	E2
1.38	MENU	TAPE PLAY	DISC 2	—	T
1.82	SELECT	TAPE STOP	DISC 1	—	Q
2.3	ENTER	FF	OPEN/CLOSE	—	—
2.77	—	REW	—	—	U1
< 2.77	—	—	—	—	U2

1-3 Pin description

Pin No.	Name	I/O	Description	Active
1	PLL-CE	O	CE OUTPUT (LC72131)	H: DATA L: ADDRESS
2	XRST	I	RESET (CXD2589Q)	L: ON
3	PLL-DO	O	DATA OUTPUT (LC72131)	
4	PLL-DI	I	PLL DATA INPUT (LC72131)	
5	PLL-CLK	O	CLK OUTPUT (LC72131)	
6	SO	O	DATA OUTPUT (CXD2589Q)	
7	SQSO	I	SUB CODE INPUT(CXD2589Q)	
8	SQCK	O	SUB CODE CLOCK OUTPUT (CXD2589Q)	
9	XLAT	O	LATCH OUTPUT (CXD2589Q)	
10	-	-	NOT USED	
11	SENS1	I	SENS1(CXD2589Q)	
12	RESET	I	uCOM RESET	H: NORMAL L: RESET
13	POWER DOWN	I	POWER DOWN INPUT	L: POWER DOWN
14	SENS2	I	SENS2(CXD2589Q)	
15	VSS	-	GND	
16,17	X1,2	-	Xtal 6.0MHz	
18	VDD1	-	+5V	
19-21	KEY1-3	I	KEY 1-3 INPUT	
22	VSS	-	GND	
23	L-METER L	I	LEVEL METER L,R	
24	-	I	NOT USED	
25	MODE-SW	I	DECK MODE SWITCH	
26	BAND	I	BAND SWITCH	
27	SCOR	I	SUB-CODE SYNCH DETECT (CXD2589Q)	
28	PROTEC	I	PROTECTION IN	H: PROTECT
29	REMOTE	I	REMOTE SIGNAL INPUT	L: ON
30,31	ENC A,B	I	VOLUME ENCODER INPUT A,B	
32	PIC-UP	I	PICK UP UP SWITCH	
33	PIC-DOWN	I	PICK UP DOWN SWITCH	
34	DISC-COUNT	I	DISC COUNTER SWITCH	
35	T.T-SW	I	TURNTABLE SWITCH	
36	TRAY-OPEN	I	TRAY OPEN SWITCH	
37	TRAY-CLOSE	I	TRAY CLOSE SWITCH	
38	MOTOR+	O	T.T./U.D MOTOR +	
39	MOTOR-	O	T.T./U.D MOTOR -	
40	TRAY-M +	O	TRAY MOTOR +	
41	TRAY-M -	O	TRAY MOTOR -	
42	T,T-MSP	O	TURNTABLE MOTOR SPEED	
43	CD-VDD	O	CD VDD CONTROL(BA5936S MUTE)	H: CD
44-51	-	O	NOT USED	
52	LED-STBY	O	LED STANDBY ON/OFF	L: ON
53	LED-TIMER	O	LED TIMER ON/OFF	L: ON
54,55	DECK A,B	I	DECK MECHA MODE SWITCH A,B	H: STOP L: PLAY
56	VDD	-	+5V	
57	VSS	-	GND	
58,59	HALF A,B	I	DECK MECHA HALF SWITCH A,B	L: EXSIT
60	REC-FEW-SW	I	REC FEW SWITCH	L: HOOK EXSIT

Pin No.	Name	I/O	Description	Active
61	REC-REV-SW	I	REC REV SWITCH	L: HOOK EXSIT
62	A-PH	I	A DECK REEL SENSOR	
63	B-PH	I	B DECK REEL SENSOR	
64	DECK VCC	O	DECK MECHA VCC	H: PLAY L: STOP
65	A SOL	O	A DECK SOLENOID CONTROL	H: ON L: OFF
66	B SOL	O	B DECK SOLENOID CONTROL	H: ON L: OFF
67	DUBBING	O	DUBBING CONTROL	H: DUBBING L: NORMAL
68	REC	O	REC CONTROL	H: REC L: OTHER
69	REC-MUTE	O	REC MUTE	H: OTHER L: REC
70	BIAS	O	BIAS ON/OFF CHANGEOVER CONTROL	H: REC L: OTHER
71	A/B	O	A/B DECK MECHA CHANGEOVER	H: A DECK L: B DECK
72	BEET CANCEL	O	REC BEET CANCEL	H: ON L: OFF
73	TAPE-MUTE	O	DECK PLAY OUTPUT MUTE	H: ON L: OFF
74-78	-	-	NOT USED	
79	SP-RLY	O	SPEAKER RELAY ON/OFF	H: ON L: OFF
80	-	-	NOT USED	
81	MODE-SW4	I	MODE SWITCH 4 SHORT WAVE	H: EXSIT L: NONE
82	VSS	-	GND	
83,84	ENC A,B	I	JOE ENCODER(MULTI CONTROL) A,B	L: ON
85	FOK	I	FOCUS OK OUTPUT (CXD2589Q)	H: ON
86	STEREO	I	FM STEREO IN	H: MONO L: STEREO
87	SDA	I/O	AUDIO CONTROL IC (TDA7439) DATA	
88	SCL	O	AUDIO CONTROL IC (TDA7439)CLOCK	
89	VSS2	-	GND	
90	VDD2	-	+5V	
91	-	-	NOT USED	
92	MUTE	O	SYSTEM MUTE	H: OFF L: ON
93	TUNER-MUTE	O	TUNER MUTE	H: ON L: OFF
94	AUDIO-MUTE	O	LINE (AUDIO) MUTE	H: ON L: OFF
95	EX. BASS	O	EX BASS CONTROL	H: ON L: OFF
96	-	-	NOT USED	
97	FL-CS	O	FL CONTROLLER (M66004DP) CS	L: ON
98	FL-RESET	I	FL CONTROLLER (M66004DP) RESET	L: ON
99	CLOCK	O	CLOCK OUTPUT (CXD2589Q)	
100	2589Q MUT	I	MUTING SIGNAL INPUT (CXD2589Q)	H: ON

ADJUSTMENT

FM SECTION (Except M2 type)

NO.	ITEM	INPUT SETTING	OUTPUT SETTING	TUNER SETTING	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	AUTO STOP LEVEL	(A) 98.0 MHz MONO 1kHz, ± 40 kHz dev 30dBu (ANT input)		AUTO 98.0MHz	SFR101	Adjust SFR101 and stop at the point where FLD801(∇) goes ON.	

FM SECTION (M2 type)

* Europ version no Adjustment

NO.	ITEM	INPUT SETTING	OUTPUT SETTING	TUNER SETTING	ALIGNMENT POINTS	ALIGN FOR	FIG.
1.	IF	(A) 98 MHz, 1 kHz MOD ± 75 KHz (DEV) 60 dBu (ANT INPUT)	(B)	98MHz	T101	Maximum output (Minimum distortion)	
2.	LOW END TRACKING	(A) 90MHz, 1 kHz MOD ± 75 kHz (DEV) 35 dBu (ANT INPUT)	(B)	90MHz	L102	Maximum output	
3.	HI END TRACKING	(A) 106MHz, 1 kHz MOD ± 75 kHz (DEV) 35 dBu (ANT INPUT)	(B)	106MHz	TC101	Maximum output	
4.	VT	-	Connect the DC voltage meter to TP2.	87.5 MHz	L103	VT=1.0V \pm 0.05V	
				108 MHz	-	Check the VT=7.0V \pm 1.0V	

MW SECTION (Except M2 type)

NO.	ITEM	INPUT SETTING	OUTPUT SETTING	TUNER SETTING	ALIGNMENT POINTS	ALIGN FOR	FIG.
1.	LOW END TRACKING	(A) 600 kHz or 603 kHz 1 kHz, 30% MOD 30 dBu (ANT INPUT)	(B)	600 kHz or 603 kHz	T103	Maximum output	
2.	HIGH END TRACKING	(A) 1400 kHz or 1404 kHz 1 kHz, 30% MOD 30 dBu (ANT INPUT)	(B)	1400 kHz or 1404 kHz	TC101	Maximum output	
3.	VT	-	Connect the DC voltage meter to TP1.	531 kHz	L104	VT=1.2V \pm 0.05V	
				1602 kHz	-	Check the VT=7.3V \pm 1.0V	

MW SECTION (M2 type)

NO.	ITEM	INPUT SETTING	OUTPUT SETTING	TUNER SETTING	ALIGNMENT POINTS	ALIGN FOR	FIG.
1.	LOW END TRACKING	(A) 600 kHz or 603 kHz 1 kHz, 30% MOD 30 dBu (ANT INPUT)	(B)	600 kHz or 603 kHz	T104	Maximum output	
2.	HIGH END TRACKING	(A) 1400 kHz or 1404 kHz 1 kHz, 30% MOD 30 dBu (ANT INPUT)	(B)	1400 kHz or 1404 kHz	TC102	Maximum output	
3.	VT	-	Connect the DC voltage meter to TP2.	531 kHz	L105	VT=1.2V \pm 0.05V	
				1602 kHz	-	Check the VT=7.3V \pm 1.0V	

RXD-302/302E/352/352E/372S

ADJUSTMENT

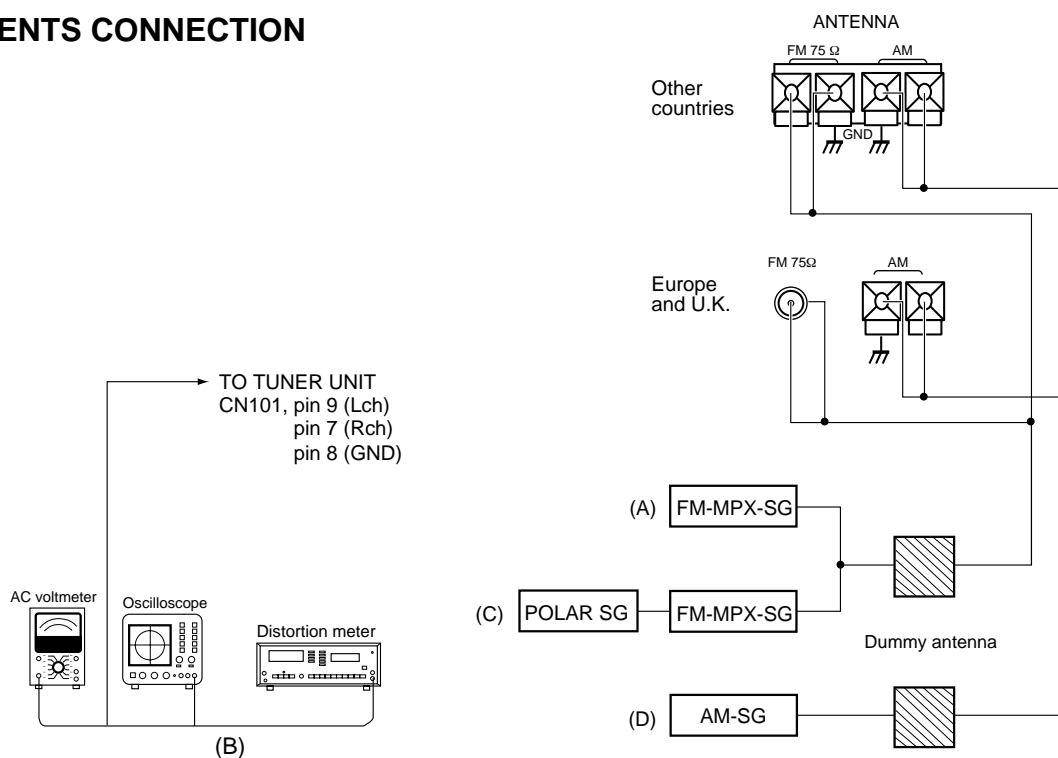
SW SECTION (M2 type)

NO.	ITEM	INPUT SETTING	OUTPUT SETTING	TUNER SETTING	ALIGNMENT POINTS	ALIGN FOR	FIG.
1.	LOW END TRACKING	5.95 MHz 1 kHz, 30% MOD 30 dBu (ANT INPUT) (D)	(B)	5.95 MHz	L201	Maximum output	
2.	HIGH END TRACKING	17.9 MHz 1 kHz, 30% MOD 30 dBu (ANT INPUT) (D)	(B)	17.9 MHz	TC201	Maximum output	
3.	VT	-	Connect the DC voltage meter to TP2.	5.95 MHz	L202	VT=1.0V±0.05V	
				17.9 MHz	-	Check the VT=8.4V±1V	

LW SECTION (T type)

NO.	ITEM	INPUT SETTING	OUTPUT SETTING	TUNER SETTING	ALIGNMENT POINTS	ALIGN FOR	FIG.
1.	LOW END TRACKING	162 kHz 1 kHz, 30% MOD 30 dBu (ANT INPUT) (D)	(B)	162 kHz	T105	Maximum output	
2.	HIGH END TRACKING	270 kHz 1 kHz, 30% MOD 30 dBu (ANT INPUT) (D)	(B)	270 kHz	TC103	Maximum output	
3.	VT	-	Connect the DC voltage meter to TP2.	153 kHz	T106	VT=1.0V±0.05V	
				279 kHz	-	Check the VT=5.0V±1.0V	

