

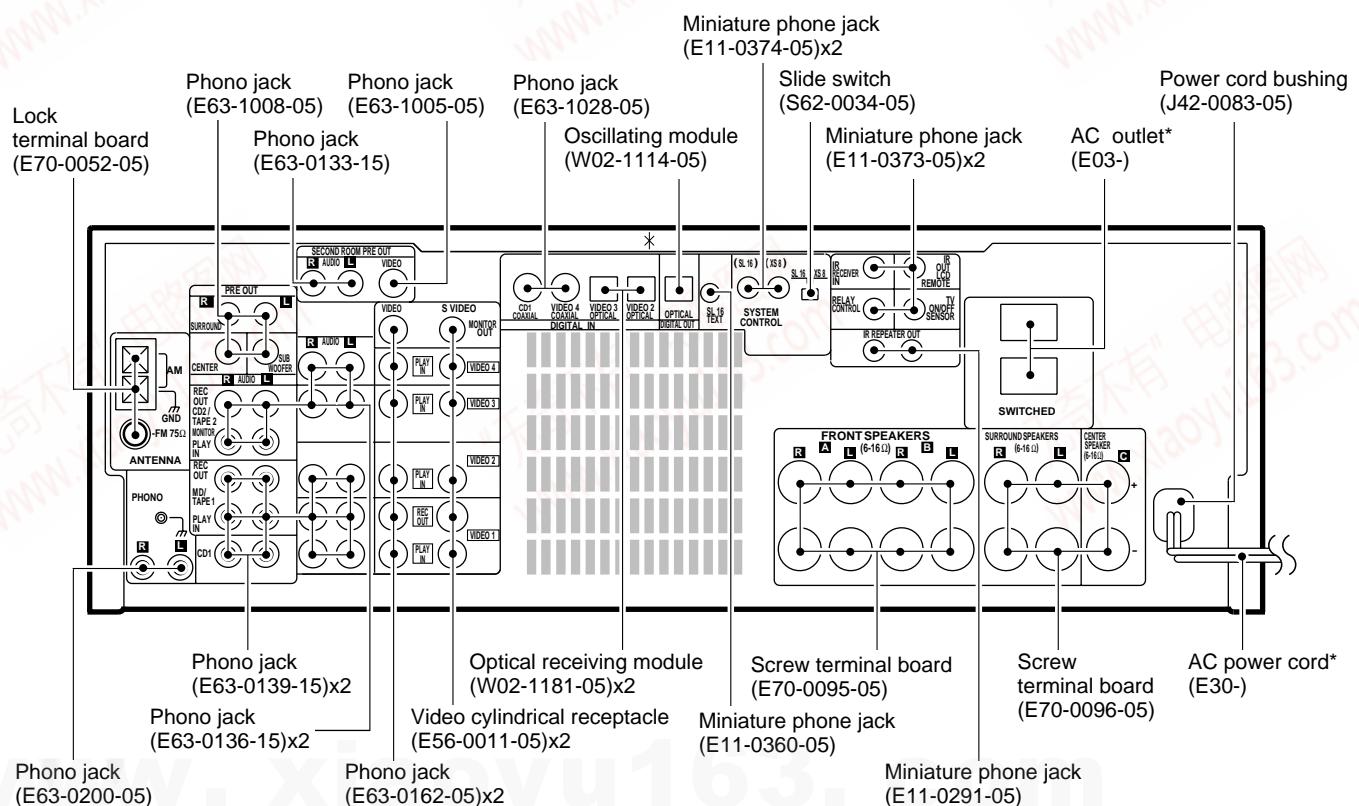
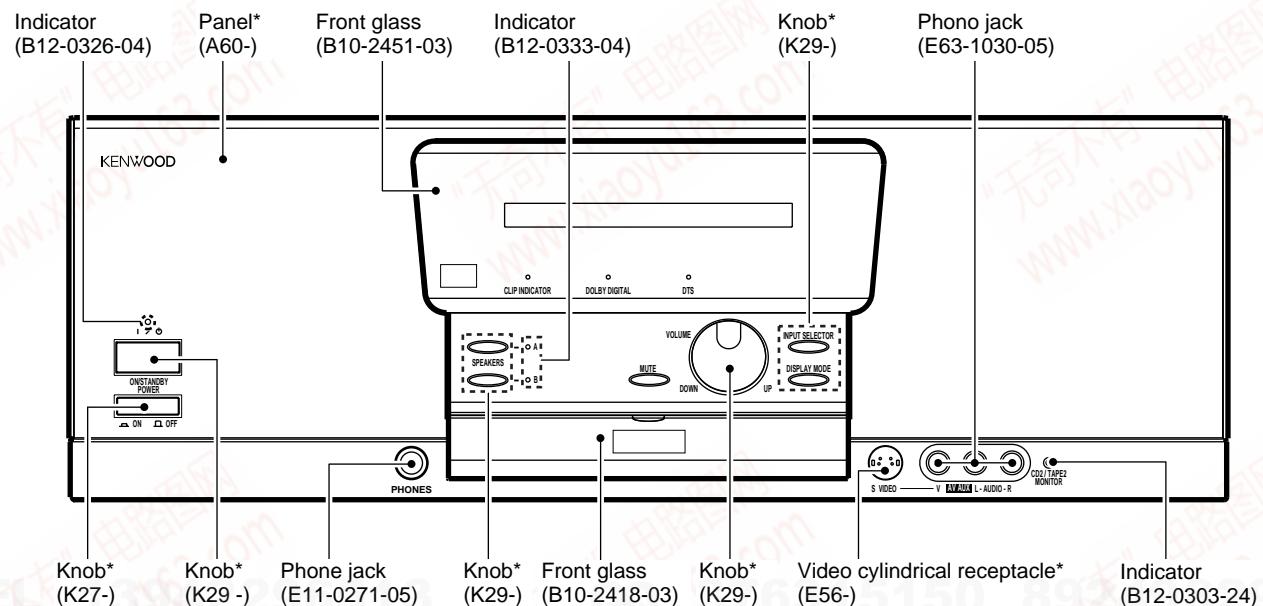
KRF-V7771D/VR-2080

KRF-V8881D/VR-2090

SERVICE MANUAL

KENWOOD

© 1998-5/B51-5426-00 (K/K) 1796



* Refer to parts list on page 60.

CONTENTS / ACCESSORIES / CAUTIONS

Contents

CONTENTS / ACCESSORIES / CAUTIONS	2
CONTROLS	3
DISASSEMBLY FOR REPAIR	5
BLOCK DIAGRAM	6
CIRCUIT DESCRIPTION	9
ADJUSTMENT	17

WIRING DIAGRAM	19
PC BOARD	23
SCHEMATIC DIAGRAM	31
EXPLODED VIEW	59
PARTS LIST	60
SPECIFICATIONS	79

Accessories

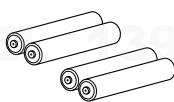
Check that the following accessories are present.

Remote control unit (1)
(A70-1191-05)

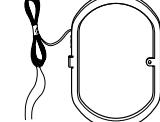


(RC-R0907)
Battery cover(A09-0378-08)

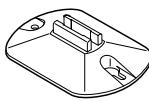
Batteries(R6/AA) (4)



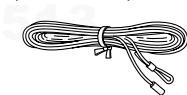
AM loop antenna (1) (T90-0833-05)



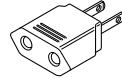
Loop antenna stand (1)
(J19-3645-05)



FM indoor antenna (1)
(T90-0835-05)



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



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

Cautions

How to reset the microcomputer

The microcomputer may malfunction (impossibility of operation, erroneous display, etc.) when the power cord is unplugged and plugged in again while the unit is in ON mode with the I/Ø key pressed or due to other external causes. In this case, execute the procedure on the right to reset the microcomputer and return the unit to the normal condition.

- Resetting the microcomputer clears the memory you entered and returns it to the initial condition when the unit left the factory.

U.S.A. and Canada

- ❶ Unplug the power cord from the wall outlet.
- ❷ While holding the I/Ø (ON/STANDBY) key depressed, plug the power cord into the wall outlet again.

Expect for U.S.A. and Canada

- ❶ With the power cord plugged in, turn the POWER key OFF.
- ❷ While holding down the ON/STANDBY key, press POWER key.

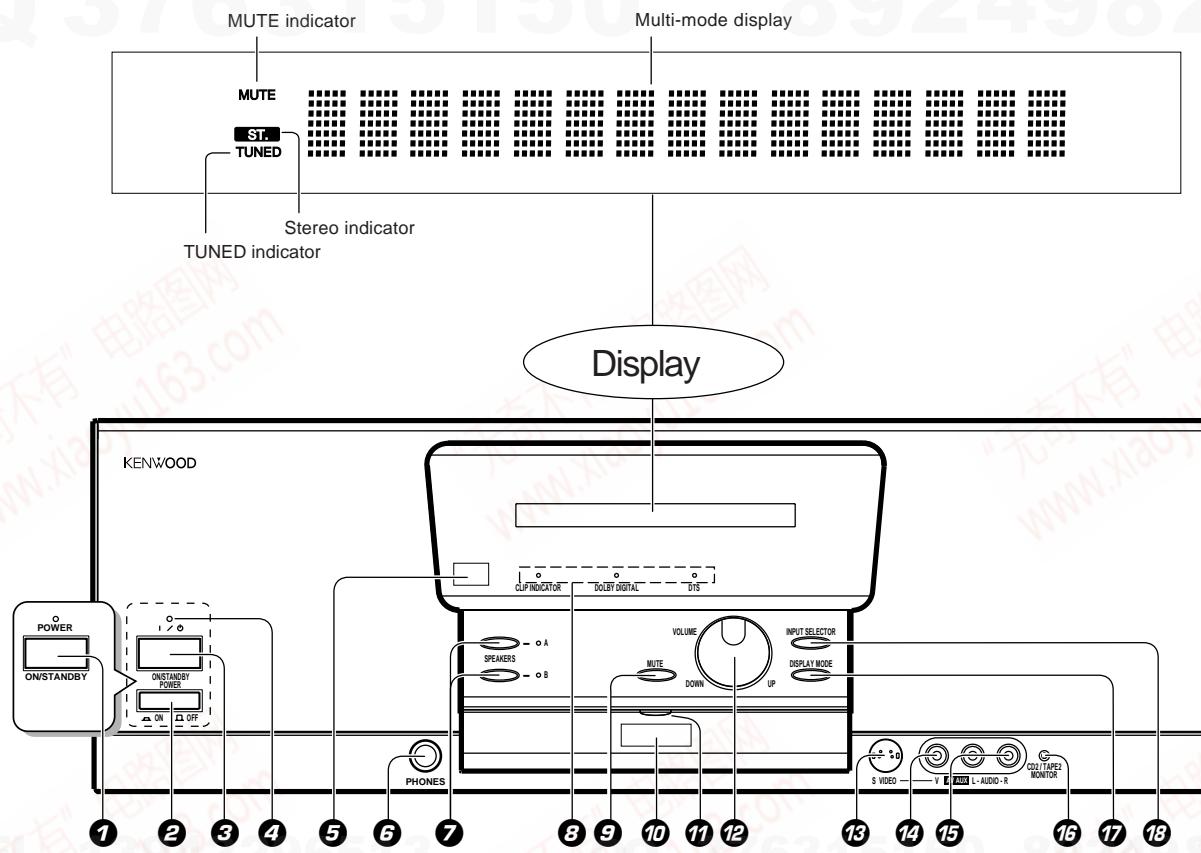
Memory backup function

Please note that the following items will be deleted from this unit's memory if the power cord is disconnected from the AC outlet for approximately three days.

- The input selection is cleared and the "Tuner" input is selected.
- The volume setting is cleared and the volume is set to "-66 dB".
- The receiving band setting is cleared and the "FM" band is selected.

- The frequency setting is cleared and 87.5 MHz is selected.
- The preset station memory is cleared.
- The surround setting is cleared and reset to the initial condition.

CONTROLS

**① POWER key**

(U.S.A., U.S.Military and Canada)
Press to switch power ON and OFF.

② POWER key

(Except for U.S.A., U.S.Military and Canada)
(China : ① POWER)
Press to switch the main power ON and OFF.

③ ON/STANDBY key

(Except for U.S.A., U.S.Military and Canada)
Press to switch the power mode between
STANDBY and ON.

④ STANDBY indicator

Lights in STANDBY mode.

⑤ RC sensor

Receives signals transmitted from the remote control unit.

⑥ PHONES jack

Use for listening audio through headphones.

⑦ SPEAKERS keys

Press each key to switch the SPEAKERS A or
SPEAKERS B ON and OFF.

⑧ Indicators**CLIP INDICATOR :**

Lights when the input is clipped during analog to digital signal conversion.

DOLBY DIGITAL :

Lights when Dolby Digital is activated.

DTS :

Lights when the DTS is activated.

⑨ MUTE key

Press to mute the audio temporarily.

⑩ RC transmitter

Sends signals to the remote control unit.

⑪ Indicator

Lights when signal is input from or output to the remote control unit.

⑫ VOLUME control knob

Rotate to adjust the volume.

⑬ S VIDEO input jack

(Except for the VR-2080 or the KRF-V7771D for the U.S. Military destination)
Connect the S VIDEO output jack of an AV component.

⑭ VIDEO input jack

Connect the composite video output (RCA) jack of an AV component.

⑮ AUDIO (L, R) input jacks

Connect the audio output (RCA) jacks of an AV component.

⑯ CD2/TAPE2 MONITOR indicator

Lights when the CD2/Tape2 (Monitor) input is used.

⑰ DISPLAY MODE key

Press to switch the display on the main unit.

⑲ INPUT SELECTOR key

Press to switch the input as shown below.

TUNER

CD1

MD/Tape1

VIDEO1

VIDEO2

VIDEO3

VIDEO4

AV AUX

PHONO

STANDBY indication

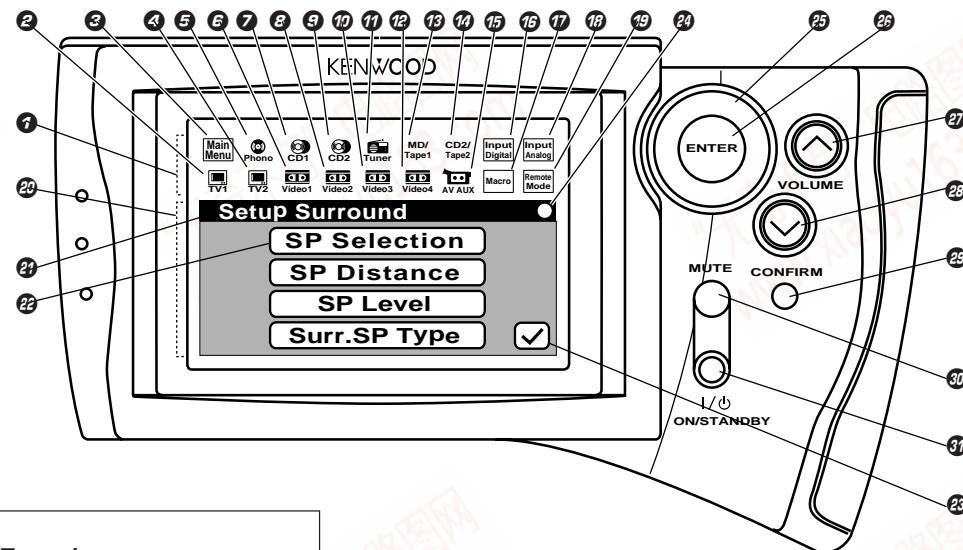
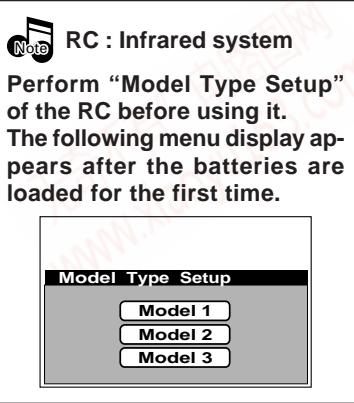
While standby indicator is indicated, a small amount of power is supplied to the system to back up the memory. In this mode, the system can be turned ON by remote control.

CONTROLS

892498299

Controls and indicators

The Remote Control unit provided with the Receiver can also control KENWOOD MD recorder, cassette decks, CD player, DVD player and LD player which are connected to it through system control cords. For details of the controllable functions, refer to the instruction manuals of these components.



Segment screen

① Segment screen

The fixed icons are displayed in this area.

② TV1 icon

Select to display the TV1 control screen.

③ Main Menu icon

Select to display the Main Menu screen.

④ TV2 icon

Select to display the TV2 control screen.

⑤ Phono icon

Select to select the PHONO input.

⑥ Video1 icon

Select to control Video1.

⑦ CD1 icon

Select to control CD1.

⑧ Video2 icon

Select to control Video2.

⑨ CD2 icon

Select to control CD2.
(Room B only)

⑩ Video3 icon

Select to control Video3.

⑪ Tuner icon

Select to control Tuner.

⑫ Video4 icon

Select to control Video4.

⑬ MD/Tape1 icon

Select to control MD or Tape1.

⑭ CD2/Tape2 icon

Select to monitor the CD2/Tape2 input. (Room A only)

⑮ AV AUX icon

Select to select the AV AUX input.

⑯ Input Digital icon

Select to play a digital input or to switch between Auto and Manual.

⑰ Macro icon

Select to control Macro.

⑱ Input Analog icon

Select to play an analog input.

⑲ Remote Mode icon

Select to switch the remote control operation mode without changing the selected input.

The displayed icons are variable depending of the "Model Type Setup" for matching specifications with the Receiver which uses the RC unit and "Setup" for matching specifications with connected source component.

Menu screen

⑳ Menu screen

Control key icons and control levels are displayed in this area.

㉑ Status display

The example in the illustration shows the "Setup Surround" status.

㉒ SP Selection icon

Select to set up the speakers.

㉓ Return icon

Select to return to the previous menu screen.

㉔ Status display

Shows the communication status.

Operation keys

㉕ Joy stick key

This key is used to select an icon. This key can be controlled in 4 directions.

㉖ ENTER key

Press to enter the selection of an icon.

㉗ VOLUME (up) control key

Press to increase the volume.

㉘ VOLUME (down) control key

Press to decrease the volume.

㉙ CONFIRM key

Press to select the currently displayed items.

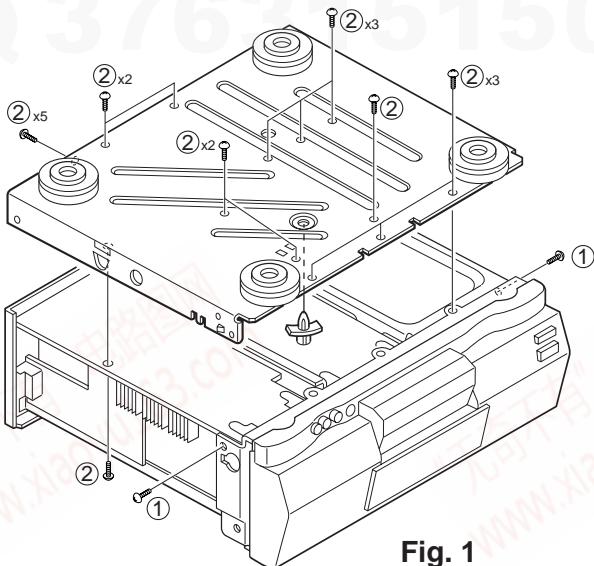
㉚ MUTE key

Press to mute the audio temporarily.

㉛ I/O (ON/STANDBY) key

Press to turn this unit and the components connected to it through system cords between ON and STANDBY modes.

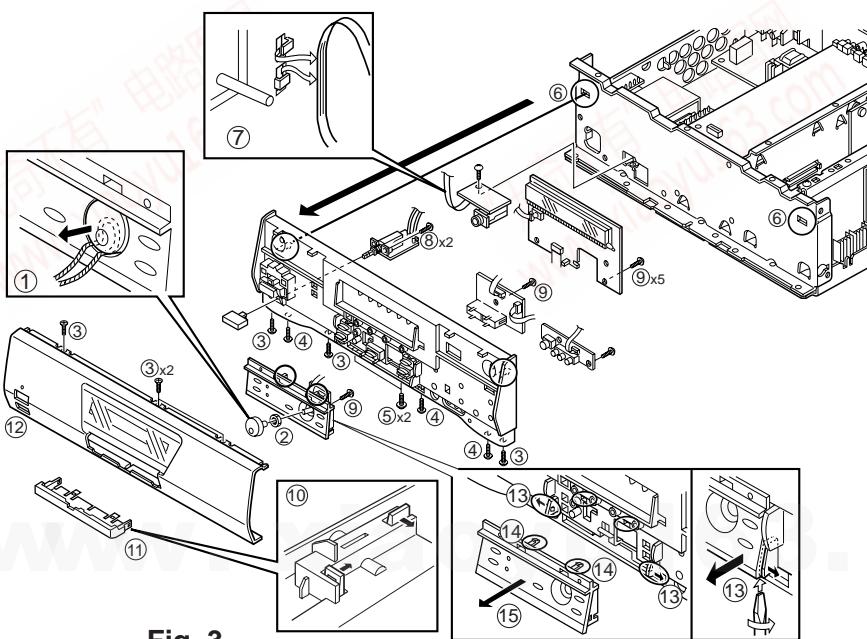
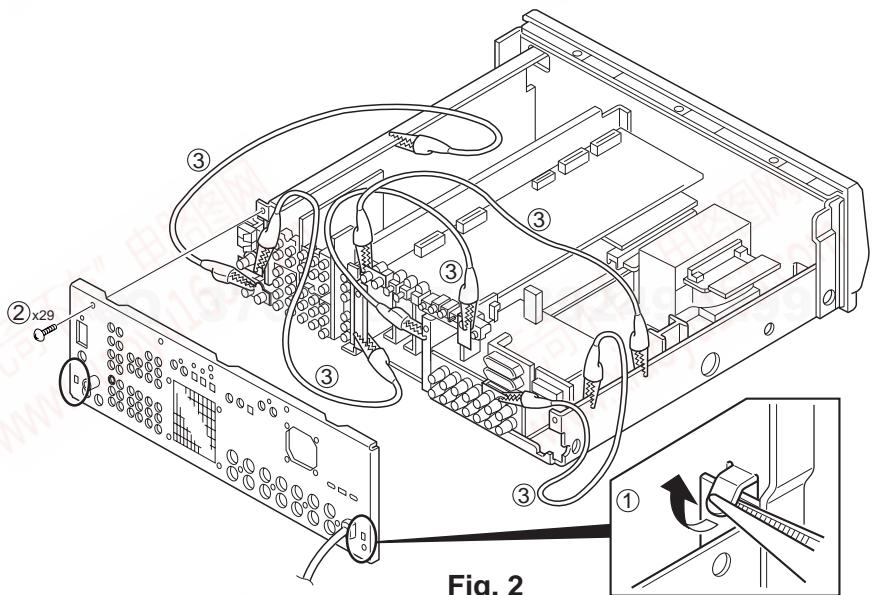
DISASSEMBLY FOR REPAIR



[Remove the bottom plate.]

Make use of the changing final transistor etc.

