

CASSETTE RECEIVER

# KRC-758R/803/858R/C/W /883W/903/953 /958R/993

## SERVICE MANUAL

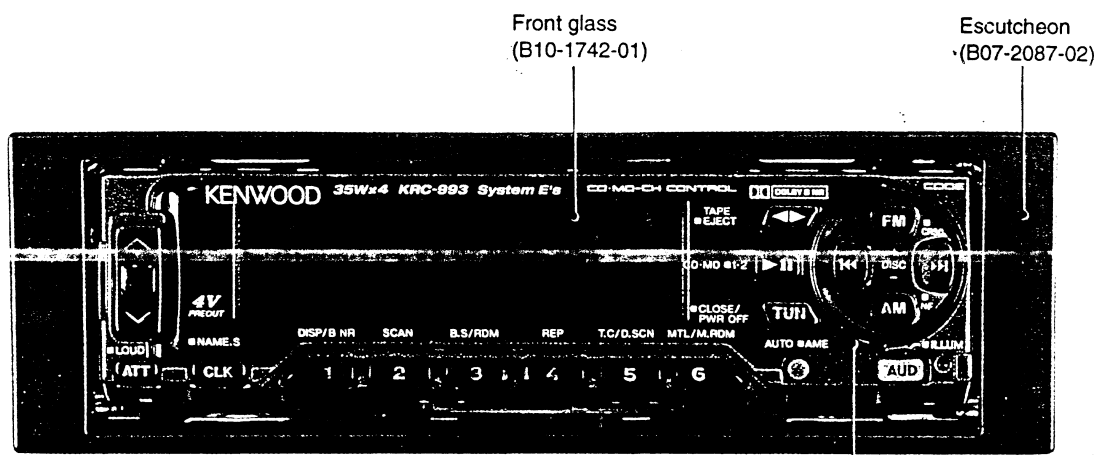
# KENWOOD

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B51-7140-00 (S) 3620

The CASSETTE MECHANISM OPERATION DESCRIPTION is the same model KRC-503 or KRC-658R.  
Please refer to the service manual for model KRC-503 (B51-7071-00) or KRC-658R (B51-7069-00).

Extension cord	Parts No.
Cassette mechanism (7P)	W05-0477-00
Cassette mechanism (10P)	W05-0609-00

### KRC-993



Bracket (J19-4721-04)

Bracket (J19-4720-04)

Stay (J54-0606-04)

Lever (D10-4067-04)

Screw set (N99-1652-05)

Mounting hardware assy (J21-7630-33)

Remote controller assy (A70-0860-05)

Remote controller (4key) (A70-0847-08)

Remote controller (5key) (A70-0848-08)

Escutcheon (B07-2096-02)

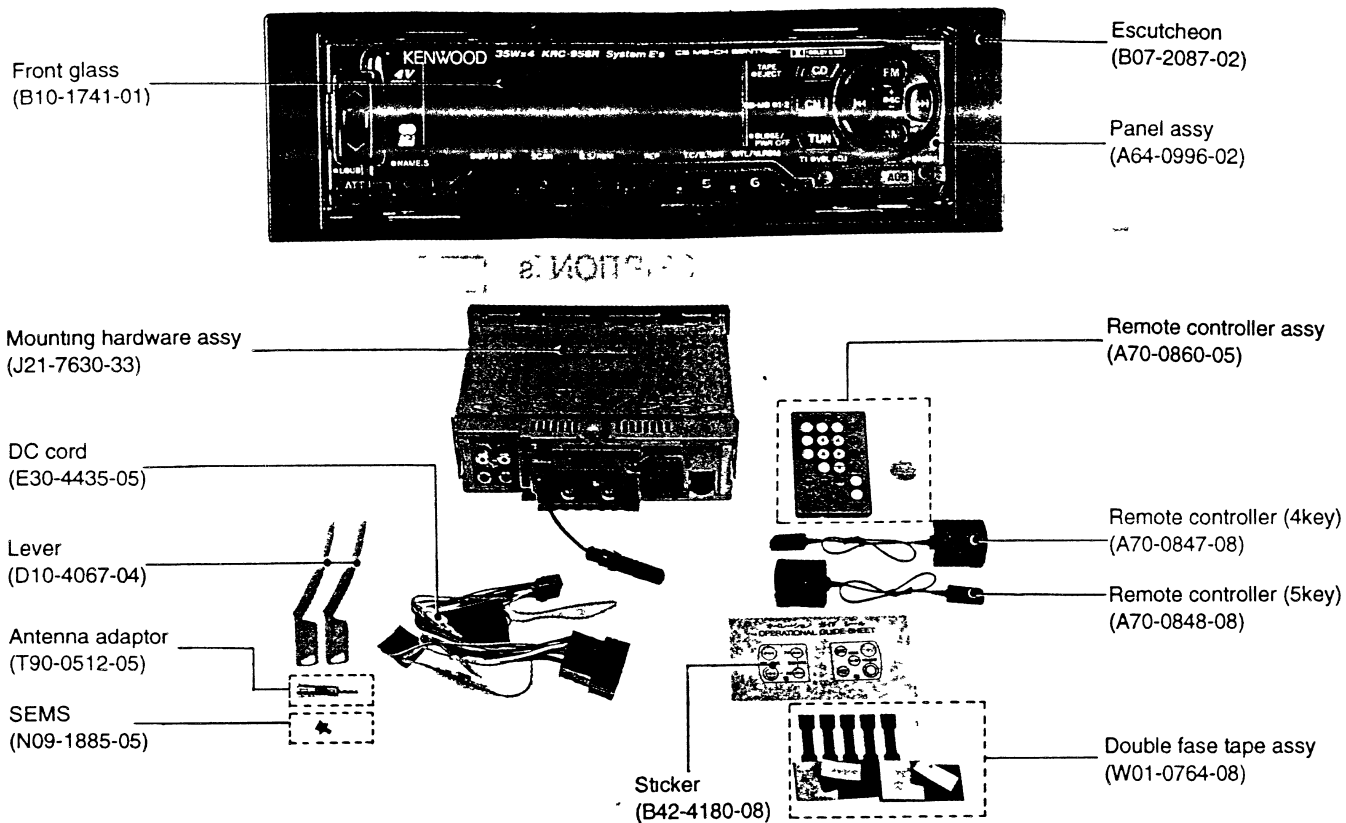
DC cord (E30-4437-05)

Sticker (B42-4180-08)

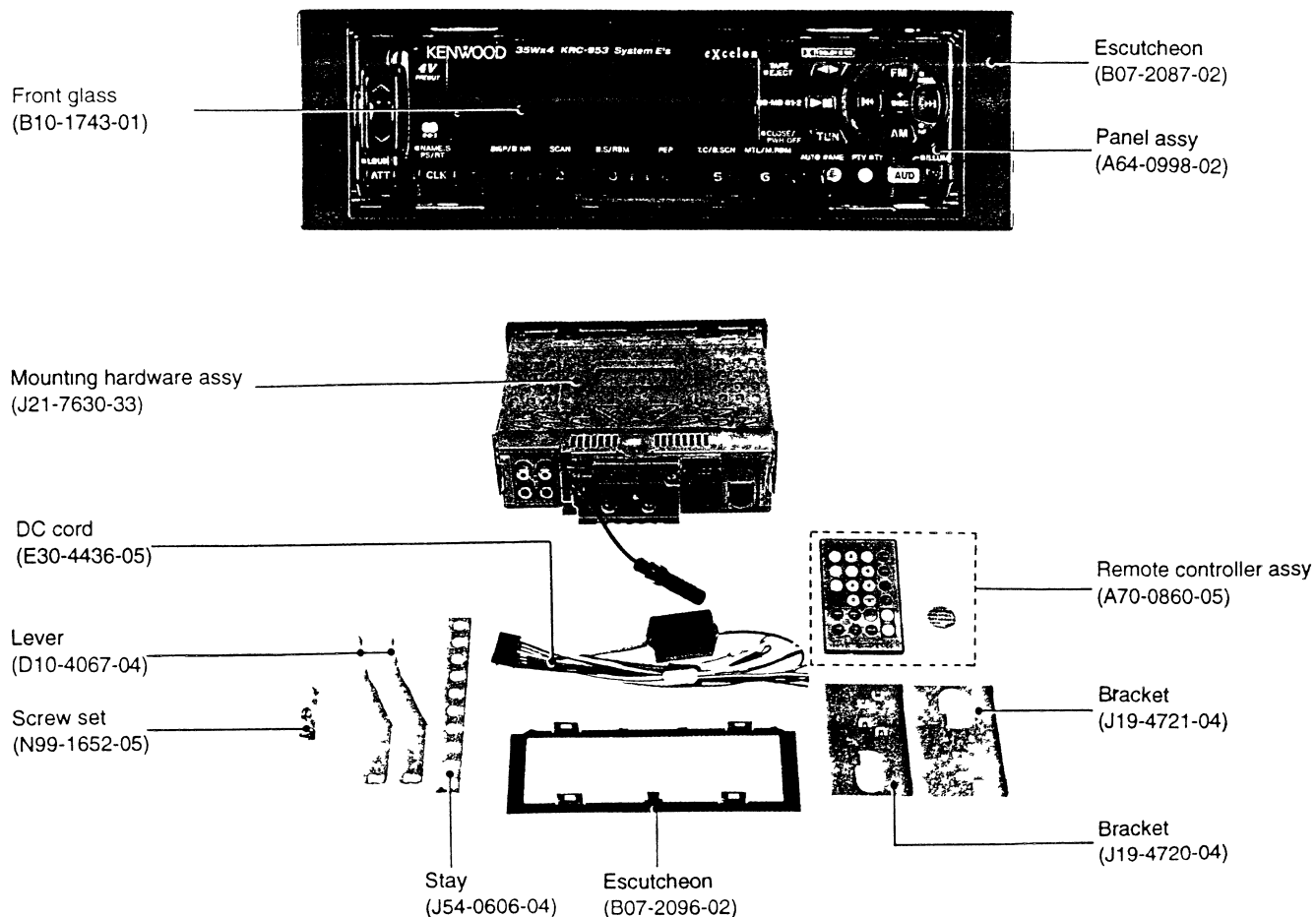
Double fase tape assy (W01-0764-08)

