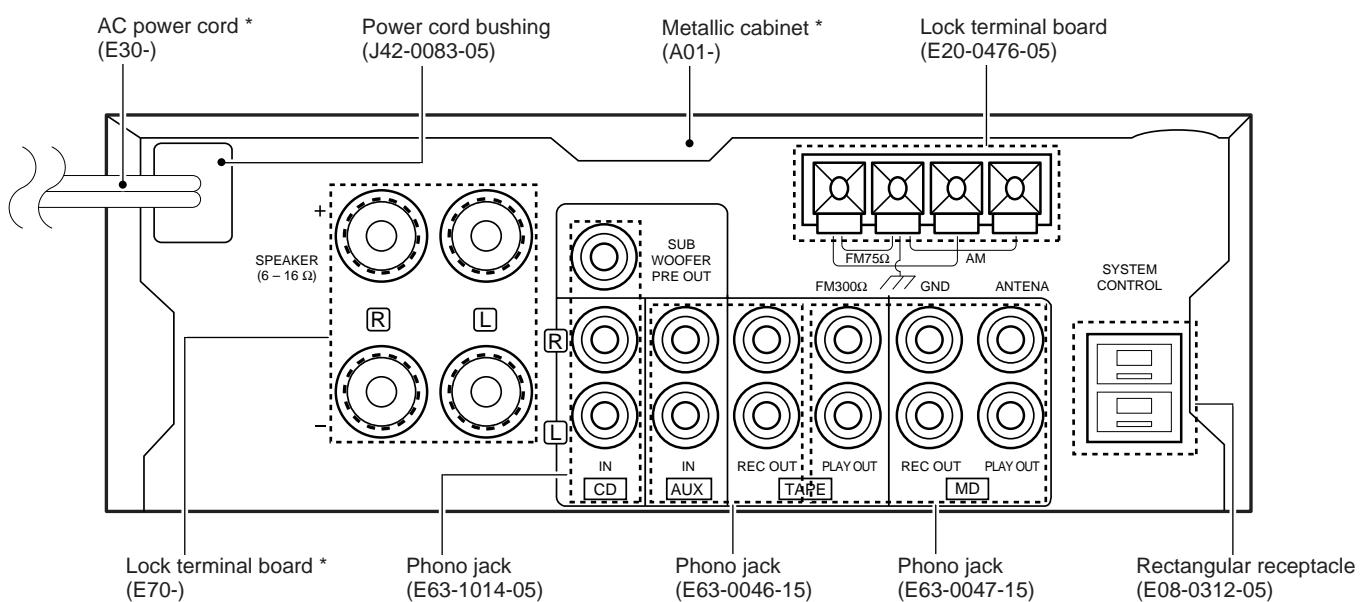
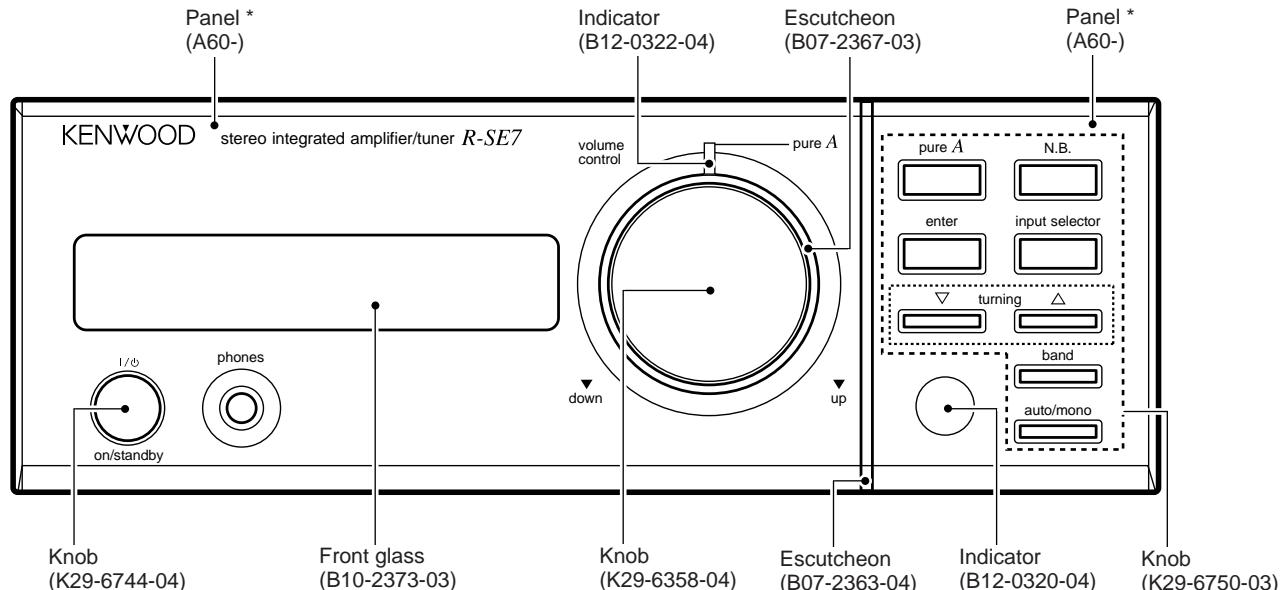


STEREO INTEGRATED AMPLIFIER/TUNER
R-SE7/SE-7(G)
 SERVICE MANUAL

(HM-701)

KENWOOD

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* Refer to parts list on page 25.

PRECAUTIONS FOR REPAIR

- For the SERIAL TEST CODE LIST of the circuit description, see Service manual (B51-5210-00) of R-SA7.
- No connection of ground line if disassemble the unit.
- Please connection the ground line on rear panel, PCBs, Chassis and some others.

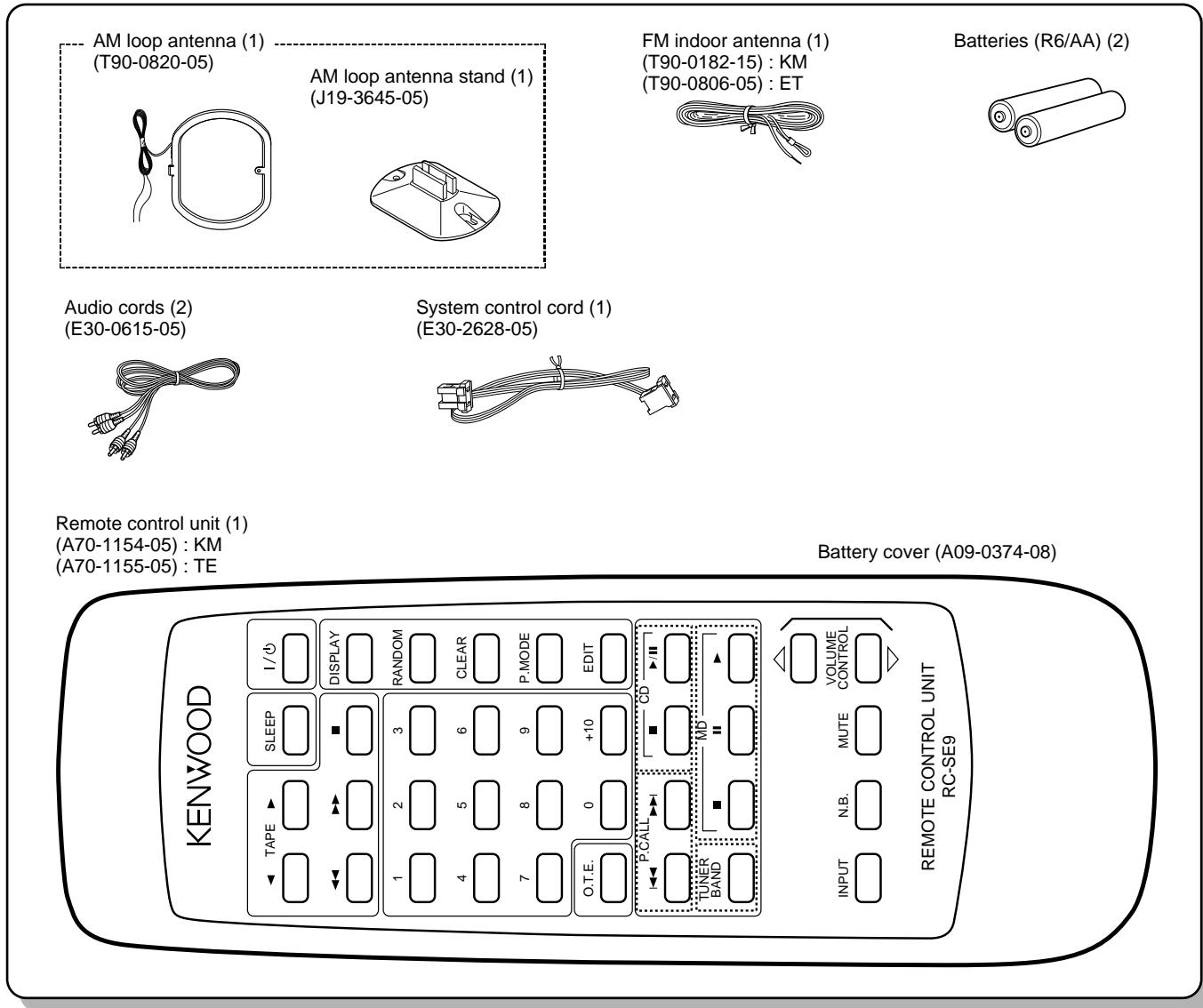
R-SE7/SE-7(G)

CONTENTS / ACCESSORIES

Contents

CONTENTS / ACCESSORIES	2	SCHEMATIC DIAGRAM	13
CIRCUIT DESCRIPTION	3	EXPLODED VIEW	24
ADJUSTMENT	8	PARTS LIST	25
PC BOARD	10	SPECIFICATIONS	Back cover

Accessories



System configuration

SYSTEM NAME	AMP/TUNER	CD PLAYER	SPEAKER
HM-701	R-SE7	DP-SE7	LS-SE7

R-SE7/SE-7(G)

CIRCUIT DESCRIPTION

1. INITIAL STATE

(1) AMP-related block

EPOWER	OFF
ESELECTOR SOURCE	TUNER
EDISPLAY	SELECTOR
EN.B. CIRCUIT	OFF
EA CLASS VOLUME VALUE	1.40 STEP
EAB CLASS VOLUME VALUE	7 STEP
EPURE MODE	NORMAL (AB CLASS)
EAUTO POWER SAVE	OFF
EMULTI CONTROL MODE	INPUT SEL.(R-SE9 only)

(2) TUNER-related block

EBAND	FM
E FREQUENCY	Lower-limit value of receiving frequency.
FM	87.5 MHz
AM	531 kHz
EAUTO/MANUAL	AUTO
EP.CH MEMORY	Last frequency
ELast P.CH	01ch
ERDS DATA TABLE MEMORY	NO DATA

(3) TIMER-rated block

ECLOCK	STOP (AM12:00)
EPROGRAM	WORKING MODE OFF
CONTENTS OF PROGR.	ON=AM 12:00 OFF=AM 12:00 PLAY MODE=PLAY SELECTOR=TUNER(1ch) REC MODE OFF
EOT.T	WORKING MODE OFF
OTT ON TIME	AM 7:00

(4) TEST PRESET FREQUENCY

Channel	BAND	E TYPE	Channel	BAND	E TYPE
01ch	FM	87.50MHz	11ch	FM	90.00MHz
02ch	FM	97.50MHz	12ch	FM	98.00MHz
03ch	FM	108.00MHz	13ch	FM	98.50MHz
04ch	AM	630kHz	14ch	FM	106.00MHz
05ch	AM	990kHz	15ch	AM	531kHz
06ch	AM	1440kHz	16ch	AM	990kHz
07ch	FM	87.50MHz	17ch	AM	1602kHz
08ch	FM	87.50MHz	18ch	FM	87.50MHz
09ch	FM	87.50MHz	19ch	FM	87.50MHz
10ch	FM	89.10MHz	20ch	FM	87.50MHz

f The initial setting is performed in a following event :

- When backup memory data is destroyed when reset is applied to the microprocessor.
- When the power cord is plugged in to the AC wall outlet while pressing the on/standby key.

