

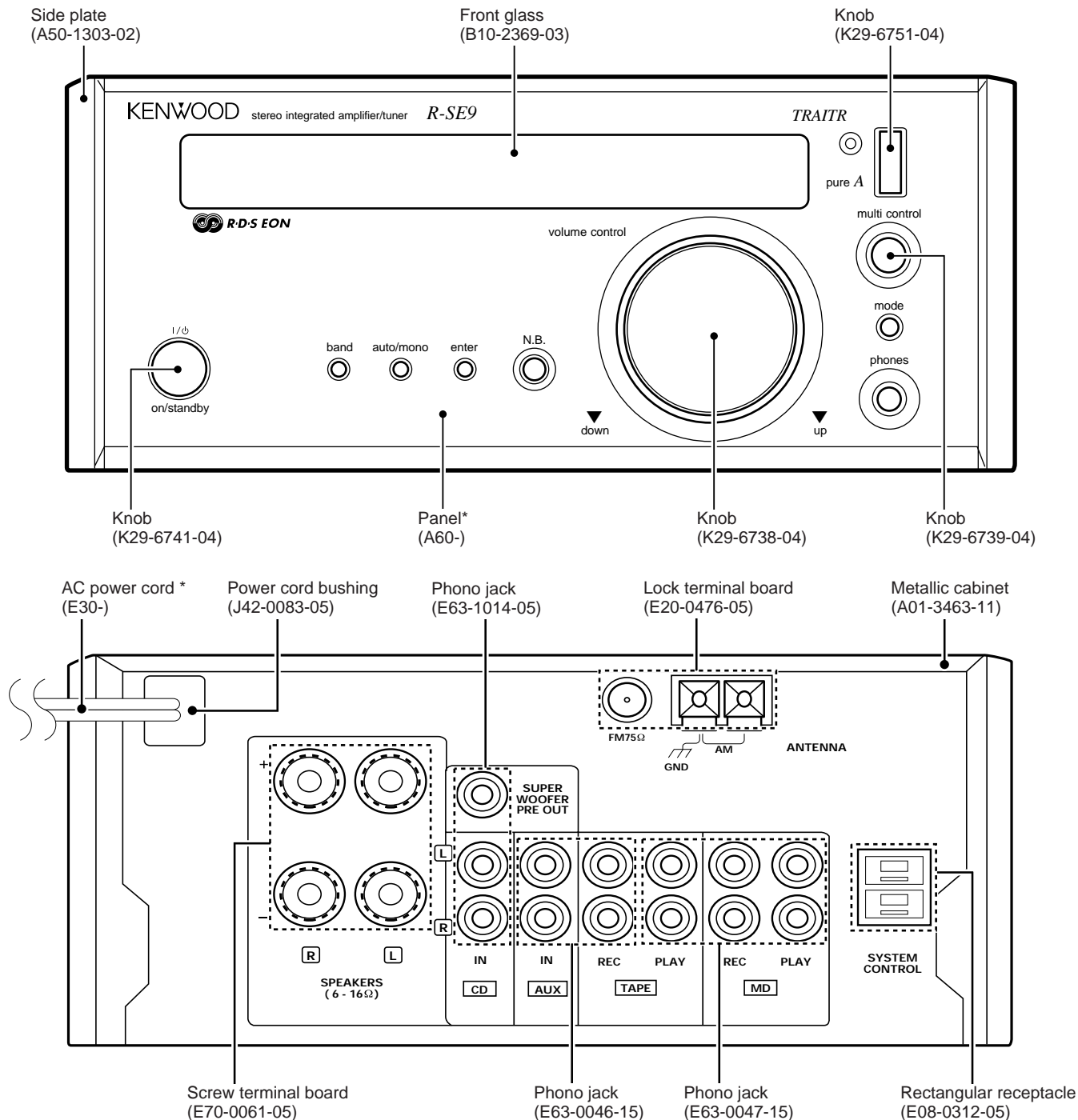
R-SE9

SERVICE MANUAL

(HM-901)

KENWOOD

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* Refer to parts list on page 21.

PRECAUTIONS FOR REPAIR

- For the SERIAL TEST CODE LIST of the circuit description, see Service manual (B51-5210-00) of R-SA7.
- For the INITIAL STATE, the BACK UP and the MICROPROCESSOR of the circuit description, see Service manual (B51-5373-00) of R-SE7.
- No connection of ground line if disassemble the unit.
- Please connection the ground line on rear panel, PCBs, Chassis and some others.

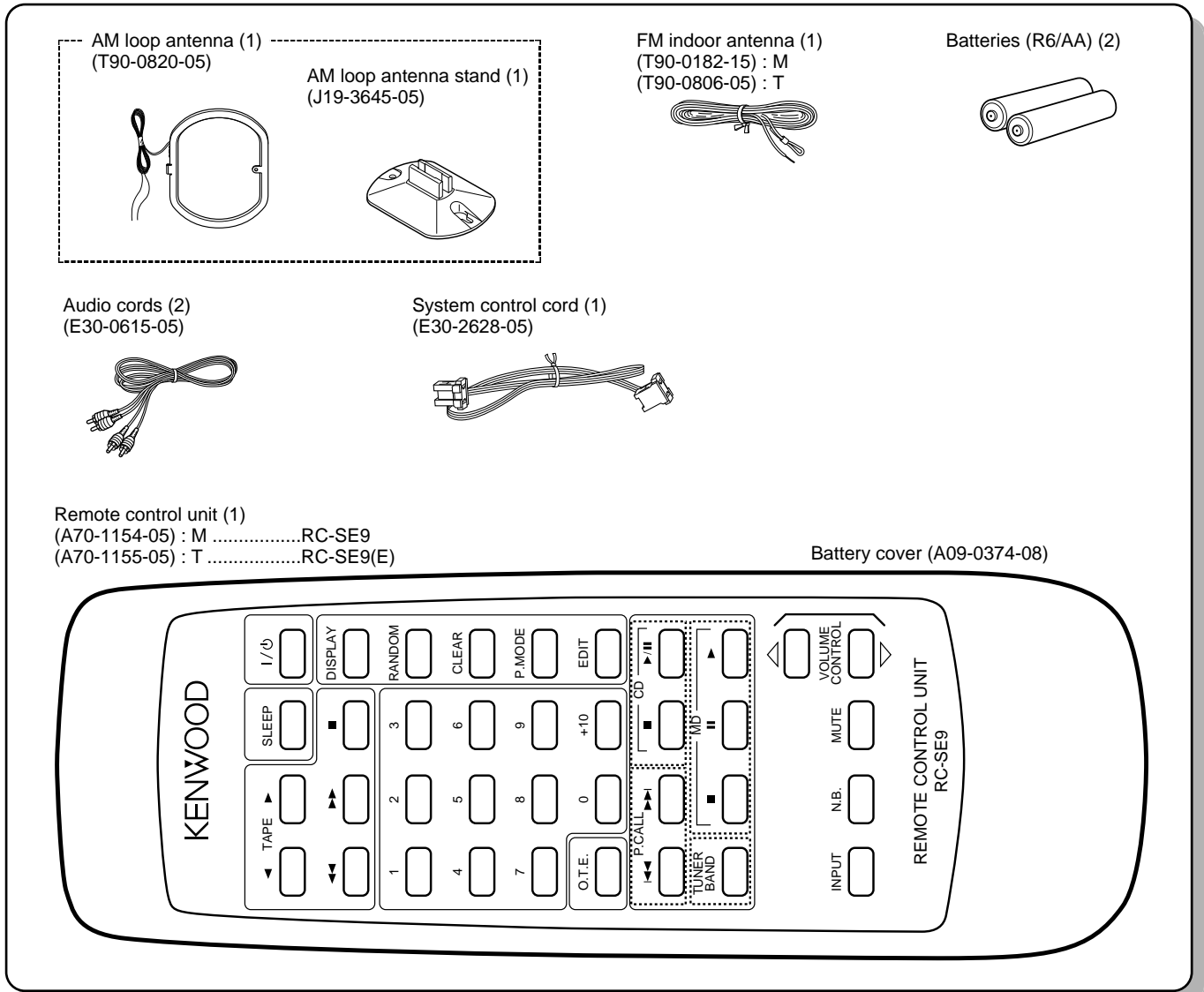
R-SE9

CONTENTS / ACCESSORIES

Contents

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Accessories



System configuration

SYSTEM NAME	AMP/TUNER	CD PLAYER	SPEAKER
HM-901	R-SE9	DP-SE9	LS-SE9

CIRCUIT DESCRIPTION

1. DESTINATION LIST OF TUNER

1-1 Destination List of Tuner

Destination	BAND	Receive frequency range	Channel space	1F	PLL reference frequency	DIODE SW(X14)	
						DSW1 D26	DSW2 D29
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

2. TEST MODE

2-1. Initializing

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

(1) Contents of operation

☒ All the functions are initialized.

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

2-2-1. Entering the AMP test mode

☒ Turn on the power while pressing the BAND key.

2-2-2. Canceling the AMP test mode

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

2-2-3. Contents of AMP test mode

(1) Automatic POWER ON

☒ 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.

☒ 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.

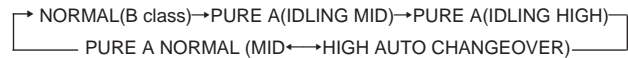
(2) All-lighting mode

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

☒ 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) CONSTRAINT IDLING CURRENT CHANGEOVER MODE when selector is set to positions other than TUNER.

[PURE A key] Every time this key is pressed, idling current mode is selected cyclically.



IDLING CURRENT MODE	DISPLAY
PURE A IDLING MID (constraint)	PURE A M
PURE A IDLING HIGH (constraint)	PURE A H
PURE A NORMAL MID (less than VOL.10.00)	PURE A * M
PURE A NORMAL HIGH (more than VOL.10.01)	PURE A * H

(4) Others

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

☒ 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.

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

☒ 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.

(5) 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.

@ 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 @ 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.

CIRCUIT DESCRIPTION

(6) 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

[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 → Pre-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).

(7) 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.

2-3. RDS test mode using main unit's keys

2-3-1. Entering the RDS test mode

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

2-3-2. Canceling the RDS test mode

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

2-3-3. Contents of RDS test mode

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

Ⓔ 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.

Ⓐ 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.)

Ⓑ 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 Ⓑ 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.

2-4. 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.

Ⓔ 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

Ⓔ 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.

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

(3) Cautions

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

Ⓔ 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.

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

ADJUSTMENT

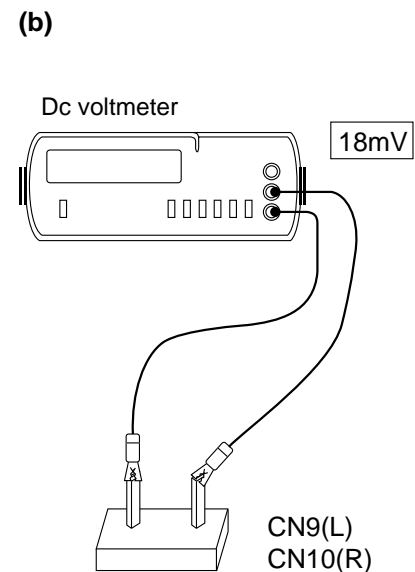
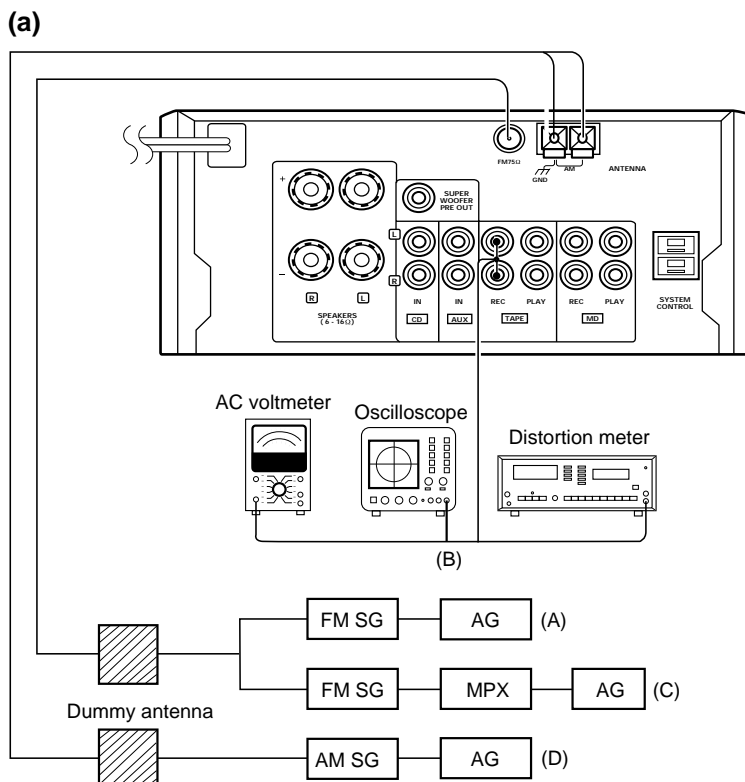
FM SECTION X05-4622-71 (T TYPE)

NO.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	DISCRIMINATOR	(A) 98.0kHz 1kHz, ± 75 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, ± 68.25 kHz dev. Pilot: ± 6.75 kHz dev. 60dB μ (ANT input)	(B)	AUTO 98.0MHz	IFT (A1)	Minimum distortion.	(a)

AUDIO SECTION (X09-470x-xx)