INSTRUMENTS CONNECTION

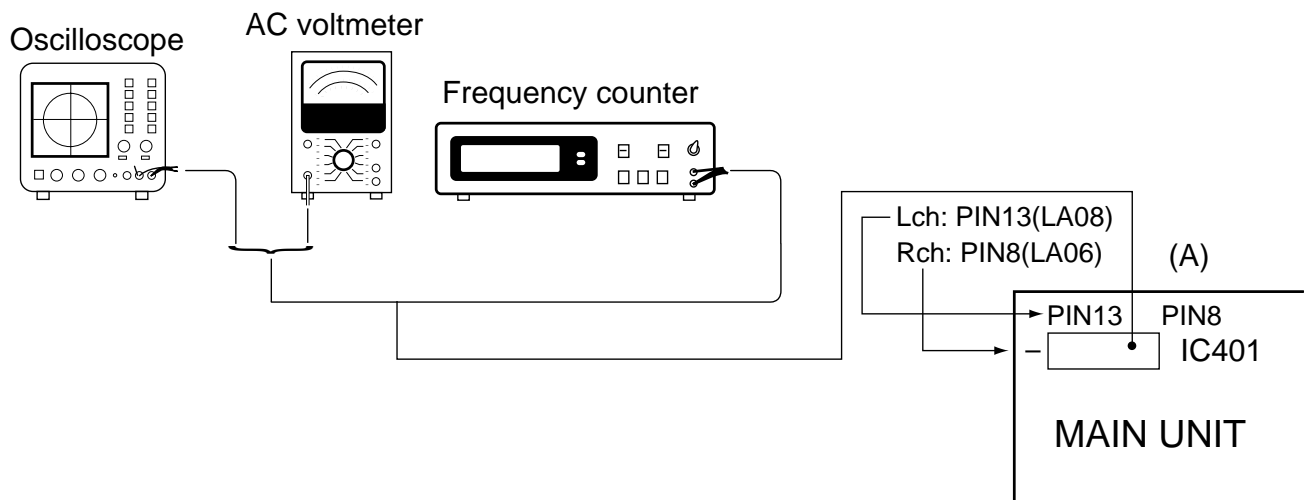


ADJUSTMENT

CASSETTE DECK SECTION

NO.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	CASSETTE TAPE DECK SETTINGS	ALIGNMENT POINT	ALIGN FOR	FIG.
Unless otherwise specified : each ; switch should be set as follows : BEAT SW : OFF I. Cassette mechanism section (REC/PB head adjustment)							0dBs = 0.775V
[1]	Demagnetization and cleaning	—	—	Power OFF, demagnetization, cleaning play	REC/PB head, erase head, capstan, pinch roller	Demagnetize the REC/PB head by head eraser. Clean the REC/PB head, erase roller with a cotton swab immersed in alcohol.	
[2]	REC/PB head azimuth	MTT-114, TCC-153 SCC-1727 10 kHz, -10dB	(A)	PLAY	Azimuth adjustment screw	In a setting wher the output is maximized, adjust the azimuth adjustment screw so that the Lissajous figure appearing on the oscilloscope screen comes near to a line slanted 45°. Note : The head should be installed in such a manner that it approaches the tape face.	
II. PC board adjustment							
< 1 >	Tape speed	MTT-111 TCC-100 SCC-1727 3 kHz, -4 dB	(A)	PLAY	SFR201	Adjust so that Frequency is 3 kHz at the center of the tape.	
< 2 >	Playback level	TCC-120 315 Hz 0dB	(A)	PLAY		Approx. -5dBm ※ reference level	
< 3 >	Recording level	Put standard test tape (TCC-120) into B deck. Put standard blank tape into A deck.	(A)	Dubbing and playback.		Approx. -5dBm ※ reference level	

INSTRUMENTS CONNECTION



RXD-302/302E/352/352E/372S

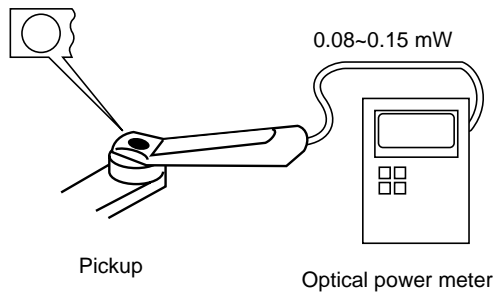
ADJUSTMENT

CD SECTION

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	PLAYER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	LASER POWER	-	Apply the sensor section of optical power meter on the pickup lens.	Press the PLAY/PAUSE key.	-	On the power from 0.08 to 0.15 mW, when the diffraction grating is correctly aligned with the RF level of 0.6 Vp-p or more.	(a)

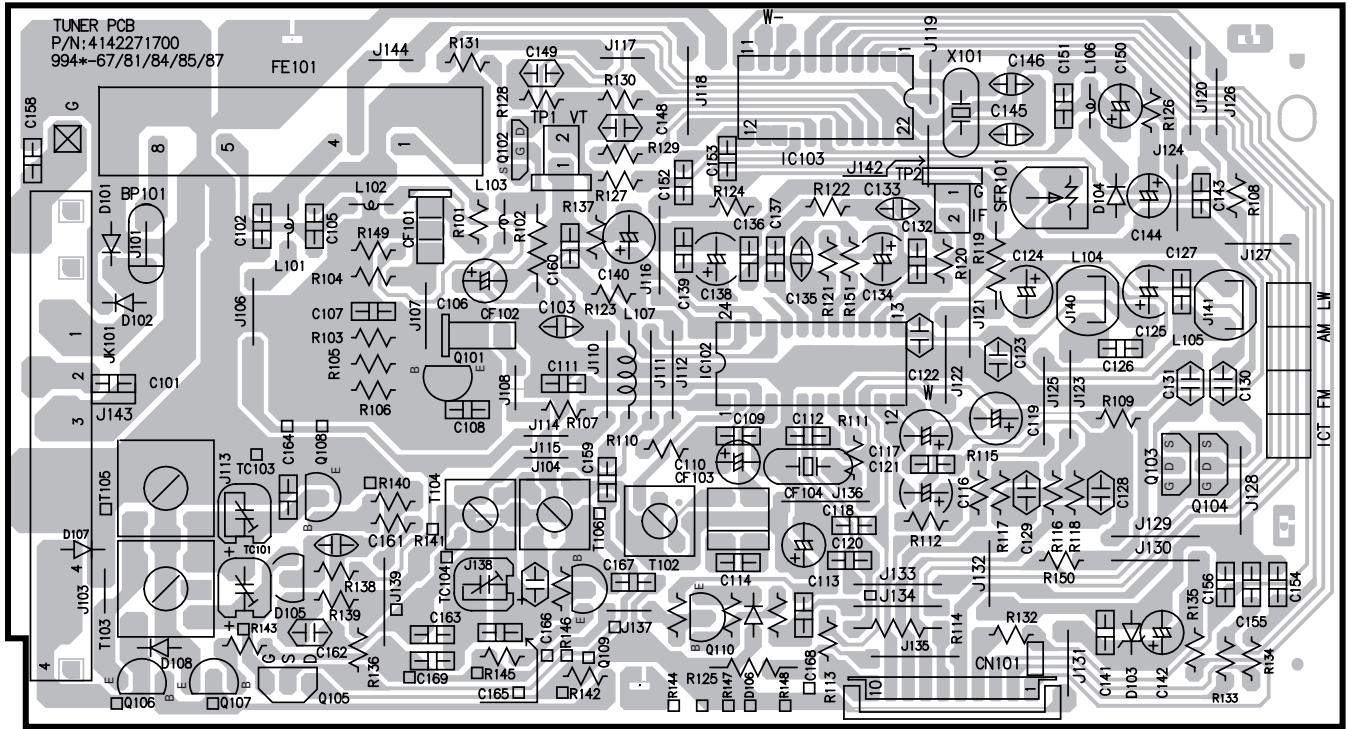
Note:
Type 4 disc : SONY YEDS-18 Test Disc or equivalent.(KTD-0*)

(a) Laser power

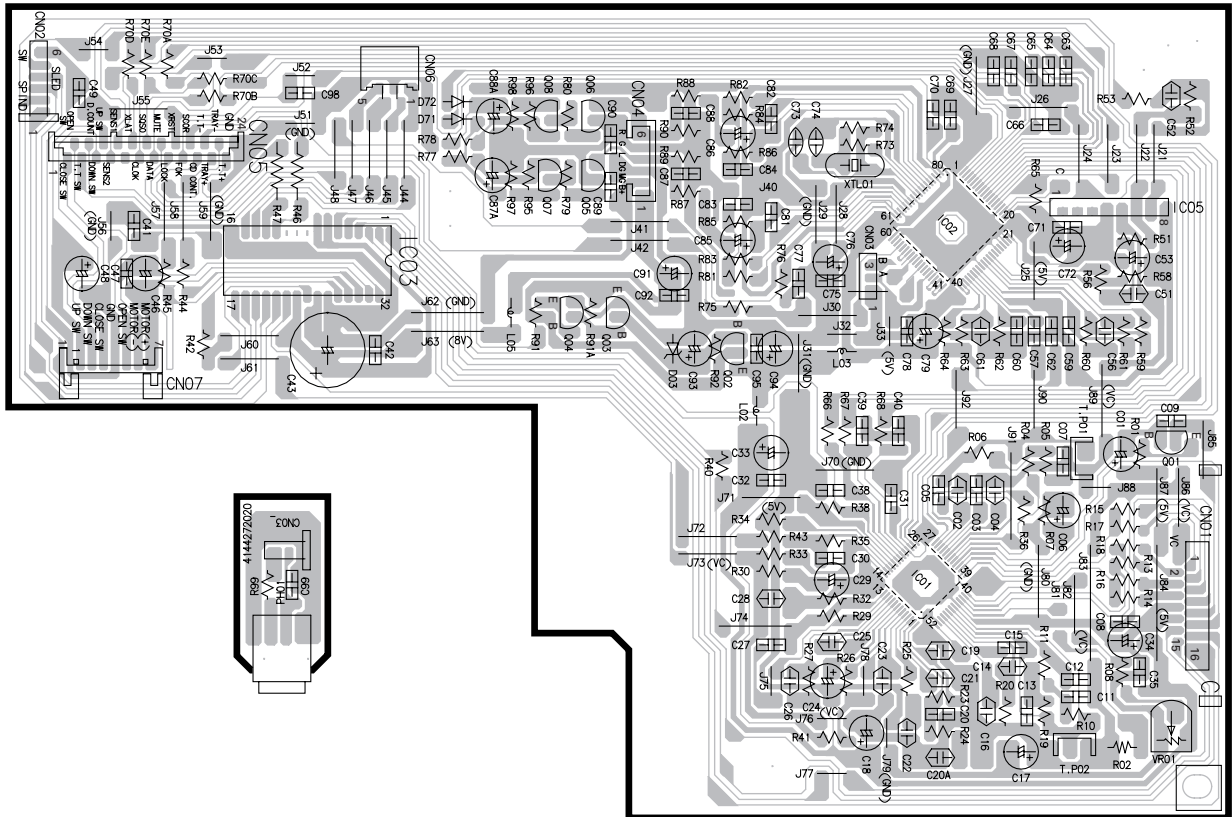


PC BOARD(Component side view)

TUNER UNIT



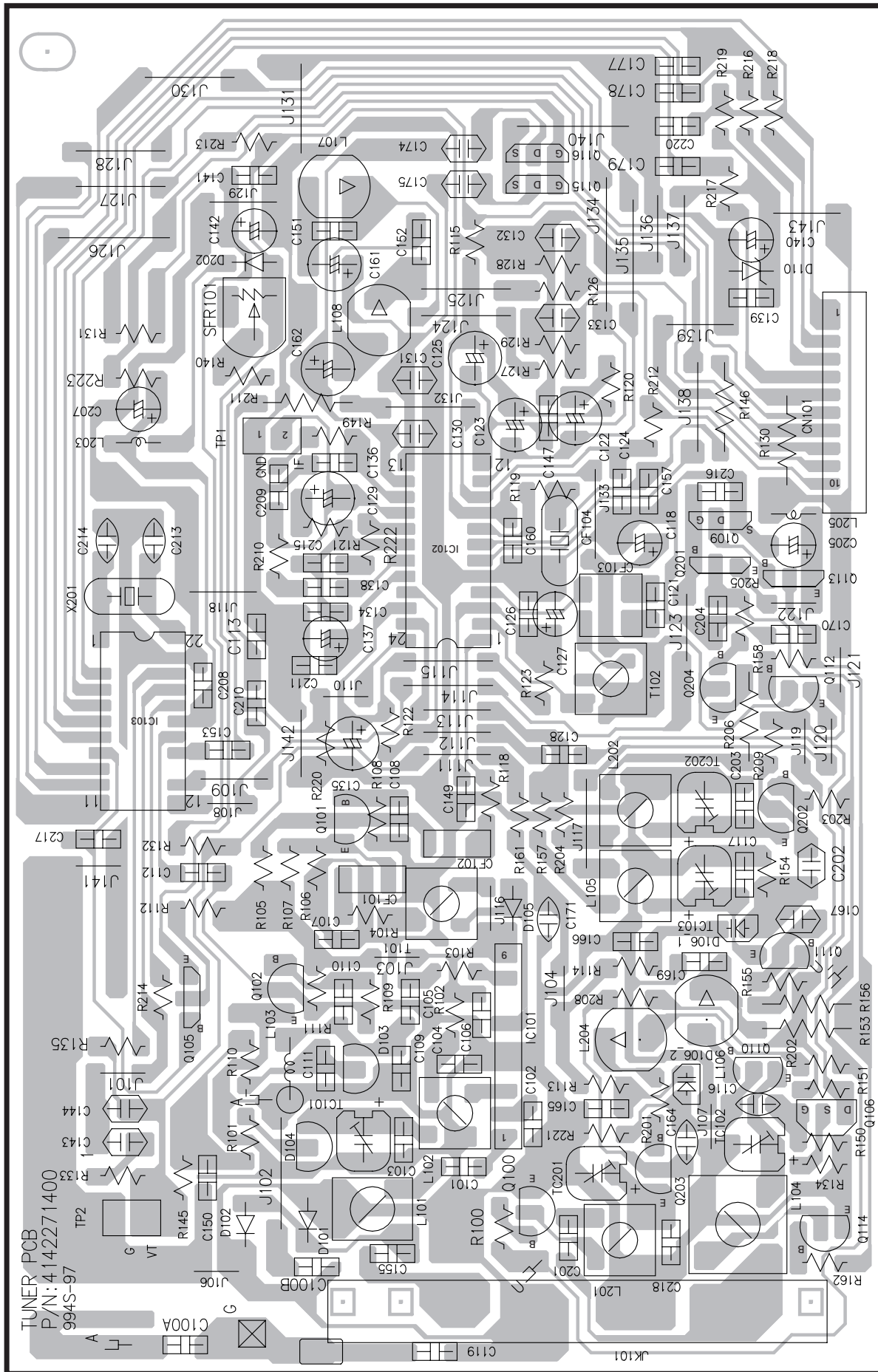
CD UNIT



Refer to the schematic diagram for the value of resistors and capacitors.