2. BACKUP

This function holds the current state of the unit even if the AC power of the receiver is turned OFF.

(1) Operation outline

The backup state set command signal (CE) of a microcomputer is set low when the AC power is turned OFF. The microcomputer detects the signal and enters the stop state. The microcomputer is reset when the AC power is turned ON. The data for backup state confirmation is checked by reset processing.

The microcomputer is initialized when the data was destroyed. If it is not destroyed, the microcomputer is started in the backup state.

E The data for backup state confirmation is written in a RAM area.

E The microcomputer is set to the STOP mode so as to save the power consumption.

E A backup state set command signal is detected by a timer interrupt of 1 msec.

E The backup guarantee period is set in a circuit.

(2) Backup state setting

E The data (A596, 5A69H) for backup state confirmation is written in a RAM area.

(3) Contents of backup data to be held

[[[AMP] []]

EPOWER ON/OFF

EDISPLAY MODE

ESELECTOR SOURCE

EN.B. CIRCUIT MODE

EA CLASS VOLUME VALUE

EAB CLASS VOLUME VALUE

EPURE A MODE

[[[TUNER] []]

E LAST BAND

E PRESET CHANNEL/RECEIVING STATION FREQUENCY/PI/TA/PTY/PS

E LAST RECEIVING STATION FREQUENCY AND PRESET CHANNEL (AM/FM)

E PRESET MEMORY data (1ch~40ch)

E AUTO/MANUAL

[[[CLOCK/TIMER] []]

E LAST CLOCK DATA

E PROGRAMMED CONTENTS/PROGRAM TIMER WORKING MODE ON/OFF

E O.T.T. SETTING TIME/O.T.T. WORKING MODE ON/OFF

R-SE7/SE-7(G)

CIRCUIT DESCRIPTION

3. DESTINATION LIST OF TUNER

3-1 Destination List of Tuner

Desti- nation	BAND	Receive frequency range	Channel space	1F	PLL reference frequency	DIODE SW	
						DSW1	DSW2
						D518	D519
K1	FM	87.5MHz~108.0MHz	100kHz	+10.7MHz	25kHz	1	1
	AM	530kHz~1700kHz	10kHz	+450kHz	10kHz		
E1	FM	87.5MHz~108.0MHz	50kHz	+10.7MHz	25kHz	0	1
	AM	531kHz~1602kHz	9kHz	+450kHz	9kHz		
E3 (RDS)	FM	87.5MHz~108.0MHz	50kHz	+10.7MHz	25kHz	1	0
	AM	531kHz~1602kHz	9kHz	+450kHz	9kHz		
M	K2 or E1 is changed the setting "DSW1". (DSW1=1 : K2, 0 = E1)					X	1

0 : NO DIODE

1 : DIODE

X : SWITCHING TRANSISTOR

4. TEST MODE

4-1. Initializing

The system is initialized when the power is turned on while pressing the on/standby key.

(1) Contents of operation

④ All the functions are initialized.

4-2. AMP test mode using main unit's keys

4-2-1. Entering the AMP test mode

④ Turn on the power while pressing the BAND key.

4-2-2. Canceling the AMP test mode

④ By turning off the power, the system is initialized and the test mode is canceled.

4-2-3. Contents of AMP test mode

(1) Automatic on/standby ON

④ The POWER ON state is entered whenever the power is turned on while pressing the BAND key. All functions are then initialized and activated in the all-lighting mode.

E Sub-clock oscillation diagnosis function

The oscillation diagnosis (existence of oscillation and measurement of period) of a sub-clock is performed before the test mode is entered. If the diagnosis result is OK, the system enters the test mode.

If the diagnosis result is NG, the oscillation of the sub-clock is diagnosed again. If the result is OK, the system enters the test mode. If the diagnosis result is continuously NG five times, the system stops with ERR 1 and ERR 2 displayed.

(2) All-lighting mode

④ All the fluorescent display indicators and LED lamps light when the power is turned on while pressing the BAND key.

④ After that, the all-lighting mode is canceled when any main unit's key is pressed. The normal display obtained when the selector is set to TUNER then appears.

(3) Others

④ The AMP test mode is not terminated even if the selector is set to positions other than TUNER.

④ In the AMP test mode, the muting during mode selection is not controlled. However, the operation during the power-on sequence is the same as the normal operation.

④ The SP protection operation is also the same as the normal operation.

④ In the AMP test mode using main unit's keys, the keys below provide a special operation according to the position where the selector is set. The main unit's keys except described below and the rotary encoder provide the normal operation.

(4) When selector is set to TUNER

Key	Operation
PURE A key	Increments the P.CALL every time this key is pressed.
N.B. key	Decrement the P.CALL every time this key is pressed.
ENTER key	Selects the display cyclically in the order below every time this key is pressed.

④ Write data in the unused area of E2PROM, then read the written data. If the read data is the same as the written data, "RAM OK" is displayed in the fluorescent display indicator. If the former is different from the latter, "RAM NG" is displayed.

A Set the TUNER ATT to OFF and display the S level in hexadecimal when the ENTER key is pressed. ("ATT OFF **" is displayed in the fluorescent display indicator.)

B Set the TUNER ATT to ON and display the S level in hexadecimal when the ENTER key is pressed. ("ATT ON **" is displayed in the fluorescent display indicator.)

* The special display using the ENTER key is continued until the next operation is carried out. (**: S LEVEL)

When keys other than ENTER are pressed in items A to B above, the TUNER ATT is set to OFF and the normal display appears. The operation corresponding to the key that has been pressed is performed in this case.

(5) When selector is set to positions other than TUNER
[ENTER key] Every time this key is pressed, master VOLUME level is selected cyclically.

INITIALIZE level → MAX → MID → MIN

Value of Master VOLUME	Press the ENTER key.	Press the PURE A key, then press the ENTER key.
MAX	86	16.00
MID	40	8.00
MIN	1	0.20
INITIALIZE	7	1.40

R-SE7/SE-7(G)

CIRCUIT DESCRIPTION

[AUTO key] Selects the MUTE operation and equalizer cyclically in the order below for operation display every time this key is pressed.

-> MUTE operation -> Minimum -> Maximum -> fPre-condition

f In the operation for except the AUTO key, become pre-condition equalizer .

f Pre condition : The equalizer becomes the condition to be pushed the AUTO key before (include N.B. circuit).

(6) SERIAL TEST CODE LIST

Refer to Service manual (B51-5210-00) of R-SA7 on page 7.

[BAND key] Every time this key is pressed, all the displays go off and the normal display is selected cyclically.

4-3. RDS test mode using main unit's keys

4-3-1. Entering the RDS test mode

E Turn on the power while pressing the TUNING UP key.

4-3-2. Canceling the RDS test mode

E By turning off the power, the system is initialized and the test mode is canceled.

4-3-3. Contents of RDS test mode

E The POWER ON state is entered whenever the power is turned on while pressing the TUNING UP key. All the functions are then initialized.

E In the RDS test mode using main unit's keys, the keys below provides a special operation according to the position where the selector is set. The main unit's keys except described below and the rotary encoder provide the normal operation.

Key	Operation
CLASS A key	Performs the same operation as for remote control key "DISPLAY" every time this key is pressed.
INPUT SEL. key	Performs the same operation as for remote control key "PTY" every time this key is pressed.
N.B. key	Performs the same operation as for remote control key "TA" every time this key is pressed.
ENTER key	Selects the display cyclically in the order below every time this key is pressed.

@Write data in the unused area of EEPROM, then read the written data. If the read data is the same as the written data, "RAM OK" is displayed in the fluorescent display indicator. If the former is different from the latter, "RAM NG" is displayed.

A Set the TUNER ATT to OFF and display the S level in hexadecimal when the ENTER key is pressed. ("ATT OFF **" is displayed in the fluorescent display indicator.)

B Set the TUNER ATT to ON and display the S level in hexadecimal when the ENTER key is pressed. ("ATT ON **" is displayed in the fluorescent display indicator.)

* The special display using the ENTER key is continued until the next operation is carried out. (**: S LEVEL)

When keys other than ENTER are pressed in items @ to B above, the TUNER ATT is set to OFF and the normal display appears. The operation corresponding to the key that has been pressed is performed in this case.

4-4. SERIAL TEST MODE

(1) Setting the serial test mode

The unit is put into the serial test mode when a serial code "TEST ON" is input during the POWER-ON sequence.

In the 16-bit serial test mode, serial code C27FH is input.

E In the serial test mode, all remote control keys and ordinary serial codes are disabled. Only the panel keys perform the same operation as usually.

(2) Canceling the serial test mode

E The serial test mode is canceled to return to the ordinary mode by inputting a "TEST OFF" code (C27 EH). After the ordinary mode was returned, the serial mode is returned to the state before the test mode is entered.

The backup operation is not initialized.

E The serial test mode is also canceled when the AC power is turned OFF.

(3) Cautions

E The serial test code is prescribed as a 16-bit code only.

E The operations below are inhibited in the serial test mode. The operations mentioned above cannot be guaranteed when they are performed in the serial test mode.