# KRC-758R/803/858R/CW /883W/903/953/958R/993

## KRC-958R



## KRC-953



## CIRCUIT DESCRIPTION

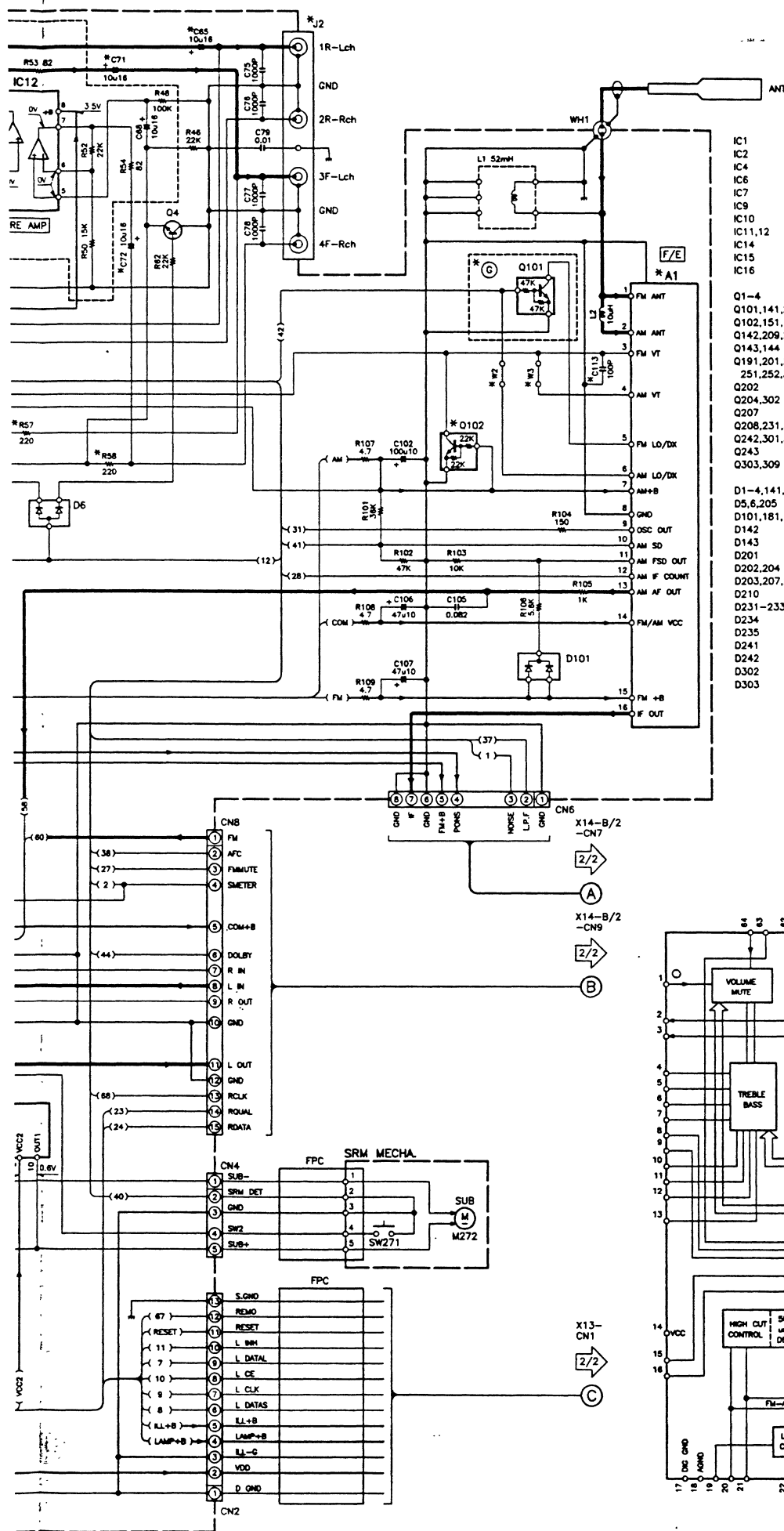
### Description of components

#### Synthesizer Unit (X14-558X-XX)

Device	Purpose,Function	Operation,condition,compatibility
IC1	System control u-CON	
IC2	Analog SW	LPF response speed switching.
IC3	Noise Amplifier	
IC4	Electronic volume	Incorporates EQ amp, E-Vol circuit, NC, MPX, CD-CH ISO, T-ADV, METAL, bass, treble and loudness circuitry.
IC5	Dolby IC	
IC6	Power amplifier	
IC7	Multi power supply	
IC8	RDS Demodulator	
IC9	SUB/RETRA motor driver	
IC10	DC/DC converter	+/- power supply for the 4 V preamplifier.
IC11,12	PRE amplifier	For the 4 V preamplifier.
IC13	FM IF System	
IC14	Front/non-fader preout SW with built-in HPF	
IC15	E <sup>2</sup> P ROM	
IC16	Triple 3-input NOR Gates	For muting.
Q1 - 4	PRE MUTE	ON for muting.
Q101	FM LO/DX SW	ON for local seek.
Q102	FM VT inhibit	ON for AM
Q121	Noise detect driver	Half-wave rectification.
Q122,123	Noise detection output time constant SW	ON during FM reception. (OFF during seek/search)
Q141	LPF time constant SW	ON during FM reception. (OFF during seek/search)
Q142	LPF constant current supply	
Q143	FM L.P.F	
Q144	AM L.P.F	
Q151	Sub-motor voltage SW	ON during SRM operation.
Q161,162	AFC time constant SW	ON during FM reception (OFF during seek/search)
Q163	AF Buff	
Q164	FM S-METER Buff	
Q165	IF Amp	
Q181	IC4 MUTE SW	ON for muting.
Q191	CRSC SW	In case of production of multi-path noise, etc., goes ON to force monaural reception.
Q201	B-U detect	OFF when the B-U voltage drops to about 8.8 V or lower.
Q202	ANT-CON driver	ON for tuner.
Q203	ACC detect	OFF when Acc voltage drops to about 7.4 V or lower.
Q204	ANT CON SW	ON for tuner.
Q205	ILL ON SW	When power is OFF and Acc is OFF, going "H" of PON turns ILL ON "H", which turns only ILL +B OFF.
Q206	P-on 5V SW	ON at power ON.
Q207	VDD driver	ON while B-U is supplied.
Q208	Pre-MUTE SW	ON for muting.
Q209	P-on 5V driver	ON at power ON.
Q231,232	CH-CON2 SW	ON with CH-CON 2.
Q241,242	IC10 power regulator	ON at power ON.
Q243,244	IC10 power regulator SW	ON at power ON.
Q245,246,247	IC11/12 +B regulator	
Q248,249,250	IC11/12 -B regulator	
Q251	FM OSC SW	ON in FM mode.
Q252	AM OSC SW	ON in AM mode

KRC-758R/803/858R/CW  
/883W/903/953/958R/993





- |         |                |
|---------|----------------|
| IC1     | : *            |
| IC2     | : TC4W66F      |
| IC4     | : TDA7420      |
| IC6     | : TDA7384A     |
| IC7     | : BA3917-V4    |
| IC9     | : BA6238A      |
| IC10    | : TC7660SEOA   |
| IC11,12 | : NJM4565M-TE2 |
| IC14    | : TDA7435      |
| IC15    | : KKZ01F       |
| IC16    | : HD74HC27FP   |

- Q1-4  
Q101,141,205,206,244,308,311  
Q102,151,181,232,312  
Q142,209,245,249,250  
Q143,144  
Q191,201,203,241,246-248  
251,252,305,307,310  
Q202  
Q204,302  
Q207  
Q208,231,306  
Q242,301,304  
Q243  
Q303,309

- D1-4,141,208  
D5,6,205  
D101,181,182,206  
D142  
D143  
D201  
D202,204  
D203,207,211,301  
D210  
D231-233  
D234  
D235  
D241  
D242  
D302  
D303

- : \*
- : TC4W66F
- : TDA7420
- : TDA7384A
- : BA3917-V4
- : BA6238A
- : TC7660SEOA
- : NJM4565M-TE2
- : TDA7435
- : KKZ01F
- : HD74HC27FP

- : 2SD2114K
- : DTC144EK
- : DTC124EK
- : 2SA1037K
- : 2SK536
- 
- : 2SC2412K
- : 2SB1277
- : DTC114YK
- : 2SD1760
- : DTA124EK
- : 2SB1443
- : DTA114EK
- : 2SB1184

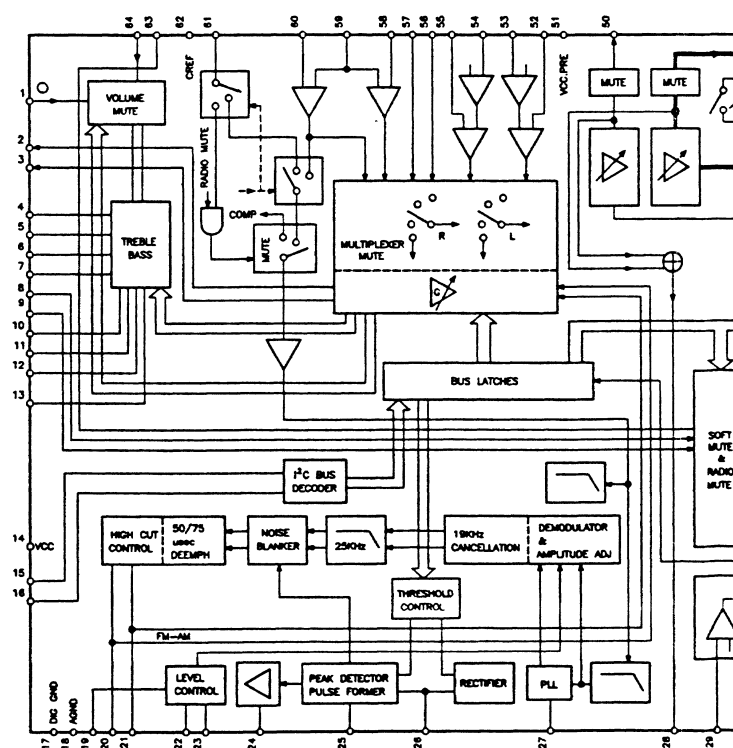
- : DA204K
- : DAP202K
- : DAN202K
- : MA3068-M
- : MA3075-M
- : RM102LF
- : UZML6.8FB(Y)
- : AM01Z
- : 1SS181
- : UZMA6.2F
- : MA3062-M
- : DAN202K
- : MA3110-L
- : MA3056-M
- : MA3220-H
- : MA3047-M

(X14-558X-XX)

MODEL NAME	UNIT No.	(A)
KRC-958R	X14-5582-70	YES
KRC-993	X14-5580-21	YES
KRC-953	X14-5580-11	YES
KRC-858R/C/W	X14-5582-71	NO
KRC-803	X14-5580-12	YES
KRC-903	X14-5580-13	YES
KRC-883W	X14-5580-22	NO
KRC-758R	X14-5582-72	NO

MODEL NAME	UNIT No.	R15 40
KRC-950R	X14-5582-70	NO
KRC-993	X14-5580-21	YES
KRC-953	X14-5580-11	YES
KRC-858R/C/W	X14-5582-71	NO
KRC-803	X14-5580-12	YES
KRC-903	X14-5580-13	YES
KRC-883W	X14-5580-22	YES
KRC-758R	X14-5582-72	NO

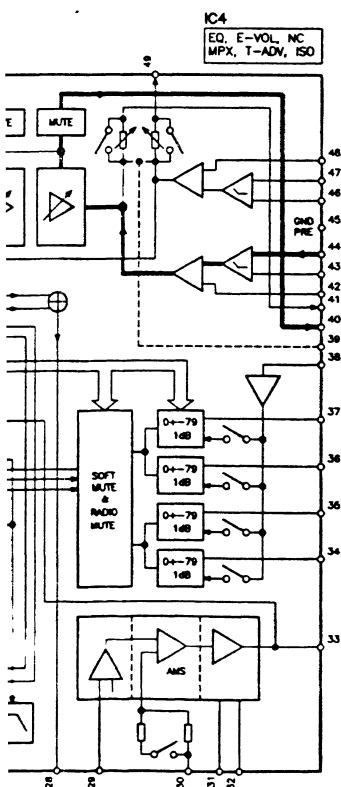
MODEL NAME	UNIT No.	D2
KRC-958R	X14-5582-70	NI
KRC-993	X14-5580-21	YE
KRC-953	X14-5580-11	NI
KRC-858R/C/W	X14-5582-71	NI
KRC-803	X14-5580-12	NI
KRC-903	X14-5580-13	NI
KRC-883W	X14-5580-22	YE
KRC-758R	X14-5582-72	NI



UNIT No.	(A)	(B)	(C)	(D)	C29,30	C31-34	C47-54, 65,113	C66, 71,72	C186	C315	R55-58	R186	R187	R192, 323
X14-5582-70	YES	YES	YES	YES	4.7	YES	YES	YES	0.01	0.01	NO	180K	3.6K	47K
X14-5580-21	YES	YES	NO	YES	4.7	YES	NO	YES	0.1	0.047	NO	150K	3K	100K
X14-5580-11	YES	YES	NO	YES	4.7	YES	NO	YES	0.1	0.047	NO	150K	3K	100K
X14-5582-71	NO	YES	YES	YES	4.7	YES	YES	NO	0.01	0.01	YES	180K	3.6K	47K
X14-5580-12	YES	YES	NO	YES	4.7	YES	NO	YES	0.1	0.047	NO	150K	3K	100K
X14-5580-13	YES	NO	NO	YES	2.2	NO	NO	YES	0.1	0.047	NO	150K	3K	100K
X14-5580-22	NO	YES	NO	YES	4.7	YES	NO	NO	0.1	0.047	YES	150K	3K	100K
X14-5582-72	NO	NO	YES	YES	2.2	NO	YES	NO	0.01	0.01	YES	10K	3.6K	47K

UNIT No.	R198, 404	R199	R202,207, 209,359	R324	R326, 405	R335	R336	R338	R339	R358	Q102	Q202, 204	D181
X14-5582-70	NO	18K	NO	22K	YES	YES	NO	NO	YES	NO	YES	NO	YES
X14-5580-21	YES	39K	YES	100K	NO	NO	YES	NO	YES	NO	NO	YES	NO
X14-5580-11	YES	39K	NO	100K	NO	NO	YES	NO	YES	YES	NO	NO	NO
X14-5582-71	NO	18K	NO	22K	YES	YES	NO	YES	NO	NO	YES	NO	YES
X14-5580-12	YES	39K	NO	100K	NO	NO	YES	YES	NO	YES	NO	NO	NO
X14-5580-13	YES	39K	NO	100K	NO	YES	NO	NO	YES	YES	NO	NO	NO
X14-5580-22	YES	39K	YES	100K	NO	YES	NO	YES	NO	NO	NO	YES	NO
X14-5582-72	NO	18K	NO	22K	YES	NO	YES	NO	NO	NO	YES	NO	YES