PC BOARD(Component side view)

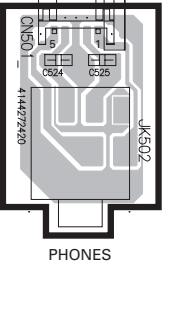
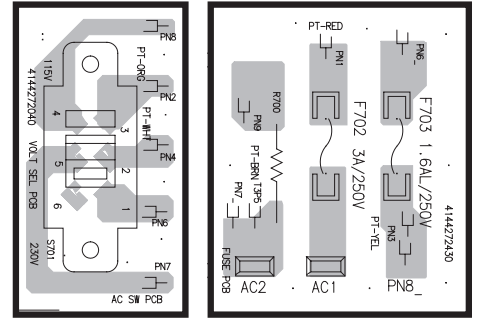
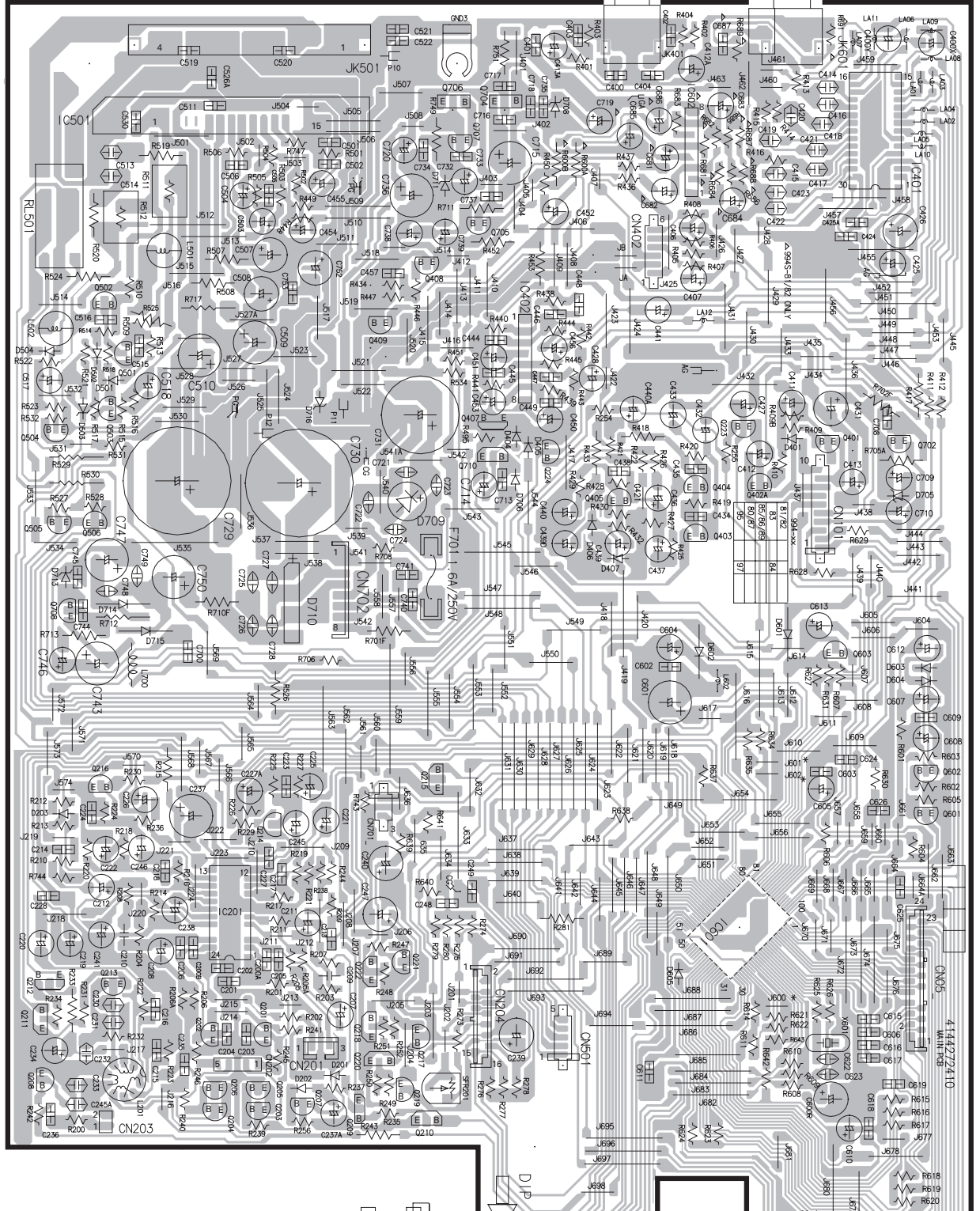
TUNER UNIT



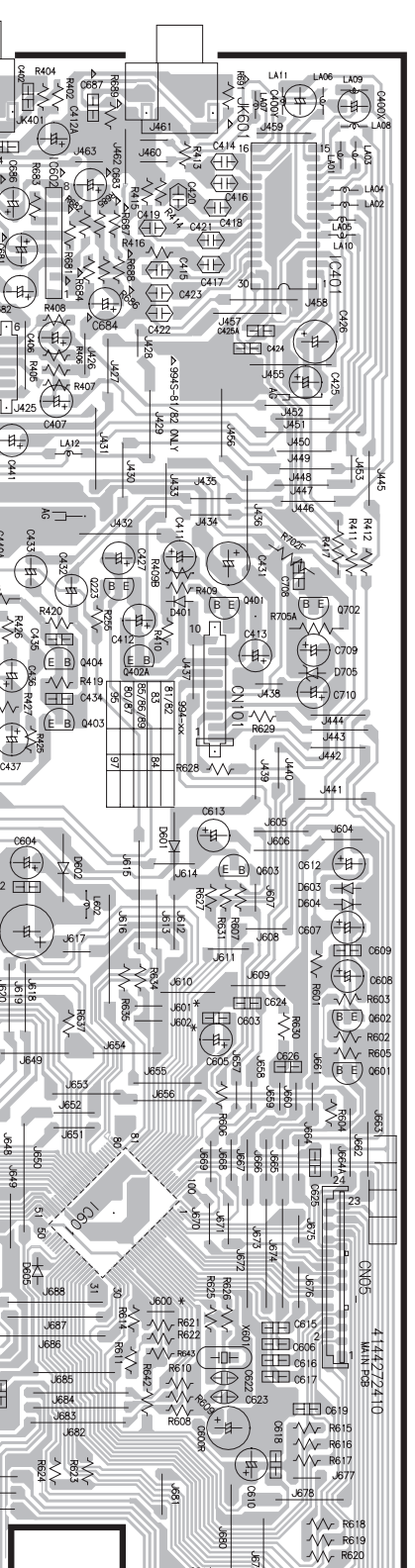
Refer to the schematic diagram for the value of resistors and capacitors.

PC BOARD(Component side view)

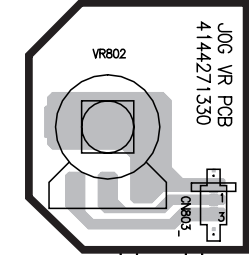
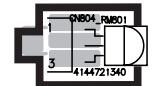
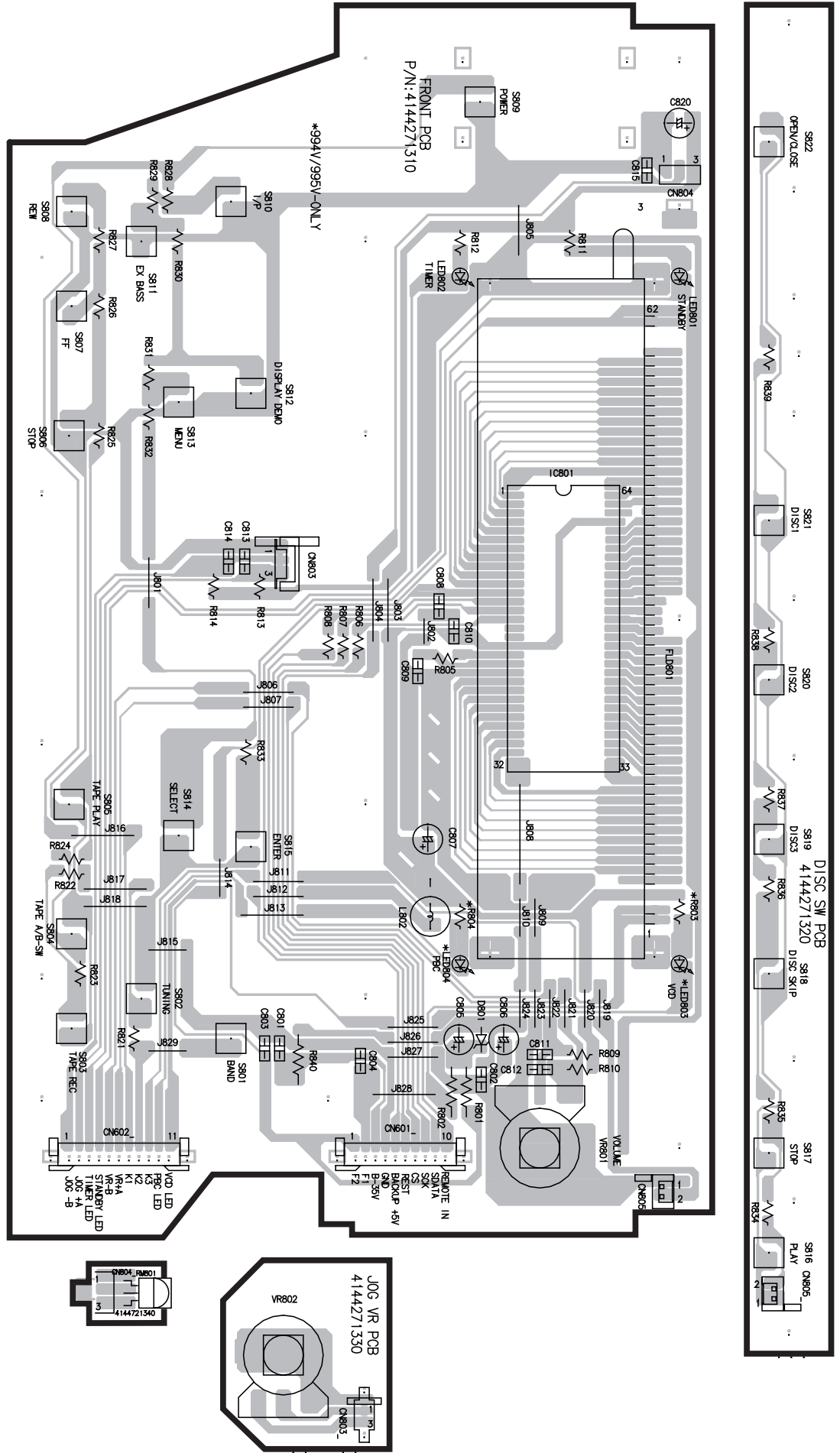
MAIN UNIT