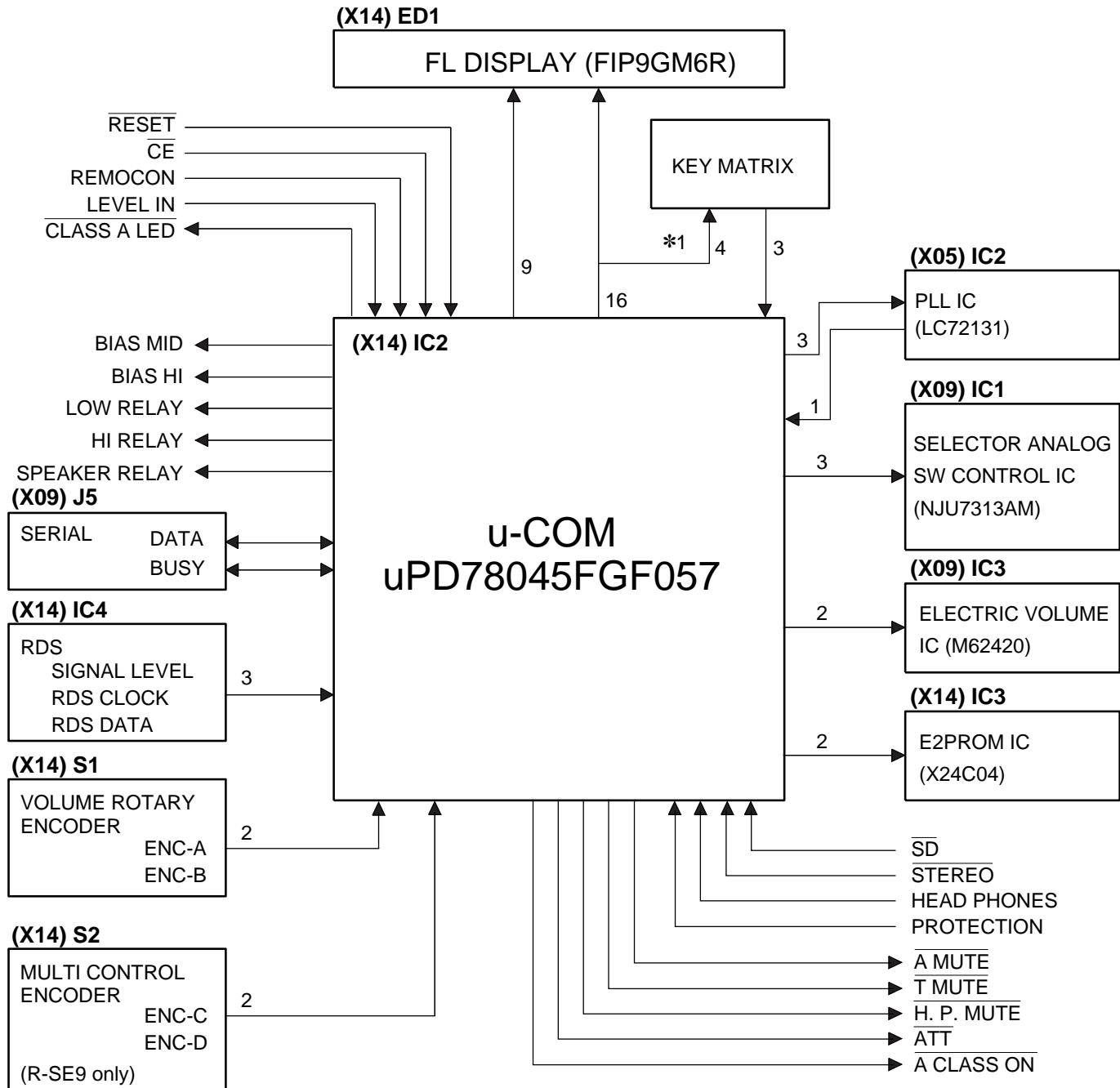
E An identical code is output when the serial test mode code is input.

R-SE7/SE-7(G)

CIRCUIT DESCRIPTION

5. Microprocessor : uPD78045FGF057 (X14 : IC1)

5-1 Microprocessor periphery block diagram



Key matrix

No. of ○ : u-COM port No.

	⑥⓪ KR0	⑤⓪ KR1	⑤⑧ KR2
⑥④ KS0	DSW0	DSW1 (D158)	DSW2 (D159)
⑥③ KS1	POWER	AUTO / MONO	BAND
⑥② KS2	N. B. CIRCUIT	(R-SE7) INPUT SEL. (R-SE9) MODE	(R-SE7) TUNING UP (R-SE9) No. use
⑥① KS3	pure A	ENTER	(R-SE7) TUNING DOWN (R-SE9) No use

R-SE7/SE-7(G)

CIRCUIT DESCRIPTION

5-2 Pin description

Pin No.	Name	I/O	Description	Active
1~7	7G~1G	O	FL grid 7~1	—
8	VDD	—	Micro processor power supply (+5V)	—
9	E2PROM SCL	O	E2PROM control clock	—
10	E2PROM SDA	I/O	E2PROM control data	—
11	ENC C	—	Multi control encoder input A	—
12	ENC D	—	Multi control encoder input B	—
13	A CLASS ON	O	Power ON/OFF control signal	H : OFF L : ON
14	SEL STB	O	Selector IC strobe	—
15	SEL/PLL CLK	O	SEL/PLL IC control clock	—
16	SEL/PLL DATA	O	SEL/PLL IC control data	—
17	RESET	I	Microprocessor reset	L : RESET ON
18	CE	I	AC OFF(MAIN POWER) detection Signal	L : AC OFF
19	PLL DO	O	IF count data	—
20	AVSS	—	A/D power SUPPLY (GND)	—
21	PLL CE	O	PLL chip enable control	L : CE
22	T MUTE	O	Tuner mute signal	L : MUTE ON
23	STEREO	I	Stereo signal detection	L : STEREO ON
24	SD	I	Synchronized signal detection	—
25	VOL SCL	O	Electric volume IC control clock	—
26	VOL SDA	O	Electric volume IC control data	—
27	LEVEL IN	I	Volume level input	—
★28	S.LEVEL(RDS)	I	Signal level	—
29	A VDD	—	A/D power supply (+5V)	—
30	A VREF	—	A/D reference voltage(+5V)	—
31, 32	OSC	—	32kHz oscillator	—
33	Vss	—	Microprocessor power supply (GND)	—
34, 35	OSC	—	4.19MHz oscillator	—
36	S.DATA	I/O	16bit system data	—
37	S.BUSY	I/O	16 bit system busy	H : BUSY L : READY
38	H.P. MUTE	O	Head phones mute signal	L : ON
39	ATT	O	CLASS A control signal	H : A CLASS L : AB CLASS
40	A MUTE	O	Audio mute signal	L : ON
41	HIGH RELAY	O	AMP high relay control	H : ON L : OFF
42	LOW RELAY	O	AMP low relay control	H : ON L : OFF
43	SP RELAY	O	Speaker relay control	H : ON L : OFF
★44	CLK(RDS)	I	RDS clock	—
★45	DATA(RDS)	I	RDS data	—
46	PROTECTION	I	Protection detection	H : ON L : OFF
47	REMOCON	I	Remote control input	—
48	IC	—	—	—
49	CLASS A LED	O	CLASS A LED	H : OFF L : ON
50	BIAS MID	O	Bias control signal MID	—
51	BIAS HI	O	Bias control signal HI	—
52	VDD	—	Microprocessor power supply (+5V)	—
53	ENCA	I	Volume encoder in put A	—
54	ENC B	I	Volume encoder input B	—
55	HEAD PHONE	I	Head phones signal detection	H : ON L : OFF
56, 57	NC	O	—	—
58~60	KR2~KR0	I	KEY return 2~0	H : KEY ON
61~64	SEG16~13/KS3~0	O	FL Segment 6~13 /key scan 3~0	H : ON
65~70	P12 SEG12~SEG7	O	FL Segment 12~7	H : ON
71	V load	—	FL drive power supply (-30V)	—
72~77	P6 SEG6~SEG1	O	FL Segment 6~1	H : ON
78	NC	O	—	—
79, 80	9G, 8G	O	FL grid 9, 8	—

★ E/T type only, other types unused.

The RDS PTY AF search always corresponds to a span search of 100kHz. Therefore, a span search of 50 KHz cannot be performed.

R-SE7/SE-7(G)

ADJUSTMENT

FM SECTION SELECTION :FM X05-4622-71 (E/T TYPE)

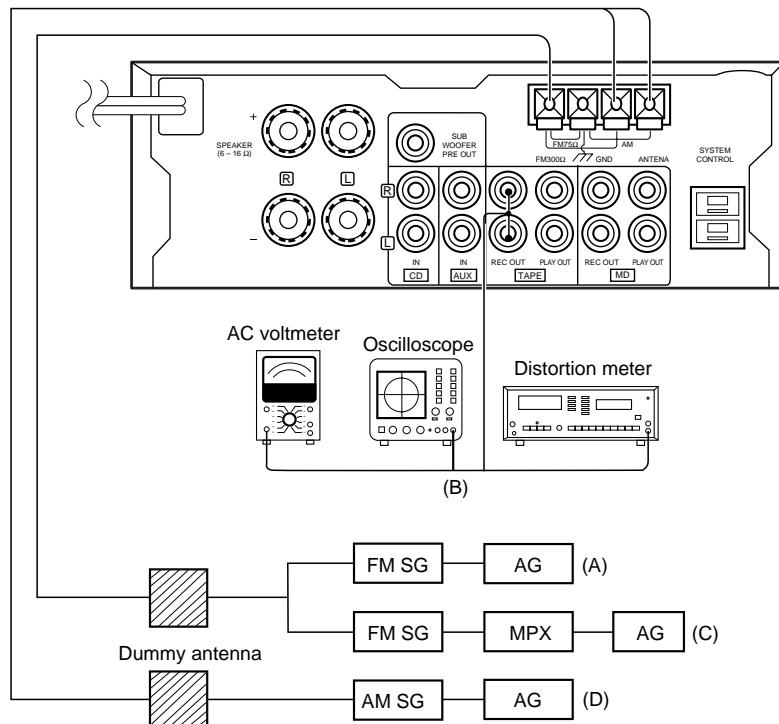
NO.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	DISCRIMINATOR	(A) 98.0kHz 1kHz, $\pm 75\text{kHz}$ dev. 60dB μ (ANT input)	Connect a DC voltmeter between Pin 1 and Pin 2 of CN 2.	MONO 98.0MHz	L 31	0V	(a)
					L 32	Minimum distortion.	
2	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, $\pm 68.25\text{kHz}$ dev. Pilot: $\pm 6.75\text{kHz}$ dev. 60dB μ (ANT input)	(B)	AUTO 98.0MHz	IFT (A1)	Minimum distortion.	(a)

AUDIO SECTION (X09-469x-xx)

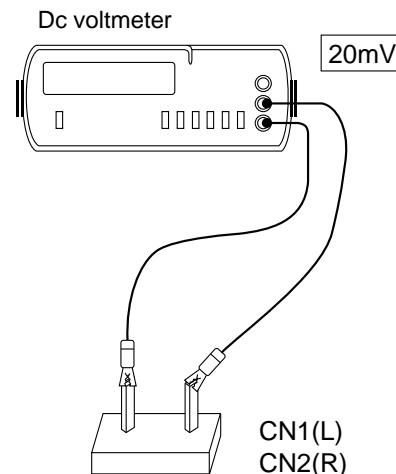
NO.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMP SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
POWER: ON SELECTOR : AUX							
1	B CLASS IDLE CURRENT	—	Connect a DC voltmeter across CN1(L) CN2(R) (X09, A/7)	PURE A : OFF Volume : 0	VR1(L) VR2(R) (X09, A/7)	20mV	(b)

SYSTEM CONNECTIONS

(a)



(b)



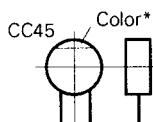
R-SE7/SE-7(G)

PARTS DESCRIPTIONS

CAPACITORS

CC 45 TH 1H 220 J
 1 2 3 4 5 6

1 = Type ... ceramic, electrolytic, etc.
 2 = Shape ... round, square, ect.
 3 = Temp. coefficient
 4 = Voltage rating
 5 = Value
 6 = Tolerance



• Capacitor value

010 = 1pF
 100 = 10pF
 101 = 100pF
 102 = 1000pF = 0.001μF
 103 = 0.01μF

2 2 0 = 22pF
 Multiplier
 2nd number
 1st number

• Temperature coefficient

1st Word	C	L	P	R	S	T	U
Color*	Black	Red	Orange	Yellow	Green	Blue	Violet
ppm/°C	0	-80	-150	-220	-330	-470	-750

2nd Word	G	H	J	K	L
ppm/°C	±30	±60	±120	±250	±500

Example : CC45TH = -470 ± 60 ppm/°C

• Tolerance (More than 10pF)

Code	C	D	G	J	K	M	X	Z	P	No code
(%)	±0.25	±0.5	±2	±5	±10	±20	+40	+80	+100	More than 10μF -10 ~ +50
							-20	-20	-0	Less than 4.7μF -10 ~ +75

(Less than 10pF)

Code	B	C	D	F	G
(pF)	±0.1	±0.25	±0.5	±1	±2

• Voltage rating

1st word	2nd word	A	B	C	D	E	F	G	H	J	K	V
0		1.0	1.25	1.6	2.0	2.5	3.15	4.0	5.0	6.3	8.0	-
1		10	12.5	16	20	25	31.5	40	50	63	80	35
2		100	125	160	200	250	315	400	500	630	800	-
3		1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	-

• Chip capacitors

(EX) C C 7 3 F S L 1 H 0 0 0 J
 1 2 3 4 5 6 7 Refer to the table above.