1. Remove the 19 screws (①, ②) and PCB support, then remove the bottom plate.



[Remove the escutcheon (operation panel)]

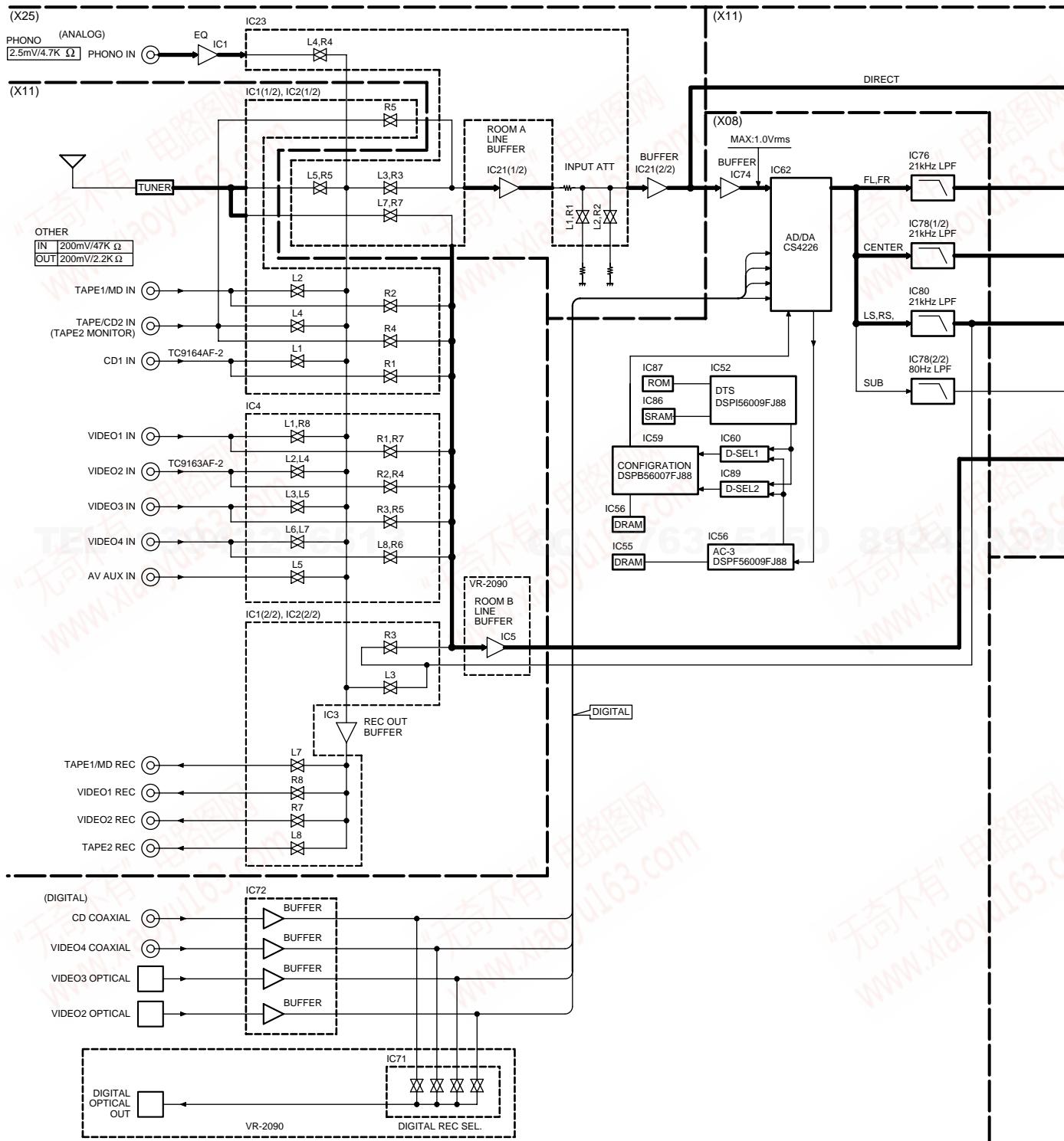
1. Remove the knob(①), the nut (②), the 11 screws(③, ④, ⑤) and 2 hooks (⑥), then remove the front panel ass'y.
2. Remove the lead wire(⑦), the 2 screws(⑧ : except K,P type) and 7 screws(⑨) then remove the PCB.
3. Remove the under front glass(⑩, ⑪), then remove the front panel(⑫) from the sub panel.
4. Remove the 2 under escutcheon sides(⑬) by \ominus screw driver and the 2 hooks(⑭) then remove the escutcheon(⑮).

BLOCK DIAGRAM

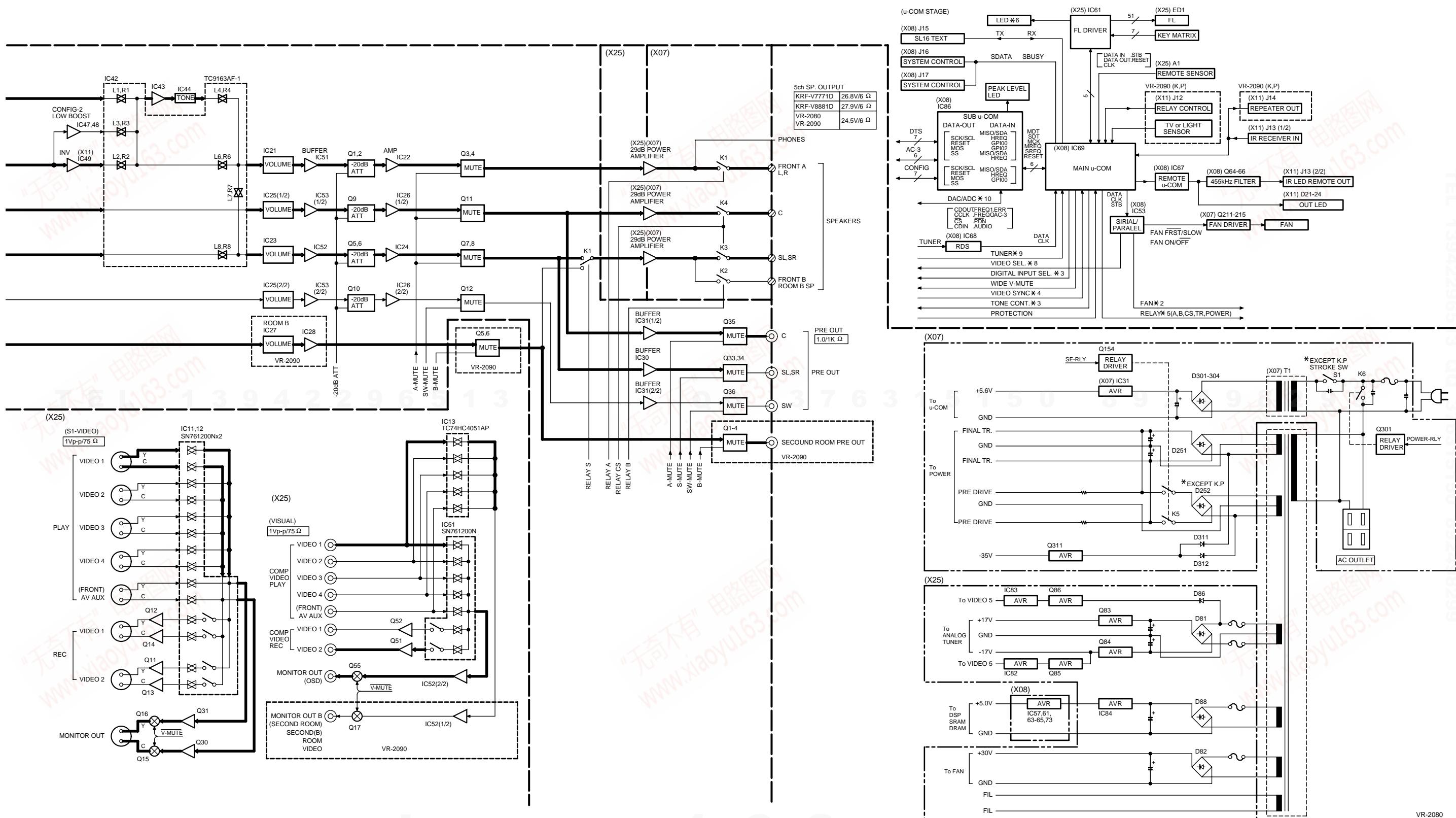
QQ 376315150

892498299

(SIGNAL STAGE)



BLOCK DIAGRAM



CIRCUIT DESCRIPTION

1. The back up item and initialization condition

1-1 Back up

- POWER ON/OFF : OFF
- VOLUME LEVEL : -66dB
- AUDIO INPUT • SELECTOR : TUNER
- VIDEO INPUT • SELECTOR : VIDEO1
- SPEAKER A : ON
- SPEAKER B : OFF
- CD2/TAPE2 MONITOR : TAPE2 OFF
- TONE : OFF
- LOUDNESS : OFF
- DISPLAY MODE : DEVICE+DGTL/ANLG
- RDS DISPLAY MODE : FREQUENCY
- DIMMER : DIMMER 1 (LIGHTEST)
- SURROUND MODE : STEREO
- DSP MODE : ARENA
- ROOM SIZE : Med
- WALL TYPE : Med
- EFFECT LEVEL : 3
- MIDNIGHT MODE : OFF
- DISTANCE : FL/FR : 10ft
: C : 10ft
: RS/LS : 5ft
: SW : 10ft
- FRONT SP. : LARGE
- CENTER SP. : NORMAL

- SURROUND SP. : NORMAL/WIRED
- SUB WOOFER : ON
- SW Re-Mix : OFF
- INPUT LEVEL : 0dB
- CH. LEVEL : 0dB
- TONE BASS : 0dB
- TONE TREBLE : 0dB
- TUNING MODE : AUTO
- PRESET MEMORY : TEST MEMORY FREQUENCY (Same value with KR-V999D/1090VR)
- LAST BAND : FM
- FM LAST FREQUENCY : 87.5MHz
- AM LAST FREQUENCY : 531kHz (CH. SP 9kHz)
: 530kHz (CH. SP 10kHz)
- LAST P. ch : [- -ch]
- PTY SELECT MODE : OFF
- PTY SEARCH MODE : OFF
- TP SEARCH MODE : OFF
- RDS DISPLAY MODE : FREQUENCY MODE

1-2 The initial setting

While pressing POWER key, plug the AC power cord into an AC outlet (K,P type) or turn on the AC POWER switch.

2. Condition by the destination or model

(0 : Pull down, 1 : Pull up)

TYPE	BAND	Reception frequency	Channel space	IF	PLL standard frequency	Diode sw			
						⑦ DSW3	⑧ DSW2	⑨ DSW1	⑩ DSW0
K1 1700	FM	87.5MHz~108.0MHz	100kHz	+10.7MHz	25kHz	0	0	0	0
	AM	530kHz~1700kHz	10kHz	+450kHz	10kHz				
K2 1610	FM	87.5MHz~108.0MHz	100kHz	+10.7MHz	25kHz	0	0	0	1
	AM	530kHz~1610kHz	10kHz	+450kHz	10kHz				
K4 1700 RBDS	FM	87.5MHz~108.0MHz	100kHz	+10.7MHz	25kHz	1	0	1	0
	AM	530kHz~1700kHz	10kHz	+450kHz	10kHz				
E1	FM	87.5MHz~108.0MHz	50kHz	+10.7MHz	25kHz	0	0	1	1
	AM	531kHz~1602kHz	9kHz	+450kHz	9kHz				
E3 RDS	FM	87.5MHz~108.0MHz	50kHz	+10.7MHz	25kHz	0	1	0	1
	AM	531kHz~1602kHz	9kHz	+450kHz	9kHz				
Q1 RDS	FM L	65.0MHz~74.0MHz	10kHz	+10.7MHz	5kHz	1	0	1	1
	FMH	87.5MHz~108.0MHz	50kHz	+10.7MHz	5kHz				
	AM	531kHz~1602kHz	9kHz	+450kHz	9kHz				
M	K2/E1 is switched with only the setting of DSW1 (X11 : S601). (DSW1 = 0 : K2 type, 1 : E1 type)					0	0	X	1

3. TEST MODE

[setting method]

While pressing INPUT SELECTOR key, plug the AC power cord into an AC outlet (K, P type) or turn on the AC POWER switch. When a set is set up in test mode condition a set becomes the following condition.

Automatic POWER ON. All indicator tube (FL) and

CLIP INDICATOR LED are lighted. The other LED are flashed.

A backup at the thing except ON/OFF of POWER is initialized.

[cancel method]

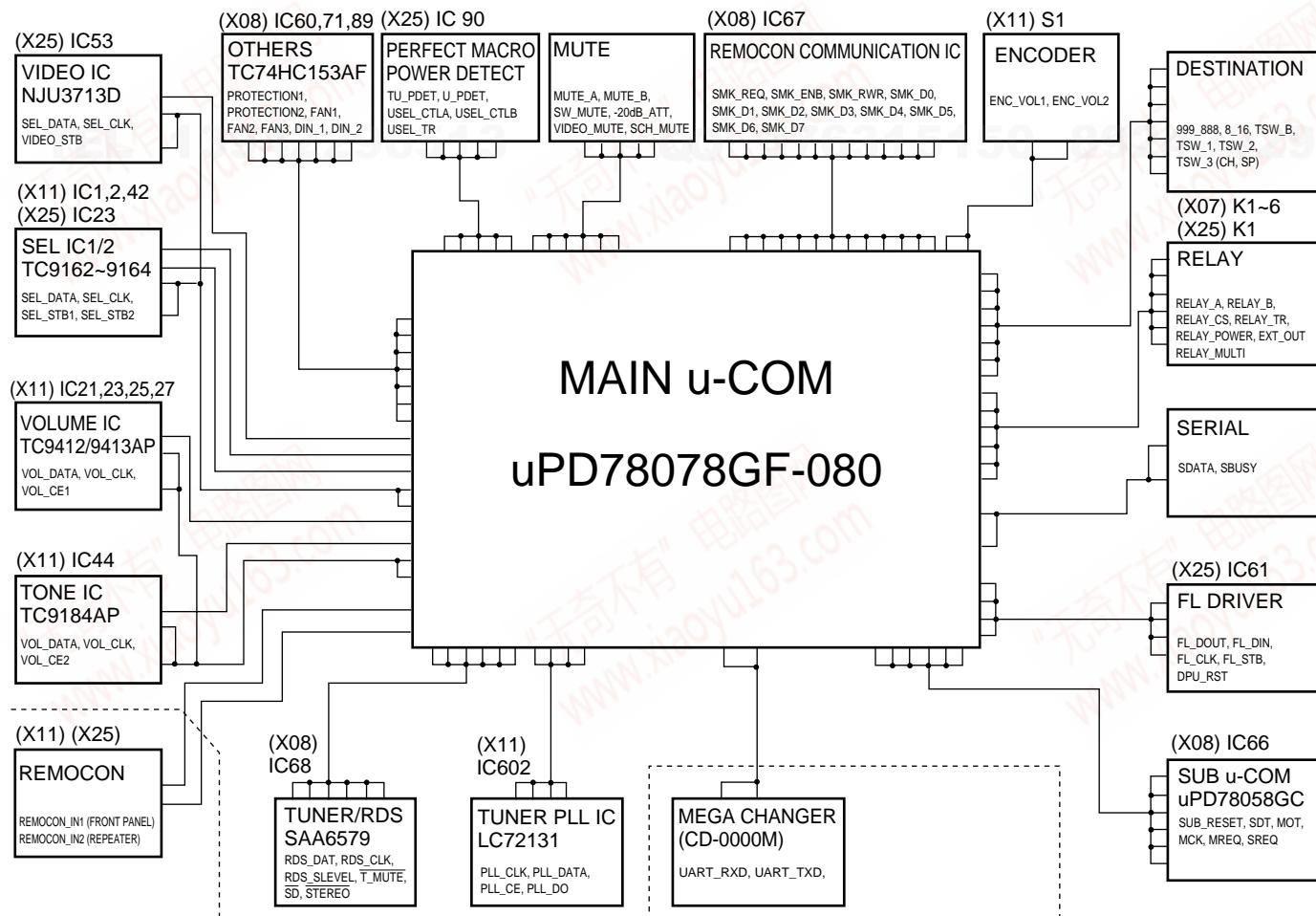
The power supply is turned off.

CIRCUIT DESCRIPTION

PUSH KEY	INPUT SELECTOR	SP A	SP B	MUTE	DISPLAY MODE
DISPLAY	TUNER STEREO	P. CALL ↑ UP	P. CALL ↓ DOWN	ATT OFF → ON → FM	AUTO/STEREO ↔ MANUAL/MONO (DOLBY DIGITAL LED : OFF ↔ ON)
	CD1 STEREO				TONE (TUNED) +10 (light on) ↔ OFF (light off)
	MD/TAPE1 STEREO				
	VIDEO1 PRO LOGIC				
	VIDEO2 3 STEREO				
	VIDEO3 STEREO				
	VIDEO4 DSP				ARENA → JAZZ CLUB ↑ THEATER STADIUM ↓ CATHEDRAL
	AV AUX STEREO				TAPE2 OFF ↔ ON
	PHONO STEREO				INPUT LEVEL 0dB → -3dB → -6dB

4. Main microprocessor uPD78078GF-080 (X08 : IC69)

4-1 Microprocessor periphery block diagram



CIRCUIT DESCRIPTION

4-2 Pin description

Pin No.	Pin Name	I/O	Connect	Description
1	VOL_STB	O	PD	VOLUME IC CE (TC9412AP/TC9413AP)
2	VOL_CLK	O	PD	VOLUME IC CLOCK (TC9412AP/TC9413AP) TONE IC CLOCK (TC9184AP)
3	VOL_DATA	O	PD	VOLUME IC DATA (TC9412AP/TC9413AP) TONE IC DATA (TC9184AP)
4	SEL_STB1	O	PD	ANALOG SW. STROBE (NJU731x)
5	SEL_STB2	O	PD	ANALOG SW. STROBE (NJU7311-NJU7313)
6	VIDEO_STB	O	PD	VIDEO IC STROBE (NJU3713)
7	SEL_CLK	O	PD	ANALOG SW. CLOCK (NJU7311-NJU7313) VIDEO IC CLOCK (NJU3713D)
8	SEL_DATA	O	PD	ANALOG SW. DATA (NJU7311-NJU7313) VIDEO IC DATA (NJU3713D)
9	-	-	PD	NO USED
10, 11	X2, 1	-	-	MAIN CLOCK 4.19MHz (CERAMICS)
12	Vdd	-	+5V	+5V
13, 14	XT2, 1	-	OPEN	NO USED
15	RESET	I	VDD	uCOM RESET
16	REMOCON_IN1	I	-	FRONT PANEL REMOCON
17	REMOCON_IN2	I	-	EXTERNAL REMOCON
18	RDS_DATA	I	PD	RDS DATA (SAA6579)
19	RDS_CLK	I	PD	RDS CLOCK (SAA6579)
20, 21	NC	I	PD	NO USED
22	CE	I	-	BACK UP CE
23	AVdd	-	VDD	+5V
24	AVref0	I	VDD	A/D POWER SUPPLY
25	RDS_SLEVEL	I	PD	RDS SLEVEL (SAA6579)
26	T_MUTE	O	PD	TUNER MUTE
27	PLL_CLK	O	PD	PLL IC CLOCK (LC73131)
28	PLL_DATA	O	PD	PLL IC DATA (LC72131)
29	PLL_CE	O	PD	PLL IC CE (LC72131)
30	SD	I	PU	SD INPUT
31	STEREO	I	PU	STEREO INPUT
32	PLL_DO	I	PD	PLL IC LC72131 DO (LC72131)
33	AVss	-	VSS	GND
34	SUB_RESET	O	PD	SUB uCOM RESET (uPD78058GC-A74)
35	V_PDET	I	PU	PERFECT MACRO VIDEO POWER DETECT
36	AVref1	I	VDD	+5V
37	UART_RXD	I	PD	MEGA CHANGER CD DATA RECEIVE POWER LINE REMOCON CODE RECEIVE
38	UART_TXD	O	PD	MEGA CHANGER CD DATA TRANSMIT POWER LINE REMOCON CODE TRANSMIT
39	VSEL_TR	O	PD	PERFECT MACRO VIDEO SELECTOR POWER SUPPLY SW. Tr
40	Vss	-	GND	GND
41	SDT	I	PD	uCOM-uCOM COMMUNICATION SLAVE DATA (uPD78058GC-A74)
42	MDT	O	PD	uCOM-uCOM COMMUNICATION MASTER DATA (uPD78058GC-A74)
43	MCK	O	PD	uCOM-uCOM COMMUNICATION MASTER CLOCK (uPD78058GC-A74)
44	MREQ	O	PD	uCOM-uCOM COMMUNICATION MASTER REQUEST (uPD78058GC-A74)

KRF-V7771D/V8881D/VR-2080/2090

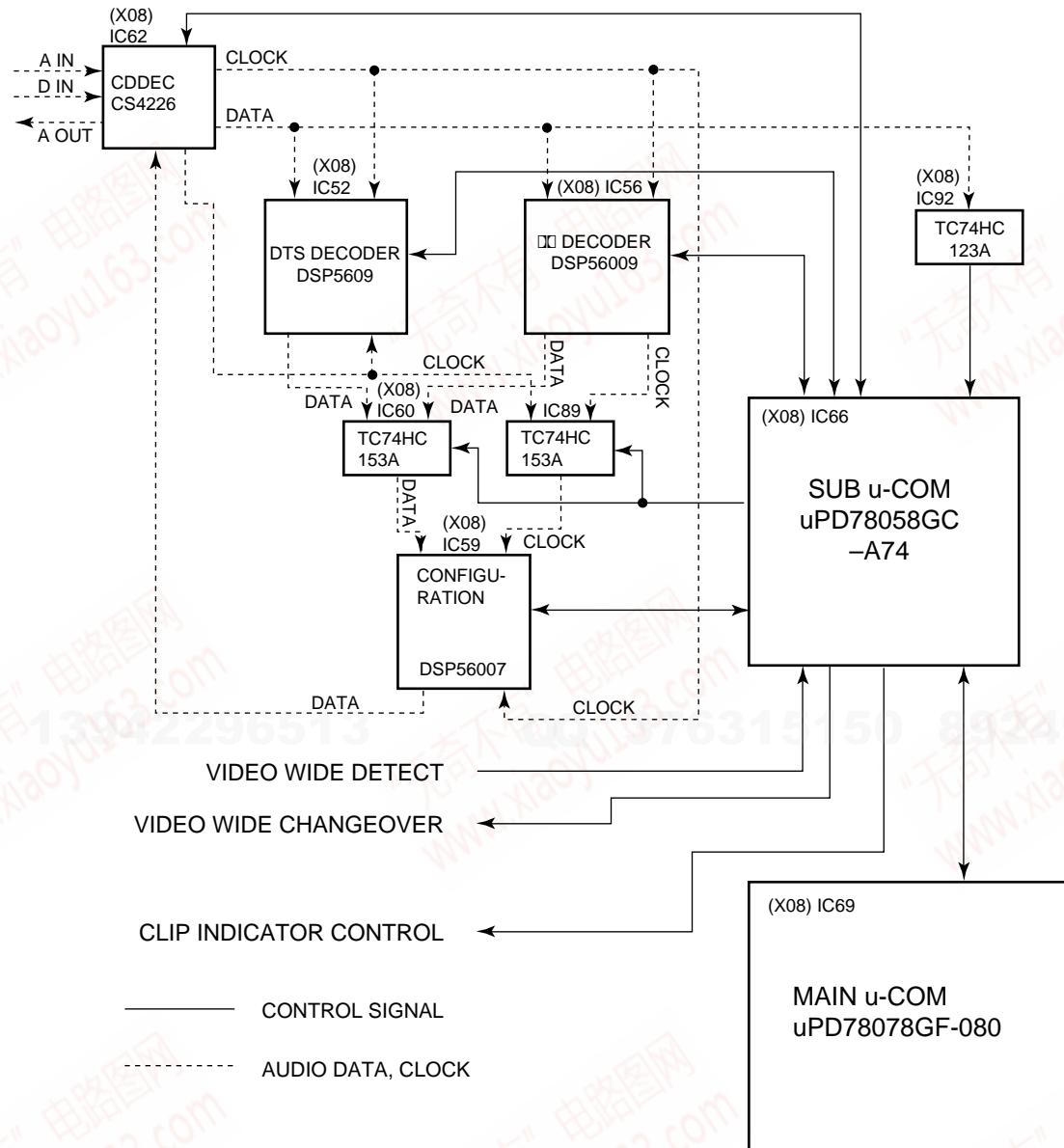
CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Connect	Description		
45	SREQ	I	PD	uCOM-uCOM COMMUNICATION SLAVE REQUEST (uPD78058GC-A74)		
46	FL_DOUT	I	PD	FL DRIVER DATA IN		
47	FL_DIN	O	PD	FL DRIVER DATA OUT		
48	FL_CLK	O	PD	FL DRIVER CLOCK		
49	FL_STB	O	PD	FL DRIVER STROBE		
50	VSEL_CTL_A	O	PD	PERFECT MACRO VIDEO SELECTOR CONTROL A		
51	VSEL_CTL_B	O	PD	PERFECT MACRO VIDEO SELECTOR CONTROL B		
52	FAN_1	I	PD	FAN DETECT 1		
53	FAN_2	I	PD	FAN DETECT 2		
54	FAN_3	I	PD	FAN DETECT 3		
55	SDATA	I/O	—	SERIAL DATA		
56	SBUSY	I/O	—	SERIAL BUSY		
57	RELAY_A	O	PD	SPEAKER A RELAY		
58	RELAY_B	O	PD	SPEAKER B RELAY		
59	RELAY_CS	O	PD	CENTER/SURROUND SPEAKER RELAY		
60	RELAY_TR	O	PD	TRANS RELAY		
61	RELAY_POWER	O	PD	POWER RELAY		
62	EXT_OUT	O	PD	EXTERNAL OUT		
63	NC	O	PD	NO USED		
64	DRV_RST	O	PD	FL DRIVER RESET		
65	TV_PDET	I	PD	PERFECT MACRO TV POWER DETECT		
66	999_888	I	—	TYPE SELECT	H : VR-2090	L : VR-2080
67	8_16	I	—	SERIAL SELECT	L : SERIAL 16bit	H : SERIAL 8bit
68, 69	ENC_VOL2, 1	I	PD	VOLUME ENCODER IN		
70	PROTECTION1	I	PD	PROTECT DETECT		
71	Vss	—	GND	GND		
72	PROTECTION2	I	PD	PROTECT DETECT		
73	NC	I	PD	NO USED		
74~76	TSW_0~2	I	—	TUNER SIMUKE SWITCH 0~2		
77	TSW_3 (CH. SP)	I	PD	TUNER SIMUKE SWITCH 3 (CHANNEL SPACE)		
78	NC	I	—	NO USED		
79	RELAY_MULTI	O	PD	SP B SIGNAL OUTPUT	ROOM A : L	ROOM B : H
80, 81	DIN_1, 2	O	PD	DIGITAL REC SELECT (TC74HC153AF)		
82	DIN_STB	O	PD	DIGITAL REC SELECT STROBE (TC74HC153AF)		
83	SMK_REQ	O	PD	REMOCON DATA TRANSMIT IC REQ		
84	SMK_ENB	I	PD	REMOCON DATA TRANSMIT IC ENB		
85	SMK_RWR	I	PD	REMOCON DATA TRANSMIT IC RWR		
86~93	SMK_D0~D7	O	PD	REMOCON DATA TRANSMIT IC D0~D7		
94	MUTE_A	O	PU	ROOM A MUTE		
95	MUTE_B	O	PU	ROOM B MUTE		
96	SW_MUTE	O	PU	SWch MUTE		
97	-20dB_ATT	O	PU	-20dB ATTENUATER		
98	VIDEO_MUTE	O	PD	VIDEO MUTE		
99	SCH_MUTE	O	PD	Sch MUTE		
100	TONE_STB	O	PD	TONE IC CE (TC9184AP)		