AUX

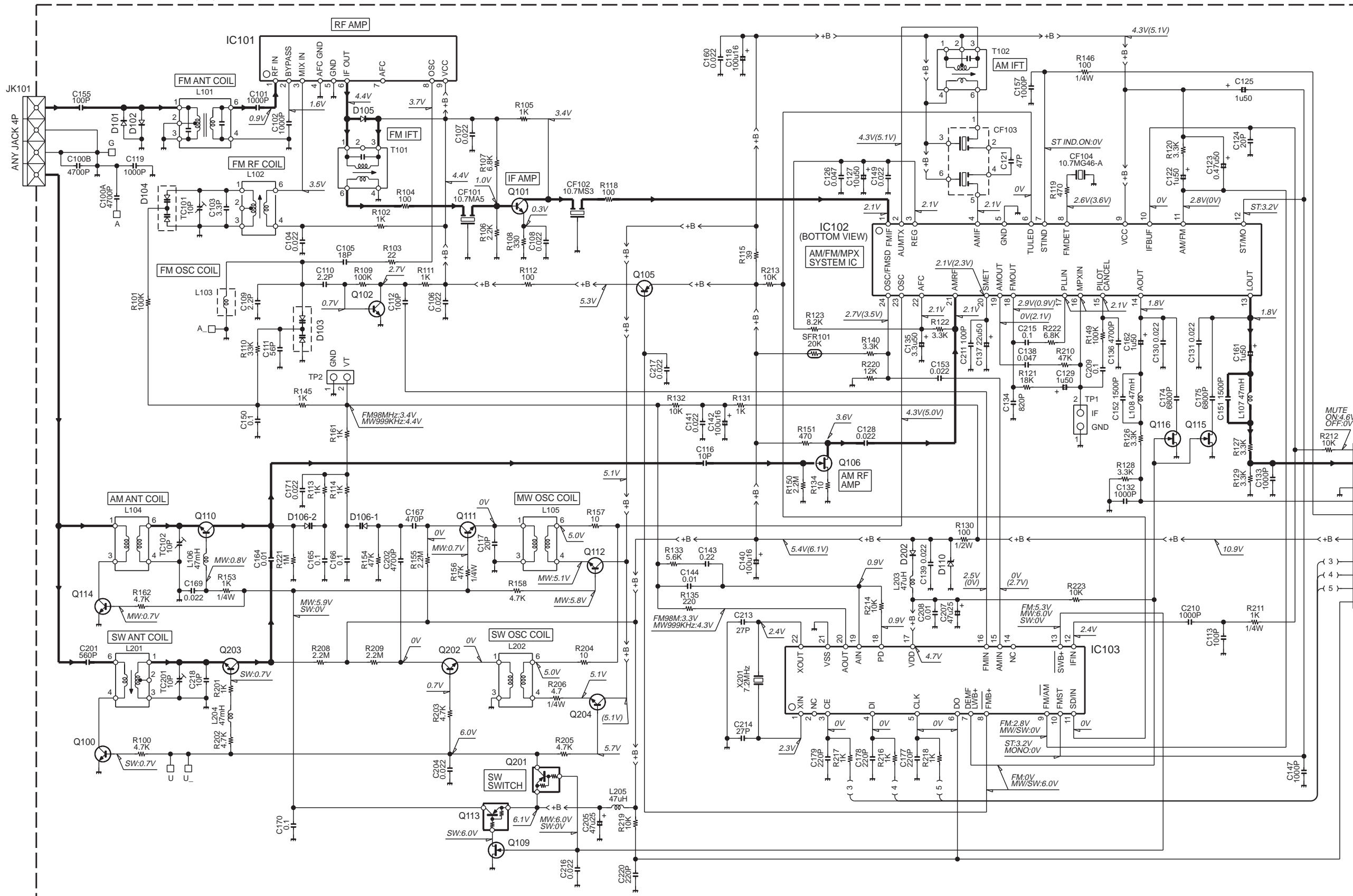


FRONT UNIT



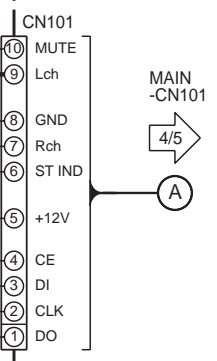
1
2
3
4
5
6
7

Refer to the schematic diagram for the value of resistors and capacitors.



- IC101 : LA1186N
- IC102 : LA1833
- IC103 : LC72131
- Q100,114 : 2SC2001L
- Q101 : 2SC1675L
- Q102 : 2SC1674L
- Q105 : DTA114YS
- Q106 : 2SK544F-T
- Q109,115,116 : 2SK2541
- Q110-112,202-204 : 2SC2878A
- Q113,201 : DTA144ES
- D101,102,105,202 : 1SS133
- D103,104 : SVC211SPA
- D106 : KV1561A-2
- D110 : MTZJ6.2B

— SIGNAL LINE
 <+B— +B LINE



RXD-302/302E (1/5)
 RXD-352/352E (1/5)
 RXD-372S (1/5)

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter as the AM/FM signal generator is specified to the conditions as shown in the list below. The measurement value may vary depending on the measuring instruments used or on the product. The value shown in () is actual reading measured in the AM mode.

MODE	CARRIER	MODULATION		ANT INPUT
		FREQUENCY	DEVIATION	
FM	98MHz	1kHz	STEREO 67.5kHz 7.5kHz(Pilot)	60dB
AM	1000(999)kHz	400Hz	MONO 30% MOD	60dB

RXD-302/302E/352/352E/372S

Y39-3522-71

KENWOOD

RXD-302 (994B-85)

DESTINATION	CAPE No.	C101	C130, 131	R102	R150	Q103, 104	FE101	JK101	BP101	
EUROPE	E3	B-85	YES	NO	68 1/2W	NO	NO	W02-2681-08	E20-0321-05	YES

RXD-302E (994B-86)

DESTINATION	CAPE No.	C101	C130, 131	R102	R150	Q103, 104	FE101	JK101	BP101	
EUROPE	E4	B-86	YES	NO	68 1/2W	NO	NO	W02-2681-08	E20-0321-05	YES

RXD-352 (994X-XX)

DESTINATION	CAPE No.	C101	C130, 131	R102	R150	Q103, 104	FE101	JK101	BP101	
U.K.	T	S-84	YES	NO	68 1/2W	NO	NO	W02-2681-08	E20-0321-05	YES
EUROPE	E	S-85	YES	NO	68 1/2W	NO	NO	W02-2681-08	E20-0321-05	YES
GENERAL MARKET	M	S-87	YES	NO	680 1/4W	YES	YES	W02-2714-08	E20-0070-08	NO
AUSTRALIA	X	S-89	NO	NO	680 1/4W	NO	NO	W02-2714-08	E20-0070-08	NO
PX	Y	S-80	YES	YES	680 1/4W	YES	YES	W02-2714-08	E20-0070-08	NO

RXD-352E (994S-86)

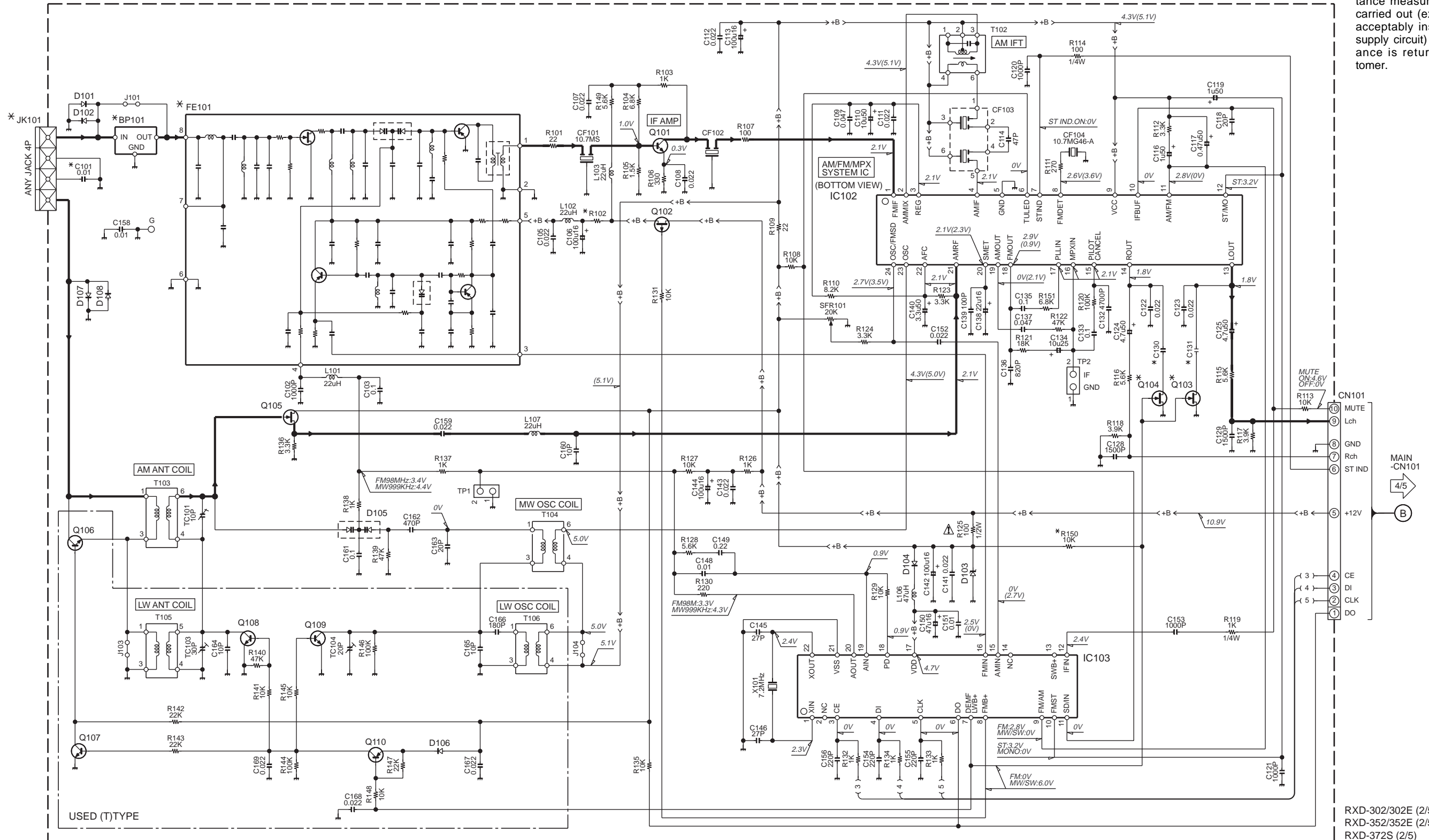
DESTINATION	CAPE No.	C101	C130, 131	R102	R150	Q103, 104	FE101	JK101	BP101	
EUROPE	E2	S-86	YES	NO	68 1/2W	NO	NO	W02-2681-08	E20-0321-05	YES

IC102	: LA1833
IC103	: LC72131
Q101	: 2SC1675L
Q102	: 2SJ460
Q103,104	: 2SK2541
Q105	: 2SK544F
Q106	: 2SC001L
Q107	: 2SC945

Q108,109	: 2SC2001L	
Q110	: 2SA733	
D101,102,104,	106-108	: 1SS133
D103	: MTZJ5.6B	
D105	: SVC348S-TL	

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

TUNER UNIT : RXD-302(E3)/302E(E4)/352(T,E,M,X,Y)/352E(E2)



USED (T)TYPE

RXD-302/302E (2/5)
 RXD-352/352E (2/5)
 RXD-372S (2/5)

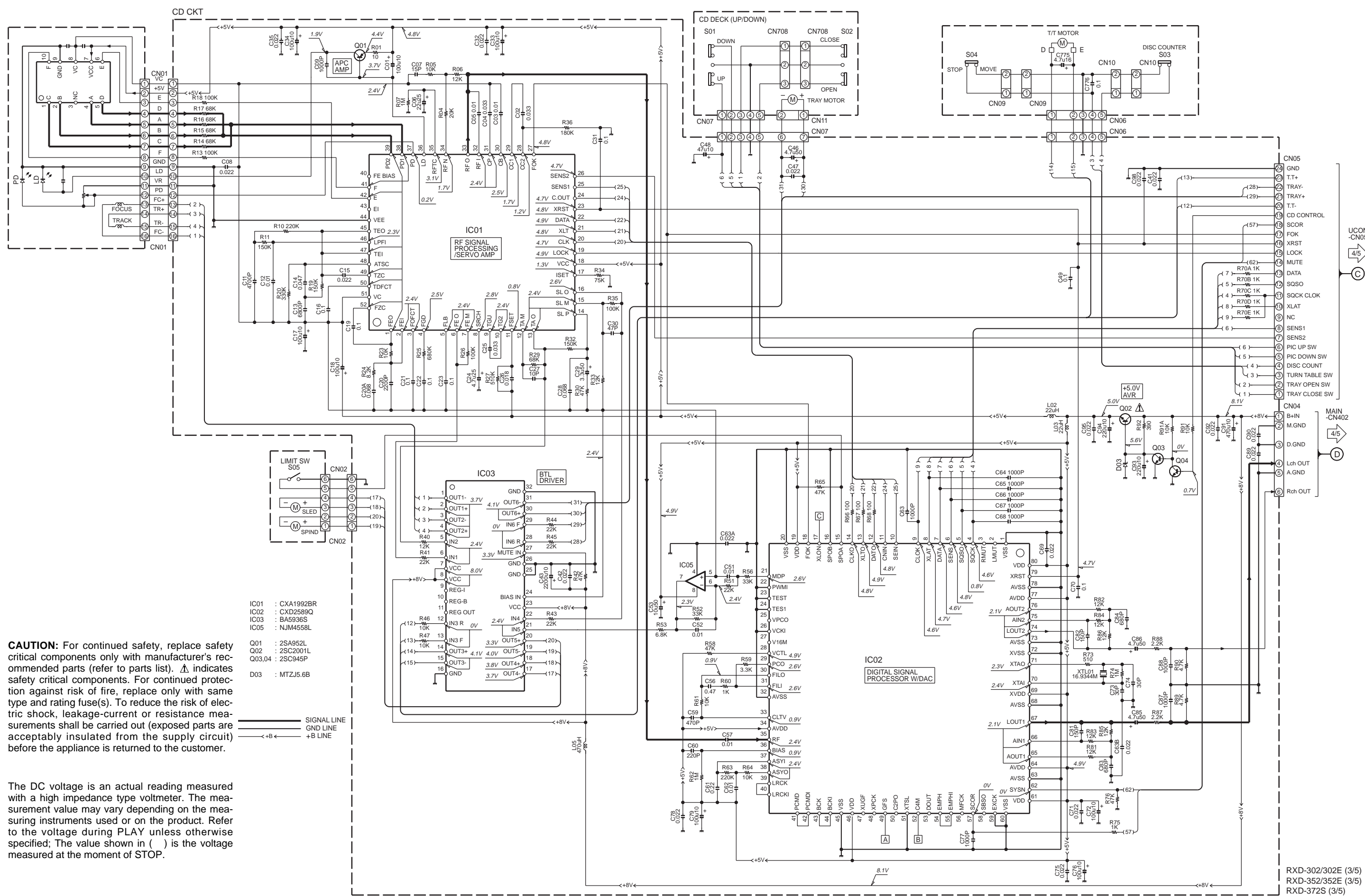
The DC voltage is an actual reading measured with a high impedance type voltmeter as the AM/FM signal generator is specified to the conditions as shown in the list below. The measurement value may vary depending on the measuring instruments used or on the product. The value shown in () is actual reading measured in the AM mode.