(Chip) (CH, RH, UJ, SL)

(EX) C K 7 3 F F 1 H 0 0 0 Z
 1 2 3 4 5 6 7

(Chip) (B, F)

- 1 = Type
- 2 = Shape
- 3 = Dimension
- 4 = Temp. coefficient
- 5 = Voltage rating
- 6 = Value
- 7 = Tolerance

Dimension (Chip capacitors)

Dimension code	L	W	T
Empty	5.6 ± 0.5	5.0 ± 0.5	Less than 2.0
A	4.5 ± 0.5	3.2 ± 0.4	Less than 2.0
B	4.5 ± 0.5	2.0 ± 0.3	Less than 2.0
C	4.5 ± 0.5	1.25 ± 0.2	Less than 1.25
D	3.2 ± 0.4	2.5 ± 0.3	Less than 1.5
E	3.2 ± 0.2	1.6 ± 0.2	Less than 1.25
F	2.0 ± 0.3	1.25 ± 0.2	Less than 1.25
G	1.6 ± 0.2	0.8 ± 0.2	Less than 1.0

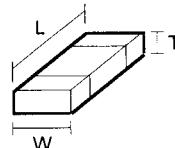
RESISTORS

• Chip resistor (Carbon)

(EX) R K 7 3 E B 2 B 0 0 0 J
 1 2 3 4 5 6 7

(Chip) (B, F)

Dimension



• Carbon resistor (Normal type)

(EX) R D 1 4 B B 2 C 0 0 0 J
 1 2 3 4 5 6 7

- 1 = Type
- 2 = Shape
- 3 = Dimension
- 4 = Temp. coefficient
- 5 = Rating wattage
- 6 = Value
- 7 = Tolerance

Dimension (Chip resistor)

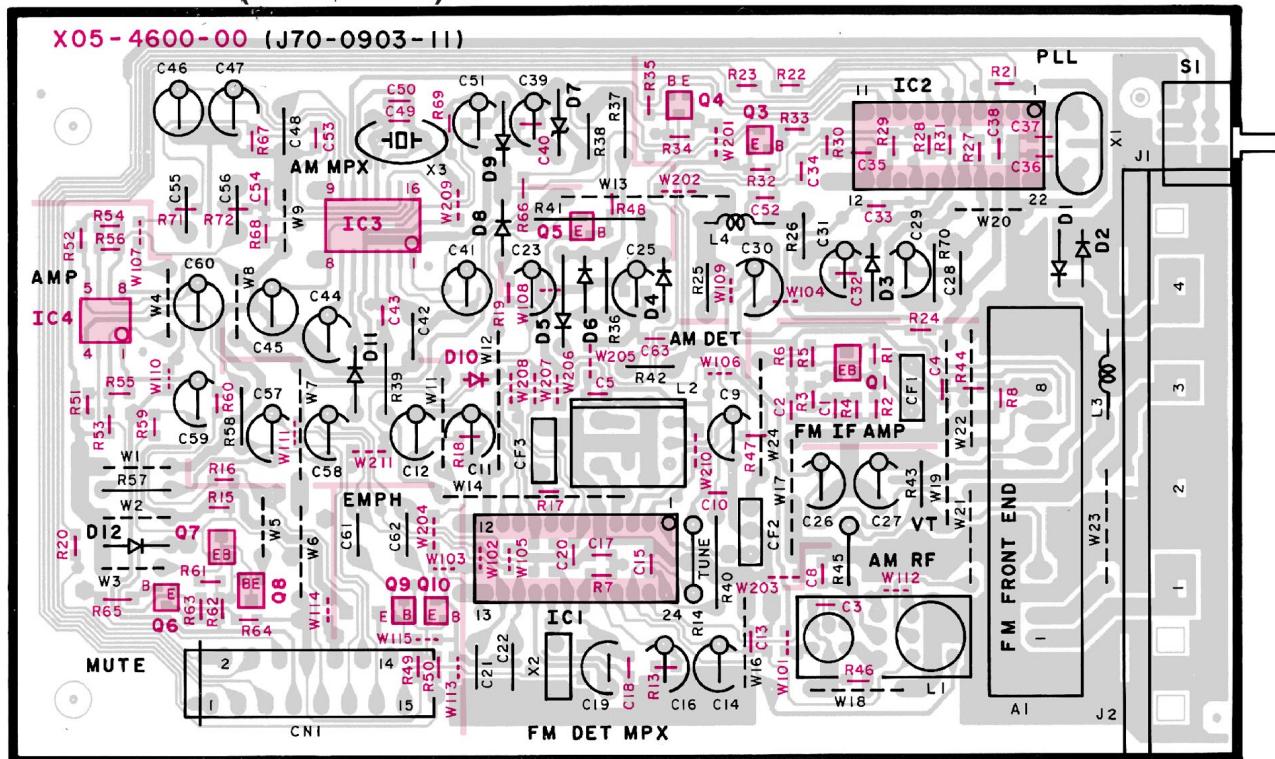
Dimension code	L	W	T
E	3.2 ± 0.2	1.6 ± 0.2	1.0
F	2.0 ± 0.3	1.25 ± 0.2	1.0
G	1.6 ± 0.2	0.8 ± 0.2	0.5 ± 0.1

Rating wattage

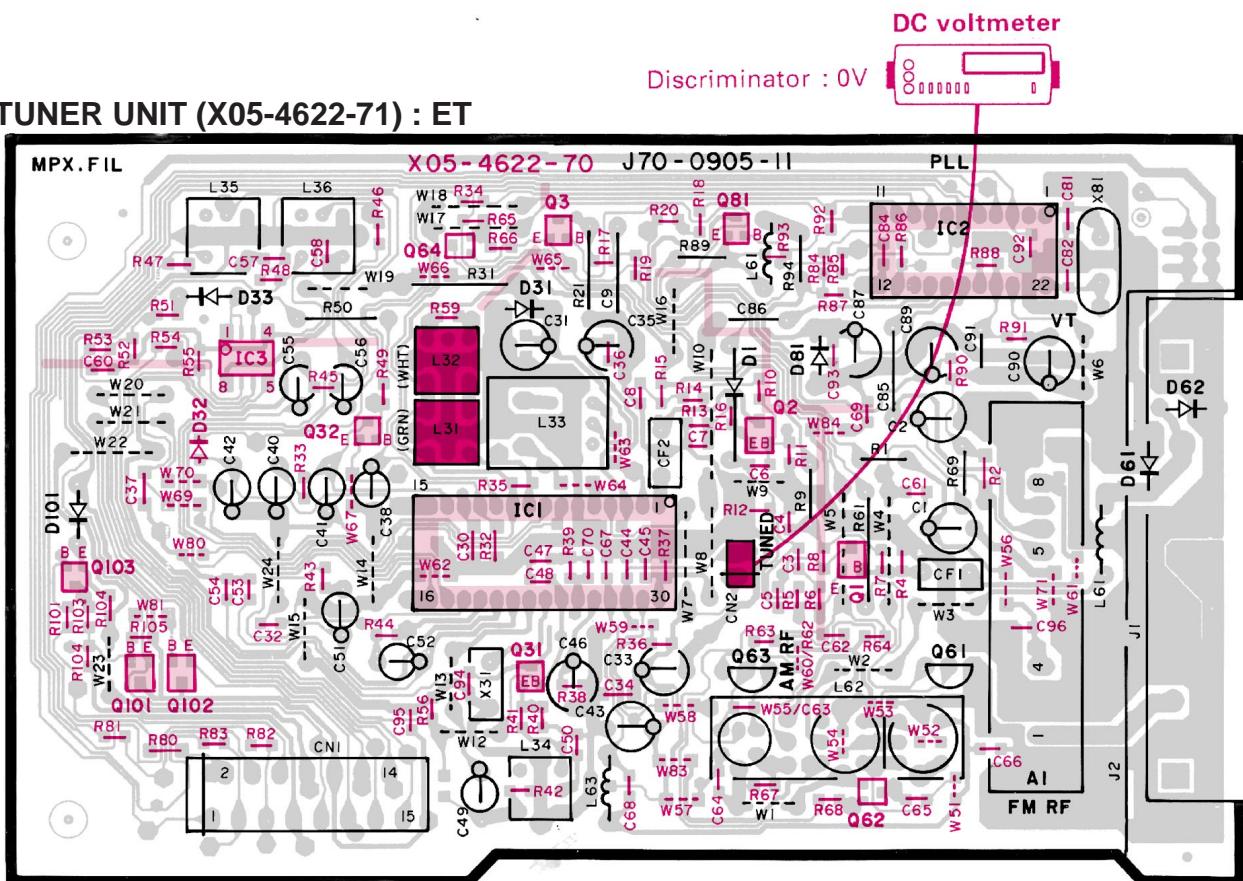
Code	Wattage	Code	Wattage	Code	Wattage
1J	1/16W	2C	1/6W	3A	1W
2A	1/10W	2E	1/4W	3D	2W
2B	1/8W	2H	1/2W		

A B C D E PC BOARD(Component side view)

1 TUNER UNIT (X05-4600-12) : K
(X05-4600-72) : M



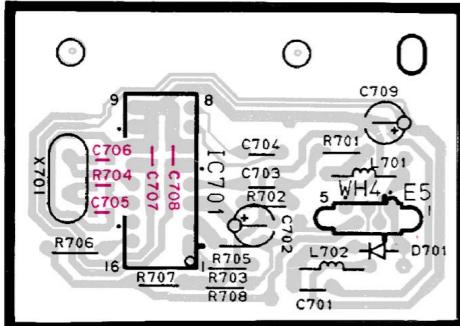
2 3 4 5 6 7 TUNER UNIT (X05-4622-71) : ET



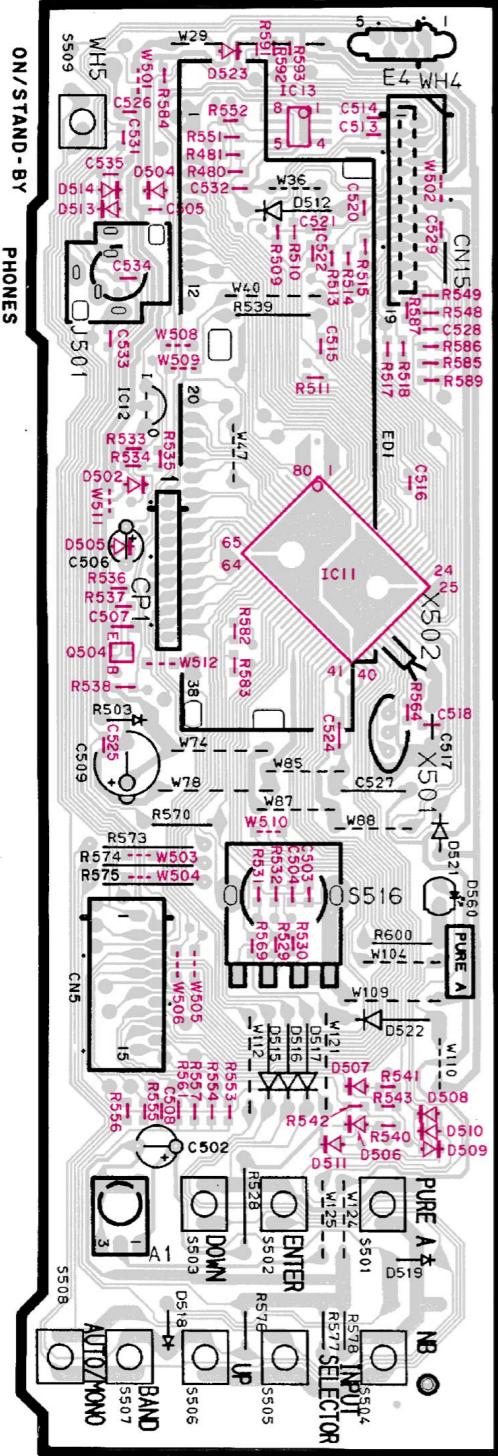
Refer to the schematic diagram for the value of resistors and capacitors.

