

# KRF-V7020D/V8020D

## VR-307/309/357

### SERVICE MANUAL

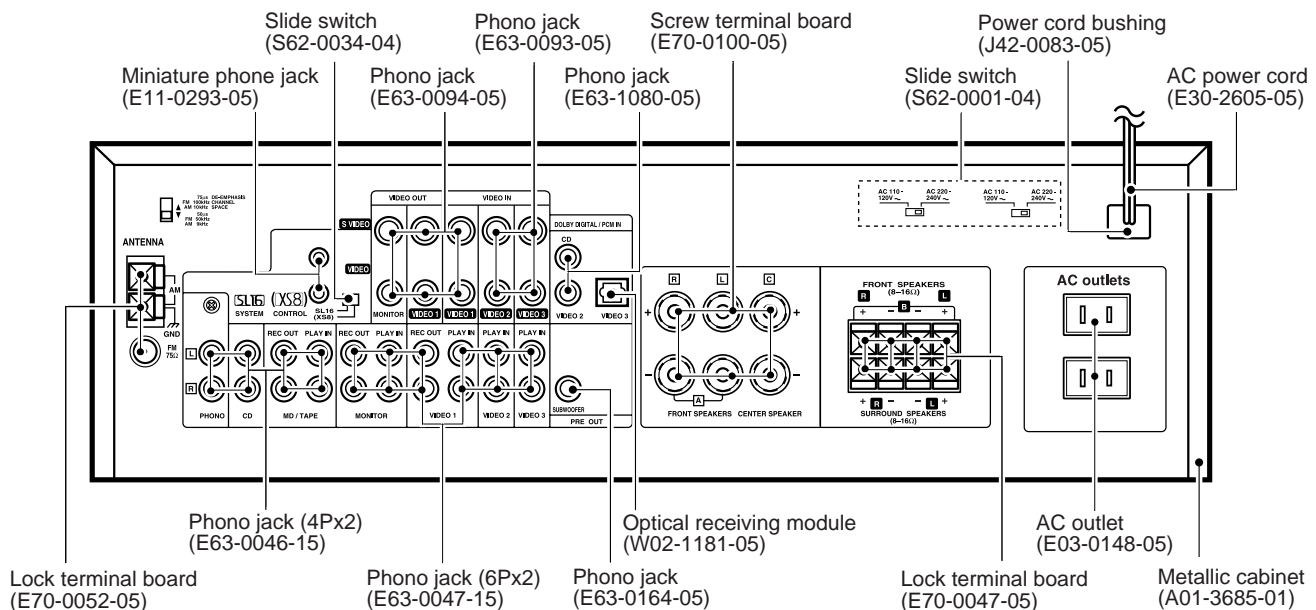
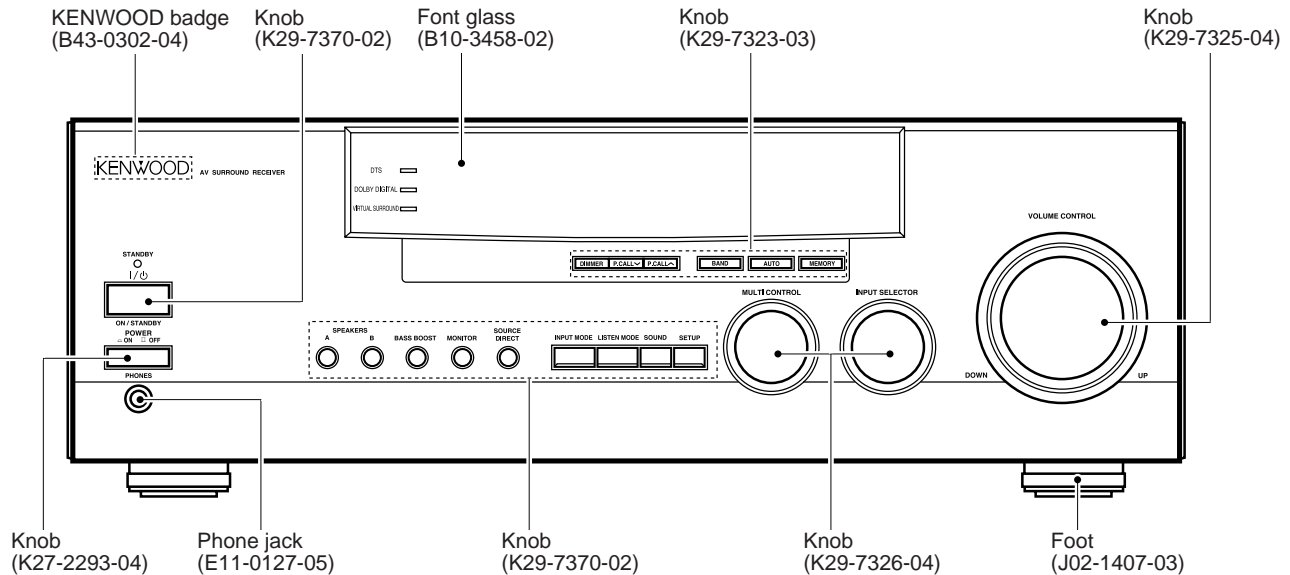


Illustration is KRF-V7020D(Y).

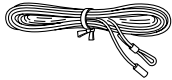
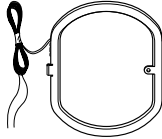
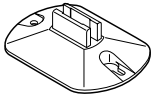
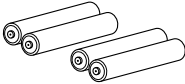
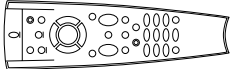
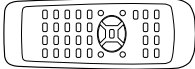
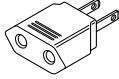


## CONTENTS / ACCESSORIES / CAUTIONS

### Contents

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### Accessories

<p>FM indoor antenna (1) (T90-0836-05)</p> 	<p>AM loop antenna (1) (T90-0833-05)</p> 	<p>Loop antenna stand (1)</p> 	<p>Batteries (R03/AAA) (4)</p> 
<p>Remote control unit (1) RC-R0508/R0608</p>  <p>Battery cover (A09-0366-08)</p>	<p>Remote control unit (1) RC-R0712</p>  <p>Battery cover (A09-1123-08)</p>	<p>*AC plug adaptor (1) (E03-0115-05)</p>  <p>(Accessory only for regions where use is necessary.)</p>	<p>*Use to adapt the plug on the power cord to the shape of the wall outlet.</p>

### Model name vs remote controller

Model	Destinations	Remote Controller		
		Parts number	Model name	Battery Cover
<b>KRF-V7020D</b>	X7,C7,Y7,V7,M7	A70-1268-05	RC-R0712	A09-1123-08
<b>KRF-V8020D</b>	X8	A70-1275-05	RC-R0508	A09-0366-08
<b>KRF-V8020D</b>	C8,I8,Y8,M8	A70-1277-05	RC-R0608	A09-0366-08
<b>VR-307</b>	K6,P6	A70-1268-05	RC-R0712	A09-1123-08
<b>VR-309</b>	K8,P8	A70-1277-05	RC-R0608	A09-0366-08
<b>VR-357</b>	K7,P7	A70-1277-05	RC-R0608	A09-0366-08

### Cautions

#### Resetting the Microcomputer

If the microcomputer may malfunction (unit cannot be operated, or shows an erroneous display) if the power cord is unplugged while the power is ON, or due to some other external factor. If this happens, execute the following procedure to reset the microcomputer and return the unit to its normal operating condition.

#### For U.S.A. and Canada

Unplug the power cord from the wall outlet, then plug it back in while holding down the **POWER** key.

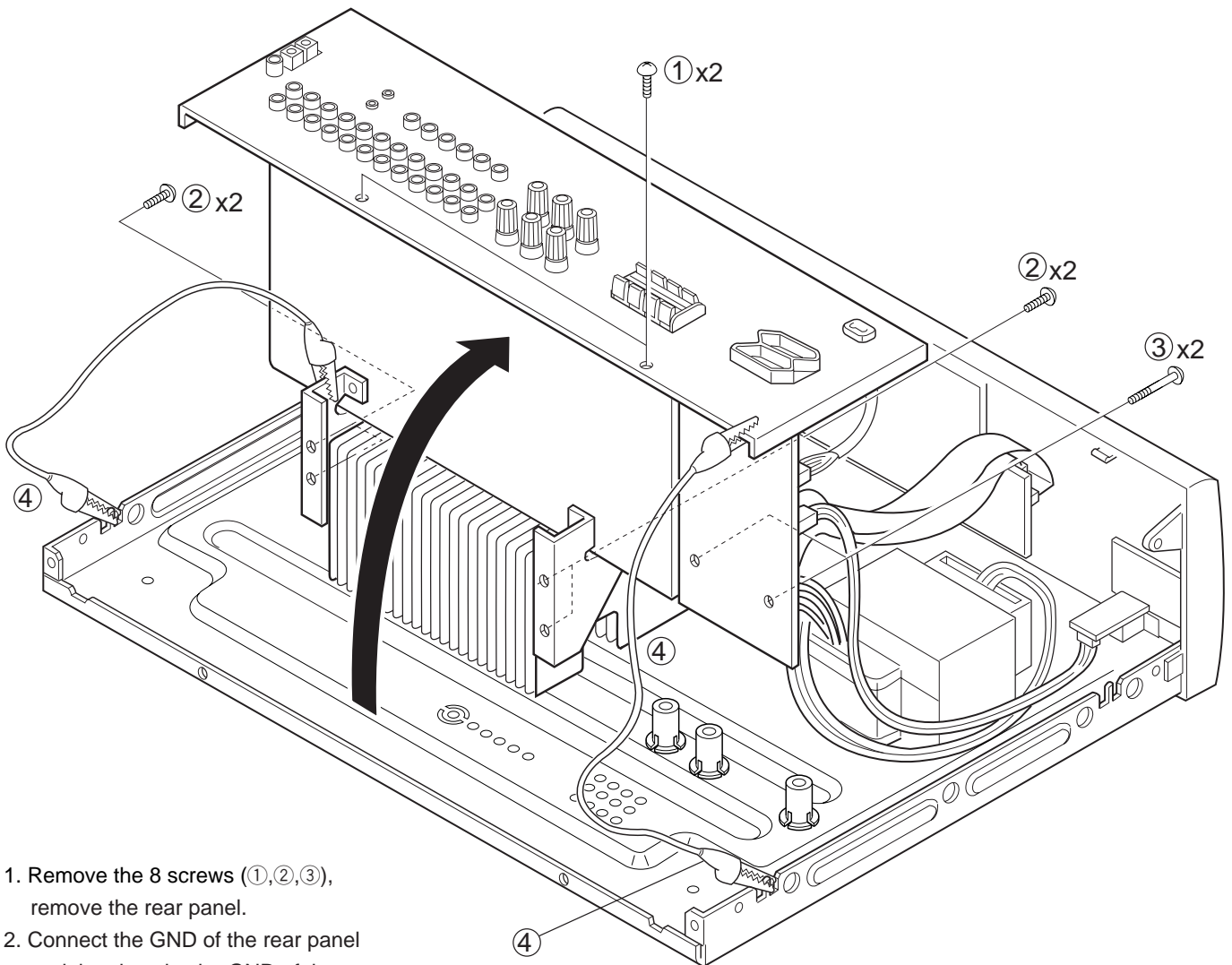
#### For other countries

With the power cord plugged in, turn the **POWER** key OFF. Then, while holding down the **ON/STANDBY** key, press **POWER**.

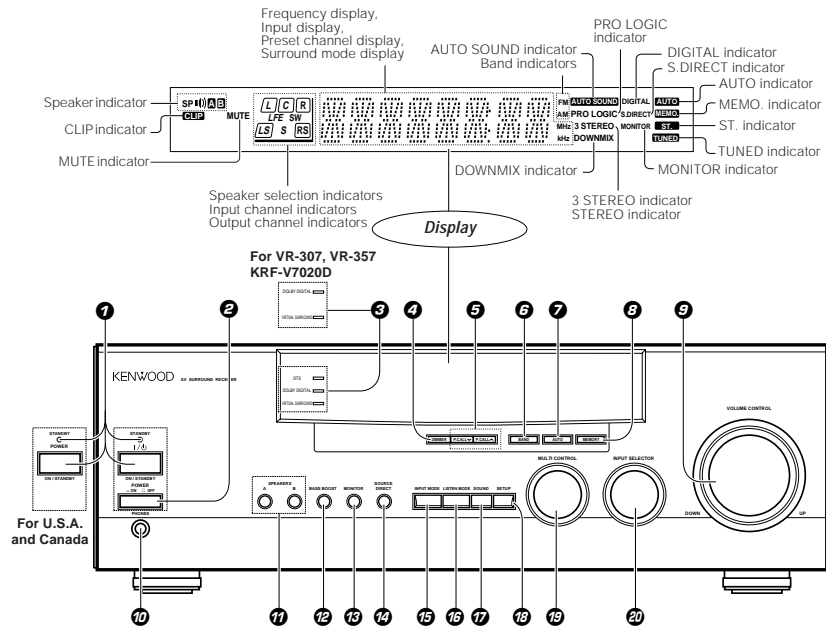
• Please note that resetting the microcomputer will clear the contents of the memory and returns the unit to the state it was in when it left the factory.

# KRF-V7020D/V8020D/VR-307/309/357

## DISASSEMBLY FOR REPAIR



1. Remove the 8 screws (①,②,③),  
remove the rear panel.
2. Connect the GND of the rear panel  
and the chassis, the GND of the  
mounting hardware and the chassis  
with 2 alligators clip (④)

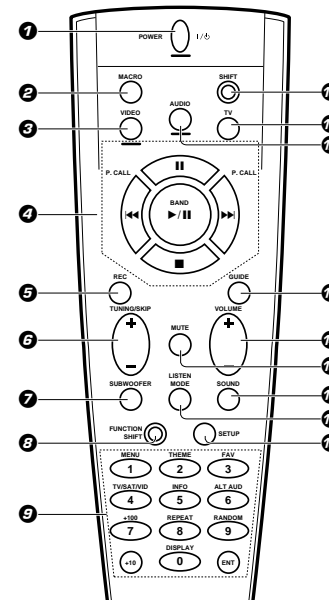


- 1 POWER key**  
(For U.S.A. and Canada)  
Use to turn the power ON/OFF.  
**STANDBY indicator**  
**1 ON/STANDBY (1/φ) key**  
(Except for U.S.A. and Canada)  
Use to switch the power ON/STANDBY when the POWER is turned ON.  
**STANDBY indicator**
- 2 POWER key**  
(Except for U.S.A. and Canada)  
Use to turn the main power ON/OFF.
- 3 Surround indicators**
  - **DTS indicator**  
Lights when the receiver is in the DTS mode.  
(For VR-309, KRF-V8020D)
  - **DOLBY DIGITAL indicator**  
Lights when the receiver is in the Dolby Digital mode.
  - **VIRTUAL SURROUND indicator**  
Lights when the receiver is in the Virtual Surround mode.
- 4 DIMMER key**  
Use to adjust the brightness of the display.
- 5 P.CALL keys**  
Use to call up previously registered radio stations.
- 6 BAND key**  
Use to select the broadcast band.
- 7 AUTO key**  
Use to select the auto tuning mode.
- 8 MEMORY key**  
Use to store radio stations in the preset memory.
- 9 VOLUME CONTROL knob**
- 10 PHONES jack**  
Use for headphone listening.
- 11 SPEAKERS A/B keys**  
Use to turn the speakers ON/OFF.
- 12 BASS BOOST key**  
Use to select the maximum adjustment setting for the low frequency range.
- 13 MONITOR key**
- 14 SOURCE DIRECT key**
- 15 INPUT MODE key**  
Use to switch between the digital and analog inputs.
- 16 LISTEN MODE key**  
Use to select the listening mode.
- 17 SOUND key**  
Use to adjust the sound quality and ambience effects.
- 18 SETUP key**  
Use to select the surround sound settings.
- 19 MULTI CONTROL knob**  
Used to make a variety of settings.
- 20 INPUT SELECTOR knob**  
Use to select the input sources.

**About the STANDBY indicator**

This unit has a STANDBY indicator. When the STANDBY indicator is lit, the unit consumes a small amount of power to preserve the memory. This is called STANDBY mode. This mode also lets you turn the power ON using the remote control.

**Remote control unit (RC-R0608 / R0508)**



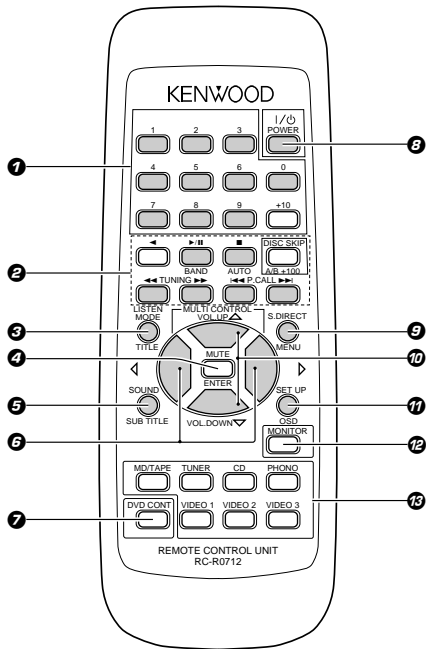
There are some cases in which keys (or knobs) that have the same function on the receiver and on the remote control have different names. In the instructions of this manual, if the names of corresponding keys (or knobs) on the receiver and remote control are different, the name of the remote control key is indicated in parentheses.

- 1 POWER key**  
Use to turn the receiver on and off.  
Use in combination with the input selector (AUDIO, VIDEO, or TV) keys and SHIFT key to turn various components on and off.
- 2 MACRO key**  
Use in combination with the AUDIO, VIDEO, or TV keys to execute a series of commands automatically (MACRO PLAY).
- 3 VIDEO selector key**  
Selects the video inputs and sets the remote control to operate the component registered at the respective input.
- 4 Multi control keys**  
Use to operate the selected component.
- 5 REC key**  
Use to operate the selected component.
- 6 TUNING/SKIP key**  
Use during the setup procedure to specify various settings. Use to operate the tuner or selected component.
- 7 SUBWOOFER key**  
Use in combination with the VOLUME +/- keys to adjust the volume of the subwoofer.
- 8 FUNCTION SHIFT key**  
Use in combination with the numeric keys to execute alternate commands.
- 9 Numeric keys**  
Provide functions identical to those of the original remote control supplied with the component you are controlling.  
To access the functions printed above the keys, press within 3 seconds of pressing the FUNCTION SHIFT key. Function availability varies for each component.
- 10 SHIFT key**  
Use in combination with the AUDIO and VIDEO keys to change the remote control mode without changing the input selector or in combination with the POWER key to turn on and off components programmed into the remote control.
- 11 TV selector key**  
Sets the remote control to operate a TV or cable box. This key does not change the input selector on the receiver.
- 12 AUDIO selector key**  
Selects the audio inputs and sets the remote control to operate the respective KENWOOD audio component.  
If you connect audio components from KENWOOD and other makers to the MD/TAPE or CD jacks, you can set the remote control to operate these components by registering the appropriate setup code at the respective input.
- 13 GUIDE key**  
Use to activate the OSD menu functions of registered components.
- 14 VOLUME key**  
Use to adjust the receiver volume.
- 15 MUTE key**  
Use to temporarily mute the sound.
- 16 SOUND key**  
Use to adjust the sound quality and ambience effects.
- 17 LISTEN MODE key**  
Use to select the listening mode.
- 18 SETUP key**  
Use to select the surround sound settings.

**CONTROLS**

CONTROLS

Remote control unit (RC-R0712)



❶ **Numeric keys**

If CD or MD is selected as the input source, these keys function as numeric keys. If tuner is selected as the input source, these keys are used to call up station presets.

❷ **Component operation keys**

Use these keys to operate other components with system control connections to the receiver.

◀ **key**

If tape is selected as the input source, this key functions as the play key for side B of the cassette (the side facing away from the front of the deck).

**BAND (▶/||) key**

If tuner is selected as the input source, this key functions as the band selector key.

If CD is selected as the input source, this key functions as the play/pause key.

If MD is selected as the input source, this key functions as the play key.

**DISC SKIP, A/B, +100 key**

If CD is selected as the input source, this key functions as the multi-CD player disc skip key. If TAPE is selected as the input source, this (A and B) of a double cassette deck.

**AUTO (■) key**

If tuner is selected as the input source, this key functions as the AUTO key. If CD or MD is selected as the input source, this key functions as the stop key.

**TUNING (◀◀ ▶▶) keys**

If tuner is selected as the input source, these keys function as tuning keys.

If CD or MD is selected as the input source, these keys function as search keys.

**P. CALL (◀◀ ▶▶) keys**

If tuner is selected as the input source, these keys function as P. CALL keys.

If CD or MD is selected as the input source, these keys function as skip keys.

❸ **LISTEN MODE key**

Use to select the listening mode.

❹ **MUTE key**

Use to temporarily mute the sound.

❺ **SOUND key**

Use to adjust the sound quality and ambience effects.

❻ **MULTI CONTROL key**

Used to make a variety of settings.

❼ **DVD CONT key**

Used to operate DVD player. While holding this key depressed, press any of the keys masked in gray in the above illustration to operate the corresponding function of a DVD player from KENWOOD. Keys ❶, ❷, ❸, ❹ and ❺ are given the following functions during the DVD player control operation.

- ❶ :TITLE
- ❷ :ENTER
- ❸ :SUB TITLE
- ❹ :MENU
- ❺ :OSD

For details, refer to the instruction manual of your DVD player.

❽ **POWER key**

Use to switch the power ON/STANDBY when the POWER is turned ON.

❾ **SOURCE DIRECT key**

Use to select the surround sound settings.

❿ **MONITOR key**

Use to select the receiver's input source.