CIRCUIT DESCRIPTION

6. Sub microprocessor uPD78058GC-A74 (X08 : IC66)

6-1 Microprocessor periphery block diagram



KRF-V7771D/V8881D/VR-2080/2090

CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Connect	Description
64	DSP1_GPI0	O	P. D.	DSP IC1 (AC-3) DSP MODE USE SETTING PARAMETER
65	DATA_IN	I	P. D.	DIR OUTPUT DETECT H: DIGITAL DATA IN
66	N. C.	I	P. D.	-
67	N. C.	I	P. D.	-
68	Vdd	-	+5V	
69, 70	X2, 1	-	-	CLOCK OSCILLATOR 4.23MHz
71	IC (Vpp)	-	GND	-
72	N. C.	-	OPEN	-
73	P07	-	-	-
74	AVdd	-	+5V	-
75	AVref0	-	GND	-
76	DSP2_HREQ	I	P. D.	DSP IC2 (DTS) HOST REQUEST
77	DSP2_SS	O	P. U.	DSP IC2 (DTS) SLAVE SELECT
78	DSP2_RESET	O	P. D.	DSP IC2 (DTS) RESET
79	DSP1_HREQ	I	P. D.	DSP IC1 (AC-3) HOST REQUEST
80	DSP1_SS	O	P. U.	DSP IC1 (AC-3) SLAVE SELECT

6-3 DIR A/D & D/A CONVERTER (CODEC) CS4226KQC (X08 : IC62)

6-3-1 CODEC CS4226

Main pin description

Pin No.	Pin Name	Description
3	SCL/CCLK	Serial communication CLOCK
4	SDA/CDOUT	Serial data line CS4226 → SUB uCOM
5	ADI/CD IN	Serial data line SUB uCOM → CS4226
6	ACO/CS	CS4226 CHIP SELECT
7	SPI/I2C	Serial control format setting
8	PDN	Powerdown Pin
9	AIN3R/AUDIO	audio/non-audio detect
10	AIN3L/AUTODATA	Input C bit, V bit H : Signal of AC-3, MPEG, DTS
11	AIN2L/FREQ0	Channel Status Freq. Bit
12	AIN2R/FREQ1	Channel Status Freq. Bit
30	OVL/ERR	Input Analog : ADC clipping indicator Input Digital : D/PDIF error indicator

⑪⑫ FREQ0/FREQ1

	32kHz	44.1kHz	48kHz	Reserved
FREQ1	H	L	L	H
FREQ0	H	L	H	L

⑩ AC3

AC-3/MPEG Data Stream Input	Exist	None
AC3, MPEG, DTS	1	0

⑳ CLIP INDICATOR (X25 : D66) CONTROL

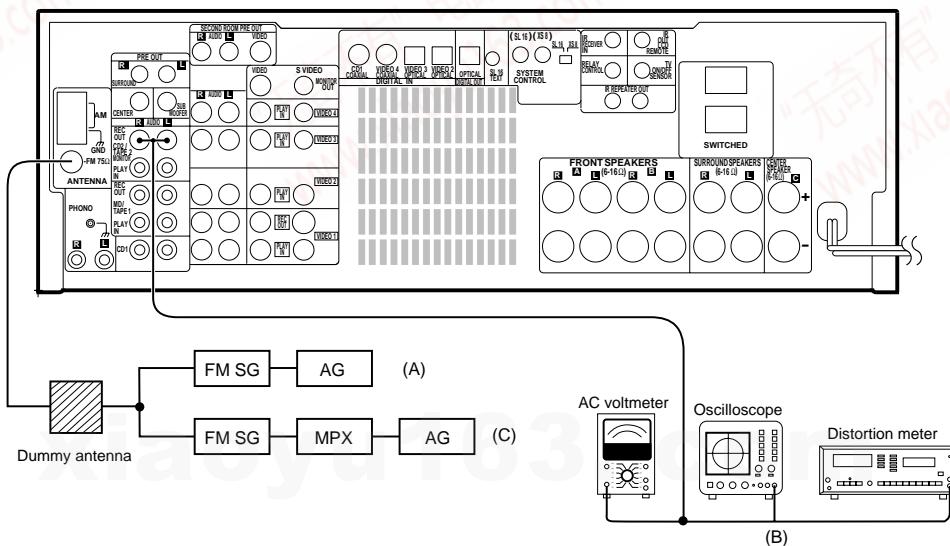
	IC62 (CODEC)	IC66 (Sub u-COM)
INPUT SOURCE	⑳ CS_OVL_ERR	㉗ PEAK_LEVEL OUTPUT
DIGITAL	don't care	L
ANALOG	L	L
	H	H

H : LED LIGHTING

ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	RECEIVER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION : Except M type		SELECTOR : FM		*Adjust NO.1 and NO.2 repeat.			
1	DISCRIMINATOR	(A) 98.0MHz 1kHz, $\pm 75\text{kHz}$ dev. 70dBf (ANT. input)	Connect a DC voltmeter between CN12 ① and CN12 ② (X11)	MONO 98.0MHz	L604 (X11)	0V	(a)
2	DISTORTION (MONO)	(A) 98.0MHz 1kHz, $\pm 75\text{kHz}$ dev. MONO 70dBf (ANT. input)	(B)	MONO 98.0MHz	L605 (X11)	Minimum distortion	(a)
3	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, $\pm 67.5\text{kHz}$ dev. Selector : L or R Pilot : $\pm 7.5\text{kHz}$ dev. 70dBf (ANT. input)	(B)	AUTO 98.0MHz	IFT(RF FRONTEND : A1)	Minimum distortion (L or R)	(a)
4	TUNING LEVEL	(A) 98.0MHz MONO 1kHz, $\pm 75\text{kHz}$ dev. 15dBf (ANT. input)	(B)	MONO 98.0MHz	VR601 (X11)	Adjust VR601 and stop at the point where ED1 (TUNED) goes on.	(a)
FM SECTION : M type only		SELECTOR : FM					
1	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, $\pm 67.5\text{kHz}$ dev. Selector : L or R, Pilot : $\pm 7.5\text{kHz}$ dev. 70dBf (ANT. input)	(B)	AUTO 98.0MHz	IFT (TUNER UNIT : A601)	Minimum distortion (L or R)	(a)
2	TUNING LEVEL	(A) 98.0MHz MONO 1kHz, $\pm 75\text{kHz}$ dev. 15dBf (ANT. input)	(B)	MONO 98.0MHz	VR601 (TUNER UNIT)	Adjust VR601 and stop at the point where ED1 (TUNED) goes on.	(a)

SYSTEM CONNECTIONS

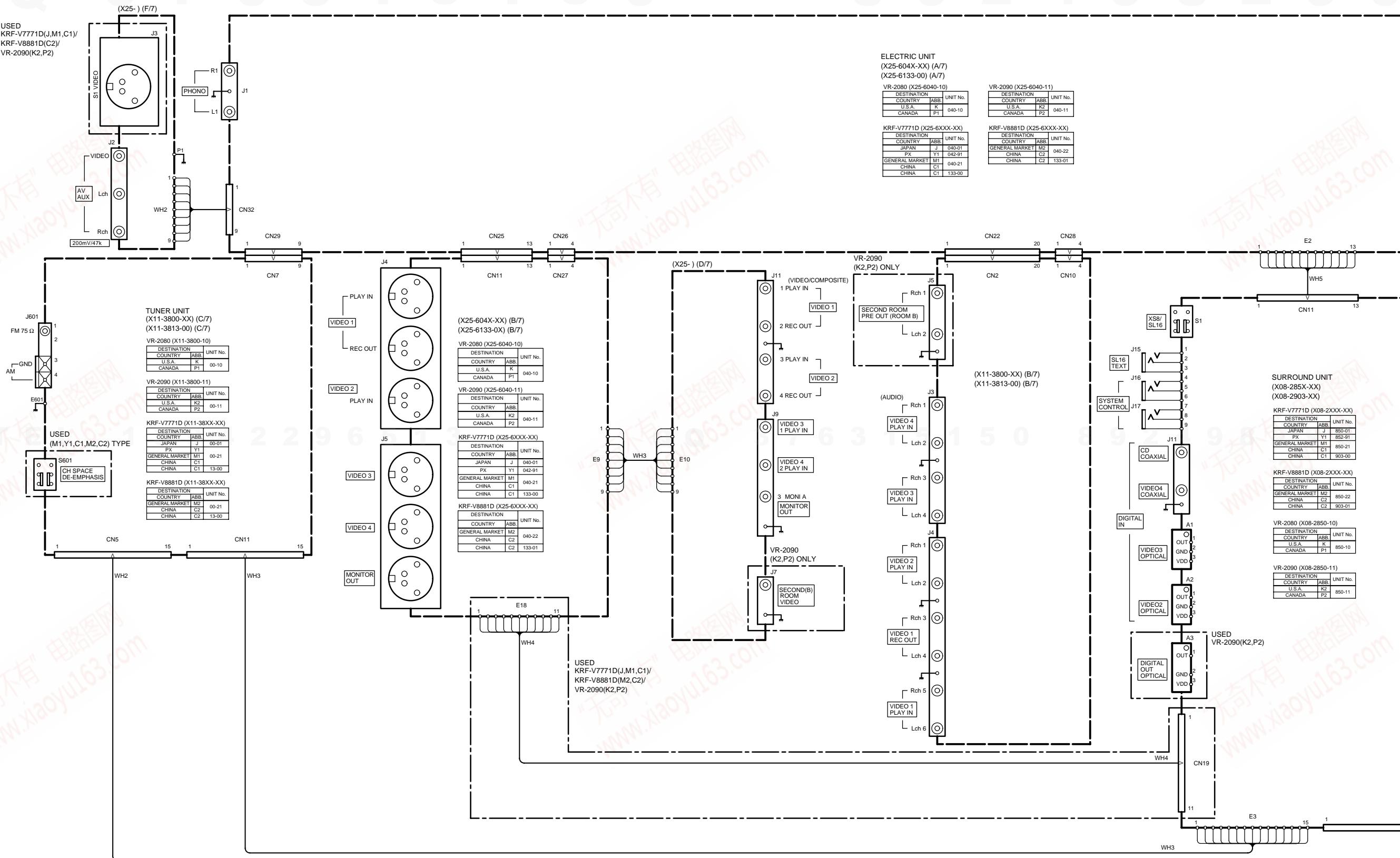


KRF-V7771D/V8881D/VR-2080/2090

ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	RECEIVER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
	AUDIO SECTION	SPEAKER : A	PREOUT : OFF	PROLOGIC : ON			
<1>	IDLE CURRENT	—	Connect a DC voltmeter across CN1 (each port) 1, 2 pin : L 5, 6 pin : R 3, 4 pin : SL 7, 8 pin : SR 9, 10 pin : C	(FRONT 2ch MODE) Volume:0	VR1(L) VR2(R) VR3(SL) VR4(SR) VR5(CENTER) (X07-)	10mV	

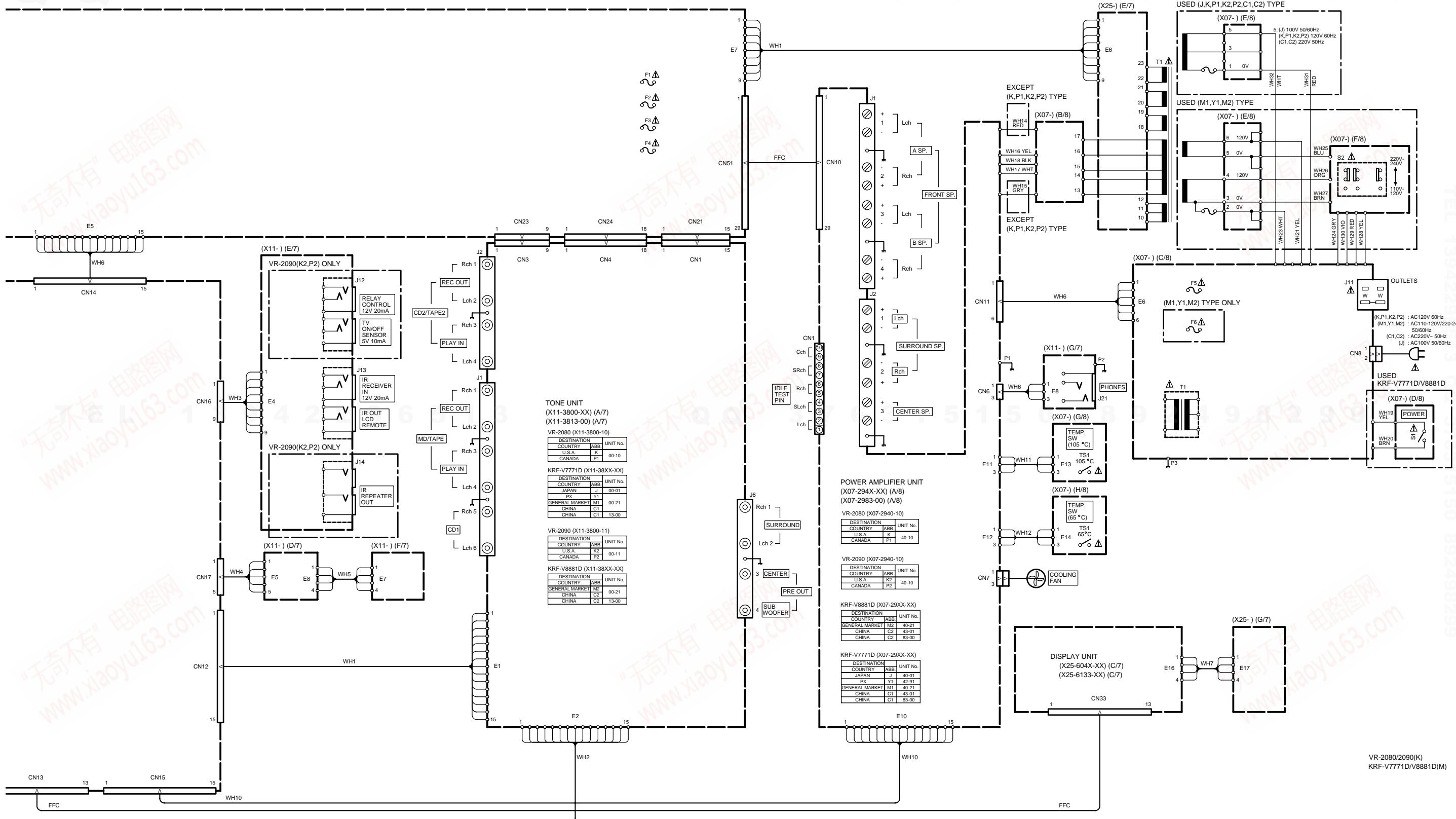
WIRING DIAGRAM



KRF-V7771D/V8881D/VR-2080/2090

KRF-V7771D/V8881D/VR-2080/2090

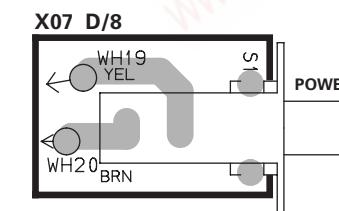
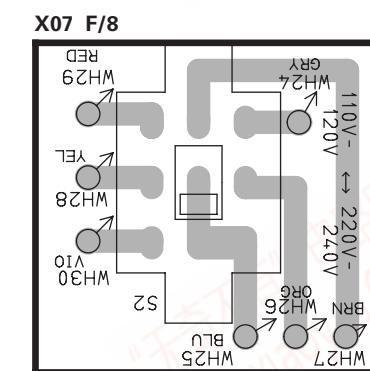
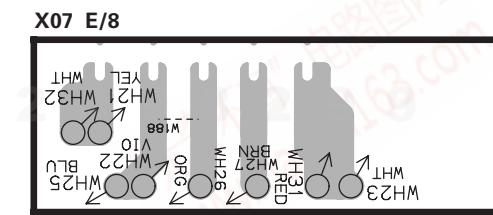
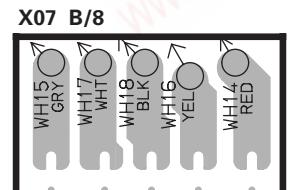
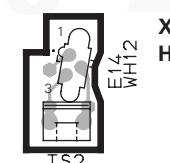
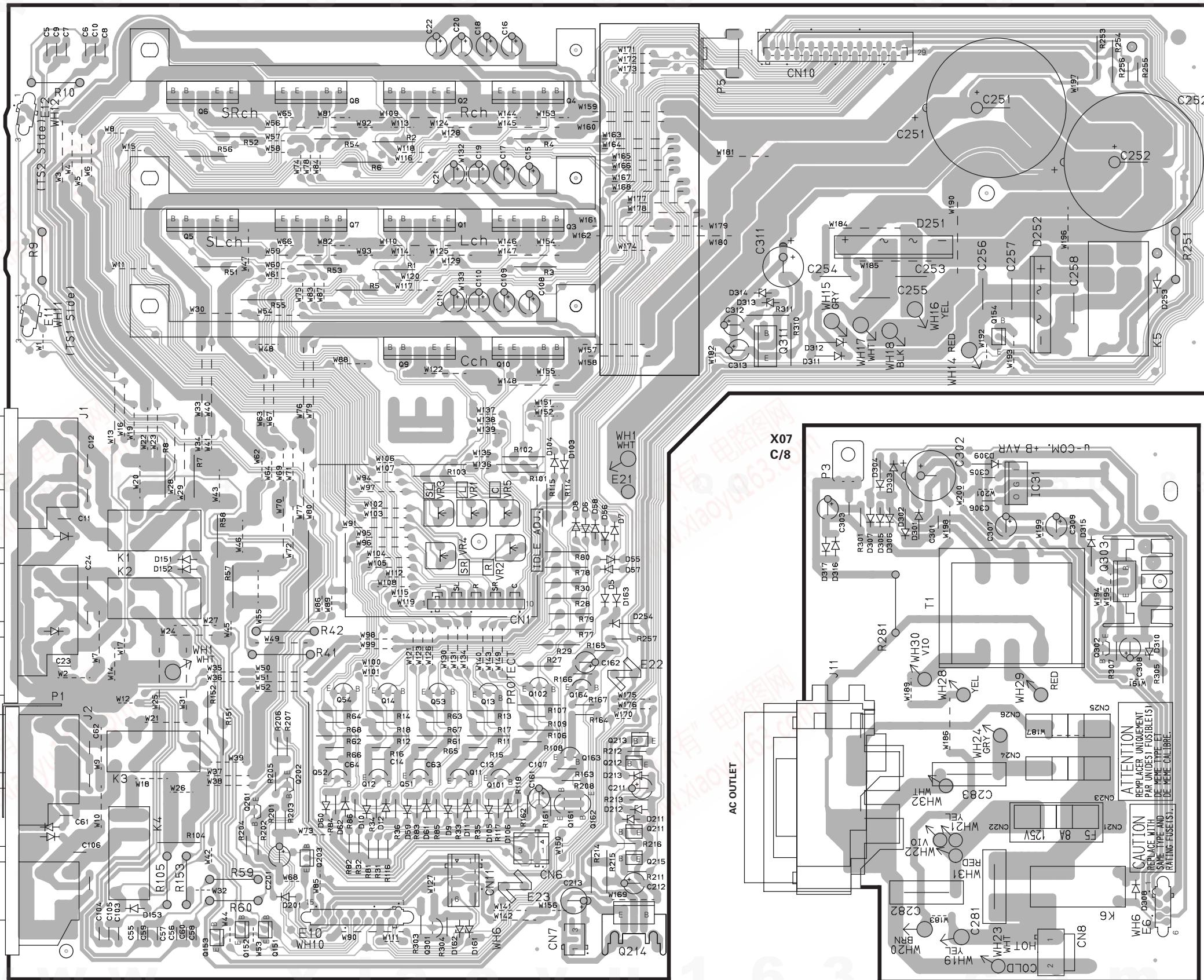
WIRING DIAGRAM



PC BOARD(Component side view)

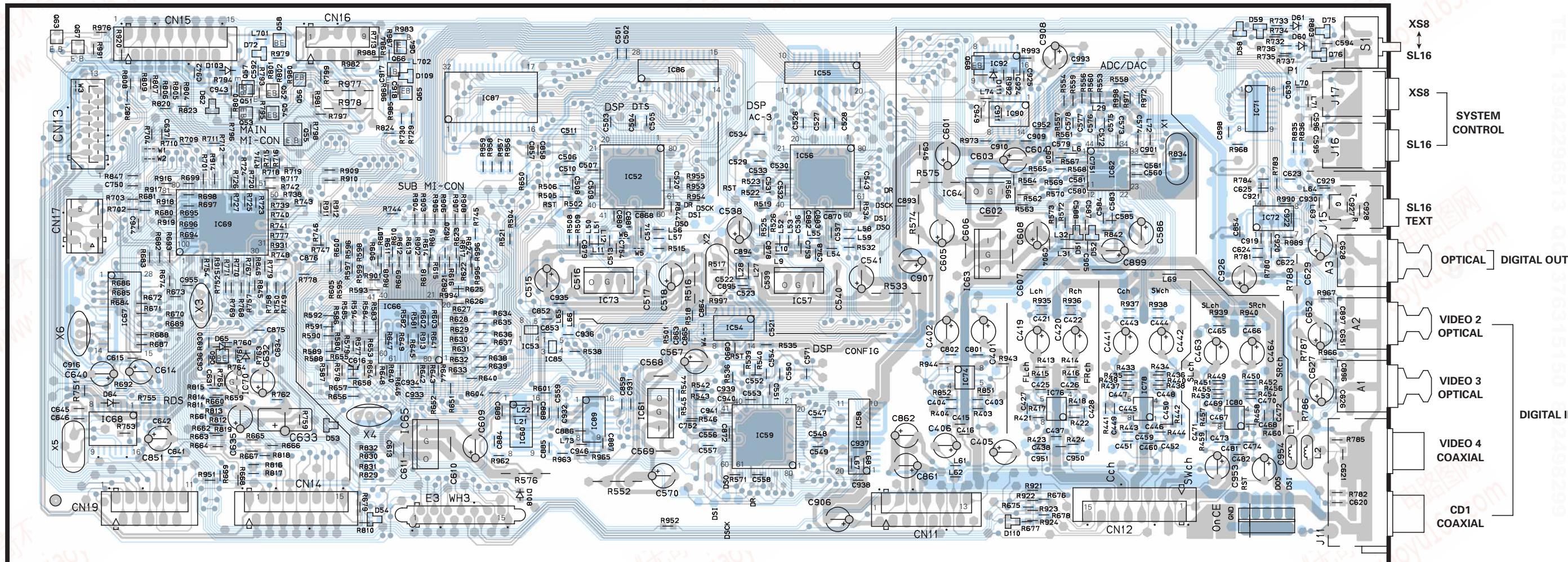
X07-294X-XX A/8 (J70-1153-11)

FRONT SPEAKERS
A R L
B R L
CENTER SPEAKER
L R



PC BOARD(Component side view)