PC BOARD(Component side view)

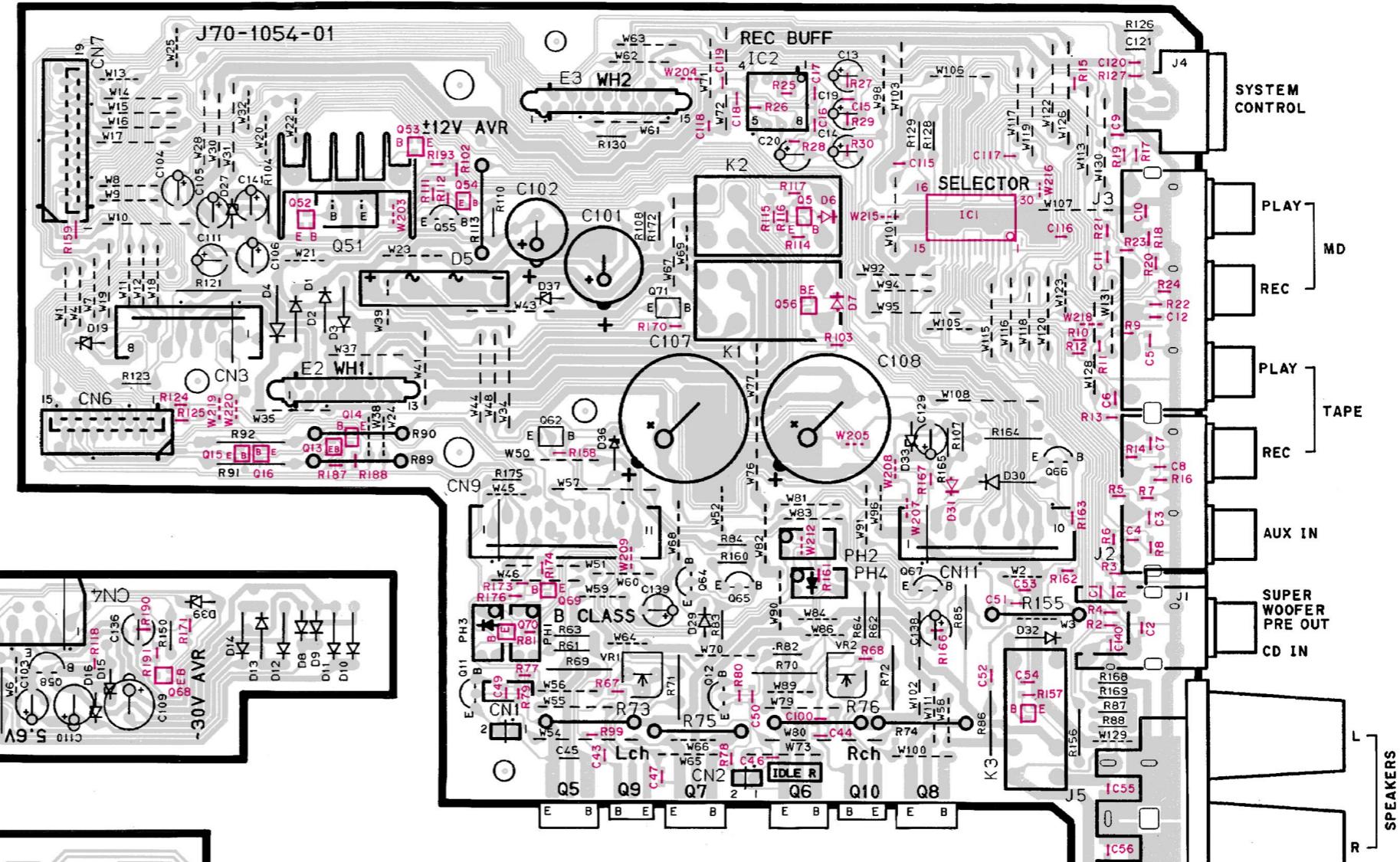
(X09)(E/7)



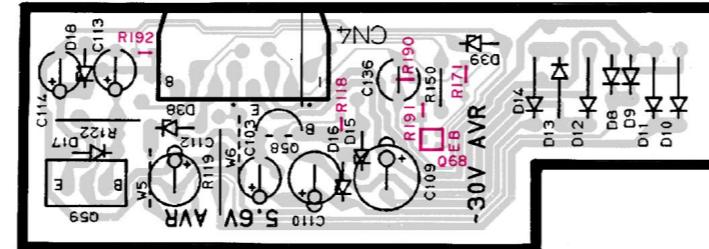
(X09)(D/7)



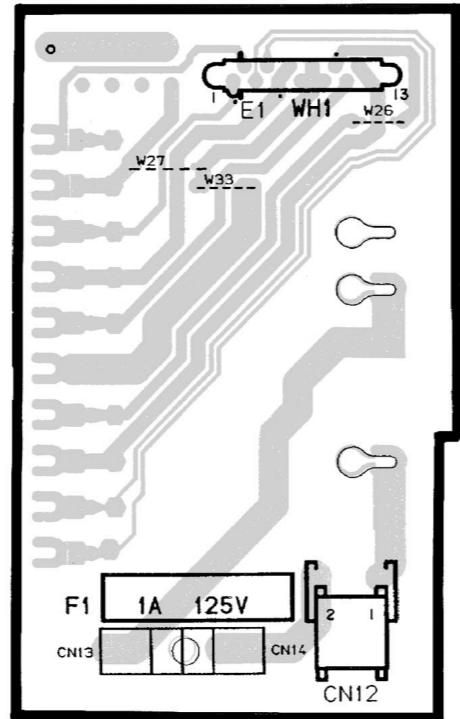
AUDIO UNIT (X09-4690-11) : K
(X09-4690-21) : M
(X09-4692-71) : ET



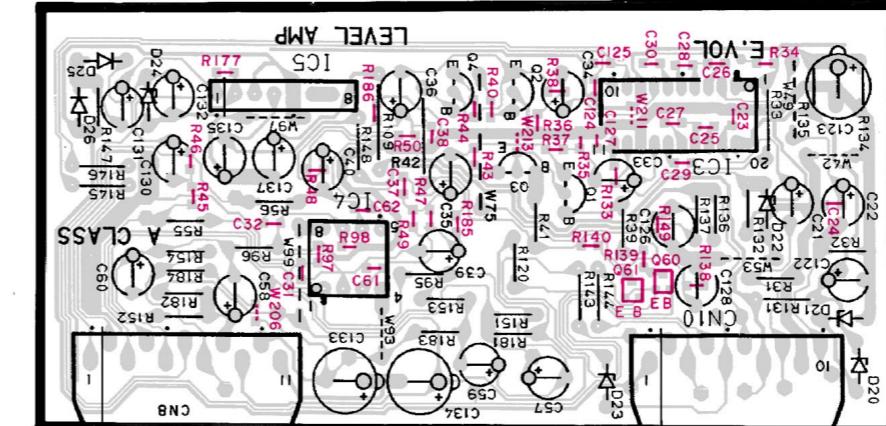
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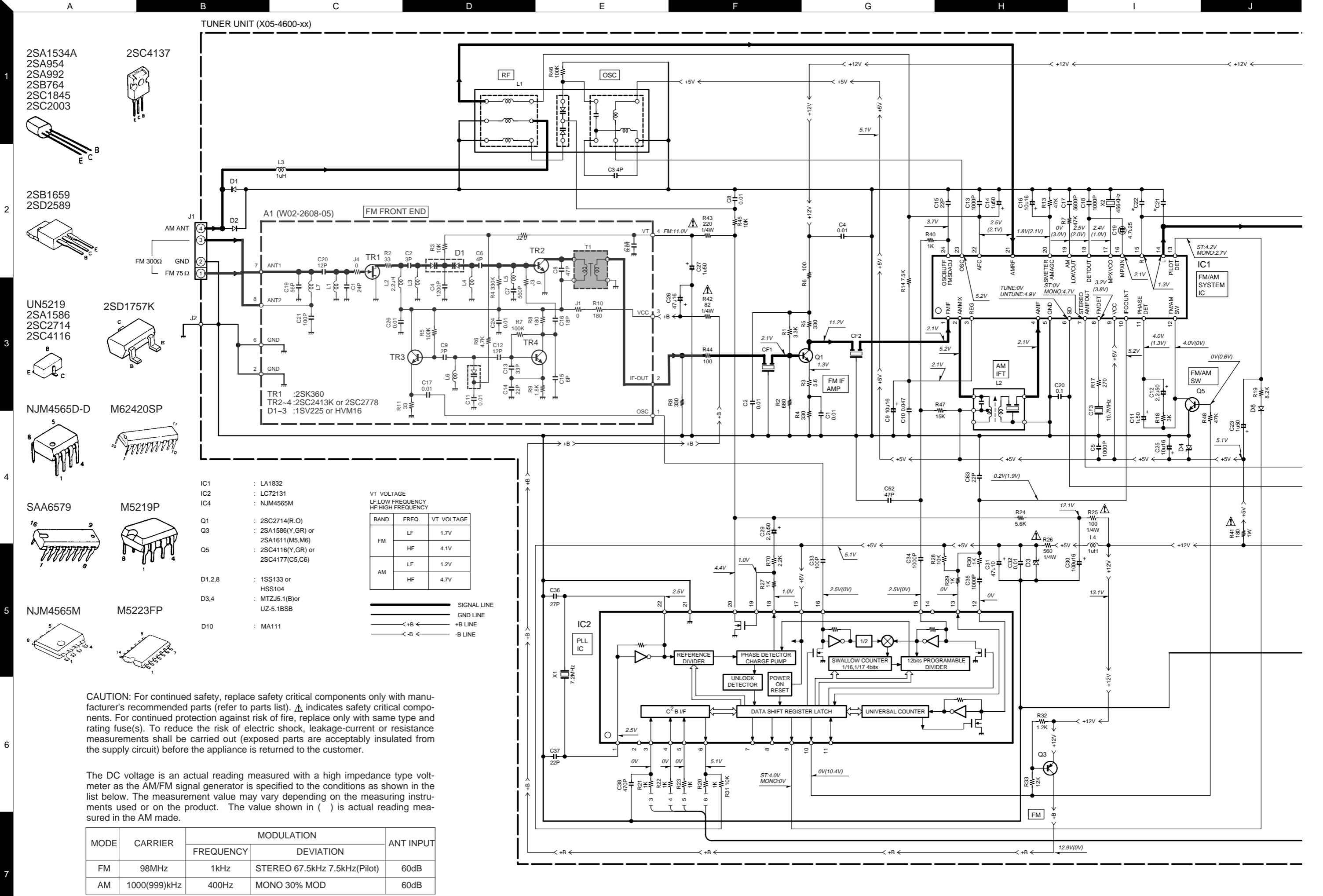