MODE	CARRIER	MODULATION		ANT INPUT
		FREQUENCY	DEVIATION	
FM	98MHz	1kHz	STEREO 67.5kHz 7.5kHz(Pilot)	60dB
AM	1000(999)kHz	400Hz	MONO 30% MOD	60dB

Y39-3522-71

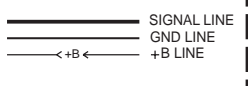
RXD-302/302E/352/352E/372S

KENWOOD



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- IC01 : CXA1992BR
- IC02 : CXD2589Q
- IC03 : BA5936S
- IC05 : NJM4558L
- Q01 : 2SA952L
- Q02 : 2SC2001L
- Q03,04 : 2SC945P
- D03 : MTZJ5.6B



The DC voltage is an actual reading measured with a high impedance type voltmeter. The measurement value may vary depending on the measuring instruments used or on the product. Refer to the voltage during PLAY unless otherwise specified; The value shown in () is the voltage measured at the moment of STOP.

RXD-302/302E (3/5)
 RXD-352/352E (3/5)
 RXD-372S (3/5)

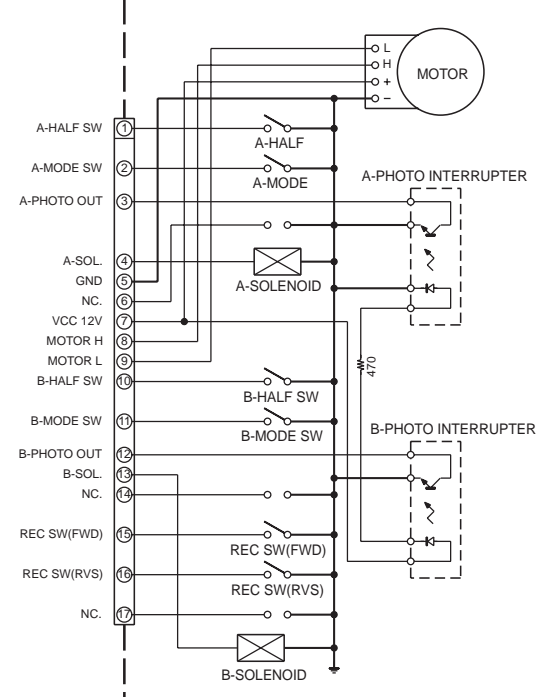
RXD-302/302E/352/352E/372S

Y39-3522-71

KENWOOD



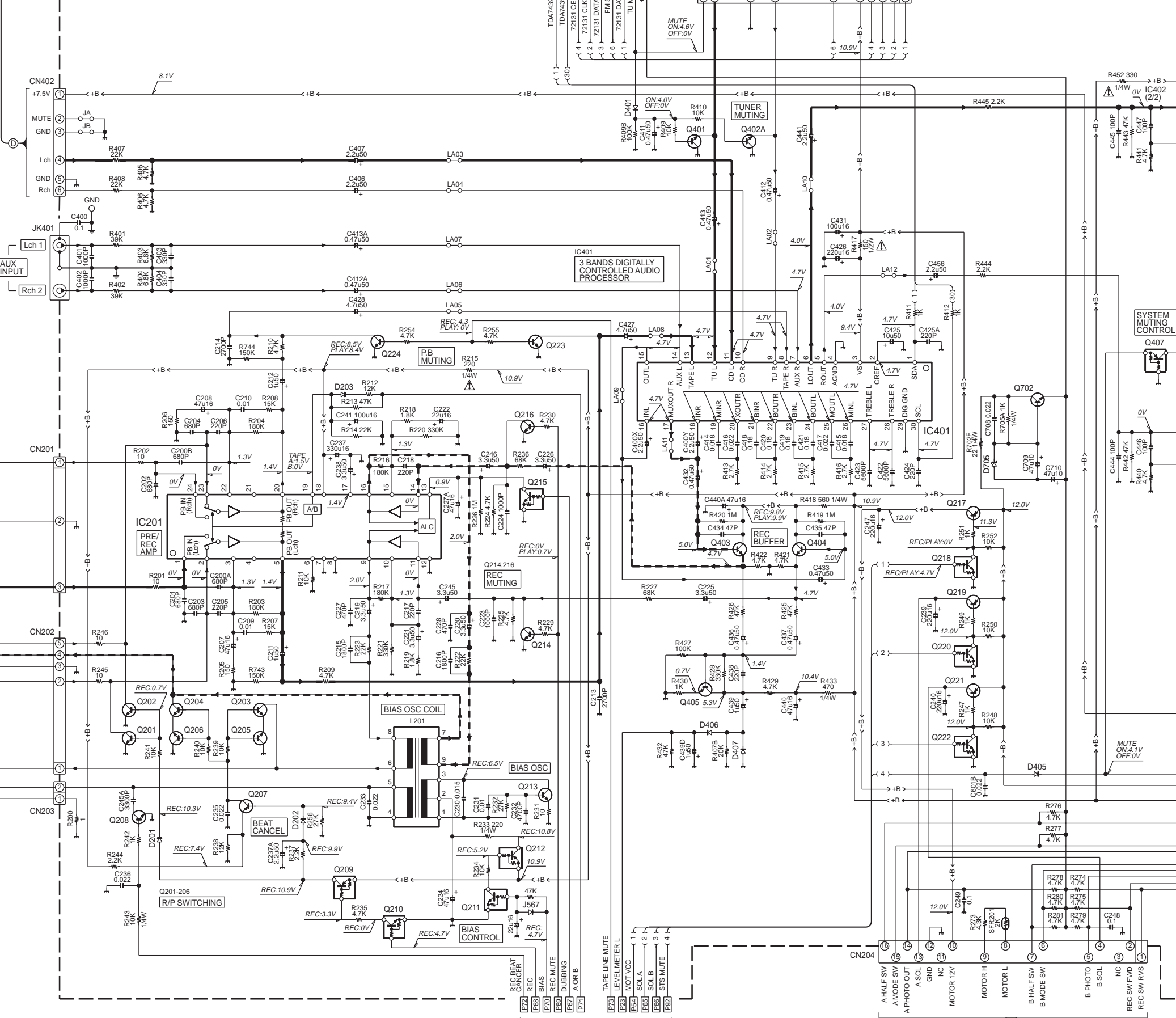
CASSETTE DECK MECHA. ASSY



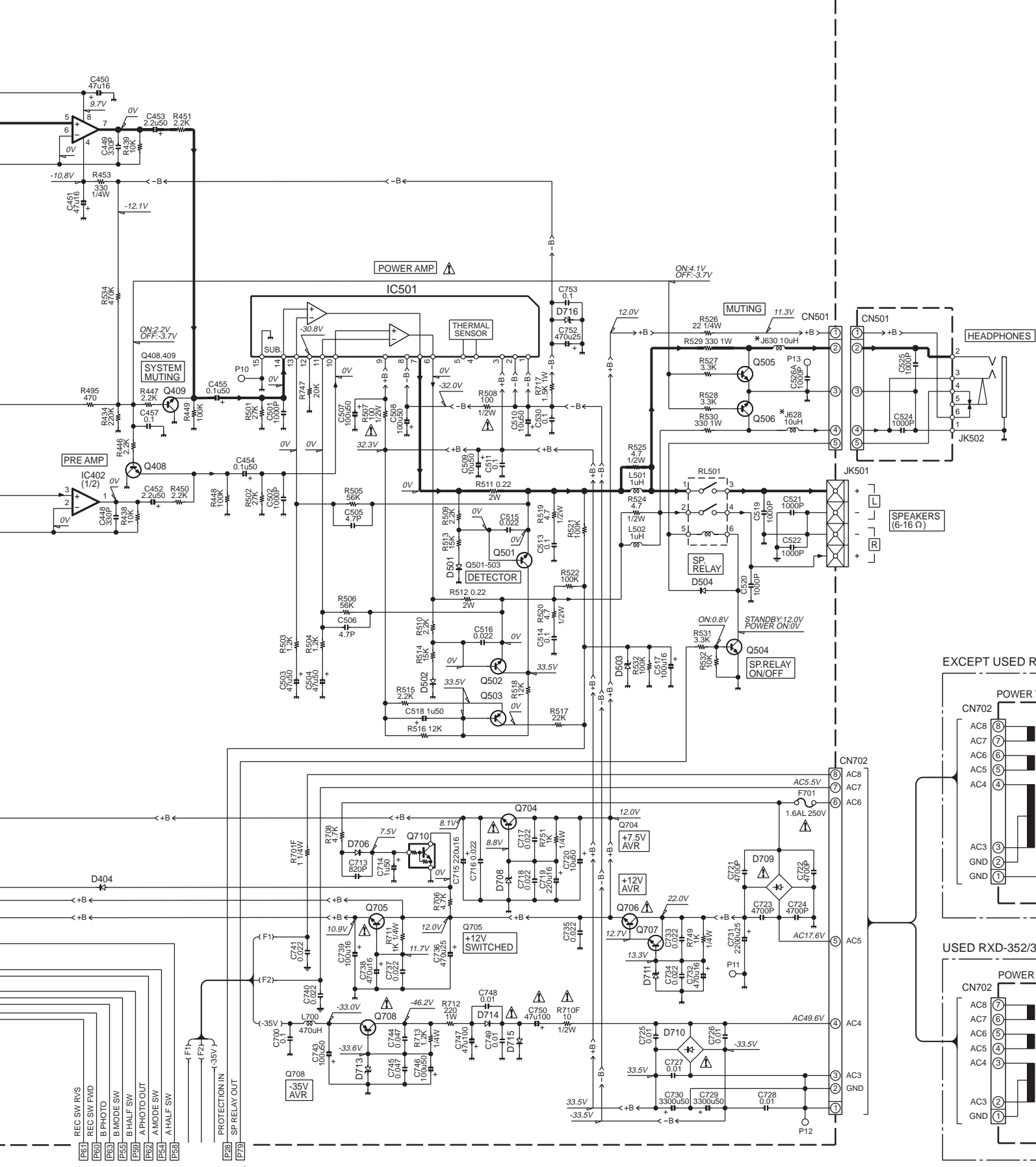
- | | |
|-----------|--------------|
| IC201 | : TAB189N |
| IC401 | : TDA7439 |
| IC402,602 | : NJM4558L |
| IC501 | : STK407-040 |
-
- | | |
|-------------------------------|------------|
| Q201-206,208,214,216,223,224, | 2SC945P |
| 401,402A,403-405,504 | : DTA114ES |
| Q207,209,212,407 | : 2SK2541 |
| Q210,211 | : 2SC2001L |
| Q213,702,705 | : DTC114ES |
| Q215,218,220,222,710 | : 2SA934R |
| Q217,219,221 | : 2SC1841E |
| Q408,409,505,506 | : 2SC2878A |
| Q501,502 | : 2SA988F |
| Q503 | : 2SD882P |
| Q704,706 | : 2SA965Y |
| Q708 | |
-
- | | |
|-----------------------|------------|
| D201-203,401,404-407, | 1SS133 |
| 501,502,504,706 | : MTZJ5.1B |
| D503 | : MTZJ6.2B |
| D705 | : MTZJ9.1B |
| D708 | : W02G |
| D709 | : GBU4D |
| D710 | : MTZJ13B |
| D711 | : MTZJ33B |
| D713 | : 1N4002L |
| D714,715 | : MTZJ12B |
| D716 | |



MAIN PCB



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RXD-352 (994X-XX)

DESTINATION	COUNTRY	ABB.	UNIT No.	F702	F703	J628, 630
U.K.	T	S-84	T1.6A 250V	NO	YES	
EUROPE	E	S-85	T1.6A 250V	YES	NO	
GENERAL MARKET	M	S-87	T3.15AL 250V	YES	NO	
AUSTRALIA	X	S-89	T1.6A 250V	NO	NO	
PX	Y	S-80	T3.15AL 250V	YES	NO	

RXD-352E (994S-86)

DESTINATION	COUNTRY	ABB.	UNIT No.	F702	F703	J628, 630
EUROPE	E2	S-86	T1.6A 250V	NO	YES	

RXD-372S (994S-97)