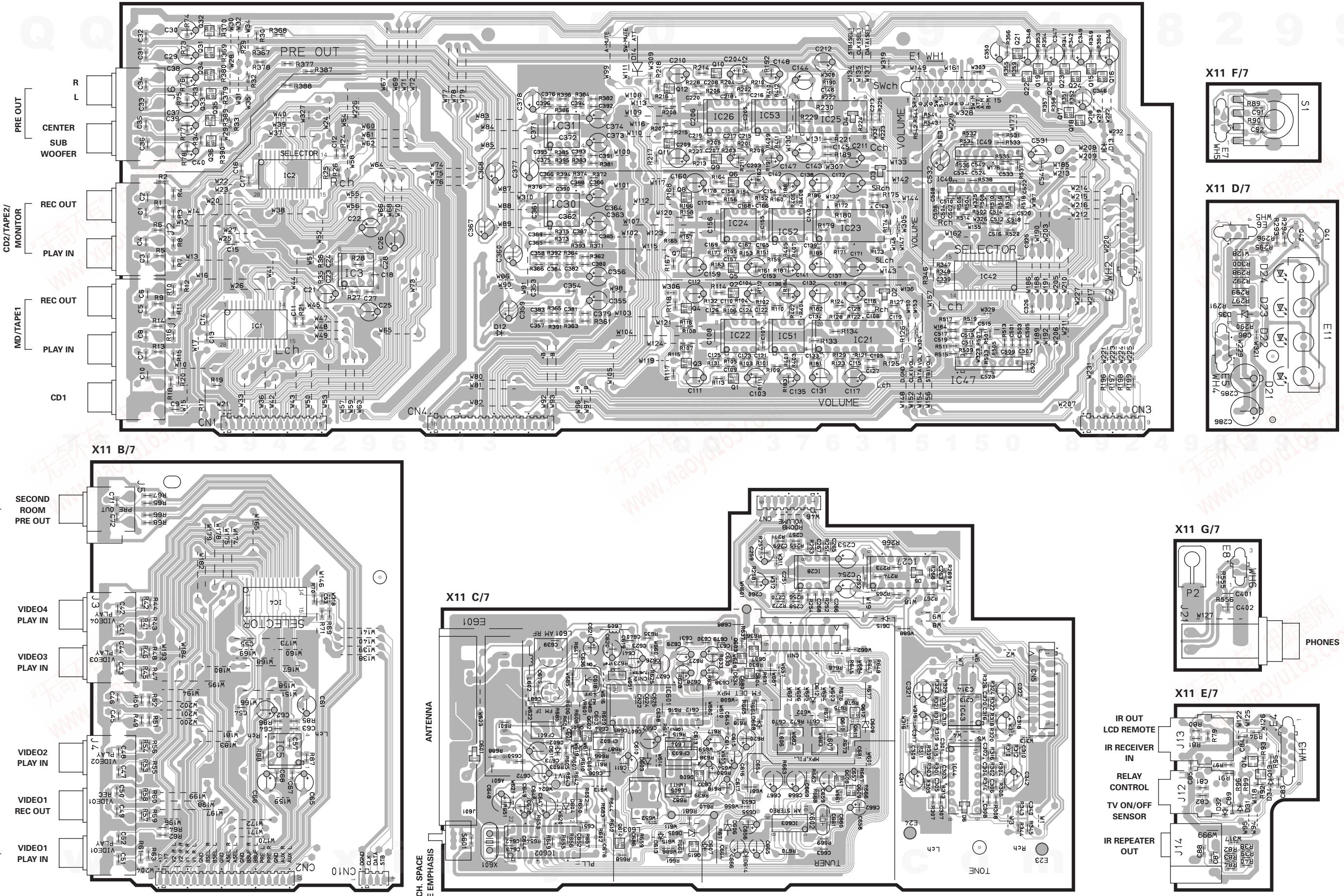
X08-285X-XX (J70-1143-11)



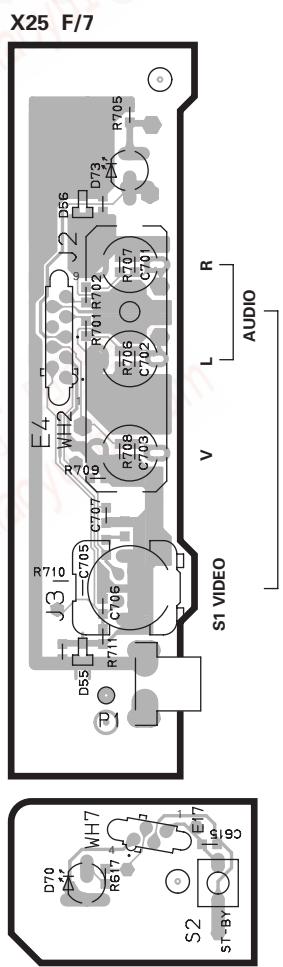
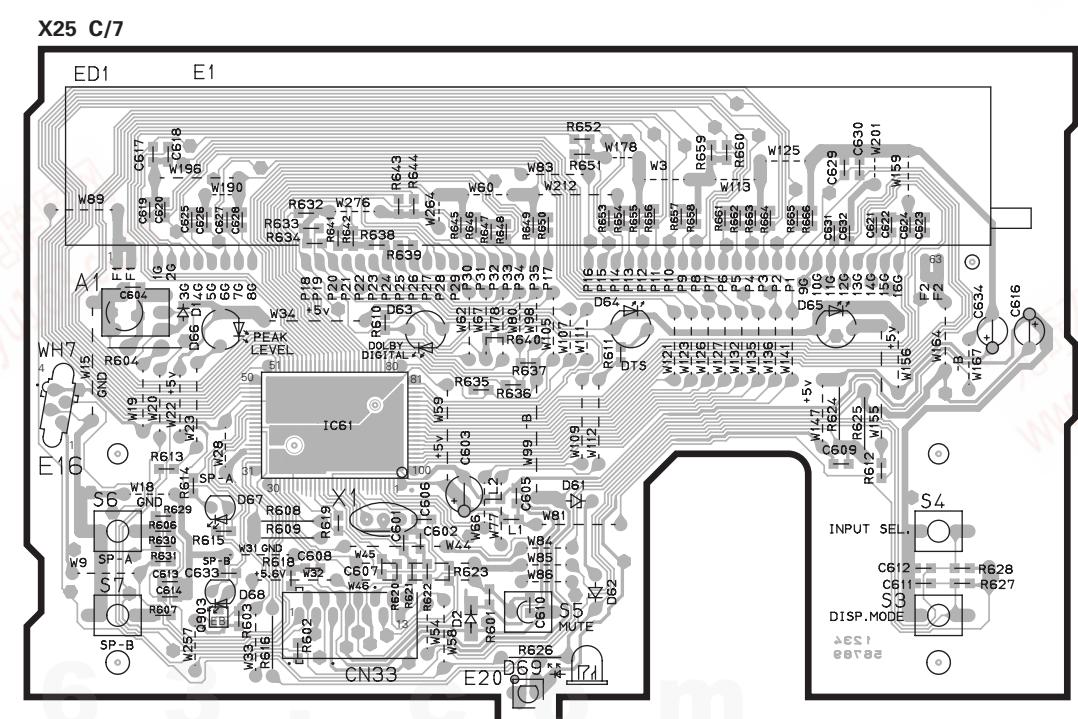
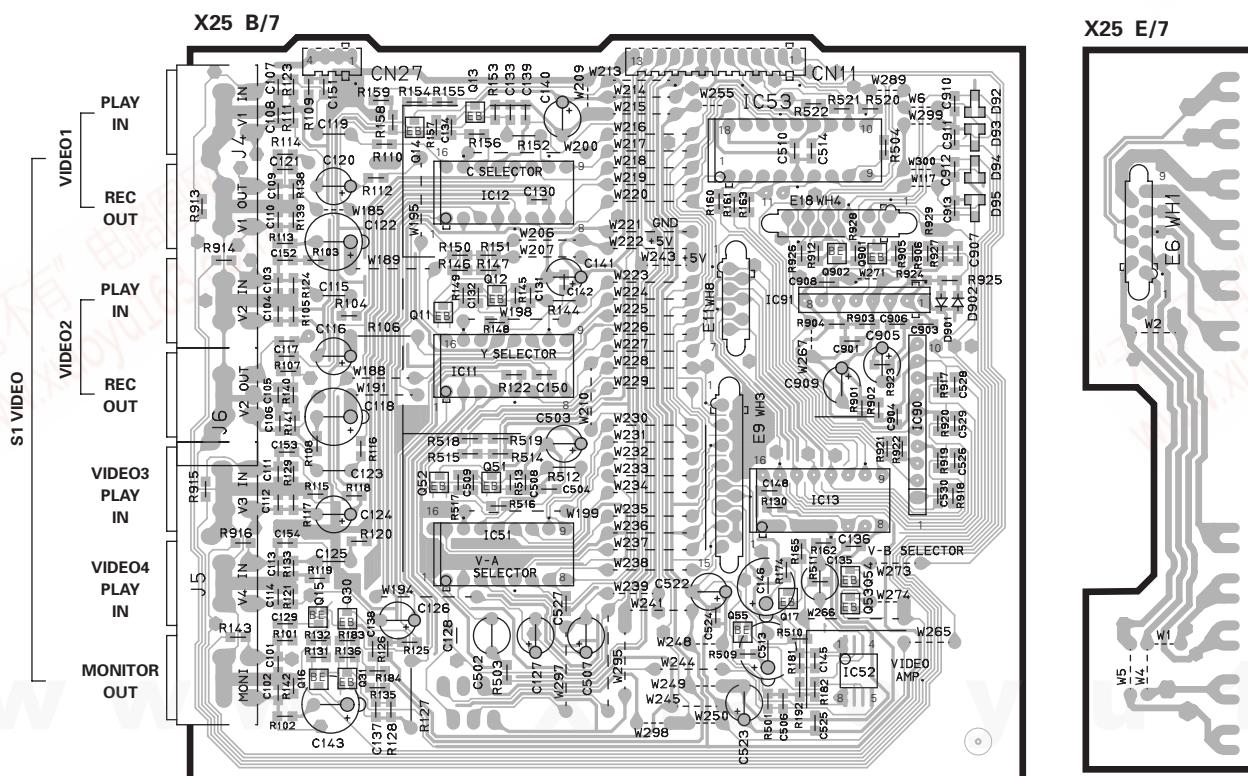
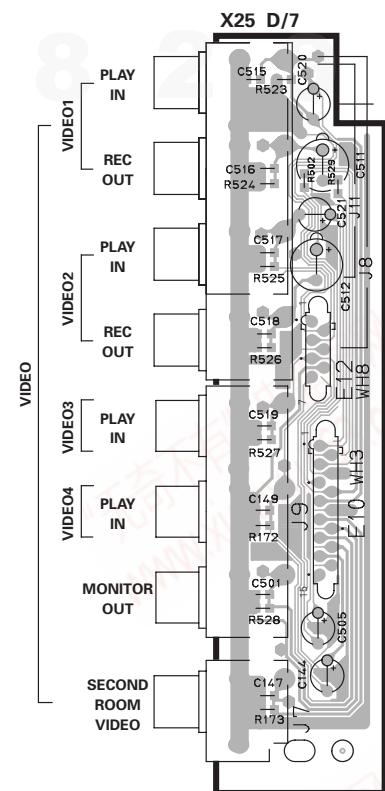
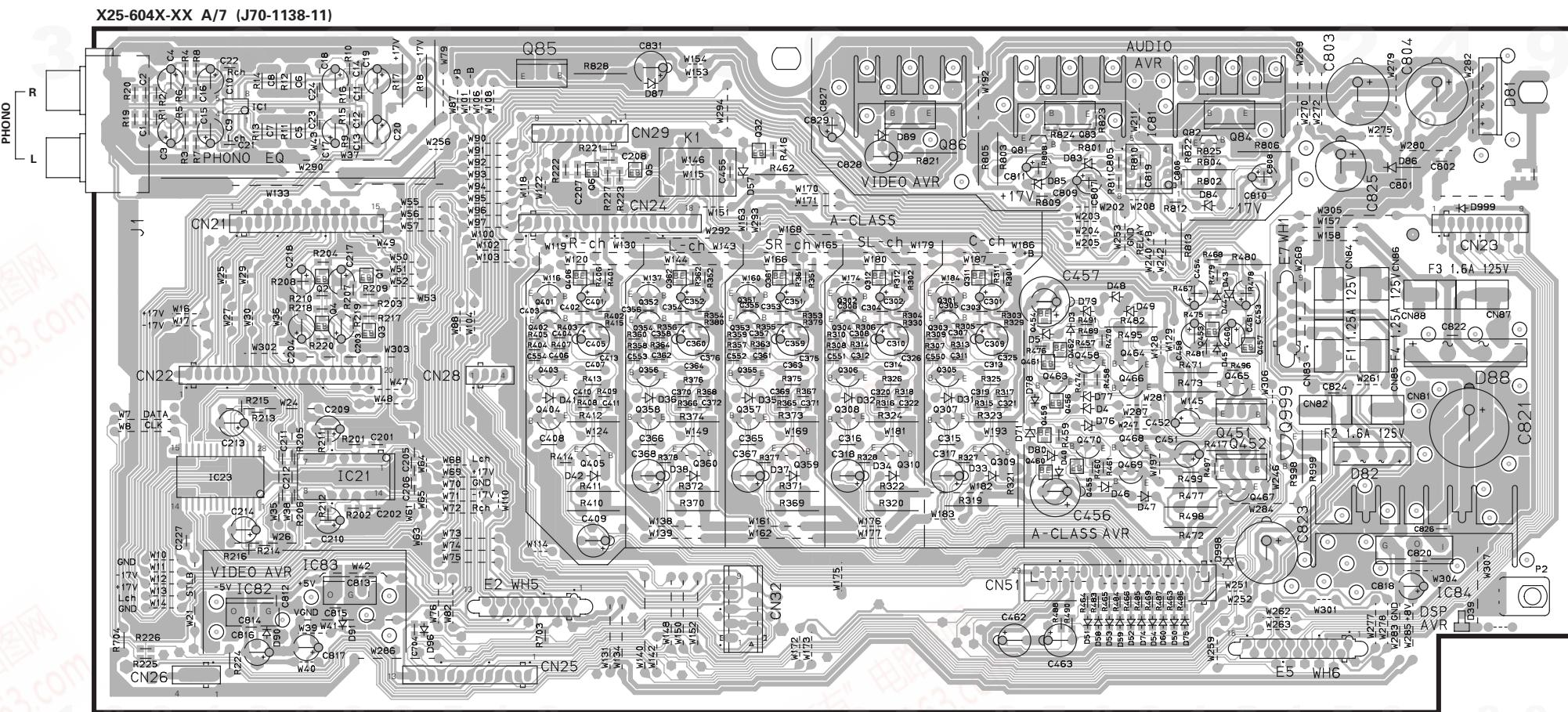
Refer to the schematic diagram for the value of resistors and capacitors.

PC BOARD(Component side view)

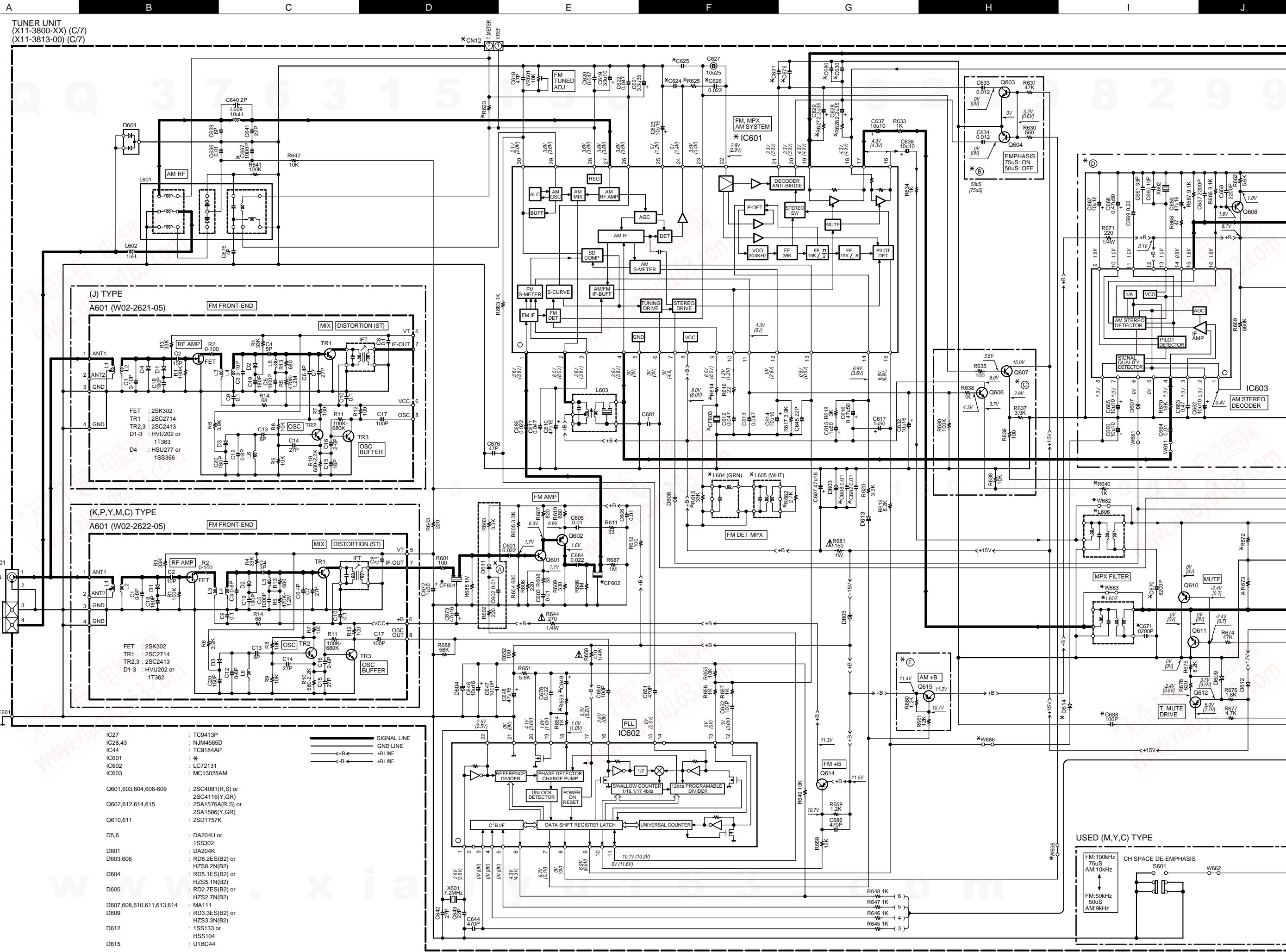
X11-3800-10 A/7 (J70-1198-11)

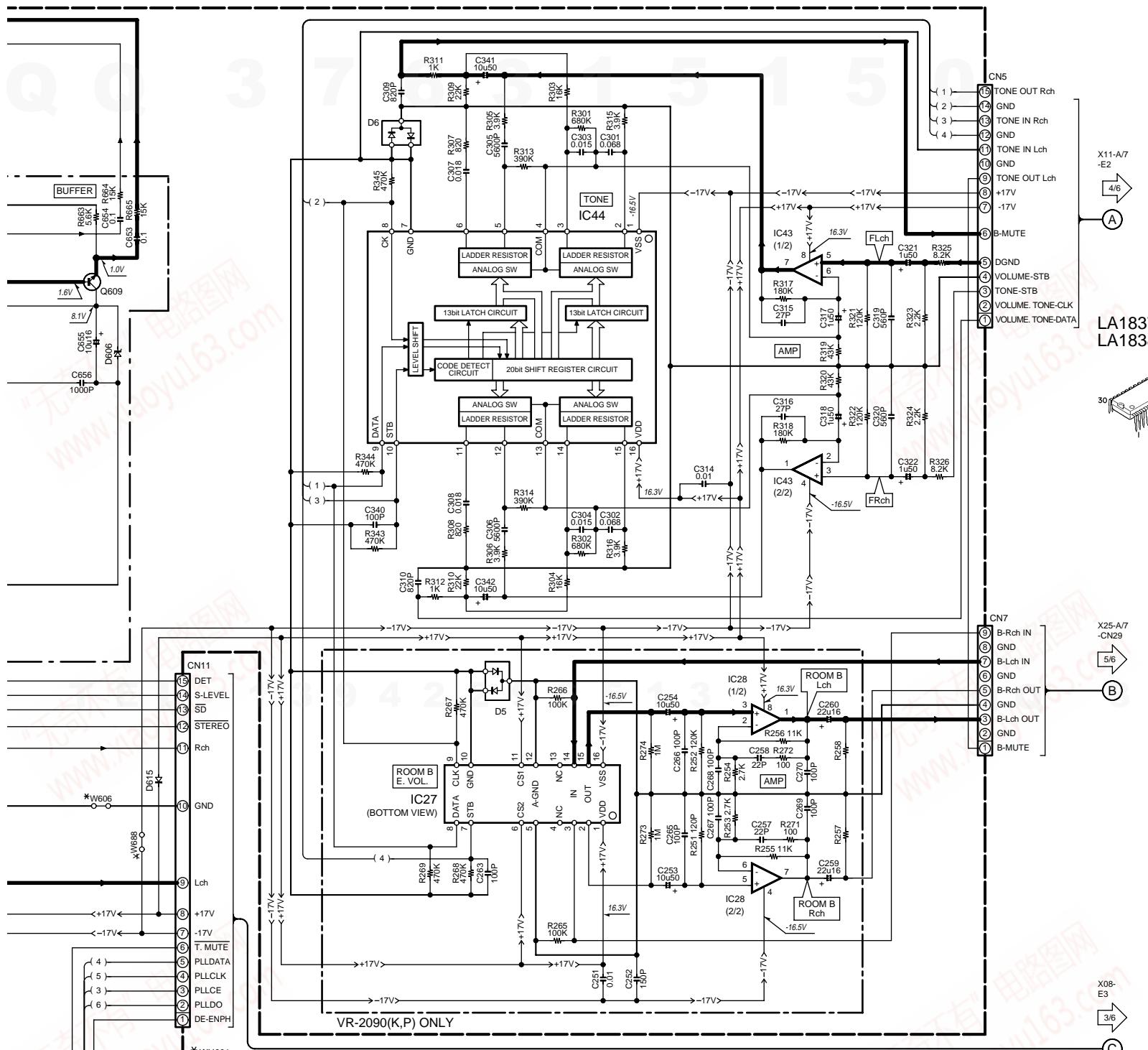


PC BOARD(Component side view)



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





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

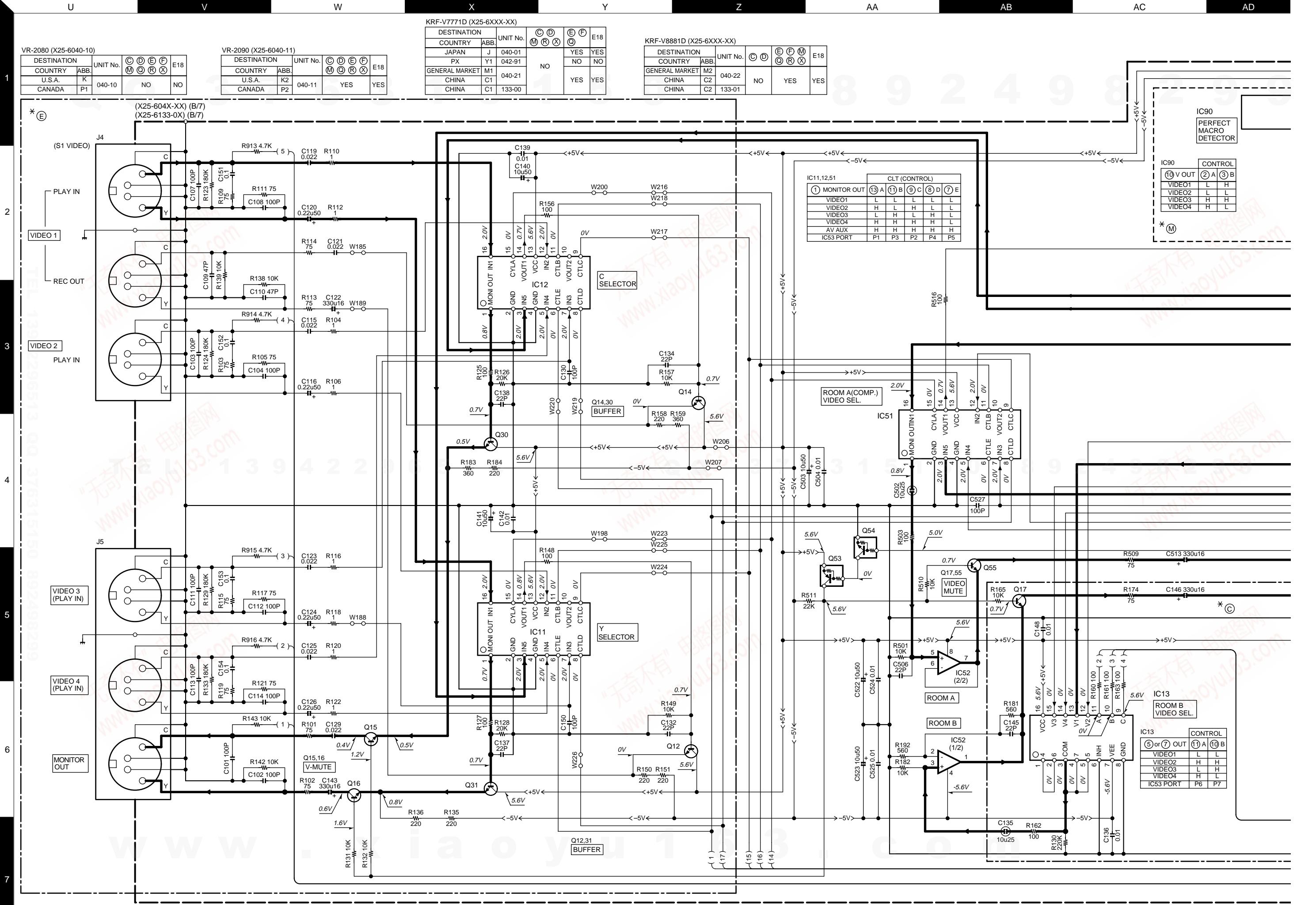
The DC voltage is an actual reading measured with a high impedance type voltmeter as the AM/FM signal generator is specified to the conditions as shown in the list below. The measurement value may vary depending on the measuring instruments used or on the product. The value shown in () is actual reading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