UNIT No.	D203	W2	W3,4	W9-14, 17-20	J2	A1	IC1
X14-5582-70	NO	YES	NO	NO	GOLD	W02-1523	178018BGC511
X14-5580-21	YES	NO	YES	NO	GOLD	W02-1524	178016BGC514
X14-5580-11	NO	NO	YES	NO	GOLD	W02-1524	178018BGC513
X14-5582-71	NO	YES	NO	NO	E63-0828	W02-1523	178018BGC511
X14-5580-12	NO	NO	YES	NO	E63-0828	W02-1524	178018BGC513
X14-5580-13	NO	NO	YES	YES	E63-0828	W02-1523	178018BGC513
X14-5580-22	YES	NO	YES	NO	E63-0828	W02-1523	178018BGC513
X14-5582-72	NO	YES	NO	YES	E63-0828	W02-1524	178018BGC511



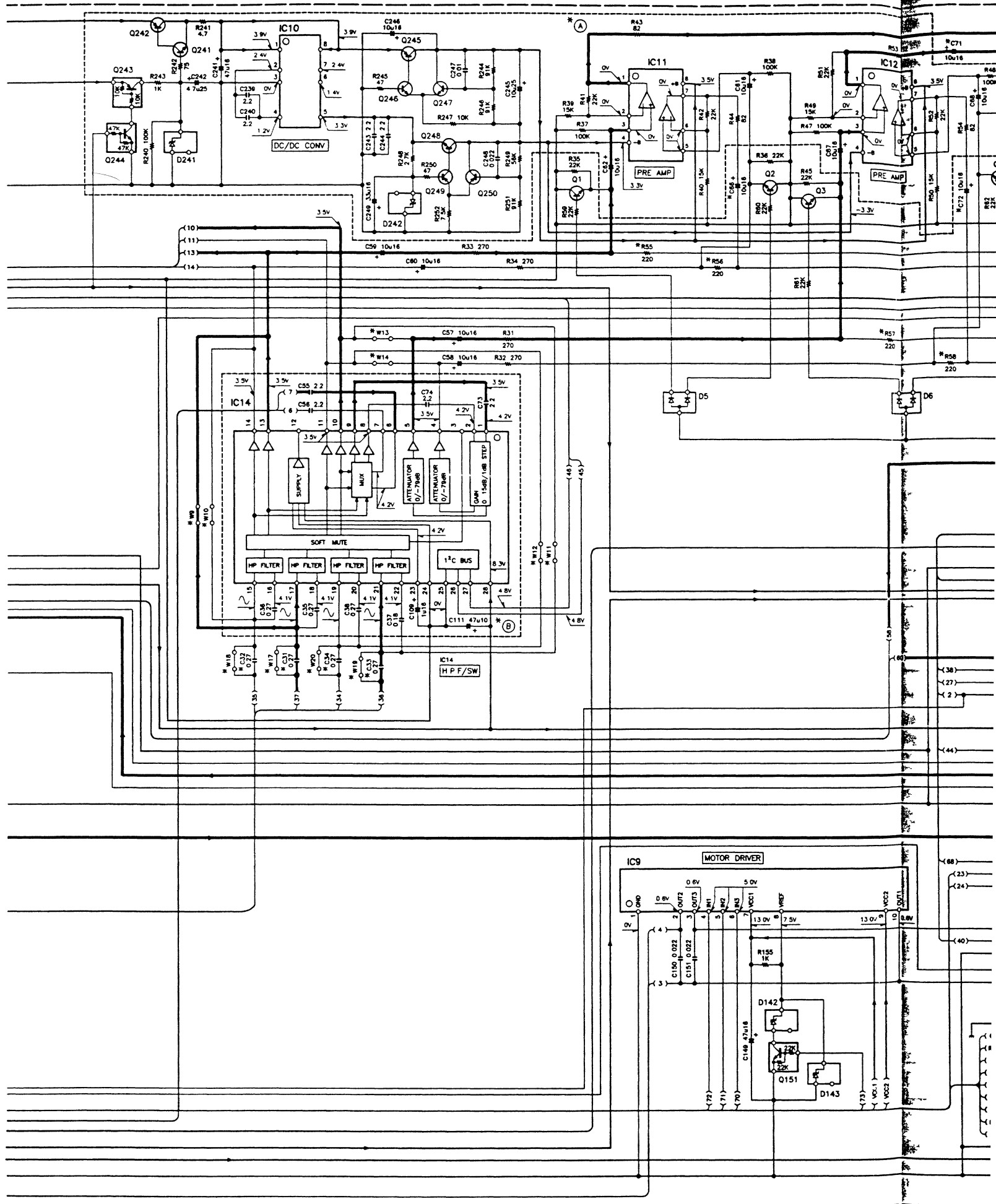
DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

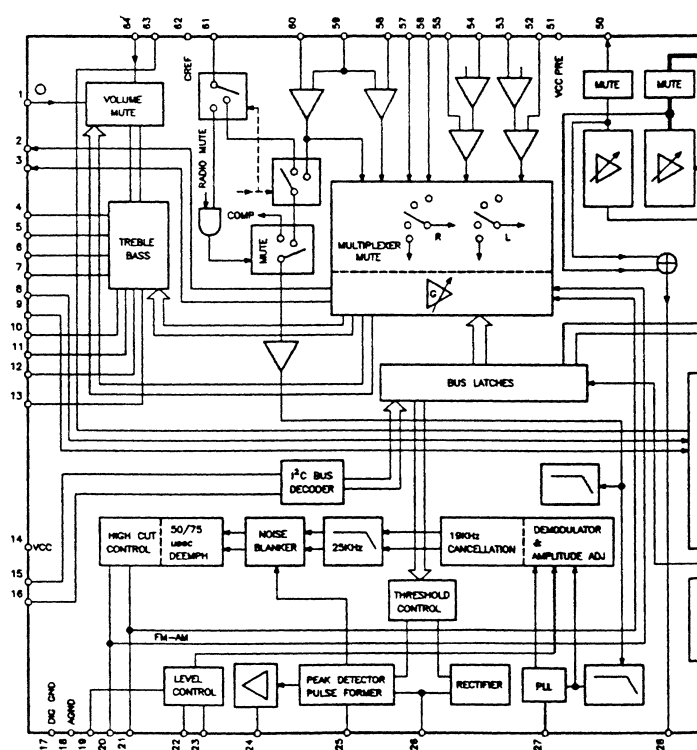
**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably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

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KRC-758R/803/858R/CW  
/883W/903/953/958R/993

