

AUDIO VIDEO SURROUND RECEIVER

KR-V8090/KR-V9090 1060VR/1070VR SERVICE MANUAL

KENWOOD

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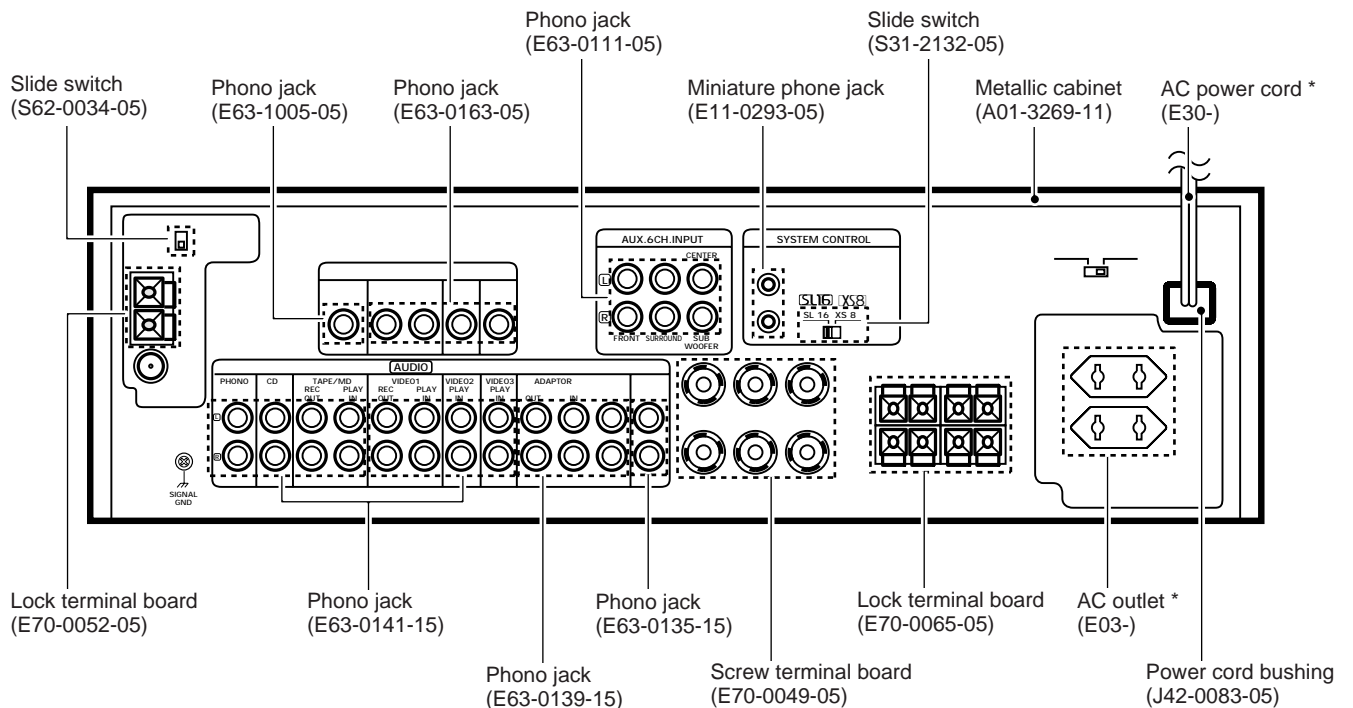
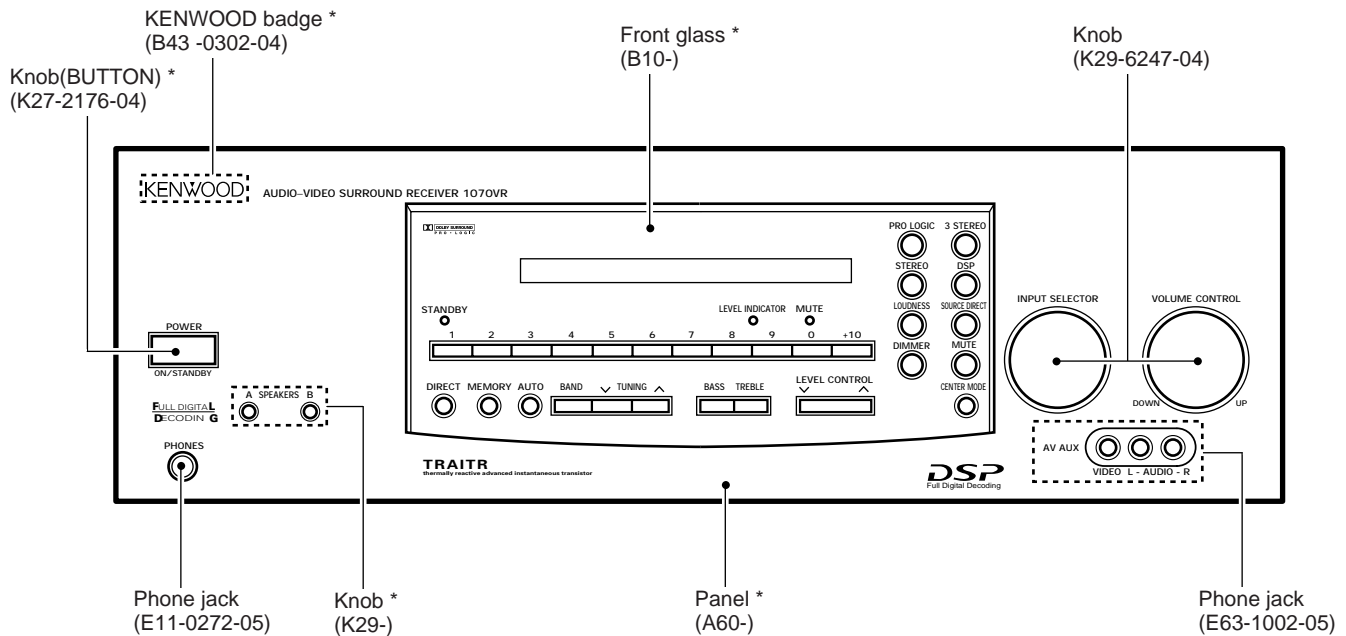


Illustration is 1070VR.


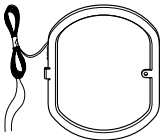
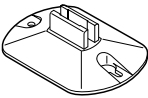
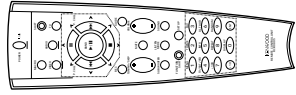
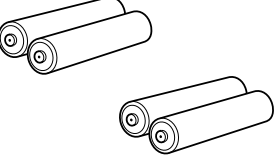
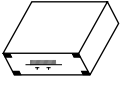
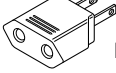
* Refer to parts list on page 36.

CONTENTS / ACCESSORIES

Contents

CONTENTS / ACCESSORIES	2	WIRING DIAGRAM	17
CONTROLS	3	PC BOARD	18
DISASSEMBLY FOR REPAIR	5	SCHEMATIC DIAGRAM	27
BLOCK DIAGRAM	6	EXPLODED VIEW	45
CIRCUIT DESCRIPTION	7	PARTS LIST	46
ADJUSTMENT	16	SPECIFICATIONS	59

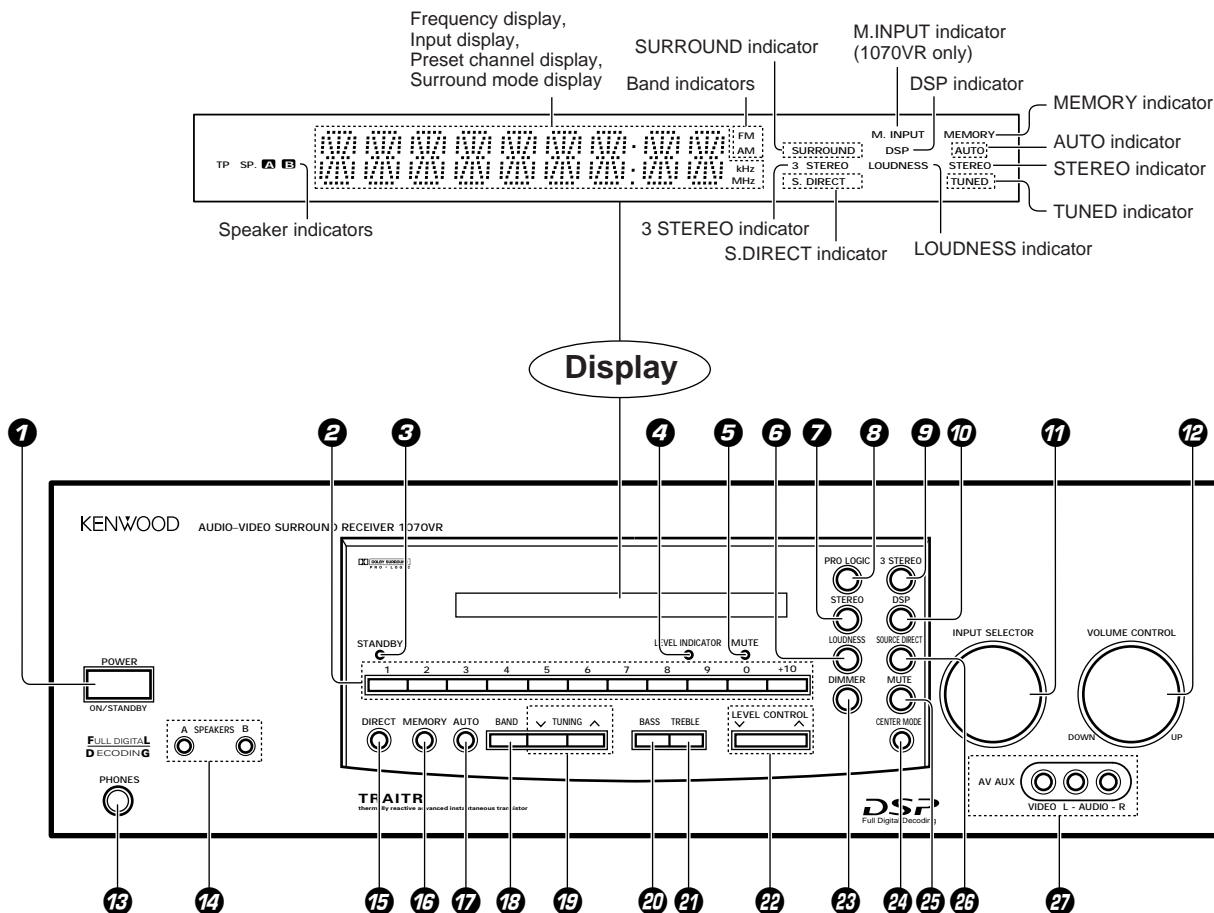
Accessories

<p>FM indoor antenna(1) (T90-0810-05)</p> 	<p>AM loop antenna(1) (T90-0820-05)</p> 	<p>Loop antenna stand (1) (J19-3645-05)</p> 	<p>Remote control unit(1) (A70-1118-05): RC-R0805</p> 
<p>Batteries (R03/AA)..... (4)</p> 	<p>RF DEMODULATOR.....(1) (DEM-999D)</p>  <p>M,C,T type only</p>	<p>Battery cover(A09-0366-08)</p>	<p>AC adapter(1) (E03-0115-05)</p>  <p>M type only</p>

An use model discrepancy table in of remote controller

Remote controller		Model name	Destination	Battery cover
Parts number	Type name			
A70-1115-05	RC-R0805	1070VR	All destinations	A09-0366-08
		KR-V9090		
A70-1117-05	RC-R0605	1060VR	All destinations	
		KR-V8090		
A70-1118-05	RC-R0606	KR-V8090	T,E,Q	

CONTROLS

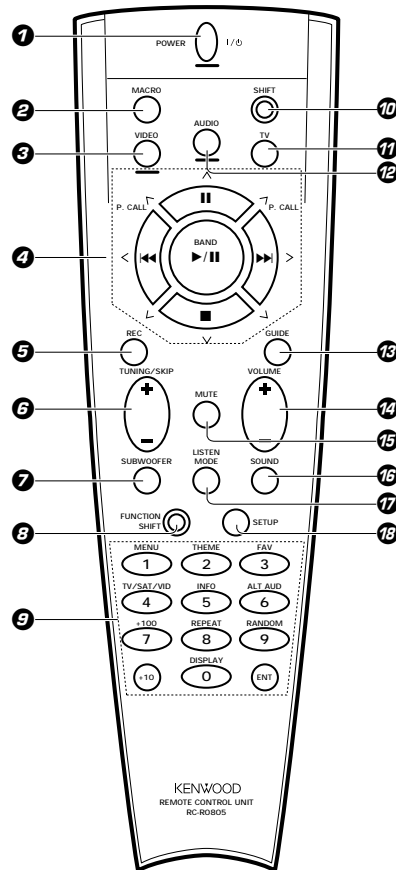


- 1 POWER key**
Use to switch the power ON/STANDBY.
- 2 Numeric keys**
- 3 STANDBY indicator**
- 4 LEVEL indicator**
Lights when the level of the signal being input is too high.
- 5 MUTE indicator**
- 6 LOUDNESS key**
Use to activate the frequency weighting network.
- 7 STEREO key**
Use to cancel the surround mode.
- 8 PRO LOGIC key**
Use to turn on the DOLBY PRO LOGIC mode.
- 9 DOLBY 3 STEREO key**
Use to turn on the DOLBY 3 STEREO mode.
- 10 DSP key**
Use to turn on, or switch, the DSP mode.
- 11 INPUT SELECTOR knob**
Use to select the input sources.
- 12 VOLUME CONTROL knob**
- 13 PHONES jack**
Use for headphone listening.
- 14 SPEAKERS A/B keys**
Use to turn the speakers ON/OFF.
- 15 DIRECT key**
Use to tune radio stations directly by numerical input.
- 16 MEMORY key**
Use to store radio stations in the preset memory.
- 17 AUTO key**
Use to select the auto tuning mode.
- 18 BAND key**
Use to select the broadcast band.
- 19 TUNING keys**
Use to tune in radio broadcasts.
- 20 BASS key**
Use when adjusting the bass tone.
- 21 TREBLE key**
Use when adjusting the treble tone.
- 22 LEVEL CONTROL keys**
Use to adjust the level of the selected tone.
- 23 DIMMER key**
Use to adjust the brightness of the display.
- 24 CENTER MODE key**
Use to select the center mode.
- 25 MUTE key**
Use to mute the sound.
- 26 SOURCE DIRECT key**
- 27 AV AUX jacks**

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.

CONTROLS



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 (VIDEO 1, VIDEO 2, VIDEO 3, AV AUX) and sets the remote 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 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.

11 TV selector key

Sets the remote to operate a TV or cable box (TV 1, TV 2, CABLE). This key does not change the input selector on the receiver.

12 AUDIO selector key

Selects the audio inputs (CD, TAPE/MD, TUNER, PHONO) and sets the remote to operate the respective KENWOOD audio component.

If you connect audio components from KENWOOD and other makers to the TAPE/MD or CD jacks, you can set the remote 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 bass, treble, and input level.

17 LISTEN MODE key

Use to select the desired surround mode.

18 SETUP key

Use to adjust the surround setup.

DISASSEMBLY FOR REPAIR

The method that exchanges a power transistor.

1. Remove 10 screws (1 and 2) of rear panels.
2. Remove flat cable from connector (CN851 and CN852) of printed circuit board X08 (A/3) . And, remove one screw (3). After this, move printed circuit board X08 (A/3) toward the right.
3. Remove one screws (4) of printed circuit board X08 (B/3). After this, move printed circuit board X08 (B/3) toward the right.
4. 1) Cut certain 4 convenes with nippers etc. on the left side of the power supply transformer.
 2) Remove one screws (5) of printed circuit board X14 (C/5). And, remove a headphone unit.
 3) Remove 4 screws (7) of printed circuit board X09.
 - Make printed circuit board X08 (A/3 and B/3) in original condition, after screw (4) is removed. And, remove screw (1 and 3) and FFC.
5. Remove 2 screws (8) of both sides of a panel.

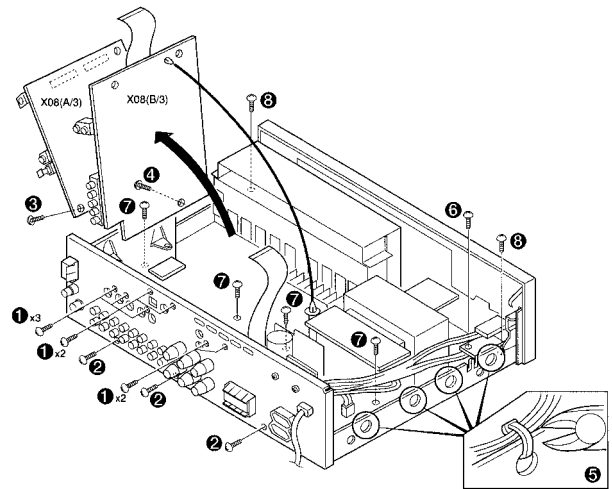


FIG. 1

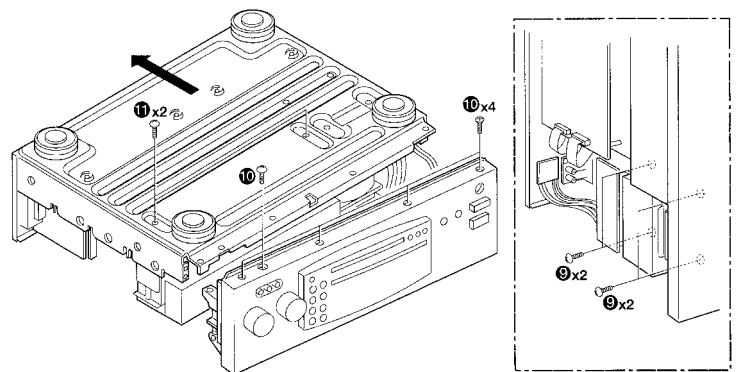


FIG. 2

6. Set up a receiver, so that the left side of a receiver becomes downward. And, remove 4 screws (9). Turn over a receiver like a figure after this.
7. Remove 5 screws (10) on the side of under of a panel. Next, remove 2 screws of radiators on the side of a base. And, remove a base plate to the back side (arrow direction).
8. Remove the solder of a power transistor from FOIL side of printed circuit board X09. And, exchange a power transistor.

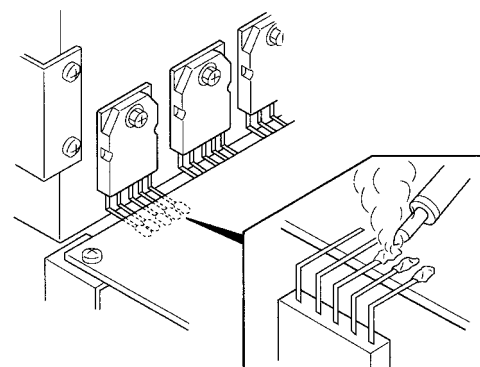
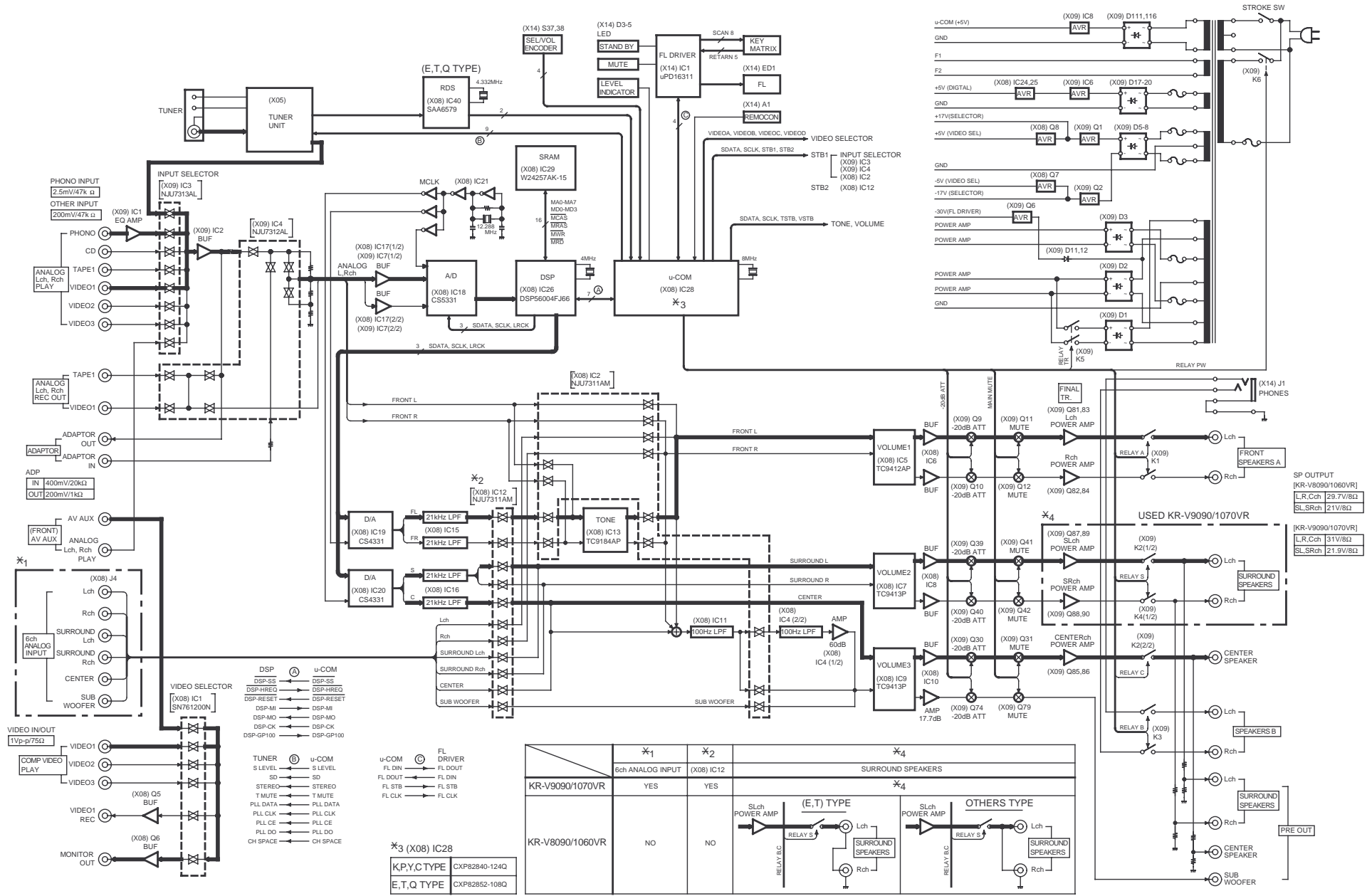