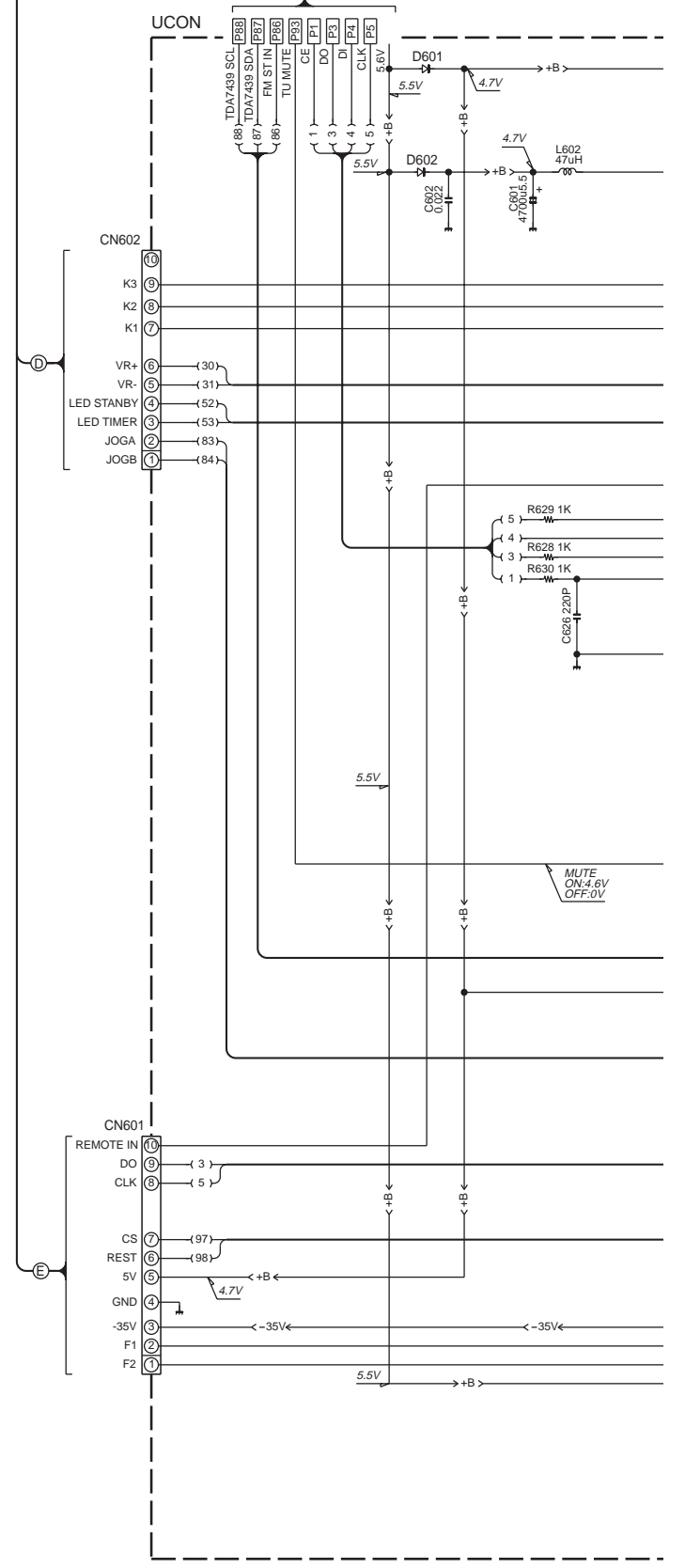
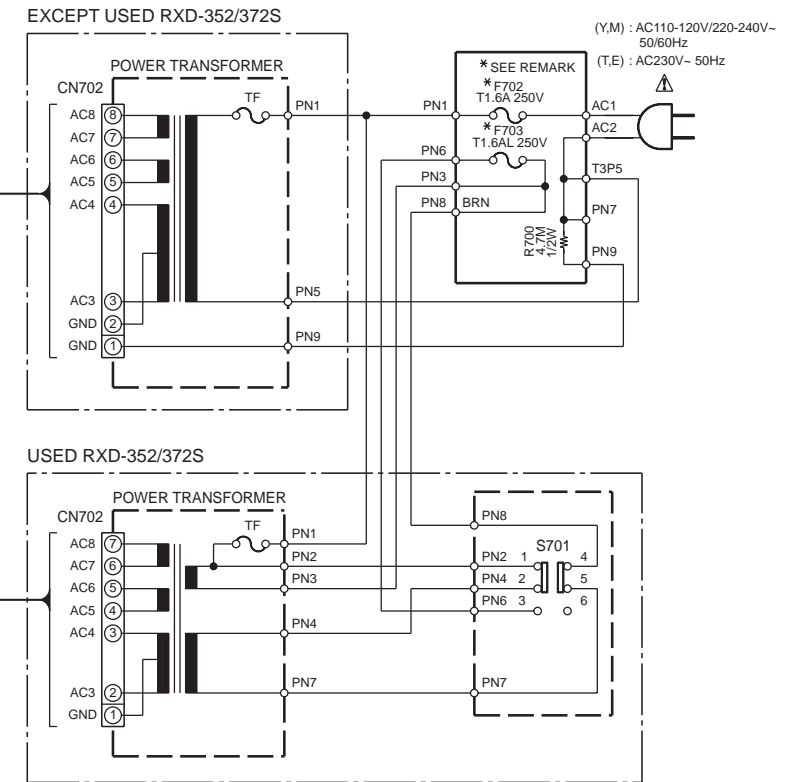
DESTINATION	COUNTRY	ABB.	UNIT No.	F702	F703	J628, 630
GENERAL MARKET	M2	S-97	T3.15AL 250V	YES	NO	

RXD-302 (994B-85)

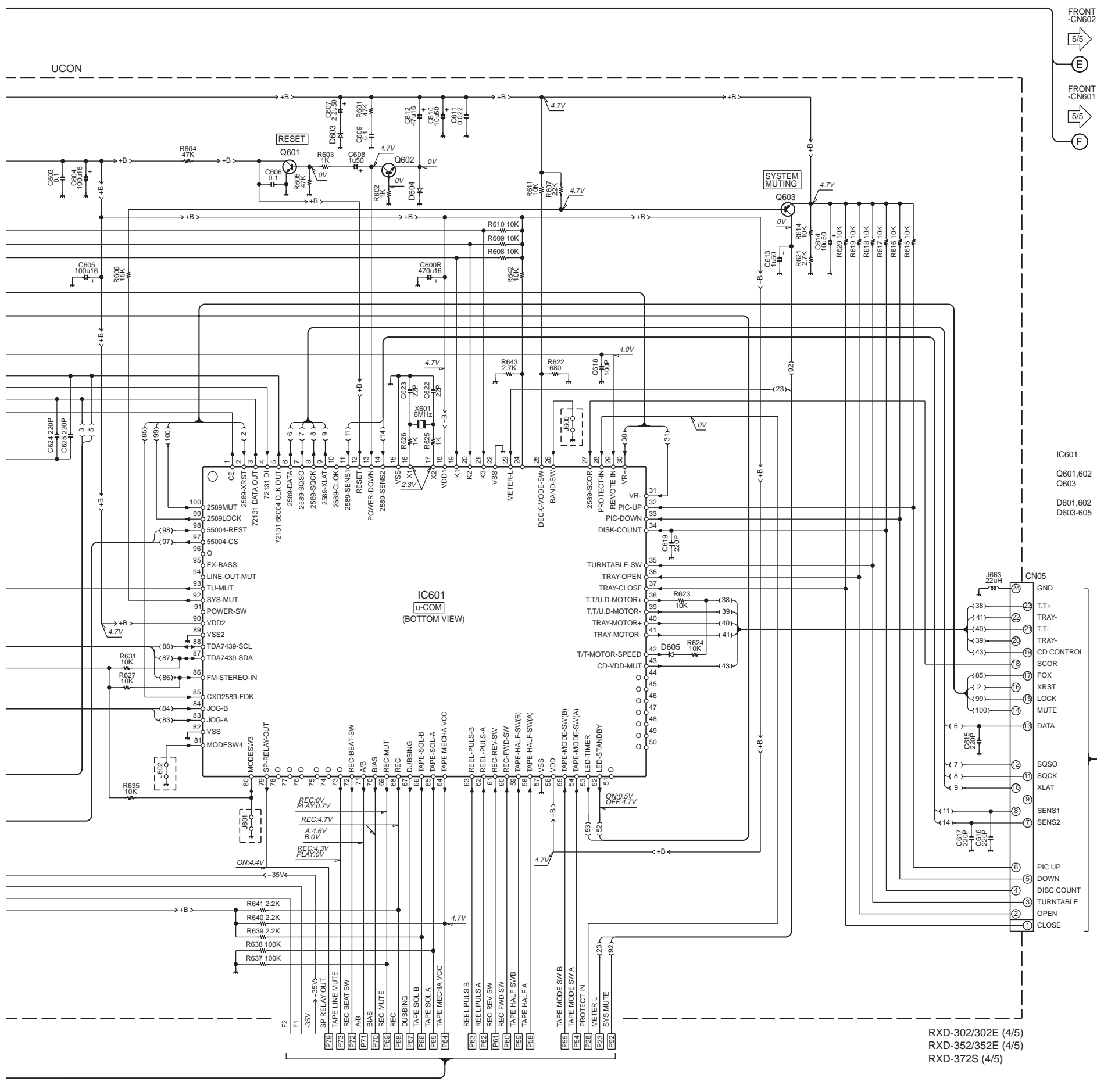
DESTINATION	COUNTRY	ABB.	UNIT No.	F702	F703	J628, 630
EUROPE	E3	B-85	T1.6A 250V	NO	YES	

RXD-302E (994B-86)

DESTINATION	COUNTRY	ABB.	UNIT No.	F702	F703	J628, 630
EUROPE	E4	B-86	T1.6A 250V	NO	YES	



- REC SW RVS
- REC SW FWD
- B PHOTO
- B MODE SW
- B HALF SW
- AP PHOTO OUT
- AP MODE SW
- A HALF SW
- PROTECTION IN (-35V)
- SP RELAY OUT

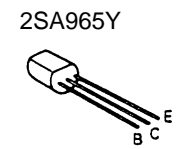


CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

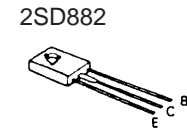
The DC voltage is an actual reading measured with a high impedance type voltmeter with a cassette loaded at playback mode. The measurement value may vary depending on the measuring instruments used or on the product. Bias circuit DC voltage is measured while in the record mode.

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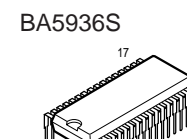
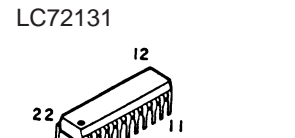
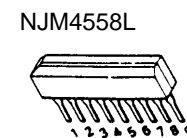
- IC601 : LC867240A-5L36
- Q601,602 : 2SC945P
- Q603 : 2SA733P
- D601,602 : 1N4002L
- D603-605 : 1SS133



- 2SA733
- 2SA934R
- 2SA988
- 2SC1674
- 2SC1675
- 2SC1841
- 2SC2001
- 2SC2878A
- 2SC945



- DTA114ES
- DTA114YS
- DTA144ES
- DTC114ES



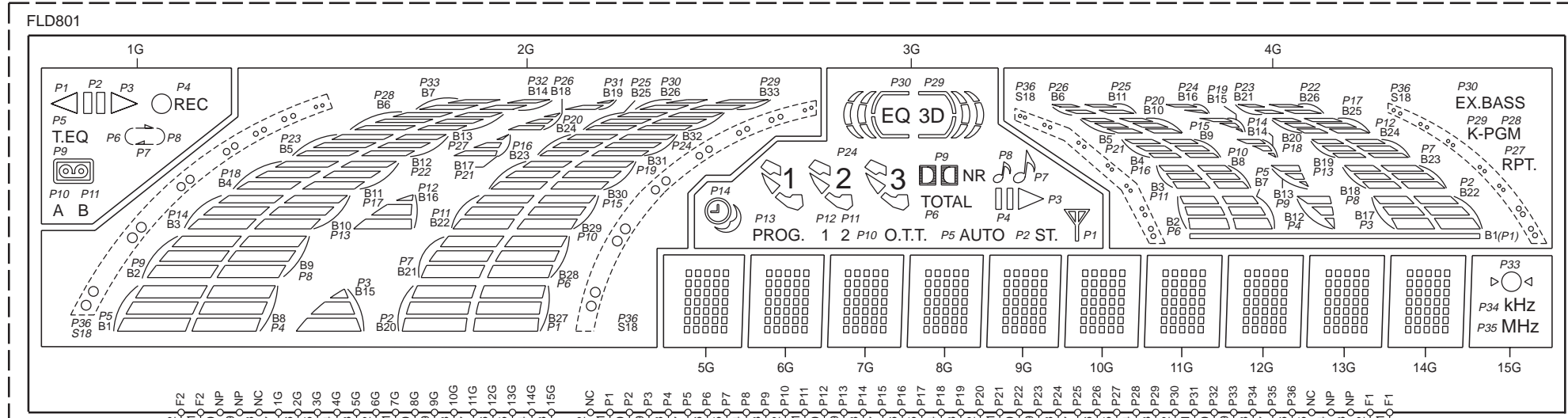
- RXD-302/302E (4/5)
- RXD-352/352E (4/5)
- RXD-372S (4/5)

Y39-3522-71

RXD-302/302E/352/352E/372S

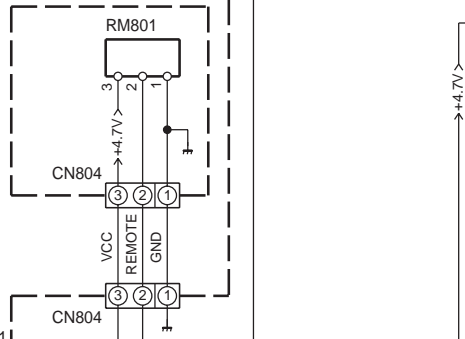
KENWOOD

FRONT PCB

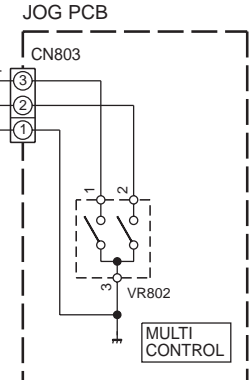
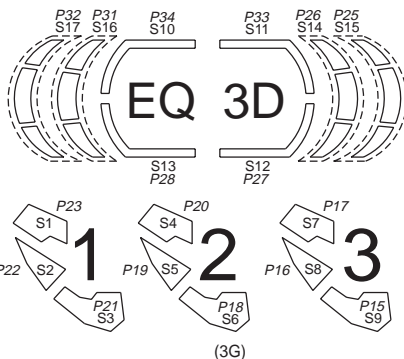
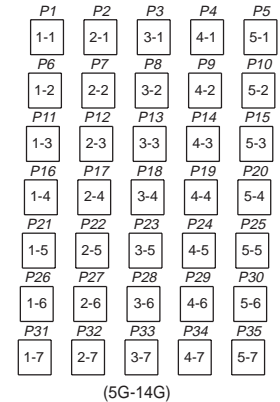
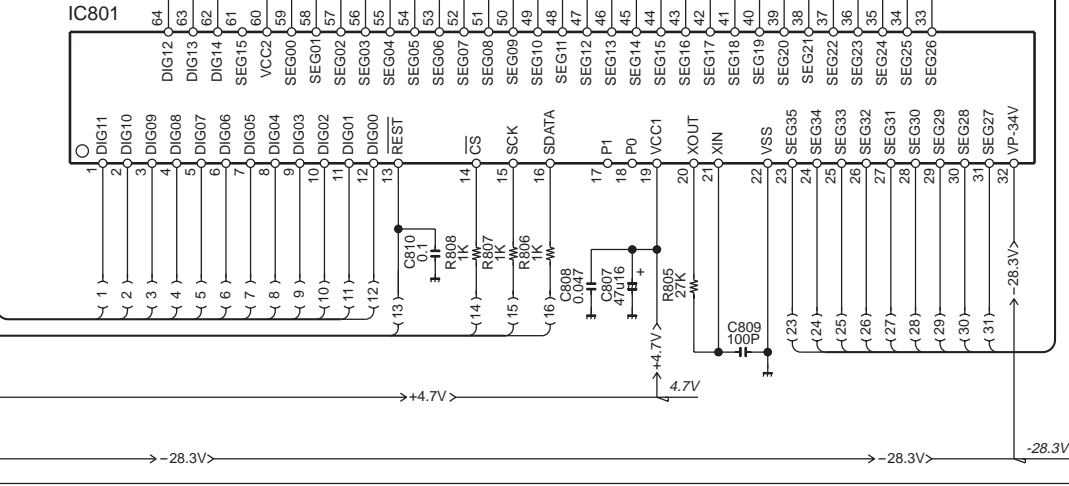