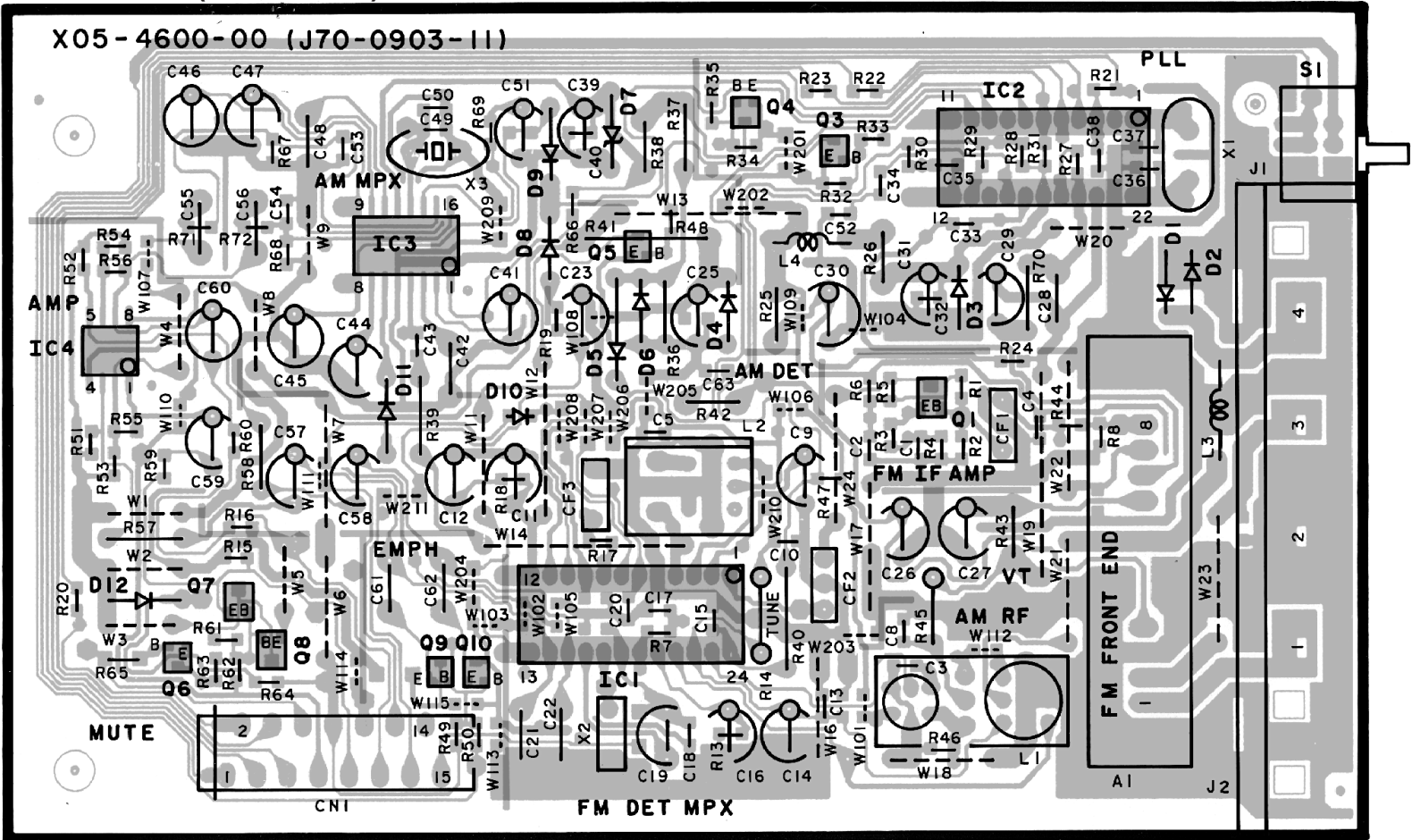
NO.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMP SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
POWER: ON							
1	A CLASS B CLASS IDLE CURRENT	—	Connect a DC voltmeter across CN9(L) CN10(R) (X09, A/4)	PURE A : ON PURE A : OFF Volume : 0	VR1(L) VR2(R) (X09, A/4)	18mV	(b)
2	A CLASS IDLE CURRENT	—		[EXCEPT TUNER] PURE A : ON Volume : 0.20~10.00		Less than 90mV. (Check)	
3	A CLASS IDLE CURRENT	—		[EXCEPT TUNER] PURE A : ON Volume : 10.20~16.00		Less than 250mV. (Check)	

SYSTEM CONNECTIONS



PC BOARD(Component side view)

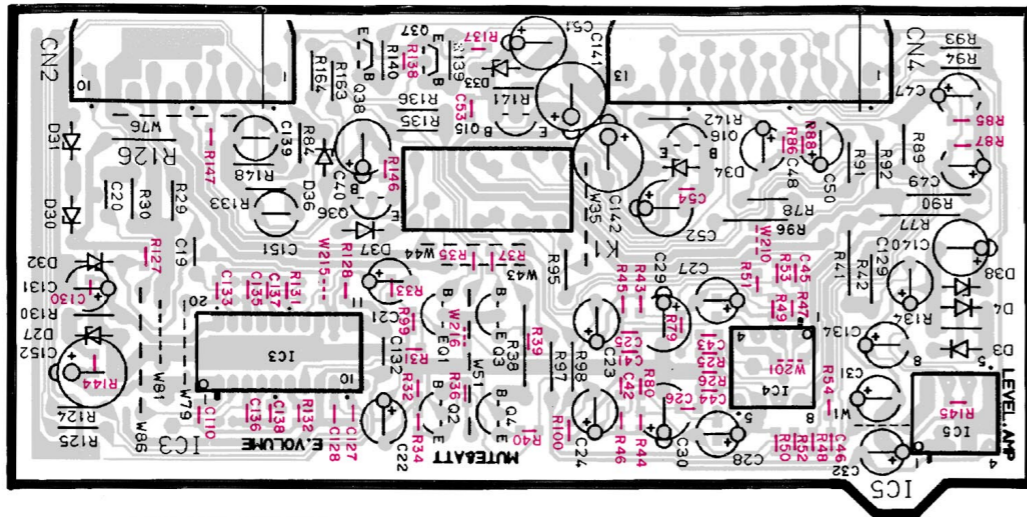
TUNER UNIT (X05-4600-72) : M
(X05-4622-71) : T



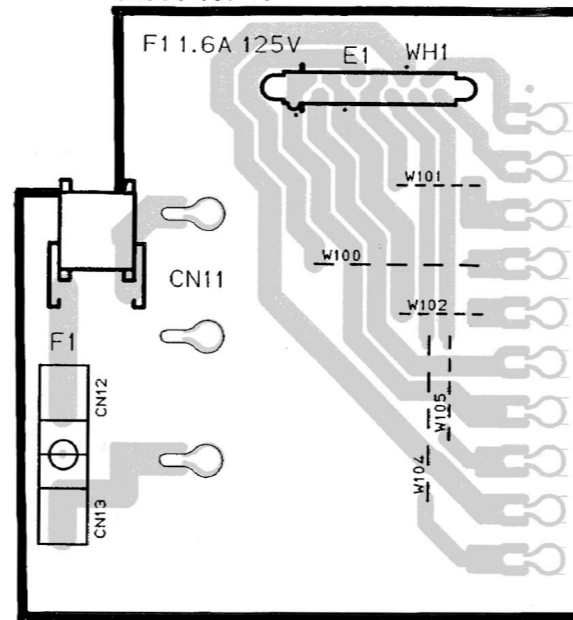
Refer to the schematic diagram for the value of resistors and capacitors.

PC BOARD(Component side view)

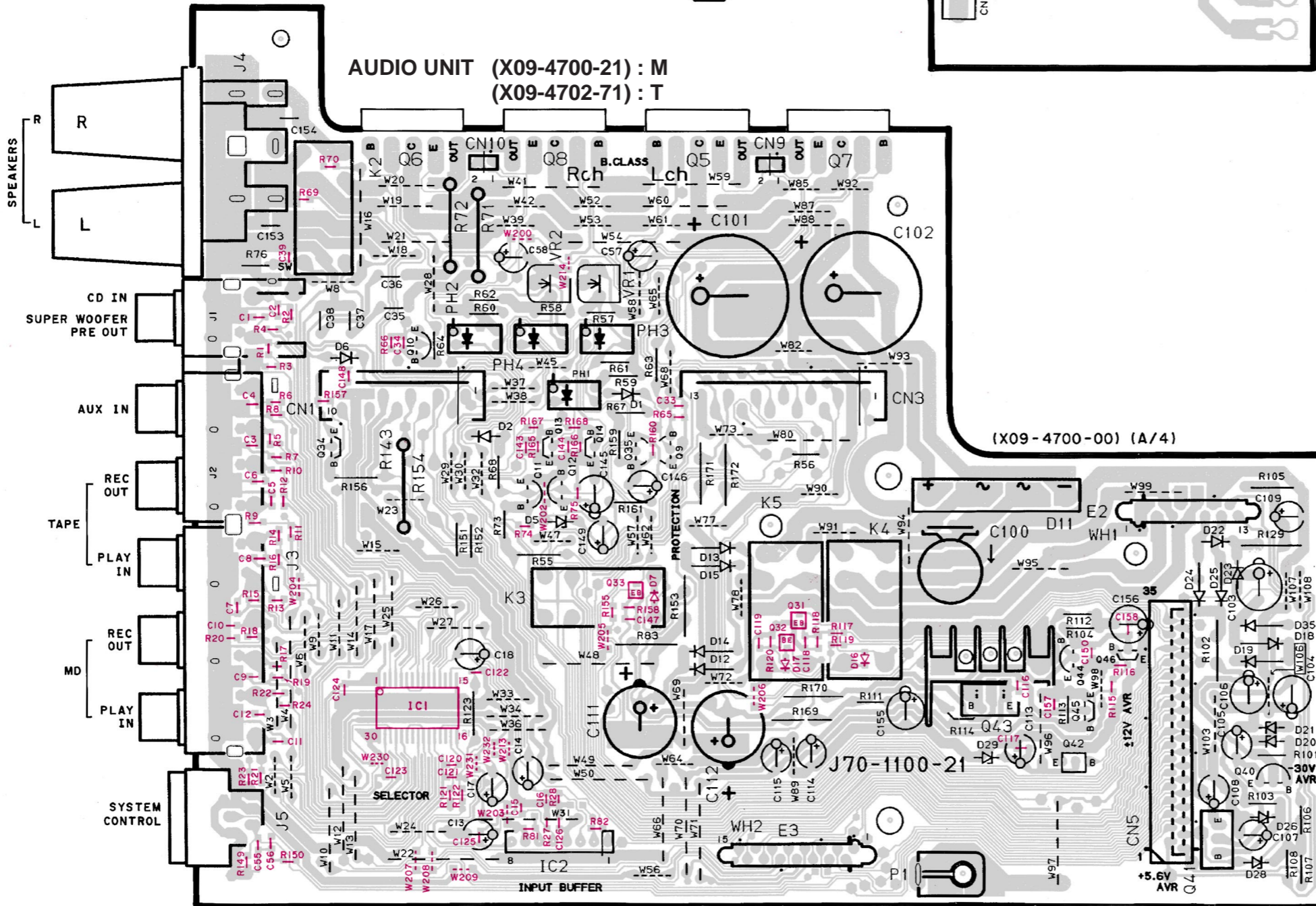
(X09) (B/4)



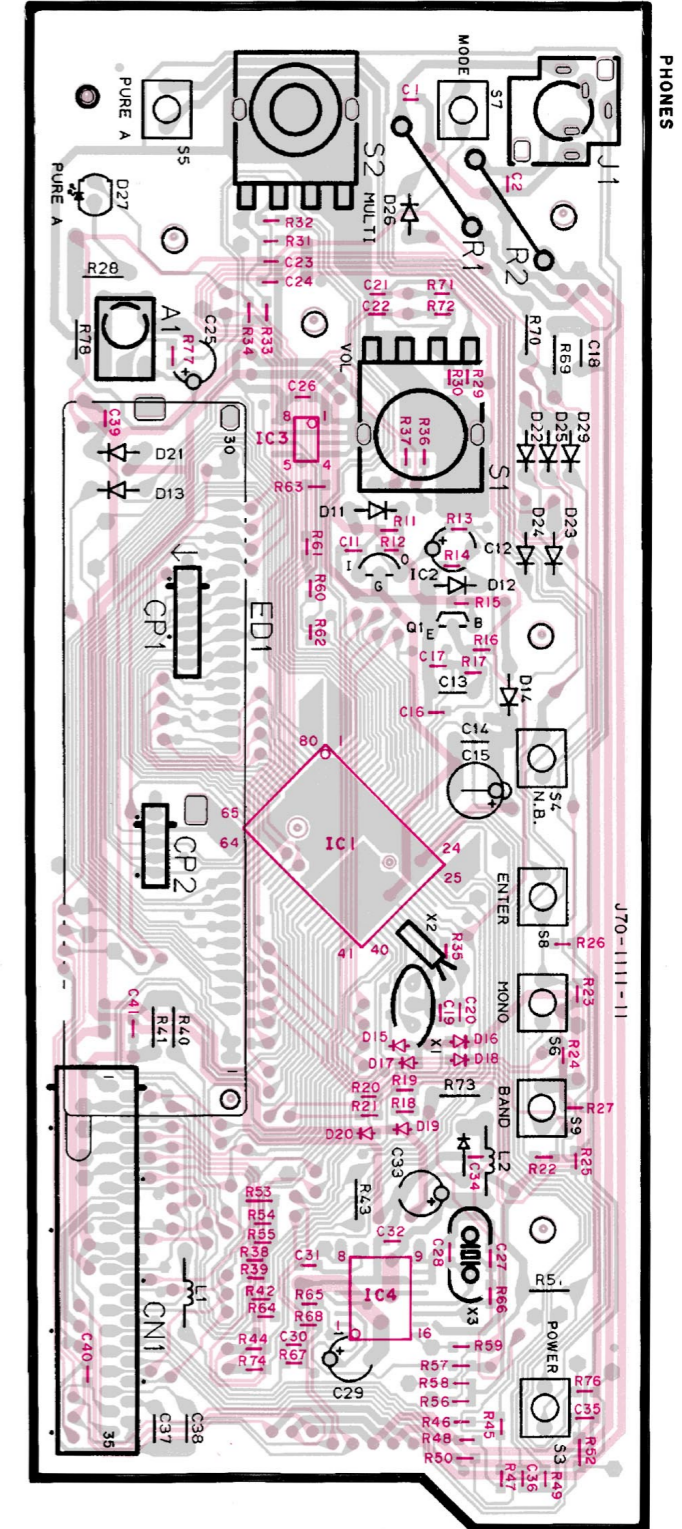
(X09) (C/4)