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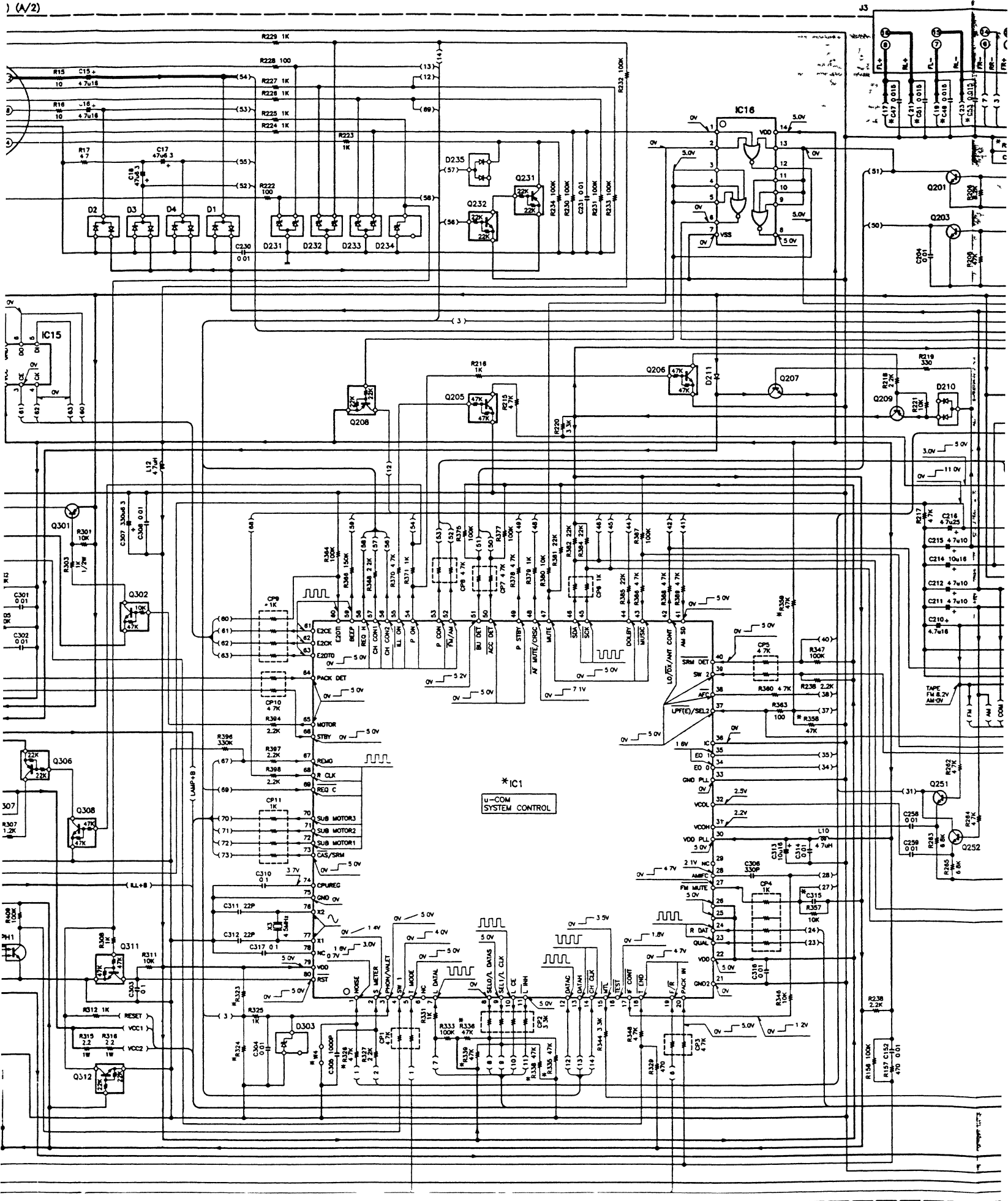
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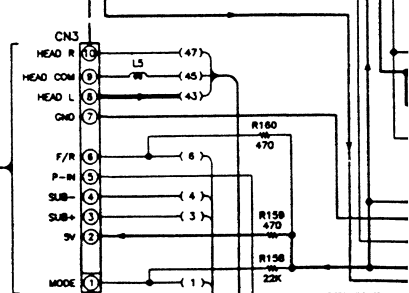
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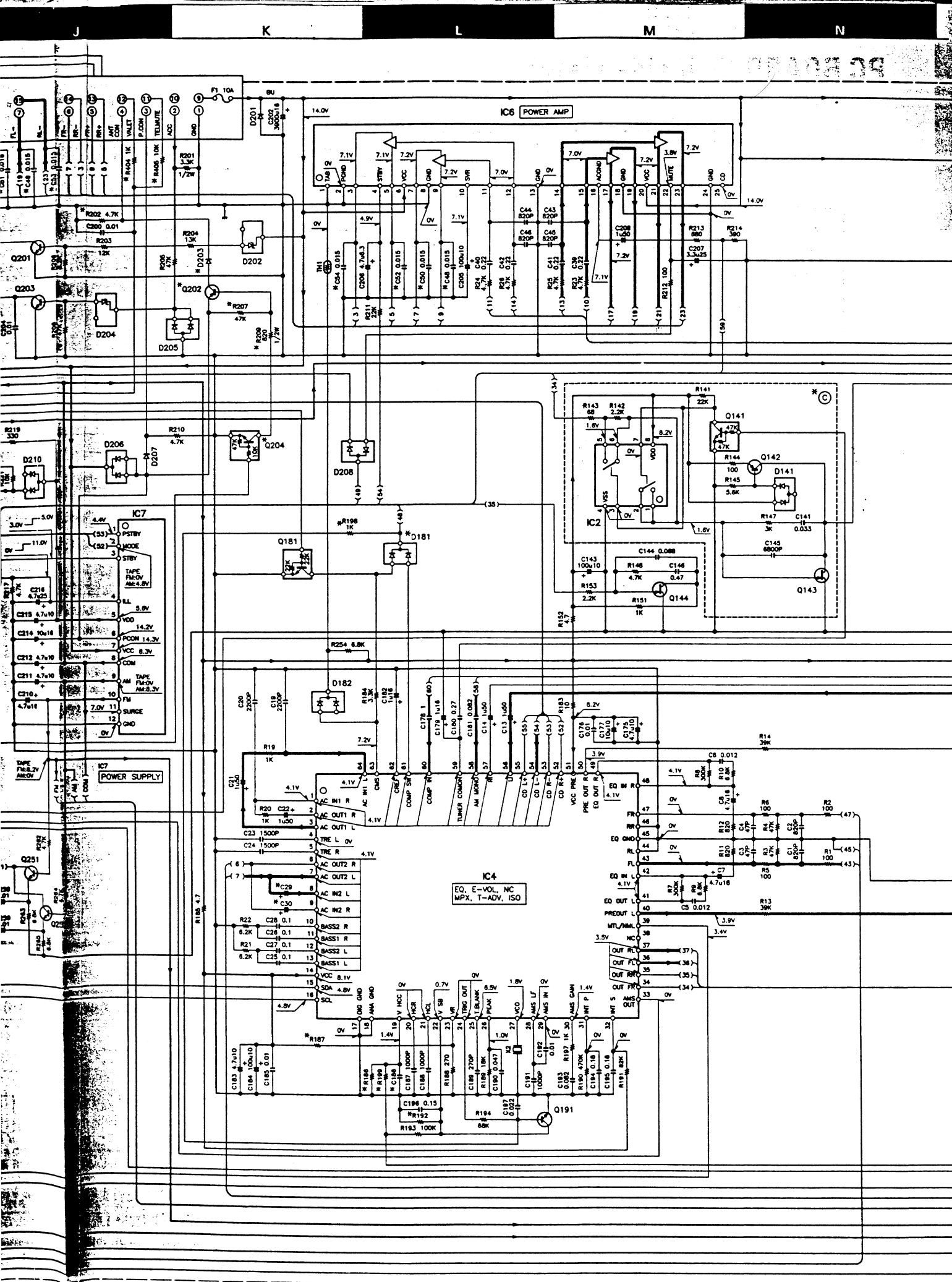
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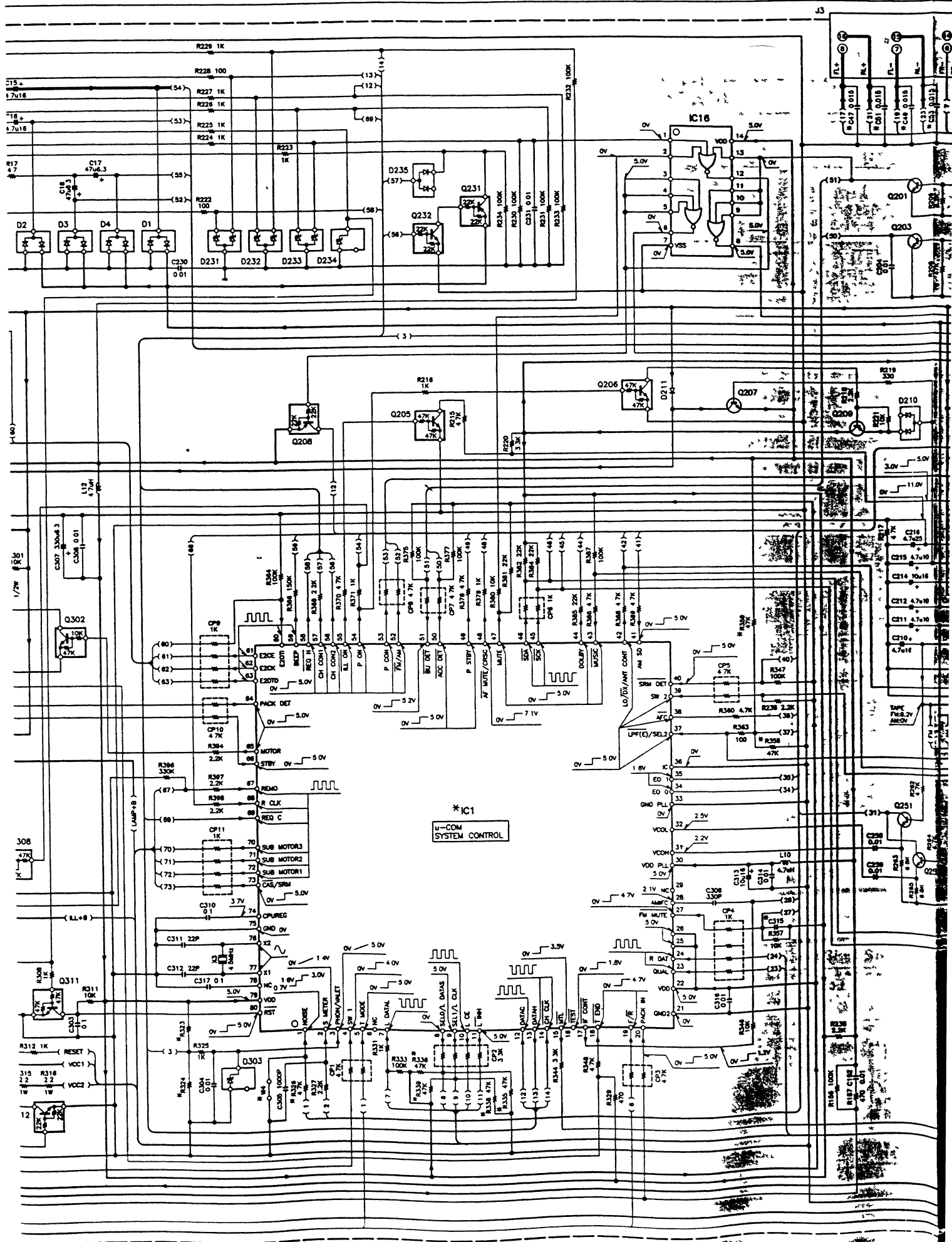
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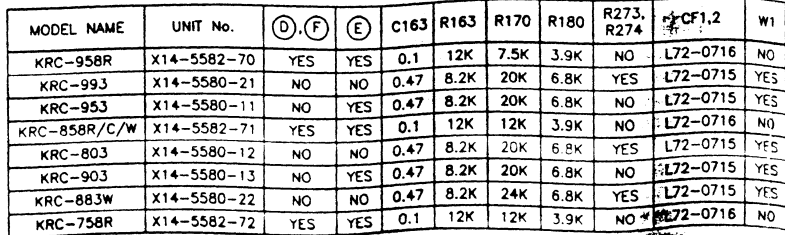
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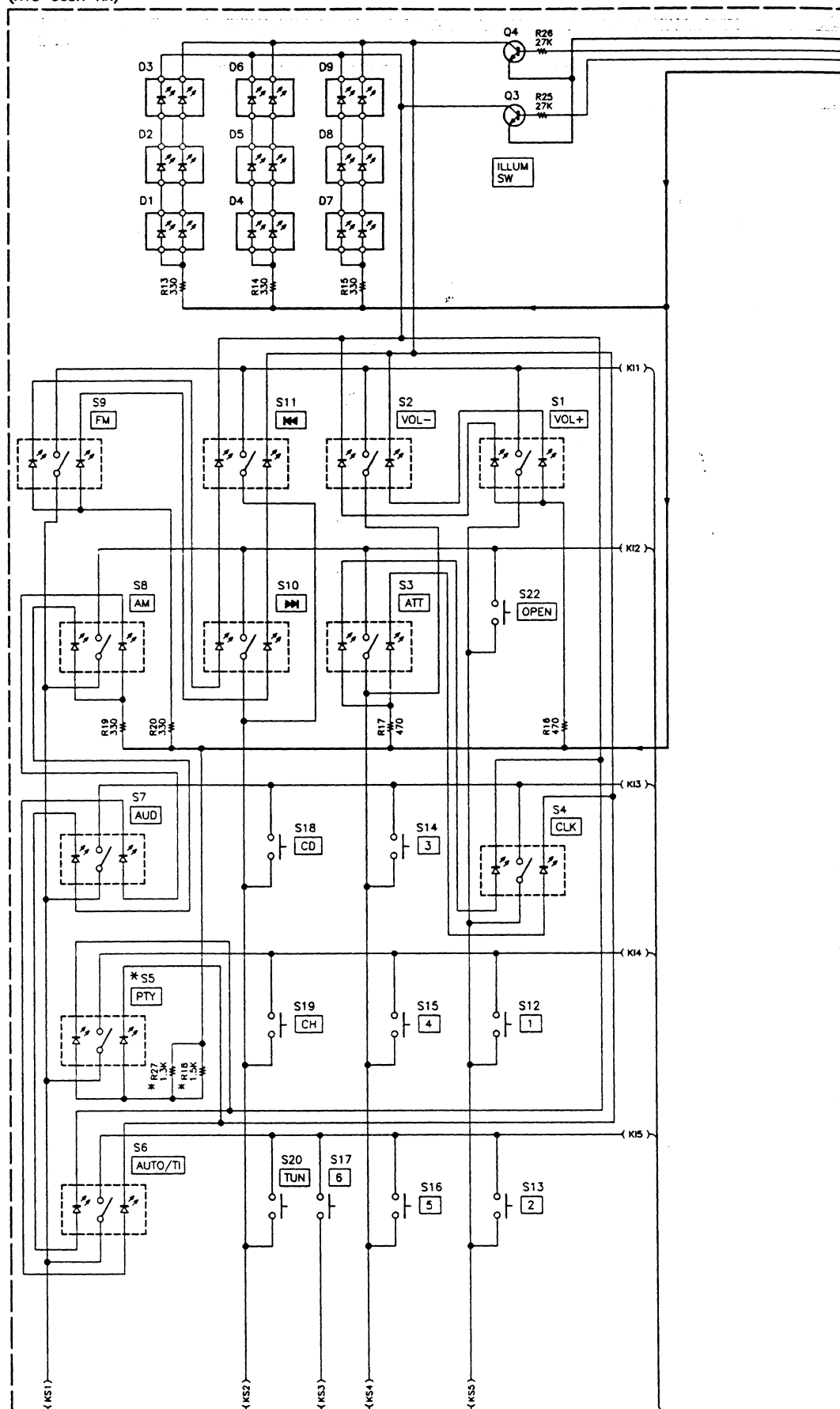
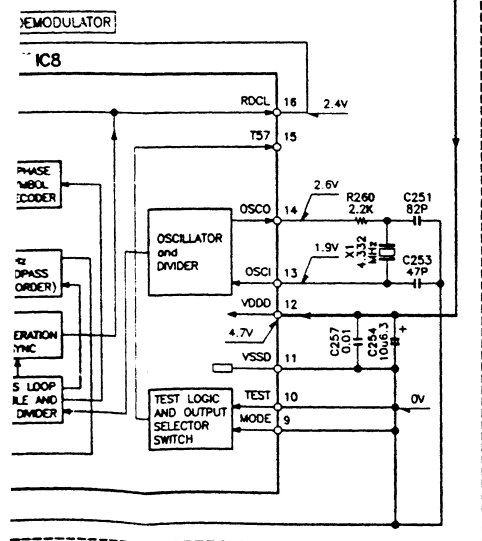








(X13-905X-XX)