## CIRCUIT DESCRIPTION

### 1. The back up item and initialization condition

#### 1-1 Back up

- POWER : POWER OFF
- VOLUME LEVEL : -66dB
- AUDIO INPUT SELECTOR : TUNER
- VIDEO INPUT SELECTOR : VIDEO 1
- SPEAKER A : ON
- SPEAKER B : OFF
- BASS : 0dB
- TREBLE : 0dB
- INPUT LEVEL : 0dB
- SOURCE DIRECT : OFF
- MONITOR : OFF
- DIMMER : DIMMER 1 (LIGHTEST)
- LISTEN MODE : STEREO
- VIRTUAL SURROUND : OFF
- INPUT MODE : DIGITAL AUTO
- SUB WOOFER : YES(ON)
- FRONT SP. SIZE : NORMAL
- CENTER SP. SIZE : NORMAL
- SURROUND SP. SIZE : NORMAL
- DISTANCE : Fch 10ft/3m  
: Cch 10ft/3m  
: Sch 10ft/3m
- FRONT (L,R) LEVEL : 0dB
- CENTER LEVEL : 0dB
- REAR (LS,RS) LEVEL : 0dB
- SUB WOOFER LEVEL : 0dB
- MIDNIGHT : OFF
- BAND : FM
- FM FREQUENCY : 87.50MHz
- AM FREQUENCY : 531kHz(CH.SPAC 9kHz)  
: 530kHz(CH.SPAC 10kHz)
- PRESET CH. : [ --ch ]
- PRESET MEMORY FREQUENCY : PRESET MEMORY FREQUENCY
- TUNING MODE : AUTO

#### 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			
						⑦⑦ DSW3	⑦⑥ DSW2	⑦⑤ DSW1	⑦④ 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
	FM H	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]

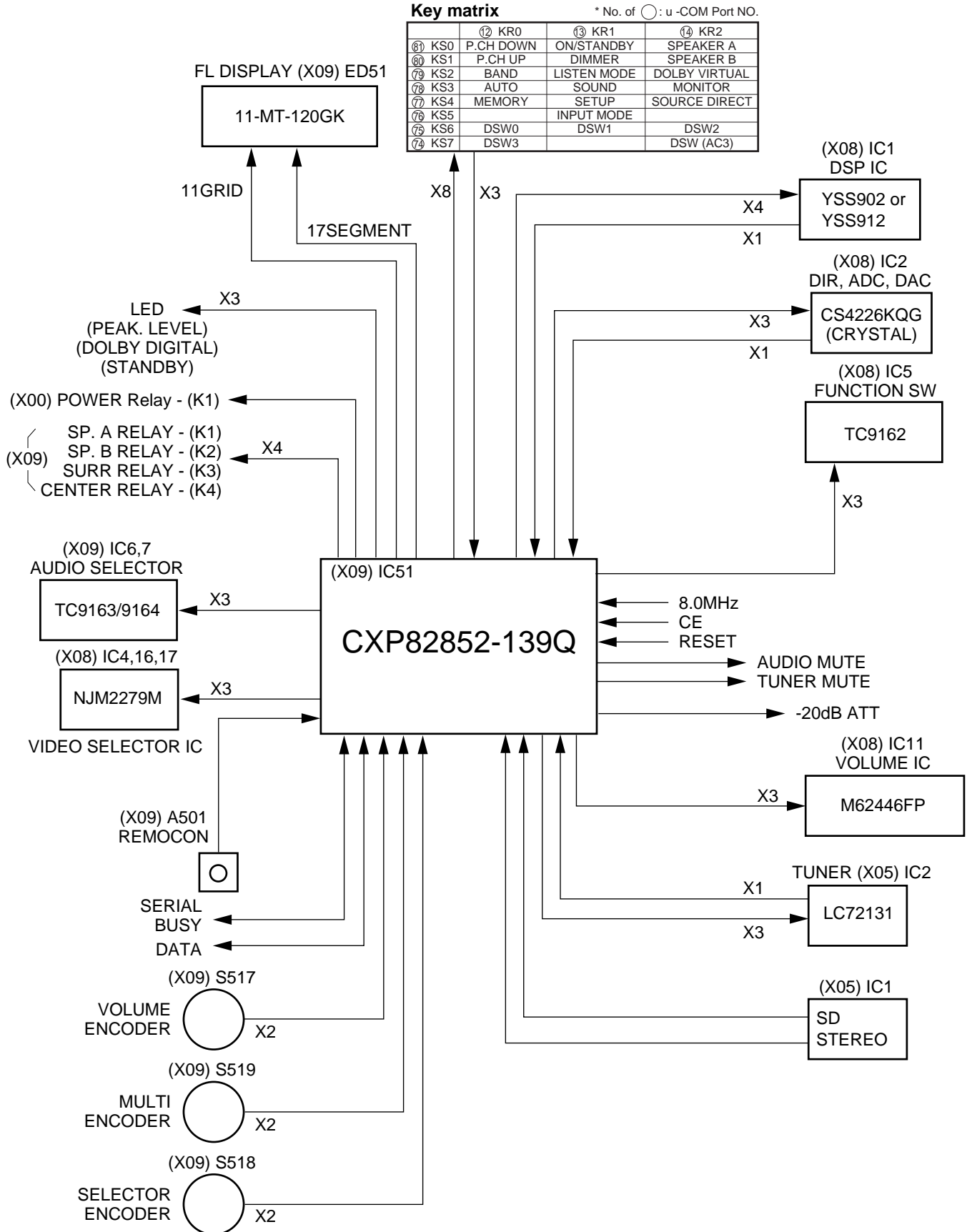
The power supply is turned off.

# KRF-V7020D/V8020D/VR-307/309/357

## CIRCUIT DESCRIPTION

### 4. Microprocessor CXP82852-139Q(X09 : IC51)

#### 4-1 Microprocessor periphery block diagram





## CIRCUIT DESCRIPTION

### 4-2 Pin description

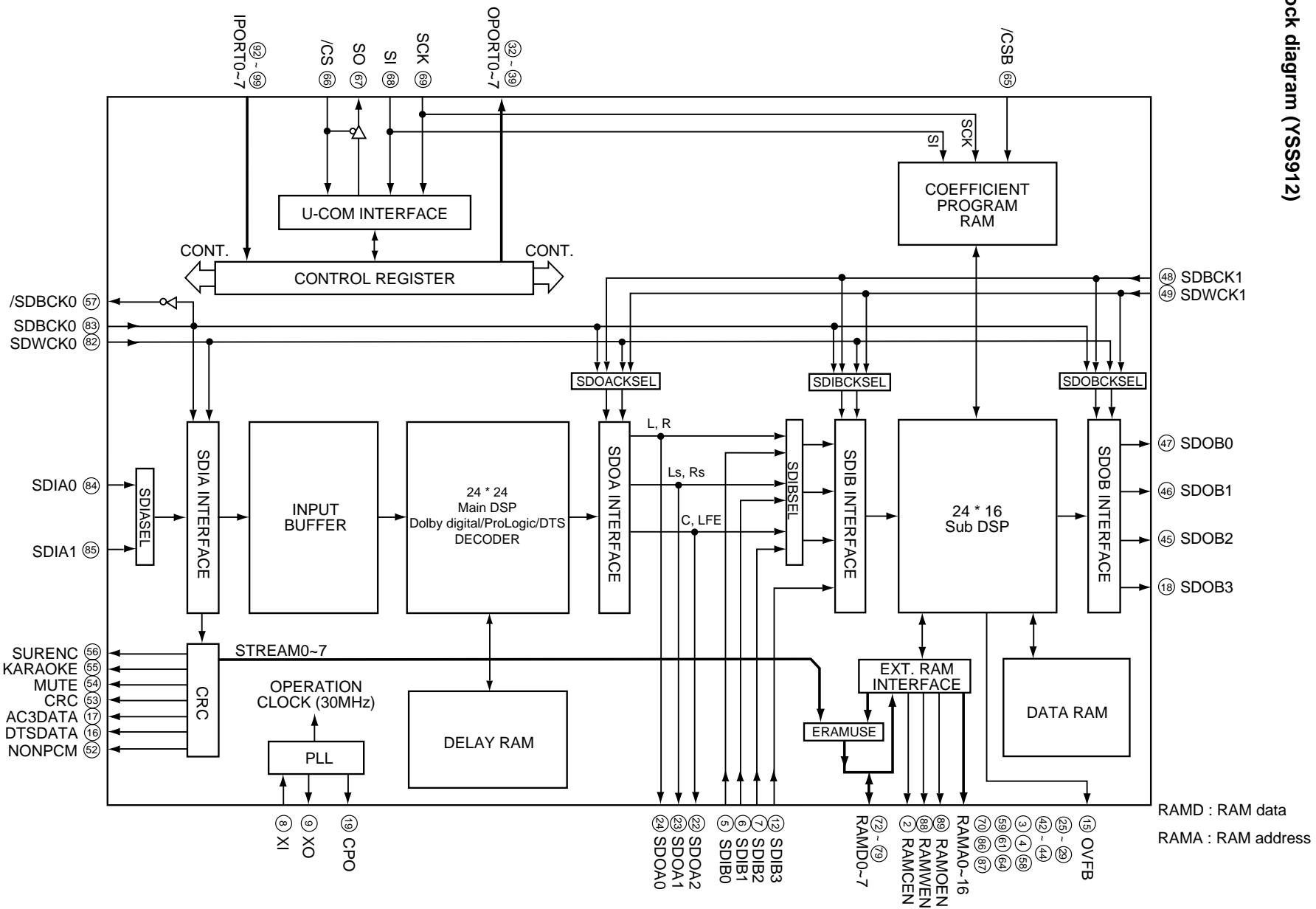
Pin No.	Pin Name	I/O	Description
1,2	G10,11	O	Display grids 10,11
3	None	-	Ic test mode port.
4,5	None	I	No connect
6	AUDIO	I	Audio signal detection port. L=AUDIO.
7	VOL.ENC.A	I	Volume encoder A(clockwise) input.
8	REMOCON	I	Remote control signal input.
9	VOL.ENC.B	I	Volume encoder B(counterclockwise) input.
10,11	None	O	Ic test mode port.
12-14	KR0-2	I	Key return 0-2.
15	PROTECT	I	Protection signal detection port. H=PROTECT.
16	S.DATA	I/O	Serial DATA signal.
17	S.BUSY	I/O	Serial BUSY signal.
18	SP.A+B	O	Speaker on both A sp. and B sp.
19	SW.6dB.ATT	O	Sub woofer 6dB attenuation
20	SEL.ENC.A	I	Selector encoder A(clockwise) input.
21	SEL.ENC.B	I	Selector encoder B(counterclockwise) input.
22	MULTI.ENC.A	I	Multi encoder A(clockwise) input.
23	MULTI.ENC.B	I	Multi encoder B(counterclockwise) input.
24	SL16/XS8	I	SL16/XS8 selector. H=16bit.
25	DSP.SCK	O	DSP(YSS902/912) CLOCK output.
26	DSP.SI	I	DSP(YSS902/912) DATA input.
27	DSP.SO	O	DSP(YSS902/912) DATA output.
28	Vdd	-	Analog power supply(+5V)
29	None	I	No connect
30	CH.SPACE	O	Channel space chengeover H=E1 type
31	DSP.CS	O	DSP(YSS902/912) CS output.
32	CODEC.CS	O	CS4226 CS output.
33	PLL.DO	I	PLL ic DO signal input .
34	PLL.ST	I	Tuner STEREO signal detection port. L=STEREO.
35	PLL.SD	I	Tuner SD signal detection port. L=TUNED.
36	RCV.CE	I	Receiver CHIP ENABLE signal port. L=ENABLE.
37	Avss	-	Analog GND.
38	RESET	I	Microprocessor RESET signal.
39,40	8MHz	I	Main clock generation(8MHz).
41	Vss	-	Microprocessor GND.
42	None	I	No connect
43	TEX	-	GND.
44	Vdd	-	Power supply(+5V).
45	Vfdp	-	Power supply(-33V).
46	SEL.ST1	O	TC9162AF/63AF/64AF ST1 output. H=LATCH.
47	PLL.DT	O	PLL ic DATA signal output .
48	PLL.CK	O	PLL ic CLOCK signal output .
49	PLL.CE	O	PLL ic CE signal output .
50	T.TUNE	O	Tuner mute control. L=MUTE ON
51	A.MUTE	O	Audio mute control. L=MUTE ON
52	SEL.ST2	O	TC9163/9164 ST2 output
53	20dB.ATT	O	Volume 20dB attenuation control. H=ATT. OFF
54	VOL.DT	O	Volume ic (M62446SP) DATA control.
55	VOL.CK	O	Volume ic (M62447SP) CLOCK control. H=ACTIVE
56	VOL.ST	O	Volume ic (M62448SP) ST control. H=ACTIVE
57	DSP.SCB	O	DSP(YSS902/912) chip selector
58	VCR.A	O	Video ic (NJM2279M) cont1 control. H/L=STATIC
59	VCR.B	O	Video ic (NJM2279M) cont3 control. H/L=STATIC
60	FA.RLY	O	Front A speaker relay control. H=RELAY ON

**CIRCUIT DESCRIPTION**

Pin No.	Pin Name	I/O	Description
61	FB.RLY	O	Front B speaker relay control. H=RELAY ON.
62	C.RLY	O	Center speaker relay control. H=RELAY ON
63	S.RLY	O	Rear speaker relay control. H=RELAY ON
64	POWER.RLY	O	Power relay control. H=RERAY ON
65	STANDBY.LED	O	Standby LED control.H=LED ON
66	DOL.DIG.LED	O	Dolby digital LED control.H=LED ON
67	DOL.VIR.LED	O	Dolby virtual LDE control.H=LED ON
68	DTS LED	O	DTS LED control. H=LED ON
69,70	None	O	No connect
71	PACK CTL	O	Non oscillation of power pack ic at power off. L=STOP OSCILLATION
72	DSP.IC	O	DSP(YSS902/912)/CS4226 initial clear .
73	None	O	No connect
74-81	P1-8/KS7-0	O	Display segments 1-8 & key scan 7-0.
82-88	P9-15	O	Display segments 9-15.
89	Vdd	O	Microprocessor power supply(+5V)
90,91	P16,17	O	Display segments 16,17
92-100	G1-9	O	Display grids 1-9.

CIRCUIT DESCRIPTION

5. Dolby digital/DTS IC: YSS902/YSS912 (X08: IC1)  
 5-1 Block diagram (YSS912)



**CIRCUIT DESCRIPTION****5-2 Pin description**

Pin No.	Pin Name	I/O	Descriptions
1	Vdd1	-	Power supply(+5V)
2~4	-	-	No connect
5~7	SDIB0~2	O	PCM output port for sub DSP
8	XI	I	Crystal oscillation port.(902:6.25~50.0MHz,912:12.288MHz)
9	XO	O	Crystal oscillation port.
10	Vss	-	GND
11	AVdd	-	Power supply(+3.3V) for PLL
12~18	-	-	No connect
19	CPO	O	PLL output port.
20	AVss	I	GND
21	Vdd2	-	Power supply(+3.3V)
22	SDOA2	O	PCM output port from main DSP
23	-	-	No connect
24	SDOA0	O	PCM output port from main DSP
25~29	-	-	No connect
30	Vss	-	GND
31	Vdd1	-	Power supply(+5V)
32	-	-	No connect
33	OPORT1	O	-
34~39	-	-	No connect
40	Vss	-	GND
41	Vdd2	-	Power supply(+3.3V)
42~44	-	-	No connect
45	SDO2	O	PCM output port from sub DSP(C,LFE/SWch)
46	SDO1	O	PCM output port from sub DSP(LS,RSch)
47	SDO0	O	PCM output port from sub DSP(FL,FRch)
48,49	-	-	No connect
50	Vss	-	GND
51	Vdd2	-	Power supply(+3.3V)
52~59	-	-	No connect
60	Vss	-	GND
61	-	-	No connect
62	/IC	I	Initial clear port.
63,64	-	-	No connect
66	/CS	I	Microprocessor interface chip selector input port.
67	SO	O	Microprocessor interface serial data output port.
68	SI	I	Microprocessor interface serial data input port.
69	SCK	I	Microprocessor interface clock input port.
70	-	-	No connect
71	Vdd1	-	Power supply(+5V)
72~79	-	-	No connect
80	Vss	-	GND
81	Vdd2	-	Power supply(+3.3V)
82	SDIWCK 0	I	Word clock for SD input ports.
83	SDIBCK 0	I	Bit clock for SD input ports.
84	SDIA	I	AC3 bit stream data input port.
85~89	-	-	No connect
90	Vss	-	GND
91	Vdd2	-	Power supply(+3.3V)
92,93	-	-	No connect
94	IPOINT5	I	Input port register
95	-	-	No connect
96~99	IPOINT3~0	I	Input port register
100	Vss	-	GND

## CIRCUIT DESCRIPTION

### 6. SURROUND FUNCTION IC : TC9162AF(X08:IC5)

[○ : ON, X: OFF]

INPUT	(PIN NO.)	(2,27)	(3,26)	(5,24)	(6,23)	(8,21)	(9,20)	(11,-)	(18-)
	SW NO.	R1,L1	R2,L2	R3,L3	R4,L4	R5,L5	R6,L6	R7	L7
	OUTPUT	ANALOG	DIGITAL	RS/LS	R/L	SUB W.	VIDEO3	NO SUB W.	NO SUB W.
TEST TONE		X	○	○	X		○		
INPUT DIGITAL		X	○				○		
INPUT ANALOG		○	X				○		
FRONT LARGE		X	X				○		
STEREO		X	X				○		
S. DIRECT		○	X				○		
SP. A,B ON				○	X		○		
SP. A ON				X	○		○		
SP. B ON				X	○		○		
SP. A,B OFF				○	X	X	○	○	X
SUB W. ON						X	○	○	X
SUB W. OFF						○	○	X	○

### 7. AUDIO INPUT SELECTEOR IC : TC9164AF (X09:IC6)

[○ : ON, X: OFF]

INPUT	(PIN NO.)	(2,27)	(3,26)	(4,25)	(5,24)	(7,22)	(9,21)	(10,19)	(11,18)
	SW NO.	R1,L1	R2,L2	R3,L3	R4,L4	R5,L5	R6,L6	R7,L7	R8,L8
	OUTPUT	TUNER	PHONO	CD	MD/TAPE	MD/TAPE REC	VIDEO 1 REC	ANALOG L/R	DIGITAL L/R
TUNER		○	X	X	X	○	○		
PHONO		X	○	X	X	○	○		
CD		X	X	○	X	*1	*1		
MD/TAPE		X	X	X	○	X	○		
VIDEO1		X	X	X	X	○	X		
VIDEO2		X	X	X	X	*1	*1		
VIDEO3		X	X	X	X	*1	*1		
MONITER		*2	*2	*2	*2	*3	*3		
ANALOG								○	X
INPUT DIGITAL STEREO								X	○
INPUT DIGITAL except STEREO								○	X

\*1: It's open except STEREO/VIRTUAL on DTS.

\*2: It's the same with MONITOR output.

\*3: It's the same MONITOR OFF.

### 8. AUDIO INPUT SELECTEOR IC : TC9162AF (X09:IC7)

[○ : ON, X: OFF]

INPUT	(PIN NO.)	(2,27)	(3,26)	(4,25)	(6,23)	(7,22)	(8,21)	(10,19)	(11,18)
	SW NO.	R1,L1	R2,L2	R3,L3	R4,L4	R5,L5	R6,L6	R7,L7	R8,L8
	OUTPUT	ATT OFF	ATT1	ATT2	VIDEO1	VIDEO2	VIDEO3	COM	MONITOR
TUNER					X	X	X	○	X
PHONO					X	X	X	○	X
CD					X	X	X	○	X
MD/TAPE					X	X	X	○	X
VIDEO1					○	X	X	X	○
VIDEO2					X	○	X	○	X
VIDEO3					X	X	○	○	X
MONITER					*1	*1	*1	○	X
INPUT 0dB		○	X	X					
INPUT -3dB		X	○	X					
INPUT -6dB		X	X	○					

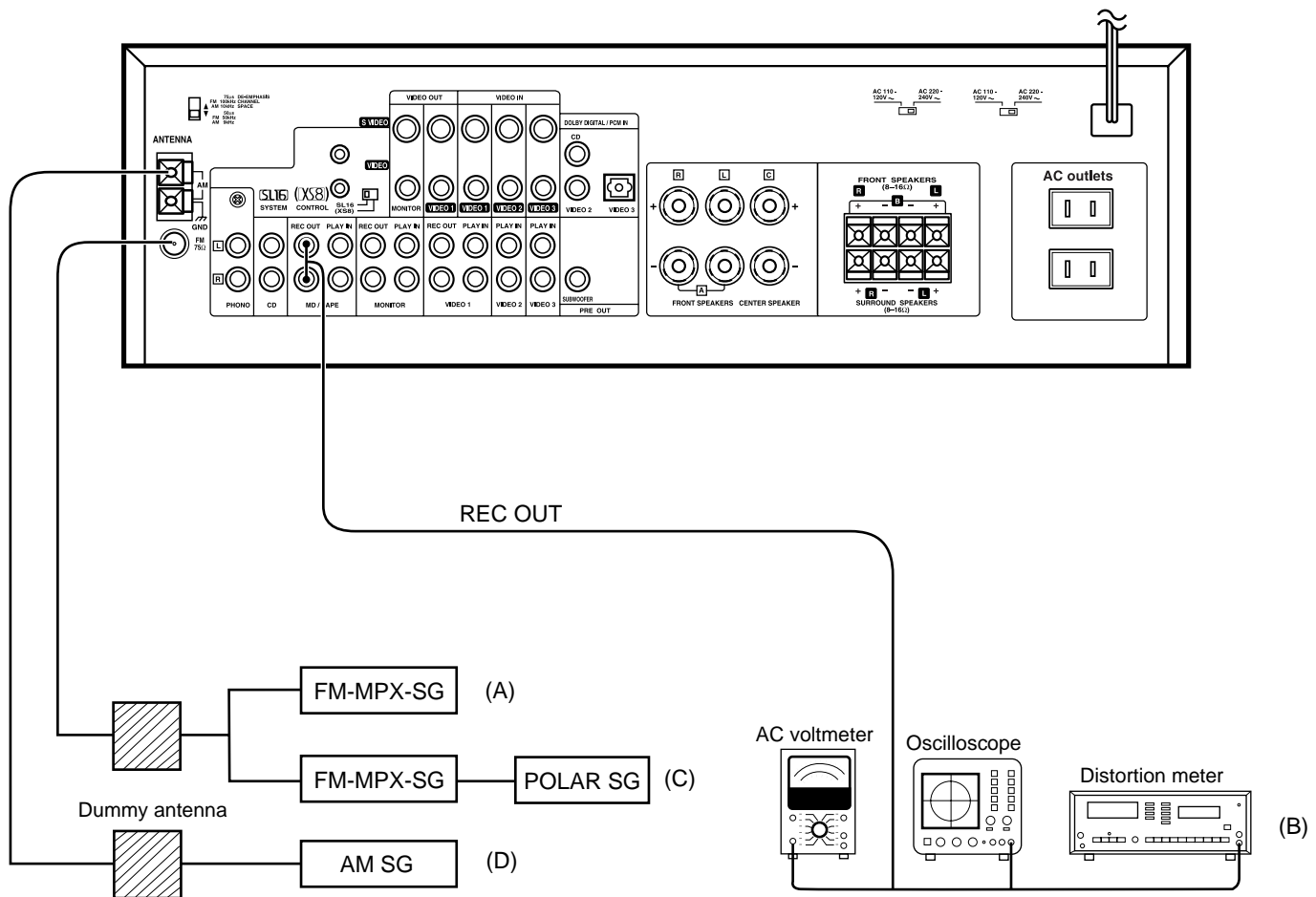
\*1: ,it's the same with display input selector on MONITOR output.

### 9. SPEAKER SETUP

SUB WOOFER	YES				YES or NO							
FRONT SP.	NORMAL				LARGE							
CENTER SP.	NORMAL(YES)		NO		LARGE			NORMAL		NO		
SURROUND SP.	NORMAL(YES)	NO	NORMAL(YES)	NO	LARGE	NORMAL	NO	NORMAL(YES)	NO	NORMAL(YES)	NO	
CENTER MODE (PRO LOGIC)	NORMAL	-	PHANTOM	-	WIDE	WIDE	-	NORMAL	-	PHANTOM	-	

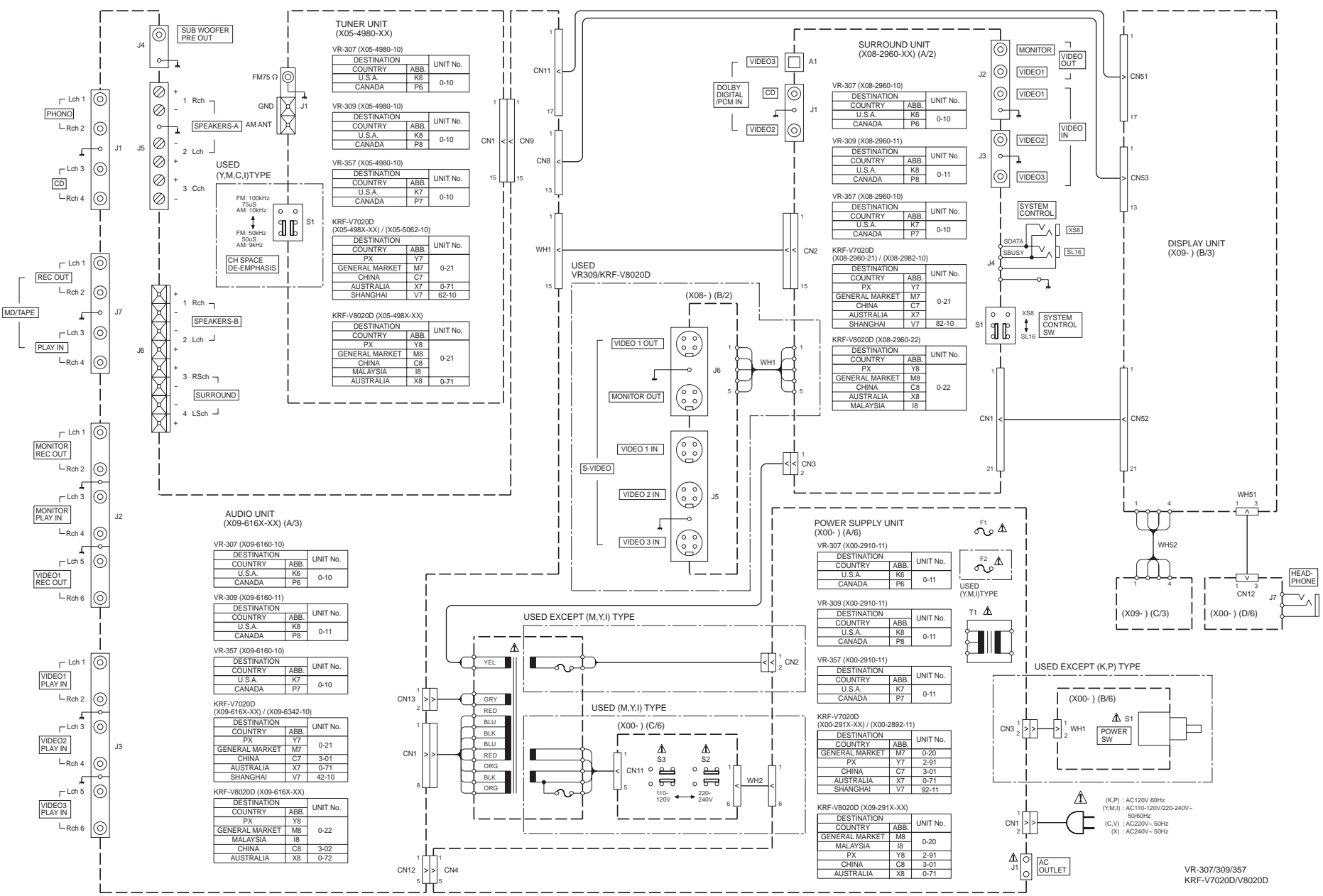
## ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	RECEIVER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
<b>FM SECTION</b>		<b>SELECTOR : FM</b>					
1	DISTORTION (STEREO)	(A) 98.0MHz 1kHz, ±68.25kHz dev. Selector : L or R Pilot : ±6.75kHz dev. 70dBf(ANT. input)	(B)	98.0 MHz	IFT (TUNER A1)	Minimum distortion (L or R)	
2	TUNING LEVER	(A) 98.0MHz MONO 1kHz, ±75kHz dev. 25dBf(ANT. input)	(B)	MONO 98.0 MHz	VR1 (TUNER UNIT)	Adjust VR1 and stop at the point where ED51 (TUNED) goes on.	