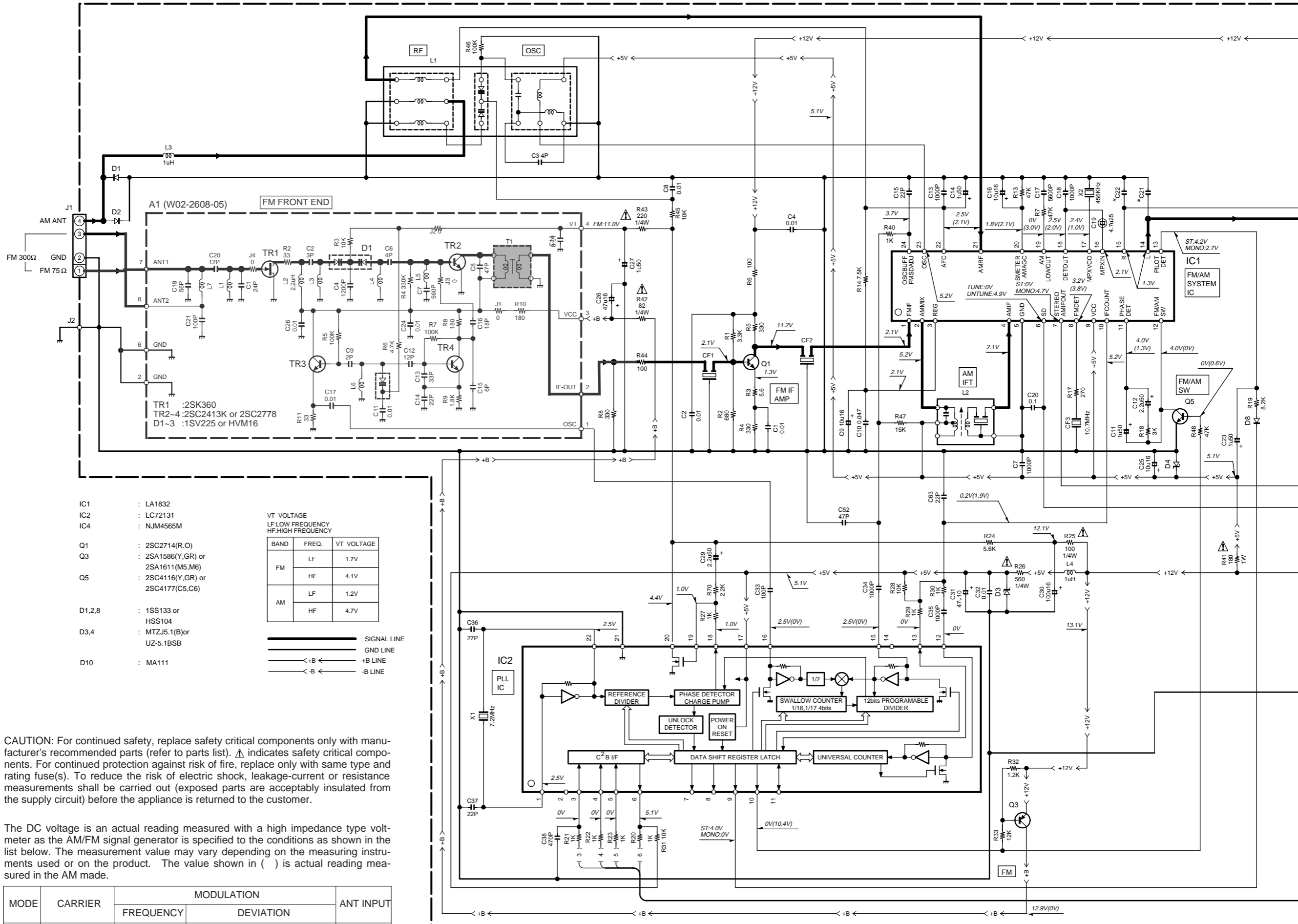
AUDIO UNIT (X09-4700-21) : M
(X09-4702-71) : T



DISPLAY UNIT
(X14-4560-21) : M
(X14-4562-71) : T



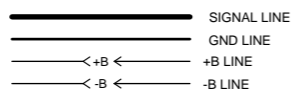
TUNER UNIT (X05-4600-72) : M



- IC1 : LA1832
- IC2 : LC72131
- IC4 : NJM4565M
- Q1 : 2SC2714(R.O)
- Q3 : 2SA1586(Y,GR) or 2SA1611(M5,M6)
- Q5 : 2SC4116(Y,GR) or 2SC4177(C5,C6)
- D1,2,8 : 1SS133 or HSS104
- D3,4 : MTZJ5.1(B) or UZ-5.1BSB
- D10 : MA111

VT VOLTAGE
LF:LOW FREQUENCY
HF:HIGH FREQUENCY

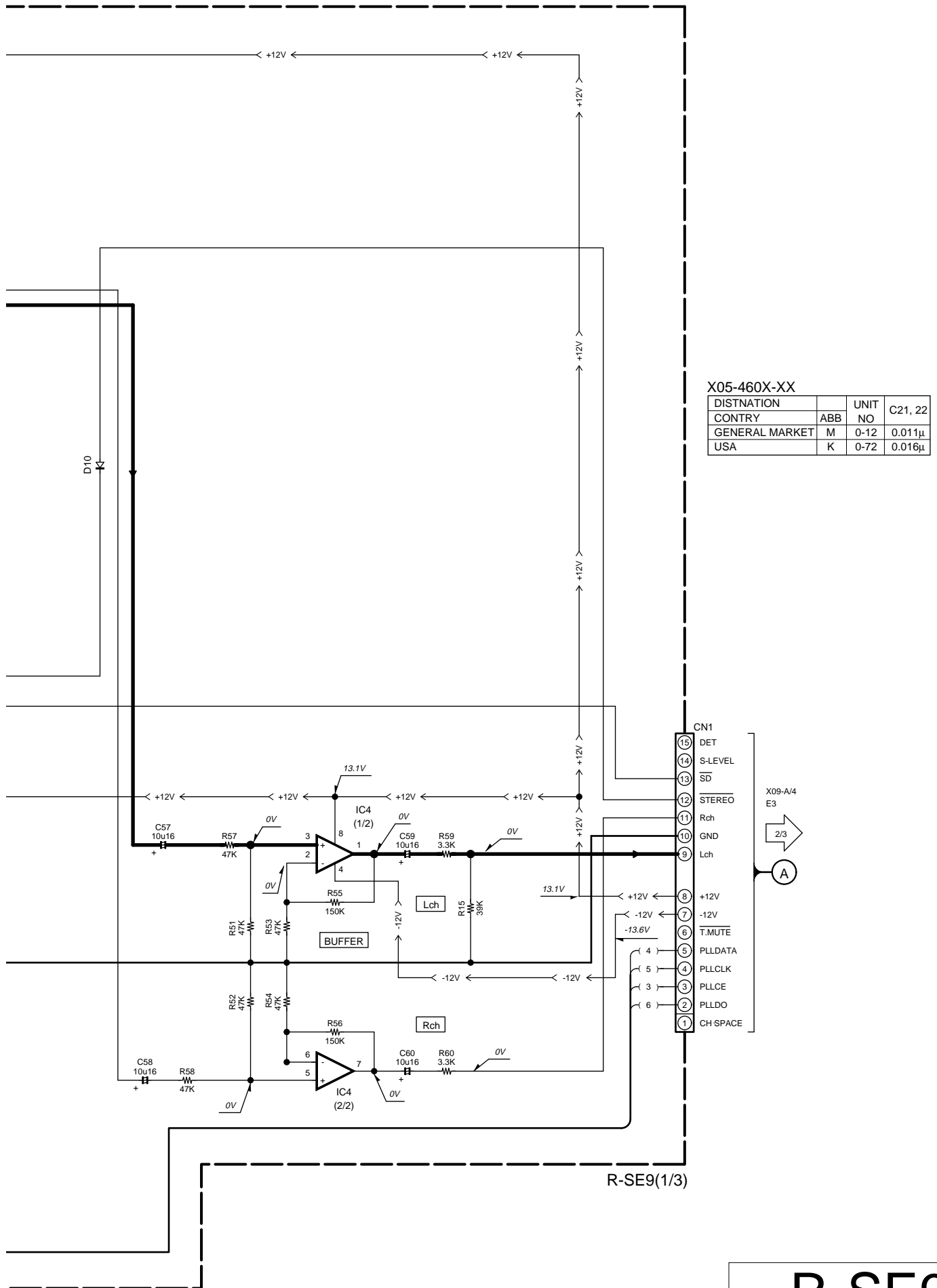
BAND	FREQ.	VT VOLTAGE
FM	LF	1.7V
	HF	4.1V
AM	LF	1.2V
	HF	4.7V



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 made.

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

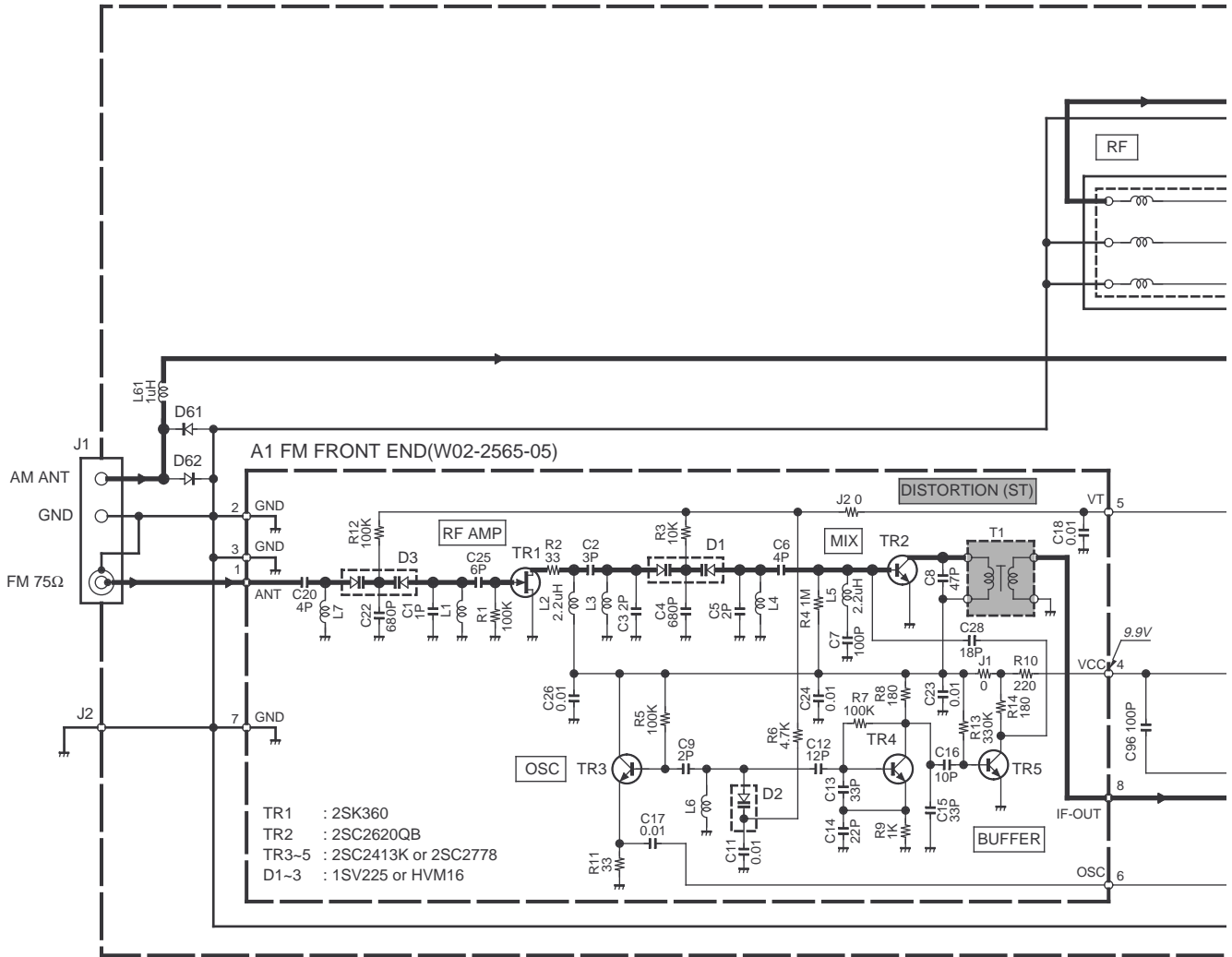


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Y05-3471-21

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TUNER UNIT (X05-4622-71) : T