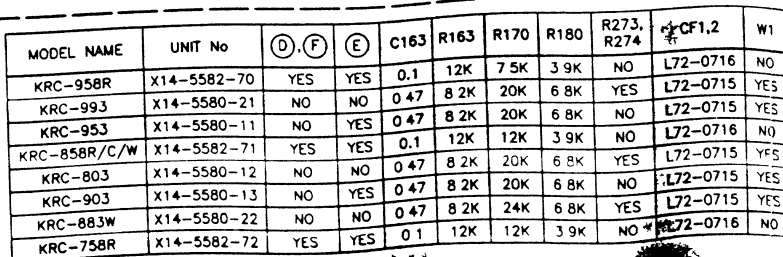


\_\_\_\_\_ GND LINE  
\_\_\_\_\_ +8 LINE

CF1.2	W1
L72-0716	NO
L72-0715	YES
L72-0715	YES
L72-0716	NO
L72-0715	YES
L72-0715	YES
L72-0715	YES
L72-0716	NO

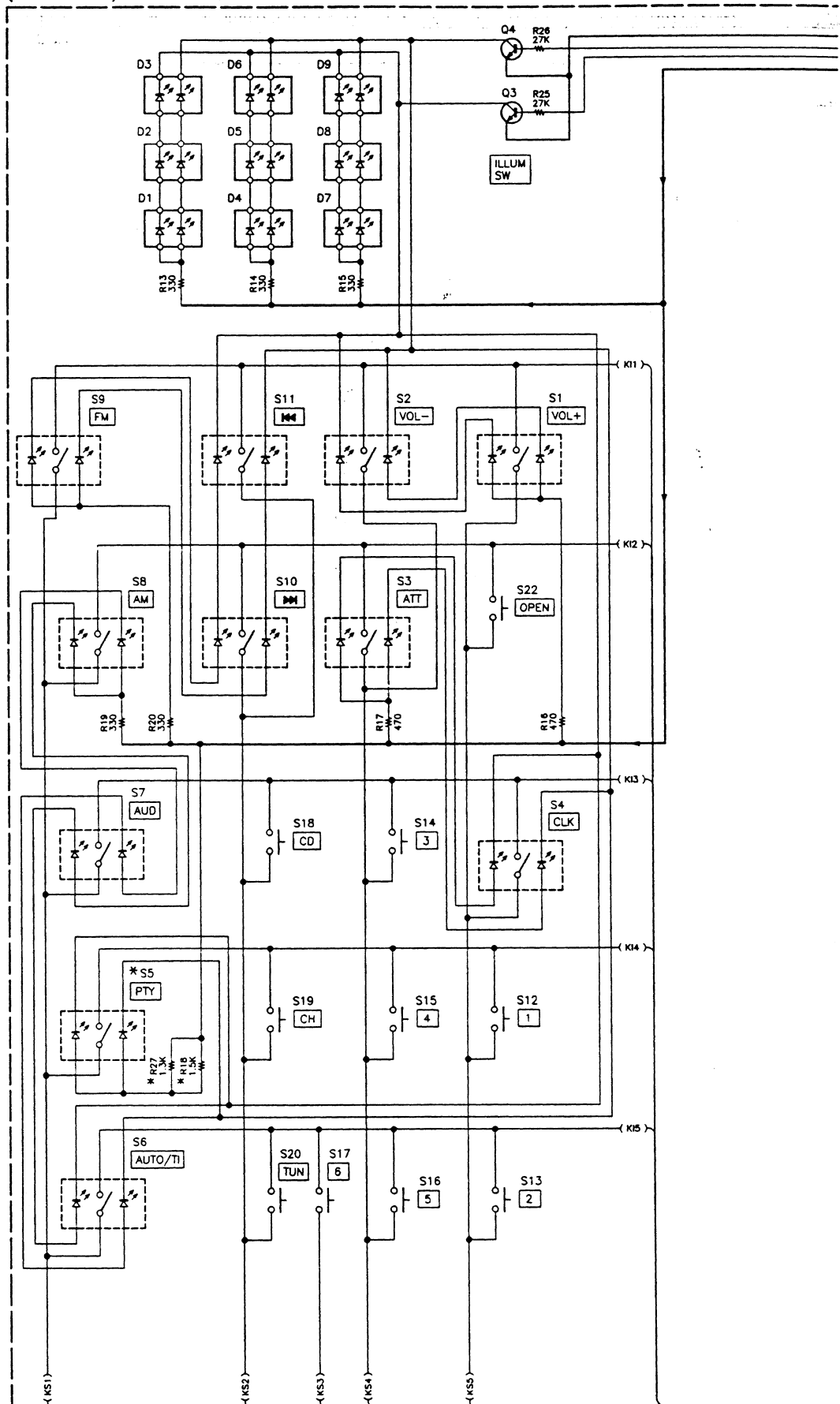
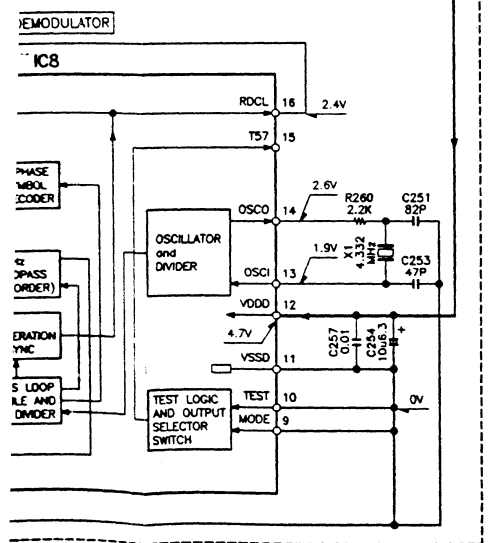






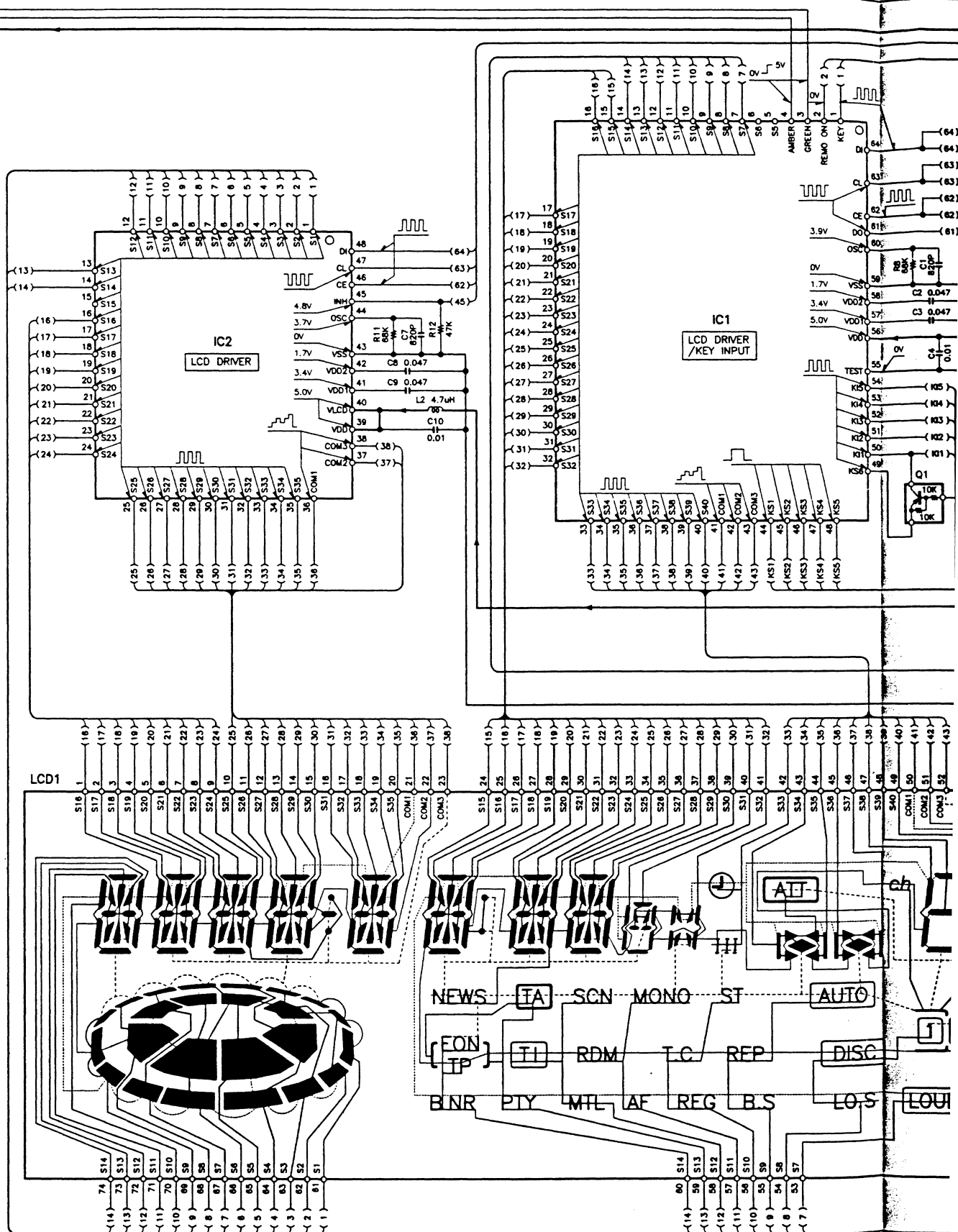


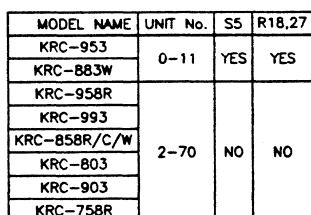
(X13-905X-XX)



\_\_\_\_\_ GND LINE  
\_\_\_\_\_ +B LINE

CF1.2	W1
L72-0716	NO
L72-0715	YES
L72-0715	YES
L72-0716	NO
L72-0715	YES
L72-0715	YES
L72-0715	YES
L72-0716	NO





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## SPECIFICATIONS

### KRC-803/903/953

#### FM tuner section

Frequency range (200kHz Space).....87.9MHz ~ 107.9MHz  
Usable sensitivity (S/N : 30dB).....9.3dBf (0.8μV/75Ω)  
Quieting Sensitivity (S/N : 50dB).....15.2dBf (1.6μV/75Ω)  
Frequency response (±3.0dB).....30Hz ~ 15kHz  
Signal to Noise ratio (MONO).....75dB  
Selectivity (±400kHz).....≥80dB  
Stereo Separation (1kHz).....40dB

#### AM tuner section

Frequency range (10kHz Space).....530kHz ~ 1700kHz  
Usable sensitivity (S/N = 20dB).....28dBμ (25μV)

#### Cassette player section

Tape Speed.....4.76cm/sec.  
Wow & Flutter (WRMS).....0.08%  
Frequency response (70μs).....30Hz ~ 20kHz (±3dB)  
Separation (1kHz).....43dB  
Signal to Noise ratio (Dolby B NR OFF).....57dB  
(Dolby B NR ON).....65dB

#### Audio section

Maximum output power.....35W × 4  
Full bandwidth power (at less than 1% THD).....20W × 4  
Tone action  
Bass.....100Hz ±10dB  
Treble.....10kHz ±10dB  
Preout level / load.....4V/10kΩ (during disc changer mode)  
Preout Impedance.....80Ω

#### General

Operating voltage.....14.4V (11 ~ 16V allowable)  
Current consumption.....10A at Rated power  
Installation size (W × H × D).....182 × 53 × 161 mm  
7-3/16 × 2-1/16 × 6-5/16 inch  
Weight.....1.8kg  
4.0LBS

### KRC-883W/993

#### FM tuner section

Frequency range  
(200kHz Space).....87.9MHz ~ 107.9MHz  
(50kHz Space).....87.5MHz ~ 108.0MHz  
Usable sensitivity (S/N : 30dB).....9.3dBf (0.8μV/75Ω)  
Quieting Sensitivity (S/N : 50dB).....15.2dBf (1.6μV/75Ω)  
Frequency response (±3.0dB).....30Hz ~ 15kHz  
Signal to Noise ratio (MONO).....75dB  
Selectivity (±400kHz).....≥80dB  
Stereo Separation (1kHz).....40dB

#### AM tuner section

Frequency range  
(10kHz space).....530kHz ~ 1700kHz  
(9kHz Space).....531kHz ~ 1611kHz  
Usable sensitivity (S/N = 20dB).....28dBμ (25μV)

#### Cassette player section

Tape Speed.....4.76cm/sec.  
Wow & Flutter (WRMS).....0.08%  
Frequency response (70μs).....30Hz ~ 20kHz (±3dB)  
Separation (1kHz).....43dB  
Signal to Noise ratio (Dolby B NR OFF).....57dB  
(Dolby B NR ON).....65dB

#### Audio section

Maximum output power.....35W × 4  
Full bandwidth power (at less than 1% THD).....20W × 4  
Tone action  
Bass.....100Hz ±10dB  
Treble.....10kHz ±10dB  
Preout Level / Load  
(KRC-993).....4V/10kΩ (during disc changer mode)  
(KRC-883W/773).....1800mV/10kΩ  
Preout Impedance  
(KRC-993).....80Ω  
(KRC-883W/773).....≤600Ω

#### General

Operating voltage.....14.4V (11 ~ 16V allowable)  
Current consumption.....10A at Rated power  
Installation size (W × H × D).....182 × 53 × 161 mm  
7-3/16 × 2-1/16 × 6-5/16 inch  
Weight.....1.8kg  
4.0LBS

**KRC-758R/803/858R/CW  
/883W/903/953/958R/993**

## **SPECIFICATIONS**

### **KRC-758R/858R/C/W/958R**

#### **FM tuner section**

Frequency range (50kHz Space) ..... 87.5MHz ~ 108.0MHz  
Usable sensitivity (S/N = 26dB) ..... 0.7 $\mu$ V/75 $\Omega$   
Quieting Sensitivity (S/N = 46dB) ..... 1.6 $\mu$ V/75 $\Omega$   
Frequency response ( $\pm 3.0$ dB) ..... 30Hz ~ 15kHz  
Signal to Noise ratio (MONO) ..... 68dB  
Selectivity (DIN) ( $\pm 400$ kHz) .....  $\geq 80$ dB  
Stereo Separation (1kHz) ..... 35dB

#### **MW tuner section**

Frequency range (9kHz Space) ..... 531kHz ~ 1611kHz  
Usable sensitivity (S/N = 20dB) ..... 30 $\mu$ V

#### **LW tuner section**

Frequency range ..... 153kHz ~ 281kHz  
Usable sensitivity (S/N = 20dB) ..... 45 $\mu$ V

#### **Cassette player section**

Tape Speed ..... 4.76cm/sec.  
Wow & Flutter (WRMS) ..... 0.08%  
Frequency response (70 $\mu$ s) ..... 30Hz ~ 20kHz ( $\pm 3$ dB)  
Separation (1kHz) ..... 40dB  
Signal to Noise ratio (Dolby B NR OFF) ..... 57dB  
(Dolby B NR ON) ..... 65dB

#### **Audio section**

Maximum output power ..... 35W  $\times$  4  
Output power (DIN 45324, +B=14.4V) ..... 25W  $\times$  4  
Tone action  
Bass ..... 100Hz  $\pm 10$ dB  
Treble ..... 10kHz  $\pm 10$ dB  
Preout level / load  
(KRC-958R) ..... 4V/10k $\Omega$  (during disc changer mode)  
(KRC-858R/C/W,758R) ..... 1800mV/10k $\Omega$   
Preout impedance  
(KRC-958R) ..... 80 $\Omega$   
(KRC-858R/C/W,758R) .....  $\leq 600\Omega$

#### **General**

Operating voltage ..... 14.4V (11 ~ 16V allowable)  
Current consumption ..... 10A at Rated power  
Installation size (W  $\times$  H  $\times$  D) ..... 182  $\times$  53  $\times$  161 mm  
Weight ..... 1.8kg

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#### **KENWOOD ELECTRONICS (MALAYSIA) SDN BHD**

#4.01 Level 4, Wisma Academy, Lot 4A, Jalan 19/1,  
46300 Petaling Jaya, Selangor, Malaysia

## CIRCUIT DESCRIPTION

Device	Purpose,Function	Operation,condition,compatibility
Q301	Main moter+B driver	ON while the main motor of the cassette mechanism is operating.
Q302	Main moter SW	ON while the main motor of the cassette mechanism is operating.
Q303,305	LAMP+B Regulator	ON at power ON.
Q304,307	SUB motor+B Regulator	ON at power ON.
Q306,308	SUB motor+B Regulator SW	ON at power ON.
Q309,310	ILL+B Regulator	ON at power ON.
Q311	Reset sw	ON at reset.