# KRF-V7020D/V8020D/VR-307/309/357

## WIRING DIAGRAM



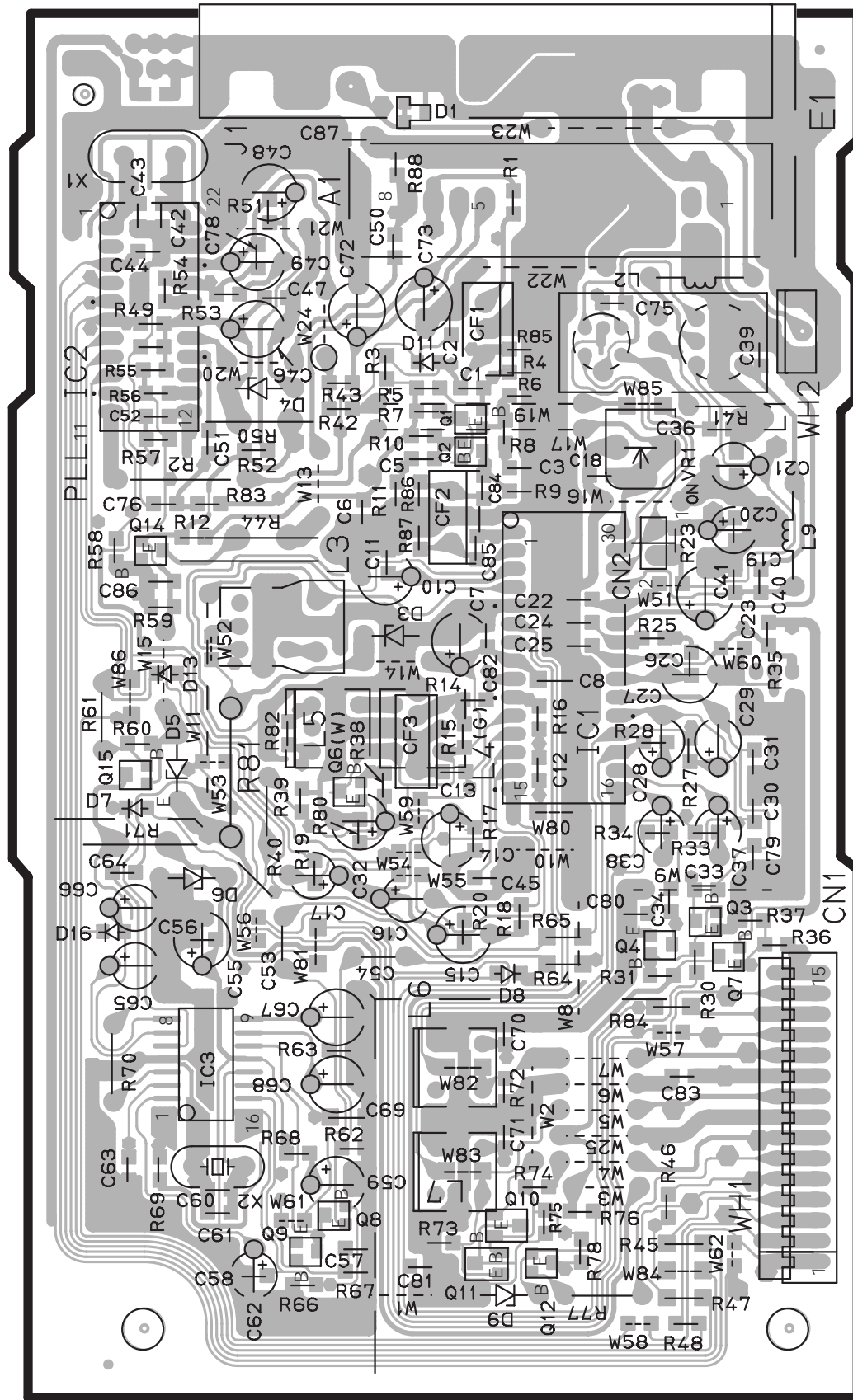




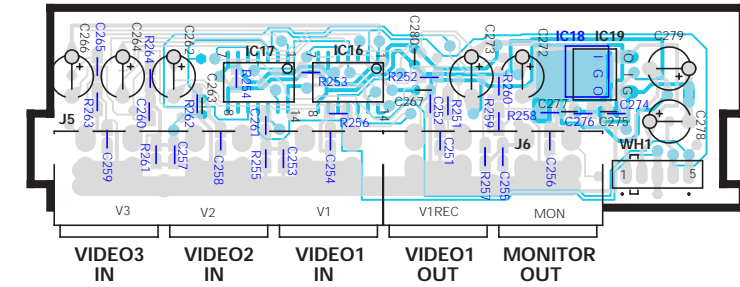
# PC BOARD(Component side view)

**TUNER UNIT**  
X05-498X-XX

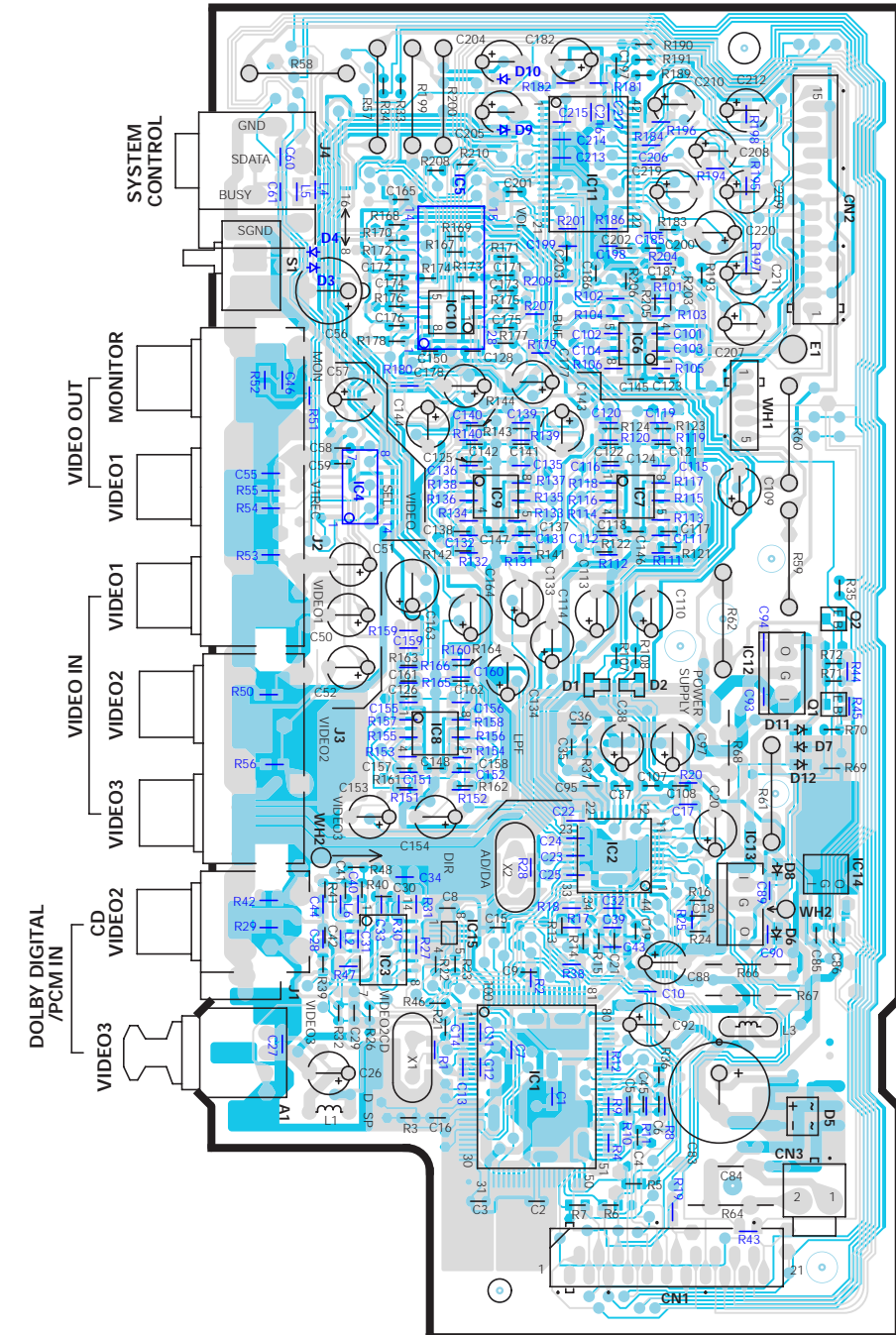
ANTENNA



**SURROUND UNIT**  
X08 B/2

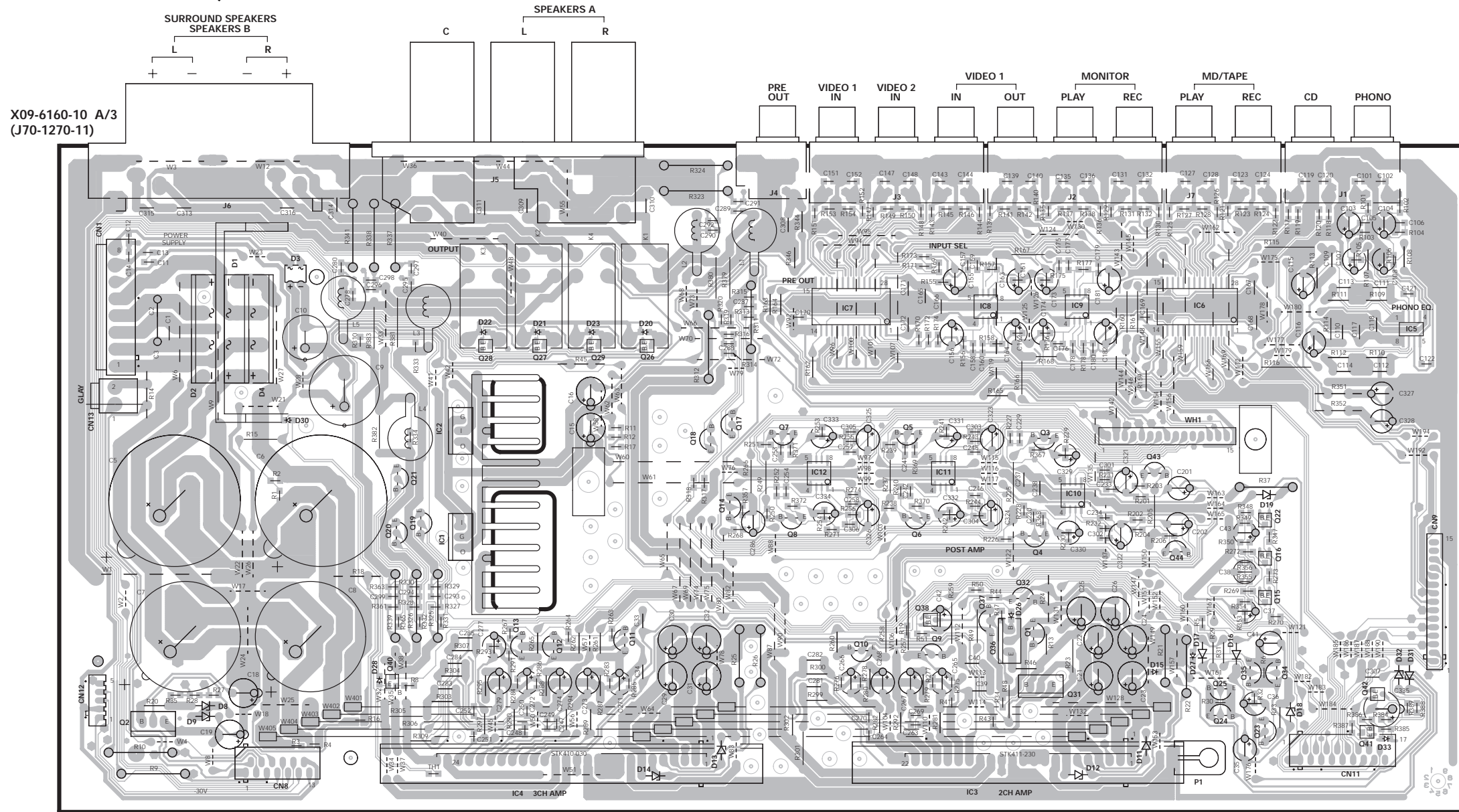


X08-2960-10 A/2 (J70-1268-11)

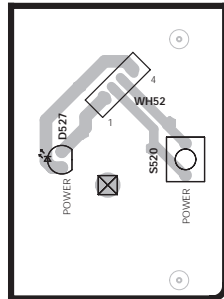


# PC BOARD(Component side view)

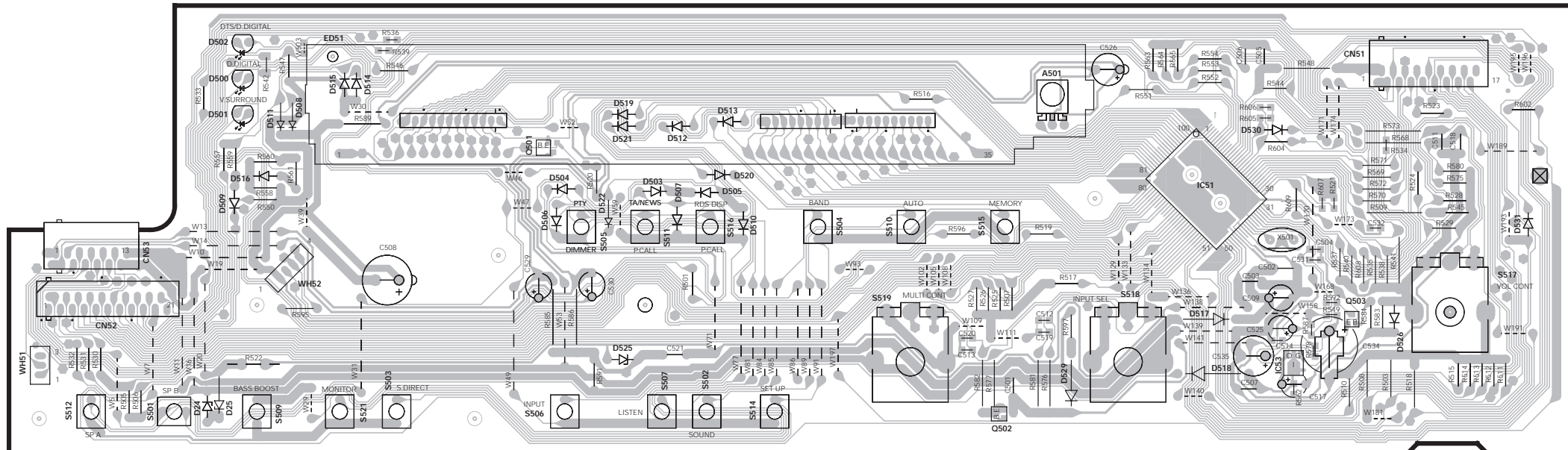
## AUDIO UNIT



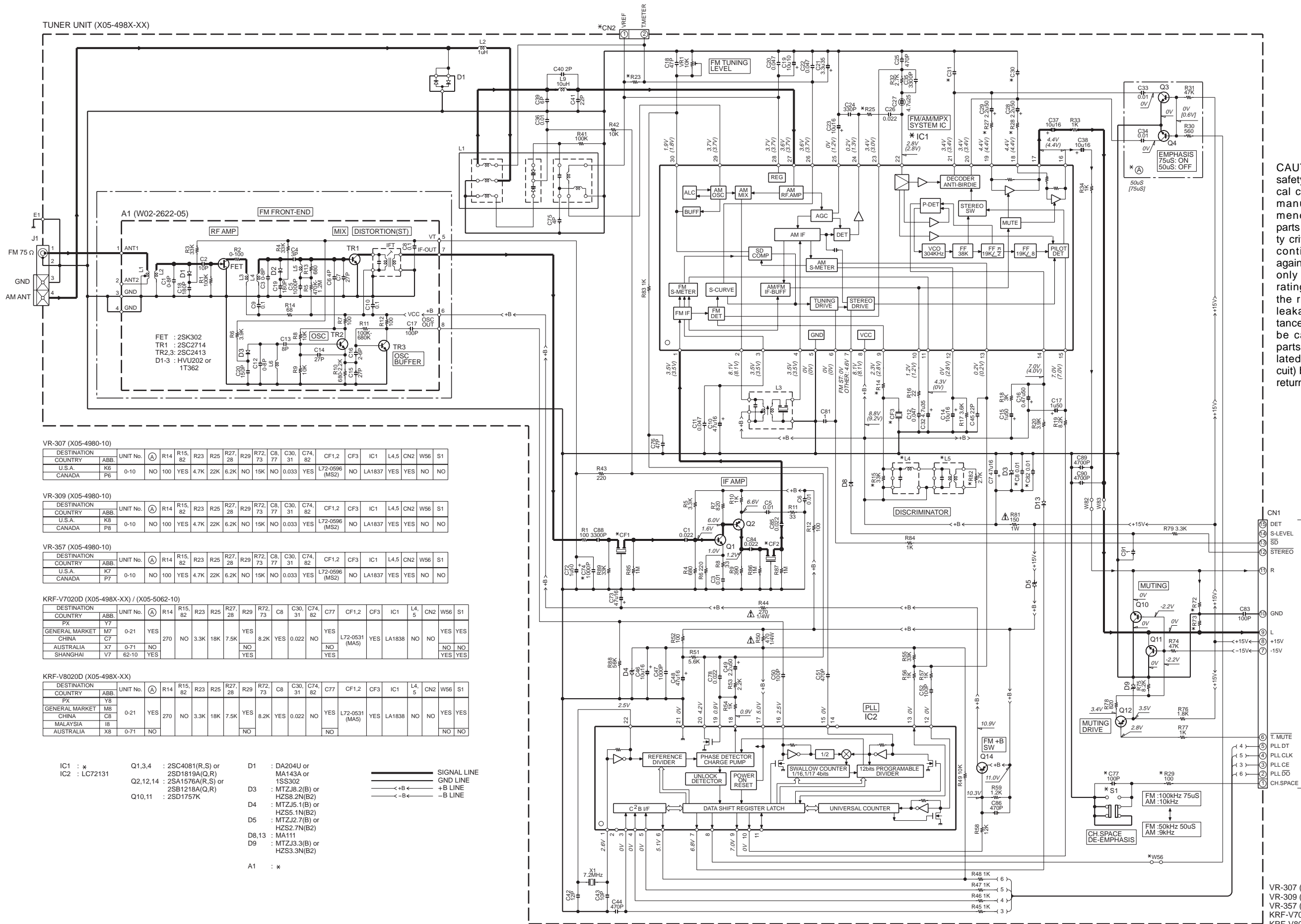
X09 C/3



X09 B/3



TUNER UNIT (X05-498X-XX)



VR-307 (X05-4980-10)

DESTINATION	COUNTRY	ABB.	UNIT No.	R14	R15	R23	R25	R27	R29	R72	C8	C30	C74	CF1,2	CF3	IC1	L4,5	CN2	W56	S1	
U.S.A.	K6		0-10	NO	100	YES	4.7K	22K	6.2K	NO	15K	NO	0.033	YES	L72-0596 (MS2)	NO	LA1837	YES	YES	NO	NO
CANADA	P6																				

VR-309 (X05-4980-10)

DESTINATION	COUNTRY	ABB.	UNIT No.	R14	R15	R23	R25	R27	R29	R72	C8	C30	C74	CF1,2	CF3	IC1	L4,5	CN2	W56	S1	
U.S.A.	K8		0-10	NO	100	YES	4.7K	22K	6.2K	NO	15K	NO	0.033	YES	L72-0596 (MS2)	NO	LA1837	YES	YES	NO	NO
CANADA	P8																				

VR-357 (X05-4980-10)

DESTINATION	COUNTRY	ABB.	UNIT No.	R14	R15	R23	R25	R27	R29	R72	C8	C30	C74	CF1,2	CF3	IC1	L4,5	CN2	W56	S1	
U.S.A.	K7		0-10	NO	100	YES	4.7K	22K	6.2K	NO	15K	NO	0.033	YES	L72-0596 (MS2)	NO	LA1837	YES	YES	NO	NO
CANADA	P7																				

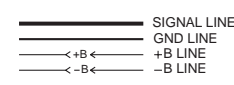
KRF-V7020D (X05-498X-XX) / (X05-5062-10)

DESTINATION	COUNTRY	ABB.	UNIT No.	R14	R15	R23	R25	R27	R29	R72	C8	C30	C74	C77	CF1,2	CF3	IC1	L4,5	CN2	W56	S1	
PX	Y7		0-21	YES	270	NO	3.3K	18K	7.5K	YES	8.2K	YES	0.022	NO	YES	L72-0531 (MA5)	YES	LA1838	NO	NO	YES	YES
GENERAL MARKET	M7																					
CHINA	C7																					
AUSTRALIA	X7		0-71	NO																		
SHANGHAI	V7		62-10	YES																		

KRF-V8020D (X05-498X-XX)

DESTINATION	COUNTRY	ABB.	UNIT No.	R14	R15	R23	R25	R27	R29	R72	C8	C30	C74	C77	CF1,2	CF3	IC1	L4,5	CN2	W56	S1	
PX	Y8		0-21	YES	270	NO	3.3K	18K	7.5K	YES	8.2K	YES	0.022	NO	YES	L72-0531 (MA5)	YES	LA1838	NO	NO	YES	YES
GENERAL MARKET	M8																					
CHINA	C8																					
MALAYSIA	I8																					
AUSTRALIA	X8		0-71	NO																		

- IC1 : \*
- IC2 : LC72131
- Q1,3,4 : 2SC4081(R,S) or 2SD1819A(Q,R)
- Q2,12,14 : 2SA1576A(R,S) or 2SB1218A(Q,R)
- Q10,11 : 2SD1757K
- D1 : DA204U or MA143A or 1SS302
- D3 : MTZJ8.2(B) or HZS8.2N(B2)
- D4 : MTZJ5.1(B) or HZS5.1N(B2)
- D5 : MTZJ2.7(B) or HZS2.7N(B2)
- D8,13 : MA111
- D9 : MTZJ3.3(B) or HZS3.3N(B2)
- A1 : \*



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

- VR-307 (1/4)
- VR-309 (1/4)
- VR-357 (1/4)
- KRF-V7020D (1/4)
- KRF-V8020D (1/4)