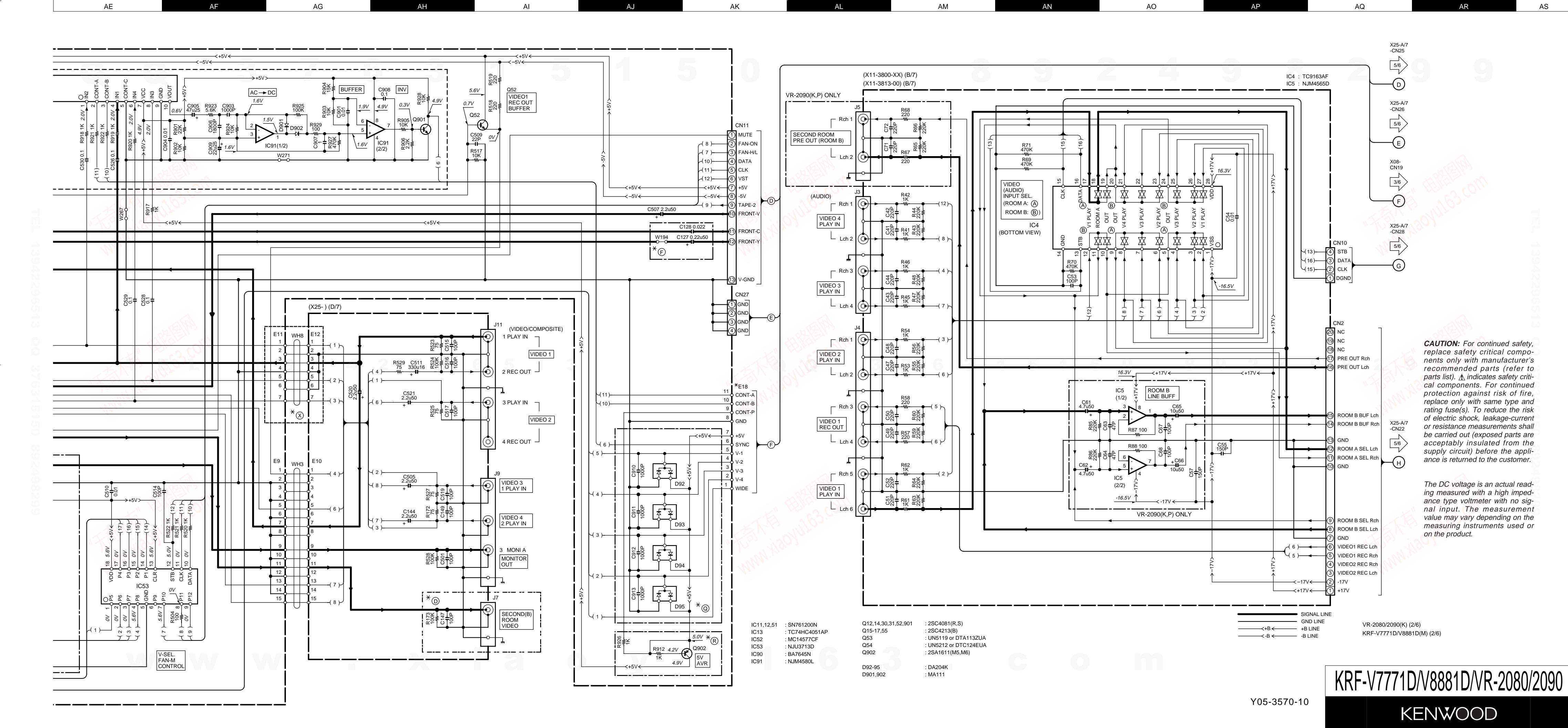
MODE	CARRIER	MODULATION		ANT INPUT
		FREQUENCY	DEVIATION	
FM	98MHz	1kHz	STEREO 67.5kHz 7.5kHz(Pilot)	60dB
AM	1000(999)kHz	400Hz	MONO 30% MOD	60dB

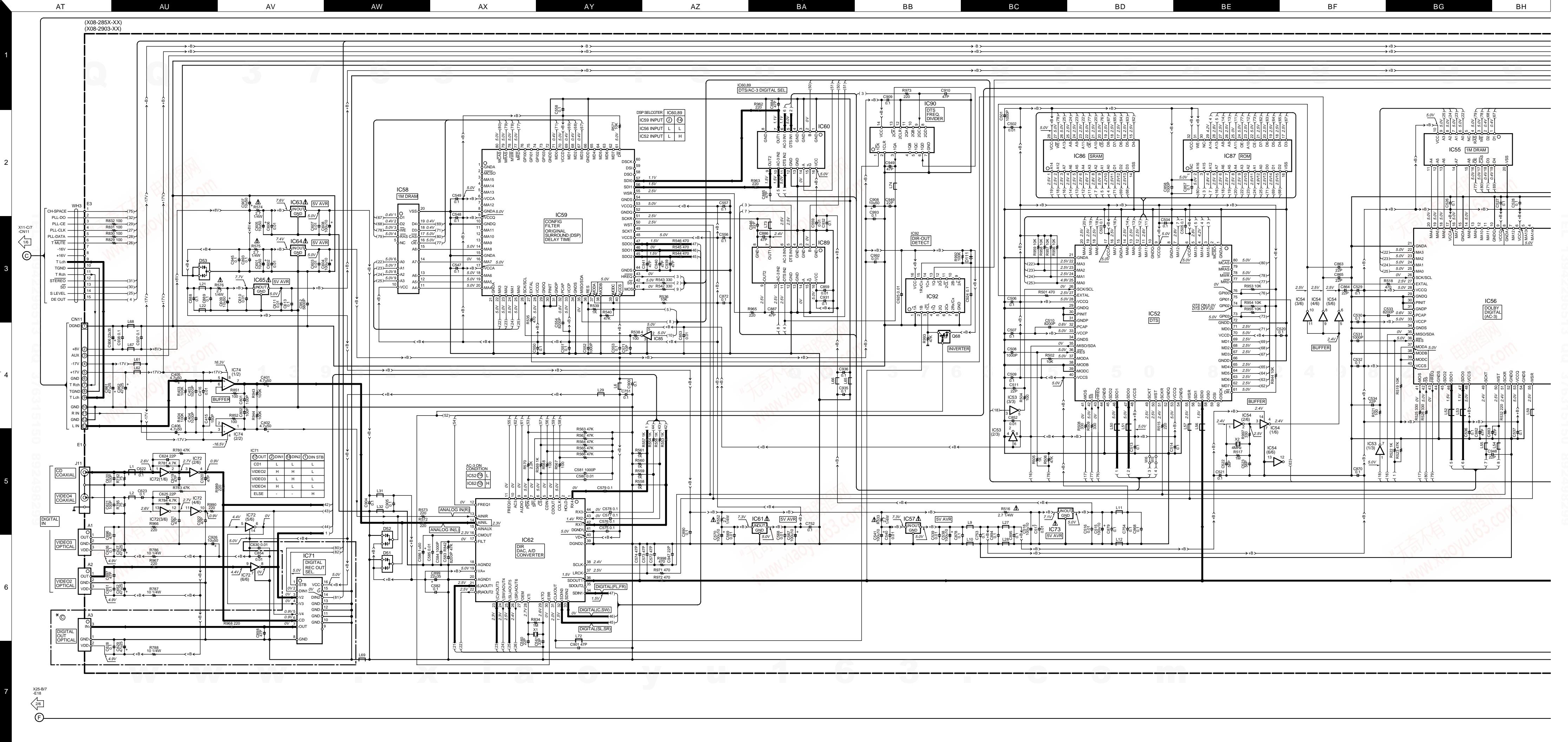
VR-2080/2090(K) (1/6)
KRF-V7771D/V8881D(M) (1/6)

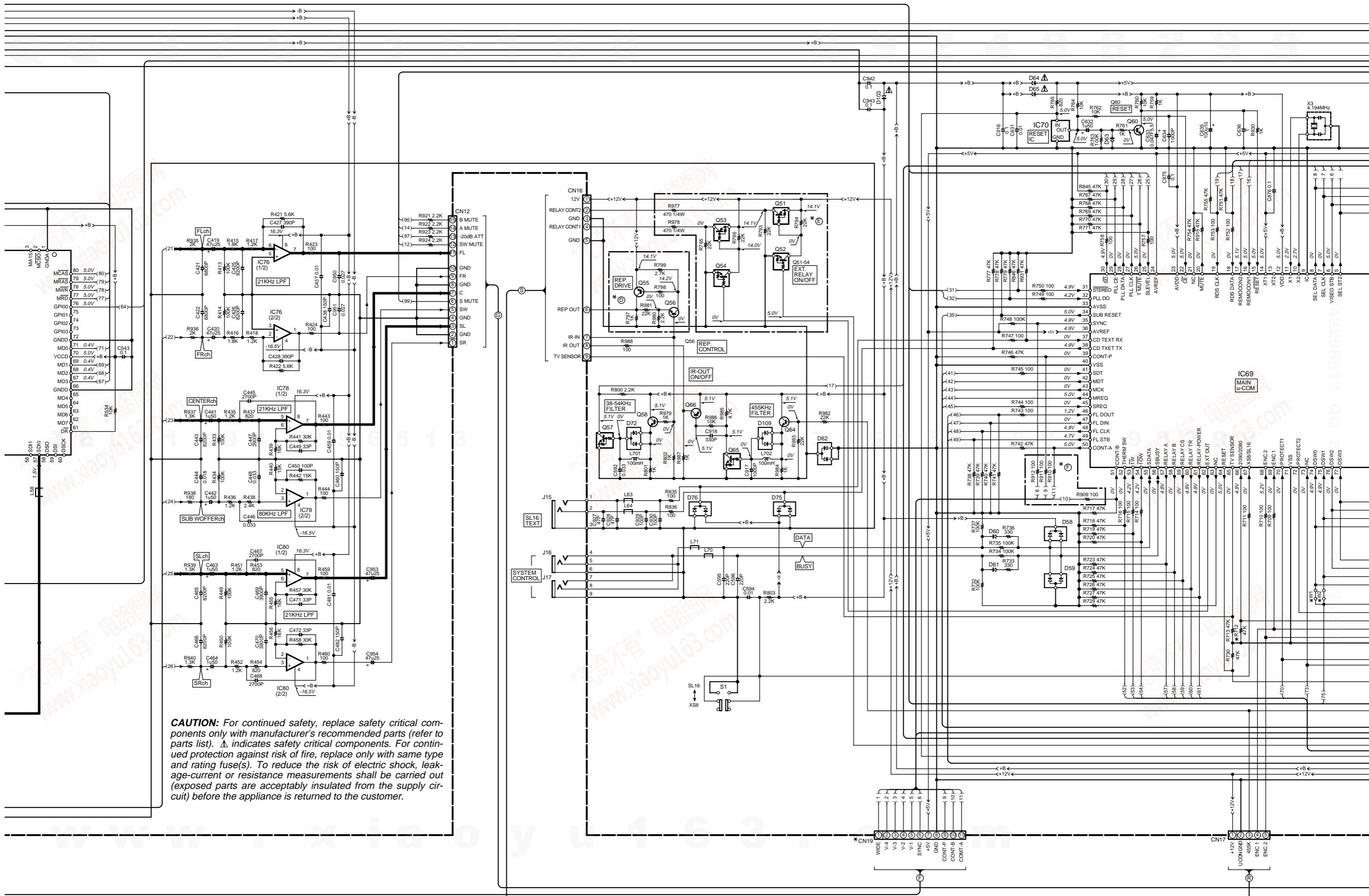
Y05-3570-10

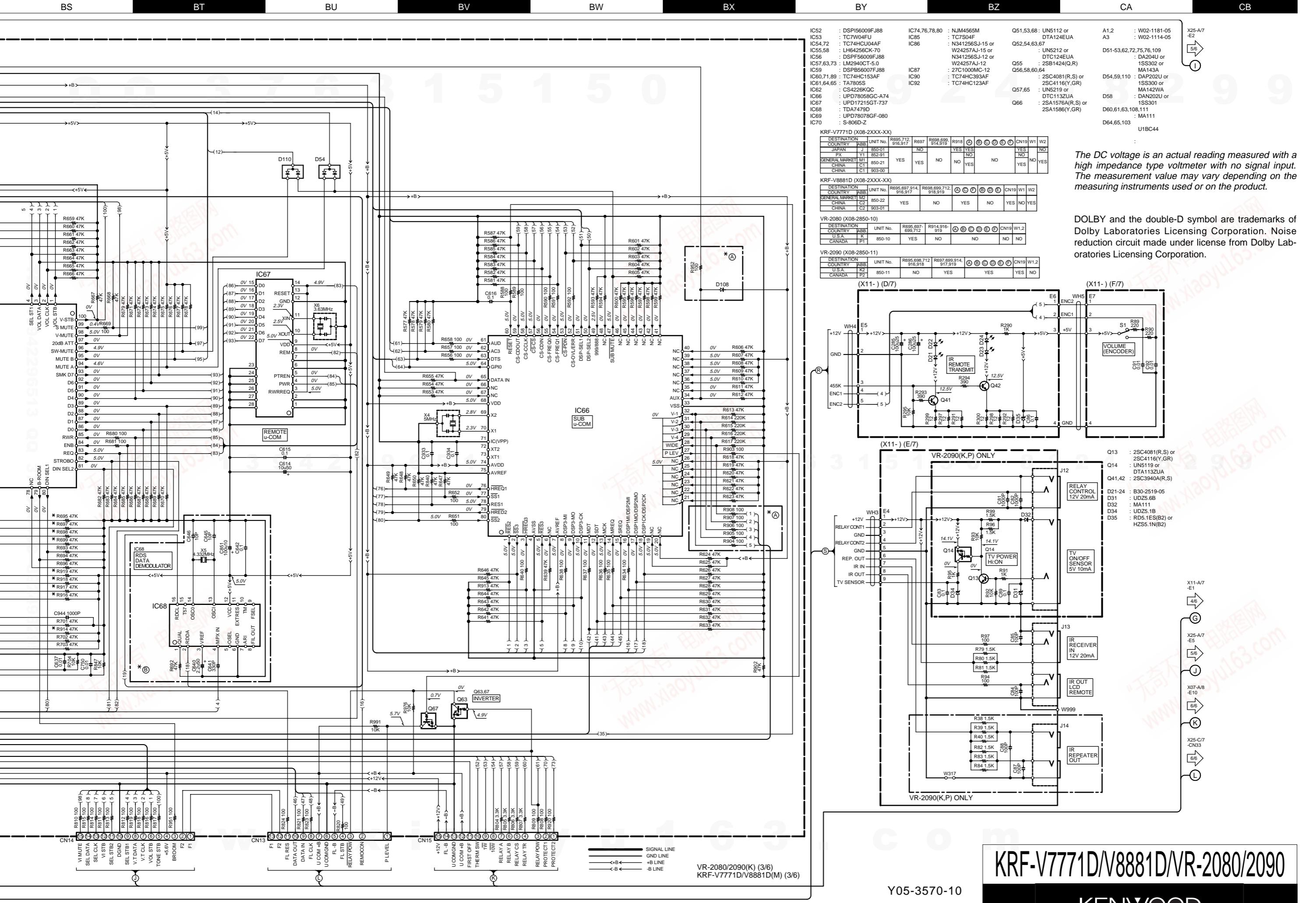
KENWOOD

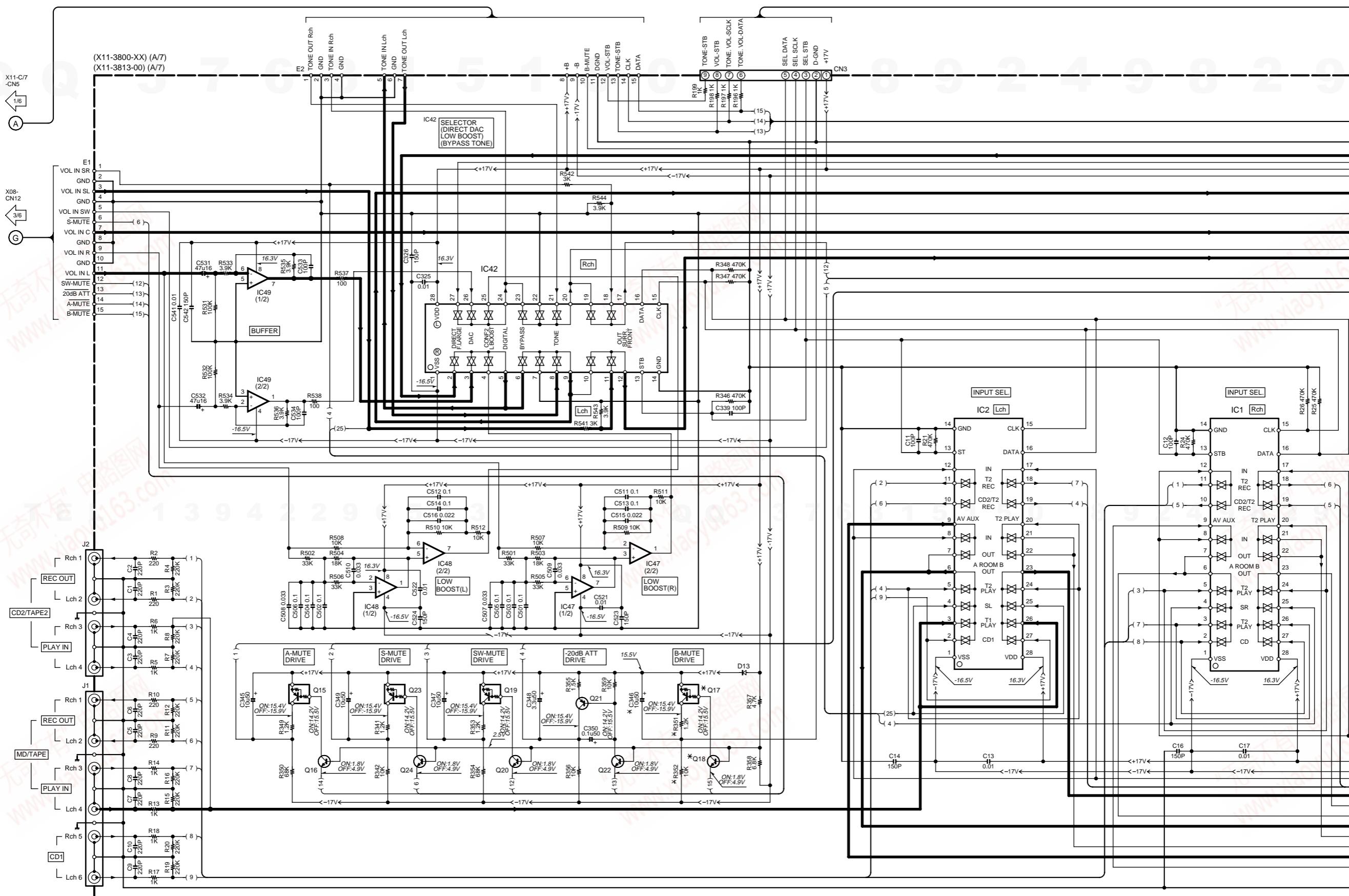












CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock,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

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

CM

CN

CO

CP

CQ

CR

CS

CT

CU

CV

VR-2080 (X11-3800-10)									
DESTINATION	COUNTRY	ABB.	UNIT No.	R103,104, 153,154,203	R351,352,373,374, 383,393-395	R375, 376,385	C346,365,366, 375,387,388,393	Q17, 18	
U.S.A. CANADA	K P1	00-10	2.7K	NO	100	NO	NO		
KRF-V7771D (X11-38XX-XX)									
DESTINATION	COUNTRY	ABB.	UNIT No.	R103,104, 153,154,203	R351, 352, 383,393-395	R375, 376,385	C346, 365,366, 375,387,388,393	Q17, 18	
JAPAN GENERAL MARKET	Y1 M1	00-01 00-21	3.3K 2.7K	YES NO	100	NO	NO		
CHINA	C1	13-00							

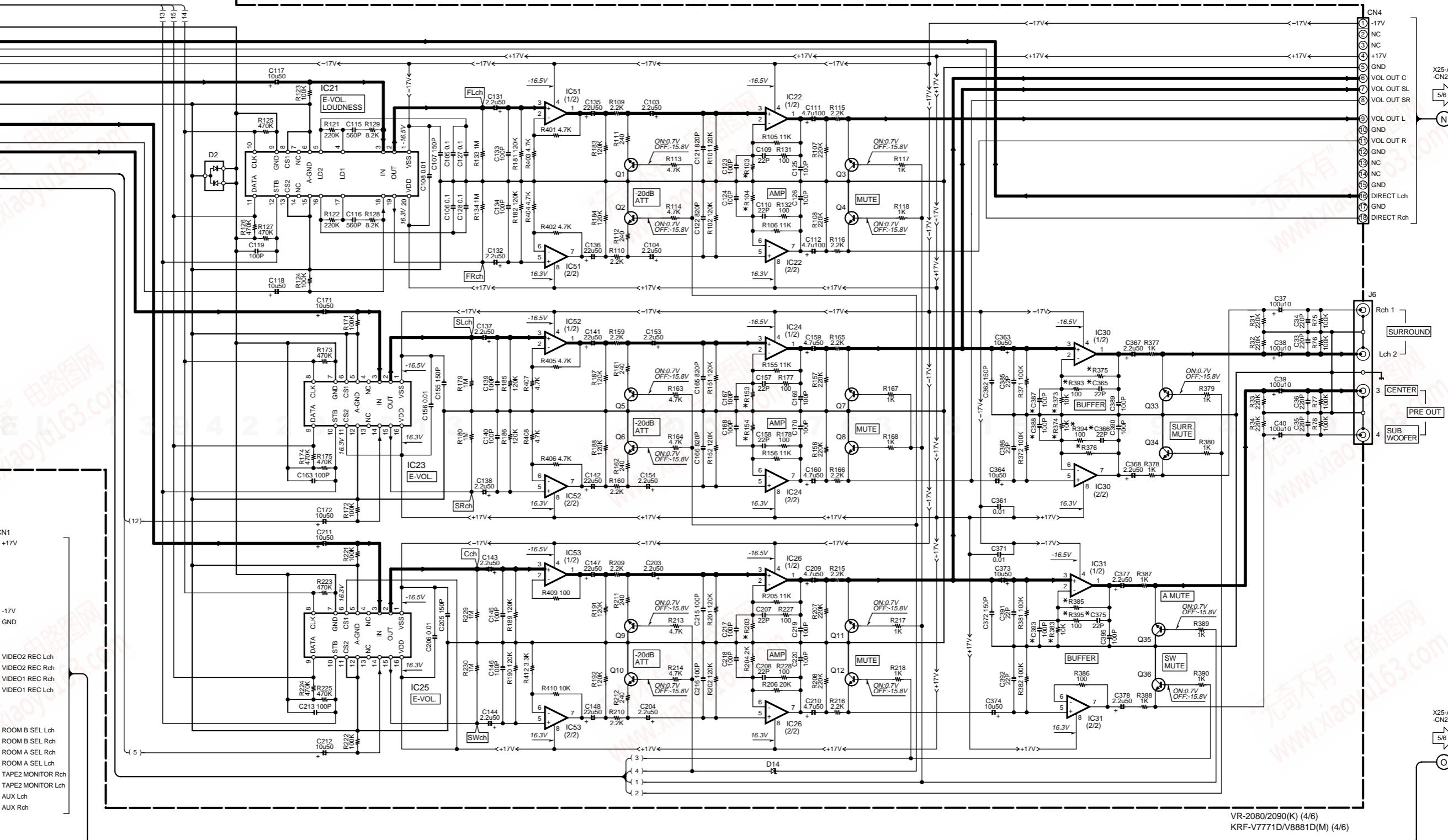
VR-2090 (X11-3800-11)									
DESTINATION	COUNTRY	ABB.	UNIT No.	R103,104, 153,154,203	R351, 352, 383,393-395	R375, 376,385	C346, 365,366, 375,387,388,393	Q17, 18	
U.S.A. CANADA	K2 P2	00-11	2.7K	YES	100	YES	NO	YES	
KRF-V8881D (X11-38XX-XX)									
DESTINATION	COUNTRY	ABB.	UNIT No.	R103,104, 153,154,203	R351, 352, 383,393-395	R375, 376,385	C346, 365,366, 375,387,388,393	Q17, 18	
GENERAL MARKET	M2	00-21	2.7K	NO	100	NO	NO	NO	
CHINA	C2	13-00							

IC1.2 : TC9164AF
IC3.22,24,26,30,31,51-53
IC21 : NJM4565D
IC23,25 : TC9412AP
IC42 : TC9163AF
IC47-49 : NJM4565L

Q1-12,33-36 : 2SC4231(B)
Q15,17,19,23 : UN5119 or
DTA113ZUA
Q16,18,20,22,24 : 2SC4081(R,S) or
2SC4116(Y,GR)
Q21 : 2SA1576A(R,S) or
2SA1586(Y,GR)

D2 : DA204U or
1SS302
D13 : MA111
D14 : RD11ES(B) or
H2S11N(B)

X25-A7
-CN23
M
5/6



VR-2080/2090(K) (4/6)
KRF-V7771D/V8881D(M) (4/6)