### Switch Unit (X13-905X-XX)

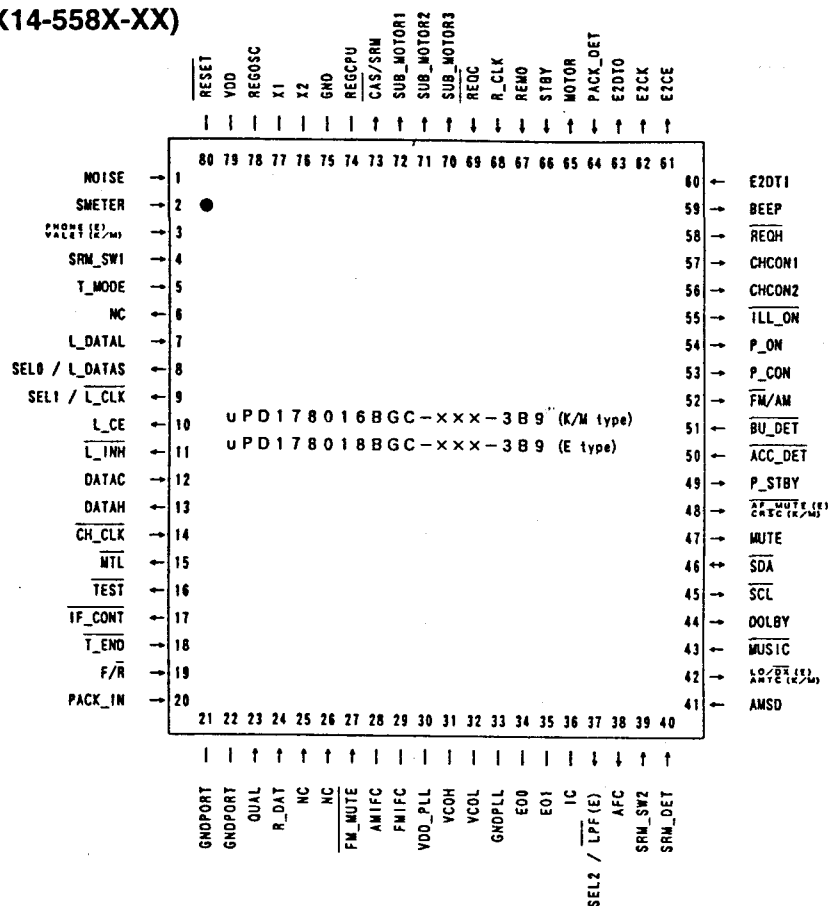
Device	Purpose,Function	Operation,condition,compatibility
IC1	1/3 duty LCD display driver with key input	
IC2	1/2 duty general-purpose LCD display driver	
IC3	Remote sensor	
Q1	Key scan start SW	ON at power ON.
Q2	Remocon Vcc SW	ON at power ON.
Q3	ILL AMBER SW	ON for amber illumination.
Q4	ILL GREEN SW	ON fro green illumination.

# CIRCUIT DESCRIPTION

IC1:178016BGC51X (X14-558X-XX)  
178018BGC511

Microcomputer

Pin layout

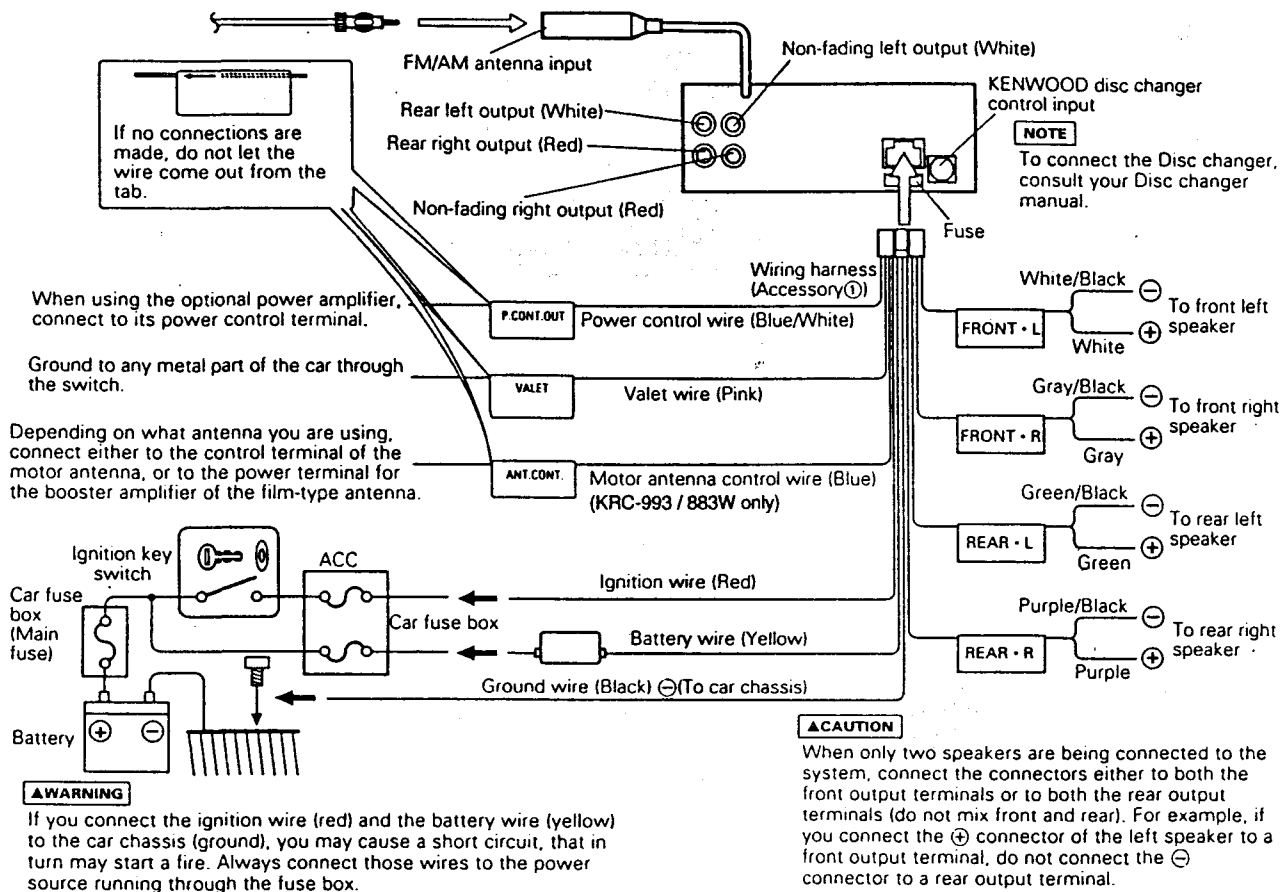


## Terminal descriptions

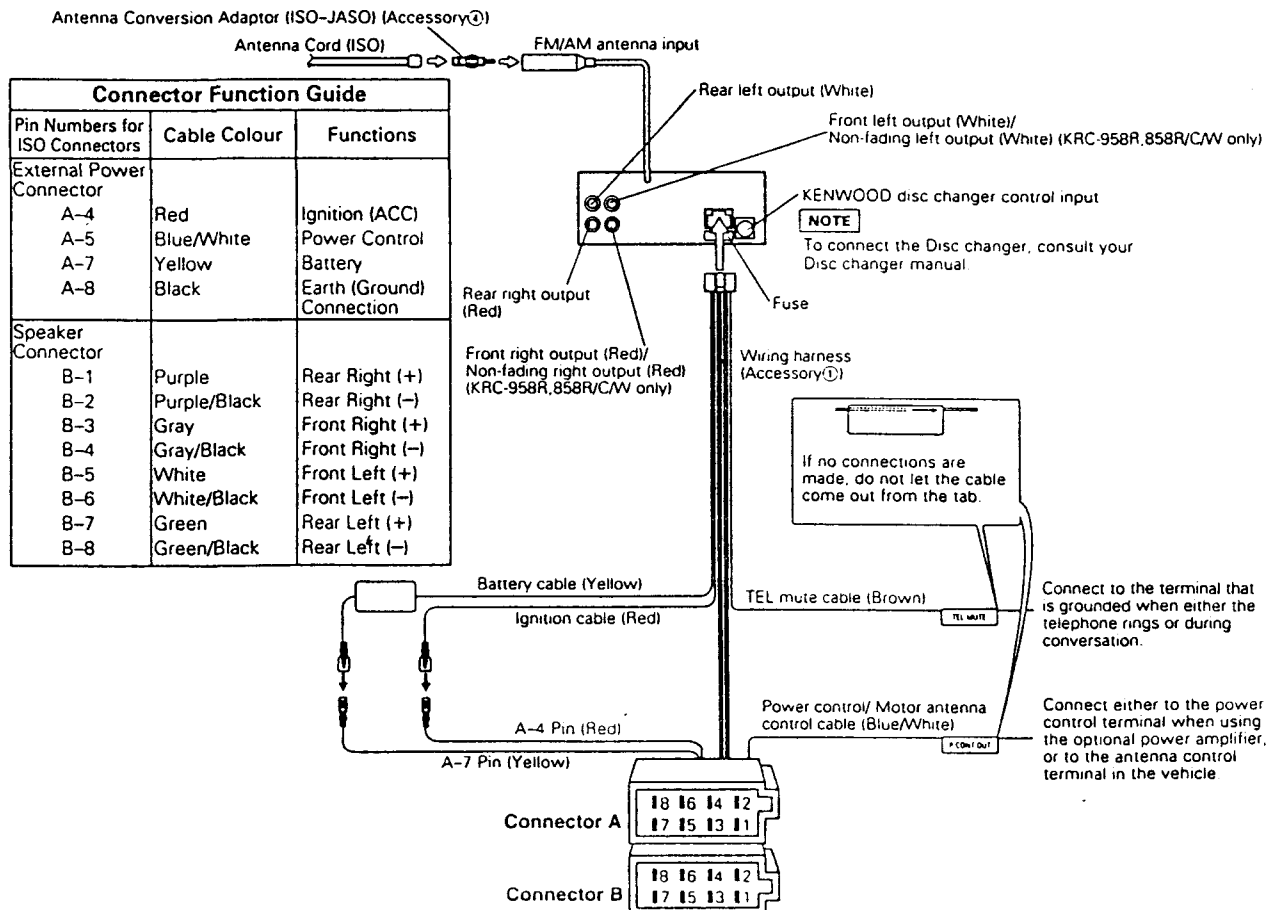
Pin No.	Pin Name	I/O	Description	Halt
1	NOISE	I	FM noise detection analog input.	
2	SMETER	I	FM S meter detection analog input.	
3	PHONE (E) VALET (K/M)	I	Phone/navigation muting input. Vale/demonstration input.	
4	SRM_SW1	I	Position detection input from SRM.	H:ON
5	T_MODE	I	Cassette mechanism mode input.	
6	NC	O	Not used.	
7	L_DATA	O	Data input from LCD driver.	
8	L_DATAS	I	Data output from LCD driver.	
9	L_CLK	O	Clock output to LCD driver.	
10	L_CE	O	CE output to LCD driver.	
11	L_INH	O	Reset output to LCD driver.	L:OFF
12	DATAC	I	Data input from CH.	
13	DATAH	O	Data output to CH.	
14	CH_CLK	I	Clock input from CH.	
15	MTL	O	Normal/Metal switching output.	L:METAL
16	TEST	O	Temperature rise protection circuit inhibit output.	L:In test mode
17	IF_CONT	O	AM IF count control output.	L:During seek
18	T_END	I	Tape transport condition detection input.	H:During transport
19	F/ R	I	Tape FWD/REV detection input.	H:FWD L:REV
20	PACK_IN	I	Cassette mechanism pack-in detection input.	H:PACKIN
21	GNDPORT		Grounding.	
22	VDDPORT		5 V.	
23	QUAL	I	RDS receiving condition.	