- IC801 : M66004SPA
- D801 : MTZJ5.6B
- LED801,802 : B30-2559-08
- ← +B ← +B LINE
- ← -B ← -B LINE

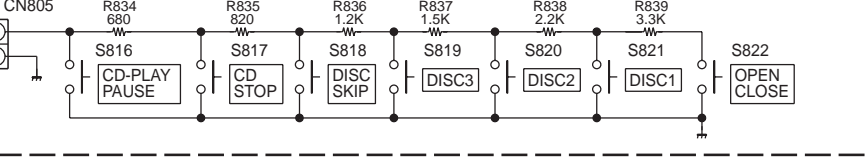
SENSOR PCB



FL CONTROLLER



CD CONTROL PCB



UICON -CN601

F

UICON -CN602

E

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

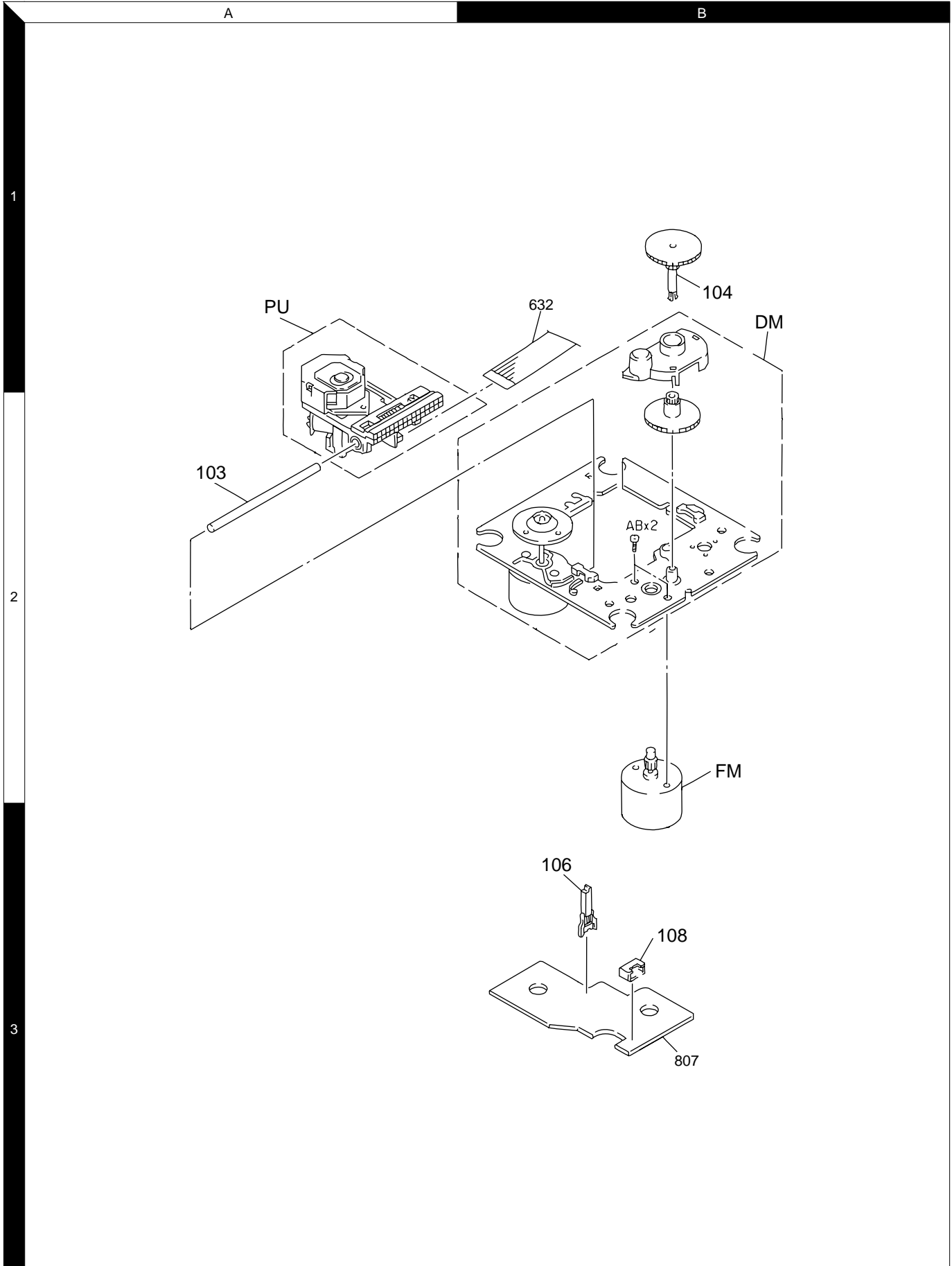
- RXD-302/302E (5/5)
- RXD-352/352E (5/5)
- RXD-372S (5/5)

RXD-302/302E/352/352E/372S

Y39-3522-71

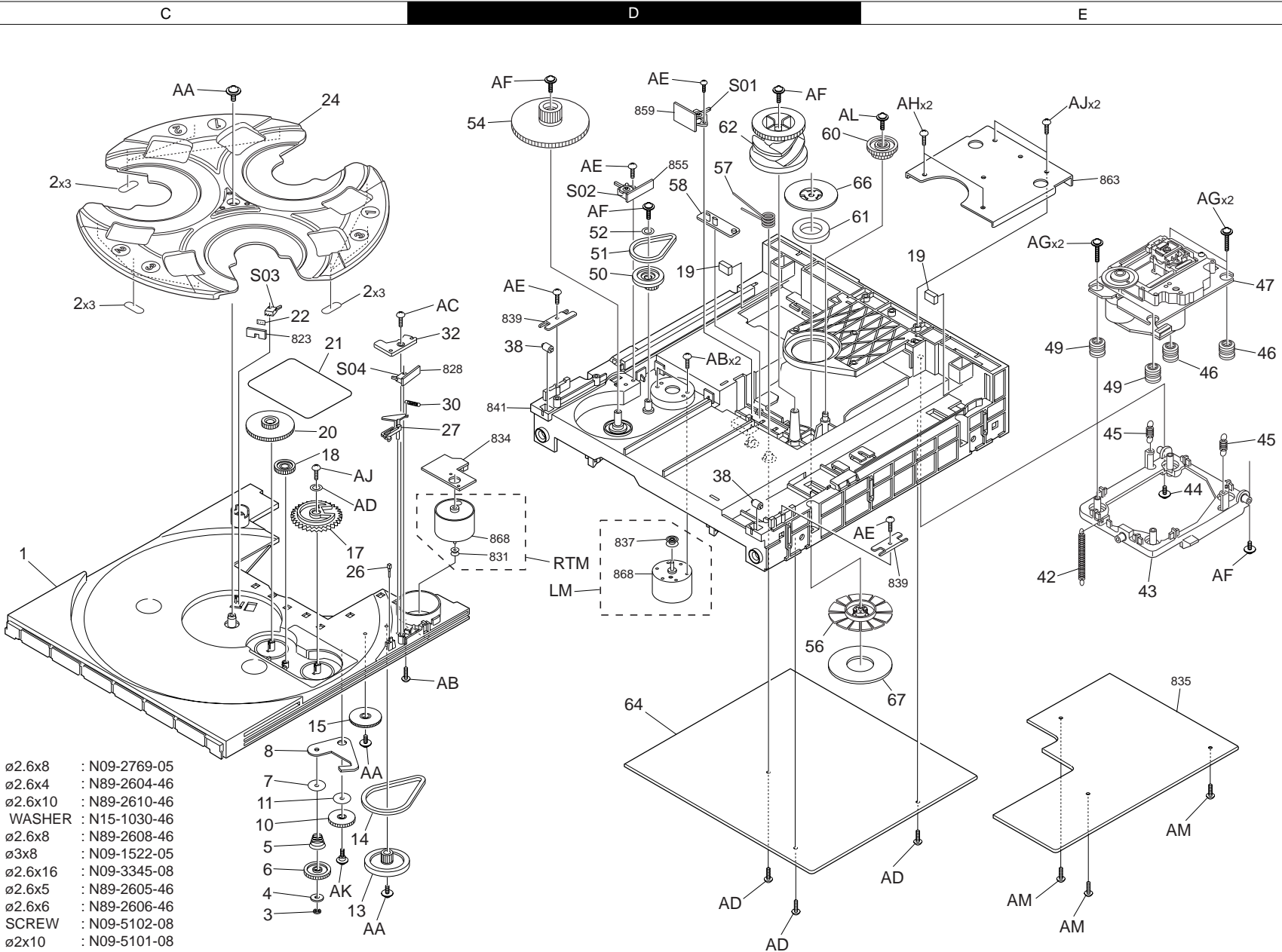
KENWOOD

EXPLODED VIEW (CD MECHANISM)



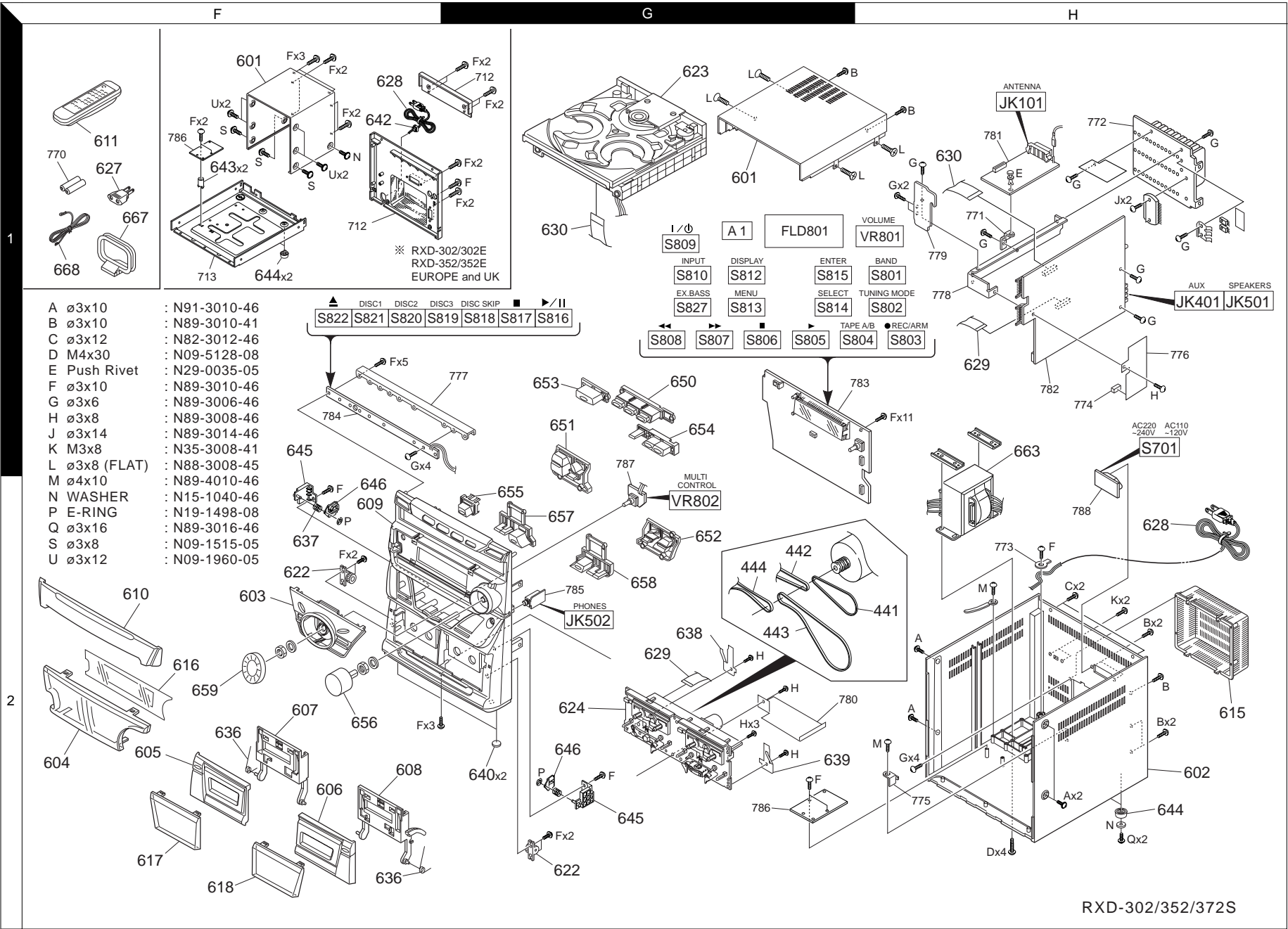
Parts with exploded numbers larger than 700 are not supplied.