FIG. 3

BLOCK DIAGRAM

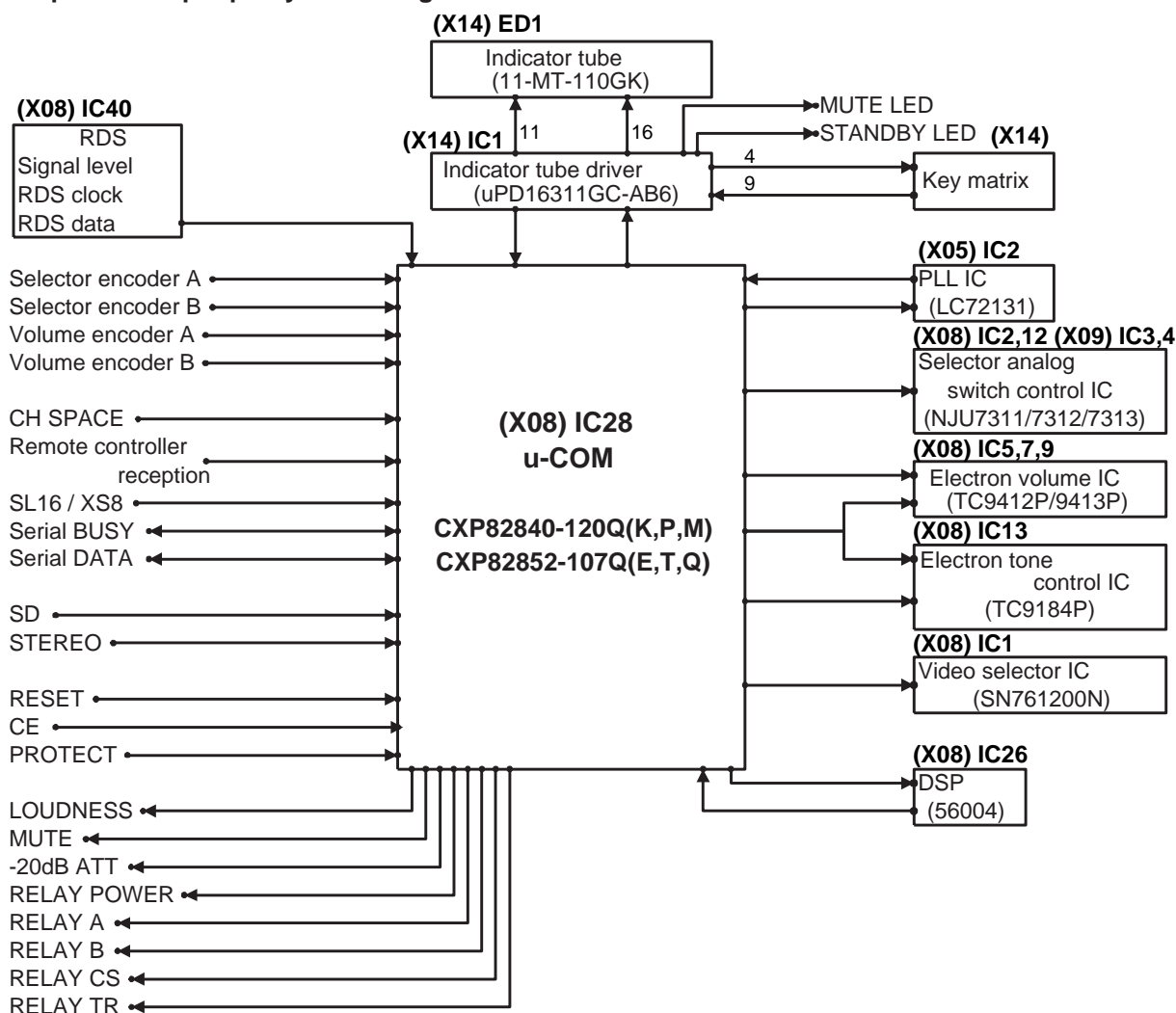


KR-V9090/1070VR
KR-V8090/1060VR

CIRCUIT DESCRIPTION

1. Microprocessor CXP82840-120Q/CXP82852-107Q(X08-, IC28)

1-1 Microprocessor periphery block diagram



1-2 Terminal explanation

No.	Name	I / O	Description
1	NC	O	
2	NC	O	
3	NC	-	Connects to VDD
4	RDS CLK	I	RDS clock signal input
5	RDS DATA	I	RDS data signal input
6	VOL ENC A	I	Volume encoder A input
7	VOL ENC B	I	Volume encoder B input
8	REMOCON	I	Remote controller data input
9	CH SPACE	I	Tuner description switching input
10	NC	-	
11	NC	-	
12	SEL ENC A	I	Selector encoder A input
13	SEL ENC B	I	Selector encoder B input
14	PLL DO	I	PLL IF counting value input
15	PLL CE	O	LC72131 (PLL) strobe signal output
16	PLL CLK	O	LC72131 (PLL) clock signal output
17	PLL DATA	O	LC72131 (PLL) data signal output

1060VR/1070VR/KR-V8090/KR-V9090

CIRCUIT DESCRIPTION

No.	Name	I / O	Description
18	T MUTE	O	Tuner mute signal output
19	STEREO	O	Tuner stereo signal input
20	SD	I	Tuner sd signal input
21	FL STB	O	uPD16311 (FL driver) strobe signal output
22	FL CLK	O	uPD16311 (FL driver) clock signal output
23	FL DOUT	I	uPD16311 (FL driver) data signal input
24	FL DIN	O	uPD16311 (FL driver) data signal output
25	DSP CLK	-	56004 (DSP) clock signal output
26	DSP MIS0	I	56004 (DSP) data signal input
27	DSP MIS1	O	56004 (DSP) data signal output
28	-	-	A / D standard voltage (+5V)
29	S. LEVEL	I	RDS signal level input
30	DSP SS	O	56004 (DSP) interface signal output
31	DSP HREQ	I	56004 (DSP) host request signal input
32	SL16 / X58	I	Serial SL16 / XS8 switching input
33	S BUSY	I/O	Serial busy signal input - output
34	S DATA	I/O	Serial data signal input - output
35	PROTECT	I	Protection signal input
36	CE	I	Microprocessor AC off signal input
37	-	-	Connects to VSS
38	RESET	I	Reset signal input
39	EXTAL	-	8MHz oscillation elements (input)
40	XTAL	-	8MHz oscillation elements (output)
41	VSS	-	Microprocessor power supply (GND)
42	TX	-	-
43	TEX	-	Connects to VSS
44	VDD	-	Microprocessor power supply (+5V)
45	VFDP	-	Connects to VSS
46	DSP RESET	O	56004 (DSP) reset signal output
47	VIDEO D	O	SN761200n (video sel) control signal D output
48	VIDEO C	O	SN761200n (video sel) control signal C output
49	VIDEO B	O	SN761200n (video sel) control signal B output
50	VIDEO A	O	SN761200n (video sel) control signal A output
51	LOUDNESS	O	Loudness control signal output
52	-20dB ATT	O	Volume -20dB ATT control signal output
53	TON STB	O	TC9184P (Tone) strobe signal output
54	VOL STB	O	TC9184P (Volume) strobe signal output
55	VOL/TON CLK	O	TC9412P/9184P (Volume/Tone) clock signal output
56	VOL/TON DAT	O	TC9412P/9184P (Volume/Tone) data signal output
57	SEL STB2	O	NJU7311 (for Sel AC-3) strobe signal output
58	SEL STB1	O	NJU7313/7312/7311 (Sel) strobe signal output
59	SEL CLK	O	NJU7313/7312/7311 (Sel) clock signal output
60	SEL DATA	O	NJU7313/7312/7311 (Sel) data signal output
61	MUTE	O	Audio mute signal output
62	RELAY POWER	O	Power relay ON/OFF output
63	RELAY TR	O	2nd side voltage relay ON/OFF output
64	RELAY CS	O	Speaker C/S relay ON/OFF output
65	RELAY B	O	Speaker B relay ON/OFF output
66	RELAY A	O	Speaker A relay ON/OFF output
67	DSP GPIO	O	
68-80	NC	-	56004 (DSP) data forwarding control signal output
89	VDD	O	Microprocessor power supply (+5V)
90-100	NC	O	-

CIRCUIT DESCRIPTION

2. In order that an initial state and also back-up are done it functions.

2-1 clear of Back-up

Alternating current on, while pressing a remote power key of a panel/turn off.

Clearing the condition of back-up where is stored that moment, at present it, be set up to the initial state.

(1) Initialization of an amplifier function

Remote power	Power off
Selector source.....	Tuner
Selector preset	No
Video output source.....	Video 1
Speaker A relay	On
Speaker B relay	OFF
Volume	Seven steps
Audio adjustment mode.....	OFF
BASS.....	0dB
TREBLE.....	0dB
Input level	0dB
Loudness.....	OFF
Source direct	OFF
Sub woofer Rch.....	OFF

(2) Initialization of a surround function

Surround mode.....	Stereo (surround off)
digital signal processor mode.....	Arena
Center mode.....	Normal
Distance.....	OFF
Left level	20ms
Right level.....	0 step
Center level	0 step
Rear level	0 step
Sub woofer	0 step
Effect level	0 step
WALL.....	3
Room size.....	Medium

(3) Initialization of a tuner function

Band	Frequency modulation
Preset channel.....	--ch
Receiving frequency	Most minimum value of each destination
K1/K2 type	AM modulation : 530kHz
.....	FM modulation : 87.50MHz
E1/E2/Q type	AM modulation : 530kHz
.....	FM modulation : 87.50MHz
Auto/manual operation	Auto
Display mode.....	Indication of a frequency
RDS memory	OFF
EON interrupt receiving mode	OFF

CIRCUIT DESCRIPTION

3. TUNER PRESET MEMORY FREQUENCY(INITIALIZE)

Channel	BAND	K1	BAND	K2	BAND	E1/E3	BAND	Q
01ch	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
02ch	FM	98.00MHz	FM	98.00MHz	FM	98.00MHz	FM	98.00MHz
03ch	FM	108.00MHz	FM	108.00MHz	FM	108.00MHz	FM	108.00MHz
04ch	AM	630kHz	AM	630kHz	AM	630kHz	AM	630kHz
05ch	AM	1000kHz	AM	1000kHz	AM	999kHz	AM	999kHz
06ch	AM	1440kHz	AM	1440kHz	AM	1440kHz	AM	1440kHz
07ch	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz	FML	74.00MHz
08ch	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz	FML	65.00MHz
09ch	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz	FML	69.00MHz
10ch	FM	89.10MHz	FM	89.10MHz	FM	89.10MHz	FM	89.10MHz
11ch	FM	90.00MHz	FM	90.00MHz	FM	90.00MHz	FM	90.00MHz
12ch	FM	97.50MHz	FM	97.50MHz	FM	97.50MHz	FM	97.50MHz
13ch	FM	98.50MHz	FM	98.50MHz	FM	98.50MHz	FM	98.50MHz
14ch	FM	106.00MHz	FM	106.00MHz	FM	106.00MHz	FM	106.00MHz
15ch	AM	530kHz	AM	530kHz	AM	531kHz	AM	531kHz
16ch	AM	990kHz	AM	990kHz	AM	990kHz	AM	990kHz
17ch	AM	1700kHz	AM	1610kHz	AM	1602kHz	AM	1602kHz
18ch	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
19ch	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
20ch	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
21~39ch	FM	76.00MHz	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz

The initial setting is performed in a following event :

1. When backup memory data is destroyed when reset is applied to the microprocessor.
2. When the power cord is plugged in to the AC wall outlet while pressing the POWER key.

4. Mode / destination list

(1) KR-9090 / 8090 function judgement

Function list

Function Model	AC-3	Rch L / R control	switching switch 4 SW4
KR-V9090	O	different control	1
KR-V8090	X	Simultaneous control	0

(2) Judgement of the destination

In this microprocessor the destination is switched by a diode switch.

The relation between a diode switch and destination are as under table.

CIRCUIT DESCRIPTION

The basis destination of a tuner

Type	Band	Range of a receiving frequency	Channel space	IF	Phase locked loop standard frequency	Destination switching switch (X14) IC1			(X08) IC2
						SW3	SW2	SW1	ch SP
						3	2	1	9
K1 (1700)	FM	87.35MHz - 108.0MHz	100kHz	+10.7MHz	25kHz	0	0	0	1
	AM	530kHz - 1700kHz	10kHz	+450kHz	10kHz				
K2 (1610)	FM	87.5MHz - 108.0MHz	100kHz	+10.7MHz	25kHz	0	1	1	1
	AM	530kHz - 1610kHz	10kHz	+450kHz	10kHz				
E1	FM	87.5MHz - 108.0MHz	50kHz	+10.7MHz	25kHz	0	1	1	0
	AM	531kHz - 1602kHz	9kHz	+450kHz	9kHz				
E3 (RDS)	FM	87.35MHz - 108.0MHz	50kHz	+10.7MHz	25kHz	1	0	1	1
	AM	531kHz - 1602kHz	9kHz	+450kHz	9kHz				
Q (RDS)	FML	65.0MHz - 74.0MHz	10kHz	+10.7MHz	5kHz	1	1	1	1
	FMH	87.5MHz - 108.0MHz	50kHz	+10.7MHz	5kHz				
	AM	531kHz - 1602kHz	9kHz	+450kHz	9kHz				

⊛ Diode switch (SWx) 0 = diode no (It becomes LOW input in the case that it is static)
 (It becomes HIGH input in the case that it is static)

There is 1 = diode
 X = transistor switch (0 = OFF / 1 = ON)

⊛ A phase locked loop standard frequency is the value that set up it to a phase locked loop.
 This value becomes same a dividing ratio of amplitude modulation with a phase locked loop standard frequency.
 However, a dividing ratio of frequency modulation becomes 2 times of phase locked loop standard frequencies.

5. Setting contents of a control integrated circuit

5-1 Condition of a selector switch

(X09-) IC3

Control integrated circuit	SW	L/R	TUNER	PHONO	CD	TAPE / MD	VIDEO 1	VIDEO 2	VIDEO3	AV AUX	
NJU7312	SW1	② L	0	1	0	0	0	0	0	0	
		②⑦ R	0	1	0	0	0	0	0	0	
	SW2	③ L	0	0	0	0	0	0	0	1	0
		②⑥ R	0	0	0	0	0	0	0	1	0
	SW3	④ L	0	0	0	0	0	0	1	0	0
		②⑤ R	0	0	0	0	0	0	1	0	0
	SW4	⑥	0	0	0	0	0	1	0	0	0
		②③ R	0	0	0	0	0	1	0	0	0
	SW5	⑦ L	0	0	0	0	1	0	0	0	0
		②② R	0	0	0	0	1	0	0	0	0
	SW6	⑧ L	0	0	0	1	0	0	0	0	0
		②① R	0	0	0	1	0	0	0	0	0
	SW7	⑩ L	1	0	0	0	0	0	0	0	0
		①⑨ R	1	0	0	0	0	0	0	0	0
	SW8	⑪ L	0	0	0	0	0	0	0	0	1
		①⑧ R	0	0	0	0	0	0	0	0	1

1060VR/1070VR/KR-V8090/KR-V9090

CIRCUIT DESCRIPTION

(X09-)IC4

Control integrated circuit	SW	L/R	TUNER	PHONO	CO	TAPE/MD	VIDEO1	VIDEO2	VIDEO3	AV AUX	
NJU7313	SW1	② L	1	1	1	0	1	1	1	1	
		②⑦ R	1	1	1	0	1	1	1	1	
	SW2	③ L	1	1	1	1	0	1	1	1	
		②⑥ R	1	1	1	1	0	1	1	1	
	SW3	④ L	1	1	1	1	1	1	1	1	
		②⑤ R	1	1	1	1	1	1	1	1	
	SW4	⑤ L	0	0	0	0	0	0	0	0	
		②④ R	0	0	0	0	0	0	0	0	
	SW5	⑦ L	*1								
		②② R	*1								
	SW6	⑧ L	*1								
		②① R	*1								
	SW7	⑩ L	*2								
		①⑨ R	*2								
	SW8	⑪ L	*2								
		①⑧ R	*2								

*1 Adapter on/off control
 Adapter on : SW4 (L/R) 0
 SW5 (L/R) 1
 Adapter off : SW4 (L/R) 1
 SW5 (L/R) 0

*2 Control of INPUT LEVEL
 INPUT LEVEL : 0dB SW7(L/R) -1
 SW8(L/R) 0
 INPUT LEVEL : -3dB SW7(L/R) 0
 SW8(L/R) 0

(X08-) IC2

Control integrated circuit	Condition	SW1		SW2		SW3		SW4		SW5		SW6		SW7	
		②⑦ L	② R	②⑥ L	③ R	②④ L	⑤ R	②③ L	⑥ R	②① L	⑧ R	②⑦ L	⑨ R	①⑧ L	①① R
NJU7311	SOURCE DIRECT	0	0	0	0	0	0	1	1	0	0	0	1	0	0
	STEREO	0	0	1	1	1	1	0	0	0	0	0	1	0	0
	DSP	1	1	0	0	1	1	0	0	0	0	0	1	0	0
	M. INPUT	1	1	0	0	1	1	0	0	0	0	1	0	0	0
	TESTTONE	0	0	0	0	0	0	0	0	1	1	0	0	1	1

(X08-) IC2

only KR-V9090/1070VR

Control integrated circuit	Condition	SW1		SW2		SW3		SW4		SW5		SW6		SW7	
		②⑦ L	② R	②⑥ L	③ R	②④ L	⑤ R	②③ L	⑥ R	②① L	⑧ R	②⑦ L	⑨ R	①⑧ L	①① R
NJU7311	ch LINE INPUT *1	1	1	0	0	1	1	0	0	1	1	0	0	0	0
	LINE INPUT	0	0	1	1	0	0	1	1	0	0	0	1	0	0

*1 Alternating current-3 modes use 5.1ch INPUT only at the time of alternating current-3 correspondence selectors (DVD/1d) in on condition.
 Use usual LINE INPUT at the time of except for the above.

CIRCUIT DESCRIPTION

6. PLL IC expansion port control

PLL IC expansion port control list (Control data by software)

Operating state		Extension port name		⑩	⑦	⑧	⑨	⑪	⑬
				FM	AM	LW	MONO	RDS ATT	IF ON
IF ON	RDS ATT ON	MONO ON	FM ON	1	0	0	1	1	0
			AM ON	0	1	0	1	1	0
		MONO OFF	FM ON	1	0	0	0	1	0
			AM ON	0	1	0	0	1	0
	RDS ATT OFF	MONO ON	FM ON	1	0	0	1	0	0
			AM ON	0	1	0	1	0	0
		MONO OFF	FM ON	1	0	0	0	0	0
			AM ON	0	1	0	0	0	0
IF OFF	RDS ATT ON	MONO ON	FM ON	1	0	0	1	1	1
			AM ON	0	1	0	1	1	1
		MONO OFF	FM ON	1	0	0	0	1	1
			AM ON	0	1	0	0	1	1
	RDS ATT OFF	MONO ON	FM ON	1	0	0	1	0	1
			AM ON	0	1	0	1	0	1
		MONO OFF	FM ON	1	0	0	0	0	1
			AM ON	0	1	0	0	0	1

Phase locked loop integrated circuit expansion port control list (Logic that is outputted from a port [H / L H1-z])

Operating state		Extension port name		⑩	⑦	⑧	⑨	⑪	⑬
				FM	AM	LW	MONO	RDS ATT	IF ON
IF ON	RDS ATT ON	MONO ON	FM ON	L	HI-z	HI-z	L	H	L
			AM ON	HI-z	L	HI-z	L	H	L
		MONO OFF	FM ON	L	HI-z	HI-z	HI-z	H	L
			AM ON	HI-z	L	HI-z	HI-z	H	L
	RDS ATT OFF	MONO ON	FM ON	L	HI-z	HI-z	L	L	L
			AM ON	HI-z	L	HI-z	L	L	L
		MONO OFF	FM ON	L	HI-z	HI-z	HI-z	L	L
			AM ON	HI-z	L	HI-z	HI-z	L	L
IF OFF	RDS ATT ON	MONO ON	FM ON	L	HI-z	HI-z	L	H	H
			AM ON	HI-z	L	HI-z	L	H	H
		MONO OFF	FM ON	L	HI-z	HI-z	HI-z	H	H
			AM ON	HI-z	L	HI-z	HI-z	H	H
	RDS ATT OFF	MONO ON	FM ON	L	HI-z	HI-z	L	L	H
			AM ON	HI-z	L	HI-z	L	L	H
		MONO OFF	FM ON	L	HI-z	HI-z	HI-z	L	H
			AM ON	HI-z	L	HI-z	HI-z	L	H

Only L / HI-z is able to output the port of frequency modulation / amplitude modulation / LW / MONO due to Nch open drain.