# CONNECTIONS

## KRC-803/883W/903/953/993



## KRC-758R/858R/C/W/958R





## CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Description	Halt
72	SUB_MOTOR1	O	Cassette mechanism/SRM sub-motor output 1	
73	CAS /SRM	O	Cassette mechanism/SRM sub-motor voltage switching output.	H:SRM L:TAPE
74	REGCPU		CPU power regulator.	
75	GND		Grounding.	
76	X2		X'tal connection.	
77	X1		X'tal connection.	
78	REGOSC		Regulator for oscillator.	
79	VDD		Power voltage terminal.	
80	RESET		Reset input.	

### Security Code Write Procedure After E2PROM Replacement

The security code can be written only when the E2PROM has been replaced with a E2PROM in which nothing is written.

#### 1. Code write procedure

- 1) With the power ON, switch the source to ALL OFF, then press and hold preset key 6 for 3 seconds.

ENTER  
CODE - - - -  
↓

- 2) Enter the desired code using preset keys **1** to **4**.

Example of entering code 1240

```

1 .... CODE 0 - - -
      ↓
1 .... CODE 1 - - -
      ↓
2 .... CODE 1 0 - -
      ↓
2 .... CODE 1 1 - -
      ↓
2 .... CODE 1 2 - -
      ↓
3 .... CODE 1 2 0 -
      ↓
3 .... CODE 1 2 1 -
      ↓
3 .... CODE 1 2 2 -
      ↓
3 .... CODE 1 2 3 -
      ↓
3 .... CODE 1 2 4 -
      ↓
4 .... CODE 1 2 4 0
      ↓
  
```

When the 4th digits have been entered  
↓

- 3) Press and hold the CLK key for 3 seconds . . .  
Completion of code entry.

APPROVED  
↓

- 4) Set the RESET switch to ON.

Now the code write procedure has completed. The security mode is set entirely to the initial condition.

- \* To quit this mode in the middle (before the end of step 2), simply turn power OFF. The same operation can be restarted from step 1.
- \* Be sure to write the security code following the above procedure. If you commit a mistake or hold the CLK key for 3 seconds or mode in the middle of the code entry, normal code will not be written in the E2PROM.

## CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Description	Halt
24	R_DAT	I	RDS data input.	
25	NC	I	Not used.	
26	NC	I	Not used	
27	FM_MUTE	I	Band muting detection input.	L:Station detected
28	AMIFC		AM IF count input.	
29	FMIFC		FM IF count input.	
30	VDDPLL		5 V.	
31	VCOH		FM OSC input.	
32	VCOL		AM OSC input.	
33	GNDPLL		Grounding.	
34	EO0		PLL error output 0.	
35	EO1		PLL error output 1.	
36	IC (VPP)		Grounding.	
37	LPF (E)	O	Low-pass filter switching output.	H:During reception
38	AFC	O	AFC output.	H:During reception
39	SRM_SW2	I	Position detection input 2 from SRM.	
40	SRM_DET	I	SRM detection input.	L:During detected
41	AMSD	I	AM station detection input.	H:Station detected
42	LO/ DX (E)	O	Local output.	H:ON
	ANTC (K/M)	O	Antenna control output.	H:ON
43	MUSIC	I	Tape music detection input.	L:Music detected
44	DOLBY	O	Dolby control output.	H:ON
45	SCL	O	Clock output to E-Vol circuit.	
46	SDA	I/O	Data input/output from/to E-Vol circuit.	
47	MUTE	O	Muting output.	H:MUTE ON
48	AF/MUTE (E)	O	AF muting output.	L:ON
	CRSC (K/M)	O	CRSC output.	H:ON
49	P_STBY	O	Power amplifier STBY output.	H:ON
50	ACC_DET	I	Acc detection input.	L:Acc detected
51	BU_DET	I	Momentary power-down detection input.	H:Power down
52	FM/AM	O	FM/AM switching control output.	H:AM L:FM
53	P_CON	O	Power control output.	H:ON
54	P_ON	O	Microcomputer peripheral power control output.	H:ON
55	ILL_ON	O	Illumination output.	L:ON
56	CHCON2	O	CH2 control output.	H:ON
57	CHCON1	O	CH1 control output.	H:ON
58	REQH	O	Request to CH.	L:Requested
59	BEEP	O	Beep output.	
60	E2DTI	I	Data input from E2PROM.	
61	E2CE	O	CE output to E2PROM.	
62	E2CK	O	Clock output to E2PROM.	
63	E2DTO	O	Data output to E2PROM.	
64	PACK_DET	I	Cassette mechanism pack detection.	H:Pack detected
65	MOTOR	O	Cassette mechanism main motor control output.	H:ON
66	STBY	I	Cassette mechanism STBY input.	H:STBY
67	REMO	I	Remote control signal input.	
68	R_CLK	I	RDS clock input.	
69	REQC	I	Request from CH.	L:Requested
70	SUM_MOTOR3	O	Cassette mechanism/SRM sub-motor output 3	
71	SUB_MOTOR2	O	Cassette mechanism/SRM sub-motor output 2	

## CIRCUIT DESCRIPTION

### 1. Code permission procedure

- 1) With the power ON, switch the source to ALL OFF, then press and hold preset key 6 for 3 seconds.

ENTER  
CODE ----

- 2) Enter the desired code using preset keys **1** to **4**.

Example of entering code 1240

```

1 .... CODE 0 ---
      ↓
1 .... CODE 1 ---
      ↓
2 .... CODE 1 0 --
      ↓
2 .... CODE 1 1 --
      ↓
2 .... CODE 1 2 --
      ↓
3 .... CODE 1 2 0 -
      ↓
3 .... CODE 1 2 1 -
      ↓
3 .... CODE 1 2 2 -
      ↓
3 .... CODE 1 2 3 -
      ↓
3 .... CODE 1 2 4 -
      ↓
4 .... CODE 1 2 4 0
  
```

When the 4th digits have been entered

- 3) Press and hold the CLK key for 3 seconds...  
Completion of code entry.

RE-ENTER  
CODE ----

- 4) Enter the code again in the same way as step 2.
- 5) Press and hold the CLK key for 3 seconds...  
Completion of code entry.

APPROVED.

The previous source is recalled and the code is permitted

- \* To quit this mode in the middle (before the end of step 2), simply turn power OFF. The same operation can be restarted from step 1.
- \* Be sure to follow the above procedure. Note that the code cannot be entered if the panel is in the ejected position.

### Code request mode

When the power of the unit is turned ON after the unit has been reset while the security function is activated, this mode requests the user to enter the previously-set code.

### ■ Operation description

- The code should be entered using 4 numeric keys **1**, **2**, **3** and **4**.
- Each press of keys **1**, **2**, **3** and **4** increments the digit of 1000, 100, 10 and 1 respectively.
- When the 4th digits have been entered, the code is subjected to judgment and the power is turned ON only when it is correct.
- In case the entered code is incorrect, the unit does not enter the wait state but return to the initial display of the code request mode and the code should be entered from the beginning.

### Code cancellation mode (simplified code)

Even after the security code has been registered, the security function can be deactivated.

### ■ Operation description

- In the code request mode, press and hold the **CLOCK** + **VOL UP** keys for 3 seconds to enter the code cancellation mode.
- Enter "KCAR" from the remote control unit. These characters should be displayed.  
Code cancellation mode procedure (The code is KCAR.)

Entered Key		Operation
<b>CLOCK</b> + <b>VOL UP</b>		Cancellation mode ON.
<b>5</b> twice		K is selected.
<b>▶▶</b>		K is set.
<b>2</b> twice		C is selected.
<b>▶▶</b>		C is set.
<b>2</b> once		A is selected.
<b>▶▶</b>		A is set.
<b>7</b> twice		R is set.
<b>▶▶</b>	OK	Cancellation OK, display cleared.
	No Good	Restart. CODE---- displayed.

## MECHANISM OPERATION DESCRIPTION

### NOTES FOR ASSEMBLING THE SRM MECHANISM

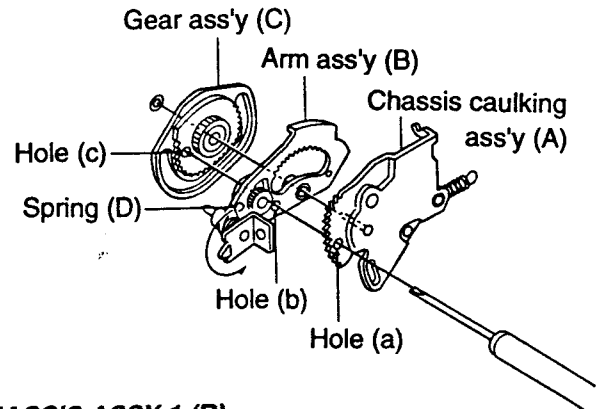
#### (1) Assembly of Chassis ass'y 1 (L) or Chassis ass'y 1 (R)

When assembling Chassis caulking ass'y (A), Arm ass'y (B) and Gear ass'y (C) of Chassis ass'y 1 (L) or (R), special care is required for the positioning of every gear.

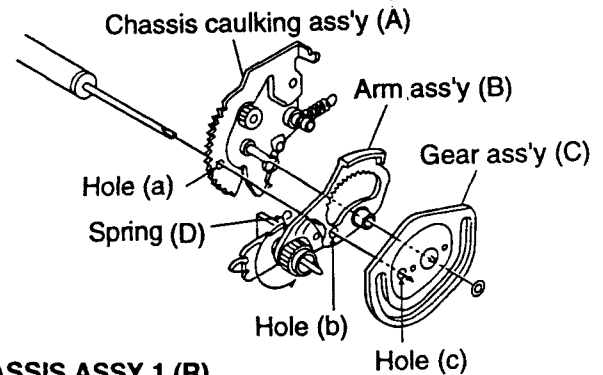
As shown in the illustration, align holes (a)-(c) and assemble so that shaft (x), holes (a)-(c), shaft (y) and tongue (z) form a straight line.

Maintain the alignment of holes (a)-(c) during the assembly work by passing a thin stick (with a diameter of about 1.3 mm) such as the shaft of a fine watchmaker's screwdriver through the holes. Spring (D) should be removed before the assembly work and attached again after it.

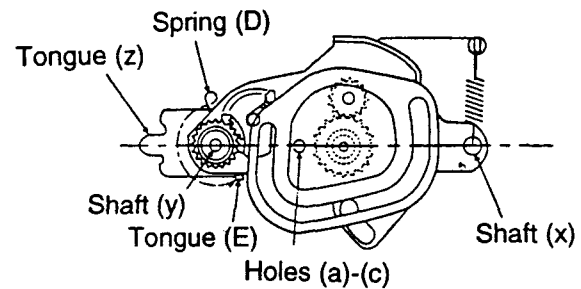
#### CHASSIS ASSY 1 (L)



#### CHASSIS ASSY 1 (R)



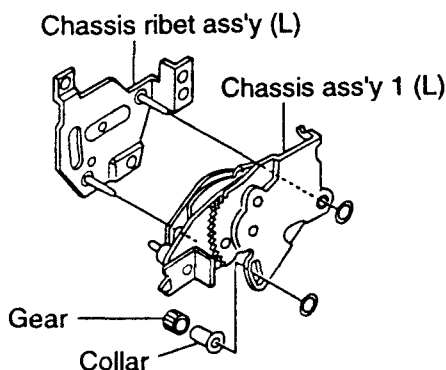
#### CHASSIS ASSY 1 (R)



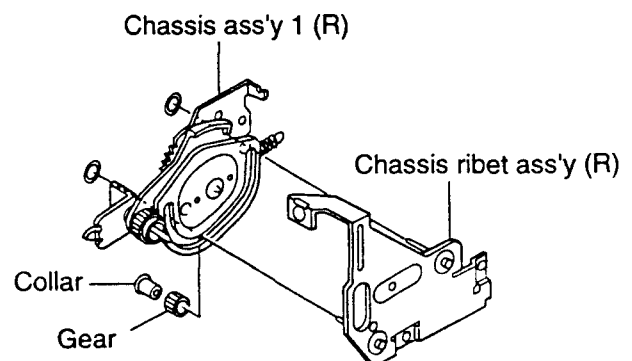
#### (2) Assembly of Chassis ass'y 2 (L) or Chassis ass'y 2 (R)

Assemble Chassis ass'y 1 (L) or (R), Chassis rebet ass'y (L) or (R), Collar and Gear with the position relationship as shown in the following illustration.