(X09)(B/7)



(X09)(F/7)





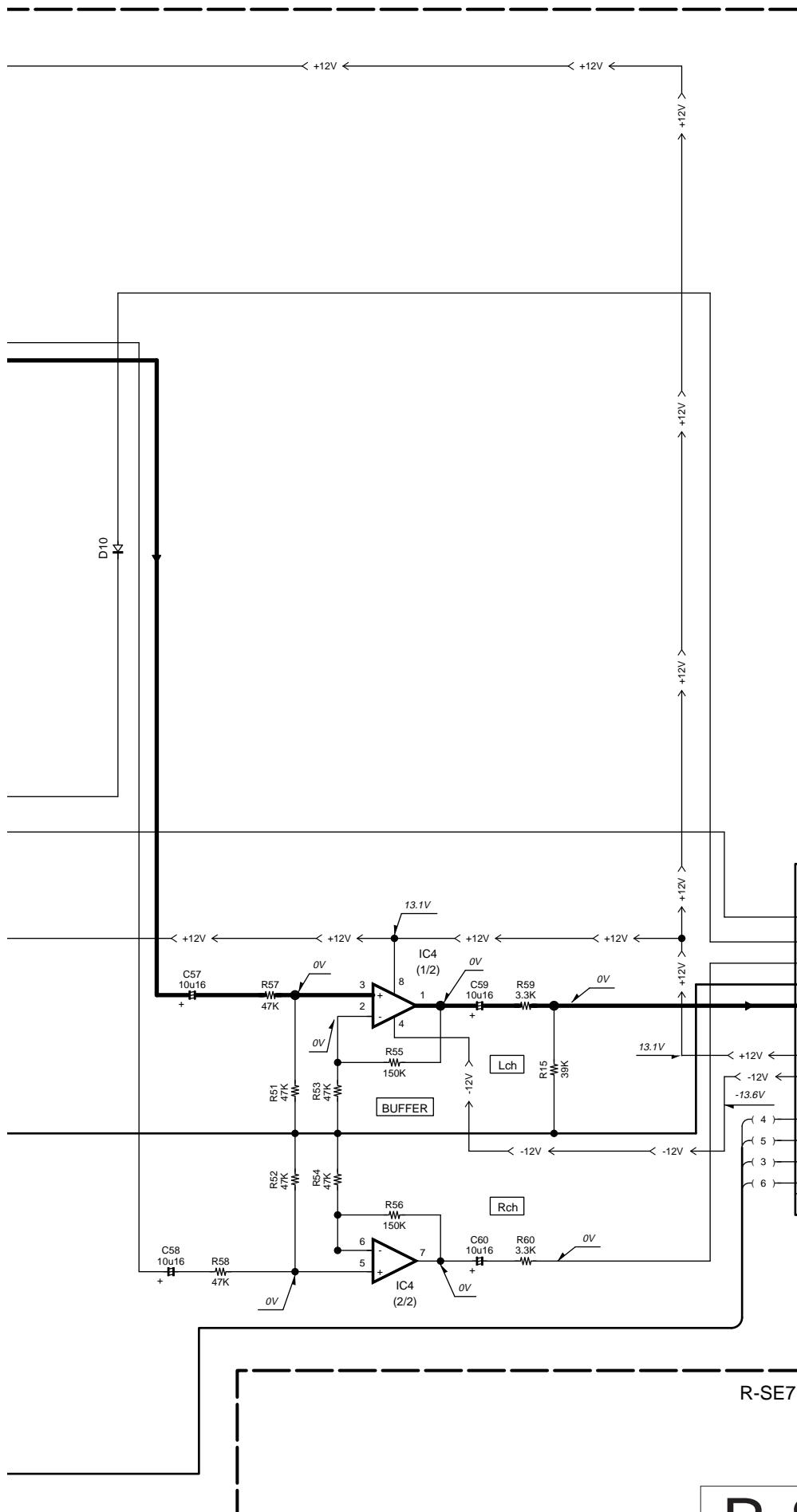
K

L

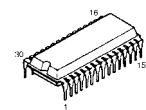
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N

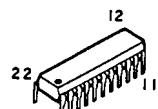
O



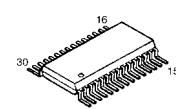
LA1836



LC72131



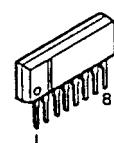
NJU7313AM



X05-460X-XX

DISTNATION	UNIT	C21, 22
CONTRY	ABB NO	
GENERAL MARKET	M	0-72 0.011μ
USA	K	0-12 0.016μ

NJM4565L-D



LA1832



X24C04S

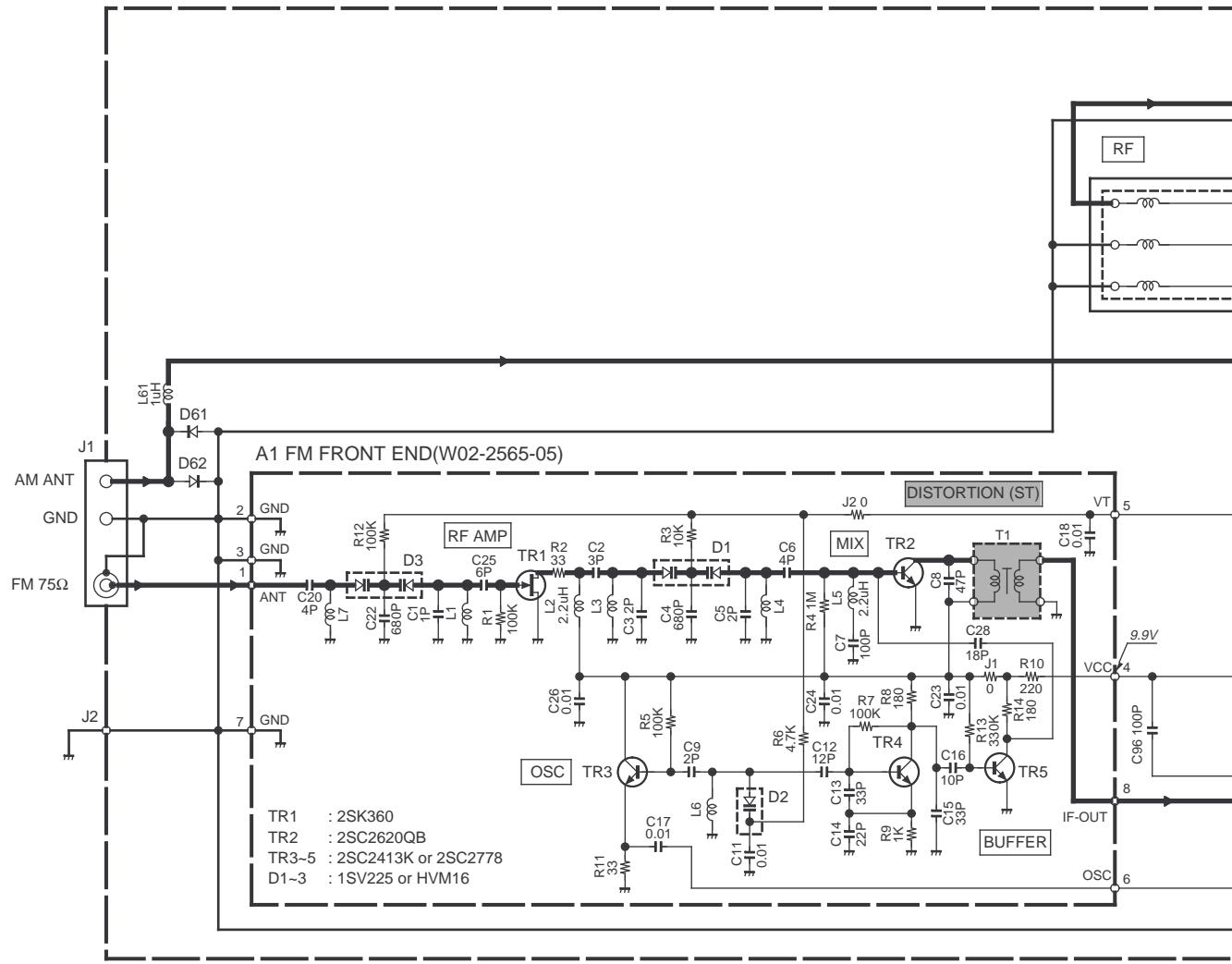


R-SE7/SE-7(G)

Y05-3480-11

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TUNER UNIT (X05-4622-71) : TE



VT VOLTAGE
LF: LOW FREQUENCY
HF: HIGH FREQUENCY

BAND	FREQ.	VOLTAGE(VT)
FM	LF	2.1V
	HF	7.5V
AM	LF	1.1V
	HF	4.6V

IC1 : LA1836
IC2 : LC72131
IC3 : M5223FP

Q1,2 : 2SC2714(R,O)
Q3,81,103 : 2SA1586(Y,GR) or 2SA1611(M5,M6)
Q31,32 : 2SC4116(Y,GR) or 2SC4177(L5,L6)
Q101,102 : 2SD1757K