* 1 :

* 2 :

HI-z is made constantly because there is not LW in the specification is this time.

CIRCUIT DESCRIPTION

7. Test mode

(1) Test mode setting method

Turn on the power supply while pressing TUNING-DOWN key, to make a set in test mode condition.

When a set is set up in test mode condition a set becomes the following condition.

Automatic POWER ON

All indicator tubes and also LED are lighted. (This condition can be canceled by pressing the key of the set.)

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

(2) Test mode cancellation method

The power supply is turned off.

"Usually display / All the turn-off" is periodically repeated by operating MEMORY key.

(3) A tuner function.

When a selector is set to the tuner, the following key is not usual function and operates by the special function.

The function to summon the channel of the presetting

1 The following channel is summoned when not operating +10 keys.

1ch~9ch (1~9key)

10ch (0key)

2 When +10 keys are pressed once, the following channel is summoned.

11ch~19ch (1~9key)

20ch (0key)

3 When +10 keys are pressed twice, the following channel is summoned.

21ch~29ch (1~9key)

30ch (0key)

4 When +10 keys are pressed three times, the following channel is summoned.

31ch~39ch (1~9key)

40ch (0key)

5 When +10 keys are pressed four times, it gets to do the function which is the same as the condition which doesn't press +10 keys.

- The S level hexadecimal DATA display and the ATT ON/OFF function

When a selector is set to the tuner, it repeats the following operation cyclically when operating the PTY key of the set.

a) When ATT is in the OFF condition, it displays as follows.

"ATT OFF display" + "Signal level display by the tuner (HEX DATA)"

b) When ATT is in the ON condition, it displays as follows.

"ATT ON display" + "Signal level display by the tuner (HEX DATA)"

c) At the time of the ATT OFF condition, the set becomes usual display.

- ☆ When the key of a set is pressed a signal level display of a tuner continues to display the value of when that ATT works.

- MUTE signal output

Because TUNER-MUTE always becomes OFF condition, it isn't possible to do control.

- When a selector is set to the thing except TUNER, each key does usual function.

Then, the test mode doesn't work.

- RDS display mode.

RDS-PS display works by pressing PRO-LOGIC key irrespective of TUNED. (It is able to cancel it by pressing PRO-LOGIC key.)

- |

(4) An amplifier function.

- The value in the first of the speaker setting by the test mode is full equipment.

- When a selector is set to the thing except TUNER, the following key works by the special function.

When a selector is set to TUNER, the following key does usual work.

- The way of setting MAX/MID/MIN of AUDIO LEVEL/SURROUND LEVEL easily.

- AUDIO LEVEL/SURROUND LEVEL is variably made of MULTILEVEL UP/DOWN operation. When a selector is set to the thing except TUNER, operate a number key. MAX/MID/MIN can be set by the following operation.

It is set in as follows at the time of MID.

Master volume	Initial value
Balance	Center
BASS/TREBLE/SUB WOOFER/ CENTER/REAR	0dB or a 0step
EFFECT	1step

- It is possible to set as follows by operating with the number key when a selector is set to the thing except TUNER.

Setting item	Ten-key that operates	Master volume
Maximum	2	0dB
Middle	3	-30dB
Minimum	1	-98dB

- The way of setting AUDIO LEVEL/SURROUND LEVEL easily.

Item	Number key	
INPUT LEVEL	4	"Press number key ""1-3"", after a number key of the left description is pressed."
DISTANCE(PRO LOGIC only)	5	
Lch LEVEL	6	
Rch LEVEL	7	
CENTER LEVEL	8	
Sch LEVEL(CYCLIC SL ↔ SR)	9	
EFFECT(DSP only)	0	
SUB WOOFER LEVEL	10	
ROOM SIZE(DSP only)	MUTE	
WALL SIZE(DSP only)	DIMMER	

CIRCUIT DESCRIPTION

3 Test tone operation

While displaying as follows every time it presses DIRECT key when dolby surround is working, it switches a speaker and TEST-TONE is output.

By pressing DIRECT key, this work and dolby surround can be canceled.

4 Mute signal output

Because the analog mute always becomes OFF condition, it isn't possible to control absolutely. however, when the value with front volume is the minimum, it becomes an analog mute ON condition.

5 AC-3 The 6ch input changing.(Only KR-V9090)

When the selector of KR-V9090 is VIDEO2, press "AUTO/MANU" key. At this time, KR-V9090 becomes "AC3 6ch input" condition. (M-INPUT is lighted).

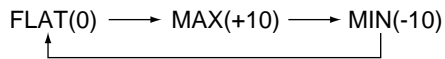
"AC3 6ch input" condition is able to cancel by pressing "AUTO/MANU" key. (It become usual function).

6 The ADAPTER input changing.

Press the "BAND" key of KR-V9090. At this time, KR-V9090 changes to ADAPTER input. When "BAND" key is pushed again, it is able to cancel it.

7 TONE BASS/TREBLE

When KR-V9090 is doing the function of the test mode, the TONE BASS/TREBLE key does a function below periodically.

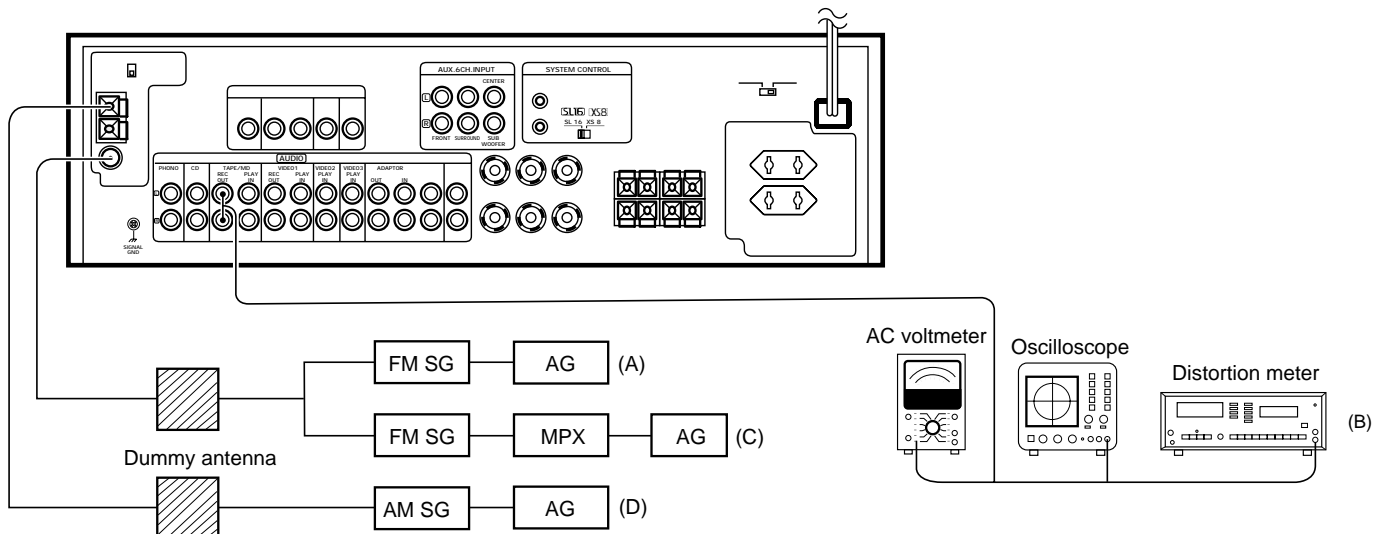


1060VR/1070VR/KR-V8090/KR-V9090

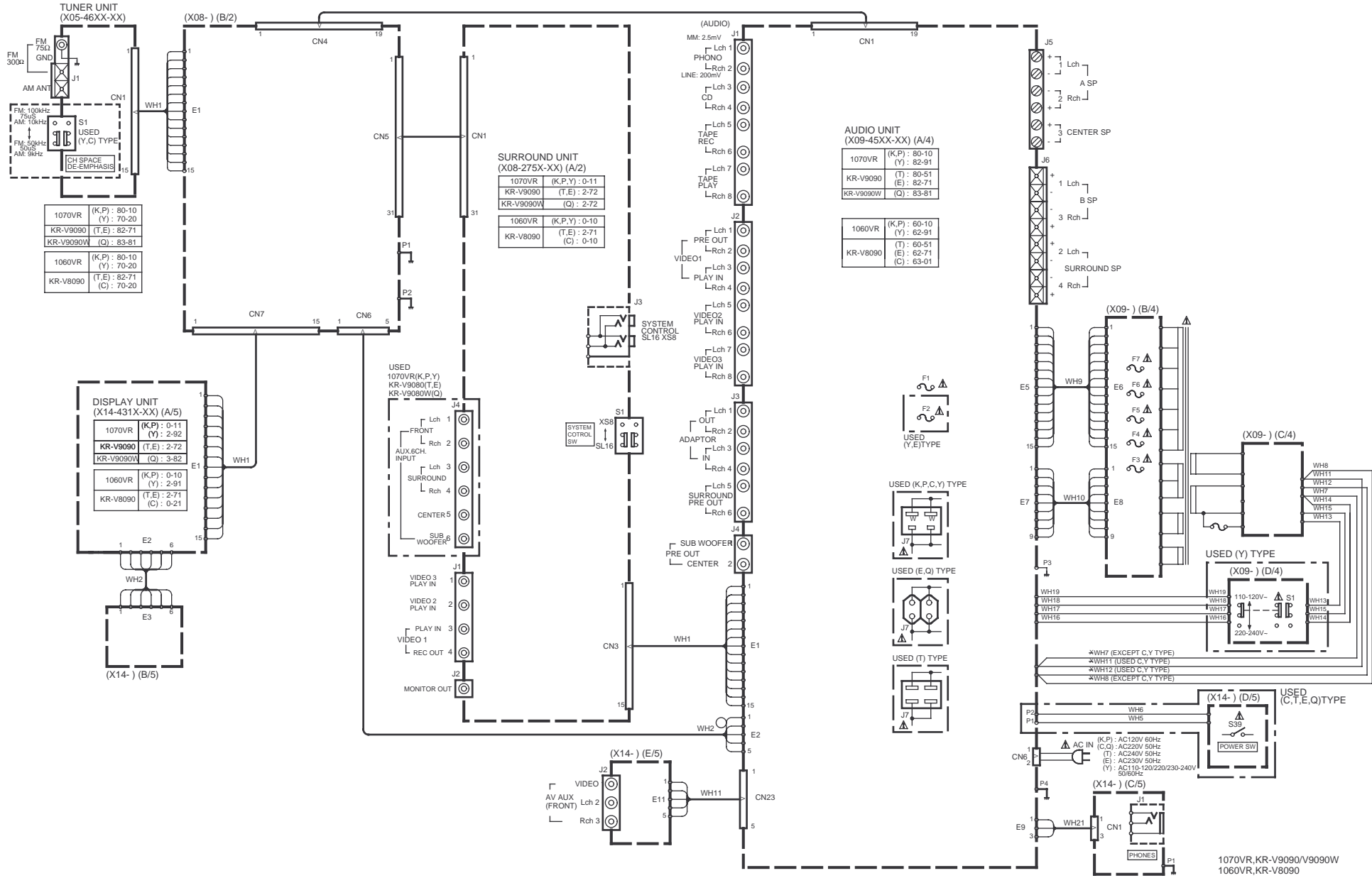
ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION (E, T type)		SELECTOR : FM					
1	DISCRIMINATOR L31 ↔ L32 (E, T, Q only)	(A) 98.0MHz 1kHz, ±40kHz dev. 60dBμ(ANT input)	Connect a DC voltmeter between TP3 and TP4 (X05-)	AUTO or MONO 98.0MHz	L3 (X05-)	0V	(a)
2	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ±40kHz dev. Pilot: ±6kHz dev. 60dBμ(ANT input)	(B)	AUTO 98.0MHz	IFT (W02-)	Minimum distortion	(a)
AUDIO SECTION							
<1>	IDLECURRENT	—	Connect a DC voltmeter across CN3(L) CPI or CN4(R) CN5(CENTER) CN7 or CN8(SR) (X09-)	Volume:0	VR1(L) VR2(R) VR3(CENTER) VR4(SR) VR5(SL) (X09-)	17mV	

(a)

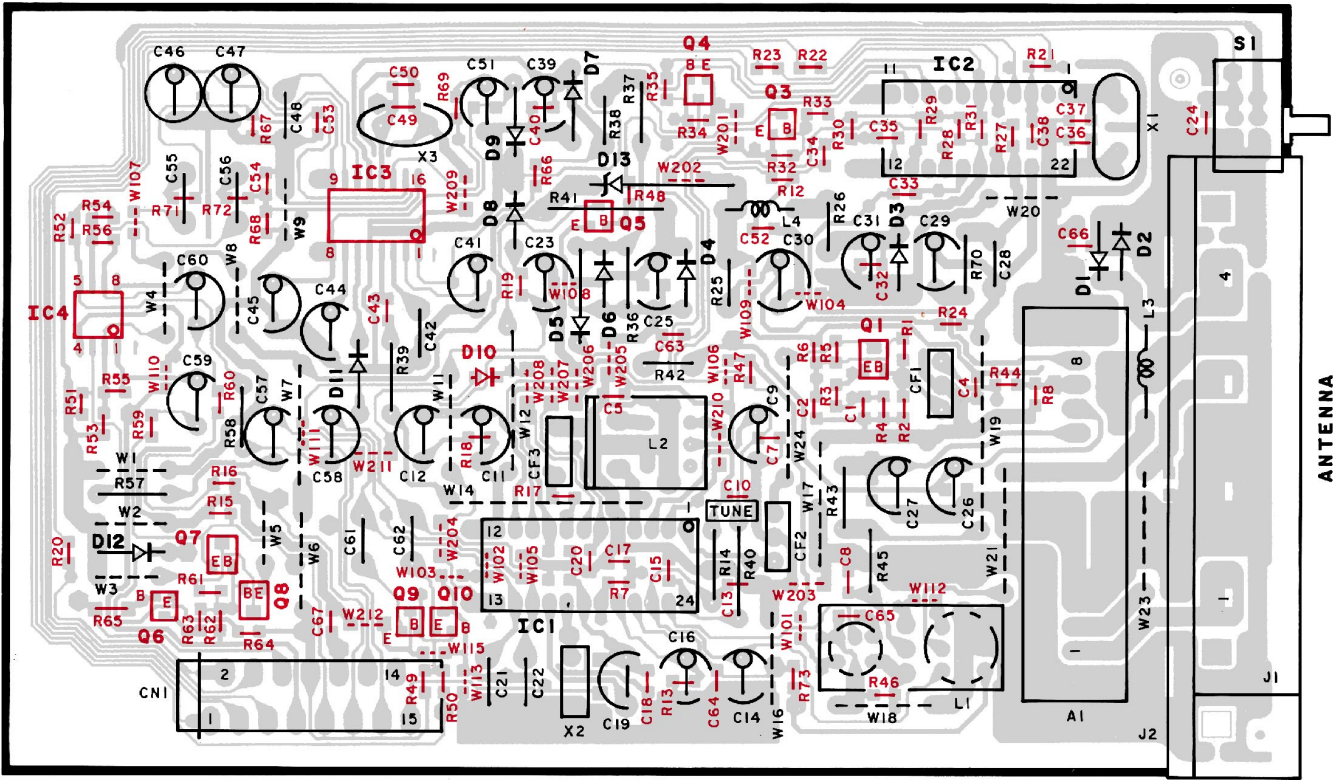


WIRING DIAGRAM

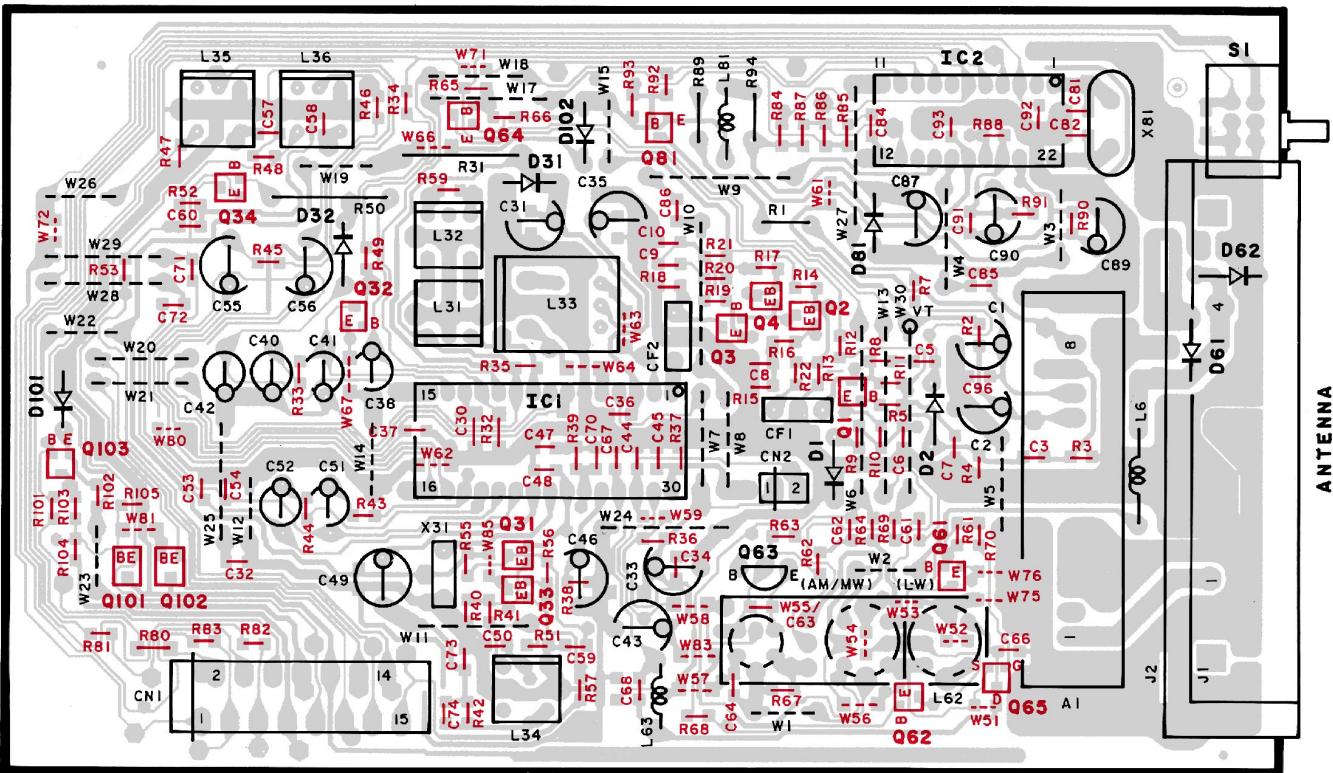


PC BOARD (Component side view)