- TR1 : 2SK360
- TR2 : 2SC2620QB
- TR3-5 : 2SC2413K or 2SC2778
- D1-3 : 1SV225 or HVM16

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

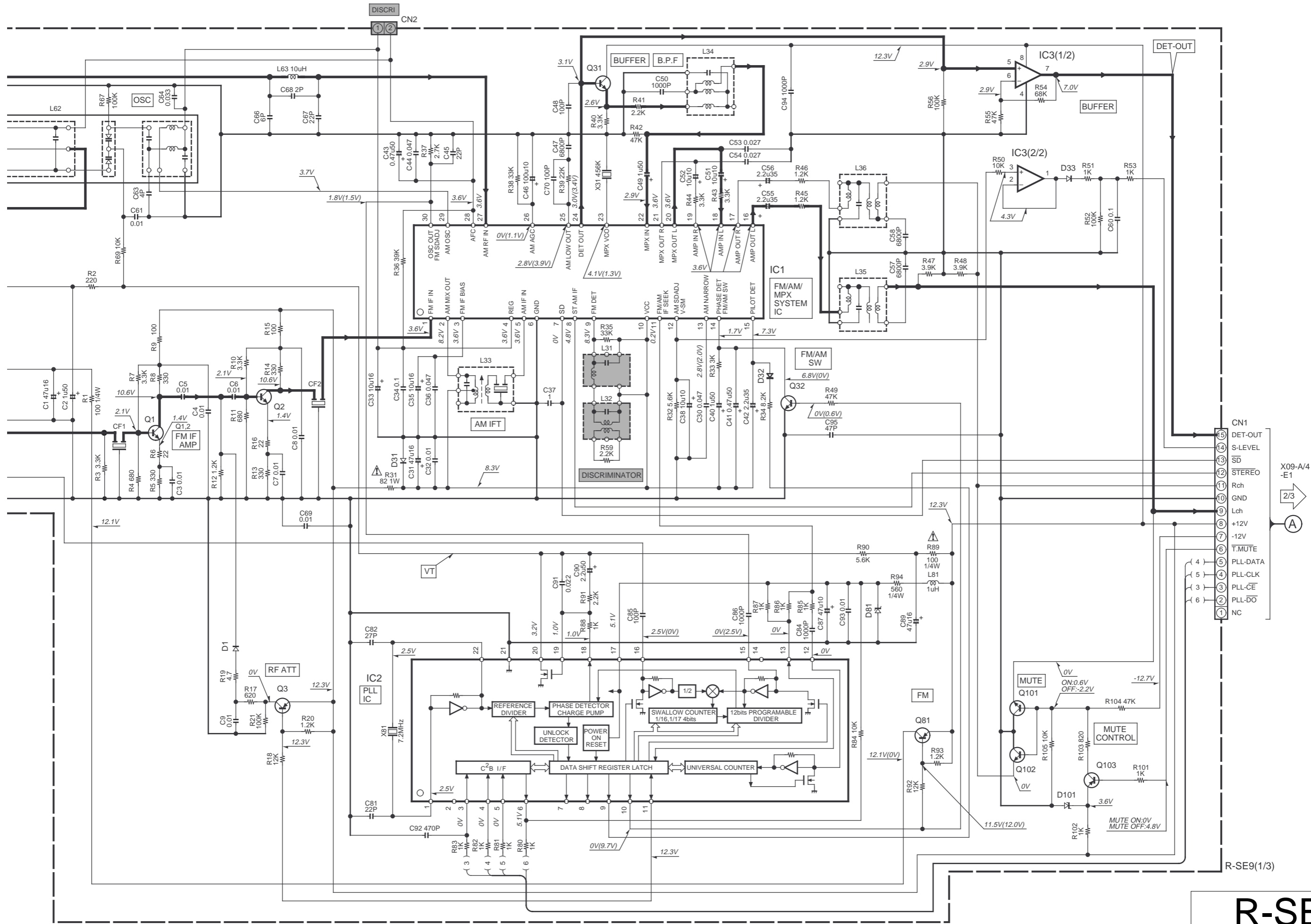
- D1,33,61,62 : 1SS133 or HSS104
- D31 : MTZJ8.2(B) or UZ-8.2BSB
- D32 : MA111
- D81 : MTZJ5.1(B) or UZ-5.1BSB
- D101 : MTZJ3.3(B) or UZ-3.3BSB

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

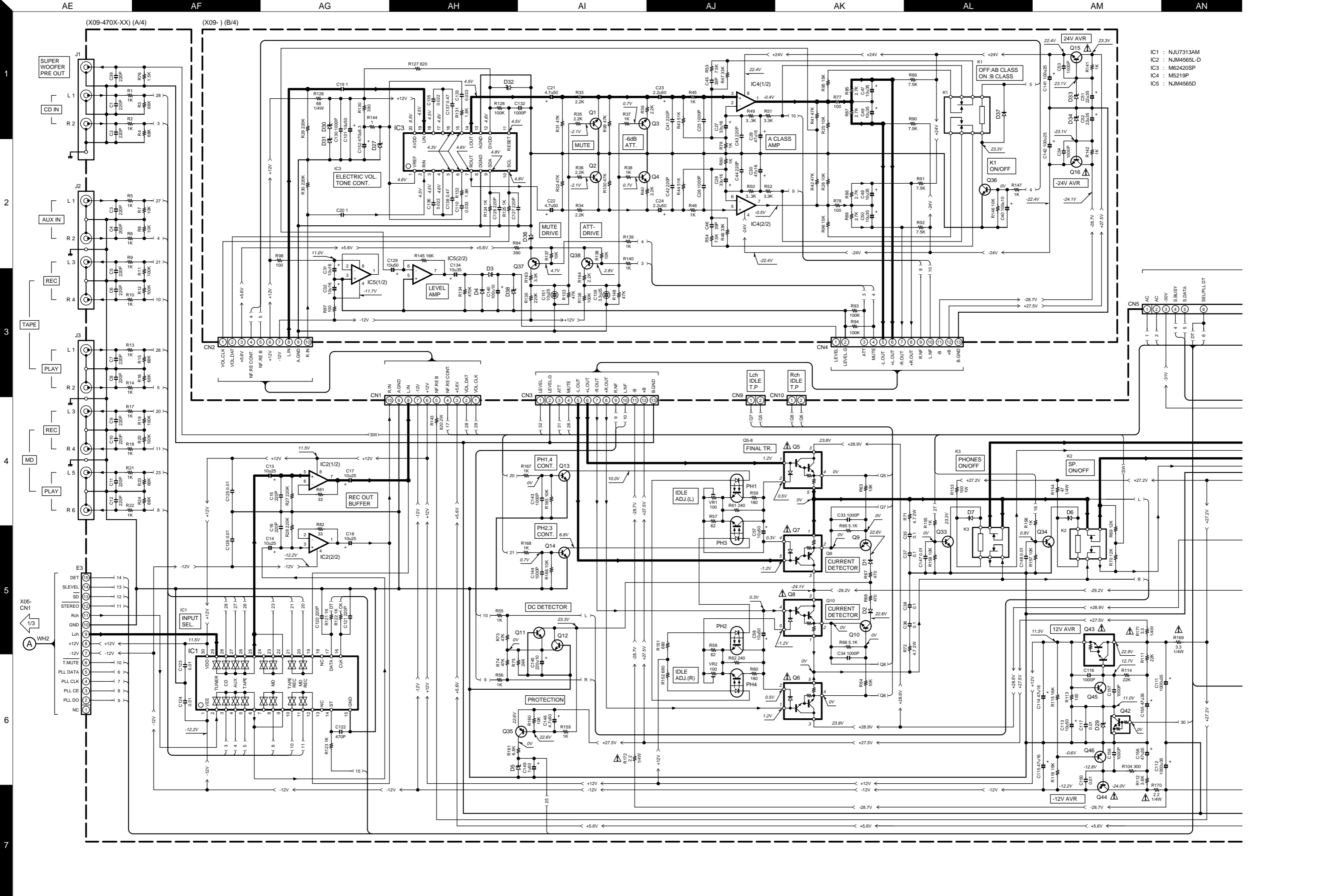
MODE	CARRIER	MODULATION		ANT INPUT
		FREQUENCY	DEVIATION	
FM	98MHz	1kHz	STEREO 67.5kHz 7.5kHz(Pilot)	60dB
AM	1000(999)kHz	400Hz	MONO 30% MOD	60dB



R-SE9

Y05-3471-21

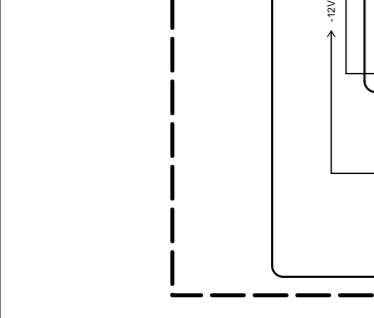
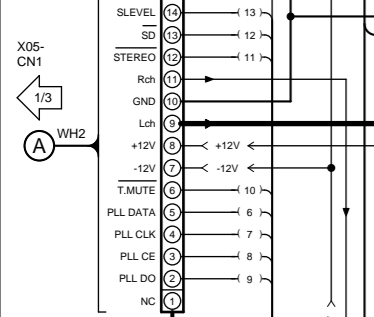
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- IC1 : NJU7313AM
- IC2 : NJM4565L-D
- IC3 : M62420SP
- IC4 : M5219P
- IC5 : NJM4565D

(X09-470X-XX) (A/4)

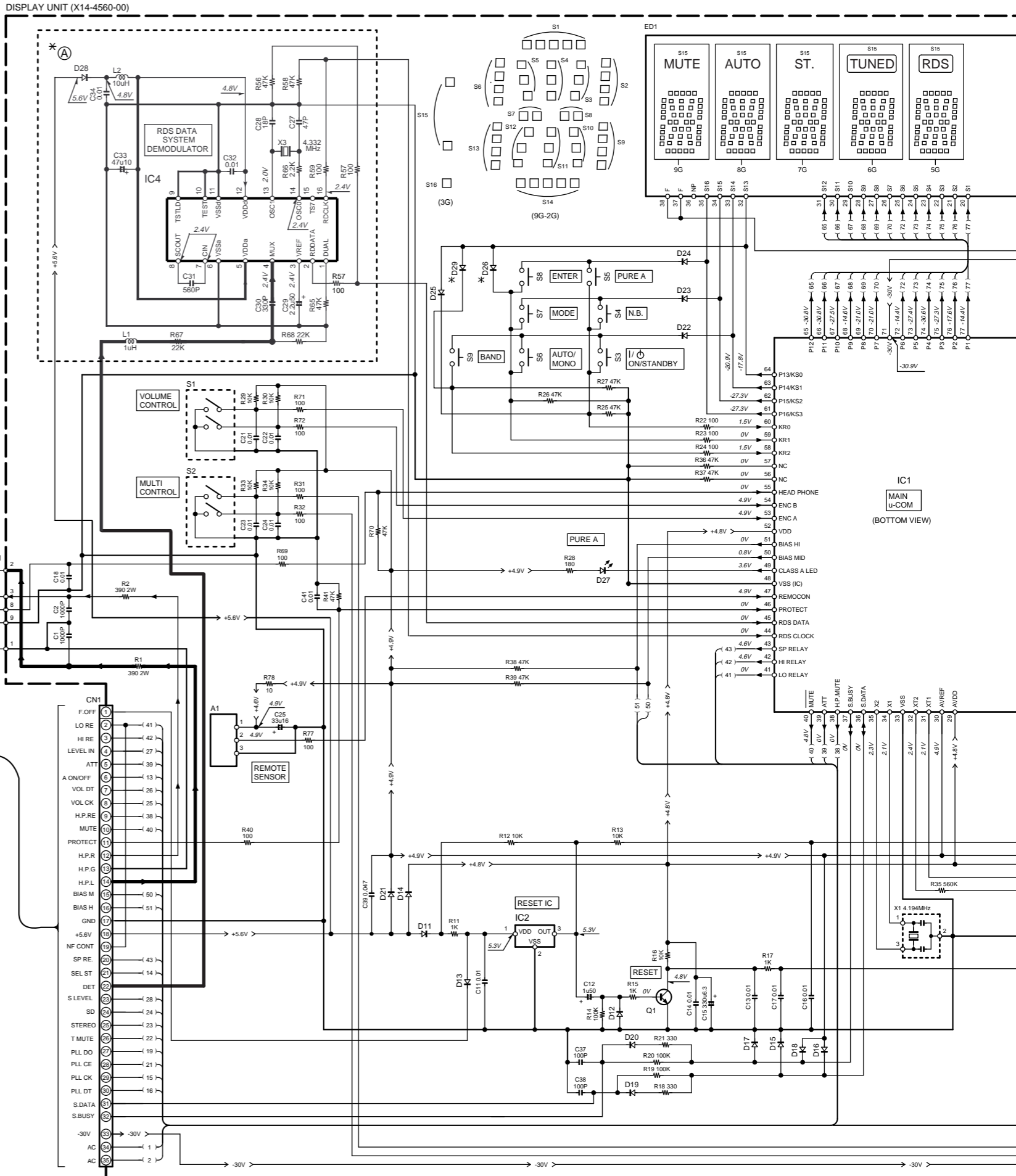
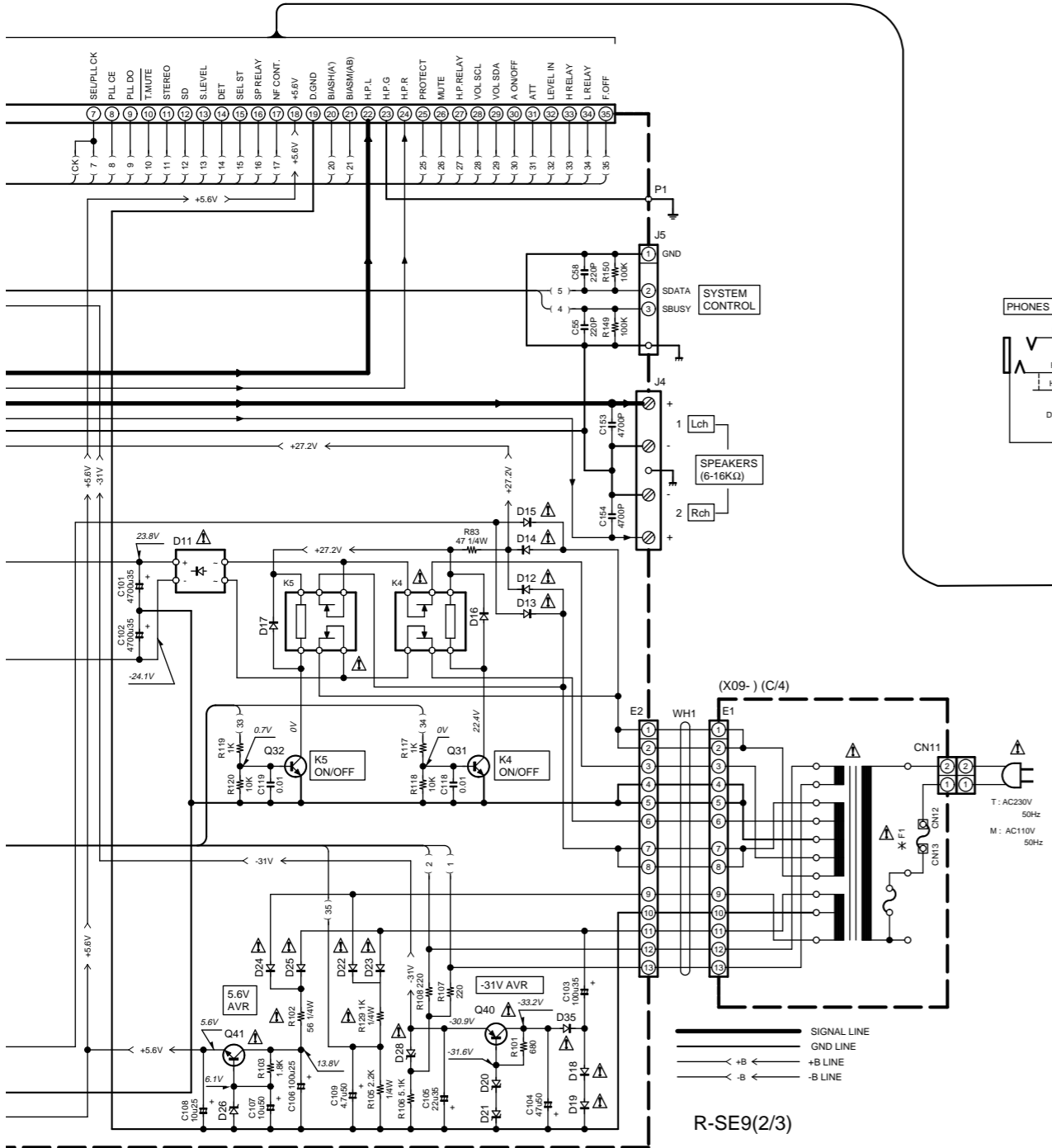
(X09-) (B/4)