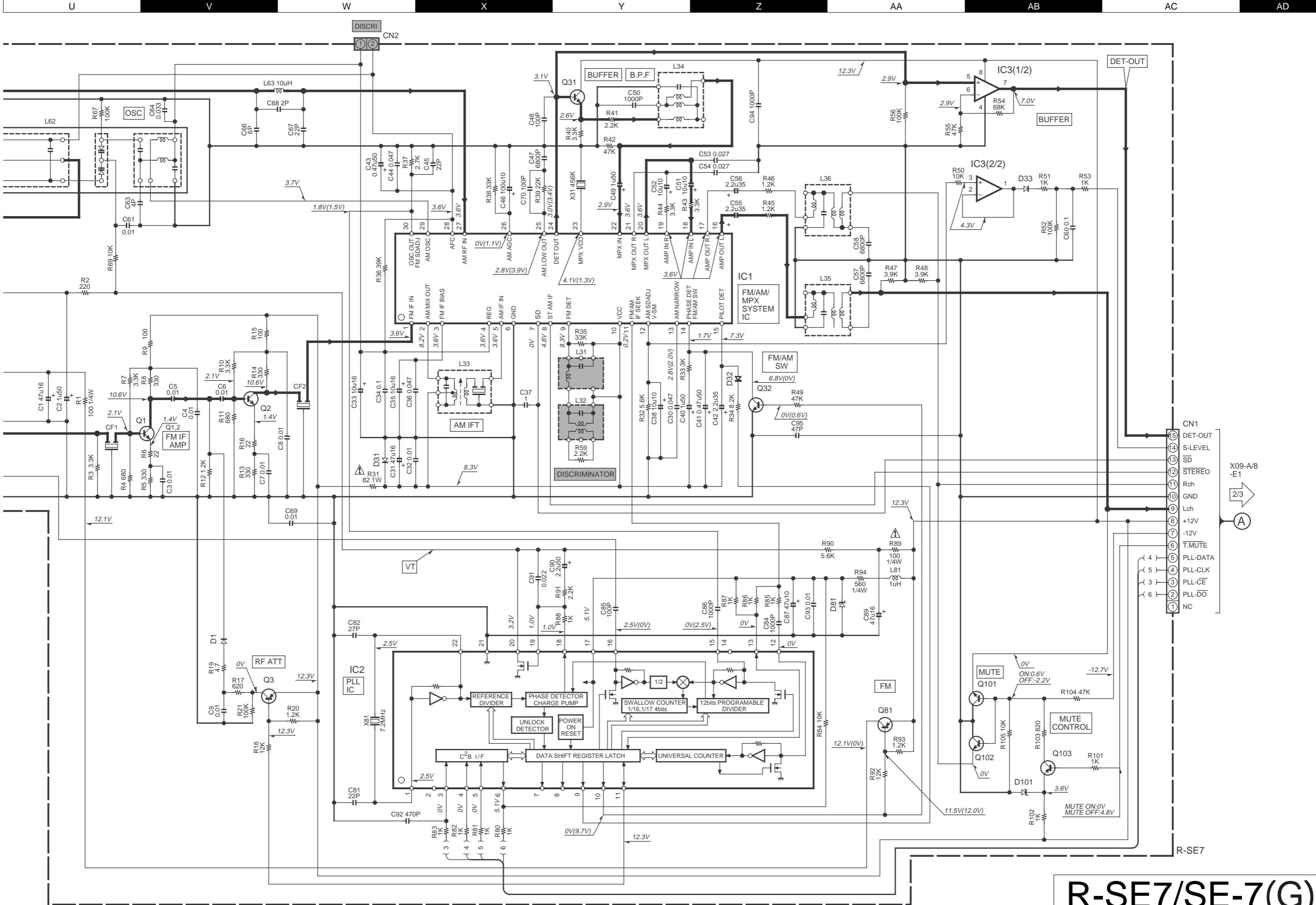
D1,33,61,62 : 1SS133 or HSS104
D31 : MTZJ8.2(B) or UZ-8.2BSB
D32 : MA111
D81 : MTZJ5.1(B) or UZ-5.1BSB
D101 : MTZJ3.3(B) or UZ-3.3BSB

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). 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

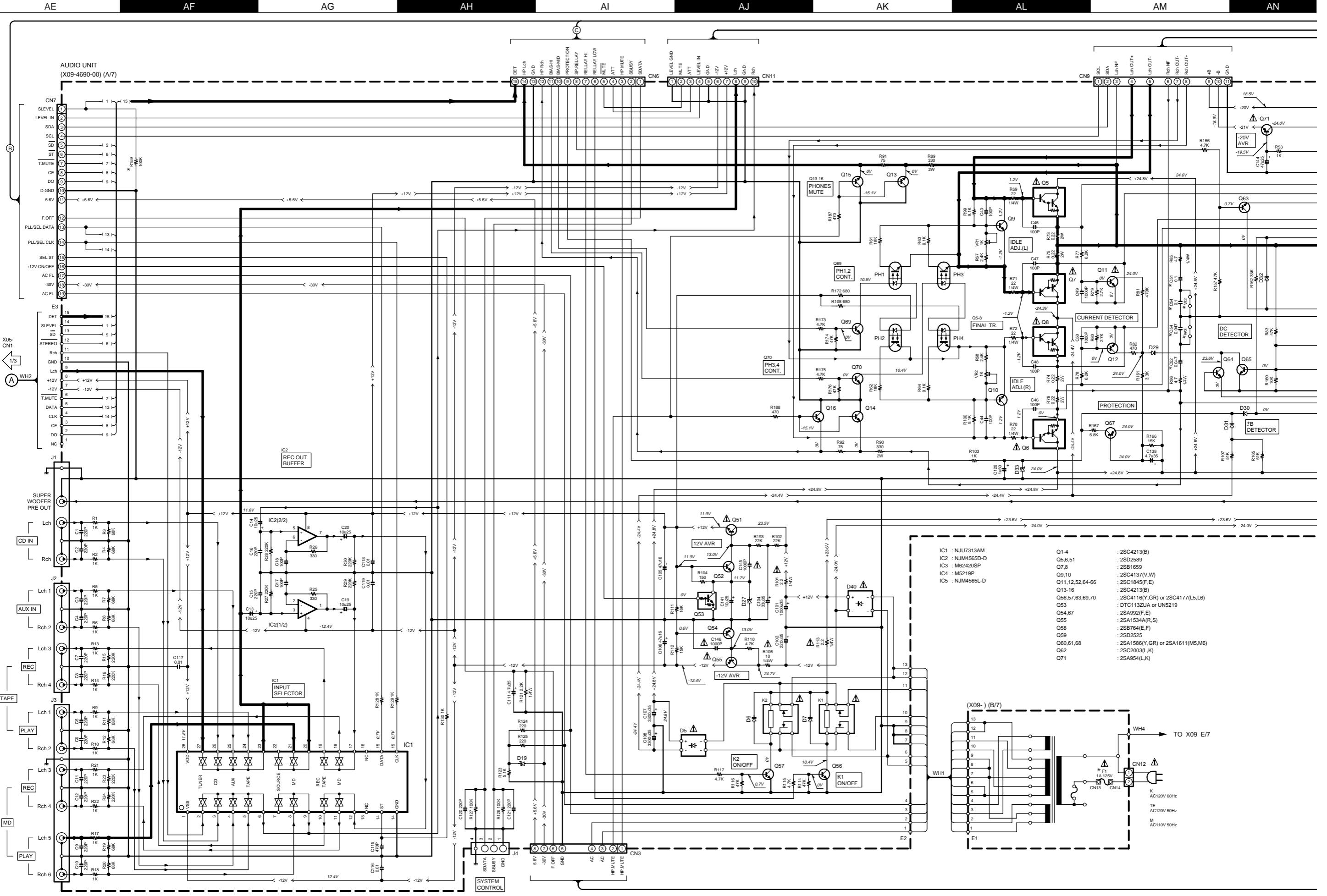
SIGNAL LINE
GND LINE

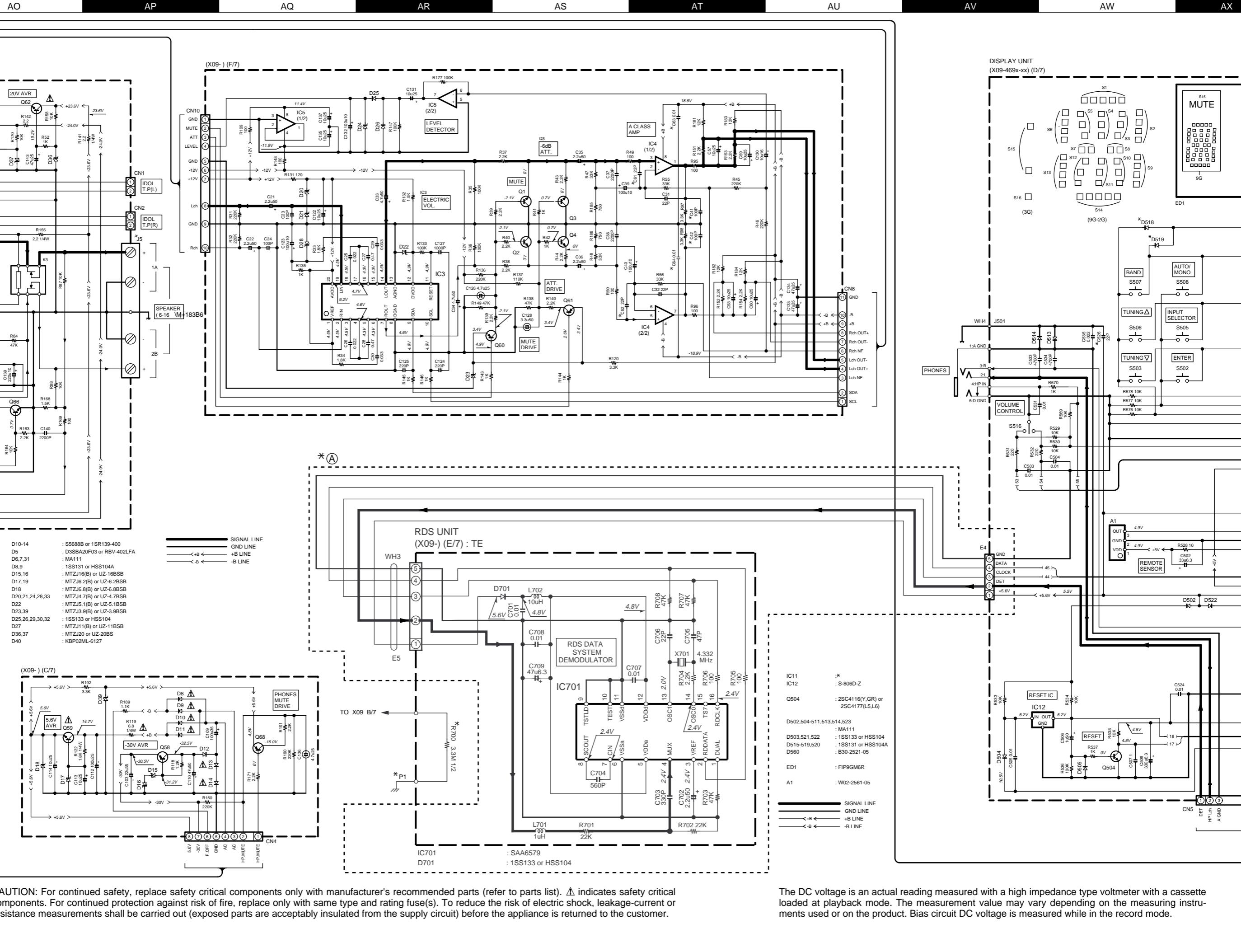


R-SE7/SE-7(G)