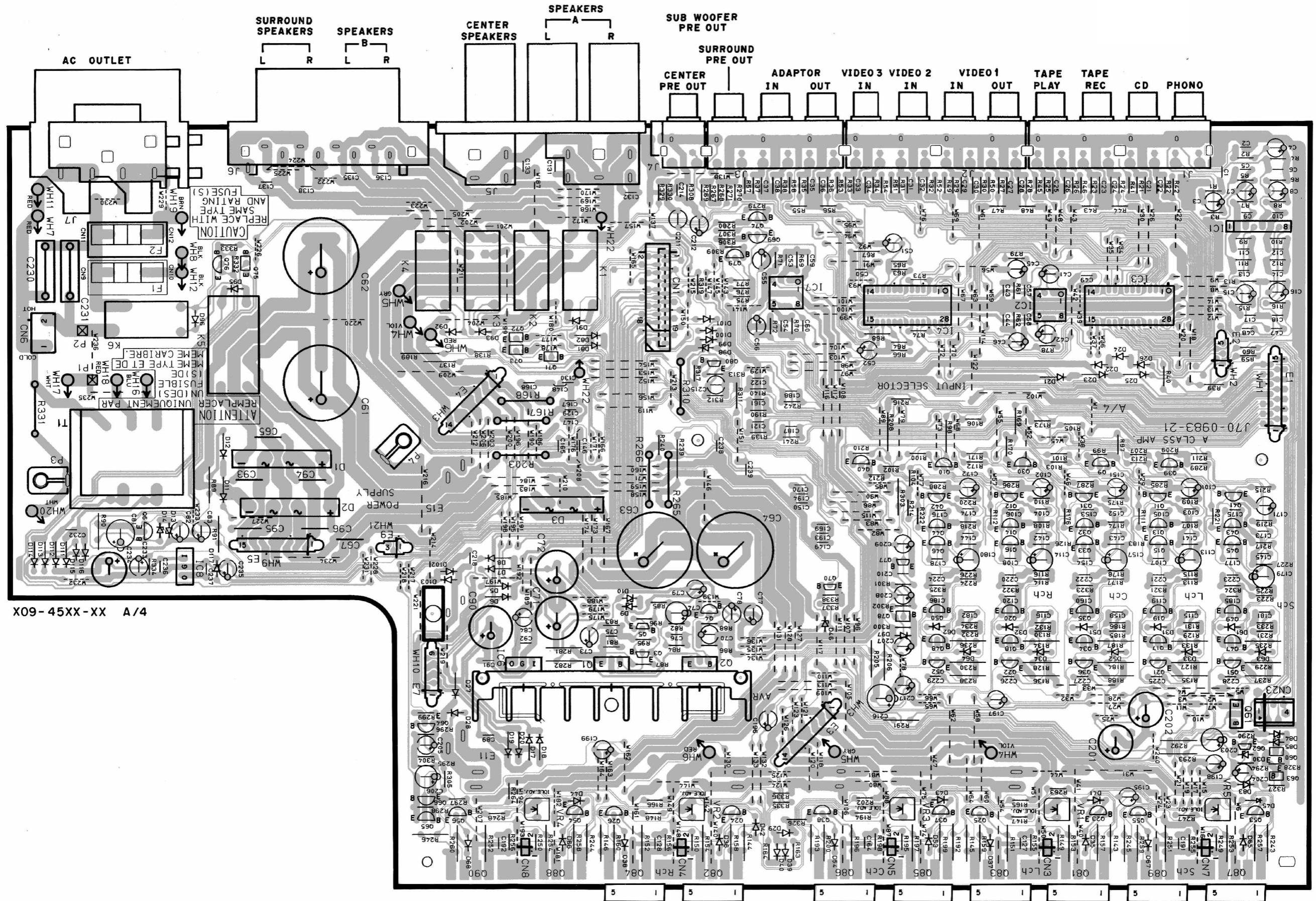
(X05-4670-20) J70-0959-11



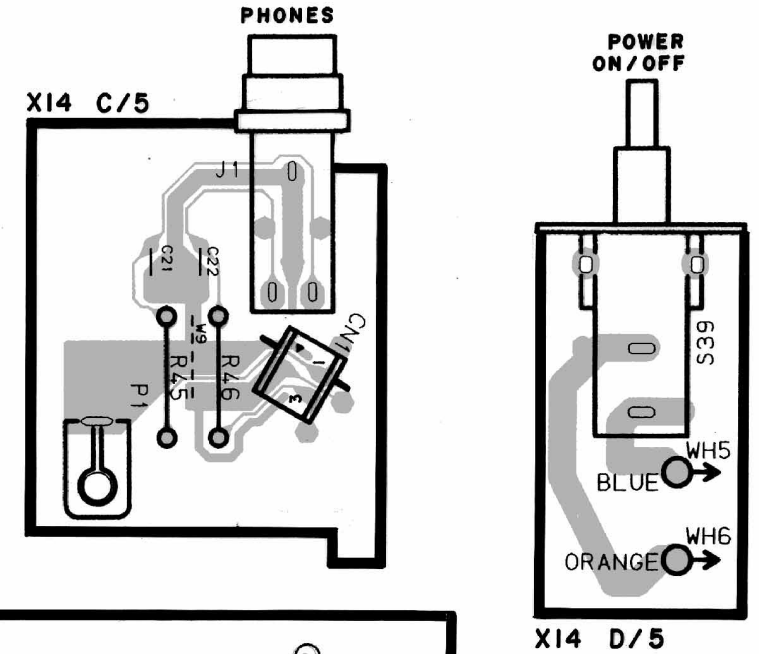
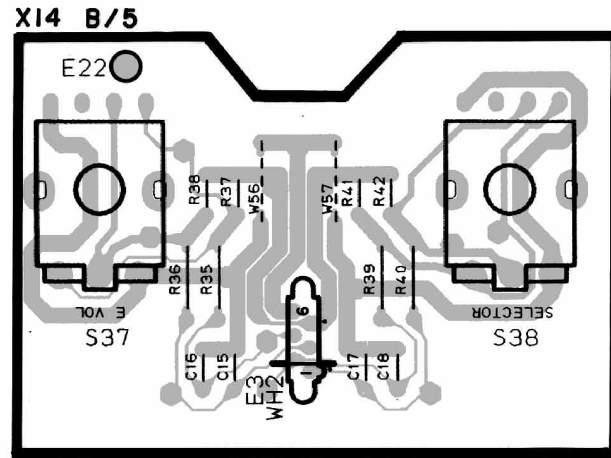
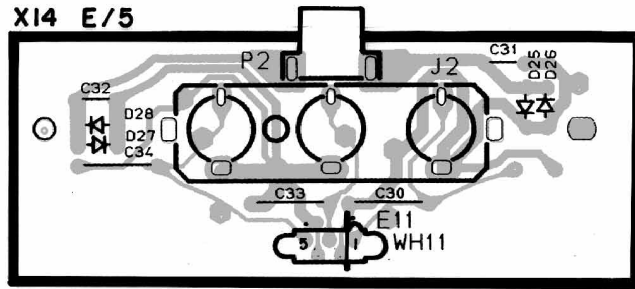
(X05-468X-XX) J70-0960-21



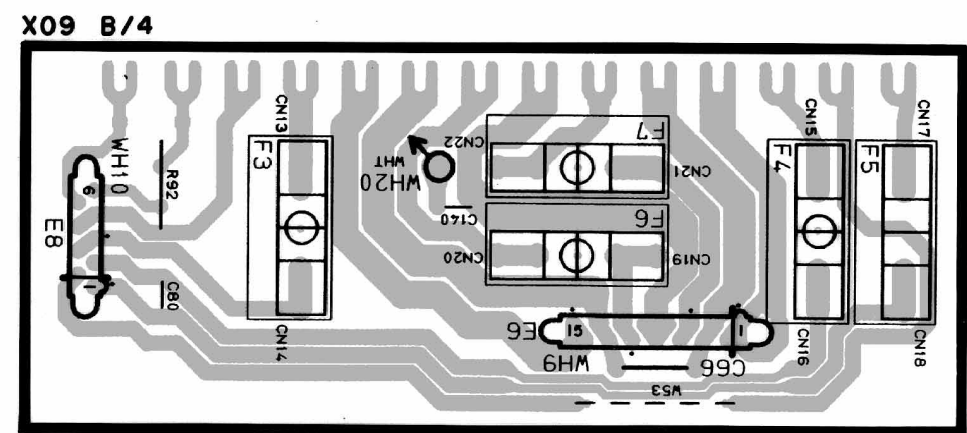
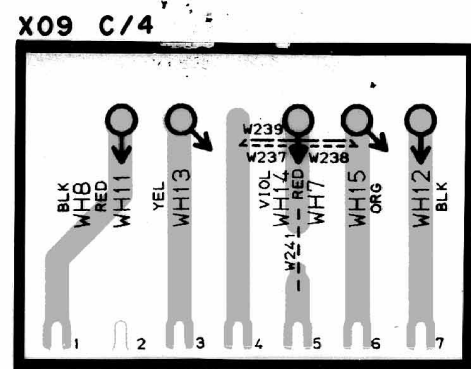
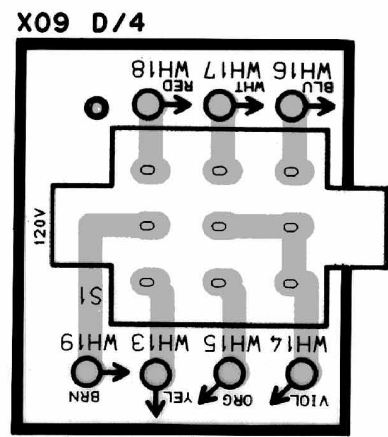
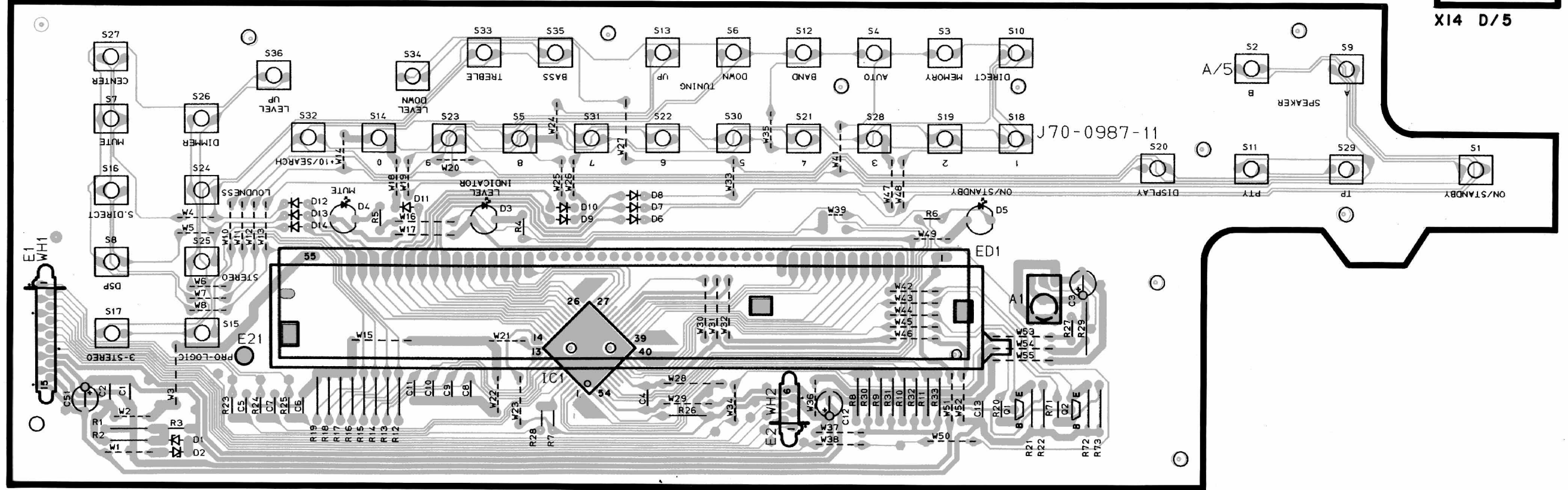
PC BOARD(Component side view)



PC BOARD(Component side view)



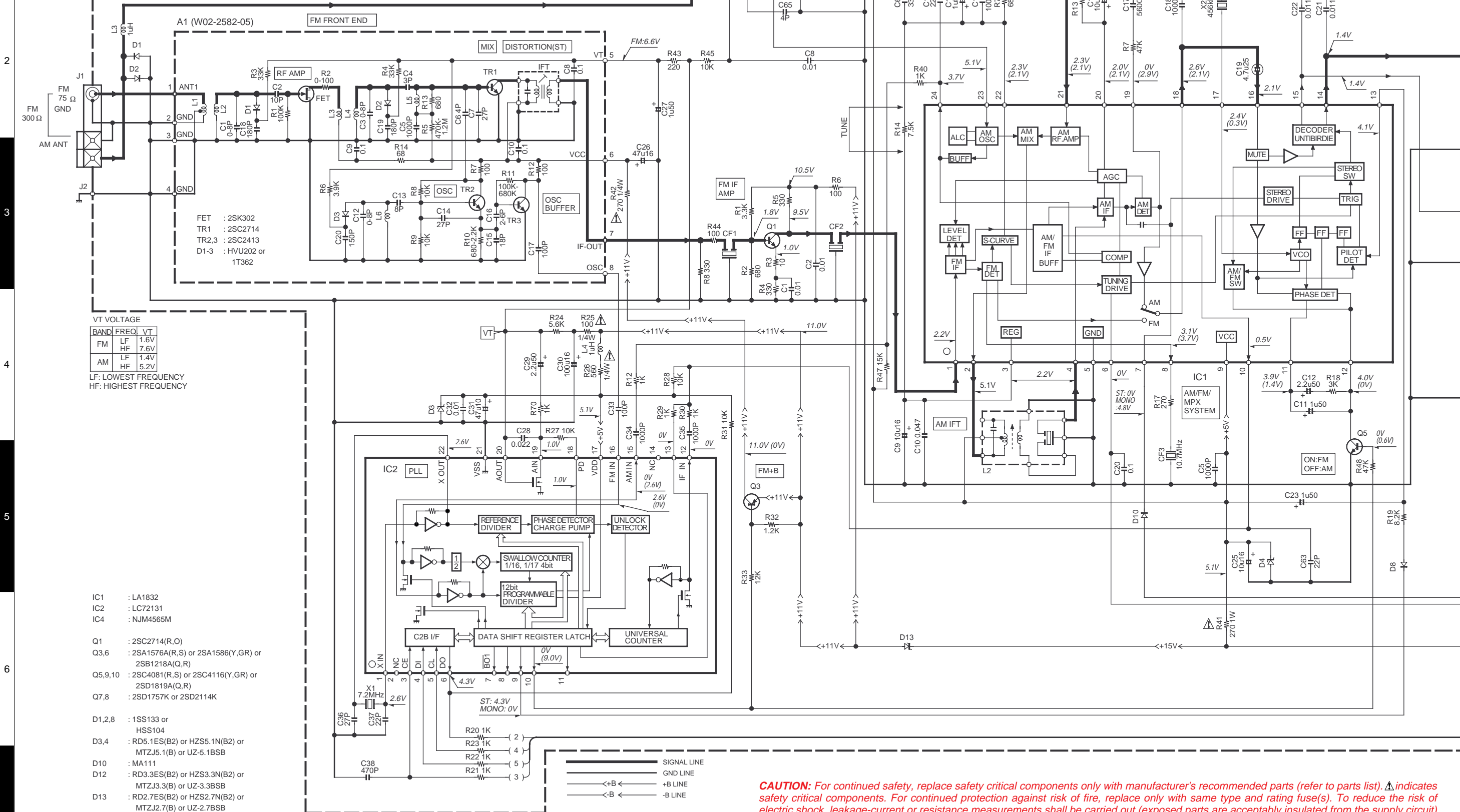
X14-4310-10 A/5



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

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

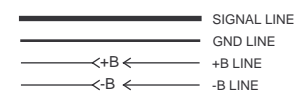


VT VOLTAGE

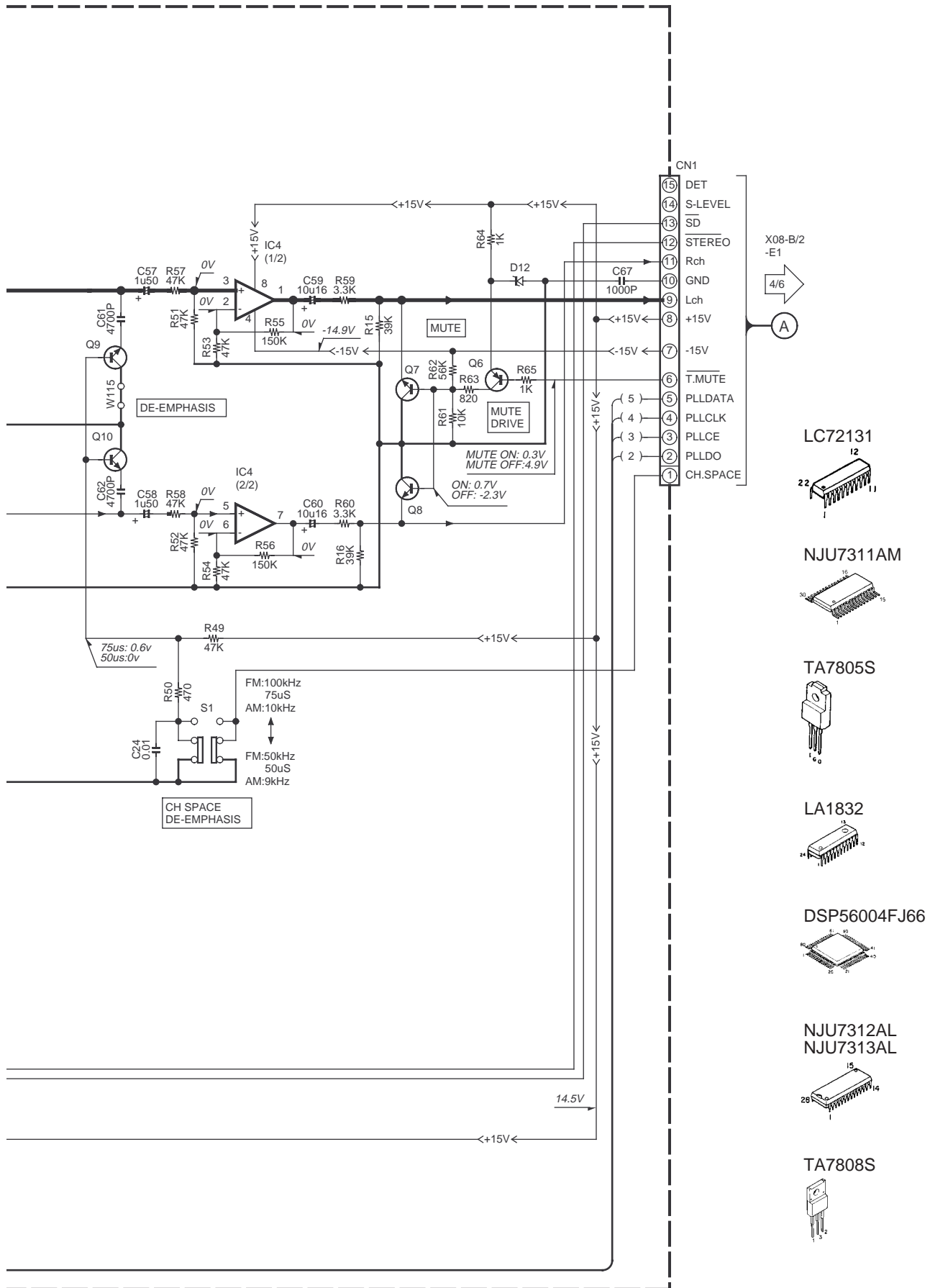
BAND	FREQ	VT
FM	LF	1.6V
	HF	7.6V
AM	LF	1.4V
	HF	5.2V

LF: LOWEST FREQUENCY
HF: HIGHEST FREQUENCY

- IC1 : LA1832
- IC2 : LC72131
- IC4 : NJM4565M
- Q1 : 2SC2714(R,O)
- Q3,6 : 2SA1576A(R,S) or 2SA1586(Y,GR) or 2SB1218A(Q,R)
- Q5,9,10 : 2SC4081(R,S) or 2SC4116(Y,GR) or 2SD1819A(Q,R)
- Q7,8 : 2SD1757K or 2SD2114K
- D1,2,8 : 1SS133 or HSS104
- D3,4 : RD5.1ES(B2) or HZS5.1N(B2) or MTZJ5.1(B) or UZ-5.1BSB
- D10 : MA111
- D12 : RD3.3ES(B2) or HZS3.3N(B2) or MTZJ3.3(B) or UZ-3.3BSB
- D13 : RD2.7ES(B2) or HZS2.7N(B2) or MTZJ2.7(B) or UZ-2.7BSB



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.



1060VR(Y)/1070VR(Y)/KR-V8090(C) (1/6)

1060VR/1070VR/KR-V8090/KR-V9090

Y05-3330-10

KENWOOD

KR-V8090/KR-V9090 (X05-4682-71)

DESTINATION COUNTRY ABB.	UNIT No.	(A) - (C)	R3	R16, 20	R61-66, 68,70	C53, 54	C62, 63	C73	Q61-65	CF1,2	L62	W11	W6,13, 56,76	W51,52, 54,55
EUROPE	E	2-71	YES	1.8K	10	NO	0.022	NO	NO	L72-0536 (MS3)	L39-1351	NO	NO	YES
U.K.	T	0-51				YES							YES	NO