KRF-V7771D/V8881D/VR-2080/2090

KENWOOD

Y05-3570-10

CW

CX

CY

CZ

DA

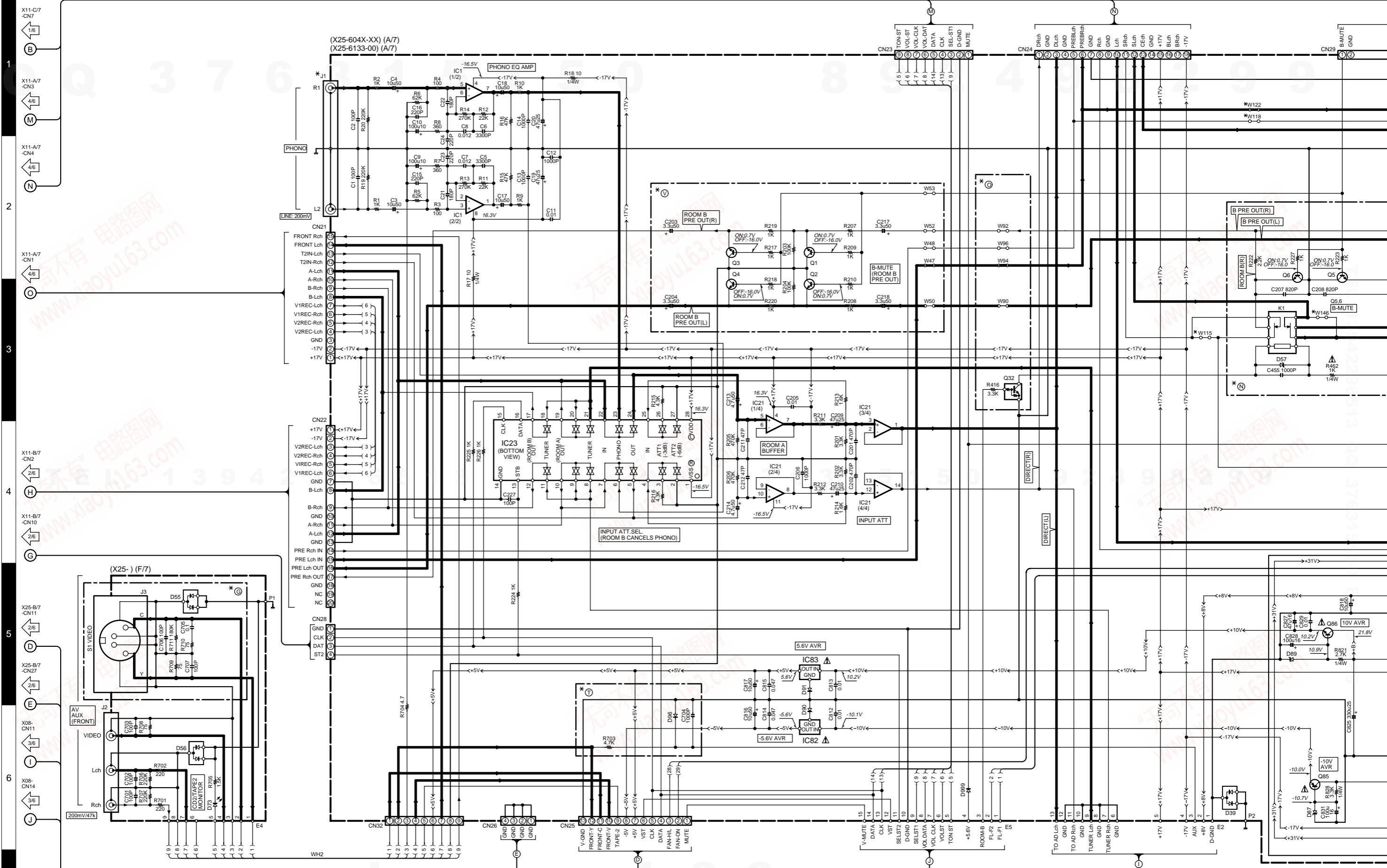
DB

DC

DD

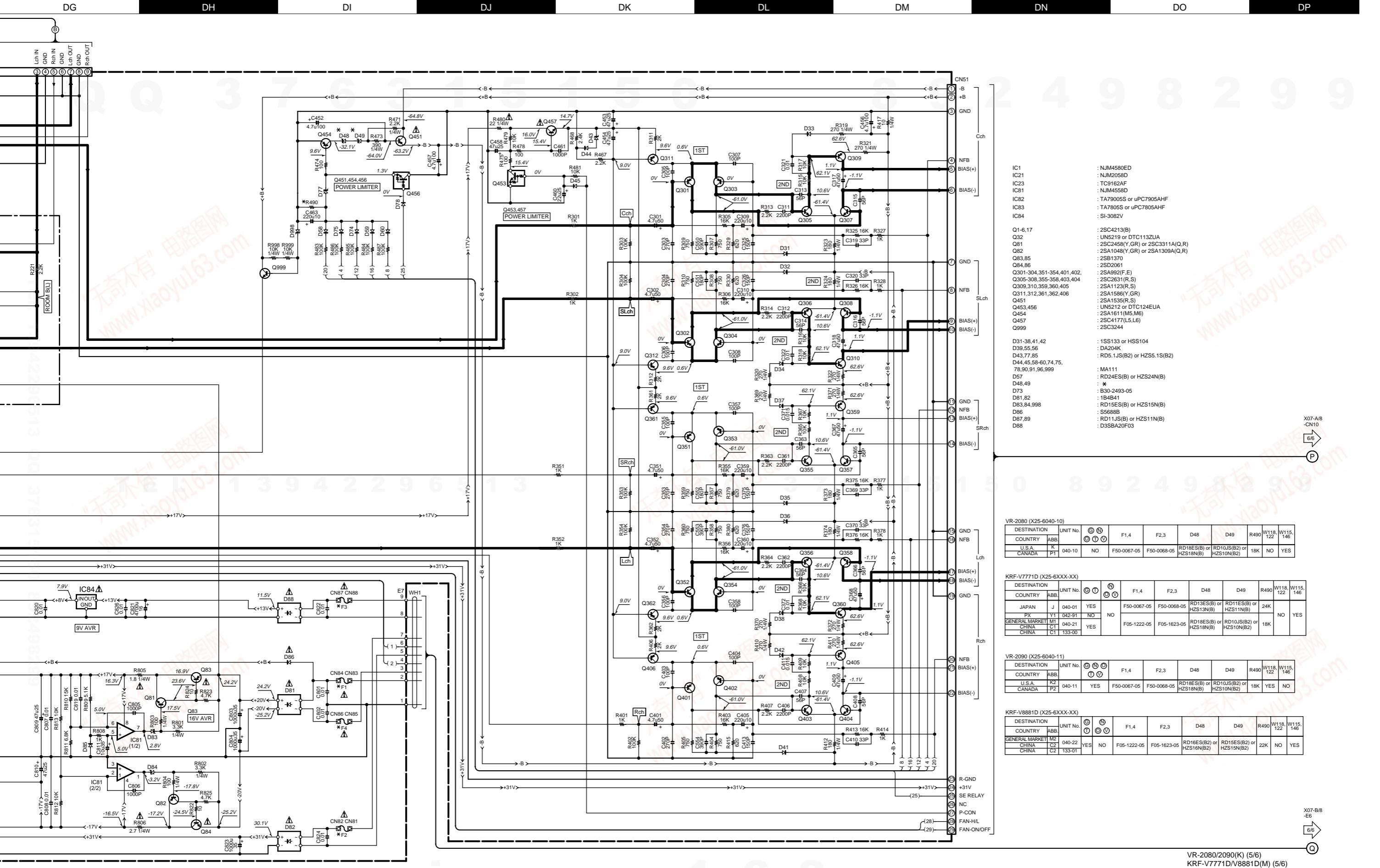
DE

DF



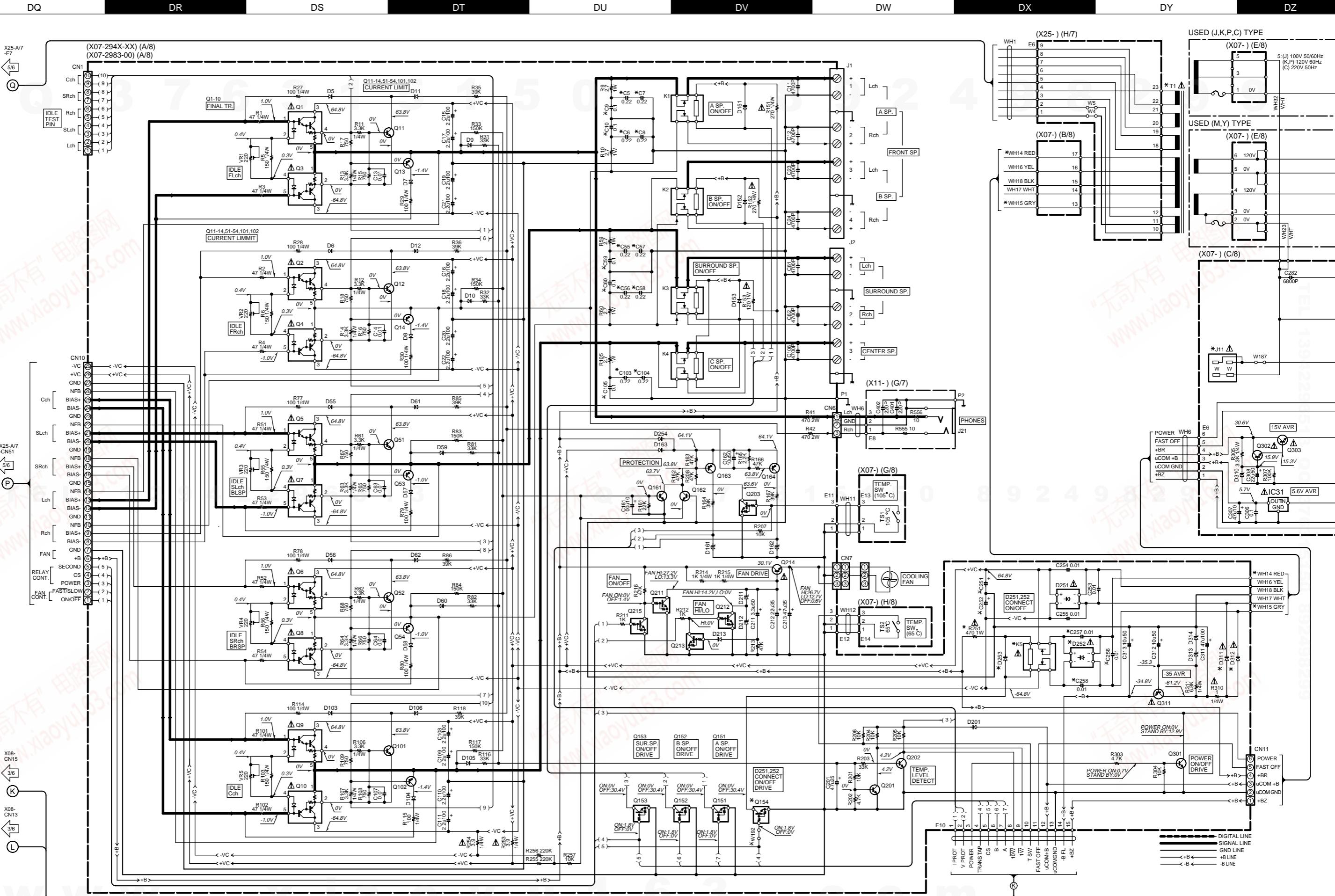
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock,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

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



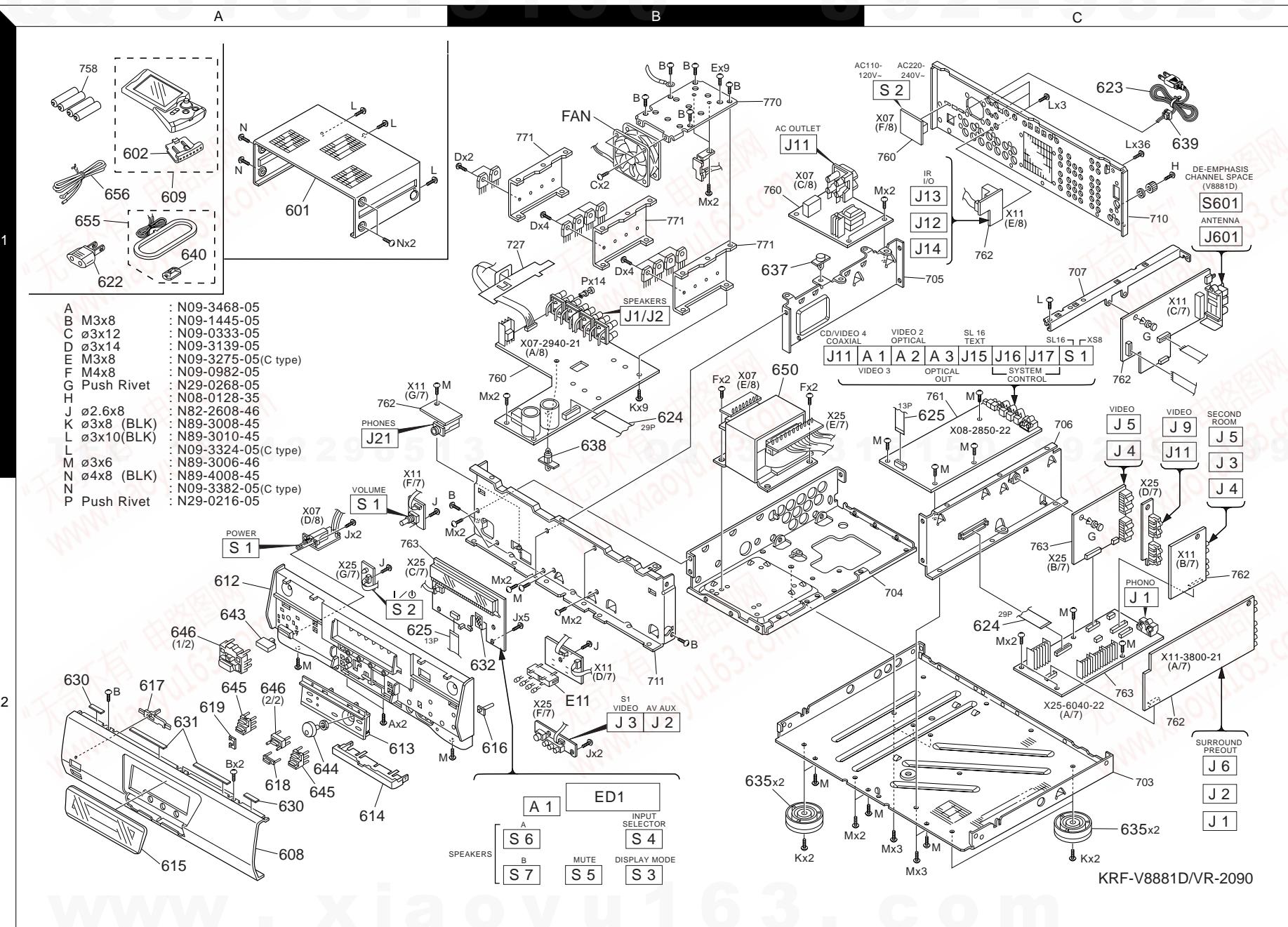
KRF-V7771D/V8881D/VR-2080/2090

KENWOOD



KRF-V7771D/V8881D/VR-2080/2090

EXPLODED VIEW(UNIT)



PARTS LIST

2

* 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	Address	New Parts	Parts No.	Description	Destination	Remarks
KRF-V7771D/V8881D/VR-2080/2090						
601	1A	*	A01-3525-11	METALLIC CABINET	KP1Y1	
601	1A	*	A01-3525-11	METALLIC CABINET	K2P2M2	
601	1A	*	A01-3525-11	METALLIC CABINET	M1	
601	1A	*	A01-3527-11	METALLIC CABINET	C1C2	
602	1A		A09-0378-08	BATTERY COVER		
608	2A	*	A60-1310-12	PANEL	K2P2	
608	2A	*	A60-1311-22	PANEL	M2	
608	2A	*	A60-1312-22	PANEL	C2	
608	2A	*	A60-1326-12	PANEL	KP1	
608	2A	*	A60-1327-22	PANEL	M1	
608	2A	*	A60-1329-12	PANEL	C1	
608	2A	*	A60-1400-12	PANEL	Y1	
609	1A	*	A70-1191-05	REMOTE CONTROLLER ASSY		
612	2A	*	B01-0533-21	PANEL ESCUTCHEON	K2P2M2	
612	2A	*	B01-0533-21	PANEL ESCUTCHEON	M1	
612	2A	*	B01-0534-21	PANEL ESCUTCHEON	C1	
612	2A	*	B01-0534-21	PANEL ESCUTCHEON	C1C2	
612	2A	*	B01-0536-11	PANEL ESCUTCHEON	KP1Y1	
613	2A	*	B07-2396-12	ESCUTCHEON	KP1Y1	
613	2A	*	B07-2396-12	ESCUTCHEON	K2P2M2	
613	2A	*	B07-2396-12	ESCUTCHEON	M1	
613	2A	*	B07-2397-12	ESCUTCHEON	C1C2	
614	2A	*	B10-2418-03	FRONT GLASS		
615	2A	*	B10-2451-03	FRONT GLASS		
616	2B	*	B12-0303-24	INDICATOR		
617	2A	*	B12-0326-04	INDICATOR		
618	2A	*	B12-0331-04	INDICATOR		
619	2A	*	B12-0333-04	INDICATOR		
-			B46-0197-00	QUESTIONNAIRE CARD	KK2	
-			B46-0326-03	WARRANTY CARD	C1C2	
-			B46-0330-03	WARRANTY CARD	KK2Y1	
-			B46-0336-03	WARRANTY CARD	P1P2	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	Y1	
-			B58-0964-13	CAUTION CARD	KK2Y1	
-			B58-0966-13	CAUTION CARD	M1M2	
-			B58-0967-03	CAUTION CARD	P1P2	
-			B58-1546-03	CAUTION CARD	C1C2	
-			B59-1104-00	SERVICE DIRECTORY	Y1	
-		*	B59-1200-00	SUB-INSTRUCTION MANUAL	KP1Y1	
-		*	B59-1200-00	SUB-INSTRUCTION MANUAL	K2P2	
-		*	B59-1401-00	SUB-INSTRUCTION MANUAL	M1C1	
-		*	B59-1401-00	SUB-INSTRUCTION MANUAL	M2C2	
-		*	B59-1404-03	CATALOG	KP1	
-		*	B59-1404-03	GUIDE BOOK	K2P2	
-		*	B60-3576-00	INSTRUCTION MANUAL(ENG)	KK2	
-		*	B60-3579-00	INSTRUCTION MANUAL(FRN)		
-		*	B60-3581-00	INSTRUCTION MANUAL(CHINA)	P1P2	
-		*	B60-3755-00	INSTRUCTION MANUAL(SPANISH)	C1C2	
-		*	B60-3756-00	INSTRUCTION MANUAL(TAIWANESE)	M1M2	
622	1A		E03-0115-05	AC PLUG ADAPTER	M1M2	
623	1C		E30-2787-05	AC POWER CORD	KP1	
*						
△ indicates safety critical components.						

PARTS LIST

* 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.

29

30

Ref. No	Add- ress	New Parts	Parts No.	Description	Desti- nation	Re- marks
C606-608		CK73FSL1H101J	CHIP C	100PF J		
C609-615		CK73FB1H103K	CHIP C	0.010UF K		
C616		ELECTRO		3.3UF 35WV		
C617-632		CC73FSL1H221J	CHIP C	220PF J		
C633		CK73FB1H103K	CHIP C	0.010UF K		
C634		C90-3255-05	ELECTRO	3.3UF 50WV		
C701-703	*	CC73FSL1H101J	CHIP C	100PF J	K2P2M2	
C704		CC73FSL1H102J	CHIP C	1000PF J	M1C1C2	
C704		CC73FSL1H102J	CHIP C	1000PF J	M1C1C2	
C705		CK73FB1E104K	CHIP C	0.10UF K	K2P2M2	
C705		CK73FB1E104K	CHIP C	0.10UF K	M1C1C2	
C706,707		CK73FSL1H101J	CHIP C	100PF J	K2P2M2	
C706,707		CC73FSL1H101J	CHIP C	100PF J	M1C1C2	
C801,802		CK73FB1H103K	CHIP C	0.010UF K	K2P2M2	
C803,804		CE04KW1V102M	ELECTRO	1000UF 35WV		
C805,806		CC73FSL1H102J	CHIP C	1000PF J		
C807,808		CK73FB1H103K	CHIP C	0.010UF K		
C809,810		CE04KW1E470M	ELECTRO	47UF 25WV		
C811		CE04KW1V100M	ELECTRO	10UF 35WV		
C812,813		CK73FB1H103K	CHIP C	0.010UF K		
C814,815		CK73FB1H473K	CHIP C	0.047UF K		
C816-818		CE04KW1H100M	ELECTRO	10UF 50WV		
C819,820		CK73FB1H103K	CHIP C	0.010UF K		
C821		CE04KW1C472M	ELECTRO	4700UF 16WV		
C822		CK73FB1H103K	CHIP C	0.010UF K		
C823		CE04KW1V102M	ELECTRO	1000UF 35WV		
C824		CK73FB1H103K	CHIP C	0.010UF K		
C825		CE04DW1E331M	ELECTRO	330UF 25WV		
C826		CK73FB1H103K	CHIP C	0.010UF K		
C827		CE04KW1C470M	ELECTRO	47UF 16WV		
C828		CE04KW1C101M	ELECTRO	100UF 16WV		
C829		CK73FB1H103K	CHIP C	0.010UF K		
C831		CE04KW1C101M	ELECTRO	100UF 16WV		
C901		CK73FB1H103K	CHIP C	0.010UF K	C2	
C901		CK73FB1H103K	CHIP C	0.010UF K	K2P2M2	
C903		CC73FSL1H102J	CHIP C	1000PF J	C2	
C903		CC73FSL1H102J	CHIP C	1000PF J	K2P2M2	
C904		CK73FB1H103K	CHIP C	0.010UF K	C2	
C904		CK73FB1H103K	CHIP C	0.010UF K	K2P2M2	
C905		CE04KW1E470M	ELECTRO	47UF 25WV	C2	
C905		CE04KW1E470M	ELECTRO	47UF 25WV	K2P2M2	
C906		CK73FB1H182K	CHIP C	1800PF K	C2	
C906		CK73FB1H182K	CHIP C	1800PF K	K2P2M2	
C907		CK73FF1C105Z	CHIP C	1.0UF Z	C2	
C907		CK73FF1C105Z	CHIP C	1.0UF Z	K2P2M2	
C908		CK73FB1E104K	CHIP C	0.10UF K	C2	
C908		CK73FB1E104K	CHIP C	0.10UF K	K2P2M2	
C909		CE04KW1E220M	ELECTRO	22UF 25WV	C2	
C909		CE04KW1E220M	ELECTRO	22UF 25WV	K2P2M2	
C910-913		CC73FSL1H102J	CHIP C	1000PF J	K2P2M2	
C910-913		CC73FSL1H102J	CHIP C	1000PF J	M1C1C2	
CN11		E40-9829-05	SOCKET FOR PIN ASSY			
CN21		E40-9848-05	PIN ASSY			
CN22		E40-9853-05	PIN ASSY			

L : Scandinavia

Y : PX(Far East, Hawaii)

Y : AAFES(Europe)

K : USA

T : Europe

X : Australia

P : Canada

E : Europe

Q : Russia

R : Mexico

G : Germany

H : Korea

C : China

V : China (Shanghai)

M : Other Areas

I : Malaysia

Δ indicates safety critical components.