Y05-3480-11

KENWOOD





AY

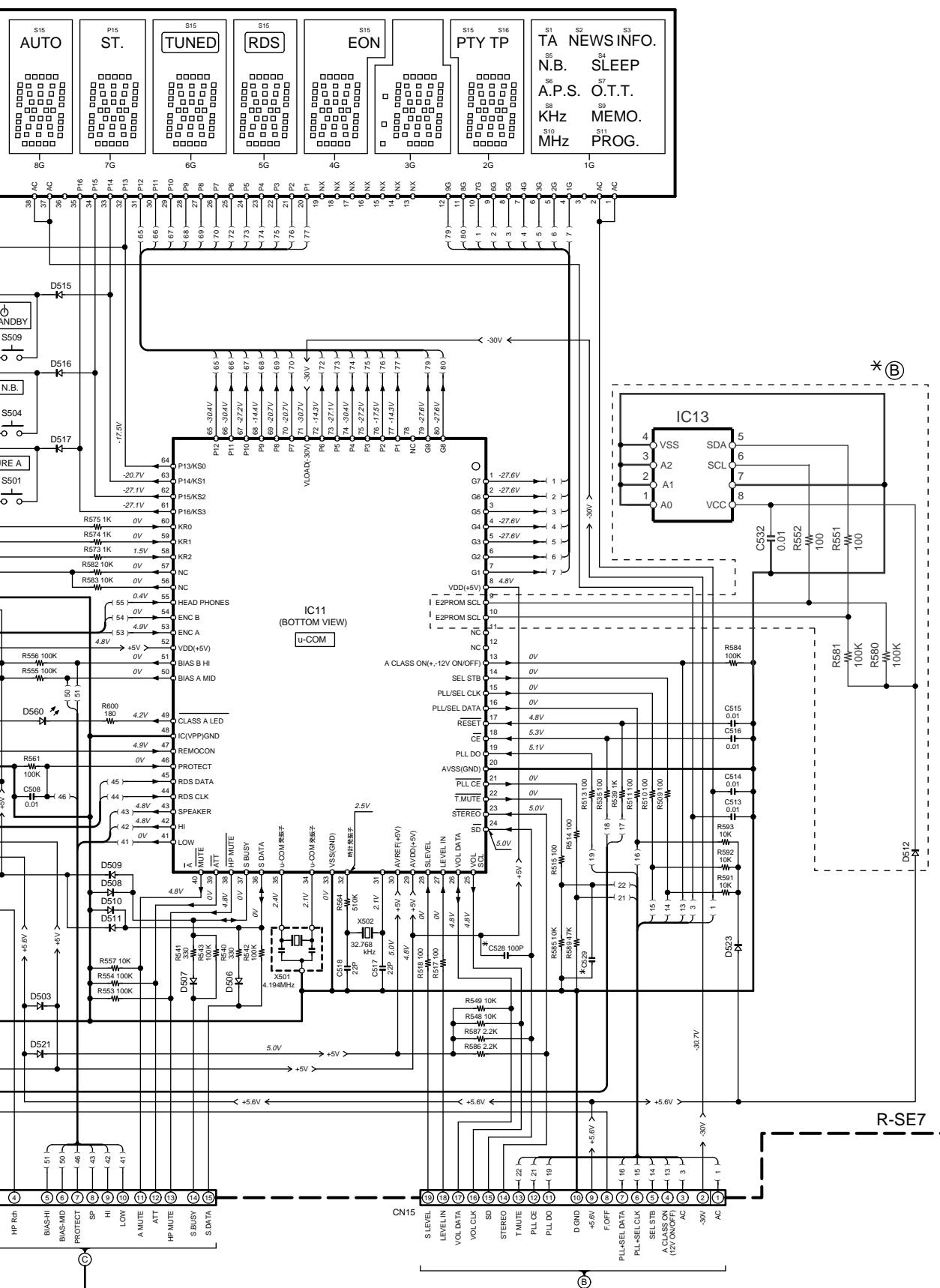
AZ

BA

BB

BC

DISTINATION COUNTRY	UNIT NO	C51, 52	C53, 54	E/7	C61-64	R49, 50	R159	F1	J5	WH4	W2, 3	(A)	(B)	C526, 528 529	D518	D519	IC11	C41,42	R700	P1
GENERAL MARKET	M	0-21	0.047μ	NO	NO	NO	100	YES									UPD78045	YES		
UK	T	2-71	0.1μ	YES	YES	YES	1K	NO									FGF057	NO	NO	
EUROPE	E																			
USA	K	0-11	0.047μ	NO	NO	NO	100	YES	1A 125V	E70-0034-05	YES	YES	NO	NO	YES	NO	UPD78045FGF059	YES	YES	



Y05-3480-11

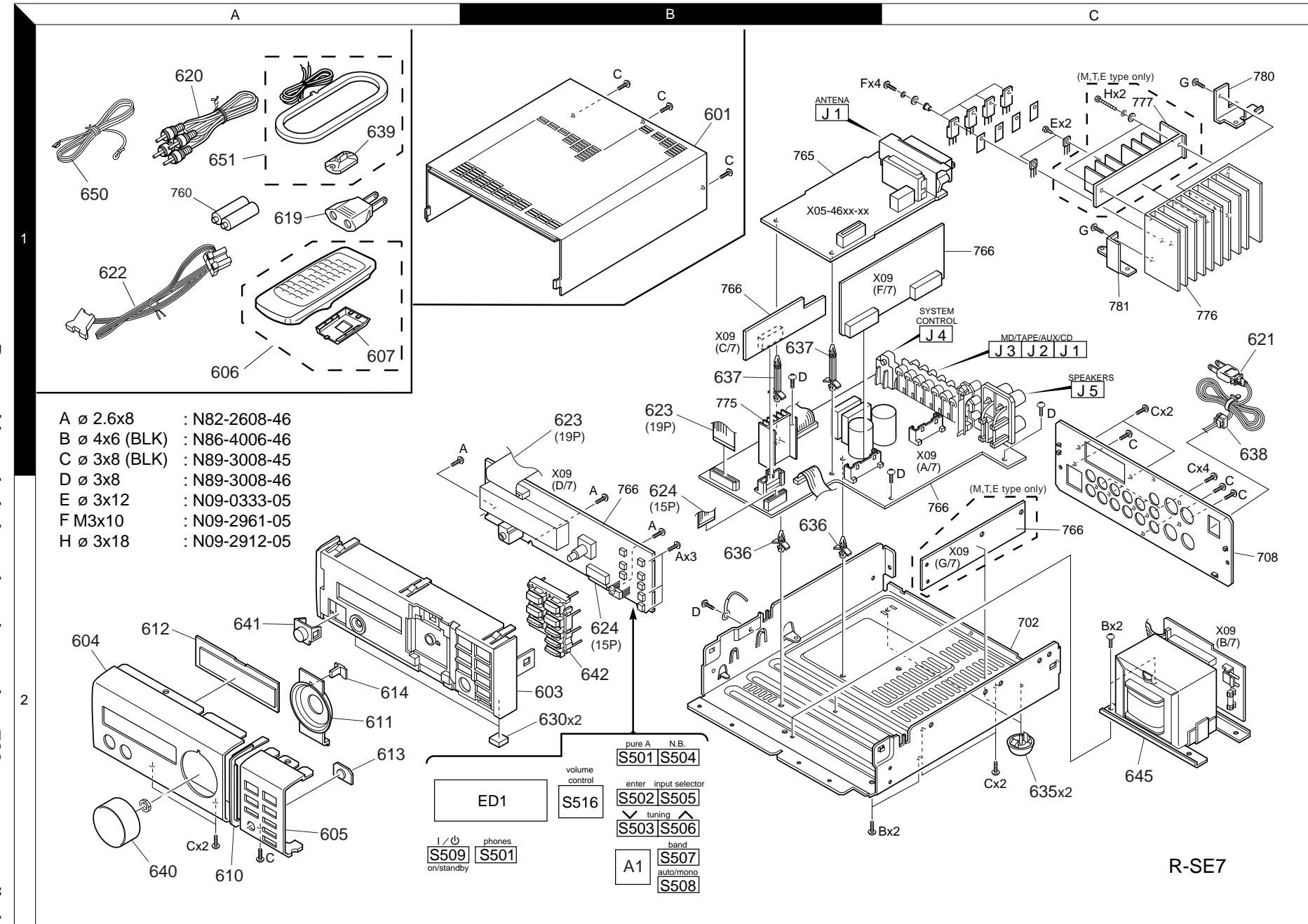
R-SE7/SE-7(G)

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R-SE7/SE-7(G)

EXPLODED VIEW (UNIT)

24



Parts with exploded numbers larger than 700 are not supplied.

R-SE7/SE-7(G)

PARTS LIST

(13)

* 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.

Ref. No	Add- ress	New Parts	Parts No.	Description	Desti- nation	Re- marks
Q58			2SB764(E,F)	TRANSISTOR		
Q59			2SD2525	TRANSISTOR		
Q60 ,61			2SA1586(Y,GR)	TRANSISTOR		
Q60 ,61			2SA1611(M5,M6)	TRANSISTOR		
△ Q62			2SC2003(L,K)	TRANSISTOR		
Q63			2SC4116(Y,GR)	TRANSISTOR		
Q63			2SC4177(L5,L6)	TRANSISTOR		
Q64 -66			2SC1845(F,E)	TRANSISTOR		
Q67			2SA992(F,E)	TRANSISTOR		
Q68			2SA1586(Y,GR)	TRANSISTOR		
Q68			2SA1611(M5,M6)	TRANSISTOR		
Q69 ,70			2SC4116(Y,GR)	TRANSISTOR		
Q69 ,70			2SC4177(L5,L6)	TRANSISTOR		
Q71			2SA954(L,K)	TRANSISTOR		
Q504			2SC4116(Y,GR)	TRANSISTOR		
Q504			2SC4177(L5,L6)	TRANSISTOR		
A1			W02-2561-05	ELECTRIC CIRCUIT MODULE		

L : Scandinavia K : USA P : Canada R : Mexico T1 : GRAY
 Y : PX(Far East, Hawaii) T : Europe E : Europe G : Germany T2 : GOLD
 Y : AAFES(Europe) X : Australia M : Other Areas

△ indicates safety critical components.

R-SE7/SE-7(G)

SPECIFICATIONS

[Amplifier section]

Rated power output
Class AB operation

20 watts per channel minimum RMS, both channels driven, at 6 Ω, 1 kHz with no more than 10 % total harmonic distortion.

(DIN) 1 kHz at 6 Ω, 0.7 % T.H.D.15 W + 15 W
Class A operation

7.55 watts per channel minimum RMS, both channels driven, at 6 Ω, 1 kHz with no more than 10 % total harmonic distortion.

Total harmonic distortion0.02 % (1 kHz, 10 W, 6 Ω)
Frequency response.....20 Hz ~ 40 kHz, +0 dB, -3 dB
input sensitivity/impedance200 mV / 47 kΩ
Output level/impedance
 SUPER WOOFER PRE OUT2.0 V / 1 kΩ
 TAPE REC.....200 mV / 1 kΩ
Signal to noise ratio96 dB (IHF'66)

-
-  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 exhibited at extremely cold locations (where water freezes.).

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.

[FM Tuner section]

Tuning frequency range87.5 MHz ~ 108 MHz
Usable sensitivity (DIN)

MONO

.....1.2 μV (75 Ω) / 13.2 dBf (40 kHz DEV., S/N 26 dB)

Signal to noise ratio

(DIN weighted ar 1 kHz, 65.2 dBf input)

MONO65 dB

STEREO58 dB

Selectivity (DIN ±300 kHz)64 dB

Stereo separation (DIN at 1 kHz)35 dB

[AM Tuner section]

Tuning frequency range531 kHz ~ 1,602 kHz
Usable sensitivity (30 %mod., S/N 20 dB)

.....15 μV (500 μV/m)

Signal to noise ratio (at 30 %mod., 1 mV input)48 dB

Output level/impedance(30 %mod., 1 mV input)

.....0.18 V / 1 kΩ

General

Power consumption45 W

DimensionsW : 200 mm

H : 77 mm

D : 278 mm

Weight (net)3.0 kg

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