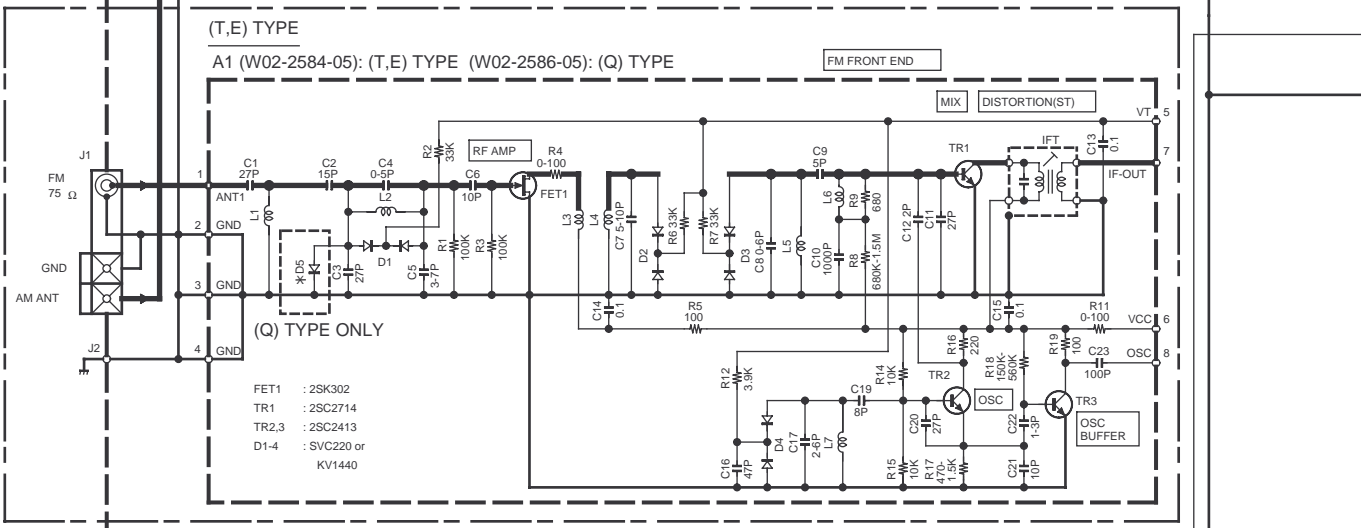
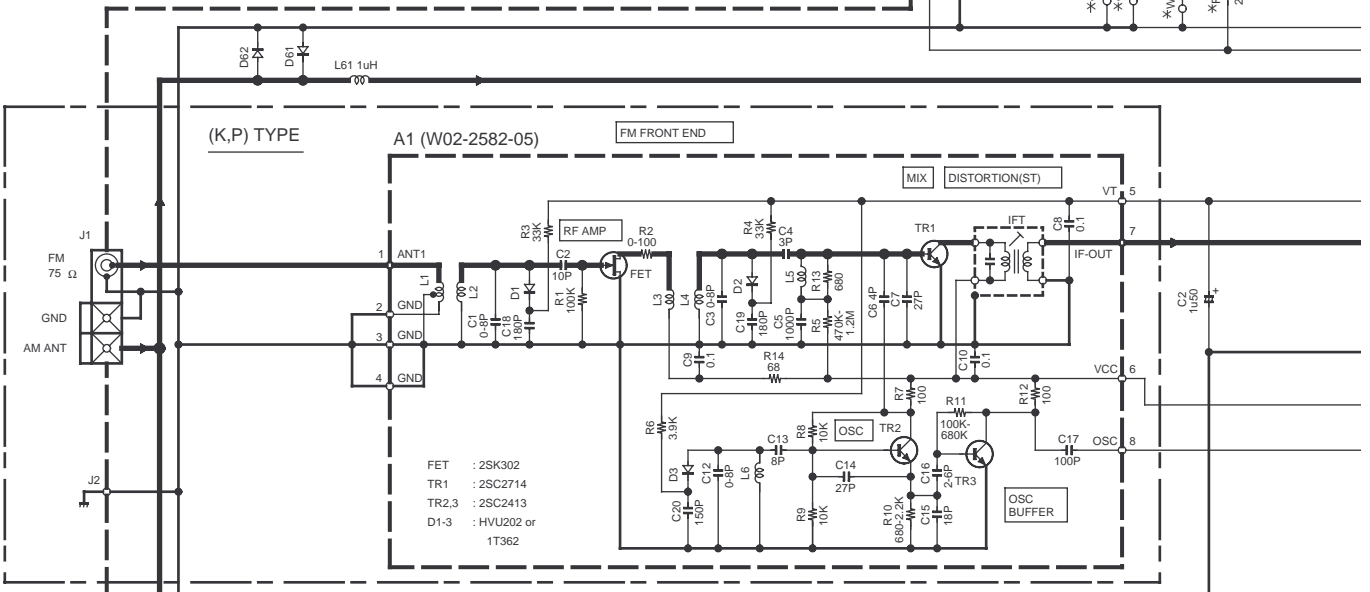
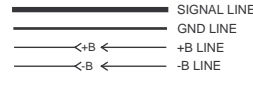
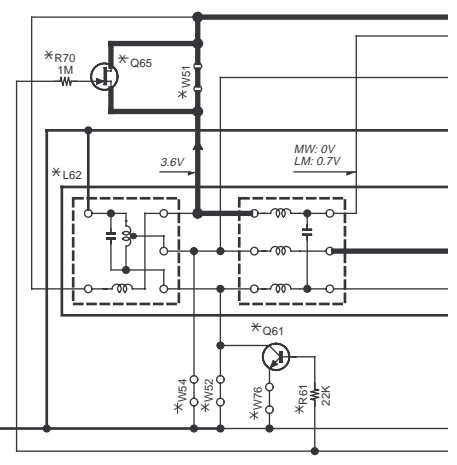
1060VR/1070VR (X05-4680-10)

DESTINATION COUNTRY ABB.	UNIT No.	(A) - (C)	R3	R16, 20	R61-66, 68,70	C53, 54	C62, 63	C73	Q61-65	CF1,2	L62	W11	W6,13, 56,76	W51,52, 54,55
U.S.A.	K	0-10	NO	560	15	NO	0.033	NO	YES	NO	L72-0596 (MS2)	L39-1351	YES	NO
CANADA	P												NO	YES

KR-V9090W (X05-4683-81)

DESTINATION COUNTRY ABB.	UNIT No.	(A) - (C)	R3	R16, 20	R61-66, 68,70	C53, 54	C62, 63	C73	Q61-65	CF1,2	L62	W11	W6,13, 56,76	W51,52, 54,55
RUSSIA	Q	3-81	YES	1.8K	10	NO	0.022	NO	NO	L72-0596 (MS2)	L39-1351	NO	NO	YES

(X05-468X-XX) 1060VR(K,P)/1070VR(K,P)/
KR-V8090(E,T)/KR-V9090(E,T)/KR-V9090W(Q) TYPE



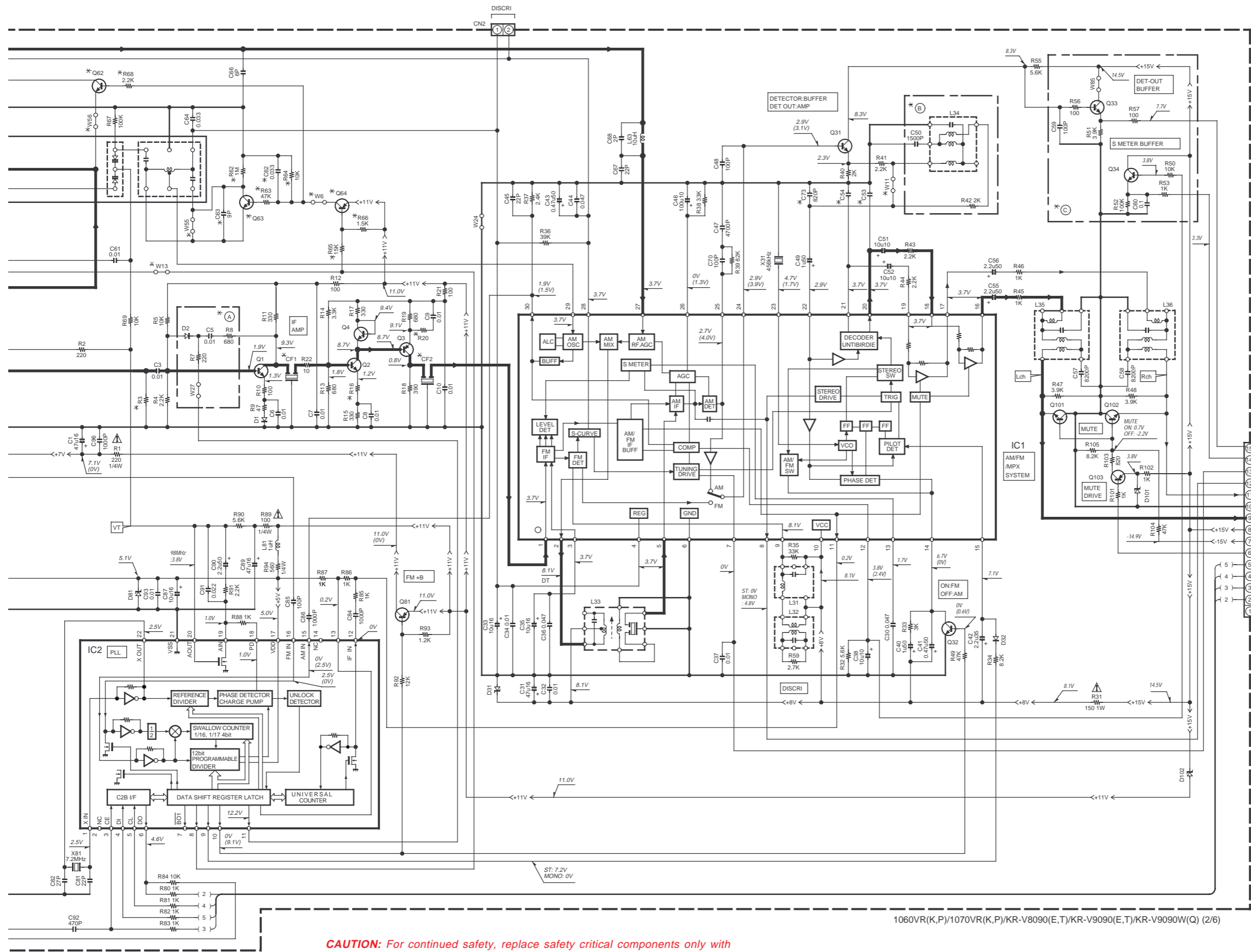
IC1 : LA1836	D1,2,32,61,62 : 1SS133 or HSS104
IC2 : LC72131	D31 : RD8.2E(S)(B2) or HZS8.2N(B2)
Q1,2,4,31-34,61,62 : 2SC4081(R,S) or 2SC4116(Y,GR)	D81 : RD5.1E(S)(B2) or HZS5.1(B2)
Q3,64,81,103 : 2SA1576A(R,S) or 2SA1586(Y,GR)	D101 : RD3.3E(S)(B2) or HZS3.3N(B2)
Q63 : 2SC2878(B)	D102 : RD2.7E(S)(B2) or HZS2.7N(B2)
Q65 : 2SK302(Y,GR)	
Q101,102 : 2SD1757K	

VT VOLTAGE		
BAND	FREQ.	VT
FM	LF	1.6V
	HF	7.8V
AM	LF	1.3V
	HF	5.0V

LF: LOWEST FREQUENCY
HF: HIGHEST FREQUENCY

The DC voltage is an actual reading measured with a high impedance 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



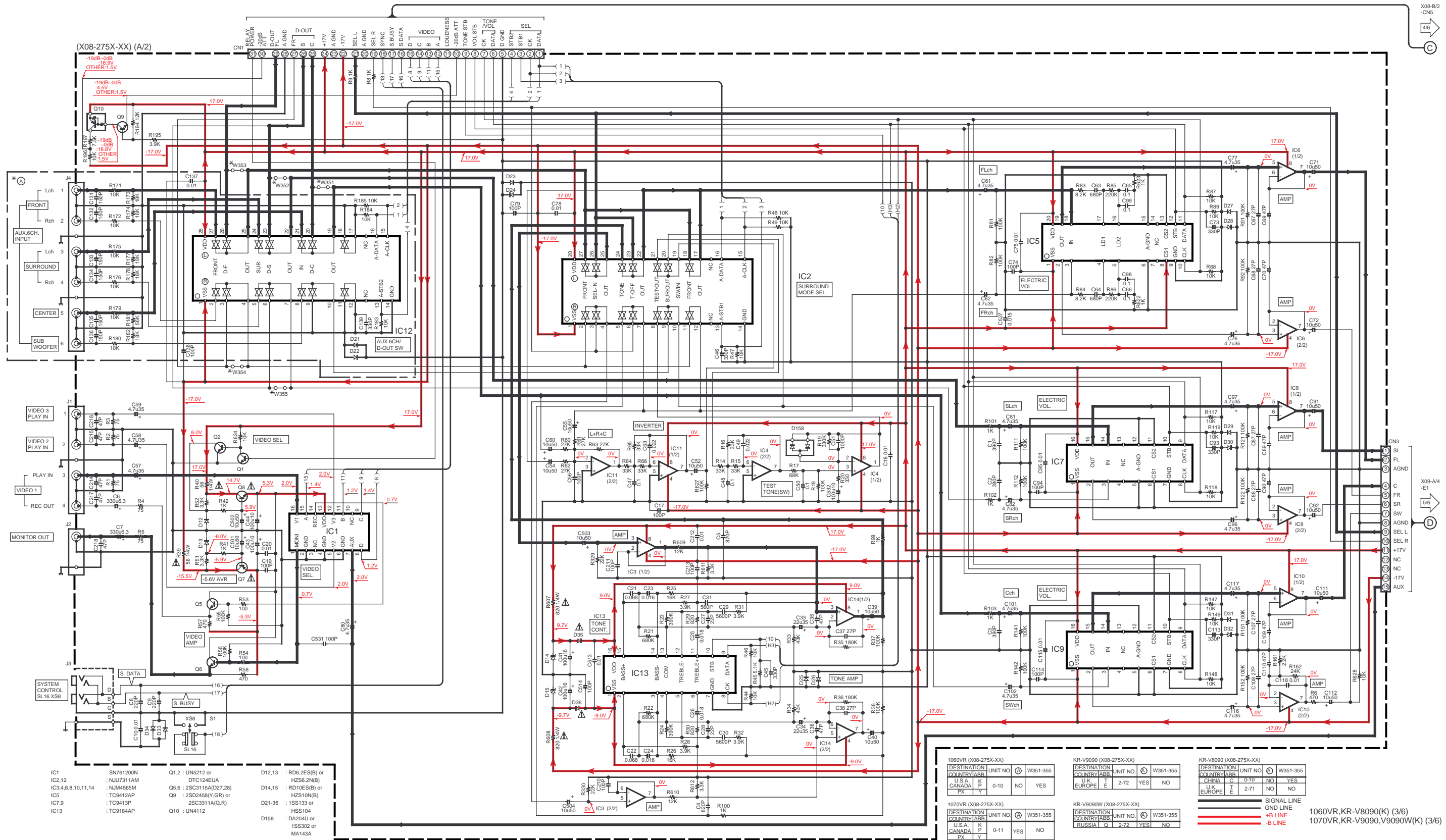
1060VR(K,P)/1070VR(K,P)/KR-V8090(E,T)/KR-V9090(E,T)/KR-V9090W(Q) (2/6)

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.

1060VR/1070VR/KR-V8090/KR-V9090

Y05-3330-10

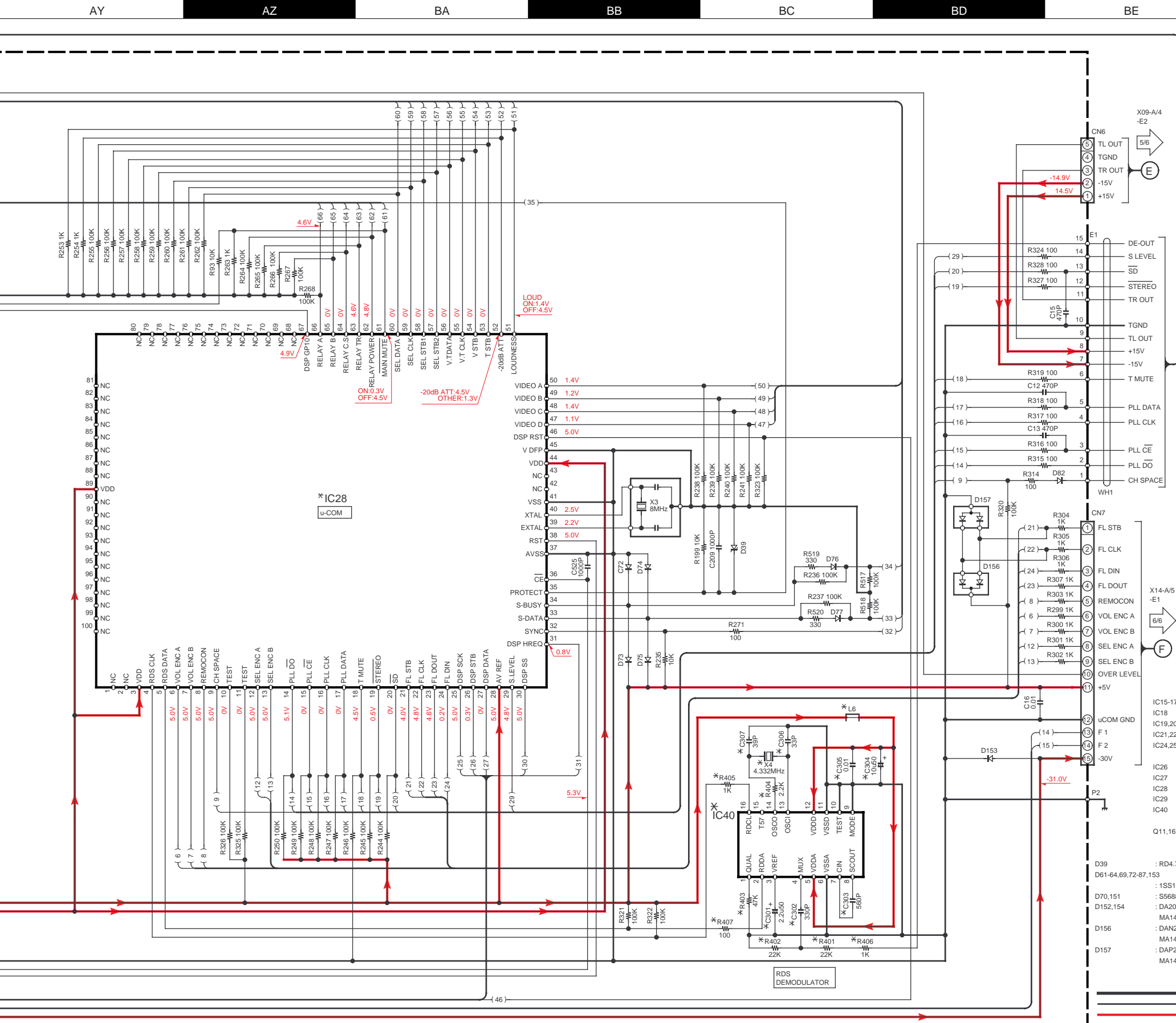
KENWOOD



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.

1060VR/1070VR/KR-V8090/KR-V9090



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

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

- | | | | |
|---|------------------------------|------------------------------|---|
| 2SA1123
2SA1534A
2SA992
2SB764
2SC1845
2SC2003 | 2SC2631
2SC2878
2SD863 | 2SA1110 | DTC124ESA
UN4112
2SA1048
2SC2458 |
| 2SA1586
2SC2714
2SC3115 | 2SC4081
2SC4116 | 2SB1370 | UN4212
UN4219
2SA1309A
2SC3311A |
| TRAIR3P
TRAIR3P
TRAIR4P
TRAIR4P | NJM4565D-D | TC9184AP | TC9413P |
| UPC7805AHF
UPC7808AHF | DAP202U
DA204U | MA142WA
MA142WK
UN5212 | 1SS301 |
| TC74HCU04AF | LA1836 | TC9412AP | |
| DAN202U | SAA6579
SN761200N | | |
- IC15-17 : NJM4565M
 IC18 : CS5331
 IC19,20 : CS4331
 IC21,22 : TC74HCU04AF
 IC24,25 : TA7805S or UPC7805AHF
 IC26 : DSP56004FJ66
 IC27 : *
 IC28 : W24257AK-15
 IC29 : SAA6579
 IC40 : 2SD2458(Y,G,R) or 2SC3311A(Q,R)
- Q11,16 : 2SD2458(Y,G,R) or 2SC3311A(Q,R)
- D39 : RD4.7ES(B) or HZS4.7N(B)
 D61-64,69,72-87,153 : 1SS133 or HSS104
 D70,151 : S5688B
 D152,154 : DA204U or 1SS302 or MA143A
 D156 : DAN202U or 1SS301 or MA142WK
 D157 : DAP202U or 1SS300 or MA142WA
- Legend:
 ——— SIGNAL LINE
 ——— GND LINE
 ——— +B LINE
 ——— -B LINE

1060VR (X08-275X-XX)

DESTINATION COUNTRY	ABB	UNIT No.	IC28	IC40	C166	C168	C301-307	R190	R192	R401-407	L6	X4
U.S.A.	K	0-10	CXP82840-124Q	NO	6800P	3900P	NO	13K	6.8K	NO	NO	NO
CANADA	P											
PX	Y											

1070VR (X08-275X-XX)

DESTINATION COUNTRY	ABB	UNIT No.	IC28	IC40	C166	C168	C301-307	R190	R192	R401-407	L6	X4
U.S.A.	K	0-11	CXP82852-108Q	NO	8200P	2700P	NO	5.6K	470	NO	NO	NO
CANADA	P											
PX	Y											

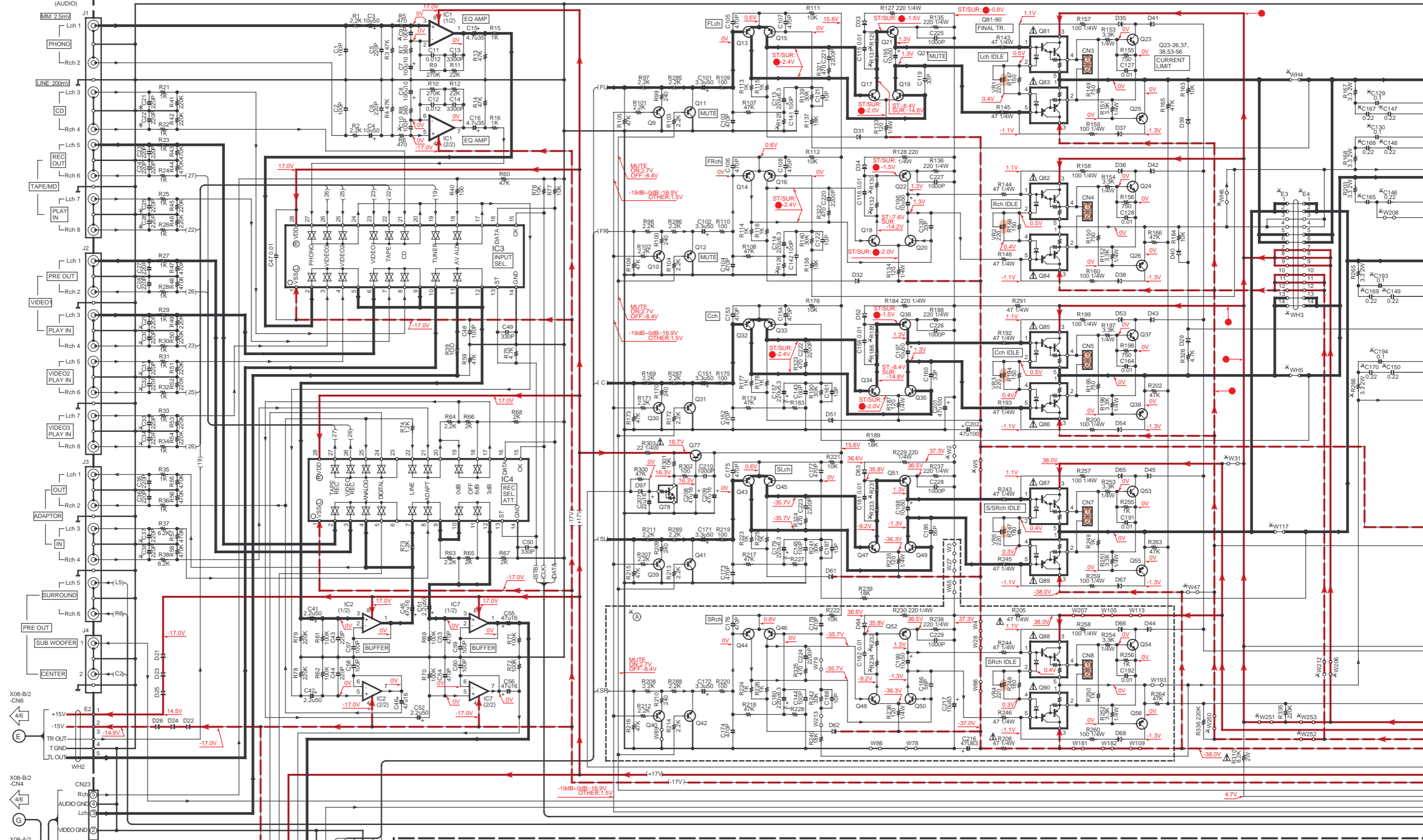
1060VR, KR-V8090(K) (4/6)
 1070VR, KR-V9090, V9090W(K) (4/6)