Ref. No	Add- ress	New Parts	Parts No.	Description	Desti- nation	Re- marks
CN23			E40-9842-05	PIN ASSY		
CN24		*	E40-9851-05	PIN ASSY		
CN25			E40-9846-05	PIN ASSY		
CN26		*	E40-9837-05	PIN ASSY		
CN27		*	E40-9820-05	SOCKET FOR PIN ASSY		
CN28		*	E40-9837-05	PIN ASSY		
CN29			E40-9842-05	PIN ASSY		
CN32			E40-4298-05	FLAT CABLE CONNECTOR		
CN33			E40-4938-05	FLAT CABLE CONNECTOR		
CN51			E40-4916-05	FLAT CABLE CONNECTOR		
J1	2C		E63-0200-05	PHONO JACK PHONO		
J2	2B	*	E63-1030-05	PHONO JACK AUX		
J3	2B		E56-0012-05	CYLINDRICAL RECEPTACLE,VIDEO	K2P2M2	
J3	2B		E56-0012-05	CYLINDRICAL RECEPTACLE,VIDEO	M1C1C2	
J4 ,5	1C		E56-0011-05	CYLINDRICAL RECEPTACLE,VIDEO	K2P2	
J4 ,5	1C		E56-0011-05	CYLINDRICAL RECEPTACLE,VIDEO	M1C1C2	
J7	1C		E63-1005-05	PHONO JACK SECOND ROOM(B)		
J9	1C		E63-0162-05	PHONO JACK VIDEO3,4		
J11	1C		E63-0162-05	PHONO JACK VIDEO1,2		
△ F1			F05-1222-05	FUSE (SEMKO) (250V T1.25A L)	M2C2	
△ F1			F05-1222-05	FUSE (SEMKO) (250V T1.25A L)	Y1M1C1	
△ F1			F50-0067-05	FUSE(5X20)	KP1	
△ F1			F50-0067-05	FUSE(5X20)	K2P2	
△ F2 ,3			F50-1623-05	FUSE (SEMKO) (250V T1.6AL)	M2C2	
△ F2 ,3			F50-1623-05	FUSE (SEMKO) (250V T1.6AL)	Y1M1C1	
△ F2 ,3			F50-0068-05	FUSE(5X20)	KP1	
△ F2 ,3			F50-0068-05	FUSE(5X20)	K2P2	
△ F4			F50-1222-05	FUSE (SEMKO)	M2C2	
△ F4			F50-1222-05	FUSE (SEMKO) (250V T1.25A L)	Y1M1C1	
△ F4			F50-0067-05	FUSE(5X20)	KP1	
△ F4			F50-0067-05	FUSE(5X20)	K2P2	
CN81-88			J13-0075-05	FUSE CLIP HOLDER		
L1 ,2	X1	*	L92-0079-05	CHIP FERRITE RESONATOR (5MHZ)		
R1 ,2			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R3 ,4			RK73FB2A101J	CHIP R 100	J 1/10W	
R5 ,6			RK73FB2A623J	CHIP R 62K	J 1/10W	
R7 ,8			RK73FB2A361J	CHIP R 360	J 1/10W	
R9 ,10			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R15 ,16			RK73FB2A473J	CHIP R 47K	J 1/10W	
R17 ,18			RD14NB2E100J	RD 10	J 1/4W	
R19 ,20			RK73FB2A224J	CHIP R 220K	J 1/10W	
R101-103			RK73FB2A750J	CHIP R 75	J 1/10W	K2P2M2
R101-103			RK73FB2A750J	CHIP R 75	J 1/10W	M1C1C2
R104			RK73FB2A1R0J	CHIP R 1	J 1/10W	
R104			RK73FB2A1R0J	CHIP R 1	J 1/10W	M1C1C2
R105			RK73FB2A750J	CHIP R 75	J 1/10W	K2P2M2
R105			RK73FB2A750J	CHIP R 75	J 1/10W	M1C1C2
R109			RK73FB2A750J	CHIP R 75	J 1/10W	K2P2M2
R109			RK73FB2A750J	CHIP R 75	J 1/10W	M1C1C2
R110			RK73FB2A1R0J	CHIP R 1	J 1/10W	K2P2M2
R110			RK73FB2A1R0J	CHIP R 1	J 1/10W	M1C1C2

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

PARTS LIST

KRF-V7771D/V8881D/VR-2080/2090

* 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.

31

* 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	Address	New Parts	Parts No.	Description				Desti-nation	Re-marks
R111			RK73FB2A750J	CHIP R	75	J	1/10W	K2P2M2	
R111			RK73FB2A750J	CHIP R	75	J	1/10W	M1C1C2	
R112			RK73FB2A1R0J	CHIP R	1	J	1/10W	K2P2M2	
R112			RK73FB2A1R0J	CHIP R	1	J	1/10W	M1C1C2	
R113-115			RK73FB2A750J	CHIP R	75	J	1/10W	K2P2M2	
R113-115			RK73FB2A750J	CHIP R	75	J	1/10W	M1C1C2	
R116			RK73FB2A1R0J	CHIP R	1	J	1/10W	K2P2M2	
R116			RK73FB2A1R0J	CHIP R	1	J	1/10W	M1C1C2	
R117			RK73FB2A750J	CHIP R	75	J	1/10W	K2P2M2	
R117			RK73FB2A750J	CHIP R	75	J	1/10W	M1C1C2	
R118			RK73FB2A1R0J	CHIP R	1	J	1/10W	K2P2M2	
R118			RK73FB2A1R0J	CHIP R	1	J	1/10W	M1C1C2	
R119			RK73FB2A750J	CHIP R	75	J	1/10W	K2P2M2	
R119			RK73FB2A750J	CHIP R	75	J	1/10W	M1C1C2	
R120			RK73FB2A1R0J	CHIP R	1	J	1/10W	K2P2M2	
R120			RK73FB2A1R0J	CHIP R	1	J	1/10W	M1C1C2	
R121			RK73FB2A750J	CHIP R	75	J	1/10W	K2P2M2	
R121			RK73FB2A750J	CHIP R	75	J	1/10W	M1C1C2	
R122			RK73FB2A1R0J	CHIP R	1	J	1/10W	K2P2M2	
R122			RK73FB2A1R0J	CHIP R	1	J	1/10W	M1C1C2	
R123,124			RK73FB2A184J	CHIP R	180K	J	1/10W	K2P2M2	
R123,124			RK73FB2A184J	CHIP R	180K	J	1/10W	M1C1C2	
R125			RK73FB2A101J	CHIP R	100	J	1/10W	K2P2M2	
R125			RK73FB2A101J	CHIP R	100	J	1/10W	M1C1C2	
R126			RK73FB2A203J	CHIP R	20K	J	1/10W	K2P2M2	
R126			RK73FB2A203J	CHIP R	20K	J	1/10W	M1C1C2	
R128			RK73FB2A203J	CHIP R	20K	J	1/10W	K2P2M2	
R128			RK73FB2A184J	CHIP R	180K	J	1/10W	K2P2M2	
R129			RK73FB2A184J	CHIP R	180K	J	1/10W	M1C1C2	
R130			RK73FB2A224J	CHIP R	220K	J	1/10W	K2P2	
R131,132			RK73FB2A103J	CHIP R	10K	J	1/10W	K2P2M2	
R131,132			RK73FB2A103J	CHIP R	10K	J	1/10W	M1C1C2	
R133			RK73FB2A184J	CHIP R	180K	J	1/10W	K2P2M2	
R133			RK73FB2A184J	CHIP R	180K	J	1/10W	M1C1C2	
R135,136			RK73FB2A221J	CHIP R	220	J	1/10W	K2P2M2	
R135,136			RK73FB2A221J	CHIP R	220	J	1/10W	M1C1C2	
R138,139			RK73FB2A103J	CHIP R	10K	J	1/10W	K2P2M2	
R138,139			RK73FB2A103J	CHIP R	10K	J	1/10W	M1C1C2	
R142,143			RK73FB2A103J	CHIP R	10K	J	1/10W	K2P2M2	
R148			RK73FB2A101J	CHIP R	100	J	1/10W	M1C1C2	
R148			RK73FB2A101J	CHIP R	100	J	1/10W	K2P2M2	
R149			RK73FB2A103J	CHIP R	10K	J	1/10W	M1C1C2	
R150,151			RK73FB2A221J	CHIP R	220	J	1/10W	K2P2M2	
R150,151			RK73FB2A221J	CHIP R	220	J	1/10W	M1C1C2	
R156			RK73FB2A101J	CHIP R	100	J	1/10W	K2P2M2	
R156			RK73FB2A101J	CHIP R	100	J	1/10W	M1C1C2	
R157			RK73FB2A103J	CHIP R	10K	J	1/10W	K2P2M2	
R157			RK73FB2A103J	CHIP R	10K	J	1/10W	M1C1C2	
R158			RK73FB2A221J	CHIP R	220	J	1/10W	K2P2M2	
R158			RK73FB2A221J	CHIP R	220	J	1/10W	M1C1C2	
R159			RK73FB2A361J	CHIP R	360	J	1/10W	K2P2M2	
R159			RK73FB2A361J	CHIP R	360	J	1/10W	M1C1C2	

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

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

L: Scandinavia
 Y: PX(Far East, Hawaii)
 Z: AALES(Europe)

K: USA P: Canada
 T: Europe E: Europe
 X: Australia

R: Mexico
 G: Germany
 V: China (Shanghai)
 H: Korea

C: China
 E: Europe
 Q: Russia

I: Malaysia

PARTS LIST

33

34

* 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.

* 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
R414			RK73FB2A102J	CHIP R	1.0K	J 1/10W		
R415			RK73FB2A621J	CHIP R	620	J 1/10W	K2P2	
R416			RK73FB2A332J	CHIP R	3.3K	J 1/10W		
R417			RD14NB2E100J	RD	10	J 1/4W		
R462			RD14NB2E102J	RD	1.0K	J 1/4W	K2P2	
R467			RK73FB2A222J	CHIP R	2.2K	J 1/10W		
R468			RK73FB2A242J	CHIP R	2.4K	J 1/10W		
R471			RD14NB2E222J	RD	2.2K	J 1/4W		
R473			RD14NB2E391J	RD	390	J 1/4W		
R474,475			RK73FB2A101J	CHIP R	100	J 1/10W		
R478			RK73FB2A101J	CHIP R	100	J 1/10W		
R479			RK73FB2A103J	CHIP R	10K	J 1/10W		
R480			RD14NB2E220J	RD	22	J 1/4W		
R481			RK73FB2A103J	CHIP R	10K	J 1/10W		
R483-487			RK73FB2A104J	CHIP R	100K	J 1/10W		
R490			RK73FB2A183J	CHIP R	18K	J 1/10W	M2C2	
R490			RK73FB2A223J	CHIP R	22K	J 1/10W	KP1Y1	
R490			RK73FB2A223J	CHIP R	22K	J 1/10W	K2P2	
R490			RK73FB2A223J	CHIP R	22K	J 1/10W	M1C1	
R501			RK73FB2A103J	CHIP R	10K	J 1/10W		
R503,504			RK73FB2A101J	CHIP R	100	J 1/10W		
R509			RK73FB2A750J	CHIP R	75	J 1/10W		
R510			RK73FB2A103J	CHIP R	10K	J 1/10W		
R511			RK73FB2A223J	CHIP R	22K	J 1/10W		
R516			RK73FB2A101J	CHIP R	100	J 1/10W		
R517			RK73FB2A103J	CHIP R	10K	J 1/10W		
R518,519			RK73FB2A221J	CHIP R	220	J 1/10W		
R520-522			RK73FB2A102J	CHIP R	1.0K	J 1/10W		
R523			RK73FB2A750J	CHIP R	75	J 1/10W		
R524			RK73FB2A104J	CHIP R	100K	J 1/10W		
R525			RK73FB2A750J	CHIP R	75	J 1/10W		
R527			RK73FB2A750J	CHIP R	75	J 1/10W		
R528			RK73FB2A104J	CHIP R	100K	J 1/10W		
R529			RK73FB2A750J	CHIP R	75	J 1/10W		
R601			RK73FB2A103J	CHIP R	10K	J 1/10W		
R602,603			RK73FB2A102J	CHIP R	1.0K	J 1/10W		
R604			RD14NB2E330J	RD	33	J 1/4W		
R606,607			RK73FB2A100J	CHIP R	10	J 1/10W		
R610,611			RK73FB2A471J	CHIP R	470	J 1/10W		
R613,614			RK73FB2A471J	CHIP R	470	J 1/10W		
R615			RK73FB2A361J	CHIP R	360	J 1/10W		
R617			RK73FB2A471J	CHIP R	470	J 1/10W		
R618			RK73FB2A221J	CHIP R	220	J 1/10W		
R619			RK73FB2A104J	CHIP R	100K	J 1/10W		
R620-623			RK73FB2A221J	CHIP R	220	J 1/10W		
R627-631			RK73FB2A103J	CHIP R	10K	J 1/10W		
R632-666			RK73FB2A104J	CHIP R	100K	J 1/10W		
R701,702			RK73FB2A221J	CHIP R	220	J 1/10W		
R703			RK73FB2A472J	CHIP R	4.7K	J 1/10W		
R705			RK73FB2A152J	CHIP R	1.5K	J 1/10W	M1C1	
R706,707			RK73FB2A224J	CHIP R	220K	J 1/10W		
R708			RK73FB2A750J	CHIP R	75	J 1/10W	K2P2M2	
R709,710			RK73FB2A750J	CHIP R	75	J 1/10W	M1C1C2	
R709,710			RK73FB2A750J	CHIP R	75	J 1/10W	K2P2M2	
R711			RK73FB2A184J	CHIP R	180K	J 1/10W	K2P2M2	

Ref. No	Add- ress	New Parts	Parts No.	Description			Desti- nation	Re- marks
R711			RK73FB2A184J	CHIP R	180K	J 1/10W	M1C1C2	
R801,802			RD14NB2E332J	RD	3.3K	J 1/4W		
R803,804			RD14NB2E101J	RD	100	J 1/4W		
R805			RD14NB2E1R8J	RD	1.8	J 1/4W		
R806			RD14NB2E2R7J	RD	2.7	J 1/4W		
R808			RK73FB2A102J	CHIP R	1.0K	J 1/10W		
R809			RK73FB2A151J	CHIP R	5.1K	J 1/10W		
R810			RK73FB2A153J	CHIP R	15K	J 1/10W		
R811			RK73FB2A682J	CHIP R	6.8K	J 1/10W		
R812			RK73FB2A103J	CHIP R	10K	J 1/10W		
R821			RD14NB2E272J	RD	2.7K	J 1/4W		
R822			RK73FB2A100J	CHIP R	10	J 1/10W		
R823			RK73FB2A472J	CHIP R	4.7K	J 1/10W		
R824			RK73FB2A100J	CHIP R	10	J 1/10W		
R825			RK73FB2A472J	CHIP R	4.7K	J 1/10W		
R828			RD14NB2E332J	RD	3.3K	J 1/4W		
R901			RK73FB2A223J	CHIP R	22K	J 1/10W	C2	
R901			RK73FB2A223J	CHIP R	22K	J 1/10W	K2P2M2	
R902,903			RK73FB2A103J	CHIP R	10K	J 1/10W	C2	
R902,903			RK73FB2A103J	CHIP R	10K	J 1/10W	K2P2M2	
R904			RK73FB2A153J	CHIP R	15K	J 1/10W	C2	
R904			RK73FB2A153J	CHIP R	15K	J 1/10W	K2P2M2	
R905			RK73FB2A103J	CHIP R	10K	J 1/10W	C2	
R905			RK73FB2A103J	CHIP R	10K	J 1/10W	K2P2M2	
R906			RK73FB2A222J	CHIP R	2.2K	J 1/10W	K2P2M2	
R912			RK73FB2A102J	CHIP R	1.0K	J 1/10W	C2	
R912			RK73FB2A102J	CHIP R	1.0K	J 1/10W	K2P2M2	
R912			RK73FB2A102J	CHIP R	1.0K	J 1/10W	C2	
R912			RK73FB2A472J	CHIP R	4.7K	J 1/10W	K2P2M2	
R912			RK73FB2A472J	CHIP R	4.7K	J 1/10W	M1C1C2	
R917-922			RK73FB2A102J	CHIP R	1.0K	J 1/10W	C2	
R917-922			RK73FB2A102J	CHIP R	1.0K	J 1/10W	K2P2M2	
R923			RK73FB2A562J	CHIP R	5.6K	J 1/10W	C2	
R923			RK73FB2A562J	CHIP R	5.6K	J 1/10W	K2P2M2	
R924			RK73FB2A103J	CHIP R	10K	J 1/10W	C2	
R924			RK73FB2A103J	CHIP R	10K	J 1/10W	K2P2M2	
R925			RK73FB2A104J	CHIP R	100K	J 1/10W	C2	
R925			RK73FB2A104J	CHIP R	100K	J 1/10W	K2P2M2	
R926			RK73FB2A102J	CHIP R	1.0K	J 1/10W	C2	
R926			RK73FB2A102J	CHIP R	1.0K	J 1/10W	K2P2M2	
R927			RK73FB2A474J	CHIP R	470K	J 1/10W	C2	
R927			RK73FB2A474J	CHIP R	470K	J 1/10W	K2P2M2	
R928			RK73FB2A103J	CHIP R	10K	J 1/10W	C2	
R928			RK73FB2A103J	CHIP R	10K	J 1/10W	K2P2M2	
R929			RK73FB2A101J	CHIP R	100	J 1/10W	C2	
R929			RK73FB2A101J	CHIP R	100	J 1/10W	K2P2M2	
R998,999			RK73FB2A101J	CHIP R	100	J 1/10W		
K1			S76-0028-05	MAGNETIC RELAY			K2P2	
S2 - 7			S70-0031-05	TACT SWITCH				
D1			MA111	DIODE				
D2			U1BC44	DIODE				
D31 - 38			HSS104	DIODE				
D31 - 38			1SS133	DIODE				
D39			DA204K	DIODE				

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

35

Ref. No	Addres	New Parts	Parts No.	Description	Desti- nation	Re- marks
D41 ,42			HSS104	DIODE		
D41 ,42			1SS133	DIODE		
D43			HZS5.1S(B2)	ZENER DIODE		
D43			RD5.1JS(B2)	ZENER DIODE		
D44 ,45			MA111	DIODE		
D48			HZS16N(B2)	ZENER DIODE	M2C2	
D48			HZS18N(B)	ZENER DIODE	KP1Y1	
D48			HZS18N(B)	ZENER DIODE	K2P2	
D48			HZS18N(B)	ZENER DIODE	M1C1	
D48			RD16ES(B2)	ZENER DIODE	M2C2	
D48			RD18ES(B)	ZENER DIODE	KP1Y1	
D48			RD18ES(B)	ZENER DIODE	K2P2	
D48			RD18ES(B)	ZENER DIODE	M1C1	
D49			HZS10N(B2)	ZENER DIODE	KP1Y1	
D49			HZS10N(B2)	ZENER DIODE	K2P2	
D49			HZS10N(B2)	ZENER DIODE	M1C1	
D49			HZS15N(B2)	ZENER DIODE	M2C2	
D49			RD10JS(B2)	ZENER DIODE	KP1Y1	
D49			RD10JS(B2)	ZENER DIODE	K2P2	
D49			RD10JS(B2)	ZENER DIODE	M1C1	
D49			RD15ES(B2)	ZENER DIODE	M2C2	
D55 ,56			DA204K	DIODE		
D57			HZS24N(B)	ZENER DIODE	K2P2	
D57			RD24ES(B)	ZENER DIODE	K2P2	
D58 -60			MA111	DIODE		
D61			HZS3.3N(B)	ZENER DIODE		
D61			RD3.3ES(B)	ZENER DIODE		
D62			HZS2.7N(B)	ZENER DIODE		
D62			RD2.7ES(B)	ZENER DIODE		
D74 ,75			MA111	DIODE		
D77			HZS5.1S(B2)	ZENER DIODE		
D77			RD5.1JS(B2)	ZENER DIODE		
D78			MA111	DIODE		
D81 ,82			1B4B41	DIODE		
D83 ,84			HZS15N(B)	ZENER DIODE		
D85			RD15ES(B)	ZENER DIODE		
D85			HZS5.1S(B2)	ZENER DIODE		
D86			RD5.1JS(B2)	ZENER DIODE		
D87			S568B	DIODE		
D88			HZS11N(B)	ZENER DIODE		
D88			RD11JS(B)	ZENER DIODE		
D89			D3SBA20F03	DIODE		
D89			HZS11N(B)	ZENER DIODE		
D89			RD11JS(B)	ZENER DIODE		
D90 ,91			MA111	DIODE		
D92 -95			DA204K	DIODE	K2P2M2	
D92 -95			DA204K	DIODE	M1C1C2	
D96			MA111	DIODE	K2P2M2	
D96			MA111	DIODE	M1C1C2	
D901,902			MA111	DIODE	C2	
D901,902			MA111	DIODE	K2P2M2	
D998		*	HZS15N(B)	ZENER DIODE		
D999		*	RD15ES(B)	ZENER DIODE		
ED1		*	MA111	DIODE		
		*	16-MT-62GK	INDICATOR TUBE		

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

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

36

Ref. No	Addres	New Parts	Parts No.	Description	Desti- nation	Re- marks
IC1			NJM4580ED	ANALOGUE IC		
IC11,12			SN761200N	ANALOGUE IC	K2P2M2	
IC11,12			SN761200N	ANALOGUE IC	M1C1C2	
IC13			TC74HC4051AP	IC(ANALOG MULTIPLEXER)	K2P2	
IC21			NJM2058D	IC(OP AMP X4)		
IC23			TC9162AF	MOS-IC		
IC51			SN761200N	ANALOGUE IC		
IC52			MC14577CF	MOS-IC		
IC53			NJU3713D	MOS-IC		
IC61			UPD780204-034	MI-COM IC		
IC81			NJM4558D	ANALOGUE IC		
IC82			TA79005S	IC(VOLTAGE REGULATOR/ -5V)		
IC82			UPC7905AHF	IC(VOLTAGE REGULATOR/ -5V)		
IC83			TA7805S	ANALOGUE IC		
IC83			UPC7805AHF	ANALOGUE IC		
IC84		*	SI-3082V	ANALOGUE IC		
IC90		*	BA7645N	IC		
IC91		*	NJM4580L	ANALOGUE IC		
Q1 - 6		*	2SC4213(B)	TRANSISTOR	K2P2	
Q12		*	2SC4081(R,S)	TRANSISTOR	K2P2M2	
Q14		*	2SC4081(R,S)	TRANSISTOR	M1C1C2	
Q14		*	2SC4081(R,S)	TRANSISTOR	K2P2M2	
Q15 ,16		*	2SC4213(B)	TRANSISTOR	M1C1C2	
Q17		*	2SC4213(B)	TRANSISTOR	K2P2	
Q30 ,31			2SC4081(R,S)	TRANSISTOR	K2P2M2	
Q30 ,31			2SC4081(R,S)	TRANSISTOR	M1C1C2	
Q32			DTC113ZUA	DIGITAL TRANSISTOR	K2P2	
Q32			UN5219	DIGITAL TRANSISTOR	K2P2	
Q52			2SC4081(R,S)	TRANSISTOR		
Q53			DTA113ZUA	DIGITAL TRANSISTOR		
Q53			UN5119	DIGITAL TRANSISTOR		
Q54			DTC124EUA	DIGITAL TRANSISTOR		
Q54			UN5212	DIGITAL TRANSISTOR		
Q55			2SC4213(B)	TRANSISTOR		
Q81			2SC2458(Y,GR)	TRANSISTOR		
Q81			2SC311A(Q,R)	TRANSISTOR		
Q82			2SA1048(Y,GR)	TRANSISTOR		
Q82			2SA1309A(Q,R)	TRANSISTOR		
Q83			2SB1370	TRANSISTOR		
Q84			2SD2061	TRANSISTOR		
Q85			2SB1370	TRANSISTOR		
Q86			2SD2061	TRANSISTOR		
Q301-304			2SA992(F,E)	TRANSISTOR		
Q305-308			2SC2631(R,S)	TRANSISTOR		
Q309,310			2SA1123(R,S)	TRANSISTOR		
Q311,312			2SA1586(Y,GR)	TRANSISTOR		
Q351-354			2SA992(F,E)	TRANSISTOR		
Q355-358			2SC2631(R,S)	TRANSISTOR		
Q359,360			2SA1123(R,S)	TRANSISTOR		
Q361,362			2SA1586(Y,GR)	TRANSISTOR		
Q401,402			2SA992(F,E)	TRANSISTOR		
Q403,404			2SC2631(R,S)	TRANSISTOR		
Q405			2SA1123(R,S)	TRANSISTOR		
Q406			2SA1586(Y,GR)	TRANSISTOR		

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

PARTS LIST

KRF-V7771D/N8881D/VR-2080/2090

PARTS LIST

* 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
△ Q451			2SA1535(R,S)	TRANSISTOR		
Q453			DTC124EUA	DIGITAL TRANSISTOR		
Q453			UN5212	DIGITAL TRANSISTOR		
Q454			2SA1611(M5,M6)	TRANSISTOR		
Q456			DTC124EUA	DIGITAL TRANSISTOR		
△ Q456			UN5212	DIGITAL TRANSISTOR		
Q457			2SC4177(L5,L6)	TRANSISTOR		
Q901			2SC4081(R,S)	TRANSISTOR	C2	
Q901			2SC4081(R,S)	TRANSISTOR	K2P2M2	
Q902			2SA1611(M5,M6)	TRANSISTOR	C2	
Q903			2SA1611(M5,M6)	TRANSISTOR	K2P2M2	
Q999			2SC3244	TRANSISTOR		
A1			W02-2571-05	OPTIC RECEIVING MODULE		

HOW TO READ THE PARTS LIST
ABBREVIATION OF MODEL AND MASS PRODUCTION'S DESTINATIONS

MODEL	ABB.	Australia	Canada	China	England	Europe	Germany	Korea	Malaysia
VR-2080	-	-	P1	-	-	-	-	-	-
VR-2090	-	-	P2	-	-	-	-	-	-
KRF-V7771D	-	-	-	C1	-	-	-	-	-
KRF-V8881D	-	-	-	C2	-	-	-	-	-
MODEL	ABB.	Mexico	PX/AAFES	Russia	Scandinavia	Shanghai	USA	Other area	
VR-2080	-	-	-	-	-	-	K	-	-
VR-2090	-	-	-	-	-	-	K2	-	-
KRF-V7771D	-	-	-	Y1	-	-	-	M1	-
KRF-V8881D	-	-	-	-	-	-	-	M2	-

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

SPECIFICATIONS (VR-2090)

AUDIO section

Rated output power during STEREO operation

100 watts per channel minimum RMS, both channels driven, at 6 Ω from 20 Hz to 20 kHz with no more than 0.03 % total harmonic distortion.(FTC)

Rated output power during SURROUND operation

FRONT	
(1kHz, 0.7% T.H.D. at 6 Ω)	100 W + 100 W
CENTER	
(1kHz, 0.7% T.H.D. at 6 Ω)	100 W
SURROUND	
(1kHz, 0.7% T.H.D. at 6 Ω)	100 W + 100 W
Total harmonic distortion	0.004% (1 kHz, 50 W, 6 Ω)
Frequency response (IHF'78)	
CD	5 Hz ~ 80 kHz, +0.5 dB, -3 dB
Signal to noise ratio (IHF'66)	
PHONO (MM)	77 dB
CD	90 dB

Input sensitivity / impedance

PHONO (MM)	2.5 mV / 47 kΩ
CD	200 mV / 47 kΩ

Output level / impedance

TAPEREC	200 mV / 220 Ω
PRE OUT (CENTER, SURROUND, SUBWOOFER)	1 V / 1 kΩ

Tone control

BASS	±7 dB (at 100 Hz)
TREBLE	±7 dB (at 10 kHz)

LOUDNESS control

VOLUME at -40dB level ... +7 dB(100 Hz), +4 dB(10 kHz)

DIGITAL AUDIO section

Sampling frequency 32 kHz, 44.1 kHz, 48 kHz

Input level / impedance / wave length

Optical	-15 dBm ~ -21 dBm, 660 nm ±30nm
Coaxial	0.5 Vp-p / 75 Ω

VIDEO section

VIDEO inputs / outputs

VIDEO (composite)	1 Vp-p / 75 Ω
S VIDEO (luminance signal)	1 Vp-p / 75 Ω

(chrominance signal) 0.286 Vp-p / 75 Ω

FM tuner section

Tuning frequency range 87.5 MHz ~ 108 MHz

Usable sensitivity (MONO)

..... 1.6 μV (75 Ω) / 15.2 dBf (75 kHz DEV., SINAD 30 dB)

50dB quieting sensitivity

STEREO 31.6 μV (75 Ω) / 41.2 dBf

Total harmonic distortion (1 kHz)

MONO 0.3 % (65 dBf input)

STEREO 0.6 % (65 dBf input)

Signal to noise ratio (1 kHz, 75 kHz DEV.)