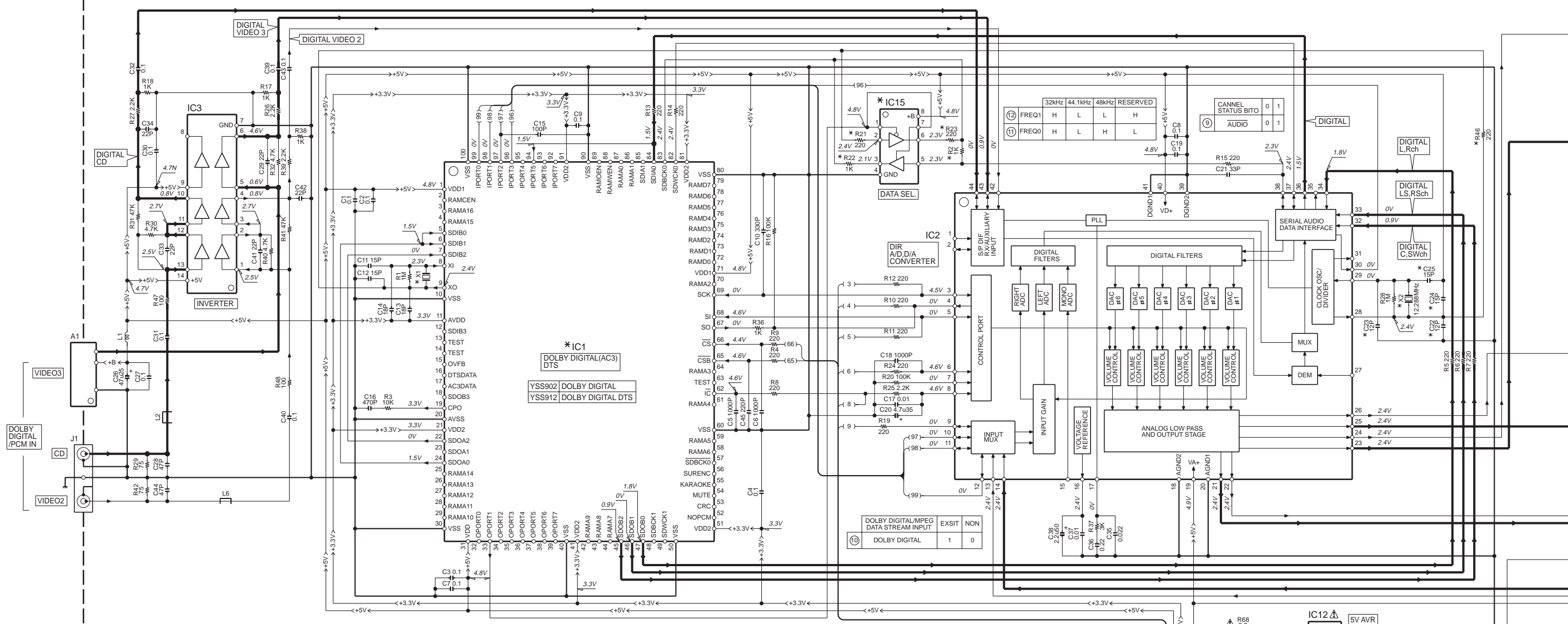
The DC voltage is an actual reading measured with a high impedance type voltmeter as the AM/FM signal generator is specified to the conditions as shown in the list below. The measurement value may vary depending on the measuring instruments used or on the product. The value shown in ( ) is actual reading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

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

Y05-3760-10

KRF-V7020D/V8020D/VR-307/309/357

KENWOOD



**\*IC1**  
DOLBY DIGITAL (AC3) DTS

YSS902	DOLBY DIGITAL
YSS912	DOLBY DIGITAL DTS

**(10)**

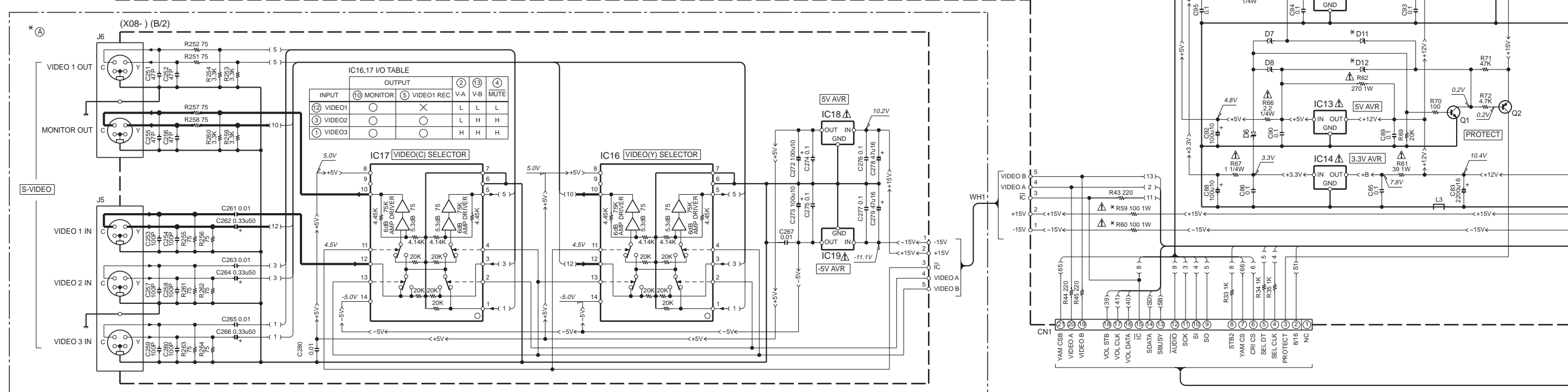
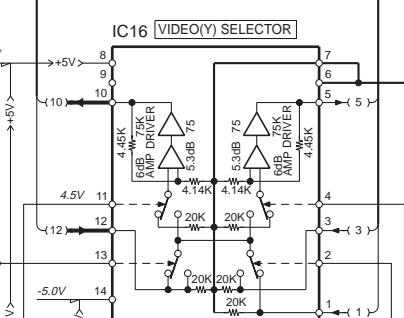
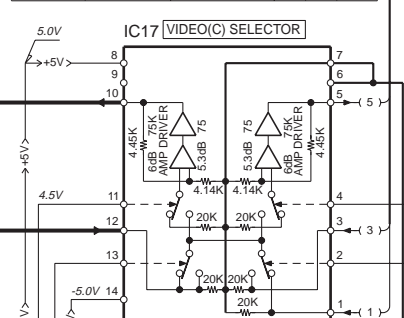
DOLBY DIGITAL/MPEG DATA STREAM INPUT	EXSIT	NON
DOLBY DIGITAL	1	0

	32kHz	44.1kHz	48kHz	RESERVED
(12) FREQ0	H	L	L	H
(11) FREQ1	H	L	L	L

CANNEL STATUS BIT0	0	1
(9) AUDIO	0	1

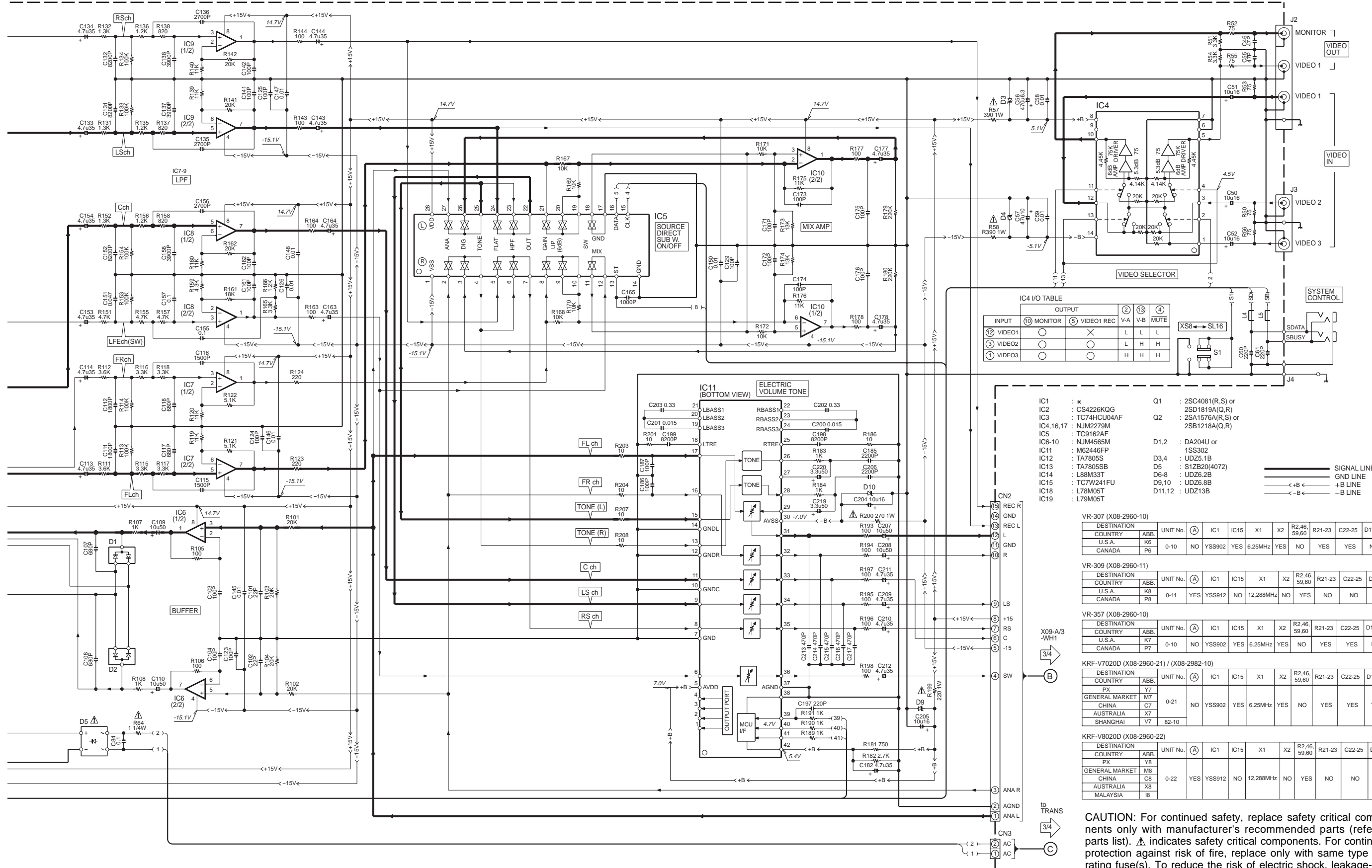
**IC16,17 I/O TABLE**

INPUT	(10) MONITOR	(5) VIDEO1 REC	(2) V.A	(13) V.B	(4) MUTE
(12) VIDEO1	○	×	L	L	L
(3) VIDEO2	○	○	L	H	H
(7) VIDEO3	○	○	H	H	H



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

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IC4 I/O TABLE

INPUT	MONITOR	OUTPUT	VIDEO1 REC	V-A	V-B	MUTE
(12) VIDEO1	○	○	×	L	L	L
(13) VIDEO2	○	○	○	L	H	H
(14) VIDEO3	○	○	○	H	H	H

- IC1 : x
- IC2 : CS4226KQG
- IC3 : TC74HCU04AF
- IC4,16,17 : NJM2279M
- IC5 : TC9162AF
- IC6-10 : NJM4565M
- IC11 : M62446FP
- IC12 : TA7805S
- IC13 : TA7805SB
- IC14 : L88M33T
- IC15 : TC7W241FU
- IC18 : L78M05T
- IC19 : L79M05T
- Q1 : 2SC4081(R,S) or 2SD1819A(Q,R)
- Q2 : 2SA1576A(R,S) or 2SB1218A(Q,R)
- D1,2 : DA204U or 1SS302
- D3,4 : UDZ5.1B
- D5 : S1ZB20(4072)
- D6-8 : UDZ6.2B
- D9,10 : UDZ6.8B
- D11,12 : UDZ13B

VR-307 (X08-2960-10)

DESTINATION	COUNTRY	ABB.	UNIT No.	(A)	IC1	IC15	X1	X2	R2,46,59,60	R21-23	C22-25	D11,12
U.S.A.	K6		0-10	NO	YSS902	YES	6.25MHz	YES	NO	YES	YES	NO
CANADA	P6											

VR-309 (X08-2960-11)

DESTINATION	COUNTRY	ABB.	UNIT No.	(A)	IC1	IC15	X1	X2	R2,46,59,60	R21-23	C22-25	D11,12
U.S.A.	K8		0-11	YES	YSS912	NO	12,288MHz	NO	YES	NO	NO	NO
CANADA	P8											

VR-357 (X08-2960-10)

DESTINATION	COUNTRY	ABB.	UNIT No.	(A)	IC1	IC15	X1	X2	R2,46,59,60	R21-23	C22-25	D11,12
U.S.A.	K7		0-10	NO	YSS902	YES	6.25MHz	YES	NO	YES	YES	NO
CANADA	P7											

KRF-V7020D (X08-2960-21) / (X08-2982-10)

DESTINATION	COUNTRY	ABB.	UNIT No.	(A)	IC1	IC15	X1	X2	R2,46,59,60	R21-23	C22-25	D11,12
PX	Y7		0-21	NO	YSS902	YES	6.25MHz	YES	NO	YES	YES	YES
GENERAL MARKET	M7											
CHINA	C7											
AUSTRALIA	X7											
SHANGHAI	V7		82-10									

KRF-V8020D (X08-2960-22)

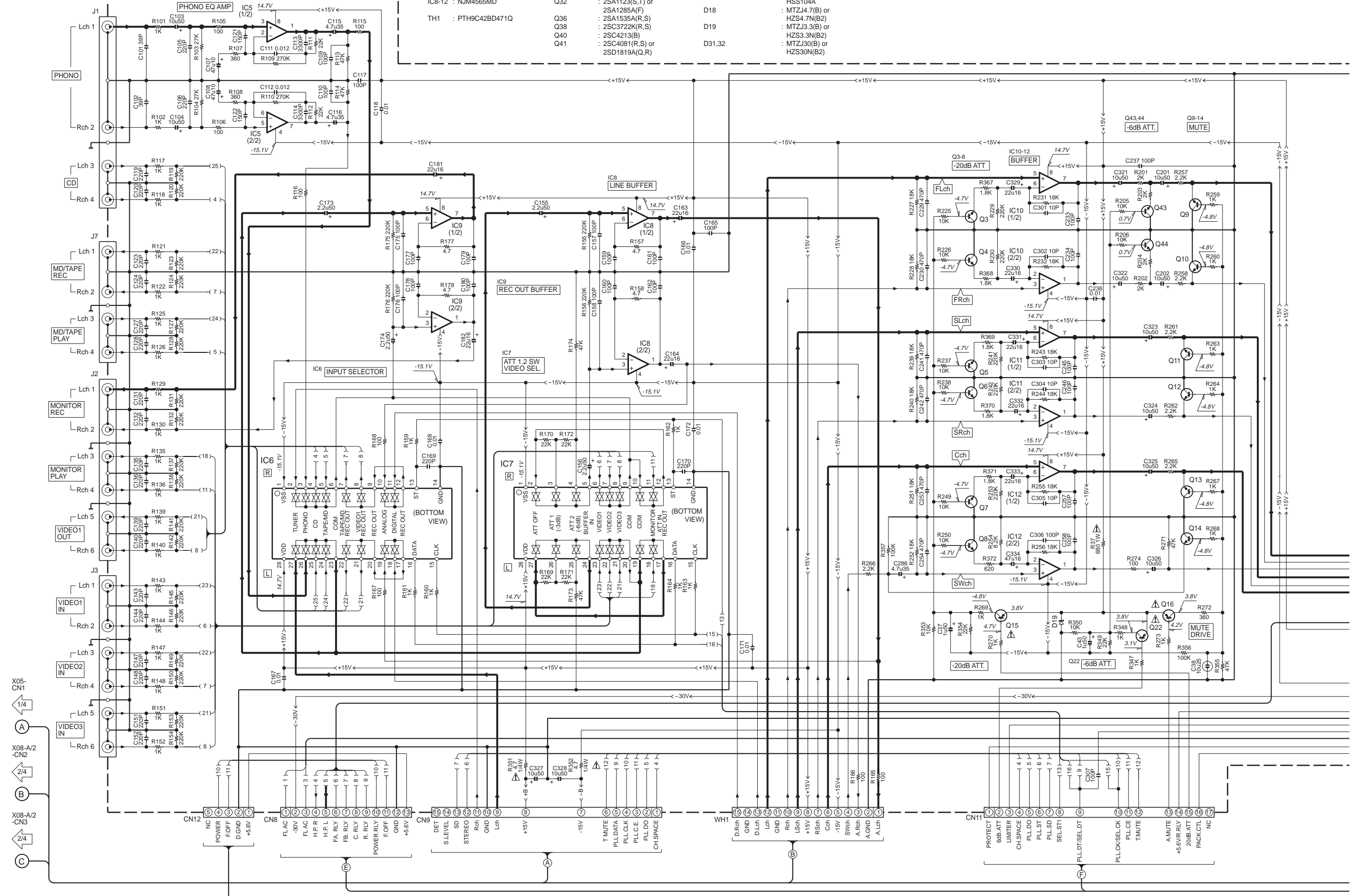
DESTINATION	COUNTRY	ABB.	UNIT No.	(A)	IC1	IC15	X1	X2	R2,46,59,60	R21-23	C22-25	D11,12
PX	Y8		0-22	YES	YSS912	NO	12,288MHz	NO	YES	NO	NO	YES
GENERAL MARKET	M8											
CHINA	C8											
AUSTRALIA	X8											
MALAYSIA	I8											

VR-307/309/357 (2/4)  
 KRF-V7020D (2/4)  
 KRF-V8020D (2/4)

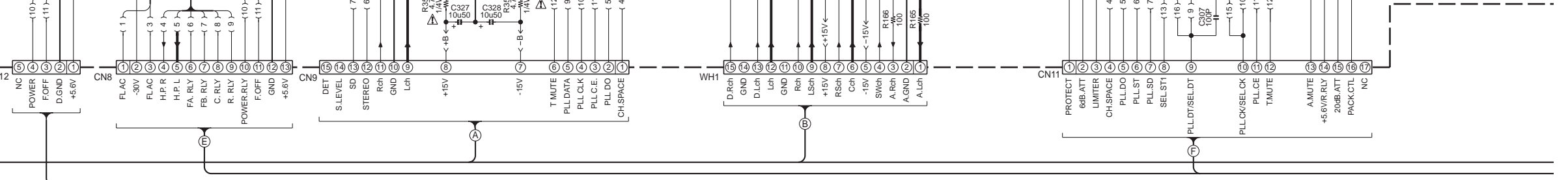
**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  $\Delta$  indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of 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.

- |                      |                         |                       |                  |
|----------------------|-------------------------|-----------------------|------------------|
| IC1 : TA7815S        | Q1,17-21,24,25,34,35,37 | D1,2,4                | : D4SBL20UF03    |
| IC2 : TA79015S       | : 2SC1845(F,E)          | D3                    | : S1ZB20(4101)   |
| IC3 : STK411-230D or | Q2 : 2SB1640            | D8,9                  | : MTZJ16(B) or   |
| IC4 : STK410-030D    | Q3-14,43,44             |                       | : HZS16N(B2)     |
| IC5 : NJM4580ED      | Q15,16,22               |                       | : HZS8.2N(B2) or |
| IC6 : TC9164AF       | Q23 : 2SA992(F,E)       | D11-14                | : MTZJ8.2(B)     |
| IC7 : TC9163AF       | Q26-29 : DTC123JUA      | D15,20-23,26-28,30,33 | : MA111          |
| IC8-12 : NJM4565MD   | Q31 : 2SC3944A(R,S)     | D16,17                | : 1S1133 or      |
|                      | Q32 : 2SA1123(S,T) or   |                       | : HSS104A        |
|                      | 2SA1285A(F)             | D18                   | : MTZJ4.7(B) or  |
| TH1 : PTH9C42BD471Q  | Q36 : 2SA1535A(R,S)     |                       | : HZS4.7N(B2)    |
|                      | Q38 : 2SC3722K(R,S)     | D19                   | : MTZJ3.3(B) or  |
|                      | Q40 : 2SC4213(B)        |                       | : HZS3.3N(B2)    |
|                      | Q41 : 2SC4081(R,S) or   | D31,32                | : MTZJ30(B) or   |
|                      | 2SD1819A(Q,R)           |                       | : HZS30N(B2)     |

(X09-616X-XX) (A/3)



- X05-CN1
- X08-A/2-CN2
- X08-A/2-CN3



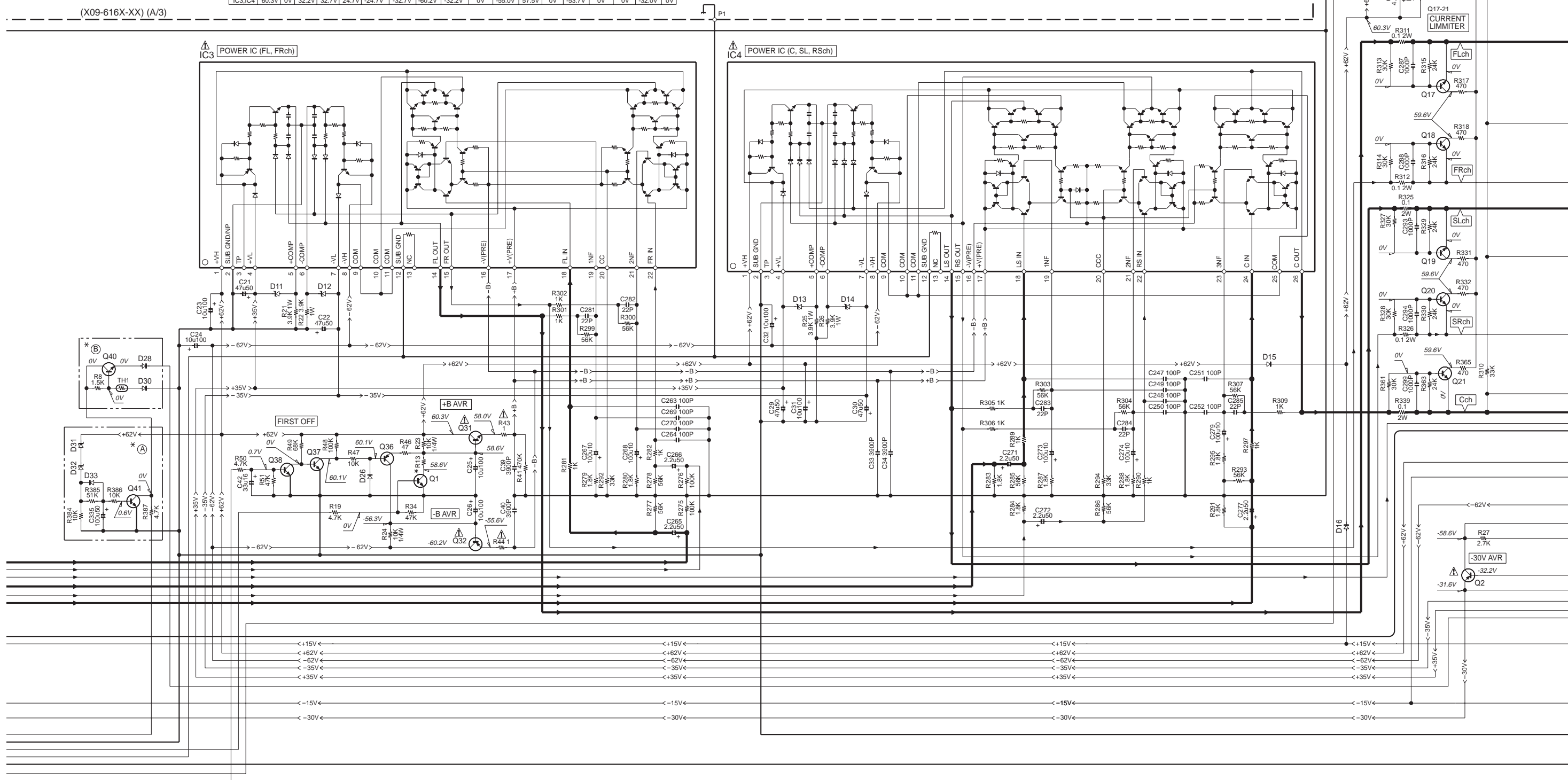
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  $\Delta$  indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric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