- | | | | | |
|--------------|--------------------|-----------------------|-------|---------------|
| Q1-4 | : 2SC2878(B) | D1-4,6,22,23,37 | PH1-4 | : T95-0149-05 |
| Q5,6 | : TRAIR2N | | | |
| Q7,8 | : TRAIR2P | | | |
| Q9,10 | : 2SC1845(F,E) | D5,27,30-32,38 | | |
| Q11-14,34,36 | | | | |
| | : 2SC2458(Y,GR) or | | | |
| | 2SC3311A(Q,R) | D7,16,17 | | |
| Q15 | : 2SC2003(L,K) | D11 | | |
| Q16 | : 2SA954(L,K) | | | |
| Q31-33 | : 2SC4097(Q,R) | D12-15,18,19,24,25,35 | | |
| Q35 | : 2SA992(F,E) | | | |
| Q37,38,46 | : 2SA1048(Y,GR) or | D20,21 | | |
| | 2SA1309A(Q,R) | D26 | | |
| Q40,44 | : 2SA1534A(R,S) | D28 | | |
| Q41 | : 2SD2525 | D29 | | |
| Q42 | : UN4219 or | D33,34 | | |
| | DTC113ZSA | D36 | | |
| Q43 | : 2SD2589 | | | |
| Q45 | : 2SC2458(Y,GR) | | | |

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.

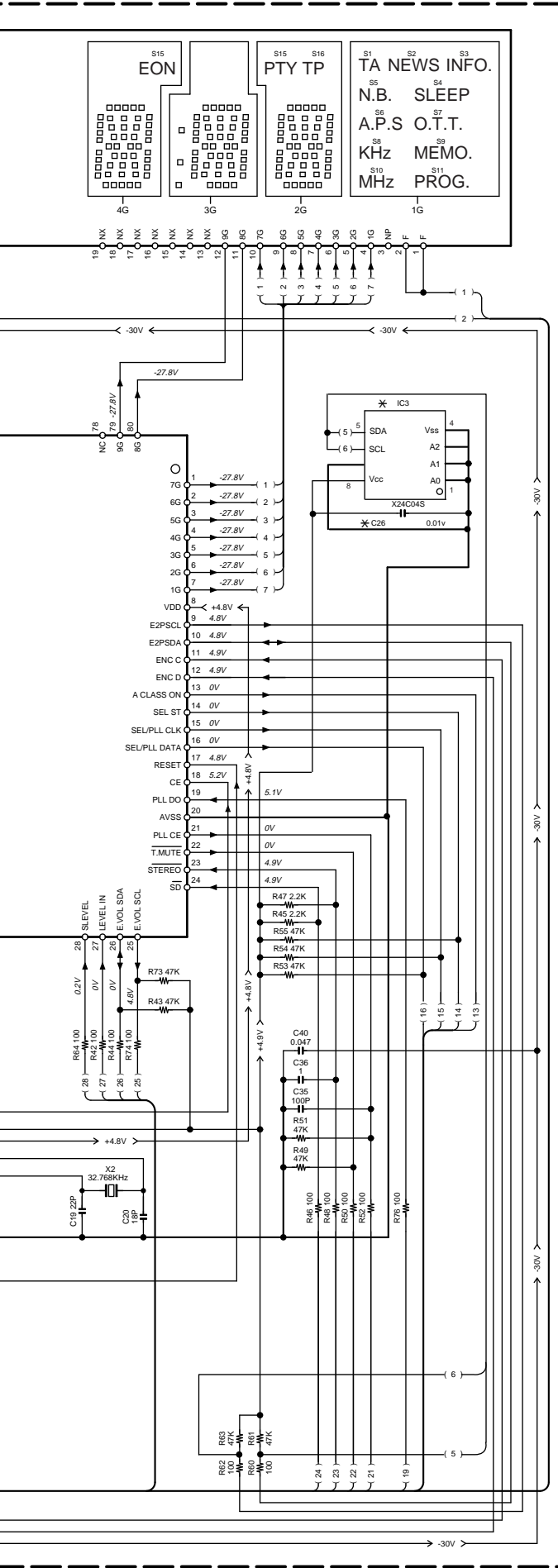
The DC voltage is an actual reading measured with a high impedance type voltmeter with a cassette loaded at playback mode. The measurement value may vary depending on the measuring instruments used or on the product. Bias circuit DC voltage is measured while in the record mode.



R-SE9(2/3)

DISPLAY UNIT (X14-4560-00)

IC1 MAIN u-COM (BOTTOM VIEW)



R-SE9(3/3)

IC1 : UPD78045FGF059
 IC2 : S-806D-Z IC4 : SAA6579T
 IC4 : SAA6579T
 D11-14,21-26,28,29 : 1S5131 or HSS104A
 D15-20 : MA111
 D27 : B30-2515-05
 Q1 : 2SC1740S(Q,R) or 2SC2785(F,E)
 ED1 : FIP9GM6R
 A1 : W02-2561-05

X14-456-XX

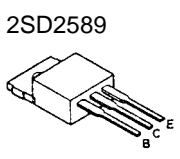
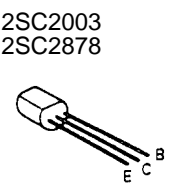
DISTINATION	UNIT	IC3	C26	D26	D29
CONTRY	ABB.	NO	NO	NO	YES
GENERAL MARKET	M	0-21	NO	NO	YES
UK	T	2-71	YES	YES	NO

X09-470X-XX

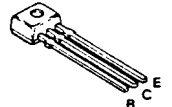
DISTINATION	UNIT	F1
CONTRY	ABB.	NO
GENERAL MARKET	M	0-21
UK	T	2-71

— SIGNAL LINE
 — GND LINE
 — +B LINE
 — -B LINE

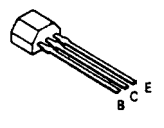
2SA1534A
 2SA954
 2SA992
 2SC1845



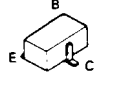
2SC2785



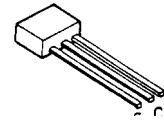
2SA1048
 2SC1740S
 2SC2458



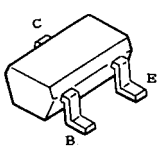
2SA1586
 2SC2714
 2SC4116



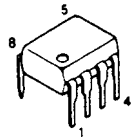
UN4219
 2SA1309A
 2SC3311A



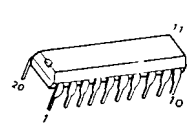
2SD1757K



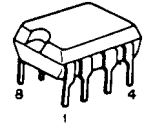
NJM4565D



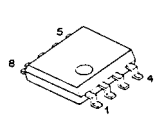
M62420SP



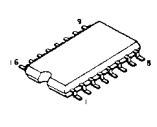
M5219P



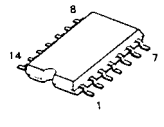
NJM4565M



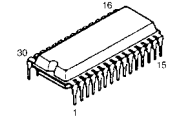
SAA6579T



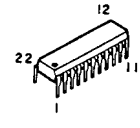
M5223FP



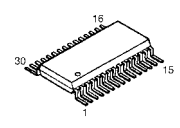
LA1836



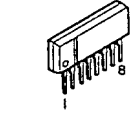
LC72131



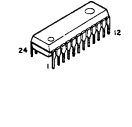
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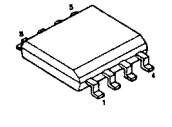
NJM4565L-D



LA1832



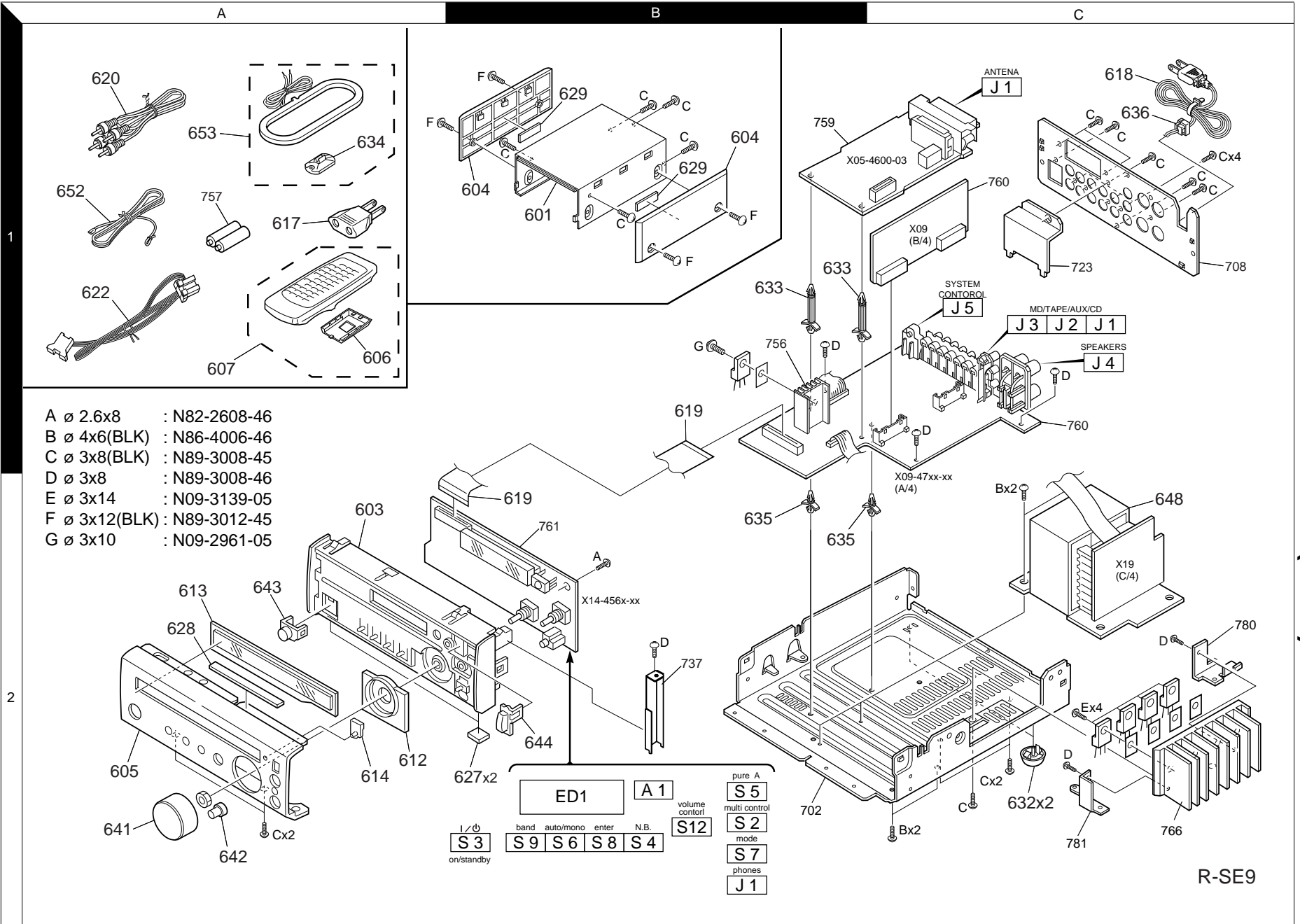
X24C04S



R-SE9

KENWOOD

Y05-3471-21



- A \varnothing 2.6x8 : N82-2608-46
- B \varnothing 4x6(BLK) : N86-4006-46
- C \varnothing 3x8(BLK) : N89-3008-45
- D \varnothing 3x8 : N89-3008-46
- E \varnothing 3x14 : N09-3139-05
- F \varnothing 3x12(BLK) : N89-3012-45
- G \varnothing 3x10 : N09-2961-05