MONO 75 dB (65 dBf input)

STEREO 68 dB (65 dBf input)

Stereo separation (1 kHz)

..... 38 dB

Selectivity (±400 kHz)

..... 70 dB

Frequency response

..... 30 Hz ~ 15 kHz, +0.5 dB, -3.0 dB

AM tuner section

Tuning frequency range

10 kHz step 530 kHz ~ 1,700 kHz

Usable sensitivity (30% mod., S/N 20 dB)

..... 16 μV / (600 μV/m)

Signal to noise ratio (30 % mod. 1 mV input)

..... 50 dB

Relay and IR IN/OUT section

RELAY CONTROL terminal

Maximum output current	20 mA
Operating voltage	12 V
Output impedance	470 Ω

IR RECEIVER IN terminal

Maximum output current	20 mA
Operating voltage	12 V
Output impedance	470 Ω

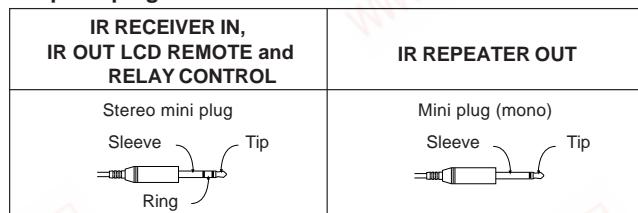
IR OUT LCD REMOTE terminal

Maximum output current	20 mA
Operating voltage	12 V
Output impedance	470 Ω

IR REPEATER CONTROL terminals

Maximum output current	20 mA
Operating voltage	12 V
Output impedance	470 Ω

Shape of plug to be connected



IR IN/OUT specification

Terminal	IR RECEIVER IN	IR REPEATER OUT and IR OUT LCD REMOTE
To Tip	Signal	Signal
To Ring	Ground	—
To Sleeve	+12 V	Ground

RELAY CONTROL specification

Status	Power off	Power on	Power on and when switch to video input
To Tip	0 V	0 V	+12 V
To Ring	0 V	+12 V	+12 V
To Sleeve	Ground	Ground	Ground

GENERAL

Power consumption 3.5 A

AC outlet

SWITCHED 2 (total 90 W, 0.75 A max.)

Dimensions W : 440 mm (17-5/16")

H : 162 mm (6-3/8")

D : 391 mm (15-3/8")

Weight (Net) 12 kg (26.5 lb)

1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
2. Full performance may not be exhibited in extremely cold locations (below 0 deg.C).



SPECIFICATIONS (VR-2080)

AUDIO section

Rated output power during STEREO operation

100 watts per channel minimum RMS, both channels driven, at 6 Ω from 20 Hz to 20 kHz with no more than 0.03 % total harmonic distortion.(FTC)

Rated output power during SURROUND operation

FRONT (1kHz, 0.7% T.H.D. at 6 Ω)	100 W + 100 W
CENTER (1kHz, 0.7% T.H.D. at 6 Ω)	100 W
SURROUND (1kHz, 0.7% T.H.D. at 6 Ω)	100 W + 100 W
Total harmonic distortion.....	0.004% (1 kHz, 50 W, 6 Ω)
Frequency response (IHF'78) CD	5 Hz ~ 80 kHz, +0.5 dB, -3 dB
Signal to noise ratio (IHF'66) PHONO (MM)	77 dB
CD	90 dB

Input sensitivity / impedance

PHONO (MM)	2.5 mV / 47 kΩ
CD	200 mV / 47 kΩ

Output level / impedance

TAPEREC	200 mV / 220 Ω
PRE OUT (CENTER, SURROUND, SUBWOOFER)	1 V / 1 kΩ

Tone control

BASS	±7 dB (at 100 Hz)
TREBLE	±7 dB (at 10 kHz)

LOUDNESS control

VOLUME at -40dB level ... +7 dB(100 Hz), +4 dB(10 kHz)

DIGITAL AUDIO section

Sampling frequency 32 kHz, 44.1 kHz, 48 kHz

Input level / impedance / wave length

Optical	-15 dBm ~ -21 dBm, 660 nm ±30nm
Coaxial	0.5 Vp-p / 75 Ω

VIDEO section

VIDEO inputs / outputs

VIDEO (composite)	1 Vp-p / 75 Ω
S VIDEO (luminance signal)	1 Vp-p / 75 Ω
(chrominance signal)	0.286 Vp-p / 75 Ω

FM tuner section

Tuning frequency range 87.5 MHz ~ 108 MHz

Usable sensitivity (MONO)

..... 1.6 μV (75 Ω)/ 15.2 dBf (75 kHz DEV., SINAD 30 dB)

50dB quieting sensitivity

STEREO 31.6 μV (75 Ω)/ 41.2 dBf

Total harmonic distortion (1 kHz)

MONO 0.3 % (65 dBf input)

STEREO 0.6 % (65 dBf input)

Signal to noise ratio (1 kHz, 75 kHz DEV.)

MONO 75 dB (65 dBf input)

STEREO 68 dB (65 dBf input)

Stereo separation (1 kHz) 38 dB

Selectivity (±400 kHz) 70 dB

Frequency response 30 Hz ~ 15 kHz,+0.5 dB, -3.0 dB

AM tuner section

Tuning frequency range

10 kHz step 530 kHz ~ 1,700 kHz

Usable sensitivity (30% mod., S/N 20 dB)

..... 16 μV / (600 μV/m)

Signal to noise ratio (30 % mod. 1 mV input) 50 dB

Relay and IR IN/OUT section

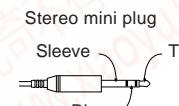
IR RECEIVER IN terminal

Maximum output current	20 mA
Operating voltage	12 V
Output impedance	470 Ω

IR OUT LCD REMOTE terminal

Maximum output current	20 mA
Operating voltage	12 V
Output impedance	470 Ω

Shape of plug to be connected

IR RECEIVER IN	IR OUT LCD REMOTE
	

IR IN/OUT specification

Terminal	IR RECEIVER IN	IR OUT LCD REMOTE
To Tip	Signal	Signal
To Ring	Ground	—
To Sleeve	+12 V	Ground

GENERAL

Power consumption 3.5 A

AC outlet

SWITCHED 2 (total 90 W, 0.75 A max.)

Dimensions W : 440 mm (17-5/16")

H : 162 mm (6-3/8")

D : 391 mm (15-3/8")

Weight (Net) 11.2 kg (24.69 lb)

1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

2. Full performance may not be exhibited in extremely cold locations (below 0 deg.C).



SPECIFICATIONS (KRF-V8881D in China)

AUDIO section

Rated output power during STEREO operation 63 Hz ~ 12.5 kHz, 0.7%, 6 Ω (DIN/IEC) ... 130 W + 130 W	
130 watts per channel minimum RMS, both channels driven, at 6 Ω from 20 Hz to 20 kHz with no more than 0.03 % total harmonic distortion.(FTC)	
Effective output power during STEREO operation 1kHz,10% T.H.D.,at 6 Ω 180 W + 180 W	
Effective output power during SURROUND operation FRONT (1kHz, 0.7% T.H.D. at 6 Ω one channel driven) 130 W + 130 W (1kHz, 10% T.H.D. at 6 Ω one channel driven) 180 W + 180 W	
CENTER (1kHz, 0.7% T.H.D. at 6 Ω one channel driven) 130 W (1kHz, 10% T.H.D. at 6 Ω one channel driven) 180 W	
SURROUND (1kHz, 0.7% T.H.D. at 6 Ω one channel driven) 130 W + 130 W (1kHz, 10% T.H.D. at 6 Ω one channel driven) 180 W + 180 W	
Total harmonic distortion 0.004 % (1kHz, 65 W, 6 Ω)	
Frequency response (IHF'78) CD 5 Hz ~ 80 kHz, +0.5 dB, -3 dB	
Signal to noise ratio (IHF'66) PHONO (MM) 77 dB CD 92 dB	
Input sensitivity / impedance PHONO (MM) 2.5 mV / 47 kΩ CD 200 mV / 47 kΩ	
Output level / impedance TAPEREC 200 mV / 220 Ω PRE OUT (CENTER, SURROUND, SUBWOOFER) 1 V / 1 kΩ	
Tone control BASS ±7 dB (at 100 Hz) TREBLE ±7 dB (at 10 kHz)	
LOUDNESS control VOLUME at -40dB level ... +7 dB(100 Hz), +4 dB(10 kHz)	
DIGITAL AUDIO section	
Sampling frequency 32 kHz, 44.1 kHz, 48 kHz	
Input level / impedance / wave length Optical -15 dBm ~ -21 dBm, 660 nm ±30nm Coaxial 0.5 Vp-p / 75 Ω	

VIDEO section

VIDEO inputs / outputs	
VIDEO (composite)	1 Vp-p / 75 Ω
S VIDEO (luminance signal)	1 Vp-p / 75 Ω
(chrominance signal)	0.286 Vp-p / 75 Ω

FM tuner section

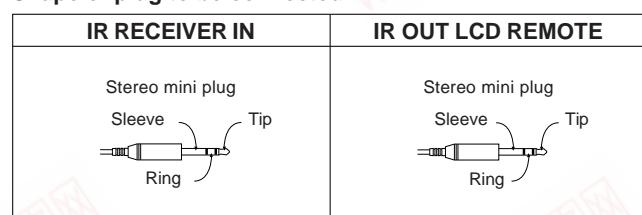
Tuning frequency range 87.5 MHz ~ 108 MHz	
Usable sensitivity (MONO) 1.6μV (75 Ω)/ 15.2 dBf(75 kHz DEV., SINAD 30 dB)	
50dB quieting sensitivity STEREO 31.6μV (75 Ω)/ 41.2 dBf	
Total harmonic distortion (1 kHz) MONO 0.6 % (65 dBf input) STEREO 0.7 % (65 dBf input)	
Signal to noise ratio (1 kHz, 75 kHz DEV.) MONO 75 dB (65 dBf input) STEREO 68 dB (65 dBf input)	
Stereo separation (1 kHz) 38 dB	
Selectivity (±400 kHz) 50 dB	
Frequency response 30 Hz ~ 15kHz,+0.5 dB, -3.0 dB	

AM tuner section

Tuning frequency range	
9 kHz step	531 kHz ~ 1,602 kHz
10 kHz step	530 kHz ~ 1,610 kHz
Usable sensitivity (30% mod., S/N 20 dB)	16 μV / (600 μV/m)
Signal to noise ratio (30 % mod. 1 mV input)	50 dB

IR IN/OUT section

IR RECEIVER IN terminal	
Maximum output current	20 mA
Operating voltage	12 V
Output impedance	470 Ω
IR OUT LCD REMOTE terminal	
Maximum output current	20 mA
Operating voltage	12 V
Output impedance	470 Ω

Shape of plug to be connected**IR IN/OUT specification**

Terminal	IR RECEIVER IN	IR OUT LCD REMOTE
To Tip	Signal	Signal
To Ring	Ground	—
To Sleeve	+12 V	Ground

GENERAL

Power consumption	380 W
AC outlet	
SWITCHED	2 (total 90 W max.)
Dimensions	W : 440 mm H : 162 mm D : 391 mm
Weight (Net)	12 kg



- KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
- Full performance may not be exhibited in extremely cold locations (below 0 deg.C).

SPECIFICATIONS (KRF-V8881D for other countries)

AUDIO section

Rated output power during STEREO operation

63 Hz ~ 12.5 kHz, 0.7%, 6 Ω (DIN/IEC) ... 130 W + 130 W

130 watts per channel minimum RMS, both channels driven, at 6 Ω from 20 Hz to 20 kHz with no more than 0.03 % total harmonic distortion.(FTC)

Effective output power during STEREO operation

1kHz,10% T.H.D.,at 6 Ω 180 W + 180 W

Effective output power during SURROUND operation

FRONT

(1kHz, 0.7% T.H.D. at 6 Ω one channel driven) 130 W + 130 W

(1kHz, 10% T.H.D. at 6 Ω one channel driven) 180 W + 180 W

CENTER

(1kHz, 0.7% T.H.D. at 6 Ω one channel driven) 130 W

(1kHz, 10% T.H.D. at 6 Ω one channel driven) 180 W

SURROUND

(1kHz, 0.7% T.H.D. at 6 Ω one channel driven) 130 W + 130 W

(1kHz, 10% T.H.D. at 6 Ω one channel driven) 180 W + 180 W

Total harmonic distortion 0.004 % (1kHz, 65 W, 6 Ω)

Frequency response (IHF'78)

CD 5 Hz ~ 80 kHz, +0.5 dB, -3 dB

Signal to noise ratio (IHF'66)

PHONO (MM) 77 dB

CD 92 dB

Input sensitivity / impedance

PHONO (MM) 2.5 mV / 47 kΩ

CD 200 mV / 47 kΩ

Output level / impedance

TAPE REC 200 mV / 220 Ω

PRE OUT (CENTER, SURROUND, SUBWOOFER)

..... 1 V / 1 kΩ

Tone control

BASS ±7 dB (at 100 Hz)

TREBLE ±7 dB (at 10 kHz)

LOUDNESS control

VOLUME at -40dB level ... +7 dB(100 Hz), +4 dB(10 kHz)

DIGITAL AUDIO section

Sampling frequency 32 kHz, 44.1 kHz, 48 kHz

Input level / impedance / wave length

Optical -15 dBm ~ -21 dBm, 660 nm ±30nm

Coaxial 0.5 Vp-p / 75 Ω

VIDEO section

VIDEO inputs / outputs

VIDEO (composite) 1 Vp-p / 75 Ω

S VIDEO (luminance signal) 1 Vp-p / 75 Ω

(chrominance signal) 0.286 Vp-p / 75 Ω

FM tuner section

Tuning frequency range 87.5 MHz ~ 108 MHz

Usable sensitivity (MONO)

..... 1.6 μV (75 Ω)/ 15.2 dBf(75 kHz DEV., SINAD 30 dB)

50dB quieting sensitivity

STEREO 31.6 μV (75 Ω)/ 41.2 dBf

Total harmonic distortion (1 kHz)

MONO 0.6 % (65 dBf input)

STEREO 0.7 % (65 dBf input)

Signal to noise ratio (1 kHz, 75 kHz DEV.)

MONO 75 dB (65 dBf input)

STEREO 68 dB (65 dBf input)

Stereo separation (1 kHz) 38 dB

Selectivity (±400 kHz) 50 dB

Frequency response 30 Hz ~ 15 kHz,+0.5 dB, -3.0 dB

AM tuner section

Tuning frequency range

9 kHz step 531 kHz ~ 1,602 kHz

10 kHz step 530 kHz ~ 1,610 kHz

Usable sensitivity (30% mod., S/N 20 dB)

..... 16 μV / (600 μV/m)

Signal to noise ratio (30 % mod. 1 mV input) 50 dB

IR IN/OUT section

IR RECEIVER IN terminal

Maximum output current 20 mA

Operating voltage 12 V

Output impedance 470 Ω

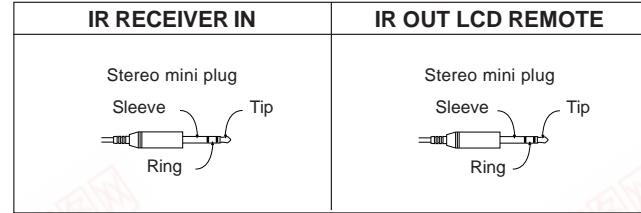
IR OUT LCD REMOTE terminal

Maximum output current 20 mA

Operating voltage 12 V

Output impedance 470 Ω

Shape of plug to be connected



IR IN/OUT specification

Terminal	IR RECEIVER IN	IR OUT LCD REMOTE
To Tip	Signal	Signal
To Ring	Ground	—
To Sleeve	+12 V	Ground

GENERAL

Power consumption 380 W

AC outlet

SWITCHED 2 (total 90 W max.)

Dimensions W : 440 mm

H : 162 mm

D : 391 mm

Weight (Net) 12 kg



1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

2. Full performance may not be exhibited in extremely cold locations (below 0 deg.C).

SPECIFICATIONS (KRF-V7771D)

AUDIO section

Rated output power during STEREO operation	63 Hz ~ 12.5 kHz, 0.7%, 6 Ω (DIN/IEC) ... 120 W + 120 W 120 watts per channel minimum RMS, both channels driven, at 6 Ω from 20 Hz to 20 kHz with no more than 0.03 % total harmonic distortion.(FTC)
Effective output power during STEREO operation	1kHz,10% T.H.D.,at 6 Ω 160 W + 160 W
Effective output power during SURROUND operation	
FRONT	
(1kHz, 0.7% T.H.D. at 6 Ω one channel driven)	..... 120 W + 120 W
(1kHz, 10% T.H.D. at 6 Ω one channel driven)	..... 160 W + 160 W
CENTER	
(1kHz, 0.7% T.H.D. at 6 Ω one channel driven) 120 W	
(1kHz, 10% T.H.D. at 6 Ω one channel driven) 160 W	
SURROUND	
(1kHz, 0.7% T.H.D. at 6 Ω one channel driven)	..... 120 W + 120 W
(1kHz, 10% T.H.D. at 6 Ω one channel driven)	..... 160 W + 160 W
Total harmonic distortion	..... 0.004 % (1kHz, 60 W, 6 Ω)
Frequency response (IHF'78)	CD 5 Hz ~ 80 kHz, +0.5 dB, -3 dB
Signal to noise ratio (IHF'66)	PHONO (MM) 77 dB CD 92 dB
Input sensitivity / impedance	
PHONO (MM)	..... 2.5 mV / 47 kΩ
CD	..... 200 mV / 47 kΩ
Output level / impedance	
TAPE REC	..... 200 mV / 220 Ω
PRE OUT (CENTER, SURROUND, SUBWOOFER)	..... 1 V / 1 kΩ
Tone control	
BASS	..... ±7 dB (at 100 Hz)
TREBLE	..... ±7 dB (at 10 kHz)
LOUDNESS control	
VOLUME	at -40dB level ... +7 dB(100 Hz), +4 dB(10 kHz)

DIGITAL AUDIO section

Sampling frequency	..... 32 kHz, 44.1 kHz, 48 kHz
Input level / impedance / wave length	
Optical	..... -15 dBm ~ -21 dBm, 660 nm ±30nm

Coaxial	..... 0.5 Vp-p / 75 Ω
VIDEO section	
VIDEO inputs / outputs	
VIDEO (composite)	..... 1 Vp-p / 75 Ω
S VIDEO (luminance signal)	..... 1 Vp-p / 75 Ω
(chrominance signal)	..... 0.286 Vp-p / 75 Ω

FM tuner section

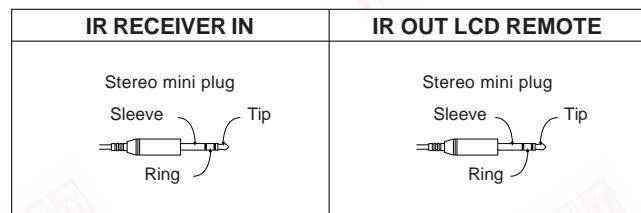
Tuning frequency range	..... 87.5 MHz ~ 108 MHz
Usable sensitivity (MONO)	..... 1.6μV (75 Ω)/ 15.2 dBf(75 kHz DEV., SINAD 30 dB)
50dB quieting sensitivity	
STEREO	..... 31.6μV (75 Ω)/ 41.2 dBf
Total harmonic distortion (1 kHz)	
MONO	..... 0.6 % (65 dBf input)
STEREO	..... 0.7 % (65 dBf input)
Signal to noise ratio (1 kHz, 75 kHz DEV.)	
MONO	..... 75 dB (65 dBf input)
STEREO	..... 68 dB (65 dBf input)
Stereo separation (1 kHz)	..... 38 dB
Selectivity (±400 kHz)	..... 50 dB
Frequency response	..... 30 Hz ~ 15kHz,+0.5 dB, -3.0 dB

AM tuner section

Tuning frequency range	
9 kHz step	..... 531 kHz ~ 1,602 kHz
10 kHz step	..... 530 kHz ~ 1,610 kHz
Usable sensitivity (30% mod., S/N 20 dB)	..... 16 μV / (600 μV/m)
Signal to noise ratio (30 % mod. 1 mV input)	..... 50 dB

IR IN/OUT section

IR RECEIVER IN terminal	
Maximum output current	..... 20 mA
Operating voltage	..... 12 V
Output impedance	..... 470 Ω
IR OUT LCD REMOTE terminal	
Maximum output current	..... 20 mA
Operating voltage	..... 12 V
Output impedance	..... 470 Ω

Shape of plug to be connected**IR IN/OUT specification**

Terminal	IR RECEIVER IN	IR OUT LCD REMOTE
To Tip	Signal	Signal
To Ring	Ground	—
To Sleeve	+12 V	Ground

GENERAL

Power consumption	..... 330 W
AC outlet	
SWITCHED	..... 2 (total 90 W max.)
Dimensions	..... W : 440 mm H : 162 mm D : 391 mm
Weight (Net)	..... 11.2 kg



- KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
- Full performance may not be exhibited in extremely cold locations (below 0 deg.C).

QQ 376315150 892498299

TEL 13942296513 QQ 376315150 892498299

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.

KENWOOD CORPORATION

14-6,Dogenzaka 1-chome, Shibuya-ku, Tokyo, 150-8501 Japan

KENWOOD SERVICE CORPORATION

P.O BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745, U.S.A.

KENWOOD ELECTRONICS CANADA INC.

6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

KENWOOD ELECTRONICS LATIN AMERICA S.A.

P.O BOX 55-2791, Piso 6 plaza Chase, Cl. 47 y Aquilino de la Guardia Panama, Republic de Panama

KENWOOD ELECTRONICS BRASIL LTDA.

Av Indianópolis, 628, 04062-001 Planalto Paulista São Paulo-SP-Brasil

KENWOOD ELECTRONICS U.K. LIMITED

KENWOOD House, Dwight Road, Watford, Herts., WD1 8EB., United Kingdom

KENWOOD ELECTRONICS BELGUM N.V.

Meachelsesteenweg 418, B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH

Rembrücker Str. 15, 63150 Heusenstamm, Germany

KENWOOD ELECTRONICS FRANCE S.A.

13 Boulevard Ney, 75018 Paris, France

KENWOOD ELECTRONICS ITALIA S.p.A.

Via G. Sirtori, 7/9 20129, Milano, Italy

KENWOOD IBÉRICA S.A.

Bolivia, 239-08020 Barcelona, Spain

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD.

(A.C.N. 001499 074)
P.O Box 504, 8 Figtree Drive, Australia Centre, Homebush, N.S.W. 2140, Australia

KENWOOD & LEE ELECTRONICS, LTD.

Unit 3712-3724, Level 37, Tower 1, Metroplaza, 223 Hing Fong Road, Kwai Fong N.T., Hong Kong

KENWOOD ELECTRONICS GULF FZE

P.O.Box 61318, Jebel Ali, Dubai, U.A.E.

KENWOOD ELECTRONICS SINGAPORE PTE LTD.

No. 1 Genting Lane #02-02, KENWOOD Building, Singapore, 349544

KENWOOD ELECTRONICS (MALAYSIA) SDN BHD.

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

KENWOOD ELECTRONICS (THAILAND) CO., LTD.

573/111 Soi Ramkhamhaeng 39, Ramkhamhaeng Road, Wangthonglang, Bangkok, Bangkok 10301 Thailand