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

POWER IC(IC3,4) DC VOLTAGE

PIN No.	IC3 ONLY															IC4 ONLY		
	1	2	3	4	5	6	7	8	9-11	12-15	16	17	18,19	20	21,22	23,24	25	26
IC3,IC4	60.3V	0V	32.2V	32.7V	24.7V	-24.7V	-32.7V	-60.2V	-32.2V	0V	-55.0V	57.5V	0V	-53.7V	0V	0V	-32.0V	0V

(X09-616X-XX) (A/3)



VR-307 (X09-6160-10)

DESTINATION COUNTRY	ABB.	UNIT No.	(A)	(B)	R13	C1.2	C3	D1	D4
U.S.A.	K6	0-10	NO	47K	YES	NO	NO	YES	
CANADA	P6								

VR-309 (X09-6160-11)

DESTINATION COUNTRY	ABB.	UNIT No.	(A)	(B)	R13	C1.2	C3	D1	D4
U.S.A.	K8	0-11	NO	47K	YES	NO	NO	YES	
CANADA	P8								

VR-357 (X09-6160-10)

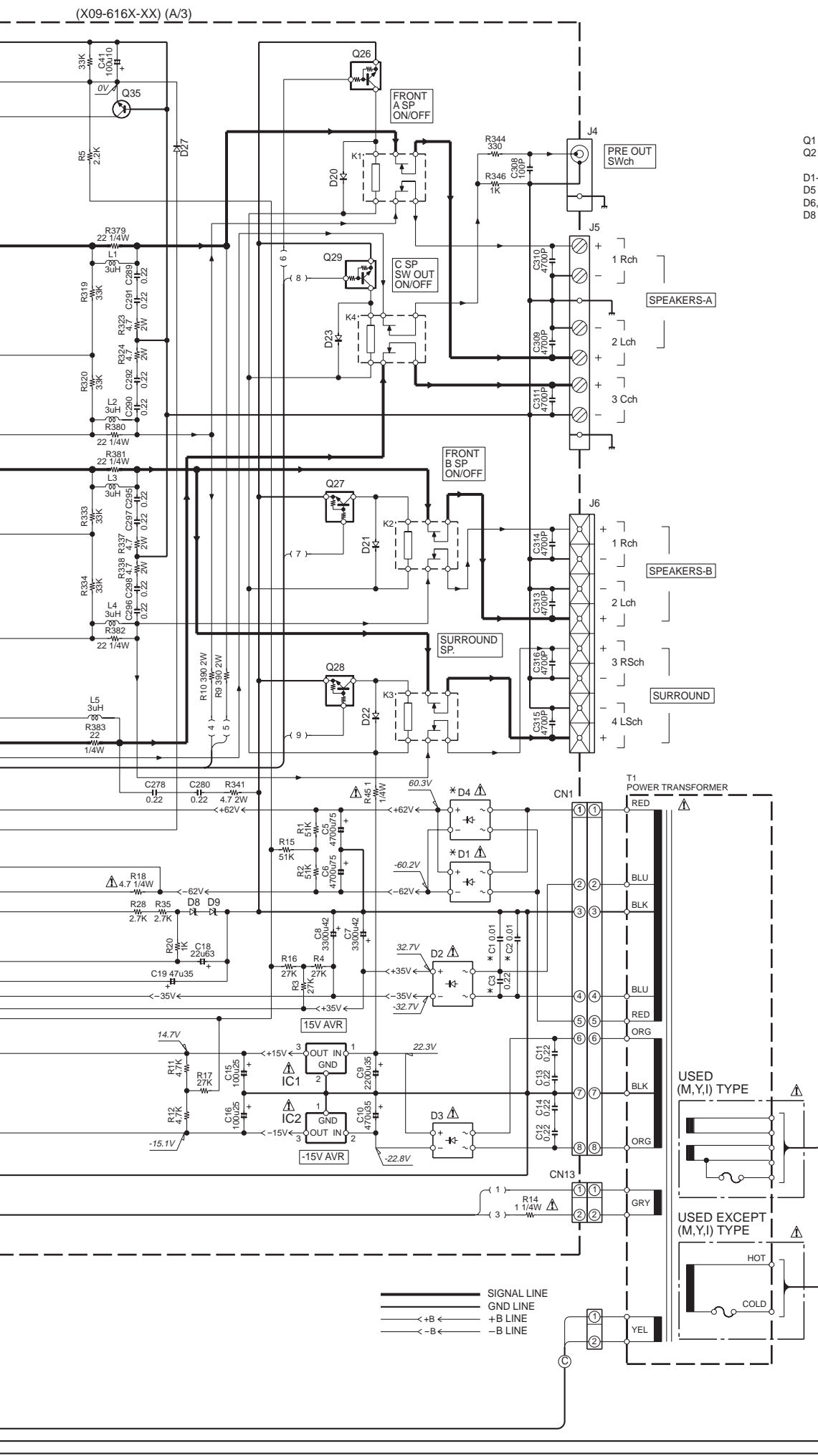
DESTINATION COUNTRY	ABB.	UNIT No.	(A)	(B)	R13	C1.2	C3	D1	D4
U.S.A.	K7	0-10	NO	47K	YES	NO	NO	YES	
CANADA	P7								

KRF-V7020D (X09-616X-XX) / (X09-6342-10)

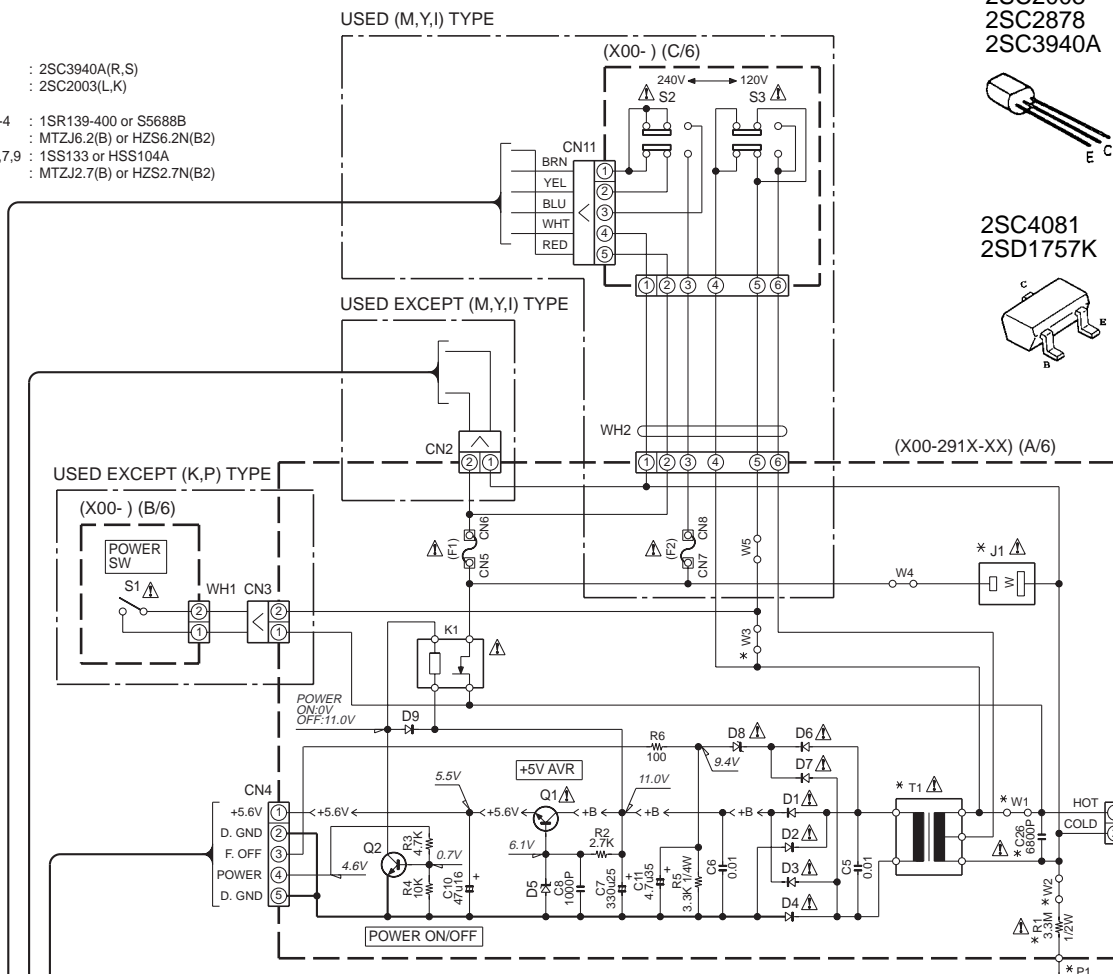
DESTINATION COUNTRY	ABB.	UNIT No.	(A)	(B)	R13	C1.2	C3	D1	D4
PX	Y7	0-21	YES	20K	NO	YES			
GENERAL MARKET	M7								
CHINA	C7	3-01	NO	47K	YES	NO	YES	NO	
AUSTRALIA	X7	0-71	YES		NO	YES			
SHANGHAI	V7	42-10	NO						

KRF-V8020D (X09-616X-XX)

DESTINATION COUNTRY	ABB.	UNIT No.	(A)	(B)	R13	C1.2	C3	D1	D4
PX	Y8	0-22	YES	20K	NO	YES			
GENERAL MARKET	M8								
MALAYSIA	I8				47K			YES	NO
CHINA	C8	3-02	NO		YES	NO			
AUSTRALIA	X8	0-72	YES		NO	YES			



- Q1 : 2SC3940A(R,S)  
 Q2 : 2SC2003(L,K)
- D1-4 : 1SR139-400 or S5688B  
 D5 : MTZJ6.2(B) or HZS6.2N(B2)  
 D6,7,9 : 1SS133 or HSS104A  
 D8 : MTZJ2.7(B) or HZS2.7N(B2)



DESTINATION		UNIT No.	T1	J1	C26	R1	W1, 2	W3	P1
COUNTRY	ABB.								
U.S.A.	K6	0-11	L07-2567-05	E03-0148-05	YES	YES	YES	NO	YES
CANADA	P6								

DESTINATION		UNIT No.	T1	J1	C26	R1	W1, 2	W3	P1
COUNTRY	ABB.								
U.S.A.	K8	0-11	L07-2567-05	E03-0148-05	YES	YES	YES	NO	YES
CANADA	P8								

DESTINATION		UNIT No.	T1	J1	C26	R1	W1, 2	W3	P1
COUNTRY	ABB.								
U.S.A.	K7	0-11	L07-2567-05	E03-0148-05	YES	YES	YES	NO	YES
CANADA	P7								

DESTINATION		UNIT No.	T1	J1	C26	R1	W1, 2	W3	P1
COUNTRY	ABB.								
GENERAL MARKET	M7	0-20	L07-2568-05	E03-0149-05					
PX	Y7	2-91	L07-2568-05	E03-0148-05				NO	
CHINA	C7	3-01	L07-2569-05	E03-0361-05					NO
AUSTRALIA	X7	0-71	L07-2569-05	E03-0325-05				YES	
SHANGHAI	V7	92-11	L07-2129-05	E03-0361-05					

DESTINATION		UNIT No.	T1	J1	C26	R1	W1, 2	W3	P1
COUNTRY	ABB.								
GENERAL MARKET	M8	0-20	L07-2568-05	E03-0149-05					
MALAYSIA	I8		L07-2568-05	E03-0148-05				NO	
PX	Y8	2-91	L07-2568-05	E03-0148-05				NO	NO
CHINA	C8	3-01	L07-2569-05	E03-0361-05					YES
AUSTRALIA	X8	0-71	L07-2569-05	E03-0325-05					

- 2SA1123  
 2SA992  
 2SC1845  
 2SC2003  
 2SC2878  
 2SC3940A
- 2SB1218A  
 2SC3722K  
 2SD1819A
- 2SA1535A  
 2SC3944A
- 2SA1285A

- 2SC4081  
 2SD1757K
- DTC123JUA
- NJM4565M  
 NJM4565MD  
 NJM4580ED
- TA7805SB

- DA204U
- TC9162AF  
 TC9163AF  
 TC9164AF
- TC74HCU04AF

- NJM2279M
- LC72131

- TA7805S  
 TA7815S
- L78M05T
- TA79015S
- S-80740AL-A4

- CS4226KQG
- YSS902  
 YSS912
- LA1837  
 LA1838
- TC7W241FU

- M62446FP
- L88M33T

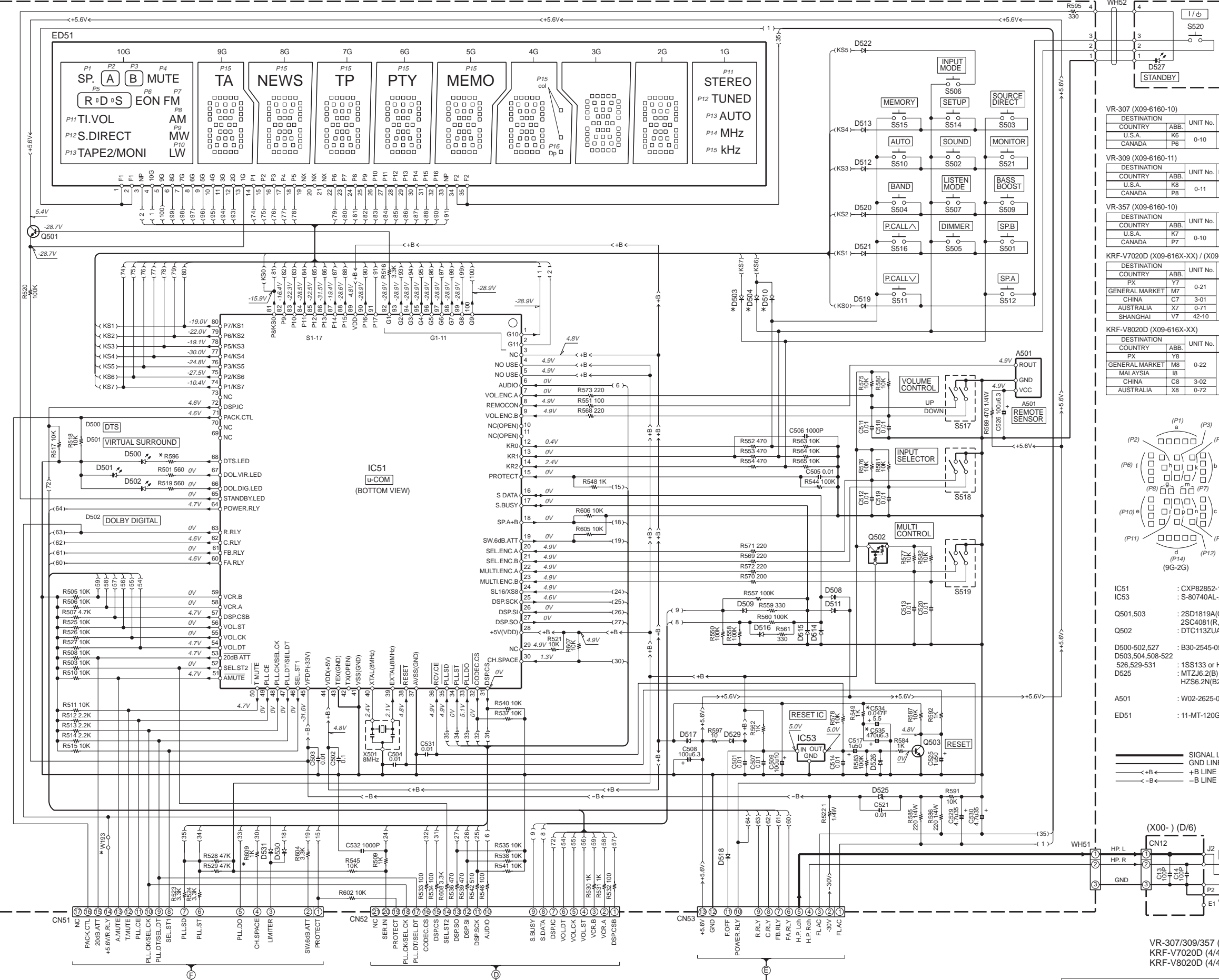
VR-307/309/357 (3/4)  
 KRF-V7020D (3/4)  
 KRF-V8020D (3/4)

Y05-3760-10

**KRF-V7020D/V8020D/VR-307/309/357**

**KENWOOD**





VR-307 (X09-6160-10)

DESTINATION	COUNTRY	ABB.	UNIT No.	R596	R609	C534	C535	W193	D500,503,504,510
U.S.A.	K6	P6	0-10	NO	NO	YES	NO	NO	NO
CANADA	K6	P6	0-10	NO	NO	YES	NO	NO	NO

VR-309 (X09-6160-11)

DESTINATION	COUNTRY	ABB.	UNIT No.	R596	R609	C534	C535	W193	D500,503,510
U.S.A.	K8	P8	0-11	YES	NO	NO	YES	NO	YES
CANADA	K8	P8	0-11	YES	NO	NO	YES	NO	YES

VR-357 (X09-6160-10)

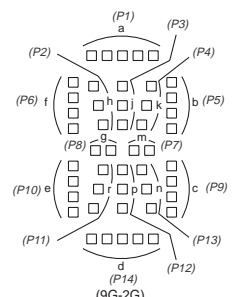
DESTINATION	COUNTRY	ABB.	UNIT No.	R596	R609	C534	C535	W193	D500,503,504,510
U.S.A.	K7	P7	0-10	NO	NO	YES	NO	NO	NO
CANADA	K7	P7	0-10	NO	NO	YES	NO	NO	NO

KRF-V7020D (X09-616X-XX) / (X09-6342-10)

DESTINATION	COUNTRY	ABB.	UNIT No.	R596	R609	C534	C535	W193	D500,503,504,510
GENERAL MARKET	PX	Y7	0-21	NO	YES	YES	NO	YES	NO
CHINA	C7	3-01		NO	YES	NO	NO	NO	YES
AUSTRALIA	X7	0-71		NO	YES	YES	NO	YES	YES
SHANGHAI	V7	42-10		YES	YES	NO	NO	NO	NO

KRF-V8020D (X09-616X-XX)

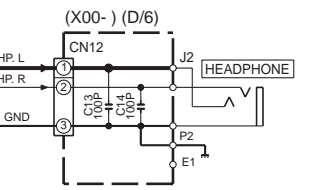
DESTINATION	COUNTRY	ABB.	UNIT No.	R596	R609	C534	C535	W193	D500,503,504,510
GENERAL MARKET	PX	Y8	0-22	YES	YES	YES	NO	YES	NO
MALAYSIA	I8			YES	YES	NO	NO	YES	YES
CHINA	C8	3-02		NO	NO	NO	NO	NO	NO
AUSTRALIA	X8	0-72		NO	YES	YES	NO	YES	YES



- IC51 : CXP82852-139Q
- IC53 : S-80740AL-A4
- Q501,503 : 2SD1819A(Q,R) or 2SC4081(R,S)
- Q502 : DTC113ZUA
- D500-502,527 : B30-2545-05
- D503,504,508-522 : 526,529-531 : 1SS133 or HSS104A
- D525 : MTZJ6.2(B) or HZS6.2N(B2)
- A501 : W02-2625-05
- ED51 : 11-MT-120GK

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

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

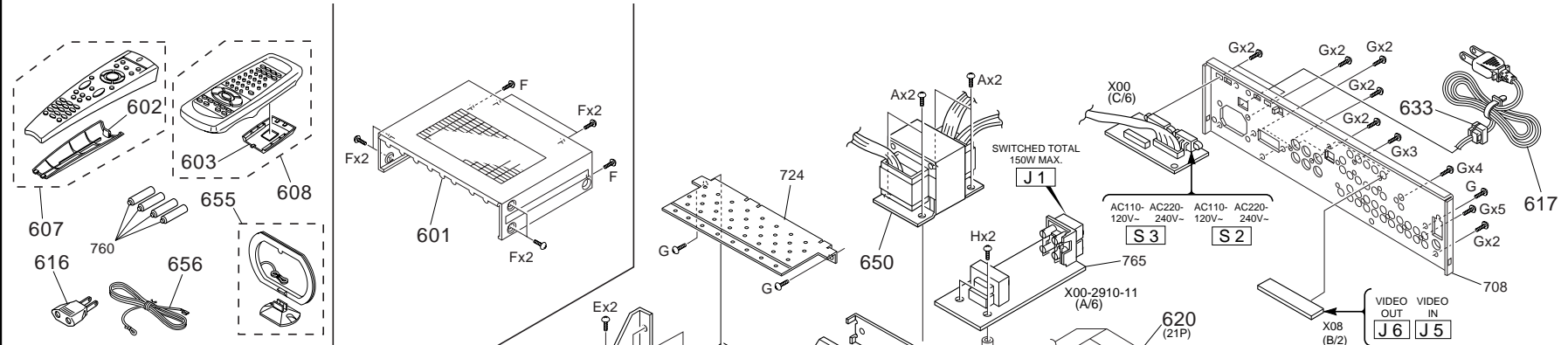


- VR-307/309/357 (4/4)
- KRF-V7020D (4/4)
- KRF-V8020D (4/4)

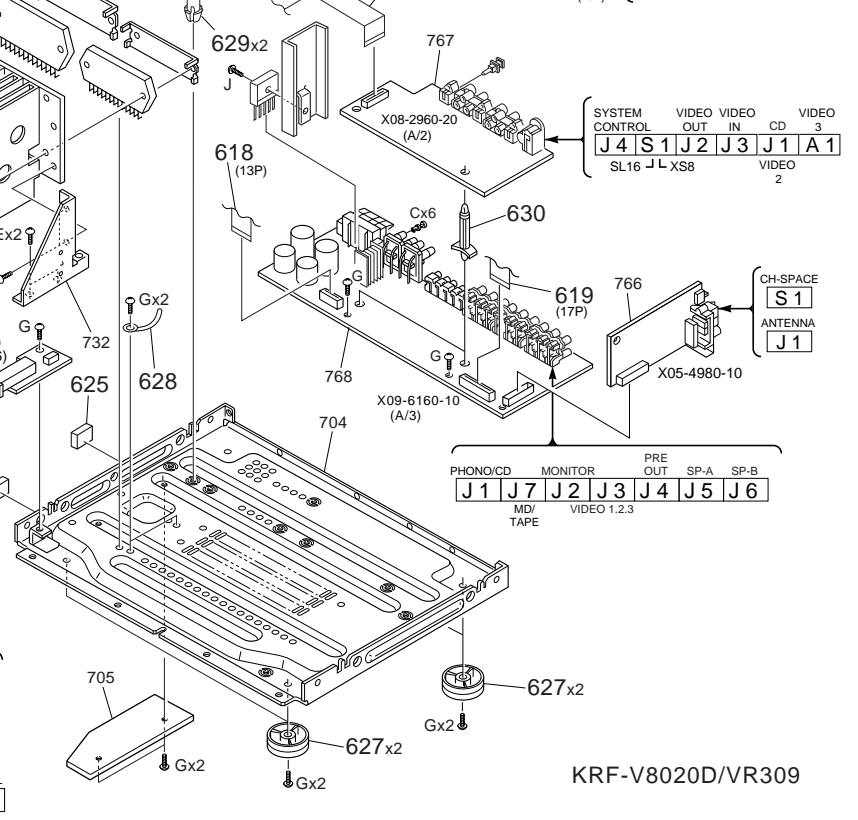
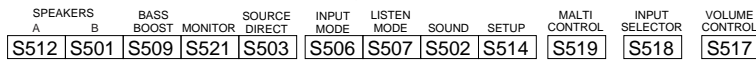
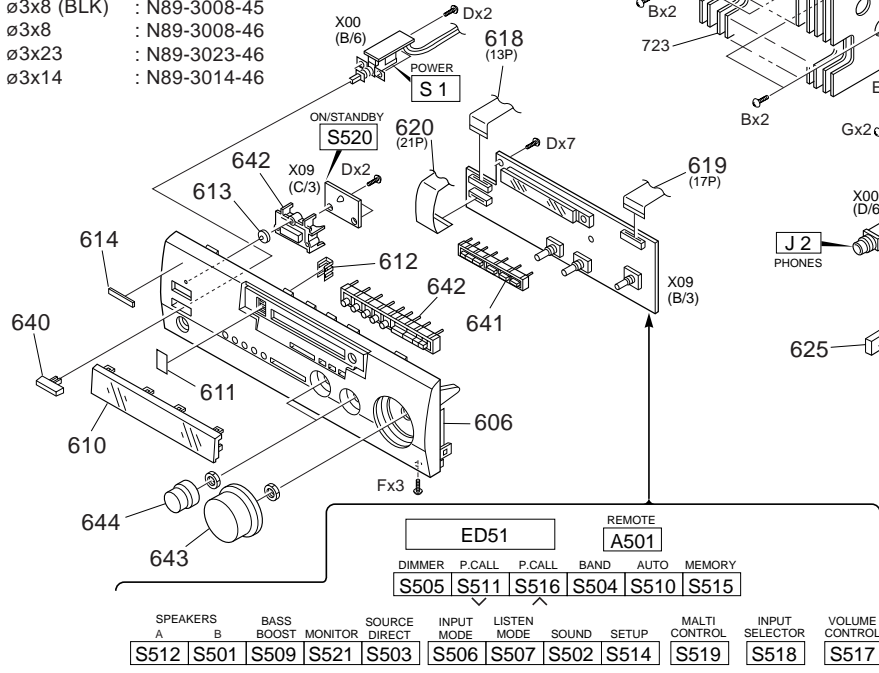
A