Y05-3330-10

1060VR/1070VR/KR-V8090/KR-V9090

KENWOOD

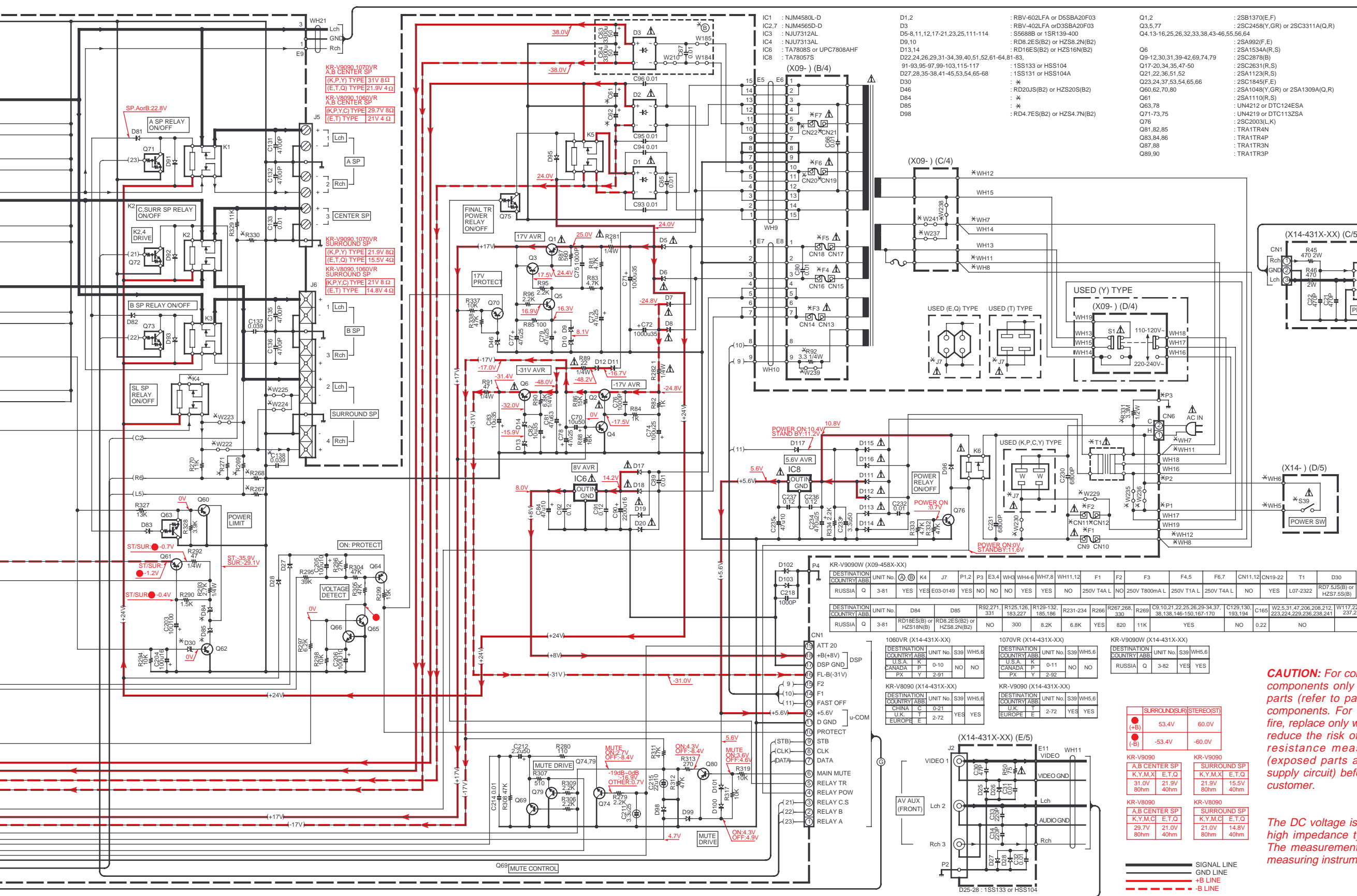
MAIN UNIT (X09-45XX-XX) (A/4)



DESTINATION COUNTRY (ABB)	UNIT No.	(A)	(B)	(C)	K4	J7	P1,2	P3	E3,4	WH3	WH4-6	WH7,8	WH11,12	F1	F2	F3	F4,5	F6,7	CN11,12	CN19-22	T1	D30	D84	D85	R22	R125,126,183,227	R129,132,185,186,231,233	R228,266	R267,268,330	R269	R331	C9,10,21,22,25,26,29-34,37,38,138,150,170	C61,62	C129,130,193,194	C146-148,167-169	C165		
USA	0-10	NO	NO	NO	E03-0148	NO	YES	NO	YES	NO	NO	NO	NO	250V T3.15A L	250V T3.15A L	125V 1A	125V 2A	NO	NO	NO	L07-2320	RD11ES(B2) or HZS11N(B2)	RD24ES(B) or HZS24N(B)	RD10ES(B) or HZS10N(B)	YES	220	12K	NO	560	15K	NO	NO	6800u 71	NO	NO	NO	0.22	
CANADA	0-10	NO	NO	NO	E03-0148	NO	YES	NO	YES	NO	NO	NO	NO	250V T3.15A L	250V T3.15A L	125V 1A	125V 2A	NO	NO	NO	L07-2320	RD11ES(B2) or HZS11N(B2)	RD24ES(B) or HZS24N(B)	RD10ES(B) or HZS10N(B)	YES	220	12K	NO	560	15K	NO	NO	6800u 71	NO	NO	NO	0.22	
UK	0-5T	NO	NO	NO	E03-0310	YES	NO	YES	YES	NO	YES	NO	NO	250V T3.15A L	NO	250V T800mA L	250V T1A L	NO	NO	NO	L07-2322	RD11ES(B2) or HZS11N(B2)	RD24ES(B) or HZS24N(B)	RD10ES(B) or HZS10N(B)	NO	220	12K	NO	560	15K	NO	NO	6800u 71	NO	NO	NO	0.22	
EUROPE	2-71	NO	NO	NO	E03-0149	NO	NO	NO	NO	NO	NO	NO	NO	250V T2.5A L	250V T2.5A L	250V T800mA L	250V T1A L	NO	YES	NO	L07-2322	RD7.5JS(B) or HZS7.5S(B)	RD18ES(B) or HZS18N(B)	RD8.2ES(B2) or HZS8.2N(B2)	NO	300	8.2K	820	18K	NO	YES	NO	NO	6800u 71	NO	NO	NO	0.22

1060VR (X09-456X-XX)
KR-V9090 (X09-456X-XX)

1
2
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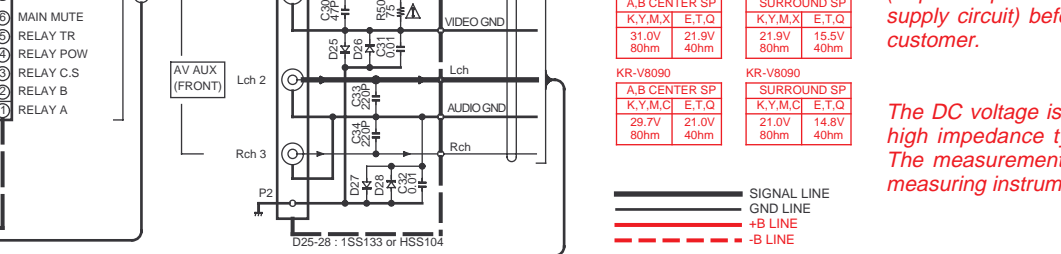


- IC1 : NJM4580L-D
- IC2,7 : NJM4565D-F
- IC3 : NJU7312AL
- IC4 : NJU7313AL
- IC6 : TA7805S or UPC7808AHF
- IC8 : TA7805TS
- D1,2 : RBV-602LFA or D5SBA20F03
- D3 : RBV-402LFA or D3SBA20F03
- D5-8,11,12,17-21,23,25,111-114 : S5688B or 1SR139-400
- D9,10 : RD8.2ES(B2) or HZS8.2N(B2)
- D13,14 : RD16ES(B2) or HZS16N(B2)
- D22,24,26,29,31-34,39,40,51,52,61-64,81-83,91-93,95-97,99-103,115-117 : 1SS133 or HSS104
- D27,28,35-38,41-45,53,54,65-68 : 1SS131 or HSS104A
- D30 : *
- D46 : RD20JS(B2) or HZS20S(B2)
- D84 : *
- D85 : *
- D98 : RD4.7ES(B2) or HZS4.7N(B2)
- Q1,2 : 2SB1370(E,F)
- Q3,5,77 : 2SC2458(Y,GR) or 2SC3311A(Q,R)
- Q4,13-16,25,26,32,33,38,43-46,55,56,64 : *
- Q6 : 2SA992(F,E)
- Q9-12,30,31,39-42,69,74,79 : 2SA1534A(R,S)
- Q17-20,34,36,47-50 : 2SC2878(B)
- Q21,22,36,51,52 : 2SC2631(R,S)
- Q23,24,37,53,54,65,66 : 2SC1845(F,E)
- Q60,62,70,80 : 2SA1048(V,GR) or 2SA1309A(Q,R)
- Q61 : 2SA1110(R,S)
- Q63,78 : UN4212 or DTC124ESA
- Q71-73,75 : UN4219 or DTC113ZSA
- Q76 : 2SC2003(L,K)
- Q81,82,85 : TR1A1TR4N
- Q83,84,86 : TR1A1TR4P
- Q87,88 : TR1A1TR3N
- Q89,90 : TR1A1TR3P

DESTINATION COUNTRY	UNIT No.	D84	D85	R92,271,331	R125,126,183,227,228	R129-132,185,186	R231-234	R266	R267,268,330	R269	R271	R331	C9,10,21,22,25,26,29-34,37,38,138,146-150,167-170	C61,62	C129,130,193,194	C138	C146-150,167-170	C165	W2,5,31,47,206,212,223,225,229,230,235	W117,222,225,230,235,237,239,250-253	W208,235	
RUSSIA	Q	3-81	YES	YES	E03-0149	YES	NO	NO	NO	NO	YES	NO	250V T4A L	NO	250V T800mA L	250V T1A L	250V T4A L	NO	NO	YES	L07-2322	RD7.5JS(B) or HZS7.5S(B)

DESTINATION COUNTRY	UNIT No.	S39	WH5,6
U.S.A.	K	0-10	NO
CANADA	P	0-11	NO
PX	Y	2-92	NO

DESTINATION COUNTRY	UNIT No.	S39	WH5,6
CHINA	C	0-21	YES
U.K.	T	2-72	YES
EUROPE	E	2-72	YES



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

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

W2,5,31,47,206,212,224,230,236,241	W117,222,223,225,229,235	W208,235
YES	NO	NO

DESTINATION COUNTRY	UNIT No.	K4	J7	P1,2	P3	E3,4	WH3	WH4-6	WH7,8	WH11,12	F1	F2	F3	F4,5	F6,7	CN11,12	CN19-22	T1	D30	D84	D85	R92,271,331	R125,126,183,227,228	R129-132,185,186	R231-234	R266	R267,268,330	R269	R271	R331	C9,10,21,22,25,26,29-34,37,38,138,146-150,167-170	C61,62	C129,130,193,194	C138	C146-150,167-170	C165	W2,5,31,47,206,212,223,225,229,230,235,237,239,250-253	W117,222,225,230,235,237,239,250-253	W208,235					
U.S.A.	K	0-10	YES	YES	E03-0148	NO	NO	NO	YES	NO	125V 8A	NO	125V 1A	125V 2A	125V 4A	NO	YES	L07-2320	RD11ES(B2) or HZS11N(B2)	RD24ES(B2) or HZS24N(B2)	RD10ES(B2) or HZS10N(B2)	YES	220	12K	8.2K	560	11K	NO	YES	NO	NO	12000u71	NO	YES	YES	NO	0.1	NO	NO	YES	NO	NO	NO	
U.K.	T	2-71	YES	YES	E03-0310	YES	NO	NO	YES	NO	250V T4A L	NO	250V T800mA L	250V T1A L	250V T4A L	NO	YES	L07-2322	RD7.5JS(B) or HZS7.5S(B)	RD18ES(B2) or HZS18N(B2)	RD8.2ES(B2) or HZS8.2N(B2)	NO	300	8.2K	6.8K	YES	820	11K	YES	NO	NO	12000u71	NO	YES	YES	NO	0.22	NO	NO	YES	NO	NO	NO	NO

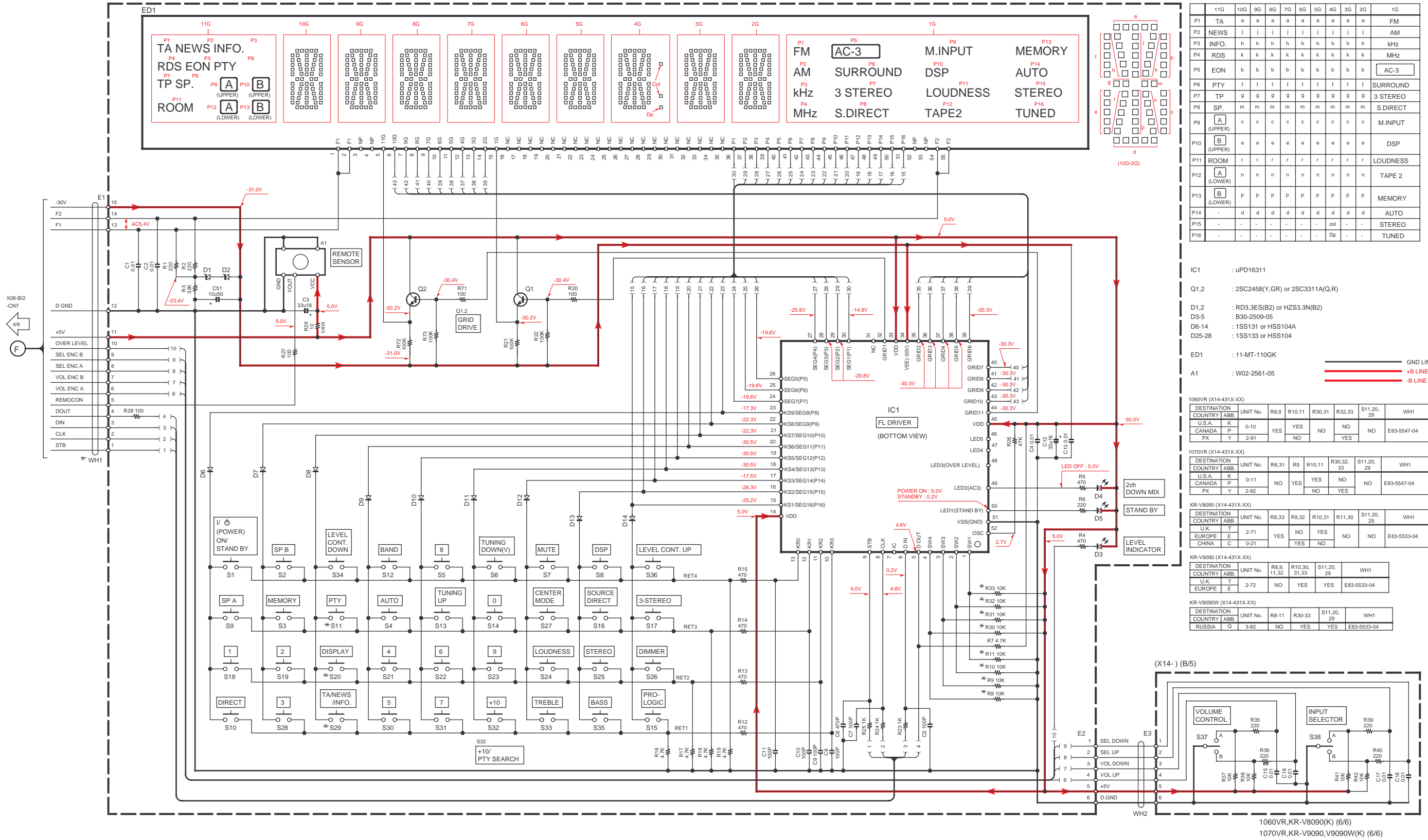
DESTINATION COUNTRY	UNIT No.	S39	WH5,6
U.S.A.	K	0-10	NO
CANADA	P	0-11	NO
PX	Y	2-92	NO

KR-V9090/V9090W/V8090,1070VR,1060VR(K) (5/6)

1060VR/1070VR/KR-V8090/KR-V9090

Y05-3330-10

(X14-431X-XX) (A/5)



ANODE CONNECTION

	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	TA	a	a	a	a	a	a	a	a	a	FM
P2	NEWS	j	j	j	j	j	j	j	j	j	AM
P3	INFO.	h	h	h	h	h	h	h	h	h	kHz
P4	RDS	k	k	k	k	k	k	k	k	k	MHz
P5	EON	b	b	b	b	b	b	b	b	b	AC-3
P6	PTY	f	f	f	f	f	f	f	f	f	SURROUND
P7	TP	g	g	g	g	g	g	g	g	g	3 STEREO
P8	SP.	m	m	m	m	m	m	m	m	m	S.DIRECT
P9	(UPPER)	c	c	c	c	c	c	c	c	c	M.INPUT
P10	(UPPER)	e	e	e	e	e	e	e	e	e	DSP
P11	ROOM	r	r	r	r	r	r	r	r	r	LOUDNESS
P12	(LOWER)	n	n	n	n	n	n	n	n	n	TAPE 2
P13	(LOWER)	p	p	p	p	p	p	p	p	p	MEMORY
P14	-	d	d	d	d	d	d	d	d	d	AUTO
P15	-	-	-	-	-	-	-	-	-	-	STEREO
P16	-	-	-	-	-	-	-	-	-	-	TUNED

IC1 : uPD16311

Q1,2 : 2SC2458(Y,G,R) or 2SC3311(A,Q,R)

D1,2 : RD3.3ES(B2) or HZS3.3N(B2)

D3-5 : B30-2509-05

D6-14 : 1SS131 or HSS104A

D25-28 : 1SS133 or HSS104

ED1 : 11-MT-110GK

A1 : W02-2561-05

1060VR (X14-431X-XX)

DESTINATION	COUNTRY	ABB.	UNIT No.	R8,9	R10,11	R30,31	R32,33	S11,20,29	WH1
U.S.A.	K	0-10	YES	YES	NO	NO	NO	NO	E83-5547-04
CANADA	P	2-91	NO	NO	NO	YES	NO	NO	E83-5547-04
PX	Y	2-91	NO	NO	NO	NO	YES	NO	E83-5547-04

1070VR (X14-431X-XX)

DESTINATION	COUNTRY	ABB.	UNIT No.	R8,31	R9	R10,11	R30,32,33	S11,20,29	WH1
U.S.A.	K	0-11	NO	YES	YES	NO	NO	NO	E83-5547-04
CANADA	P	2-92	NO	NO	NO	NO	YES	NO	E83-5547-04
PX	Y	2-92	NO	NO	NO	NO	NO	YES	E83-5547-04

KR-V8090 (X14-431X-XX)

DESTINATION	COUNTRY	ABB.	UNIT No.	R8,33	R9,32	R10,31	R11,30	S11,20,29	WH1
U.K.	T	2-71	YES	NO	YES	NO	NO	NO	E83-5533-04
EUROPE	E	2-71	YES	NO	YES	NO	NO	NO	E83-5533-04
CHINA	C	0-21	YES	NO	NO	NO	NO	NO	E83-5533-04

KR-V9090 (X14-431X-XX)

DESTINATION	COUNTRY	ABB.	UNIT No.	R8,9	R10,30,31,33	S11,20,29	WH1
U.K.	T	2-72	NO	YES	YES	NO	E83-5533-04
EUROPE	E	2-72	NO	YES	YES	NO	E83-5533-04

KR-V9090W (X14-431X-XX)