#### CHASSIS ASSY 2 (L)



#### CHASSIS ASSY 2 (R)



# ABGLEICH

## KRC-758R/858R/CW/958R

Die Regler und Knöpfe wie folgt einstellen.

BALANCE :Mittelage BASS :Mittelage LOUD :OFF DOLBY NR :OFF

FADER :Mittelage TREBLE :Mittelage METAL :OFF

NR	GEGENSTAND	EINGANGS EINSTELLUNG	AUSGANGS EINSTELLUNG	TUNER (RECEIVER) EINSTELLUNG	ABGLEICH PUNKTE	ABGLEICHEN FÜR	ABB.
<b>UKW-ABTEILUNG</b>							
1	DISKRI- MINATOR	(A) 98.1MHz 0 Hub 60dB $\mu$ (ANT-Eingang)	Den Gleichstrom Voltmeter Diskri CN11 anschließen (X14)	FM 98.1MHz	T1 (X14)	0V	(a)
2	ANRC (SUCHEN HALT PEGEL)	(C) 98.1MHz 1kHz, $\pm$ 40kHz Hub Pilot: $\pm$ 6.0kHz Hub Wahler : L or R 35dB $\mu$ (ANT-Eingang)	(B)	FM 98.1MHz	VR3 (X14)	Trennung 10dB	
<b>MW-ABTEILUNG</b>							
(1)	SUCHEN HALT PEGEL	(D) 990kHz 0% mod 35dB $\mu$ (ANT-Eingang)	—	MW 990kHz	AM SD VR (A1)	HALT	(b)
<b>CASSETTEN-DECK-ABTEILUNG</b>							
[1]	AZIMUTH	TCC-153 10kHz	(B)	Bandwiedergabe	Kopfazimuts- schraube	So einstellen, daß das Azimuth für jeweils L-CH/R-CH oder FWD/RVS maximal wird.	(c)
[2]	PLAY BACK LEVEL	TCC-130	Connect an AC voltmeter to CN10 (X14)	TAPE PLAY	VR1 (L) VR2 (R) (X14)	300mV	(d)

# ADJUSTMENT

KRC-758R/803/858R/CW  
/883W/903/953/958R/993

## KRC-758R/858R/C/W/958R

Set the controls and switches as follows.

BALANCE :center position    BASS :center position    LOUD :OFF    DOLBY NR :OFF  
FADER :center position    TREBLE :center position    METAL :OFF

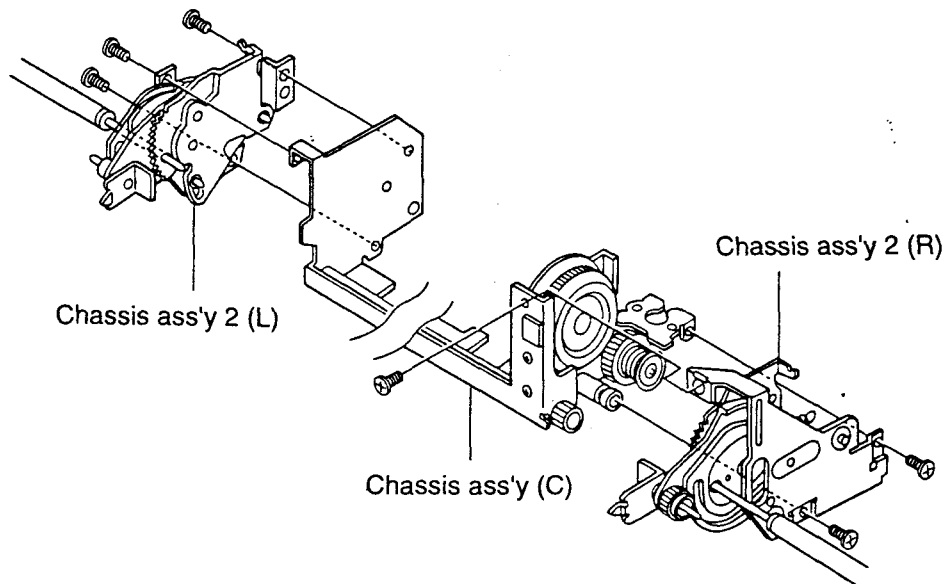
No	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER (RECEIVER) SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
<b>FM SECTION</b>							
1	DISCRI-MINATOR	(A) 98.1MHz 0dev 60dB $\mu$ (ANT input)	Connect a DC voltmeter to CN11 (X14)	FM 98.1MHz	T1 (X14)	0V	(a)
2	ANRC	(C) 98.1MHz 1kHz, $\pm 40$ kHz dev Pilot: $\pm 6.0$ kHz dev Selector: L or R 35dB $\mu$ (ANT input)	(B)	FM 98.1MHz	VR3 (X14)	Separation 10dB	
<b>AM SECTION</b>							
(1)	SEEK STOP LEVEL	(D) 990 kHz 0% mod 35dB $\mu$ (ANT input)	—	AM 990 kHz	AM SD VR (A1)	STOP	(b)
<b>CASSETTE DECK SECTION</b>							
[1]	AZIMUTH	TCC-153 10kHz	(B)	TAPE PLAY	Head Azimuth Screw	Adjust the azimuth for each Lch/Rch or FWD/RVS becomes maximum	(c)
[2]	PLAY BACK LEVEL	TCC-130	Connect an AC voltmeter to CN10 (X14)	TAPE PLAY	VR1 (L) VR2 (R) (X14)	300mV	(d)

## MECHANISM OPERATION DESCRIPTION

### (3) Assembly of Chassis ass'y 2 (L), Chassis ass'y 2 (R) onto Chassis ass'y (C)

When assembling these ass'ies together, the gears of Chassis ass'y 2 (L) and Chassis ass'y 2 (R) should be in the same position on each ass'y.

Similarly to (1) above, pass a thin screwdriver shaft through holes (a)-(c) of each of Chassis ass'y 2 (L) and Chassis ass'y 2 (R), and attach them onto Chassis ass'y (C).



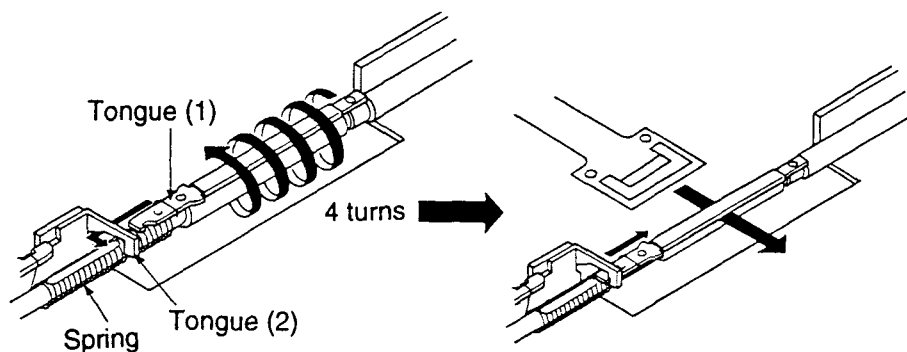
### (4) Assembly of FPC (Flexible PC board) onto Roller ass'y

Turn Roller ass'y by 4 turns.

Ensure that the white painting on the spring draws a single straight line.

Hook tongue (1) of Roller ass'y to tongue (2).

Insert the FPC into the slit of Roller ass'y then release tongues (1) and (2) of Roller ass'y.



# KRC-758R/803/858R/CW /883W/903/953/958R/993

## ADJUSTMENT

### KRC-803/883W/903/953/993

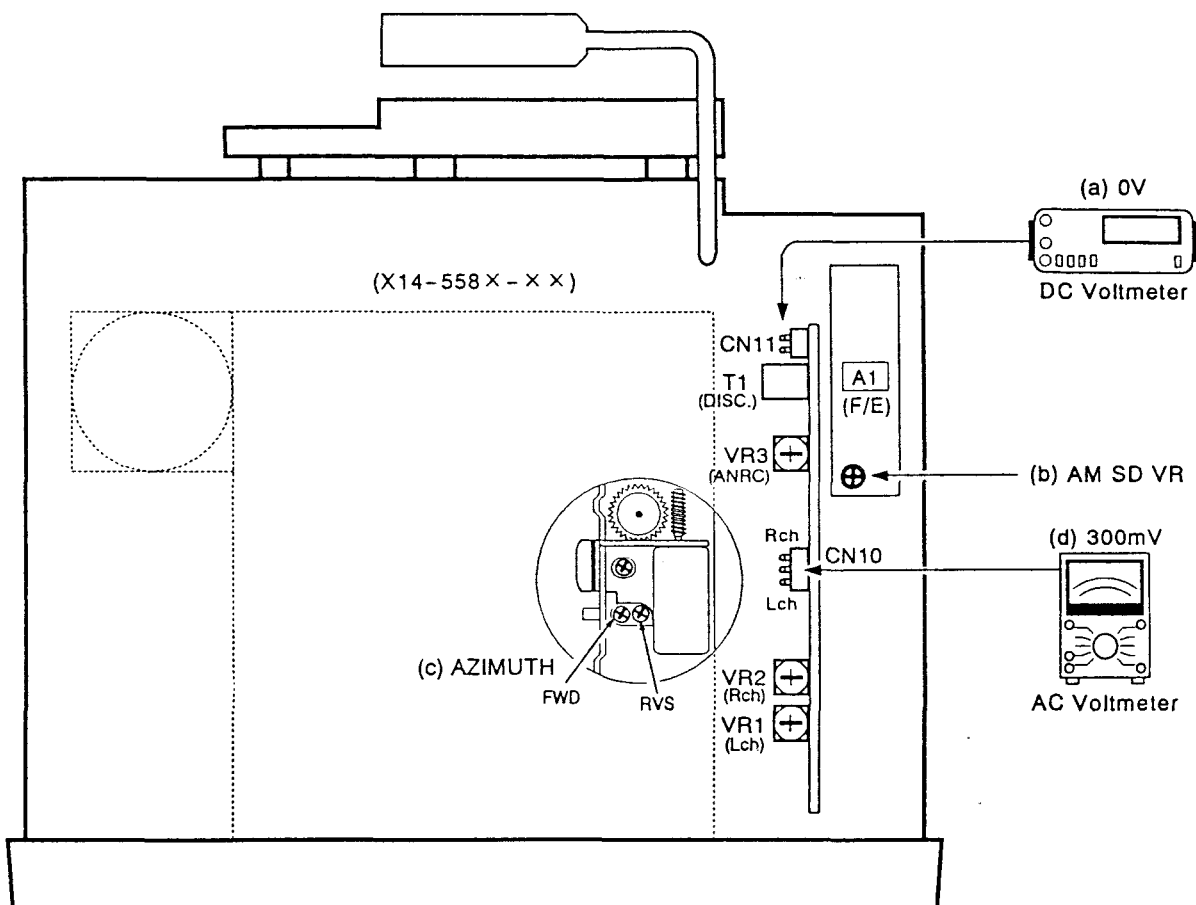
Set the controls and switches as follows.

BALANCE :center position    BASS :center position    LOUD :OFF    DOLBY NR :OFF  
FADER :center position    TREBLE :center position    METAL :OFF

No	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER (RECEIVER) SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
<b>FM SECTION</b>							
1	DISCRI-MINATOR	(A) 98.1MHz 0dev 60dB $\mu$ (ANT input)	Connect a DC voltmeter to CN11 (X14)	FM 98.1MHz	T1 (X14)	0V	(a)
2	ANRC	(C) 98.1MHz 1kHz, $\pm 67$ kHz dev Pilot: $\pm 7.5$ kHz dev Selector: L or R 35dB $\mu$ (ANT input)	(B)	FM 98.1MHz	VR3 (X14)	Separation 10dB	
<b>AM SECTION</b>							
(1)	SEEK STOP LEVEL	(D) 990 kHz 0% mod 35dB $\mu$ (ANT input)	—	AM 990 kHz	AM SD VR (A1)	STOP	(b)
<b>CASSETTE DECK SECTION</b>							
[1]	AZIMUTH	TCC-153 10kHz	(B)	TAPE PLAY	Head Azimuth Screw	Adjust the azimuth for each Lch/Rch or FWD/RVS becomes maximum	(c)
[2]	PLAY BACK LEVEL	TCC-130	Connect an AC voltmeter to CN10 (X14)	TAPE PLAY	VR1 (L) VR2 (R) (X14)	300mV	(d)



## ADJUSTMENT



KRC-758R/803/858R/C/W  
/883W/903/953/958R/993

## ADJUSTMENT