B

C



- A M4x8 : N09-1966-05
- B ø2.6x8 : N09-3411-05
- C Push rivet : N29-0216-05
- D ø2.6x8 (BLK) : N82-2608-45
- E ø3x6 (BLK) : N88-3006-45
- F ø3x8 (BLK) : N89-3008-45
- G ø3x8 : N89-3008-46
- H ø3x23 : N89-3023-46
- J ø3x14 : N89-3014-46



KRF-V8020D/VR309

EXPLODED VIEW (UNIT)

KRF-V7020D/V8020D/VR-307/309/357

\* New Parts

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①

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
<b>KRF-V7020D/V8020D/VR-307/309/357</b>						
601	1A		A01-3533-01	METALLIC CABINET	V	
601	1A	*	A01-3685-01	METALLIC CABINET	KP	
601	1A	*	A01-3685-01	METALLIC CABINET	YMCXI	
602	1A		A09-0366-08	BATTERY COVER	K7P7	
602	1A		A09-0366-08	BATTERY COVER	8	
603	1A		A09-1123-08	BATTERY COVER	K6P6Y7	
603	1A		A09-1123-08	BATTERY COVER	M7C7X7	
603	1A		A09-1123-08	BATTERY COVER	V7	
606	2A	*	A60-1587-01	PANEL	K6P6	
606	2A	*	A60-1588-01	PANEL	Y8	
606	2A	*	A60-1589-01	PANEL	M8X8I8	
606	2A	*	A60-1590-01	PANEL	C8	
606	2A	*	A60-1591-01	PANEL	K6P6	
606	2A	*	A60-1592-01	PANEL	Y7	
606	2A	*	A60-1593-01	PANEL	M7X7	
606	2A	*	A60-1594-01	PANEL	C7	
606	2A	*	A60-1595-01	PANEL	K6P6	
606	2A	*	A60-1662-01	PANEL	V7	
607	1A	*	A70-1275-05	REMOTE CONTROLLER (RC-R0508)	X8	
607	1A	*	A70-1277-05	REMOTE CONTROLLER (RC-R0608)	K7P7	
607	1A	*	A70-1277-05	REMOTE CONTROLLER (RC-R0608)	K8P8M8	
607	1A	*	A70-1277-05	REMOTE CONTROLLER (RC-R0608)	Y8C8I8	
608	1A	*	A70-1268-05	REMOTE CONTROLLER (RC-R0712)	K6P6Y7	
608	1A	*	A70-1268-05	REMOTE CONTROLLER (RC-R0712)	M7C7X7	
608	1A	*	A70-1268-05	REMOTE CONTROLLER (RC-R0712)	V7	
610	2A	*	B10-3457-02	FRONT GLASS	8	
610	2A	*	B10-3458-02	FRONT GLASS	M7	
610	2A	*	B10-3458-02	FRONT GLASS	X7C7Y7	
610	2A	*	B10-3504-02	FRONT GLASS	V7	
611	2A	*	B11-0361-04	SMOKED FILTER	V	
611	2A		B11-0367-04	SMOKED FILTER	KP	
611	2A		B11-0367-04	SMOKED FILTER	YMCXI	
612	2A		B11-0362-04	SMOKED FILTER	V	
612	2A		B11-0375-04	SMOKED FILTER	KP	
612	2A		B11-0375-04	SMOKED FILTER	YMCXI	
613	2A		B12-0334-14	INDICATOR	V	
613	2A		B12-0341-04	INDICATOR	KP	
613	2A		B12-0341-04	INDICATOR	YMCXI	
614	2A		B43-0302-04	KENWOOD BADGE	X	
-			B46-0096-53	WARRANTY CARD	X	
-			B46-0197-00	QUESTIONNAIRE CARD	K	
-			B46-0330-03	WARRANTY CARD	KY	
-			B46-0336-03	WARRANTY CARD	P	
-			B46-0343-03	WARRANTY CARD	C	
-			B46-0344-03	WARRANTY CARD	V7	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	Y	
-			B58-0964-13	CAUTION CARD (UL)	KY	
-			B58-0965-13	CAUTION CARD (PL)	X	
-			B58-0966-13	CAUTION CARD (ELM/PL)	MI	
-			B58-0967-03	CAUTION CARD (P/PL)	P	
-			B58-1546-03	CAUTION CARD	CV	
-			B59-1104-00	SERVICE DIRECTORY	Y	
-		*	B60-4133-00	INSTRUCTION MANUAL(TC,AC-3)	M8I8	

L : Scandinavia K : USA P : Canada R : Mexico C : China I : Malaysia  
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②

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
-		*	B60-4134-00	INSTRUCTION MANUAL(TC,RC-)	M8I8	
-		*	B60-4139-00	INSTRUCTION MANUAL(EN,AC-3)	KPYMXI	
-		*	B60-4140-00	INSTRUCTION MANUAL(FR,AC-3)	P	
-		*	B60-4141-00	INSTRUCTION MANUAL(ES/TC,AC-3)	M7	
-		*	B60-4142-00	INSTRUCTION MANUAL(SC,AC-3)	CV	
-		*	B60-4144-00	INSTRUCTION MANUAL(EN,RC-)	K7P7	
-		*	B60-4144-00	INSTRUCTION MANUAL(EN,RC-)	K8P8	
-		*	B60-4144-00	INSTRUCTION MANUAL(EN,RC-)	Y8M8I8	
-		*	B60-4145-00	INSTRUCTION MANUAL(FR,RC-)	P7P8	
-		*	B60-4147-00	INSTRUCTION MANUAL(SC,RC-)	C8	
-		*	B60-4148-00	INSTRUCTION MANUAL(EN,RC-)	X8	
Δ 616	1A		E03-0115-05	AC PLUG ADAPTER	MI	
Δ 617	1C		E30-2592-15	AC POWER CORD	MI	
Δ 617	1C		E30-2605-05	AC POWER CORD	Y	
Δ 617	1C		E30-2717-05	AC POWER CORD	X	
Δ 617	1C		E30-2824-15	AC POWER CORD	V	
Δ 617	1C		E30-2870-05	AC POWER CORD	C	
Δ 617	1C		E30-2884-05	AC POWER CORD	KP	
618	1A, 1B		E35-2017-05	FLAT CABLE 13P		
619	2B, 2C	*	E35-2260-05	FLAT CABLE 17P		
620	2A, 1C	*	E35-2261-05	FLAT CABLE 21P		
Δ F1			F05-3121-05	FUSE (SEMKO) (250V T3.15AL)	CX	
Δ F1			F50-0077-05	FUSE(5X20) (125V 8A)	KP	
Δ F1			F50-0101-05	FUSE(5X20) (250V T3.15AL)	V	
Δ F1, 2			F05-3121-05	FUSE (SEMKO) (250V T3.15AL)	YMI	
625	2B		G11-2415-04	CUSHION	V	
-		*	H10-7552-02	POLYSTYRENE FOAMED FIXTURE	KP	
-		*	H10-7552-02	POLYSTYRENE FOAMED FIXTURE	YMCXI	
-		*	H10-7553-02	POLYSTYRENE FOAMED FIXTURE	KP	
-		*	H10-7553-02	POLYSTYRENE FOAMED FIXTURE	YMCXI	
-		*	H10-7554-02	POLYSTYRENE FOAMED FIXTURE	V	
-			H10-7555-02	POLYSTYRENE FOAMED FIXTURE	V	
-			H25-0232-04	PROTECTION BAG (235X350X0.03)		
-			H25-0391-04	PROTECTION BAG		
-		*	H50-3223-04	ITEM CARTON CASE	K8P8	
-		*	H50-3224-04	ITEM CARTON CASE	Y8X8	
-		*	H50-3225-04	ITEM CARTON CASE	M8I8	
-		*	H50-3226-04	ITEM CARTON CASE	C8	
-		*	H50-3227-04	ITEM CARTON CASE	K6P6	
-		*	H50-3228-04	ITEM CARTON CASE	Y7X7	
-		*	H50-3229-04	ITEM CARTON CASE	M7	
-		*	H50-3230-04	ITEM CARTON CASE	C7	
-		*	H50-3231-04	ITEM CARTON CASE	K7P7	
-		*	H50-3258-04	ITEM CARTON CASE	V7	
627	2C		J02-1167-03	FOOT	V	
627	2C		J02-1168-03	FOOT	MCXI	
627	2C		J02-1407-03	FOOT (D=46,H=14.5,T)	KPY	
628	2B		J19-2808-05	HOLDER		
629	1B		J19-3752-14	UNIT HOLDER	YMCXI	
629	1B		J19-5787-04	UNIT HOLDER	V	
630	1C		J19-5919-05	UNIT HOLDER		
Δ 633	1C		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		

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PARTS LIST

KRF-V7020D/V8020D/VR-307/309/357

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3

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
640	2A		K27-2185-04	KNOB (BUTTON) POWER	V	
640	2A		K27-2275-04	KNOB (BUTTON) POWER	MCXI	
640	2A		K27-2293-04	KNOB (BUTTON) POWER	Y	
641	2A		K29-7310-03	KNOB TUNER, BLK	MCXI	
641	2A		K29-7323-03	KNOB TUNER, GOLD	KPY	
641	2A		K29-7366-03	KNOB TUNER, BLK	V	
642	2A	*	K29-7364-12	KNOB SPEAKER, BLK	V	
642	2A		K29-7370-02	KNOB SPEAKER, GOLD	KPY	
642	2A		K29-7371-02	KNOB SPEAKER, BLK	MCXI	
643	2A		K29-7306-14	KNOB D54, BLK	V	
643	2A		K29-7312-04	KNOB D54, BLK	MCZI	
643	2A		K29-7325-04	KNOB D54, GOLD	KPY	
644	2A		K29-7307-14	KNOB D33, BLK	V	
644	2A		K29-7313-04	KNOB D33, BLK	MCXI	
644	2A		K29-7326-04	KNOB D33, GOLD	KPY	
Δ 650	1B	*	L07-2693-05	POWER TRANSFORMER	KP	
Δ 650	1B	*	L07-2694-05	POWER TRANSFORMER	YMI	
Δ 650	1B	*	L07-2695-05	POWER TRANSFORMER	C	
Δ 650	1B	*	L07-2696-05	POWER TRANSFORMER	X	
Δ 650	1B	*	L07-2708-05	POWER TRANSFORMER	V	
655	1A		T90-0833-05	LOOP ANTENNA		
656	1A		T90-0836-05	LEAD WIRE ANTENNA		
<b>POWER SUPPLY (X00-2910/X00-2892)</b>						
C5, 6			CK45FF1H103Z	CERAMIC 0.010UF Z		
C7			CE04DW1E331M	ELECTRO 330UF 25WV		
C8			CK45FB1H102K	CERAMIC 1000PF K		
C10			CE04KW1C470M	ELECTRO 47UF 16WV		
C11			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
Δ C13, 14			CC45FSL1H101J	CERAMIC 100PF J		
Δ C26			C91-1448-05	FILM 0.0068uF 250VAC	KP	
CN1			E40-4245-05	PIN ASSY		
CN2			E40-4245-05	PIN ASSY	KPCXV	
CN3			E40-4245-05	PIN ASSY	YMICXV	
CN4			E40-8197-05	SOCKET FOR PIN ASSY		
CN11			E40-4281-05	PIN ASSY	YMI	
Δ CN12			E40-3247-05	PIN ASSY	KPY	
Δ J1	1B		E03-0148-05	AC OUTLET	MI	
Δ J1	1B		E03-0149-05	AC OUTLET	X	
Δ J1	1B		E03-0325-05	AC OUTLET	CV	
Δ J1	1B		E03-0361-05	AC OUTLET		
J2	2B		E11-0127-05	PHONE JACK (3P)		
CN5, 6			J13-0075-05	FUSE CLIP		
CN7, 8			J13-0075-05	FUSE CLIP	YMI	
E1			J11-0808-05	WIRE CLAMPER		
Δ T1		*	L07-2129-05	POWER TRANSFORMER	V	
Δ T1			L07-2567-05	POWER TRANSFORMER	KP	
Δ T1			L07-2568-05	POWER TRANSFORMER	YMI	
Δ T1			L07-2569-05	POWER TRANSFORMER	CX	
Δ R1			R92-1844-05	CARBON 3.3M J 1/2W	KP	
Δ K1			S76-0070-05	MAGNETIC RELAY		
Δ S1			S68-0088-05	PUSH SWITCH	V	
Δ S1			S68-0100-05	PUSH SWITCH	YMCXI	
Δ S2, 3			S62-0001-05	SLIDE SWITCH	YMI	

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
Δ D1-4			S5688B	DIODE		
Δ D1-4			1SR139-400	DIODE		
D5			HZS6.2N(B2)	ZENER DIODE		
D5			MTZJ6.2(B)	ZENER DIODE		
Δ D6, 7			HSS104A	DIODE		
Δ D6, 7			1SS133	DIODE		
Δ D8			HZS2.7N(B2)	ZENER DIODE		
Δ D8			MTZJ2.7(B)	ZENER DIODE		
D9			HSS104A	DIODE		
D9			1SS133	DIODE		
Δ Q1			2SC3940A(R,S)	TRANSISTOR		
Q2			2SC2003(L,K)	TRANSISTOR		
<b>TUNER (X05-4980/X05-5062)</b>						
C1			CK73FB1H223K	CHIP C 0.022UF K		
C3			CK73FB1H103K	CHIP C 0.010UF K		
C5, 6			CK73FB1H103K	CHIP C 0.010UF K		
C7			CE04LW1C470M	ELECTRO 47UF 16WV		
C8			CK73EB1H103K	CHIP C 0.010UF K	YMCXIV	
C10			CE04LW1C470M	ELECTRO 47UF 16WV		
C11, 12			CK73FB1H473K	CHIP C 0.047UF K		
C14			CE04LW1C100M	ELECTRO 10UF 16WV		
C15			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C16			C90-3251-05	ELECTRO 0.47UF 50WV		
C17			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C18			CC73FCH1H470J	CHIP C 47PF J		
C19			C90-3217-05	ELECTRO 10UF 10WV		
C20			CK73FB1H473K	CHIP C 0.047UF K		
C21			C90-3241-05	ELECTRO 3.3UF 35WV		
C22			CK73FB1H473K	CHIP C 0.047UF K		
C23			CE04LW1C100M	ELECTRO 10UF 16WV		
C24			CK73FB1H331K	CHIP C 330PF K		
C25			CC73FCH1H471J	CHIP C 470PF J		
C26			CK73FB1H223K	CHIP C 0.022UF K		
C27			CE04HW1E4R7M	NP-ELEC 4.7UF 25WV		
C28, 29			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C30, 31			CK73FB1H223K	CHIP C 0.022UF K	YMCXIV	
C30, 31			CK73FB1H333K	CHIP C 0.033UF K	KP	
C32			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C33, 34			CK73FB1H103K	CHIP C 0.010UF K	YMCIV	
C35			CK73FB1H332K	CHIP C 3300PF K		
C36			CK73FB1H103K	CHIP C 0.010UF K		
C37, 38			CE04LW1C100M	ELECTRO 10UF 16WV		
C39			CC73FCH1H060D	CHIP C 6.0PF D		
C40			CC73FCH1H020C	CHIP C 2.0PF C		
C41			CC73FCH1H220J	CHIP C 22PF J		
C42			CC73FCH1H120J	CHIP C 12PF J		
C42			CC73FCH1H120J	CHIP C 12PF J	KP	
C42			CC73FCH1H270J	CHIP C 27PF J	YMCXI	
C43			CC73FCH1H100D	CHIP C 10PF D	KP	
C43			CC73FCH1H100D	CHIP C 10PF D	YMCXI	
C43			CC73FCH1H220J	CHIP C 22PF J	V	
C44			CK73FB1H471K	CHIP C 470PF K		
C45			CC73FCH1H220J	CHIP C 22PF J		
C46			CE04LW1C100M	ELECTRO 10UF 16WV		

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Ref. No	Address	New Parts	Parts No.	Description	Destination	Remarks
C47			CK73FB1H102K	CHIP C 100PF K		
C48			CE04LW1C470M	ELECTRO 47UF 16WV		
C49			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C50			CC73FSL1H101J	CHIP C 100PF J		
C51			CK73FB1H471K	CHIP C 470PF K		
C52			CC73FSL1H101J	CHIP C 100PF J		
C72			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C73			CE04LW1C470M	ELECTRO 47UF 16WV		
C74			CK73FB1H102K	CHIP C 1000PF K	KP	
C75			CC73FCH1H040C	CHIP C 4.0PF C		
C76			CC73FCH1H470J	CHIP C 47PF J	YMCIV	
C77			CC73FSL1H101J	CHIP C 100PF J		
C78			CK73FB1H223K	CHIP C 0.022UF K		
C81			CK73FF1C105Z	CHIP C 1.0UF Z		
C82			CK73FB1H103K	CHIP C 0.010UF K	KP	
C83			CC73FSL1H101J	CHIP C 100PF J		
C84, 85			CK73FB1H223K	CHIP C 0.022UF K		
C86			CK73FB1H471K	CHIP C 470PF K		
C88			CK73FB1H332K	CHIP C 3300PF K		
C89, 90			CK73FB1H472K	CHIP C 4700PF K		
C91			CK73FF1C105Z	CHIP C 1.0UF Z		
CN1			E40-9831-05	SOCKET FOR PIN ASSY		
CN2			E40-4871-05	PIN ASSY	KP	
J1	2C		E20-0321-05	LOCK TERMINAL BOARD(2P,F)	KP	
J1	2C		E20-0321-05	LOCK TERMINAL BOARD(2P,F)	YMCXI	
J1	2C		E70-0052-05	LOCK TERMINAL BOARD	YMCXI	
J1	2C		E70-0080-05	LOCK TERMINAL BOARD	V	
CF1, 2			L72-0531-05	CERAMIC FILTER	YMCXIV	
CF1, 2			L72-0596-05	CERAMIC FILTER	KP	
CF3			L72-0607-05	CERAMIC FILTER	YMCXIV	
L1			L39-1366-05	COMBINATION COIL		
L2			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
L3			L30-0911-05	AM IFT		
L4			L30-0950-05	FM IFT	KP	
L5			L30-0951-05	FM IFT	KP	
L9			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)		
X1			L77-2187-05	CRYSTAL RESONATOR	V	
X1			L77-2232-05	CRYSTAL RESONATOR	KP	
X1			L77-2232-05	CRYSTAL RESONATOR	YMCXI	
R1			RK73FB2A101J	CHIP R 100 J 1/10W		
R4			RK73FB2A681J	CHIP R 680 J 1/10W		
R5			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R6			RK73FB2A221J	CHIP R 220 J 1/10W		
R7			RK73FB2A821J	CHIP R 820 J 1/10W		
R8			RK73FB2A330J	CHIP R 33 J 1/10W		
R9			RK73FB2A391J	CHIP R 390 J 1/10W		
R10			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R11			RK73FB2A330J	CHIP R 33 J 1/10W		
R12			RK73FB2A101J	CHIP R 100 J 1/10W		
R14			RK73FB2A101J	CHIP R 100 J 1/10W	KP	
R14			RK73FB2A271J	CHIP R 270 J 1/10W	YMCXIV	
R15			RK73FB2A333J	CHIP R 33K J 1/10W	KP	

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R16			RK73FB2A220J	CHIP R 22 J 1/10W		
R17			RK73FB2A362J	CHIP R 3.6K J 1/10W		
R18			RK73FB2A302J	CHIP R 3.0K J 1/10W		
R19			RK73FB2A822J	CHIP R 8.2K J 1/10W		
R20			RK73FB2A392J	CHIP R 3.9K J 1/10W		
R23			RK73FB2A332J	CHIP R 3.3K J 1/10W	YMCXIV	
R23			RK73FB2A472J	CHIP R 4.7K J 1/10W	KP	
R25			RK73FB2A183J	CHIP R 18K J 1/10W	YMCXIV	
R25			RK73FB2A223J	CHIP R 22K J 1/10W	KP	
R27, 28			RK73FB2A512J	CHIP R 5.1K J 1/10W	KP	
R27, 28			RK73FB2A622J	CHIP R 6.2K J 1/10W	YMCXI	
R27, 28			RK73FB2A752J	CHIP R 7.5K J 1/10W	V	
R29			RK73FB2A101J	CHIP R 100 J 1/10W	YMCIV	
R30			RK73FB2A561J	CHIP R 560 J 1/10W	YMCIV	
R31			RK73FB2A473J	CHIP R 47K J 1/10W	YMCIV	
R32			RK73FB2A272J	CHIP R 2.7K J 1/10W		
R33, 34			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R42			RK73FB2A103J	CHIP R 10K J 1/10W		
R43			RK73FB2A221J	CHIP R 220 J 1/10W		
△ R44			RD14NB2E271J	RD 270 J 1/4W		
R45			RK73EB2B102J	CHIP R 1.0K J 1/8W		
R46			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R47			RK73EB2B102J	CHIP R 1.0K J 1/8W		
R48			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R49			RK73FB2A103J	CHIP R 10K J 1/10W		
△ R50			RD14NB2E471J	RD 470 J 1/4W		
R51			RK73FB2A562J	CHIP R 5.6K J 1/10W		
R52			RK73FB2A101J	CHIP R 100 J 1/10W		
R53			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R54			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R55			RK73FB2A333J	CHIP R 33K J 1/10W		
R56, 57			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R58			RK73FB2A123J	CHIP R 12K J 1/10W		
R59			RK73FB2A122J	CHIP R 1.2K J 1/10W		
R72, 73			RK73FB2A153J	CHIP R 15K J 1/10W	KP	
R72, 73			RK73FB2A822J	CHIP R 8.2K J 1/10W	YMCXIV	
R74			RK73FB2A473J	CHIP R 47K J 1/10W		
R75			RK73FB2A822J	CHIP R 8.2K J 1/10W		
R76			RK73FB2A182J	CHIP R 1.8K J 1/10W		
R78			RK73FB2A821J	CHIP R 820 J 1/10W		
△ R79			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R81			RS14KB3A151J	FL-PROOF RS 150 J 1W		
R82			RK73FB2A272J	CHIP R 2.7K J 1/10W	KP	
R83			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R84			RK73EB2B102J	CHIP R 1.0K J 1/8W		
R85-87			RK73FB2A105J	CHIP R 1.0M J 1/10W		
R88			RK73FB2A563J	CHIP R 56K J 1/10W		
R89			RK73FB2A333J	CHIP R 33K J 1/10W		
VR1			R32-0037-05	SEMI FIXED VARIABLE RESISTOR		
W51, 52			R92-0670-05	CHIP R 0 OHM		
W54-56			R92-0670-05	CHIP R 0 OHM	YMCIV	
W54, 55			R92-0670-05	CHIP R 0 OHM	KPX	
W59			R92-0670-05	CHIP R 0 OHM		
W62			R92-0670-05	CHIP R 0 OHM		
W80			R92-0679-05	CHIP R 0 OHM		