DESTINATION	COUNTRY	ABB.	UNIT No.	R8-11	R30-33	S11,20,29	WH1
RUSSIA	Q	3-82	NO	YES	YES	NO	E83-5533-04

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

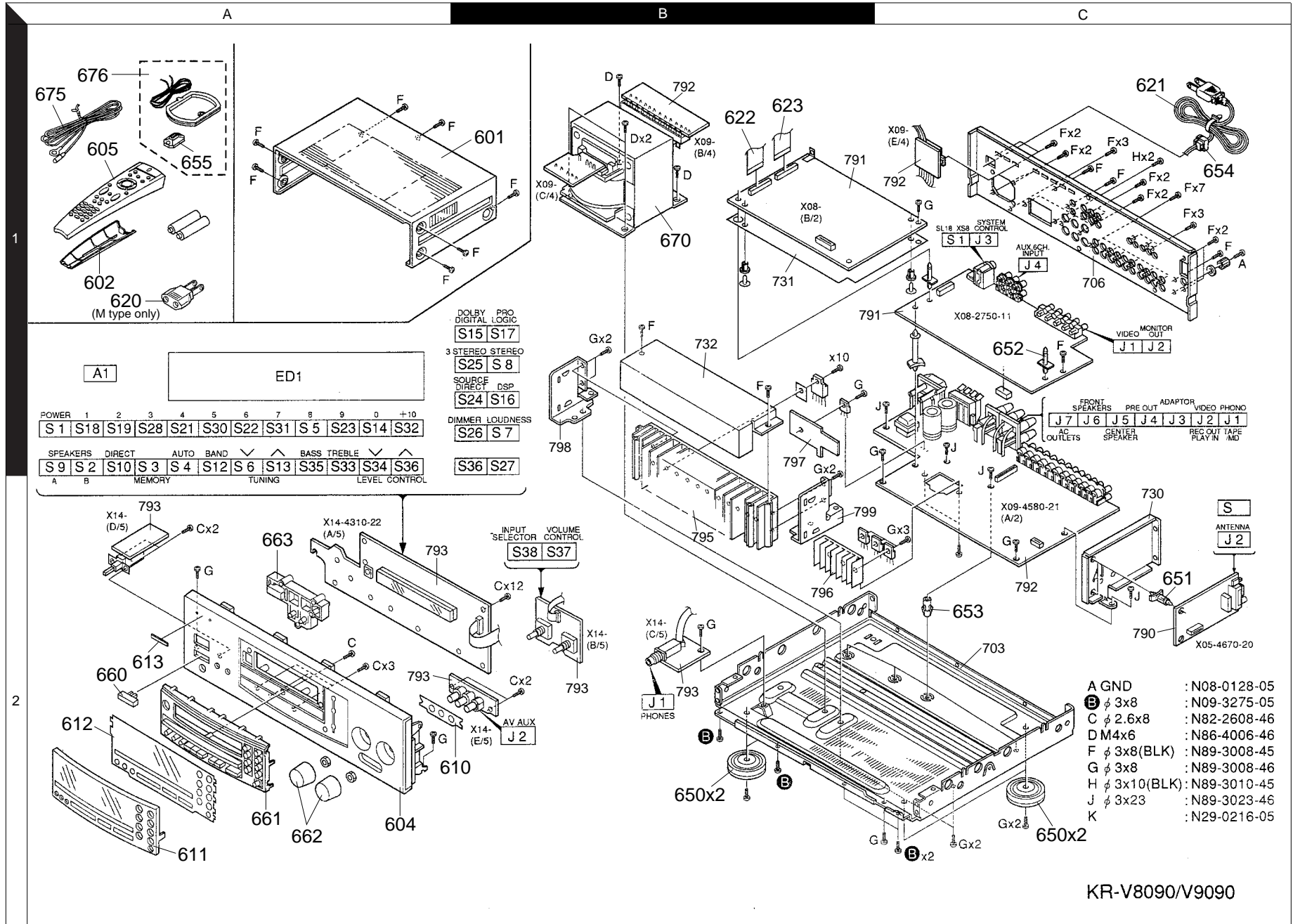
The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

1060VR/1070VR/KR-V8090/KR-V9090

Y05-3330-10

KENWOOD

EXPLODED VIEW(UNIT)



Parts with the exploded numbers larger than 700 are not supplied.

1060VR/1070VR/KR-V8090/KR-V9090

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.

①

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
1060VR/1070VR/KR-V8090/KR-V9090						
601	1A	*	A01-3269-11	METALLIC CABINET(for service)		
602	1A		A09-0366-08	BATTERY COVER(for remote cont)		
604	2A	*	A60-1056-11	PANEL(for 1070VR)	KPY	
604	2A	*	A60-1058-01	PANEL(for KR-V9090)	MX	
604	2A	*	A60-1059-01	PANEL(for KR-V9090)	TEQ	
604	2A	*	A60-1079-11	PANEL(for 1060VR)	KPY	
604	2A	*	A60-1080-01	PANEL(for KR-V8090)	MC	
604	2A	*	A60-1081-01	PANEL(for KR-V8090)	TEQ	
605	1A		A70-1115-05	REMO-CON (for KR-V9090/1070VR)		
605	1A	*	A70-1117-05	REMO-CON (for KR-V9090/1070VR)	KPYMC	
605	1A	*	A70-1118-05	REMOTE CONTROL(for KR-V8090)	TEQ	
610	2B		B03-2986-14	DRESSING PLATE		
611	2A	*	B10-2341-02	FRONT GLASS	KPYCMX	
611	2A	*	B10-2342-02	FRONT GLASS	TEQ	
612	2A		B11-0294-02	COLOR FILTER		
613	2A		B43-0302-04	KENWOOD BADGE		
-			B46-0096-53	WARRANTY CARD	X	
-			B46-0197-00	QUESTIONNAIRE CARD	K	
-			B46-0310-03	WARRANTY CARD	TEQ	
-			B46-0326-03	WARRANTY CARD	C	
-			B46-0330-03	WARRANTY CARD	KY	
-			B46-0336-03	WARRANTY CARDP		
-			B58-0513-04	CAUTION CARD (PRESET220-240)	Y	
-			B58-0964-13	CAUTION CARD (UL)	KY	
-			B58-0965-13	CAUTION CARD (T,X PL)	TX	
-			B58-0966-13	CAUTION CARD (ELM PL)	CEM	
-			B58-0967-03	CAUTION CARD (P PL)	P	
-			B58-1526-03	CAUTION CARD (P4,ORI,A4,1(Q))	Q	
-			B59-1104-00	SERVICE DIRECTORY	Y	
-			B59-1119-00	CATALOG (for 1060VR)	K1P	
-		*	B60-3030-20	INSTRUCTION MANUAL(English)	KPY	
-		*	B60-3031-20	INSTRUCTION MANUAL(English)	CMX	
-		*	B60-3032-20	INSTRUCTION MANUAL(English)	T	
-		*	B60-3033-20	INSTRUCTION MANUAL(French)	P	
-		*	B60-3034-20	INSTRUCTION (French/Dutch)	E	
-		*	B60-3035-20	INSTRUCTION (Italian/Spanish)	E	
-		*	B60-3036-20	INSTRUCTION MANUAL(German)	E	
-		*	B60-3037-20	INSTRUCTION MANUAL(Spanish)	M	
-		*	B60-3038-20	INSTRUCTION MANUAL(Chinese)	M	
-		*	B60-3039-20	INSTRUCTION MANUAL(Chinese)	C	
-		*	B60-3040-00	INSTRUCTION (Russian/Polish)	Q	
Δ 620	1A		E03-0115-05	AC PLUG ADAPTER	M	
Δ 621	1C		E30-2592-15	AC POWER CORD	M	
Δ 621	1C		E30-2717-05	AC POWER CORD	X	
Δ 621	1C		E30-2739-05	AC POWER CORD	Y	
Δ 621	1C		E30-2787-05	AC POWER CORD	KP	
Δ 621	1C		E30-2788-05	AC POWER CORD	EQ	
Δ 621	1C		E30-2791-05	AC POWER CORD	T	
Δ 621	1C		E30-2825-05	AC POWER CORD	C	
622	1B		E35-1717-05	FLAT CABLE		
623	1B		E35-1719-05	FLAT CABLE		
			H10-7315-12	POLYSTYRENE FOAMED FIXTURE		

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

Δ indicates safety critical components.

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②

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
			H12-2302-04	PACKING FIXTURE	T	
			H25-0232-04	PROTECTION BAG (235X350X0.03)		CEKMPQ
			H25-0232-04	PROTECTION BAG (235X350X0.03)		XY
			H25-0651-04	PROTECTION BAG	T	
			H25-0661-04	PROTECTION BAG		
-			H10-7314-12	POLYSTYRENE FOAMED FIXTURE		
-		*	H50-2331-04	ITEM CARTON CASE (for 1070VR)		KPY
-		*	H50-2332-04	ITEM CARTON CASE(for KR-V9090)		E
-		*	H50-2333-04	ITEM CARTON CASE(for KR-V9090)		T
-		*	H50-2404-04	ITEM CARTON CASE(for KR-V9090)		MX
-		*	H50-2405-04	ITEM CARTON CASE(for KR-V8090)		KPY
-		*	H50-2406-04	ITEM CARTON CASE(for KR-V8090)		E
-		*	H50-2407-04	ITEM CARTON CASE(for KR-V8090)		T
-		*	H50-2408-04	ITEM CARTON CASE(for KR-V8090)		M
-		*	H50-2409-04	ITEM CARTON CASE(for KR-V8090)		CQ
-		*	H50-2478-04	ITEM CARTON CASE(for KR-V8090)		Q
650	2C		J02-1148-13	FOOT (D=46,H=14.5)		
651	1C		J19-3324-15	UNIT HOLDER		
652	1C		J19-3331-05	UNIT HOLDER		
653	1C		J19-3731-04	UNIT HOLDER		
Δ 654	1C		J42-0083-05	POWER CORD BUSHING		
655	1A		J19-3645-05	ANTENNA HOLDER		
-			J61-0098-05	WIRE BAND		
-			J61-0307-05	WIRE BAND		CMX
660	2A		K27-2176-04	KNOB (BUTTON)		CTE
660	2A		K27-2176-04	KNOB (BUTTON)		MCQ
660	2A		K27-2176-04	KNOB (BUTTON)		TEQMX
661	2A		K29-6246-22	KNOB		
662	2A		K29-6247-04	KNOB		KPY
663	2A		K29-6282-02	KNOB		KPYMX
663	2A		K29-6284-02	KNOB		TEQ
-			K29-6711-04	KNOB		CEMQTX
Δ 670	1B		L07-2278-05	POWER TRANSFORMER(for 1070VR)		KP
Δ 670	1B		L07-2279-05	POWER TRANS (for KR-V9090)		MYX
Δ 670	1B		L07-2280-05	POWER TRANS (for KR-V9090)		TEQ
Δ 670	1B	*	L07-2284-05	POWER TRANSFORMER(for 1060VR)		KP
Δ 670	1B		L07-2285-05	POWER TRANS (for KR-V8090)		MY
Δ 670	1B	*	L07-2287-05	POWER TRANS (for KR-V8090)		TEQ
Δ 670	1B	*	L07-2357-05	POWER TRANS (for KR-V8090)		C
675	1A		T90-0810-05	LEAD WIRE ANTENNA		
676	1A		T90-0820-05	LOOP ANTENNA		
TUNER UNIT(X05-467x-xx) for CMYX type						
C1 ,2			CK73FB1H103K	CHIP C	0.010UF	K
C5			CK73FB1H102K	CHIP C	1000PF	K
C8			CK73FB1H103K	CHIP C	0.010UF	K
C9			CE04LW1C100M	ELECTRO	10UF	16WV
C10			CK73FB1H473K	CHIP C	0.047UF	K
C11			CE04LW1H010M	ELECTRO	1.0UF	50WV
C12			CE04LW1H2R2M	ELECTRO	2.2UF	50WV
C13			CK73FB1H102K	CHIP C	1000PF	K
C14			CE04LW1H010M	ELECTRO	1.0UF	50WV
C15			CC73FCH1H220J	CHIP C	22PF	J

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

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③

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
C16			CE04LW1C100M	ELECTRO 10UF 16WV		
C17			CK73FB1H562K	CHIP C 5600PF K	MX Y	
C18			CK73FB1H102K	CHIP C 1000PF K		
C19			CE04HW1E4R7M	NP-ELEC 4.7UF 25WV		
C20			CK73FB1E104K	CHIP C 0.10UF K		
C21 ,22			CQ93FMG1H113J	MYLAR 0.011UF J		
C23			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C25			CE04LW1C100M	ELECTRO 10UF 16WV		
C26			CE04LW1C470M	ELECTRO 47UF 16WV		
C27			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C28			CQ93FMG1H223J	MYLAR 0.022UF J		
C29			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C30			CE04LW1C101M	ELECTRO 100UF 16WV		
C31			CE04LW1A470M	ELECTRO 47UF 10WV		
C32			CK73FB1H103K	CHIP C 0.010UF K		
C33			CC73FSL1H101J	CHIP C 100PF J		
C34 ,35			CK73FB1H102K	CHIP C 1000PF K	MX Y	
C34 ,35			CK73FB1H102K	CHIP C 1000PF K		
C36			CC73FCH1H270J	CHIP C 27PF J		
C37			CC73FCH1H220J	CHIP C 22PF J		
C38			CK73FB1H471K	CHIP C 470PF K		
C57 ,58			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C59 ,60			CE04LW1C100M	ELECTRO 10UF 16WV		
C61 ,62			CQ93FMG1H472J	MYLAR 4700PF J		
C63			CC73FCH1H220J	CHIP C 22PF J		
C64			CC73FCH1H330J	CHIP C 33PF J		
C65			CC73FCH1H040C	CHIP C 4.0PF C		
C67			CK73FB1H102K	CHIP C 1000PF K		
CN1			E40-4609-05	PIN ASSY		
J1			E70-0052-05	LOCK TERMINAL BOARD		
CF1 ,2			L72-0531-05	CERAMIC FILTER		
CF3			L72-0593-05	CERAMIC FILTER		
L1			L39-1348-05	COMBINATION COIL		
L2			L30-0911-05	AM IFT		
L3 ,4			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
X1			L77-2159-05	CRYSTAL RESONATOR(7.2MHZ)		
X2			L78-0637-05	RESONATOR (456KHZ)		
R1			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R2			RK73FB2A681J	CHIP R 680 J 1/10W		
R3			RK73FB2A100J	CHIP R 10 J 1/10W		
R4 ,5			RK73FB2A331J	CHIP R 330 J 1/10W		
R6			RK73FB2A101J	CHIP R 100 J 1/10W		
R7			RK73FB2A473J	CHIP R 47K J 1/10W		
R8			RK73FB2A331J	CHIP R 330 J 1/10W		
R12			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R13			RK73FB2A473J	CHIP R 47K J 1/10W		
R15 ,16			RK73FB2A393J	CHIP R 39K J 1/10W		
R17			RK73FB2A271J	CHIP R 270 J 1/10W		
R18			RK73FB2A302J	CHIP R 3.0K J 1/10W		
R19			RK73FB2A822J	CHIP R 8.2K J 1/10W		
R20 -23			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R24			RK73FB2A562J	CHIP R 5.6K J 1/10W		
R25			RD14NB2E101J	RD 100 J 1/4W		

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④

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
R26			RD14NB2E561J	RD 560 J 1/4W		
R27 ,28			RK73FB2A103J	CHIP R 10K J 1/10W		
R29 ,30			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R31			RK73FB2A103J	CHIP R 10K J 1/10W		
R32			RK73FB2A122J	CHIP R 1.2K J 1/10W		
R33			RK73FB2A123J	CHIP R 12K J 1/10W		
R41			RS14KB3A271JFR	FL-PROOF RS 270 J 1W		
R42			RD14NB2E271J	RD 270 J 1/4W		
R44			RK73FB2A101J	CHIP R 100 J 1/10W		
R46			RK73FB2A104J	CHIP R 100K J 1/10W		
R47			RK73FB2A153J	CHIP R 15K J 1/10W		
R48			RK73FB2A473J	CHIP R 47K J 1/10W	MX	
R49			RK73FB2A473J	CHIP R 47K J 1/10W	X	
R50			RK73FB2A471J	CHIP R 470 J 1/10W	CM Y	
R51 -54			RK73FB2A473J	CHIP R 47K J 1/10W		
R55 ,56			RK73FB2A154J	CHIP R 150K J 1/10W		
R59 ,60			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R61			RK73FB2A103J	CHIP R 10K J 1/10W		
R62			RK73FB2A563J	CHIP R 56K J 1/10W		
R63			RK73FB2A821J	CHIP R 820 J 1/10W		
R64			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R65			RK73EB2B102J	CHIP R 1.0K J 1/8W		
R73			RK73FB2A681J	CHIP R 680 J 1/10W		
W101-106			R92-0670-05	CHIP R 0 OHM		
W108-113			R92-0670-05	CHIP R 0 OHM		
W115			R92-0670-05	CHIP R 0 OHM		
W201-212			R92-0679-05	CHIP R 0 OHM		
S1			S62-0034-05	SLIDE SWITCH		CM Y
D1 ,2			HSS104	DIODE		
D1 ,2			1SS133	DIODE		
D3 ,4			HZS5.1N(B2)	ZENER DIODE		
D3 ,4			RD5.1ES(B2)	ZENER DIODE		
D8			HSS104	DIODE		
D8			1SS133	DIODE		
D10			MA111	DIODE		
D12			HZS3.3N(B2)	ZENER DIODE		
D12			RD3.3ES(B2)	ZENER DIODE		
D13			HZS2.7N(B2)	ZENER DIODE		
D13			RD2.7ES(B2)	ZENER DIODE		
IC1			LA1832	ANALOGUE IC		
IC2			LC72131	MOS-IC		
IC4			NJM4565M	IC(OP AMP X2)		
Q1			2SC2714(R,O)	TRANSISTOR		
Q3			2SA1576A(R,S)	TRANSISTOR		
Q3			2SA1586(Y,GR)	TRANSISTOR		
Q5			2SC4081(R,S)	TRANSISTOR		
Q5			2SC4116(Y,GR)	TRANSISTOR		
Q6			2SA1576A(R,S)	TRANSISTOR		
Q6			2SA1586(Y,GR)	TRANSISTOR		
Q7 ,8			2SD1757K	TRANSISTOR		
Q9 ,10			2SC4081(R,S)	TRANSISTOR		CM Y
Q9 ,10			2SC4116(Y,GR)	TRANSISTOR		CM Y
A1			W02-2582-05	FM FRONT-END ASSY		

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5

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TUNER UNIT(X05-468x-xx) for KPTEQ type						
C1			CE04LW1C470M	ELECTRO 47UF 16WV		
C2			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C3			CK73FB1H103K	CHIP C 0.010UF K		
C5			CK73FB1H103K	CHIP C 0.010UF K	EQT	
C6 -10			CK73FB1H103K	CHIP C 0.010UF K	KP	
C30			CK73EB1E473K	CHIP C 0.047UF K		
C31			CE04LW1C470M	ELECTRO 47UF 16WV		
C32			CK73FB1H103K	CHIP C 0.010UF K		
C33			CE04LW1C100M	ELECTRO 10UF 16WV		
C34			CK73FB1H103K	CHIP C 0.010UF K		
C35			CE04LW1C100M	ELECTRO 10UF 16WV		
C36			CK73FB1E473K	CHIP C 0.047UF K		
C37			CK73FB1H103K	CHIP C 0.010UF K		
C38			C90-3217-05	ELECTRO 10UF 10WV		
C40			C90-3253-05	ELECTRO 1.0UF 50WV		
C41			C90-3251-05	ELECTRO 0.47UF 50WV		
C42			C90-3240-05	ELECTRO 2.2UF 35WV		
C43			CE04LW1HR47M	ELECTRO 0.47UF 50WV		
C44			CK73FB1E473K	CHIP C 0.047UF K		
C45			CC73FCH1H220J	CHIP C 22PF J		
C46			CE04LW1A101M	ELECTRO 100UF 10WV		
C47			CK73FB1H103K	CHIP C 0.010UF K		
C48			CC73FSL1H101J	CHIP C 100PF J		
C49			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C50			CK73FB1H152K	CHIP C 1500PF K	EQT	
C51 ,52			C90-3217-05	ELECTRO 10UF 10WV		
C53 ,54			CK73FB1H223K	CHIP C 0.022UF K	EQT	
C53 ,54			CK73FB1H333K	CHIP C 0.033UF K	KP	
C55 ,56			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C57 ,58			CK73FB1H822K	CHIP C 8200PF K		
C59			CC73FSL1H101J	CHIP C 100PF J	EQT	
C60			CK73FB1E104K	CHIP C 0.10UF K	EQT	
C61			CK73FB1H103K	CHIP C 0.010UF K		
C64			CK73FB1H333K	CHIP C 0.033UF K		
C66			CC73FCH1H060D	CHIP C 6.0PF D		
C67			CC73FCH1H220J	CHIP C 22PF J		
C68			CC73FSL1H020C	CHIP C 2.0PF C		
C70			CC73FSL1H101J	CHIP C 100PF J		
C73			CK73FB1H821K	CHIP C 820PF K	KP	
C81			CC73FCH1H220J	CHIP C 22PF J		
C82			CC73FCH1H270J	CHIP C 27PF J		
C84			CK73FB1H102K	CHIP C 1000PF K		
C85			CC73FSL1H101J	CHIP C 100PF J		
C86			CK73FB1H102K	CHIP C 1000PF K		
C87			CE04LW1C100M	ELECTRO 10UF 16WV		
C89			CE04LW1C470M	ELECTRO 47UF 16WV		
C90			CE04LW1H2R2M	ELECTRO 2.2UF 50WV		
C91			CK73FB1H223K	CHIP C 0.022UF K		
C92			CC73FSL1H471J	CHIP C 470PF J		
C93			CK73FB1H103K	CHIP C 0.010UF K		
C96			CK73FB1H102K	CHIP C 1000PF K		
CN1			E40-4609-05	PIN ASSY		