R-SE9

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1

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
R-SE9						
601	1B		A01-3463-11	METALLIC CABINET		
603	2A		A22-1772-01	SUB PANEL		
604	1B		A50-1303-02	SIDE PLATE		
605	2A	*	A60-1224-02	PANEL	T	
605	2A	*	A60-1265-02	PANEL	M	
606	1A		A09-0374-08	BATTERY COVER		
607	1A		A70-1154-05	REMOTE CONTROLLER ASSY(RC-SE9)	M	
607	1A	*	A70-1155-05	REMOTE CONTROL ASSY RC-SE9(E)	T	
612	2A		B07-2362-03	ESCUTCHEON		
613	2A		B10-2369-03	FRONT GLASS		
614	2A		B12-0317-04	INDICATOR		
-			B46-0310-03	WARRANTY CARD		
-		*	B58-1562-04	CAUTION CARD (P1,PRA,A5,1)		
-		*	B60-3397-00	INSTRUCTION MANUAL (ENGLISH)	T	
-		*	B60-3398-00	INSTRUCTION MANUAL (TAIWAN)	M	
△ 617	1A		E03-0115-05	AC PLUG ADAPTER	M	
△ 618	1C		E30-2592-15	AC POWER CORD	M	
△ 618	1C		E30-2721-05	AC POWER CORD	T	
619	1B		E35-1944-05	FLAT CABLE		
620	1A		E30-0615-05	AUDIO CORD		
622	1A		E30-2628-05	CORD WITH CONNECTOR		
627	2B		G11-2325-04	CUSHION		
628	2A		G11-2352-04	CUSHION		
629	1B		G11-2353-04	CUSHION		
-			H10-7351-02	POLYSTYRENE FOAMED FIXTURE		
-			H10-7352-02	POLYSTYRENE FOAMED FIXTURE		
-		*	H12-2358-04	PACKING FIXTURE	T	
-			H25-1579-04	PROTECTION BAG	M	
-			H25-1581-04	PROTECTION BAG (1579)	T	
-			H25-1595-04	PROTECTION BAG		
-		*	H50-2493-04	ITEM CARTON CASE	M	
-		*	H50-2565-04	ITEM CARTON CASE	T	
632	2C		J02-0370-05	FOOT		
633	1B		J19-3208-05	UNIT HOLDER		
634	1A		J19-3645-05	ANTENNA STAND		
△ 635	2B		J19-5878-05	UNIT HOLDER		
636	1C		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
641	2A		K29-6738-04	KNOB		
642	2A		K29-6739-04	KNOB		
643	2A		K29-6741-04	KNOB		
644	2A		K29-6751-04	KNOB		
648	2C	*	L07-2414-05	POWER TRANSFORMER	T	
648	2C	*	L07-2433-05	POWER TRANSFORMER	M	
652	1A		T90-0182-15	LEAD WIRE ANTENNA	M	
652	1A		T90-0806-05	LEAD WIRE ANTENNA	T	
653	1A		T90-0820-05	LOOP ANTENNA		
TUNER UNIT (X05-4600-72) : M						
C1 ,2			CK73FB1H103K	CHIP C 0.010UF K		

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2

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
C3			CC73FCH1H040C	CHIP C 4.0PF C		
C4			CK73FB1H103K	CHIP C 0.010UF K		
C5			CK73FB1H102K	CHIP C 1000PF K		
C8			CK73FB1H103K	CHIP C 0.010UF K		
C9			CE04KW1C100M	ELECTRO 10UF 16WV		
C10			CK73FB1H473K	CHIP C 0.047UF K		
C11			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C12			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C13			CK73FB1H102K	CHIP C 1000PF K		
C14			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C15			CC73FCH1H220J	CHIP C 22PF J		
C16			CE04KW1C100M	ELECTRO 10UF 16WV		
C17			CK73FB1H562K	CHIP C 5600PF K		
C18			CK73FB1H102K	CHIP C 1000PF K		
C19			CE04HW1E4R7M	NP-ELEC 4.7UF 25WV		
C20			CK73FB1E104K	CHIP C 0.10UF K		
C21 ,22			CQ93FMG1H113J	MYLAR 0.011UF J		
C23			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C25			CE04KW1C100M	ELECTRO 10UF 16WV		
C26			CE04KW1C470M	ELECTRO 47UF 16WV		
C27			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C28			CQ93FMG1H223J	MYLAR 0.022UF J		
C29			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C30			CE04KW1C101M	ELECTRO 100UF 16WV		
C31			CE04KW1A470M	ELECTRO 47UF 10WV		
C32			CK73FB1H103K	CHIP C 0.010UF K		
C33			CC73FSL1H101J	CHIP C 100PF J		
C34 ,35			CK73FB1H102K	CHIP C 1000PF K		
C36			CC73FCH1H270J	CHIP C 27PF J		
C37			CC73FCH1H220J	CHIP C 22PF J		
C38			CK73FB1H471K	CHIP C 470PF K		
C52			CC73FSL1H470J	CHIP C 47PF J		
C57 -60			CE04KW1C100M	ELECTRO 10UF 16WV		
C63			CC73FCH1H220J	CHIP C 22PF J		
CN1			E40-4609-05	PIN ASSY		
J1			E20-0476-05	LOCK TERMINAL BOARD(4P)		
CF1 ,2			L72-0531-05	CERAMIC FILTER		
CF3			L72-0593-05	CERAMIC FILTER		
L1			L39-1348-05	COMBINATION COIL		
L2			L30-0911-05	AM IFT		
L3 ,4			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
X1			L77-2185-05	CRYSTAL RESONATOR		
X2			L78-0637-05	RESONATOR (456KHZ)		
R1			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R2			RK73FB2A681J	CHIP R 680 J 1/10W		
R3			RK73FB2A5R6J	CHIP R 5.6 J 1/10W		
R4 ,5			RK73FB2A331J	CHIP R 330 J 1/10W		
R6			RK73FB2A101J	CHIP R 100 J 1/10W		
R7			RK73FB2A473J	CHIP R 47K J 1/10W		
R8			RK73FB2A331J	CHIP R 330 J 1/10W		
R13			RK73FB2A473J	CHIP R 47K J 1/10W		
R15 ,16			RK73FB2A393J	CHIP R 39K J 1/10W		
R17			RK73FB2A271J	CHIP R 270 J 1/10W		

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PARTS LIST

R-SE9

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3

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
R18			RK73FB2A302J	CHIP R	3.0K	J 1/10W
R19			RK73FB2A822J	CHIP R	8.2K	J 1/10W
R20 -23			RK73FB2A102J	CHIP R	1.0K	J 1/10W
R24			RK73FB2A562J	CHIP R	5.6K	J 1/10W
△ R25			RD14NB2E101J	RD	100	J 1/4W
△ R26			RD14NB2E561J	RD	560	J 1/4W
R27			RK73FB2A102J	CHIP R	1.0K	J 1/10W
R28			RK73FB2A103J	CHIP R	10K	J 1/10W
R29 ,30			RK73FB2A102J	CHIP R	1.0K	J 1/10W
R31			RK73FB2A103J	CHIP R	10K	J 1/10W
R32			RK73FB2A122J	CHIP R	1.2K	J 1/10W
R33			RK73FB2A123J	CHIP R	12K	J 1/10W
△ R41			RS14KB3A181J	FL-PROOF RS	180	J 1W
△ R42			RD14NB2E820J	RD	82	J 1/4W
△ R43			RD14NB2E221J	RD	220	J 1/4W
R44			RK73FB2A101J	CHIP R	100	J 1/10W
R46			RK73FB2A104J	CHIP R	100K	J 1/10W
R47			RK73FB2A153J	CHIP R	15K	J 1/10W
R48			RK73FB2A473J	CHIP R	47K	J 1/10W
R51 -54			RK73FB2A473J	CHIP R	47K	J 1/10W
R55 ,56			RK73FB2A154J	CHIP R	150K	J 1/10W
R59 ,60			RK73FB2A332J	CHIP R	3.3K	J 1/10W
W101-106			R92-0670-05	CHIP R	0 OHM	
W108-114			R92-0670-05	CHIP R	0 OHM	
W201-211			R92-0679-05	CHIP R	0 OHM	
D1 ,2			HSS104	DIODE		
D1 ,2			1SS133	DIODE		
D3 ,4			MTZJ5.1(B)	ZENER DIODE		
D3 ,4			UZ-5.1BSB	ZENER DIODE		
D8			HSS104	DIODE		
D8			1SS133	DIODE		
D10			MA111	DIODE		
IC1			LA1832	ANALOGUE IC		
IC2			LC72131	MOS-IC		
IC4			NJM4565M	IC(OP AMP X2)		
Q1			2SC2714(R,O)	TRANSISTOR		
Q3			2SA1586(Y,GR)	TRANSISTOR		
Q3			2SA1611(M5,M6)	TRANSISTOR		
Q5			2SC4116(Y,GR)	TRANSISTOR		
Q5			2SC4177(L5,L6)	TRANSISTOR		
A1			W02-2608-05	FM FRONT-END ASSY		
TUNER UNIT (X05-4622-71) : T						
C1			CE04KW1C470M	ELECTRO	47UF	16WV
C2			CE04KW1H010M	ELECTRO	1.0UF	50WV
C3 -8			CK73FB1H103K	CHIP C	0.010UF	K
C9			C91-0769-05	CERAMIC	0.010UF	K
C30			CK73EB1E473K	CHIP C	0.047UF	K
C31			CE04KW1C470M	ELECTRO	47UF	16WV
C32			CK73FB1H103K	CHIP C	0.010UF	K
C33			CE04KW1C100M	ELECTRO	10UF	16WV
C34			CK73EB1E104K	CHIP C	0.10UF	K
C35			CE04KW1C100M	ELECTRO	10UF	16WV
C36			CK73FB1E473K	CHIP C	0.047UF	K
C37			CK73EF1E105Z	CHIP C	1.0UF	Z

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4

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
C38			C90-3217-05	ELECTRO	10UF	10WV
C40			C90-3253-05	ELECTRO	1.0UF	50WV
C41			C90-3251-05	ELECTRO	0.47UF	50WV
C42			C90-3240-05	ELECTRO	2.2UF	35WV
C43			CE04KW1HR47M	ELECTRO	0.47UF	50WV
C44			CK73FB1E473K	CHIP C	0.047UF	K
C45			CC73FCH1H220J	CHIP C	22PF	J
C46			CE04KW1A101M	ELECTRO	100UF	10WV
C47			CK73FB1H682K	CHIP C	6800PF	K
C48			CC73FSL1H101J	CHIP C	100PF	J
C49			C90-3253-05	ELECTRO	1.0UF	50WV
C50			CK73FB1H102K	CHIP C	1000PF	K
C51 ,52			C90-3217-05	ELECTRO	10UF	10WV
C53 ,54			CK73FB1H273K	CHIP C	0.027UF	K
C55 ,56			C90-3240-05	ELECTRO	2.2UF	35WV
C57 ,58			CK73FB1H682K	CHIP C	6800PF	K
C60			CK73FB1E104K	CHIP C	0.10UF	K
C61			CK73FB1H103K	CHIP C	0.010UF	K
C63			CC73FCH1H040C	CHIP C	4.0PF	C
C64			CK73FB1H333K	CHIP C	0.033UF	K
C66			CC73FCH1H060D	CHIP C	6.0PF	D
C67			CC73FCH1H220J	CHIP C	22PF	J
C68			CC73FSL1H020C	CHIP C	2.0PF	C
C69			CK73FB1H103K	CHIP C	0.010UF	K
C70			CC73FSL1H101J	CHIP C	100PF	J
C81			CC73FCH1H220J	CHIP C	22PF	J
C82			CC73FCH1H270J	CHIP C	27PF	J
C84			CK73FB1H102K	CHIP C	1000PF	K
C85			C91-0745-05	CERAMIC	100PF	K
C86			C91-0757-05	CERAMIC	1000PF	K
C87			CE04KW1A470M	ELECTRO	47UF	10WV
C89			CE04KW1C470M	ELECTRO	47UF	16WV
C90			CE04KW1H2R2M	ELECTRO	2.2UF	50WV
C91			CQ93FMG1H223J	MYLAR	0.022UF	J
C92			CC73FSL1H471J	CHIP C	470PF	J
C93			CK73FB1H103K	CHIP C	0.010UF	K
C94			CK73FB1H102K	CHIP C	1000PF	K
C95			CC73FCH1H470J	CHIP C	47PF	J
C96			CC73FSL1H101J	CHIP C	100PF	J
CN1			E40-4609-05	PIN ASSY		
CN2			E40-4871-05	PIN ASSY		
J1			E20-0321-05	LOCK TERMINAL BOARD(2P,F)		
CF1 ,2			L72-0536-05	CERAMIC FILTER		
L31			L30-0929-05	FM IFT		
L32			L30-0930-05	FM IFT		
L33			L30-0911-05	AM IFT		
L34			L79-1237-05	LC FILTER		
L35 ,36			L79-1236-05	LC FILTER		
L61			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
L62			L39-1348-05	COMBINATION COIL		
L63			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)		
L81			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
X31			L78-0637-05	RESONATOR (456KHZ)		
X81			L77-2185-05	CRYSTAL RESONATOR		