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W82-85			R92-0679-05	CHIP R 0 OHM		
S1	2C		S62-0034-05	SLIDE SWITCH	YMCIV	
D1			DA204U	DIODE		
D1			MA143A	DIODE		
D1			1SS302	DIODE		
D3			HZS8.2N(B2)	ZENER DIODE		
D3			MTZJ8.2(B)	ZENER DIODE		
D4			HZS5.1N(B2)	ZENER DIODE		
D4			MTZJ5.1(B)	ZENER DIODE		
D5			HZS2.7N(B2)	ZENER DIODE		
D5			MTZJ2.7(B)	ZENER DIODE		
D8			MA111	DIODE		
D9			HZS3.3N(B2)	ZENER DIODE		
D9			MTZJ3.3(B)	ZENER DIODE		
D13			MA111	DIODE		
IC1			LA1837	ANALOGUE IC	KP	
IC1			LA1838	ANALOGUE IC	YMCXIV	
IC2			LC72131	MOS-IC		
Q1			2SC4081(R,S)	TRANSISTOR		
Q1			2SD1819A(Q,R)	TRANSISTOR		
Q2			2SA1576A(R,S)	TRANSISTOR		
Q2			2SB1218A(Q,R)	TRANSISTOR		
Q3, 4			2SC4081(R,S)	TRANSISTOR	YMCIV	
Q3, 4			2SD1819A(Q,R)	TRANSISTOR	YMCIV	
Q10, 11			2SD1757K	TRANSISTOR		
Q12			2SA1576A(R,S)	TRANSISTOR		
Q12			2SB1218A(Q,R)	TRANSISTOR		
Q14			2SA1576A(R,S)	TRANSISTOR		
Q14			2SB1218A(Q,R)	TRANSISTOR		
A1			W02-2622-05	FM FRONT-END ASSY		
<b>SURROUND (X08-2960/X08-2982)</b>						
C1-4			CK73FB1E104K	CHIP C 0.10UF K		
C5, 6			CC73FSL1H102J	CHIP C 1000PF J		
C7-9			CK73FB1E104K	CHIP C 0.10UF K		
C10			CC73FSL1H331J	CHIP C 330PF J		
C11, 12			CC73FCH1H150J	CHIP C 15PF J		
C13, 14			CC73FCH1H180J	CHIP C 18PF J		
C15			CC73FSL1H101J	CHIP C 100PF J		
C16			CC73FSL1H471J	CHIP C 470PF J		
C17			CK73FB1H103K	CHIP C 0.010UF K		
C18			CC73FSL1H102J	CHIP C 1000PF J		
C19			CK73FB1E104K	CHIP C 0.10UF K		
C20			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C21			CC73FCH1H330J	CHIP C 33PF J		
C22, 23			CC73FCH1H120J	CHIP C 12PF J	YMCXIV	
C24, 25			CC73FCH1H150J	CHIP C 15PF J	YMCXIV	
C26			CE04KW1E470M	ELECTRO 47UF 25WV		
C27			CK73FB1E104K	CHIP C 0.10UF K		
C28			CC73FSL1H470J	CHIP C 47PF J		
C29			CC73FCH1H220J	CHIP C 22PF J		
C30-32			CK73FB1E104K	CHIP C 0.10UF K		
C33, 34			CC73FCH1H220J	CHIP C 22PF J		

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C35			CK73FB1H223KTA	CHIP C 0.022UF K		
C36			CK73FF1C224Z	CHIP C 0.22UF Z		
C37			CK73FB1H103K	CHIP C 0.010UF K		
C38			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C39, 40			CK73FB1E104K	CHIP C 0.10UF K		
C41, 42			CC73FCH1H220J	CHIP C 22PF J		
C43			CK73FB1E104K	CHIP C 0.10UF K		
C44			CC73FSL1H470J	CHIP C 47PF J		
C45			CC73FSL1H221J	CHIP C 220PF J		
C46			CC73FSL1H470J	CHIP C 47PF J		
C50-52			CE04KW1C100M	ELECTRO 10UF 16WV		
C55			CC73FSL1H470J	CHIP C 47PF J		
C56			CE04KW0J471M	ELECTRO 470UF 6.3WV		
C57			CE04KW1A470M	ELECTRO 47UF 10WV		
C58, 59			CK73FB1H103K	CHIP C 0.010UF K		
C60, 61			CC73FSL1H221J	CHIP C 220PF J		
C83			CE04KW1C222M	ELECTRO 2200UF 16WV		
C84			CQ93FMG1H104J	MYLAR 0.10UF J		
C85, 86			CK73FB1E104K	CHIP C 0.10UF K		
C88			CE04KW1A101M	ELECTRO 100UF 10WV		
C89, 90			CK73FB1E104K	CHIP C 0.10UF K		
C92			CE04KW1A101M	ELECTRO 100UF 10WV		
C93-95			CK73FB1E104K	CHIP C 0.10UF K		
C101, 102			CC73FCH1H220J	CHIP C 22PF J		
C103, 104			CC73FSL1H101J	CHIP C 100PF J		
C107, 108			CC73FSL1H681J	CHIP C 680PF J		
C109, 110			CE04KW1H100M	ELECTRO 10UF 50WV		
C111, 112			CC73FSL1H182J	CHIP C 1800PF J		
C113, 114			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C115, 116			CK73FB1H152K	CHIP C 1500PF K		
C117, 118			CC73FSL1H681J	CHIP C 680PF J		
C123-126			CC73FSL1H101J	CHIP C 100PF J		
C128			CC73FSL1H101J	CHIP C 100PF J		
C131, 132			CK73FB1H822K	CHIP C 8200PF K		
C133, 134			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C135, 136			CK73FB1H272K	CHIP C 2700PF K		
C137, 138			CK73FB1H392K	CHIP C 3900PF K		
C141, 142			CC73FSL1H101J	CHIP C 100PF J		
C143, 144			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C145-148			CK73FB1H103K	CHIP C 0.010UF K		
C150			CK73FB1H103K	CHIP C 0.010UF K		
C151			CK73FB1E473KTA	CHIP C 0.047UF K		
C152			CK73FB1H822K	CHIP C 8200PF K		
C153, 154			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C155			CK73FB1E104K	CHIP C 0.10UF K		
C156			CK73FB1H272K	CHIP C 2700PF K		
C157			CK73FB1E104K	CHIP C 0.10UF K		
C158			CK73FB1H392K	CHIP C 3900PF K		
C161, 162			CC73FSL1H101J	CHIP C 100PF J		
C163, 164			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C165			CC73FSL1H102J	CHIP C 1000PF J		
C171-176			CC73FSL1H101J	CHIP C 100PF J		
C177, 178			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C182			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C185			CK73FB1H222K	CHIP C 2200PF K		

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C186, 187			CC73FSL1H101J	CHIP C 100PF J		
C197			CC73FSL1H221J	CHIP C 220PF J		
C198, 199			CK73FB1H822K	CHIP C 8200PF K		
C200, 201			CK73FB1H153KTA	CHIP C 0.015UF K		
C202, 203		*	CK73FB1C334K	CHIP C 0.33UF K		
C204, 205			CE04KW1C100M	ELECTRO 10UF 16WV		
C206			CK73FB1H222K	CHIP C 2200PF K		
C207, 208			CE04KW1H100M	ELECTRO 10UF 50WV		
C209-212			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C213-217			CC73FSL1H471J	CHIP C 470PF J		
C219, 220			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C251, 252			CC73FSL1H470J	CHIP C 47PF J	8	
C253, 254			CC73FSL1H101J	CHIP C 100PF J	8	
C255, 256			CC73FSL1H470J	CHIP C 47PF J	8	
C257-260			CC73FSL1H101J	CHIP C 100PF J	8	
C261			CK73FB1H103K	CHIP C 0.010UF K	8	
C262			CE04KW1HR33M	ELECTRO 0.33UF 50WV	8	
C263			CK73FB1H103K	CHIP C 0.010UF K	8	
C264			CE04KW1HR33M	ELECTRO 0.33UF 50WV	8	
C265			CK73FB1H103K	CHIP C 0.010UF K	8	
C266			CE04KW1HR33M	ELECTRO 0.33UF 50WV	8	
C267			CK73FB1H103K	CHIP C 0.010UF K	8	
C272, 273			CE04KW1A101M	ELECTRO 100UF 10WV	8	
C274-277			CK73FB1E104K	CHIP C 0.10UF K	8	
C278, 280			CE04KW1C470M	ELECTRO 47UF 16WV	8	
C280			CK73FB1H103K	CHIP C 0.010UF K	8	
CN1			E40-4908-05	FLAT CABLE CONNECTOR		
CN2			E40-3259-05	PIN ASSY		
CN3			E40-4248-05	PIN ASSY		
CN3		*	E40-8358-05	PIN ASSY		
J1	1C	*	E63-1080-05	PHONO JACK		
J2	1C		E63-0094-05	PHONO JACK		
J3	1C		E63-0093-05	PHONO JACK		
J4	1C		E11-0293-05	MINIATURE PHONE JACK(2P)		
J5	1C		E56-0011-05	CYLINDRICAL RECEPTACLE	8	
J6	1C	*	E56-0023-05	CYLINDRICAL RECEPTACLE	8	
L1			L40-4701-58	SMALL FIXED INDUCTOR(47UH,K)		
L2			L79-1216-05	LINE FILTER		
L3			L92-0044-05	FERRITE CORE		
L4-6			L79-1216-05	LINE FILTER		
X1		*	L77-2221-05	CRYSTAL RESONATOR(12.288MHZ)	8	
X1			L77-2241-05	CRYSTAL RESONATOR(6.25MHZ)	67	
X2			L77-2221-05	CRYSTAL RESONATOR(12.288MHZ)	67	
R1			RK73FB2A105J	CHIP R 1.0M J 1/10W		
R2			RK73FB2A102J	CHIP R 1.0K J 1/10W	8	
R3			RK73FB2A103J	CHIP R 10K J 1/10W		
R4-15			RK73FB2A221J	CHIP R 220 J 1/10W		
R16			RK73FB2A104J	CHIP R 100K J 1/10W		
R17, 18			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R19			RK73FB2A221J	CHIP R 220 J 1/10W		
R20			RK73FB2A104J	CHIP R 100K J 1/10W		
R21			RK73FB2A221J	CHIP R 220 J 1/10W	67	
R22			RK73FB2A102J	CHIP R 1.0K J 1/10W	67	

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Ref. No	Address	New Parts	Parts No.	Description	Destination	Remarks
R23			RK73FB2A221J	CHIP R 220 J 1/10W	67	
R24			RK73FB2A221J	CHIP R 220 J 1/10W		
R25-27			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R28			RK73FB2A105J	CHIP R 1.0M J 1/10W		
R29			RK73FB2A750J	CHIP R 75 J 1/10W		
R30			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R31			RK73FB2A473J	CHIP R 47K J 1/10W		
R32			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R33-36			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R37			RK73FB2A302J	CHIP R 3.0K J 1/10W		
R38			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R39			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R40			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R41			RK73FB2A473J	CHIP R 47K J 1/10W		
R42			RK73FB2A750J	CHIP R 75 J 1/10W		
R43-45			RK73FB2A221J	CHIP R 220 J 1/10W		
R46			RK73FB2A221J	CHIP R 220 J 1/10W	8	
R47, 48			RK73FB2A101J	CHIP R 100 J 1/10W	KP	
R47, 48			RK73FB2A101J	CHIP R 100 J 1/10W	YMCXI	
R50			RK73FB2A750J	CHIP R 75 J 1/10W		
R51			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R52, 53			RK73FB2A750J	CHIP R 75 J 1/10W		
R54			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R55, 56			RK73FB2A750J	CHIP R 75 J 1/10W		
△ R57, 58			RS14KB3A391J	FL-PROOF RS 390 J 1W		
△ R59, 60			RS14KB3A101J	FL-PROOF RS 100 J 1W	8	
△ R61			RS14KB3A390J	FL-PROOF RS 39 J 1W		
△ R62			RS14KB3A271J	FL-PROOF RS 270 J 1W		
△ R64			RD14NB2E1R0J	RD 1 J 1/4W		
△ R66			RD14NB2E2R2J	RD 2.2 J 1/4W		
△ R67			RD14NB2E1R0J	RD 1 J 1/4W		
△ R68			RD14NB2E2R2J	RD 2.2 J 1/4W		
R69			RK73FB2A203J	CHIP R 20K J 1/10W		
R70			RK73FB2A101J	CHIP R 100 J 1/10W		
R71			RK73FB2A473J	CHIP R 47K J 1/10W		
R72			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R101-104			RK73FB2A203J	CHIP R 20K J 1/10W		
R105, 106			RK73FB2A101J	CHIP R 100 J 1/10W		
R107, 108			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R111, 112			RK73FB2A362J	CHIP R 3.6K J 1/10W		
R113, 114			RK73FB2A104J	CHIP R 100K J 1/10W		
R115-118			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R119, 120			RK73FB2A113J	CHIP R 11K J 1/10W		
R121, 122			RK73FB2A512J	CHIP R 5.1K J 1/10W		
R123, 124			RK73FB2A221J	CHIP R 220 J 1/10W		
R131, 132			RK73FB2A132J	CHIP R 1.3K J 1/10W		
R133, 134			RK73FB2A104J	CHIP R 100K J 1/10W		
R135, 136			RK73FB2A122J	CHIP R 1.2K J 1/10W		
R137, 138			RK73FB2A821J	CHIP R 820 J 1/10W		
R139, 140			RK73FB2A113J	CHIP R 11K J 1/10W		
R141, 142			RK73FB2A203J	CHIP R 20K J 1/10W		
R143, 144			RK73FB2A101J	CHIP R 100 J 1/10W		
R151			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R152			RK73FB2A132J	CHIP R 1.3K J 1/10W		
R153, 154			RK73FB2A104J	CHIP R 100K J 1/10W		

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
R155			RK73FB2A472J	CHIP R 4.7K	J	1/10W
R156			RK73FB2A122J	CHIP R 1.2K	J	1/10W
R157			RK73FB2A472J	CHIP R 4.7K	J	1/10W
R158			RK73FB2A821J	CHIP R 820	J	1/10W
R159			RK73FB2A432J	CHIP R 4.3K	J	1/10W
R160			RK73FB2A113J	CHIP R 11K	J	1/10W
R161			RK73FB2A183J	CHIP R 18K	J	1/10W
R162			RK73FB2A203J	CHIP R 20K	J	1/10W
R163, 164			RK73FB2A101J	CHIP R 100	J	1/10W
R165			RK73FB2A332J	CHIP R 3.3K	J	1/10W
R166			RK73FB2A122J	CHIP R 1.2K	J	1/10W
R167-172			RK73FB2A103J	CHIP R 10K	J	1/10W
R173, 174			RK73FB2A133J	CHIP R 13K	J	1/10W
R175, 176			RK73FB2A113J	CHIP R 11K	J	1/10W
R177, 178			RK73FB2A101J	CHIP R 100	J	1/10W
R179, 180			RK73FB2A224J	CHIP R 220K	J	1/10W
R181			RK73FB2A751J	CHIP R 750	J	1/10W
R182			RK73FB2A272J	CHIP R 2.7K	J	1/10W
R183, 184			RK73FB2A102J	CHIP R 1.0K	J	1/10W
R186			RK73FB2A100J	CHIP R 10	J	1/10W
R189-191			RK73FB2A102J	CHIP R 1.0K	J	1/10W
R193-198			RK73FB2A101J	CHIP R 100	J	1/10W
R199			RS14KB3A221J	FL-PROOF RS 220	J	1W
R200			RS14KB3A271J	FL-PROOF RS 270	J	1W
R201			RK73FB2A100J	CHIP R 10	J	1/10W
R203, 204			RK73FB2A100J	CHIP R 10	J	1/10W
R207, 208			RK73FB2A100J	CHIP R 10	J	1/10W
R251, 252			RK73FB2A750J	CHIP R 75	J	1/10W
R253, 254			RK73FB2A332J	CHIP R 3.3K	J	1/10W
R255-258			RK73FB2A750J	CHIP R 75	J	1/10W
R259, 260			RK73FB2A332J	CHIP R 3.3K	J	1/10W
R261-264			RK73FB2A750J	CHIP R 75	J	1/10W
S1	1C		S62-0034-05	SLIDE SWITCH		
D1, 2			DA204U	DIODE		
D1, 2			1SS302	DIODE		
D3, 4			UD25.1B	ZENER DIODE		
D5		*	S1ZB20(4072)	DIODE		
D6-8			UD26.2B	ZENER DIODE		
D9, 10			UD26.8B	ZENER DIODE		
D11, 12			UDZ13B	ZENER DIODE		
IC1		*	YSS902	MOS-IC		YMCXIV
IC1		*	YSS912	MOS-IC		67
IC2		*	CS4226KQG	MOS-IC		8
IC3			TC74HCU04AF	IC(HEX INVERTER SMD)		
IC4			NJM2279M	ANALOGUE IC		
IC5			TC9162AF	MOS-IC		
IC6-10			NJM4565M	ANALOGUE IC		
IC11			M62446FP	ANALOGUE IC		
IC12			TA7805S	ANALOGUE IC		
IC13			TA7805SB	ANALOGUE IC		
IC14			L88M33T	ANALOGUE IC		
IC15			TC7W241FU	MOS-IC		67
IC16, 17			NJM2279M	ANALOGUE IC		8

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IC18			L78M05T	MOS-IC (5.0V 0.5A REG)		8
IC19		*	L79M05T	MOS-IC		8
Q1			2SC4081(R,S)	TRANSISTOR		
Q1			2SD1819A(Q,R)	TRANSISTOR		
Q2			2SA1576A(R,S)	TRANSISTOR		
Q2			2SB1218A(Q,R)	TRANSISTOR		
A1	1C		W02-1181-05	OPTIC RECEIVING MODULE		
<b>AUDIO (X09-6160/X09-6342)</b>						
D500-502		*	B30-2545-05	LED(RED3(160))		
D527		*	B30-2545-05	LED(RED3(160))		
C1, 2			CK45FF1H103Z	CERAMIC 0.010UF Z		KPC
C3			C91-1480-05	MP 0.22UF 250WV		YMXI
C5, 6		*	C90-3832-05	ELECTRO 4700UF 75WV		
C7, 8		*	C90-3834-05	ELECTRO 3300UF 42WV		
C9		*	CE04KW1V222M	ELECTRO 2200UF 35WV		
C10			CE04KW1V471M	ELECTRO 470UF 35WV		
C11-14			CK73FF1C224Z	CHIP C 0.22UF Z		
C15, 16			CE04KW1E101M	ELECTRO 100UF 25WV		
C18			CE04KW1J220M	ELECTRO 22UF 63WV		
C19			CE04KW1V470M	ELECTRO 47UF 35WV		
C21, 22			CE04KW1H470M	ELECTRO 47UF 50WV		
C23-26			CE04KW2A100M	ELECTRO 10UF 100WV		
C29, 30			CE04KW1H470M	ELECTRO 47UF 50WV		
C31, 32			CE04KW2A100M	ELECTRO 10UF 100WV		
C33, 34			CK45FB2H392K	CERAMIC 3900PF K		
C35			CE04KW0J221M	ELECTRO 220UF 6.3WV		
C36			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C37			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C38			CE04HW1E100M	NP-ELEC 10UF 25WV		
C39, 40			CK45FB2H392K	CERAMIC 3900PF K		
C41			CE04KW1A101M	ELECTRO 100UF 10WV		
C42			CE04KW1C330M	ELECTRO 33UF 16WV		
C43			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C101, 102			CC73FSL1H390J	CHIP C 39PF J		
C103, 104			CE04KW1H100M	ELECTRO 10UF 50WV		
C105, 106			CC73FSL1H221J	CHIP C 220PF J		
C107, 108			CE04KW1A470M	ELECTRO 47UF 10WV		
C109, 110			CC45FSL1H101J	CERAMIC 100PF J		
C111, 112			CQ93FMG1H123J	MYLAR 0.012UF J		
C113, 114			CK45FB1H332K	CERAMIC 3300PF K		
C115, 116			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C117			CC45FSL1H101J	CERAMIC 100PF J		
C118			CK45FF1H103Z	CERAMIC 0.010UF Z		
C119, 120			CC73FSL1H221J	CHIP C 220PF J		
C121, 122			CC73FSL1H151J	CHIP C 150PF J		
C123, 124			CC73FSL1H221J	CHIP C 220PF J		
C127, 128			CC73FSL1H221J	CHIP C 220PF J		
C131, 132			CC73FSL1H221J	CHIP C 220PF J		
C135, 136			CC73FSL1H221J	CHIP C 220PF J		
C139, 140			CC73FSL1H221J	CHIP C 220PF J		
C143, 144			CC73FSL1H221J	CHIP C 220PF J		
C147, 148			CC73FSL1H221J	CHIP C 220PF J		
C151, 152			CC73FSL1H221J	CHIP C 220PF J		

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C155, 156			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C157~162			CC73FSL1H101J	CHIP C 100PF J		
C163, 164			CE04KW1C220M	ELECTRO 22UF 16WV		
C165			CC45FSL1H101J	CERAMIC 100PF J		
C166~168			CK45FF1H103Z	CERAMIC 0.010UF Z		
C169, 170			CC73FSL1H221J	CHIP C 220PF J		
C171, 172			CK45FF1H103Z	CERAMIC 0.010UF Z		
C173, 174			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C175~180			CC73FSL1H101J	CHIP C 100PF J		
C181, 182			CE04KW1C220M	ELECTRO 22UF 16WV		
C201, 202			CE04KW1H100M	ELECTRO 10UF 50WV		
C229, 230			CC73FSL1H471J	CHIP C 470PF J		
C233, 234			CC73FSL1H101J	CHIP C 100PF J		
C237			CC45FSL1H101J	CERAMIC 100PF J		
C238			CK45FF1H103Z	CERAMIC 0.010UF Z		
C241, 242			CC73FSL1H471J	CHIP C 470PF J		
C245~252			CC73FSL1H101J	CHIP C 100PF J		
C253, 254			CC73FSL1H471J	CHIP C 470PF J		
C257, 258			CC73FSL1H101J	CHIP C 100PF J		
C263, 264			CC73FSL1H101J	CHIP C 100PF J		
C265, 266			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C267, 268			CE04KW1A101M	ELECTRO 100UF 10WV		
C269, 270			CC73FSL1H101J	CHIP C 100PF J		
C271, 272			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C273, 274			CE04KW1A101M	ELECTRO 100UF 10WV		
C277			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C278			CK73FF1C224Z	CHIP C 0.22UF Z		
C279			CE04KW1A101M	ELECTRO 100UF 10WV		
C280			CK73FF1C224Z	CHIP C 0.22UF Z		
C281~285			CC45FCH1H220J	CERAMIC 22PF J		
C286			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C287, 288			CK73FB1H102K	CHIP C 1000PF K		
C289~292			CK73FF1C224Z	CHIP C 0.22UF Z		
C293, 294			CK73FB1H102K	CHIP C 1000PF K		
C295~298			CK73FF1C224Z	CHIP C 0.22UF Z		
C299			CK73FB1H102K	CHIP C 1000PF K		
C301~305			CC73FSL1H100D	CHIP C 10PF D		
C306			CC73FSL1H101J	CHIP C 100PF J		
C307, 308			CC45FSL1H101J	CERAMIC 100PF J		
C309~311			CK45FF1H472Z	CERAMIC 4700PF Z		
C313~316			CK45FF1H472Z	CERAMIC 4700PF Z		
C321~328			CE04KW1H100M	ELECTRO 10UF 50WV		
C329~333			CE04KW1C220M	ELECTRO 22UF 16WV		
C334			CE04KW1C470M	ELECTRO 47UF 16WV		
C335			CE04KW1H101M	ELECTRO 100UF 50WV	YMXI	
C501			CK45FF1H103Z	CERAMIC 0.010UF Z		
C502			CQ93FMG1H104J	MYLAR 0.10UF J		
C503			CK45FF1H103Z	CERAMIC 0.010UF Z		
C504			CK73FB1H103K	CHIP C 0.010UF K		
C505			CK45FF1H103Z	CERAMIC 0.010UF Z		
C506			CK45FB1H102K	CERAMIC 1000PF K		
C507			CK45FF1H103Z	CERAMIC 0.010UF Z		
C508			CE04DWOJ102M	ELECTRO 1000UF 6.3WV		
C509			CE04KW1A101M	ELECTRO 100UF 10WV		
C511			CK45FF1H103Z	CERAMIC 0.010UF Z		