EXPLODED VIEW (CD MECHANISM)



- AA $\varnothing 2.6 \times 8$: N09-2769-05
- AB $\varnothing 2.6 \times 4$: N89-2604-46
- AC $\varnothing 2.6 \times 10$: N89-2610-46
- AD WASHER : N15-1030-46
- AE $\varnothing 2.6 \times 8$: N89-2608-46
- AF $\varnothing 3 \times 8$: N09-1522-05
- AG $\varnothing 2.6 \times 16$: N09-3345-08
- AH $\varnothing 2.6 \times 5$: N89-2605-46
- AJ $\varnothing 2.6 \times 6$: N89-2606-46
- AK SCREW : N09-5102-08
- AL $\varnothing 2 \times 10$: N09-5101-08
- AM $\varnothing 3 \times 10$: N89-3010-46

Parts with exploded numbers larger than 700 are not supplied.



EXPLODED VIEW (UNIT)

RXD-302/302E/352/352E/372S

RXD-302/352/372S

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

5

Table with columns: Ref. No, Add-ress, New Parts, Parts No., Description, Desti-nation, Re-marks. Includes sections for various electronic components and a 'TUNER UNIT (M2)' section.

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia
Y : PX(Far East, Hawaii) T : Europe E : Europe G : Germany V : China (Shanghai)
Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas Δ indicates safety critical components.

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Teile ohne Parts No. werden nicht geliefert.

6

Table with columns: Ref. No, Add-ress, New Parts, Parts No., Description, Desti-nation, Re-marks. Lists various electronic components.

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia
Y : PX(Far East, Hawaii) T : Europe E : Europe G : Germany V : China (Shanghai)
Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas Δ indicates safety critical components.

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 Teile ohne **Parts No.** werden nicht geliefert.

7

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
D110 D202 IC101 IC102 IC103		*	MTZJ6.2B 1SS133 LA1186N LA1833L LC72131	ZENER DIODE DIODE IC IC(AM/FM TUNER) IC(PLL FREQUENCY SYNTHESIZER)		
Q100 Q101 Q102 Q105 Q106			2SC2001L 2SC1675(L) 2SC1674(L) DTA114YS 2SK544F-T	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR FET		
Q109 Q110-112 Q113 Q114 Q115,116			2SK2541 2SC2878A DTA144ES 2SC2001L 2SK2541	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q201 Q202-204			DTA144ES 2SC2878A	TRANSISTOR TRANSISTOR		
MAIN UNIT						
C200A C200B C201-204 C205,206 C207,208			C91-0755-05 C91-0755-05 C91-0755-05 C91-0749-05 CE04KW1C470M	CERAMIC CERAMIC CERAMIC CERAMIC ELECTRO	680PF 680PF 680PF 220PF 47UF	K K K K 16WV
C209,210 C211,212 C213,214 C215,216 C217,218			CK45FB1E103K CE04KW1H010M C91-0762-05 C91-0760-05 C91-0749-05	CERAMIC ELECTRO CERAMIC CERAMIC CERAMIC	0.010UF 1.0UF 2700PF 1800PF 220PF	K 50WV M M K
C219-221 C222 C223,224 C225,226 C227,228			CE04KW1H3R3M CE04KW1C220M C91-0757-05 CE04KW1H3R3M C91-0753-05	ELECTRO ELECTRO CERAMIC ELECTRO CERAMIC	3.3UF 22UF 1000PF 3.3UF 470PF	50WV 16WV K 50WV K
C227A C230 C231 C232 C233			CE04KW1C470M CQ92FM1H153J CQ92FM1H103J CQ92FM1H472J CF92FV1H223J	ELECTRO MYLAR MYLAR MYLAR MF-C	47UF 0.015UF 0.010UF 4700PF 0.022UF	16WV J J J J
C234 C235,236 C237 C237A C238			CE04KW1C470M CK14FF1E223Z CE04KW1C331M CE04KW1H2R2M CE04KW1H3R3M	ELECTRO CERAMIC ELECTRO ELECTRO ELECTRO	47UF 0.022UF 330UF 2.2UF 3.3UF	16WV Z 16WV 50WV 50WV
C239,240 C241 C245,246 C245A C247			CE04KW1C221M CE04KW1C101M CE04KW1H3R3M CF92FV1H332J CE04KW1C221M	ELECTRO ELECTRO ELECTRO MF-C ELECTRO	220UF 100UF 3.3UF 3300PF 220UF	16WV 16WV 50WV J 16WV
C248,249 C400 C400X C400Y C401,402 C403,404			C91-1525-08 C91-1525-08 CE04HW1H2R2M CE04HW1H2R2M C91-0757-05 C91-0751-05	CERAMIC CERAMIC NP-ELEC NP-ELEC CERAMIC CERAMIC	0.1UF 0.1UF 2.2UF 2.2UF 1000PF 330PF	Z Z 50WV 50WV K K

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 Teile ohne **Parts No.** werden nicht geliefert.

8

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
C406,407 C411-413 C412A,413A C414,415 C416,417			CE04KW1H2R2M CE04KW1HR47M CE04KW1HR47M CQ92FM1H183J CQ92FM1H223J	ELECTRO ELECTRO ELECTRO MYLAR MYLAR	2.2UF 0.47UF 0.47UF 0.018UF 0.022UF	50WV 50WV 50WV J J
C418-421 C422,423 C424 C425 C425A			CQ92FM1H184J CQ92FM2A562J C91-0749-05 CE04KW1H100M C91-0749-05	MYLAR MYLAR CERAMIC ELECTRO CERAMIC	0.18UF 5600PF 220PF 10UF 220PF	J J K 50WV K
C426 C427,428 C431 C432,433 C434,435			CE04KW1C221M CE04KW1H4R7M CE04KW1C101M CE04HW1HR47M C91-0737-05	ELECTRO ELECTRO ELECTRO NP-ELEC CERAMIC	220UF 4.7UF 100UF 0.47UF 47PF	16WV 50WV 16WV 50WV J
C436,437 C438 C439 C439D C440			CE04KW1HR47M C91-0749-05 CE04KW1H010M CE04KW1H010M CE04KW1C470M	ELECTRO CERAMIC ELECTRO ELECTRO ELECTRO	0.47UF 220PF 1.0UF 1.0UF 47UF	50WV K 50WV 50WV 16WV
C440A C441 C444-447 C448,449 C450,451			CE04KW1C470M CE04KW1H2R2M C91-0745-05 C91-0751-05 CE04KW1C470M	ELECTRO ELECTRO CERAMIC CERAMIC ELECTRO	47UF 2.2UF 100PF 330PF 47UF	16WV 50WV K K 16WV
C452,453 C454,455 C456 C457 C501,502			CE04KW1H2R2M CE04KW1H470M CE04KW1H2R2M C91-1525-08 C91-0757-05	ELECTRO ELECTRO ELECTRO CERAMIC CERAMIC	2.2UF 47UF 2.2UF 0.1UF 1000PF	50WV 50WV 50WV Z K
C503,504 C505,506 C507,508 C509,510 C511			CE04KW1H470M C91-0717-05 CE04KW1H101M CE04KW1H100M C91-1525-08	ELECTRO CERAMIC ELECTRO ELECTRO CERAMIC	47UF 4.7PF 100UF 10UF 0.1UF	50WV K 50WV 50WV Z
C513,514 C515,516 C517 C518 C519-522			CQ92FM1H104J CK14FF1E223Z CE04KW1C101M CE04KW1H010M C91-0757-05	MYLAR CERAMIC ELECTRO ELECTRO CERAMIC	0.10UF 0.022UF 100UF 1.0UF 1000PF	J Z 16WV 50WV K
C524,525 C526A C530 C600R C601			C91-0757-05 C91-0757-05 C91-1525-08 CE04KW1C471M C90-3824-08	CERAMIC CERAMIC CERAMIC ELECTRO ELECTRO	1000PF 1000PF 0.1UF 470UF 4700UF	K K Z 16WV 5.5WV
C601B C603 C604,605 C606 C607			CK14FF1E223Z C91-1525-08 CE04KW1C101M C91-1525-08 CE04KW1H2R2M	CERAMIC CERAMIC ELECTRO CERAMIC ELECTRO	0.022UF 0.1UF 100UF 0.1UF 2.2UF	Z Z 16WV Z 50WV
C608 C609 C610 C611 C612			CE04KW1H010M C91-1525-08 CE04KW1H100M CK14FF1E223Z CE04KW1C470M	ELECTRO CERAMIC ELECTRO CERAMIC ELECTRO	1.0UF 0.1UF 10UF 0.022UF 47UF	50WV Z 50WV Z 16WV

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia
 Y : PX(Far East, Hawaii) T : Europe E : Europe G : Germany V : China (Shanghai)
 Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas Δ indicates safety critical components.

PARTS LIST

RXD-302/302E/352/352E/372S

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

9

Table with 7 columns: Ref. No, Add-ress, New Parts, Parts No., Description, Desti-nation, Re-marks. Contains parts list for section 9.

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia
Y : PX(Far East, Hawaii) T : Europe E : Europe G : Germany V : China (Shanghai)
Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas Δ indicates safety critical components.

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

10

Table with 7 columns: Ref. No, Add-ress, New Parts, Parts No., Description, Desti-nation, Re-marks. Contains parts list for section 10.

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia
Y : PX(Far East, Hawaii) T : Europe E : Europe G : Germany V : China (Shanghai)
Y : AAFES(Europe) X : Australia Q : Russia H : Korea M : Other Areas Δ indicates safety critical components.

RXD-302/302E/352/352E/372S

PARTS LIST

HOW TO READ THE PARTS LIST

ABBREVIATION OF MODEL AND MASS PRODUCTION'S DESTINATIONS

<i>MODEL</i>	<i>ABB.</i>	<i>Australia</i>	<i>Canada</i>	<i>China</i>	<i>England</i>	<i>Europe</i>	<i>Germany</i>	<i>Korea</i>	<i>Malaysia</i>
RXD-302	-	-	-	-	-	E3	-	-	-
RXD-302E	-	-	-	-	-	E4	-	-	-
RXD-352	-	X	-	-	T	E	-	-	-
RXD-352E	-	-	-	-	-	E2	-	-	-
RXD-372S	-	-	-	-	-	-	-	-	-
<i>MODEL</i>	<i>ABB.</i>	<i>Mexico</i>	<i>PX/AAFES</i>	<i>Russia</i>	<i>Scandinavia</i>	<i>Shanghai</i>	<i>USA</i>	<i>Other area</i>	
RXD-302	-	-	-	-	-	-	-	-	-
RXD-302E	-	-	-	-	-	-	-	-	-
RXD-352	-	-	Y	-	-	-	-	M	-
RXD-352E	-	-	-	-	-	-	-	-	-
RXD-371S	-	-	-	-	-	-	-	M2	-

RXD-302/302E/352/352E/372S

SPECIFICATIONS

Main unit

[Amplifier section]

(XD-A31/XD-302)

Rated power output (U.S.A. and Canada)

30 watts per channel minimum RMS, both channels driven, at 6 Ω from 40 Hz to 14 kHz with no more than 0.9 % total harmonic distortion.

Effective output power during STEREO operation

U.S.A. and Canada

1 kHz, 10 % T.H.D., 6 Ω 43 W + 43 W

(XD-352/XD-372S)

Effective output power during STEREO operation

1 kHz, 10 % T.H.D., 6 Ω 43 W + 43 W

Rated output power during STEREO operation

Europe, U.K. and Russia

(DIN) 1 kHz, 0.7 % T.H.D., 6 Ω 43 W + 43 W

Other countries

1 kHz, 1.0 % T.H.D., 6 Ω 43 W + 43 W

Input sensitivity / impedance

AUX 300 mV / 40 k Ω

Output level / impedance

(XD-A31/XD-302)

SUPER WOOFER PREOUT 1.8 V / 0.6 k Ω

[Tuner section]

FM tuner section

Tuning frequency range 87.5 MHz ~ 108 MHz

(For Russia) (87.5 MHz ~ 108 MHz

65.0 MHz ~ 74.0 MHz

AM (MW) Tuner section

Tuning frequency range

Europe, U.K. and Russia 531 kHz ~ 1,602 kHz

U.S.A. and Canada 530 kHz ~ 1,700 kHz

Other countries

9 kHz step 531 kHz ~ 1,602 kHz

10 kHz step 530 kHz ~ 1,610 kHz

LW Tuner section (For U. K.)

Tuning frequency range 153 kHz ~ 279 kHz

SW Tuner section (XD-372S)

Tuning frequency range 5.95 MHz ~ 17.9 MHz

[Cassette deck section]

Track 4-track, 2-channel stereo

Recording system AC bias system
(Frequency: 105 kHz)

Heads

B deck Playback / recording head 1

Erasing head 1

A deck Playback head 1

Motor 1

[CD player section]

Laser Semiconductor laser

Wow & Flutter Less than unmeasurable Limit

[General]

Power consumption 150 W

Dimensions W: 280 mm (11")

H: 330 mm (13")

D: 405 mm (15-15/16")

Weight (net) (XD-A31/XD-302) 6.9kg (15.2 lb)

(XD-352) 7.2kg (15.9 lb)

(XD-372S) 9.1kg (20.1 lb)

Speakers (LS-N302/LS-N352)

Enclosure Bass-reflex type

Speaker configuration

Woofer 130 mm, cone type

Tweeter 50 mm, cone type

Impedance 6 Ω

Maximum input level 43 W

Dimensions W: 220 mm (8-11/16")

H: 330 mm (13")

D: 295 mm (11-5/8")

Weight (net) 3.2 kg (7.1 lb) (1 piece)



1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
2. Sufficient performance may not be possible at very low temperatures (0°C or less).

Note:

Component and circuit are subject to modification to insure best operation under differing local conditions. This manual is based on Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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