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5

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R1			RD14NB2E101J	RD	100	J 1/4W
R2			RK73EB2B221J	CHIP R	220	J 1/8W
R3			RK73FB2A332J	CHIP R	3.3K	J 1/10W
R4			RK73FB2A681J	CHIP R	680	J 1/10W
R5			RK73FB2A331J	CHIP R	330	J 1/10W
R6			RK73FB2A220J	CHIP R	22	J 1/10W
R7			RK73FB2A332J	CHIP R	3.3K	J 1/10W
R8			RK73FB2A331J	CHIP R	330	J 1/10W
R10			RK73FB2A332J	CHIP R	3.3K	J 1/10W
R11			RK73FB2A681J	CHIP R	680	J 1/10W
R12			RK73FB2A122J	CHIP R	1.2K	J 1/10W
R13, 14			RK73FB2A331J	CHIP R	330	J 1/10W
R15			RK73FB2A101J	CHIP R	100	J 1/10W
R16			RK73FB2A220J	CHIP R	22	J 1/10W
R17			RK73FB2A621J	CHIP R	620	J 1/10W
R18			RK73FB2A123J	CHIP R	12K	J 1/10W
R19			RK73FB2A4R7J	CHIP R	4.7	J 1/10W
R20			RK73FB2A122J	CHIP R	1.2K	J 1/10W
R31			RS14KB3A820J	FL-PROOF RS	82	J 1W
R32			RK73EB2B562J	CHIP R	5.6K	J 1/8W
R33			RK73FB2A302J	CHIP R	3.0K	J 1/10W
R34			RK73FB2A822J	CHIP R	8.2K	J 1/10W
R35			RK73FB2A333J	CHIP R	33K	J 1/10W
R36			RK73FB2A393J	CHIP R	39K	J 1/10W
R37			RK73FB2A272J	CHIP R	2.7K	J 1/10W
R38			RK73FB2A333J	CHIP R	33K	J 1/10W
R39			RK73FB2A223J	CHIP R	22K	J 1/10W
R40			RK73FB2A332J	CHIP R	3.3K	J 1/10W
R41			RK73FB2A222J	CHIP R	2.2K	J 1/10W
R42			RK73FB2A473J	CHIP R	47K	J 1/10W
R43, 44			RK73FB2A332J	CHIP R	3.3K	J 1/10W
R45, 46			RK73FB2A122J	CHIP R	1.2K	J 1/10W
R47, 48			RK73FB2A392J	CHIP R	3.9K	J 1/10W
R49			RK73FB2A473J	CHIP R	47K	J 1/10W
R51			RK73FB2A102J	CHIP R	1.0K	J 1/10W
R52			RK73FB2A104J	CHIP R	100K	J 1/10W
R53			RK73FB2A102J	CHIP R	1.0K	J 1/10W
R54			RK73FB2A683J	CHIP R	68K	J 1/10W
R55			RK73FB2A473J	CHIP R	47K	J 1/10W
R56			RK73FB2A104J	CHIP R	100K	J 1/10W
R59			RK73FB2A222J	CHIP R	2.2K	J 1/10W
R67			RK73FB2A104J	CHIP R	100K	J 1/10W
R80			RK73EB2B102J	CHIP R	1.0K	J 1/8W
R81 -83			RK73FB2A102J	CHIP R	1.0K	J 1/10W
R84			RK73FB2A103J	CHIP R	10K	J 1/10W
R85 -88			RK73FB2A102J	CHIP R	1.0K	J 1/10W
R89			RD14NB2E101J	RD	100	J 1/4W
R90			RK73FB2A562J	CHIP R	5.6K	J 1/10W
R91			RK73FB2A222J	CHIP R	2.2K	J 1/10W
R92			RK73FB2A123J	CHIP R	12K	J 1/10W
R93			RK73FB2A122J	CHIP R	1.2K	J 1/10W
R94			RD14NB2E561J	RD	560	J 1/4W
R101, 102			RK73FB2A102J	CHIP R	1.0K	J 1/10W
R103			RK73FB2A821J	CHIP R	820	J 1/10W
R104			RK73FB2A473J	CHIP R	47K	J 1/10W

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
R105			RK73FB2A103J	CHIP R	10K	J 1/10W
W51 -54			R92-0670-05	CHIP R	0 OHM	
W56 -58			R92-0679-05	CHIP R	0 OHM	
W59 -61			R92-0670-05	CHIP R	0 OHM	
W62 -67			R92-0679-05	CHIP R	0 OHM	
W69 -71			R92-0679-05	CHIP R	0 OHM	
W80			R92-0670-05	CHIP R	0 OHM	
W81			R92-0679-05	CHIP R	0 OHM	
W83, 84			R92-0679-05	CHIP R	0 OHM	
D1			HSS104	DIODE		
D1			1SS133	DIODE		
D31			MTZJ8.2(B)	ZENER DIODE		
D31			UZ-8.2BSB	ZENER DIODE		
D32			MA111	DIODE		
D33			HSS104	DIODE		
D33			1SS133	DIODE		
D61, 62			HSS104	DIODE		
D61, 62			1SS133	DIODE		
D81			MTZJ5.1(B)	ZENER DIODE		
D81			UZ-5.1BSB	ZENER DIODE		
D101			MTZJ3.3(B)	ZENER DIODE		
D101			UZ-3.3BSB	ZENER DIODE		
IC1			LA1836	ANALOGUE IC		
IC2			LC72131	MOS-IC		
IC3			M5223FP	IC(OP AMP X4)		
Q1, 2			2SC2714(R,O)	TRANSISTOR		
Q3			2SA1586(Y,GR)	TRANSISTOR		
Q3			2SA1611(M5,M6)	TRANSISTOR		
Q31, 32			2SC4116(Y,GR)	TRANSISTOR		
Q31, 32			2SC4177(L5,L6)	TRANSISTOR		
Q81			2SA1586(Y,GR)	TRANSISTOR		
Q81			2SA1611(M5,M6)	TRANSISTOR		
Q101, 102			2SD1757K	TRANSISTOR		
Q103			2SA1586(Y,GR)	TRANSISTOR		
Q103			2SA1611(M5,M6)	TRANSISTOR		
A1			W02-2565-05	FM FRONT-END ASSY		
AUDIO UNIT (X09-470X-XX)						
C1 -12			CC73FCH1H221J	CHIP C	220PF	J
C13, 14			CE04KW1E100M	ELECTRO	10UF	25WV
C15, 16			CC73FCH1H221J	CHIP C	220PF	J
C17, 18			CE04KW1E100M	ELECTRO	10UF	25WV
C19, 20			CF92FV1H105J	MF-C	1.0UF	J
C21, 22			CE04KW1H4R7M	ELECTRO	4.7UF	50WV
C23, 24			CE04KW1H2R2M	ELECTRO	2.2UF	50WV
C25, 26			CC73FCH1H102J	CHIP C	1000PF	J
C27, 28			CE04KW1C330M	ELECTRO	33UF	16WV
C29, 30			CE04KW1C470M	ELECTRO	47UF	16WV
C31, 32			C90-3225-05	ELECTRO	10UF	16WV
C33, 34			CC73FSL1H102J	CHIP C	1000PF	J
C35 -38			CF92FV1H104J	MF-C	0.10UF	J
C39			CC73FCH1H221J	CHIP C	220PF	J
C40			C90-3270-05	ELECTRO	100UF	10WV
C41 -44			CC73FCH1H221J	CHIP C	220PF	J

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PARTS LIST

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C45, 46			CC73FCH1H390J	CHIP C 39PF J		
C47 -50			C90-3244-05	ELECTRO 10UF 35WV		
C51, 52			C90-3245-05	ELECTRO 22UF 35WV		
C53, 54			CC73FCH1H102J	CHIP C 1000PF J		
C55, 56			CC73FCH1H221J	CHIP C 220PF J		
C57, 58			CE04KW1H100M	ELECTRO 10UF 50WV		
C101, 102			C90-3744-05	ALMINIUM ELECTROLYTIC C.		
C103			CE04KW1V101M	ELECTRO 100UF 35WV		
C104			CE04KW1H470M	ELECTRO 47UF 50WV		
C105			CE04KW1V220M	ELECTRO 22UF 35WV		
C106			CE04KW1E101M	ELECTRO 100UF 25WV		
C107			CE04KW1H100M	ELECTRO 10UF 50WV		
C108			CE04KW1E100M	ELECTRO 10UF 25WV		
C109			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C110			CK73FB1E333K	CHIP C 0.033UF K		
C111, 112			CE04KW1V102M	ELECTRO 1000UF 35WV		
C113			CE04KW1H100M	ELECTRO 10UF 50WV		
C114, 115			CE04KW1C470M	ELECTRO 47UF 16WV		
C116			CK73FB1H102K	CHIP C 1000PF K		
C117-119			CK73FB1H103K	CHIP C 0.010UF K		
C120, 121			CC73FCH1H221J	CHIP C 220PF J		
C122			CC73FCH1H471J	CHIP C 470PF J		
C123-126			CK73FB1H103K	CHIP C 0.010UF K		
C127, 128			CC73FCH1H221J	CHIP C 220PF J		
C129			C90-3244-05	ELECTRO 10UF 35WV		
C130			CC73FSL1H102J	CHIP C 1000PF J		
C131			CE04KW1H100M	ELECTRO 10UF 50WV		
C132			CK45FB1H102K	CERAMIC 1000PF K		
C133			CK73FB1E333K	CHIP C 0.033UF K		
C134			C90-3244-05	ELECTRO 10UF 35WV		
C135, 136			CK73FB1H223K	CHIP C 0.022UF K		
C137, 138			CK73FF1C474Z	CHIP C 0.47UF Z		
C139			CE04HW1H3R3M	NP-ELEC 3.3UF 50WV		
C140			C90-3222-05	ELECTRO 100UF 10WV		
C141, 142			C90-3239-05	ELECTRO 100UF 25WV		
C143, 144			CC73FSL1H102J	CHIP C 1000PF J		
C145			CE04KW1A221M	ELECTRO 220UF 10WV		
C146			CE04KW1H4R7M	ELECTRO 4.7UF 50WV		
C147, 148			CK73FB1H103K	CHIP C 0.010UF K		
C149			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C150			CK73FB1H102K	CHIP C 1000PF K		
C151			CE04HW1E100M	NP-ELEC 10UF 25WV		
C152			CE04KW0J471M	ELECTRO 470UF 6.3WV		
C153, 154			CQ93FMG1H472J	MYLAR 4700PF J		
C155			C90-3303-05	ALMINIUM ELECTROLYTIC C.		
C156			CE04KW1V470M	ELECTRO 47UF 35WV		
C157, 158			CC73FCH1H102J	CHIP C 1000PF J		
CN1			E40-8164-05	PIN ASSY		
CN2			E40-8169-05	SOCKET FOR PIN ASSY		
CN3			E40-8166-05	PIN ASSY		
CN4			E40-8167-05	SOCKET FOR PIN ASSY		
CN5			E40-4922-05	FLAT CABLE CONNECTOR		
CN9, 10			E40-4871-05	PIN ASSY		
CN11			E40-4632-05	PIN ASSY		

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J1			E63-1014-05	PHONO JACK		
J2			E63-0046-15	PHONO JACK (2P)		
J3			E63-0047-15	PHONO JACK (3P)		
J4			E70-0061-05	SCREW TERMINAL BOARD		
J5			E08-0312-05	RECTANGULAR RECEPTACLE		
△ F1			F05-5016-05	FUSE (SEMKO) (250V T500MA)	T	
△ F1			F05-8013-05	FUSE (SEMKO) (250V T800MAL)	M	
CN12,13			J13-0075-05	FUSE CLIP		
R1, 2			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R3, 4			RK73FB2A683J	CHIP R 68K J 1/10W		
R5, 6			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R7, 8			RK73FB2A103J	CHIP R 10K J 1/10W		
R9, 10			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R11, 12			RK73FB2A104J	CHIP R 100K J 1/10W		
R13, 14			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R15, 16			RK73FB2A683J	CHIP R 68K J 1/10W		
R17, 18			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R19, 20			RK73FB2A104J	CHIP R 100K J 1/10W		
R21, 22			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R23, 24			RK73FB2A683J	CHIP R 68K J 1/10W		
R25, 26			RK73FB2A103J	CHIP R 10K J 1/10W		
R27, 28			RK73FB2A224J	CHIP R 220K J 1/10W		
R31, 32			RK73FB2A473J	CHIP R 47K J 1/10W		
R33-36			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R37			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R39, 40			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R43, 44			RK73FB2A513J	CHIP R 51K J 1/10W		
R45, 46			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R47, 48			RK73FB2A333J	CHIP R 33K J 1/10W		
R49-52			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R53, 54			RK73FB2A752J	CHIP R 7.5K J 1/10W		
R65, 66			RK73FB2A512J	CHIP R 5.1K J 1/10W		
R69, 70			RK73FB2A123J	CHIP R 12K J 1/10W		
R71, 72			RS14KB3D4R7J	FL-PROOF RS 4.7 J 2W		
R74			RK73FB2A473J	CHIP R 47K J 1/10W		
R75			RK73FB2A243J	CHIP R 24K J 1/10W		
R79, 80			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R81, 82			RK73FB2A330J	CHIP R 33 J 1/10W		
R83			RD14NB2E470J	RD 47 J 1/4W		
R85-88			RK73FB2A272J	CHIP R 2.7K J 1/10W		
R99, 100			RK73FB2A473J	CHIP R 47K J 1/10W		
△ R102			RD14NB2E560J	RD 56 J 1/4W		
R115			RK73FB2A163J	CHIP R 16K J 1/10W		
R116			RK73FB2A153J	CHIP R 15K J 1/10W		
R117			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R118			RK73FB2A103J	CHIP R 10K J 1/10W		
R119			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R120			RK73FB2A103J	CHIP R 10K J 1/10W		
R121, 122			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R126			RD14GB2E680J	FL-PROOF RD 68 J 1/4W		
R127			RK73FB2A821J	CHIP R 820 J 1/10W		
R128			RK73FB2A104J	CHIP R 100K J 1/10W		
△ R129			RD14NB2E102J	RD 1.0K J 1/4W		