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C512~514			CK73FB1H103K	CHIP C 0.010UF K		
C517			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C518			CK45FF1H103Z	CERAMIC 0.010UF Z		
C519, 520			CK73FB1H103K	CHIP C 0.010UF K		
C521			CK45FF1H103Z	CERAMIC 0.010UF Z		
C525			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C526			C90-3214-05	ELECTRO 100UF 6.3WV		
C529, 530			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C531			CK73FB1H103K	CHIP C 0.010UF K		
C532			CK73FB1H102K	CHIP C 1000PF K		
C534			C90-1827-05	ELECTRO 0.047F 5.5WV	YMCXIV	
C535			CE04KW0J471M	ELECTRO 470UF 6.3WV	KP	
CN1			E40-4299-05	PIN ASSY		
CN1	*		E40-8364-05	PIN ASSY		
CN8			E40-8251-05	FLAT CABLE CONNECTOR		
CN9			E40-9848-05	PIN ASSY		
CN11			E40-8253-05	FLAT CABLE CONNECTOR		
CN12			E40-8196-05	PIN ASSY		
CN13			E40-4248-05	PIN ASSY		
CN13	*		E40-8358-05	PIN ASSY		
CN51			E40-8252-05	FLAT CABLE CONNECTOR		
CN52	*		E40-8405-05	FLAT CABLE CONNECTOR		
CN53			E40-8250-05	FLAT CABLE CONNECTOR		
J1	2C		E63-0046-15	PHONO JACK	KP	
J1	2C		E63-0046-15	PHONO JACK	YMCXI	
J1	2C		E63-0172-05	PHONO JACK	V	
J2, 3	2C		E63-0047-15	PHONO JACK	KP	
J2, 3	2C		E63-0047-15	PHONO JACK	YMCXI	
J2, 3	2C		E63-0173-05	PHONO JACK	V	
J4	2C		E63-0116-05	PHONO JACK	KP	
J4	2C		E63-0116-05	PHONO JACK	YMCXI	
J4	2C		E63-0164-05	PHONO JACK	KP	
J4	2C		E63-0164-05	PHONO JACK	YMCXI	
J4	2C		E63-1016-05	PHONO JACK	V	
J5	2C		E70-0089-05	SCREW TERMINAL BOARD	V	
J5	2C		E70-0100-05	SCREW TERMINAL BOARD	KP	
J5	2C		E70-0100-05	SCREW TERMINAL BOARD	YMCXI	
J6	2C		E70-0047-05	LOCK TERMINAL BOARD	KP	
J6	2C		E70-0047-05	LOCK TERMINAL BOARD	YMCXI	
J6	2C		E70-0068-05	LOCK TERMINAL BOARD	V	
J7	2C		E63-0046-15	PHONO JACK	KP	
J7	2C		E63-0046-15	PHONO JACK	YMCXI	
J7	2C		E63-0172-05	PHONO JACK	V	
W401~405			E29-1634-14	LEAD PLATE	KP	
W401~405			E29-1634-14	LEAD PLATE	YMCXI	
-			J19-5928-03	HOLDER		
L1~5			L39-1373-05	PHASE COMPENSATION COIL		
X501			L78-0290-05	RESONATOR (8MHZ)		
R1, 2			RK73FB2A513J	CHIP R 51K J 1/10W		
R3, 4			RK73FB2A273J	CHIP R 27K J 1/10W		
R5			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R6			RK73FB2A333J	CHIP R 33K J 1/10W		
R8			RK73FB2A152J	CHIP R 1.5K J 1/10W	YMXI	

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## PARTS LIST

KRF-V7020DN/8020DN/R-307/309/357

\* New Parts

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
R9, 10			RS14KB3D391J	FL-PROOF RS 390	J 2W	
R11, 12			RK73FB2A472J	CHIP R 4.7K	J 1/10W	
R14			RD14NB2E1R0J	RD 1	J 1/4W	
R16, 17			RK73FB2A273J	CHIP R 27K	J 1/10W	
R18			RD14NB2E4R7J	RD 4.7	J 1/4W	
R19			RK73FB2A472J	CHIP R 4.7K	J 1/10W	
R21, 22			RS14KB3A392J	FL-PROOF RS 3.9K	J 1W	
R23, 24			RD14NB2E103J	RD 10K	J 1/4W	
R25, 26			RS14KB3A392J	FL-PROOF RS 3.9K	J 1W	
R27, 28			RK73FB2A272J	CHIP R 2.7K	J 1/10W	
R30			RK73FB2A223J	CHIP R 22K	J 1/10W	
R32			RK73FB2A153J	CHIP R 15K	J 1/10W	
R34			RK73FB2A473J	CHIP R 47K	J 1/10W	
R35			RK73FB2A272J	CHIP R 2.7K	J 1/10W	
R37			RS14KB3A681J	FL-PROOF RS 680	J 1W	
R41			RK73FB2A474J	CHIP R 470K	J 1/10W	
R43, 44			RK73FB2A1R0J	CHIP R 1	J 1/10W	
R45			RD14NB2E1R0J	RD 1	J 1/4W	
R46			RD14BB2C470J	RD 47	J 1/6W	
R47			RK73FB2A103J	CHIP R 10K	J 1/10W	
R50			RK73FB2A472J	CHIP R 4.7K	J 1/10W	
R51			RK73FB2A473J	CHIP R 47K	J 1/10W	
R101, 102			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R103, 104			RK73FB2A273J	CHIP R 27K	J 1/10W	
R105, 106			RK73FB2A101J	CHIP R 100	J 1/10W	
R117, 118			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R119, 120			RK73FB2A224J	CHIP R 220K	J 1/10W	
R121, 122			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R123, 124			RK73FB2A224J	CHIP R 220K	J 1/10W	
R125, 126			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R127, 128			RK73FB2A224J	CHIP R 220K	J 1/10W	
R129, 130			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R131, 132			RK73FB2A224J	CHIP R 220K	J 1/10W	
R135, 136			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R137, 138			RK73FB2A224J	CHIP R 220K	J 1/10W	
R139, 140			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R141, 142			RK73FB2A224J	CHIP R 220K	J 1/10W	
R143, 144			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R145, 146			RK73FB2A224J	CHIP R 220K	J 1/10W	
R147, 148			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R149, 150			RK73FB2A224J	CHIP R 220K	J 1/10W	
R151, 152			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R153-156			RK73FB2A224J	CHIP R 220K	J 1/10W	
R157, 158			RK73FB2A4R7J	CHIP R 4.7	J 1/10W	
R169-172			RK73FB2A223J	CHIP R 22K	J 1/10W	
R173, 174			RK73FB2A473J	CHIP R 47K	J 1/10W	
R175, 176			RK73FB2A224J	CHIP R 220K	J 1/10W	
R177, 178			RK73FB2A4R7J	CHIP R 4.7	J 1/10W	
R201-204			RK73FB2A202J	CHIP R 2.0K	J 1/10W	
R206			RK73FB2A103J	CHIP R 10K	J 1/10W	
R226			RK73FB2A103J	CHIP R 10K	J 1/10W	
R227, 228			RK73FB2A183J	CHIP R 18K	J 1/10W	
R229, 230			RK73FB2A224J	CHIP R 220K	J 1/10W	
R231, 232			RK73FB2A183J	CHIP R 18K	J 1/10W	
R238			RK73FB2A103J	CHIP R 10K	J 1/10W	

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
R239, 240			RK73FB2A183J	CHIP R 18K	J 1/10W	
R241, 242			RK73FB2A224J	CHIP R 220K	J 1/10W	
R243, 244			RK73FB2A183J	CHIP R 18K	J 1/10W	
R250			RK73FB2A103J	CHIP R 10K	J 1/10W	
R251, 252			RK73FB2A183J	CHIP R 18K	J 1/10W	
R253			RK73FB2A224J	CHIP R 220K	J 1/10W	
R254			RK73FB2A822J	CHIP R 8.2K	J 1/10W	
R255, 256			RK73FB2A183J	CHIP R 18K	J 1/10W	
R263, 264			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R267-270			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R271			RK73FB2A473J	CHIP R 47K	J 1/10W	
R272			RK73FB2A361J	CHIP R 360	J 1/10W	
R273			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R274			RK73FB2A101J	CHIP R 100	J 1/10W	
R275, 276			RK73FB2A104J	CHIP R 100K	J 1/10W	
R277, 278			RK73FB2A563J	CHIP R 56K	J 1/10W	
R283, 284			RK73FB2A182J	CHIP R 1.8K	J 1/10W	
R285, 286			RK73FB2A563J	CHIP R 56K	J 1/10W	
R291			RK73FB2A182J	CHIP R 1.8K	J 1/10W	
R293			RK73FB2A563J	CHIP R 56K	J 1/10W	
R310			RK73FB2A333J	CHIP R 33K	J 1/10W	
R311, 312			R92-1866-05	METAL FILM 0.1	J 2W	
R313, 314			RK73FB2A303J	CHIP R 30K	J 1/10W	
R315, 316			RK73FB2A243J	CHIP R 24K	J 1/10W	
R317, 318			RK73FB2A471J	CHIP R 470	J 1/10W	
R319, 320			RK73FB2A333J	CHIP R 33K	J 1/10W	
R323, 324			RS14KB3D4R7J	FL-PROOF RS 4.7	J 2W	
R325, 326			R92-1866-05	METAL FILM 0.1	J 2W	
R327, 328			RK73FB2A303J	CHIP R 30K	J 1/10W	
R329, 330			RK73FB2A243J	CHIP R 24K	J 1/10W	
R331, 332			RK73FB2A471J	CHIP R 470	J 1/10W	
R333, 334			RK73FB2A333J	CHIP R 33K	J 1/10W	
R337, 338			RS14KB3D4R7J	FL-PROOF RS 4.7	J 2W	
R339			R92-1866-05	METAL FILM 0.1	J 2W	
R341			RS14KB3D4R7J	FL-PROOF RS 4.7	J 2W	
R347, 348			RK73FB2A102J	CHIP R 1.0K	J 1/10W	
R349			RK73FB2A223J	CHIP R 22K	J 1/10W	
R350			RK73FB2A103J	CHIP R 10K	J 1/10W	
R351, 352			RD14NB2E4R7J	RD 4.7	J 1/4W	
R353			RK73FB2A103J	CHIP R 10K	J 1/10W	
R354			RK73FB2A223J	CHIP R 22K	J 1/10W	
R355			RK73FB2A473J	CHIP R 47K	J 1/10W	
R356, 357			RK73FB2A104J	CHIP R 100K	J 1/10W	
R361			RK73FB2A303J	CHIP R 30K	J 1/10W	
R363			RK73FB2A243J	CHIP R 24K	J 1/10W	
R365			RK73FB2A471J	CHIP R 470	J 1/10W	
R367-371			RK73FB2A182J	CHIP R 1.8K	J 1/10W	
R372			RK73FB2A621J	CHIP R 620	J 1/10W	
R384			RK73FB2A103J	CHIP R 10K	J 1/10W	YMXI
R385			RK73FB2A513J	CHIP R 51K	J 1/10W	YMXI
R386			RK73FB2A103J	CHIP R 10K	J 1/10W	YMXI
R387			RK73FB2A472J	CHIP R 4.7K	J 1/10W	YMXI
R521			RK73FB2A103J	CHIP R 10K	J 1/10W	
R522			RD14NB2E1R0J	RD 1	J 1/4W	
R534			RK73FB2A101J	CHIP R 100	J 1/10W	

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PARTS LIST

KRF-V7020DN/8020DN/R-307/309/357

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R536			RK73FB2A471J	CHIP R 470 J 1/10W		
R539			RK73FB2A471J	CHIP R 470 J 1/10W		
R542		*	RK73EB2B511J	CHIP R 510 J 1/8W		
R549			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R562			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R578			RK73FB2A103J	CHIP R 10K J 1/10W		
R587			RK73FB2A103J	CHIP R 10K J 1/10W		
R592			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R605-607			RK73FB2A103J	CHIP R 10K J 1/10W		
W503			R92-0670-05	CHIP R 0 OHM		
K1-4			S76-0076-05	MAGNETIC RELAY		
S501-507	2A, 2B		S70-0031-05	TACT SWITCH		
S509-512	2A, 2B		S70-0031-05	TACT SWITCH		
S514-516	2A, 2B		S70-0031-05	TACT SWITCH		
S520, 521	2A		S70-0031-05	TACT SWITCH		
S517	2B		T99-0602-05	ROTARY ENCODER		
S518, 519	2B		T99-0605-05	ROTARY ENCODER		
Δ D1			D4SBL20UF03	DIODE	YMCXIV	
Δ D2			D4SBL20UF03	DIODE		
Δ D3		*	S1ZB20(4101)	DIODE	KP	
Δ D4			D4SBL20UF03	DIODE		
Δ D8, 9			HZS16N(B2)	ZENER DIODE		
D8, 9			MTZJ16(B)	ZENER DIODE		
D11-14			HZS8.2N(B2)	ZENER DIODE		
D11-14			MTZJ8.2(B)	ZENER DIODE		
D15			MA111	DIODE		
D16, 17			HSS104A	DIODE		
D16, 17			1SS133	DIODE		
D18			HZS4.7N(B2)	ZENER DIODE		
D18			MTZJ4.7(B)	ZENER DIODE		
D19			HZS3.3N(B2)	ZENER DIODE		
D19			MTZJ3.3(B)	ZENER DIODE		
D20-23			MA111	DIODE		
D26, 27			MA111	DIODE	YMXI	
D28			MA111	DIODE	YMXI	
D30			MA111	DIODE	YMXI	
D31, 32			HZS30N(B2)	ZENER DIODE		
D31, 32			MTZJ30(B)	ZENER DIODE	YMXI	
D33			MA111	DIODE	YMXI	
D503			HSS104A	DIODE	8	
D503			1SS133	DIODE	8	
D504			HSS104A	DIODE	X	
D504			1SS133	DIODE	X	
D508, 509			HSS104A	DIODE		
D508, 509			1SS133	DIODE		
D510			HSS104A	DIODE	YMCXIV	
D510			1SS133	DIODE	YMCXIV	
D511-522			HSS104A	DIODE		
D511-522			1SS133	ZENER DIODE		
D525			HZS6.2N(B2)	ZENER DIODE		
D525			MTZJ6.2(B)	ZENER DIODE		
D526			HSS104A	DIODE		
D526			1SS133	DIODE		
D529-531			HSS104A	DIODE		

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
D529-531			1SS133	DIODE		
Δ ED51		*	11-MT-120GK	INDICATOR TUBE		
Δ IC1			TA7815S	IC(VOLTAGE REGULATOR/+15V)		
Δ IC2			TA79015S	IC(VOLTAGE REGULATOR/~15V)		
Δ IC3			STK411-230D	HYBRID IC		
Δ IC3			STK411-230K	HYBRID IC		
Δ IC4			STK410-030D	HYBRID IC		
IC5			NJM4580ED	ANALOGUE IC		
IC6			TC9164AF	MOS-IC		
IC7			TC9163AF	MOS-IC		
IC8-12			NJM4565MD	IC(OP AMP X2)		
IC51		*	CXP82852-139Q	MI-COM IC		
IC53			S-80740AL-A4	IC(VOLTAGE DETECTOR)		
Q1			2SC1845(F,E)	TRANSISTOR		
Δ Q2			2SB1640	TRANSISTOR		
Q3-14			2SC2878(B)	TRANSISTOR		
Δ Q15, 16			2SA1576A(R,S)	TRANSISTOR		
Δ Q17-21			2SC1845(F,E)	TRANSISTOR		
Δ Q22			2SA1576A(R,S)	TRANSISTOR		
Q23			2SA992(F,E)	TRANSISTOR		
Q24, 25			2SC1845(F,E)	TRANSISTOR		
Δ Q26-29			DTC123JUA	DIGITAL TRANSISTOR		
Δ Q31			2SC3944A(R,S)	TRANSISTOR		
Δ Q32			2SA1123(S,T)	TRANSISTOR		
Δ Q32			2SA1285A(F)	TRANSISTOR		
Q34, 35			2SC1845(F,E)	TRANSISTOR		
Q36			2SA1535A(R,S)	TRANSISTOR		
Q37			2SC1845(F,E)	TRANSISTOR		
Q38			2SC3722K(R,S)	TRANSISTOR		
Q40			2SC4213(B)	TRANSISTOR	YMXI	
Q41			2SC4081(R,S)	TRANSISTOR	YMXI	
Q41			2SD1819A(Q,R)	TRANSISTOR	YMXI	
Q43, 44			2SC2878(B)	TRANSISTOR		
Q501			2SC4081(R,S)	TRANSISTOR		
Q501			2SD1819A(Q,R)	TRANSISTOR		
Q503			2SC4081(R,S)	TRANSISTOR		
Q503			2SD1819A(Q,R)	TRANSISTOR		
TH1			PTH9C42BD471Q	POSITIVE RESISTOR	YMXI	
A501	2B		W02-2625-05	OPTIC RECEIVING MODULE		

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HOW TO READ THE PARTS LIST

Destination column has the abbreviation for the sale country and model. Alphabets mean the country, Numerals do the model.

Example: X7 shows KRF-V7020D for Australia market. "X" does all models for Australia.  
"7" does KRF-V7020D and VR-357.

ABBREVIATION OF MODEL AND MASS PRODUCTION'S DESTINATIONS

MODEL	CNT	Australia	Canada	China	England	Europe	Germany	Korea	Malaysia
ABB.		X	P	C	T	E	G	H	I
KRF-V7020D	7	X7	-	C7	-	-	-	-	-
KRF-V8020D	8	X8	-	C8	-	-	-	-	I8
VR-307	6	-	P6	-	-	-	-	-	-
VR-357	7	-	P7	-	-	-	-	-	-
VR-309	8	-	P8	-	-	-	-	-	-
MODEL	CNT	Mexico	PX/AAFES	Russia	Scandinavia	Shanghai	USA	Other area	
ABB.		R	Y	R	L	V	K	M	
KRF-V7020D	7	-	Y7	-	-	V7	-	M7	-
KRF-V8020D	8	-	Y8	-	-	-	-	M8	-
VR-307	6	-	-	-	-	-	K6	-	-
VR-357	7	-	-	-	-	-	K7	-	-
VR-309	8	-	-	-	-	-	K8	-	-

## SPECIFICATIONS

For other countries

### AUDIO section

Effective power output during STEREO operation  
**KRF-V8020D**  
 1kHz,10% T.H.D.,at 8 Ω ..... 140 W + 140 W  
 Rated power output during STEREO operation

100 watts per channel minimum RMS, both channels driven, at 8 Ω from 40 Hz to 20 kHz with no more than 0.7% total harmonic distortion.(FTC)

Effective power output during SURROUND operation  
**FRONT** (1kHz, 10% T.H.D. at 8 Ω one channel driven)  
 ..... 100 W + 100 W  
**CENTER** (1kHz, 10% T.H.D. at 8 Ω one channel driven)  
 ..... 100 W  
**SURROUND** (1kHz, 10% T.H.D. at 8 Ω one channel driven)  
 ..... 100 W + 100 W  
 Total harmonic distortion ..... 0.03% (1 kHz, 50W, 8 Ω)  
 Frequency response  
**CD** ..... 10 Hz ~ 85kHz, +0 dB, -3.0 dB  
 Signal to noise ratio (IHF'66)  
**PHONO (MM)** ..... 75 dB  
**CD** ..... 93 dB  
 Input sensitivity / impedance  
**PHONO (MM)** ..... 2.5 mV / 27 kΩ  
**CD** ..... 200 mV / 47 kΩ  
 Output level / impedance  
**TAPE REC** ..... 200 mV / 2.2 kΩ  
**PRE OUT (SUBWOOFER)** ..... 2 V / 2.2 kΩ  
 Tone control  
**BASS** ..... ±10 dB (at 100 Hz)  
**TREBLE** ..... ±10 dB (at 10 kHz)

### DIGITAL AUDIO section

Sampling frequency ..... 32 kHz, 44.1 kHz, 48 kHz  
 Input level / impedance / wave length  
**Optical** ..... -15 dBm ~ -21 dBm, 600 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 ~ 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

### GENERAL

Power consumption  
 For U.S. military, Australia, Malaysia ..... 240 W  
 For other countries ..... 230 W  
 AC outlet  
**SWITCHED** ..... 2 (total 150 W max.)  
 Dimensions ..... W : 440 mm  
 H : 144 mm  
 D : 400 mm  
 Weight (Net) ..... 8.6 kg

### Notes

- 1.KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
- 2.The full performance may not be exhibited in an extremely cold location (under a water-freezing temperature).

# KRF-V7020D/V8020D/VR-307/309/357

## SPECIFICATIONS

For U.S.A and Canada

### AUDIO section

Rated power output during STEREO operation

100 watts per channel minimum RMS, both channels driven, at 8  $\Omega$  from 40 Hz to 20 kHz with no more than 0.7% total harmonic distortion.(FTC)

Effective power output during SURROUND operation  
FRONT (1kHz, 0.7% T.H.D. at 8  $\Omega$  one channel driven) ..... 100 W + 100 W  
CENTER (1kHz, 0.7% T.H.D. at 8  $\Omega$  one channel driven) ..... 100 W  
SURROUND (1kHz, 0.7% T.H.D. at 8  $\Omega$  one channel driven) ..... 100 W + 100 W

Total harmonic distortion ..... 0.03% (1 kHz, 50W, 8  $\Omega$ )  
Frequency response  
CD ..... 10 Hz ~ 85kHz, +0 dB, -3.0 dB  
Signal to noise ratio (IHF'66)  
PHONO (MM) ..... 75 dB  
CD ..... 93 dB  
Input sensitivity / impedance  
PHONO (MM) ..... 2.5 mV / 27 k $\Omega$   
CD ..... 200 mV / 47 k $\Omega$   
Output level / impedance  
TAPE REC ..... 200 mV / 2.2 k $\Omega$   
PRE OUT (SUBWOOFER) ..... 2 V / 2.2 k $\Omega$   
Tone control  
BASS .....  $\pm 10$  dB (at 100 Hz)  
TREBLE .....  $\pm 10$  dB (at 10 kHz)

### DIGITAL AUDIO section

Sampling frequency ..... 32 kHz, 44.1 kHz, 48 kHz  
Input level / impedance / wave length  
Optical ..... -15 dBm ~ -21 dBm, 600 nm  $\pm 30$ nm  
Coaxial ..... 0.5 Vp-p / 75  $\Omega$

### VIDEO section

#### VIDEO inputs/outputs

VIDEO (composite) ..... 1 Vp-p / 75  $\Omega$   
SVIDEO (luminance signal) ..... 1 Vp-p / 75  $\Omega$   
(chrominance signal) ..... 0.286 Vp-p / 75  $\Omega$

#### Notes

1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
2. The full performance may not be exhibited in an extremely cold location (under a water-freezing temperature).

#### Note:

Component and circuit are subject to modification to insure best operation under differing local conditions. This manual is based on General market(M) 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. Moema, 170-17, Andar-Cobertura "B", Ed. Maximum Service Center, 04077-020 Moema, São Paulo-SP-Brasil

### KENWOOD ELECTRONICS U.K. LIMITED

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

### KENWOOD ELECTRONICS BELGIUM 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

### FM tuner section

Tuning frequency range ..... 87.5 MHz ~ 108 MHz  
Usable sensitivity (MONO)  
..... 1.6  $\mu$ V (75  $\Omega$ ) / 15.2 dBf (75 kHz DEV., SINAD 30 dB)  
50dB quieting sensitivity  
STEREO ..... 31.6  $\mu$ V (75  $\Omega$ ) / 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 ( $\pm 400$  kHz) ..... 50 dB  
Frequency response ..... 30 Hz ~ 15kHz, +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  $\mu$ V / (600  $\mu$ V/m)  
Signal to noise ratio (30% mod. 1 mV input) ..... 50 dB

### GENERAL

Power consumption ..... 2.6 A  
AC outlet  
SWITCHED ..... 2 (total 150 W, 1.25 A max.)  
Dimensions ..... W : 440 mm (17-5/16")  
H : 144 mm (5-11/16")  
D : 400 mm (15-3/4")  
Weight (Net) ..... 8.6 kg (19.0 lb)

### 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.

2019 New Pechburi Road, Bangkok, Huaykwang, Bangkok, 10320 Thailand