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R131,132			RK73FB2A182J	CHIP R 1.8K	J	1/10W
R137,138			RK73FB2A103J	CHIP R 10K	J	1/10W
R143			RS14KB3D821J	FL-PROOF RS 820	J	2W
R144			RK73FB2A1R0J	CHIP R 1	J	1/10W
R145			RK73FB2A163J	CHIP R 16K	J	1/10W
R146			RK73FB2A103J	CHIP R 10K	J	1/10W
R147			RK73FB2A102J	CHIP R 1.0K	J	1/10W
R149,150			RK73FB2A104J	CHIP R 100K	J	1/10W
R153			RD14NB2E470J	RD 47	J	1/4W
R154			RD14GB2E470J	FL-PROOF RD 47	J	1/4W
R155			RK73FB2A102J	CHIP R 1.0K	J	1/10W
R157,158			RK73FB2A103J	CHIP R 10K	J	1/10W
R160			RK73FB2A103J	CHIP R 10K	J	1/10W
R165,166			RK73FB2A103J	CHIP R 10K	J	1/10W
R167,168			RK73FB2A102J	CHIP R 1.0K	J	1/10W
Δ R169			RD14NB2E3R3J	RD 3.3	J	1/4W
Δ R170			RD14NB2E2R2J	RD 2.2	J	1/4W
Δ R171			RD14NB2E3R3J	RD 3.3	J	1/4W
Δ R172			RD14NB2E2R2J	RD 2.2	J	1/4W
VR1 ,2			R12-0604-05	TRIMMING POT.(100)		
W200-210			R92-0679-05	CHIP R 0 OHM		
W213-216			R92-0670-05	CHIP R 0 OHM		
W230-233			R92-0670-05	CHIP R 0 OHM		
K1			S76-0018-05	MAGNETIC RELAY		
K2 ,3			S76-0056-05	MAGNETIC RELAY		
Δ K4 ,5			S76-0058-05	MAGNETIC RELAY		
PH1 -4			T95-0149-05	OPTO ISOLATOR		
D1 -4			HSS104	DIODE		
D1 -4			1SS133	DIODE		
D5			MTZJ4.7(B)	ZENER DIODE		
D5			UZ-4.7BSB	ZENER DIODE		
D6			HSS104	DIODE		
D6			1SS133	DIODE		
D7			MA111	DIODE		
Δ D11			D5SBA20F03	DIODE		
Δ D11			RBV-602LFA	DIODE		
Δ D12 -15			S5688B	DIODE		
Δ D12 -15			1SR139-400	DIODE		
D16,17			MA111	DIODE		
Δ D18,19			S5688B	DIODE		
Δ D18,19			1SR139-400	DIODE		
Δ D20,21			MTZJ16(B)	ZENER DIODE		
D20,21			UZ-16BSB	ZENER DIODE		
Δ D22,23			HSS104	DIODE		
Δ D22,23			1SS133	DIODE		
Δ D24,25			S5688B	DIODE		
Δ D24,25			1SR139-400	DIODE		
D26			MTZJ6.2(B)	ZENER DIODE		
D26			UZ-6.2BSB	ZENER DIODE		
D27			MTZJ4.7(B)	ZENER DIODE		
D27			UZ-4.7BSB	ZENER DIODE		
D28			MTZJ5.1(B)	ZENER DIODE		
D28			UZ-5.1BSB	ZENER DIODE		

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D29			MTZJ11(B)	ZENER DIODE		
D29			UZ-11BSB	ZENER DIODE		
D30 -32			MTZJ4.7(B)	ZENER DIODE		
D30 -32			UZ-4.7BSB	ZENER DIODE		
D33 ,34			MTZJ24(B)	ZENER DIODE		
Δ D33 ,34			UZ-24BS	ZENER DIODE		
Δ D35			S5688B	DIODE		
Δ D35			1SR139-400	DIODE		
D36			MTZJ3.9(B)	ZENER DIODE		
D36			UZ-3.9BSB	ZENER DIODE		
D37			HSS104	DIODE		
D37			1SS133	DIODE		
D38			MTZJ4.7(B)	ZENER DIODE		
D38			UZ-4.7BSB	ZENER DIODE		
IC1			NJU7313AM	ANALOGUE IC		
IC2			NJM4565L-D	ANALOGUE IC		
IC3			M62420SP	ANALOGUE IC		
IC4			M5219P	ANALOGUE IC		
IC5			NJM4565D	ANALOGUE IC		
Q1 -4			2SC2878(B)	TRANSISTOR		
Q5 ,6			TRAITR2N	TRANSISTOR		
Q7 ,8			TRAITR2P	TRANSISTOR		
Q9 ,10			2SC1845(F,E)	TRANSISTOR		
Q11 -14			2SC2458(Y,GR)	TRANSISTOR		
Q11 -14			2SC3311A(Q,R)	TRANSISTOR		
Δ Q15			2SC2003(L,K)	TRANSISTOR		
Δ Q16			2SA954(L,K)	TRANSISTOR		
Q31 -33			2SC4097(Q,R)	TRANSISTOR		
Q34			2SC2458(Y,GR)	TRANSISTOR		
Q34			2SC3311A(Q,R)	TRANSISTOR		
Q35			2SA992(F,E)	TRANSISTOR		
Q36			2SC2458(Y,GR)	TRANSISTOR		
Q36			2SC3311A(Q,R)	TRANSISTOR		
Q37 ,38			2SA1048(Y,GR)	TRANSISTOR		
Q37 ,38			2SA1309A(Q,R)	TRANSISTOR		
Δ Q40			2SA1534A(R,S)	TRANSISTOR		
Δ Q41			2SD2525	TRANSISTOR		
Q42			DTC113ZSA	DIGITAL TRANSISTOR		
Q42			UN4219	DIGITAL TRANSISTOR		
Δ Q43			2SD2589	TRANSISTOR		
Δ Q44			2SA1534A(R,S)	TRANSISTOR		
Q45			2SC2458(Y,GR)	TRANSISTOR		
Q46			2SA1048(Y,GR)	TRANSISTOR		
Q46			2SA1309A(Q,R)	TRANSISTOR		
DISPLAY UNIT (X14-456X-XX)						
D27			B30-2515-05	LED(ORG-600NM,3)		
C1 ,2			CC73FSL1H102J	CHIP C 1000PF	J	
C11			CK73FB1H103K	CHIP C 0.010UF	K	
C12			C90-3253-05	ELECTRO 1.0UF	50WV	
C13 ,14			CK45FF1H103Z	CERAMIC 0.010UF	Z	
C15			C90-3216-05	ELECTRO 330UF	6.3WV	
C16 ,17			CK73FB1H103K	CHIP C 0.010UF	K	
C18			CK45FF1H103Z	CERAMIC 0.010UF	Z	
C19			CC73FCH1H220J	CHIP C 22PF	J	

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PARTS LIST

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C20			CC73FCH1H180J	CHIP C 18PF J		
C21 -24			CK73FB1H103K	CHIP C 0.010UF K		
C25			CE04KW1C330M	ELECTRO 33UF 16WV		
C26			CK73FB1H103K	CHIP C 0.010UF K	T	
C27			CC73FCH1H470J	CHIP C 47PF J	T	
C28			CC73FCH1H180J	CHIP C 18PF J	T	
C29			C90-3240-05	ELECTRO 2.2UF 35WV	T	
C30			CC73FCH1H331J	CHIP C 330PF J	T	
C31			CC73FSL1H561J	CHIP C 560PF J	T	
C32			CK73FB1H103K	CHIP C 0.010UF K	T	
C33			C90-3220-05	ELECTRO 47UF 10WV	T	
C34			CK73FB1H103K	CHIP C 0.010UF K	T	
C35			CC73FCH1H101J	CHIP C 100PF J		
C36			CK73FF1C105Z	CHIP C 1.0UF Z		
C37 ,38			CC45FSL1H101J	CERAMIC 100PF J		
C39 ,40			CK73FB1H473K	CHIP C 0.047UF K		
C41			CK73FB1H103K	CHIP C 0.010UF K		
GN1			E40-4960-05	FLAT CABLE CONNECTOR		
J1			E11-0300-05	PHONE JACK		
-			J19-5821-03	HOLDER		
L1			L40-1091-17	SMALL FIXED INDUCTOR(1UH)	T	
L2			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)	T	
X1			L78-0267-05	RESONATOR (4.194MHZ)		
X2			L77-2173-05	CRYSTAL RESONATOR(32.768KHZ)		
X3			L77-2002-05	CRYSTAL RESONATOR(4.332MHZ)	T	
R1 ,2			RS14KB3D391J	FL-PROOF RS 390 J 2W		
R11			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R12 ,13			RK73FB2A103J	CHIP R 10K J 1/10W		
R14			RK73FB2A104J	CHIP R 100K J 1/10W		
R15			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R16			RK73FB2A103J	CHIP R 10K J 1/10W		
R17			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R18			RK73FB2A331J	CHIP R 330 J 1/10W		
R19 ,20			RK73FB2A104J	CHIP R 100K J 1/10W		
R21			RK73FB2A331J	CHIP R 330 J 1/10W		
R22 -24			RK73FB2A101J	CHIP R 100 J 1/10W		
R25 -27			RK73FB2A473J	CHIP R 47K J 1/10W		
R29 ,30			RK73FB2A103J	CHIP R 10K J 1/10W		
R31 ,32			RK73FB2A101J	CHIP R 100 J 1/10W		
R33 ,34			RK73FB2A103J	CHIP R 10K J 1/10W		
R35			RK73FB2A564J	CHIP R 560K J 1/10W		
R36 -39			RK73FB2A473J	CHIP R 47K J 1/10W		
R42			RK73FB2A101J	CHIP R 100 J 1/10W		
R44			RK73FB2A101J	CHIP R 100 J 1/10W		
R45			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R46			RK73FB2A101J	CHIP R 100 J 1/10W		
R47			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R48			RK73FB2A101J	CHIP R 100 J 1/10W		
R49			RK73FB2A473J	CHIP R 47K J 1/10W		
R50			RK73FB2A101J	CHIP R 100 J 1/10W		
R52			RK73EB2B101J	CHIP R 100 J 1/8W		
R53			RK73EB2B473J	CHIP R 47K J 1/8W		
R54 -56			RK73FB2A473J	CHIP R 47K J 1/10W		

L : Scandinavia

Y : PX(Far East, Hawaii)

Y : AAFES(Europe)

K : USA

T : Europe

X : Australia

P : Canada

E : Europe

M : Other Areas

R : Mexico

G : Germany

△ 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.

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
R57			RK73FB2A101J	CHIP R 100 J 1/10W	T	
R58			RK73FB2A473J	CHIP R 47K J 1/10W	T	
R59 ,60			RK73FB2A101J	CHIP R 100 J 1/10W	T	
R60			RK73FB2A101J	CHIP R 100 J 1/10W	M	
R61			RK73FB2A473J	CHIP R 47K J 1/10W		
R62			RK73FB2A101J	CHIP R 100 J 1/10W		
R63			RK73FB2A473J	CHIP R 47K J 1/10W		
R64			RK73FB2A101J	CHIP R 100 J 1/10W		
R65			RK73FB2A473J	CHIP R 47K J 1/10W	T	
R66			RK73FB2A222J	CHIP R 2.2K J 1/10W	T	
R67 ,68			RK73FB2A223J	CHIP R 22K J 1/10W	T	
R71 ,72			RK73FB2A101J	CHIP R 100 J 1/10W		
R74			RK73FB2A101J	CHIP R 100 J 1/10W		
R76 ,77			RK73FB2A101J	CHIP R 100 J 1/10W		
S3 -9			S70-0031-05	TACT SWITCH		
S1			T99-0598-05	ROTARY ENCODER		
S2			T99-0601-05	ROTARY ENCODER		
D11 -14			HSS104A	DIODE		
D11 -14			1SS131	DIODE		
D15 -20			MA111	DIODE		
D21 -25			HSS104A	DIODE	M	
D21 -25			1SS131	DIODE	M	
D21 -26			HSS104A	DIODE	T	
D21 -26			1SS131	DIODE	T	
D28			HSS104A	DIODE	T	
D28			1SS131	DIODE	T	
D29			HSS104A	DIODE	M	
D29			1SS131	DIODE	M	
ED1			FIP9GM6R	INDICATOR TUBE		
IC1			UPD78045FGF059	MI-COM IC		
IC2			S-806D-Z	ANALOGUE IC		
IC3			X24C04S	MEMORY IC	T	
IC4			SAA6579T	ANALOGUE IC	T	
Q1			2SC1740S(Q,R)	TRANSISTOR		
Q1			2SC2785(F,E)	TRANSISTOR		
A1			W02-2561-05	ELECTRIC CIRCUIT MODULE		

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SPECIFICATIONS

Receiver (R-SE9)

[Amplifier section]

Rated power output
Class AB operation

25 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. 20 W + 20 W

Class A operation

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

Total harmonic distortion0.008% (1 kHz, 10 W, 6 Ω)

Frequency response20 Hz ~ 35 kHz, +0 dB, -3 dB

Input sensitivity / Impedance 200 mV / 47 kΩ

Output level / Impedance

SUPER WOOFER PRE OUT 2.0 V / 1.5 kΩ

TAPE REC 200 mV / 1 kΩ

Signal to noise ratio94 dB (IHF'66)

[FM Tuner section]

Tuning frequency range 87.5 MHz ~ 108 MHz

Usable sensitivity (DIN)

MONO

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

Signal to noise ratio

(DIN weighted at 1 kHz, 65.2 dBf input)

MONO 65 dB

STEREO 58 dB

Selectivity (DIN ±300 kHz) 64 dB

Stereo separation (DIN at 1 kHz) 35 dB

[AM Tuner section]

Tuning frequency range 531 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 consumption 50 W

Dimensions W: 213 mm

H: 97 mm

D: 282 mm

Weight (net) 3.8 kg



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.).

R-SE9

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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