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6

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CN2			E40-4871-05	PIN ASSY		
J1			E70-0052-05	LOCK TERMINAL BOARD		
CF1 ,2			L72-0536-05	CERAMIC FILTER	EQT	
CF1 ,2			L72-0596-05	CERAMIC FILTER	KP	
L31		*	L30-0943-05	FM IFT		
L32		*	L30-0944-05	FM IFT		
L33			L30-0911-05	AM IFT		
L34			L79-1240-05	LC FILTER	EQT	
L35 ,36			L79-1239-05	LC FILTER		
L61			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
L62			L39-1351-05	COMBINATION COIL		
L63			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)		
L81			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
X31			L78-0637-05	RESONATOR (456KHZ)		
X81			L77-2159-05	CRYSTAL RESONATOR(7.2MHZ)		
R1			RD14NB2E221J	RD 220 J 1/4W		
R2			RK73FB2A221J	CHIP R 220 J 1/10W		
R3			RK73FB2A182J	CHIP R 1.8K J 1/10W	EQT	
R3			RK73FB2A561J	CHIP R 560 J 1/10W	KP	
R4			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R5			RK73FB2A103J	CHIP R 10K J 1/10W		
R7			RK73FB2A221J	CHIP R 220 J 1/10W	EQT	
R8			RK73FB2A681J	CHIP R 680 J 1/10W	EQT	
R9			RK73FB2A470J	CHIP R 47 J 1/10W		
R10			RK73FB2A101J	CHIP R 100 J 1/10W		
R11			RK73FB2A331J	CHIP R 330 J 1/10W		
R12			RK73FB2A101J	CHIP R 100 J 1/10W		
R13			RK73FB2A681J	CHIP R 680 J 1/10W		
R14			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R15			RK73FB2A331J	CHIP R 330 J 1/10W		
R16			RK73FB2A100J	CHIP R 10 J 1/10W	EQT	
R16			RK73FB2A150J	CHIP R 15 J 1/10W	KP	
R17			RK73FB2A331J	CHIP R 330 J 1/10W		
R18			RK73FB2A391J	CHIP R 390 J 1/10W		
R19			RK73FB2A681J	CHIP R 680 J 1/10W		
R20			RK73FB2A100J	CHIP R 10 J 1/10W	EQT	
R20			RK73FB2A150J	CHIP R 15 J 1/10W	KP	
R21			RK73FB2A101J	CHIP R 100 J 1/10W		
R22			RK73FB2A100J	CHIP R 10 J 1/10W		
R31			RS14KB3A151JFR	FL-PROOF RS 150 J 1W		
R32			RK73EB2B432J	CHIP R 4.3K J 1/8W		
R33			RK73FB2A302J	CHIP R 3.0K J 1/10W		
R34			RK73FB2A822J	CHIP R 8.2K J 1/10W		
R35			RK73FB2A333J	CHIP R 33K J 1/10W		
R36			RK73FB2A393J	CHIP R 39K J 1/10W		
R37			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R38			RK73FB2A333J	CHIP R 33K J 1/10W		
R39			RK73FB2A823J	CHIP R 82K J 1/10W		
R40			RK73FB2A202J	CHIP R 2.0K J 1/10W		
R41			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R42			RK73FB2A202J	CHIP R 2.0K J 1/10W	EQT	
R43 ,44			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R45 ,46			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R47 ,48			RK73FB2A392J	CHIP R 3.9K J 1/10W		

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7

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
R49			RK73FB2A473J	CHIP R 47K J 1/10W		
R51			RK73FB2A392J	CHIP R 3.9K J 1/10W	EQT	
R52			RK73FB2A104J	CHIP R 100K J 1/10W	EQT	
R53			RK73FB2A102J	CHIP R 1.0K J 1/10W	EQT	
R55			RK73FB2A562J	CHIP R 5.6K J 1/10W		
R56 ,57			RK73FB2A101J	CHIP R 100 J 1/10W	TEQ	
R59			RK73FB2A272J	CHIP R 2.7K J 1/10W		
R67			RK73FB2A104J	CHIP R 100K J 1/10W		
R69			RK73FB2A103J	CHIP R 10K J 1/10W		
R80			RK73EB2B102J	CHIP R 1.0K J 1/8W		
R81 -83			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R84			RK73FB2A103J	CHIP R 10K J 1/10W		
R85 -88			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R89			RD14NB2E101J	RD 100 J 1/4W		
R90			RK73FB2A562J	CHIP R 5.6K J 1/10W		
R91			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R92			RK73FB2A123J	CHIP R 12K J 1/10W		
R93			RK73FB2A122J	CHIP R 1.2K J 1/10W		
R94			RD14NB2E561J	RD 560 J 1/4W		
R101,102			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R103			RK73FB2A821J	CHIP R 820 J 1/10W		
R104			RK73FB2A473J	CHIP R 47K J 1/10W		
R105			RK73FB2A822J	CHIP R 8.2K J 1/10W		
W51 -55			R92-0670-05	CHIP R 0 OHM		
W57 ,58			R92-0679-05	CHIP R 0 OHM		
W59			R92-0670-05	CHIP R 0 OHM		
W61			R92-0670-05	CHIP R 0 OHM		
W62 -64			R92-0679-05	CHIP R 0 OHM		
W66 ,67			R92-0679-05	CHIP R 0 OHM		
W71			R92-0670-05	CHIP R 0 OHM		
W75			R92-0670-05	CHIP R 0 OHM		
W81			R92-0679-05	CHIP R 0 OHM		
W83			R92-0679-05	CHIP R 0 OHM		
W85			R92-0670-05	CHIP R 0 OHM	EQT	
D1			HSS104	DIODE	KP	
D1			1SS133	DIODE		
D2			HSS104	DIODE	EQT	
D2			1SS133	DIODE	EQT	
D31			HZS8.2N(B2)	ZENER DIODE		
D31			RD8.2ES(B2)	ZENER DIODE		
D32			HSS104	DIODE		
D32			1SS133	DIODE		
D61 ,62			HSS104	DIODE		
D61 ,62			1SS133	DIODE		
D81			HZS5.1N(B2)	ZENER DIODE		
D81			RD5.1ES(B2)	ZENER DIODE		
D101			HZS3.3N(B2)	ZENER DIODE		
D101			RD3.3ES(B2)	ZENER DIODE		
D102			HZS2.7N(B2)	ZENER DIODE		
D102			RD2.7ES(B2)	ZENER DIODE		
IC1			LA1836	ANALOGUE IC		
IC2			LC72131	MOS-IC		
Q1 ,2			2SC4081(R,S)	TRANSISTOR		
Q1 ,2			2SC4116(Y,GR)	TRANSISTOR		

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8

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Q3			2SA1576A(R,S)	TRANSISTOR		
Q3			2SA1586(Y,GR)	TRANSISTOR		
Q4			2SC4081(R,S)	TRANSISTOR		
Q4			2SC4116(Y,GR)	TRANSISTOR		
Q31 ,32			2SC4081(R,S)	TRANSISTOR	KP	
Q31 ,32			2SC4116(Y,GR)	TRANSISTOR		
Q33 ,34			2SC4081(R,S)	TRANSISTOR	EQT	
Q33 ,34			2SC4116(Y,GR)	TRANSISTOR	EQT	
Q81			2SA1576A(R,S)	TRANSISTOR		
Q81			2SA1586(Y,GR)	TRANSISTOR		
Q101,102			2SD1757K	TRANSISTOR		
Q103			2SA1576A(R,S)	TRANSISTOR		
Q103			2SA1586(Y,GR)	TRANSISTOR		
A1			W02-2582-05	FM FRONT-END ASSY	KP	
A1		*	W02-2584-05	FM FRONT-END ASSY	ET	
A1		*	W02-2586-05	FM FRONT-END ASSY	Q	
SURROUND UNIT(X08-275x-xx)						
C1 -3			CC73FSL1H391J	CHIP C 390PF J		
C4 ,5			CC73FSL1H821J	CHIP C 820PF J		
C6 ,7			CE04KW0J331M	ELECTRO 330UF 6.3WV		
C8 ,9			CC73FSL1H221J	CHIP C 220PF J		
C10			CK73FB1H103K	CHIP C 0.010UF K		
C12 ,13			CC73FSL1H471J	CHIP C 470PF J		
C15			CC73FSL1H471J	CHIP C 470PF J		
C16			CK73FB1H103K	CHIP C 0.010UF K		
C17			CC73FSL1H101J	CHIP C 100PF J		
C19			CC73FSL1H101J	CHIP C 100PF J		
C20			CK73FB1H103K	CHIP C 0.010UF K		
C21 ,22			CQ93FMG1H683J	MYLAR 0.068UF J		
C23 ,24			CQ93FMG1H163J	MYLAR 0.016UF J		
C25 ,26			CQ93FMG1H183J	MYLAR 0.018UF J		
C27 ,28			CC73FSL1H220J	CHIP C 22PF J		
C29 ,30			CQ93FMG1H562J	MYLAR 5600PF J		
C31 ,32			CC73FSL1H561J	CHIP C 560PF J		
C33 ,34			CE04KW1V220M	ELECTRO 22UF 35WV		
C35 ,36			CC73FSL1H470J	CHIP C 47PF J		
C37 ,38			CC73FSL1H270J	CHIP C 27PF J		
C39 ,40			CE04KW1H100M	ELECTRO 10UF 50WV		
C41 ,42			CE04KW1C101M	ELECTRO 100UF 16WV		
C43 ,44			CE04KW1A101M	ELECTRO 100UF 10WV		
C45 ,46			CC73FSL1H331J	CHIP C 330PF J		
C47 ,48			CK73FB1E104K	CHIP C 0.10UF K		
C49			CK73FB1H223KTA	CHIP C 0.022UF K		
C50			CK73FB1E104K	CHIP C 0.10UF K		
C51			CK73FB1H102K	CHIP C 1000PF K		
C52			CE04KW1H100M	ELECTRO 10UF 50WV		
C53			CK73FB1H223KTA	CHIP C 0.022UF K		
C54 ,55			CE04KW1H100M	ELECTRO 10UF 50WV		
C56			CC73FSL1H101J	CHIP C 100PF J		
C57 -59			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C60			CE04KW1H100M	ELECTRO 10UF 50WV		
C61 ,62			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C63 ,64			CK73FB1H681K	CHIP C 680PF K		
C65 ,66			CK73FB1E104K	CHIP C 0.10UF K		

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9

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
C67,68			CC73FSL1H270J	CHIP C 27PF J		
C69,70			CC73FSL1H470J	CHIP C 47PF J		
C71,72			CE04KW1H100M	ELECTRO 10UF 50WV		
C73			CC73FSL1H331J	CHIP C 330PF J		
C74			CC73FSL1H101J	CHIP C 100PF J		
C75			CK73FB1H103K	CHIP C 0.010UF K		
C76,77			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C78			CK73FB1H103K	CHIP C 0.010UF K		
C79			CC73FSL1H101J	CHIP C 100PF J		
C80-82			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C87,88			CC73FSL1H270J	CHIP C 27PF J		
C89,90			CC73FSL1H470J	CHIP C 47PF J		
C91,92			CE04KW1H100M	ELECTRO 10UF 50WV		
C93			CC73FSL1H331J	CHIP C 330PF J		
C94			CC73FSL1H101J	CHIP C 100PF J		
C95			CK73FB1H103K	CHIP C 0.010UF K		
C96,97			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C98,99			CK73FB1E104K	CHIP C 0.10UF K		
C101,102			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C107,108			CC73FSL1H270J	CHIP C 27PF J		
C109,110			CC73FSL1H470J	CHIP C 47PF J		
C111,112			CE04KW1H100M	ELECTRO 10UF 50WV		
C113			CC73FSL1H331J	CHIP C 330PF J		
C114			CC73FSL1H101J	CHIP C 100PF J		
C115			CK73FB1H103K	CHIP C 0.010UF K		
C116,117			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C118			CK73FB1H103K	CHIP C 0.010UF K		
C131-136			CC73FSL1H151J	CHIP C 150PF J	7/9	
C137			CK73FB1H103K	CHIP C 0.010UF K	7/9	
C138			CC73FSL1H101J	CHIP C 100PF J	7/9	
C139			CC73FSL1H331J	CHIP C 330PF J	7/9	
C141-146			CC73FSL1H101J	CHIP C 100PF J		
C147,148			CE04KW1HR47M	ELECTRO 0.47UF 50WV		
C153,154			CQ93FMG1H393J	MYLAR 0.039UF J		
C155,156			CQ93FMG1H682J	MYLAR 6800PF J		
C157,158			CQ93FMG1H392J	MYLAR 3900PF J		
C159,160			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C163,164			CQ93FMG1H393J	MYLAR 0.039UF J		
C165			CQ93FMG1H682J	MYLAR 6800PF J		
C166			CQ93FMG1H682J	MYLAR 6800PF J	6/8	
C166			CQ93FMG1H822J	MYLAR 8200PF J	7/9	
C167			CQ93FMG1H392J	MYLAR 3900PF J		
C167			CQ93FMG1H392J	MYLAR 3900PF J	6/8	
C168			CQ93FMG1H272J	MYLAR 2700PF J	7/9	
C169,170			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C171,172			CE04KW1H100M	ELECTRO 10UF 50WV		
C173,174			CC73FSL1H470J	CHIP C 47PF J		
C175,176			CK73FB1H103K	CHIP C 0.010UF K		
C181			CE04KW1A101M	ELECTRO 100UF 10WV		
C182,183			CK73FB1H102K	CHIP C 1000PF K		
C184,185			CE04KW1A101M	ELECTRO 100UF 10WV		
C186,187			CK73FB1H102K	CHIP C 1000PF K		
C188			CE04KW1A101M	ELECTRO 100UF 10WV		
C189			CC73FCH1H220J	CHIP C 22PF J		
C190			CC73FCH1H330J	CHIP C 33PF J		

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10

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
C191			CC73FCH1H220J	CHIP C 22PF J		
C192			CC73FCH1H330J	CHIP C 33PF J		
C193			CK73FB1H102K	CHIP C 1000PF K		
C194			CK73FB1E104K	CHIP C 0.10UF K		
C198,199			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C200			CK73FB1H103K	CHIP C 0.010UF K		
C201			CE04KW1A221M	ELECTRO 220UF 10WV		
C202			C90-1827-05	ELECTRO 0.047F 5.5WV		
C204			CK73FB1H103K	CHIP C 0.010UF K		
C205-207			CC73FSL1H470J	CHIP C 47PF J		
C208			CE04KW1H470M	ELECTRO 47UF 50WV		
C209			CK73FB1H102K	CHIP C 1000PF K		
C210,211			CC73FSL1H101J	CHIP C 100PF J		
C212			CK73FB1H103K	CHIP C 0.010UF K		
C213			CC73FSL1H101J	CHIP C 100PF J		
C214-218			CC73FSL1H470J	CHIP C 47PF J		
C301			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		EQT
C302			CC73FSL1H331J	CHIP C 330PF J		EQT
C303			CK73FB1H561K	CHIP C 560PF K		EQT
C304			CE04KW1H100M	ELECTRO 10UF 50WV		EQT
C305			CK73FB1H103K	CHIP C 0.010UF K		EQT
C306			CC73FCH1H330J	CHIP C 33PF J		EQT
C307			CC73FCH1H390J	CHIP C 39PF J		EQT
C401			CC73FSL1H101J	CHIP C 100PF J		
C402			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C403			CC73FSL1H101J	CHIP C 100PF J		
C404			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C405			CC73FSL1H101J	CHIP C 100PF J		
C406			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C407,408			CK73FB1H103K	CHIP C 0.010UF K		
C409-411			CC73FSL1H470J	CHIP C 47PF J		
C415-423			CK73FB1H103K	CHIP C 0.010UF K		
C425,426			CC73FSL1H470J	CHIP C 47PF J		
C427-429			CK73FB1H103K	CHIP C 0.010UF K		
C430-433			CC73FSL1H330J	CHIP C 33PF J		
C501-504			CE04KW1H100M	ELECTRO 10UF 50WV		
C513			CK73FB1H103K	CHIP C 0.010UF K		
C514			CC73FSL1H101J	CHIP C 100PF J		
C515			CE04KW1H470M	ELECTRO 47UF 50WV		
C516			CK73FB1E104K	CHIP C 0.10UF K		
C517			CC73FSL1H470J	CHIP C 47PF J		
C518			CK73FB1E104K	CHIP C 0.10UF K		
C519			CE04KW1H470M	ELECTRO 47UF 50WV		
C520-522			CK73FB1E104K	CHIP C 0.10UF K		
C523			CK73FB1H102K	CHIP C 1000PF K		
C524			CK73FB1H103K	CHIP C 0.010UF K		
C525,526			CK73FB1H102K	CHIP C 1000PF K		
C527			CQ93FMG1H153J	MYLAR 0.015UF J		
C529			CF92FV1H105J	MF-C 1.0UF J		
C530			CC73FSL1H470J	CHIP C 47PF J		
C531			CC73FSL1H101J	CHIP C 100PF J		
C532			CE04KW1A101M	ELECTRO 100UF 10WV		
CN1			E40-4918-05	FLAT CABLE CONNECTOR		
CN3			E40-4609-05	PIN ASSY		

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11

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CN4			E40-4906-05	FLAT CABLE CONNECTOR		
CN5			E40-4918-05	FLAT CABLE CONNECTOR		
CN6			E40-4295-05	FLAT CABLE CONNECTOR		
CN7			E40-4609-05	PIN ASSY		
J1			E63-0163-05	PHONO JACK		
J2			E63-1005-05	PHONO JACK		
J3			E11-0293-05	MINIATURE PHONE JACK(2P)	7/9	
J4			E63-0111-05	PHONO JACK		
L1_2			L92-0017-05	FERRITE CORE		
L4_5			L92-0017-05	FERRITE CORE C1C2M1		
L6			L92-0017-05	FERRITE CORE	CKMPY	
L7 -11			L92-0017-05	FERRITE CORE C1C2M1		
X1			L77-2192-05	CRYSTAL RESONATOR(12.288M)		
X2		*	L77-2193-05	CRYSTAL RESONATOR(4.0M)		
X3			L78-0290-05	RESONATOR (8MHZ)		
X4			L77-2200-05	CRYSTAL RESONATOR(4.332MHZ)	EQT	
R1 -5			RK73FB2A750J	CHIP R 75 J 1/10W		
R6			RK73FB2A471J	CHIP R 470 J 1/10W		
R8_9			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R11 -13			RK73FB2A221J	CHIP R 220 J 1/10W		
R14 -16			RK73FB2A333J	CHIP R 33K J 1/10W		
R17			RK73FB2A683J	CHIP R 68K J 1/10W		
R18			RK73FB2A104J	CHIP R 100K J 1/10W		
R19			RK73FB2A334J	CHIP R 330K J 1/10W		
R20			RK73FB2A331J	CHIP R 330 J 1/10W		
R21_22			RK73FB2A684J	CHIP R 680K J 1/10W		
R23_24			RK73FB2A394J	CHIP R 390K J 1/10W		
R25_26			RK73FB2A163J	CHIP R 16K J 1/10W		
R27_28			RK73FB2A392J	CHIP R 3.9K J 1/10W		
R29_30			RK73FB2A821J	CHIP R 820 J 1/10W		
R31_32			RK73FB2A392J	CHIP R 3.9K J 1/10W		
R33_34			RK73FB2A433J	CHIP R 43K J 1/10W		
R35_36			RK73FB2A184J	CHIP R 180K J 1/10W		
R37_38			RK73FB2A104J	CHIP R 100K J 1/10W		
R39_40			RD14NB2E560J	RD 56 J 1/4W		
R41_42			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R44			RK73FB2A103J	CHIP R 10K J 1/10W		
R45			RK73FB2A512J	CHIP R 5.1K J 1/10W		
R46 -49			RK73FB2A103J	CHIP R 10K J 1/10W		
R51_52			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R53_54			RK73FB2A101J	CHIP R 100 J 1/10W		
R55_56			RK73FB2A104J	CHIP R 100K J 1/10W		
R57_58			RK73FB2A471J	CHIP R 470 J 1/10W		
R60 -63			RK73FB2A273J	CHIP R 27K J 1/10W		
R64 -66			RK73FB2A333J	CHIP R 33K J 1/10W		
R81_82			RK73FB2A104J	CHIP R 100K J 1/10W		
R83_84			RK73FB2A822J	CHIP R 8.2K J 1/10W		
R85_86			RK73FB2A224J	CHIP R 220K J 1/10W		
R87 -89			RK73FB2A103J	CHIP R 10K J 1/10W		
R91_92			RK73FB2A104J	CHIP R 100K J 1/10W		
R93_94			RK73FB2A103J	CHIP R 10K J 1/10W		
R95 -103			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R111,112			RK73FB2A104J	CHIP R 100K J 1/10W		
R117-119			RK73FB2A103J	CHIP R 10K J 1/10W		

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12

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
R121,122			RK73FB2A104J	CHIP R 100K J 1/10W		
R141,142			RK73FB2A104J	CHIP R 100K J 1/10W		
R147-149			RK73FB2A103J	CHIP R 10K J 1/10W		
R151,152			RK73FB2A104J	CHIP R 100K J 1/10W		
R161			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R162			RK73FB2A243J	CHIP R 24K J 1/10W		
R171,172			RK73FB2A103J	CHIP R 10K J 1/10W	7/9	
R173,174			RK73FB2A183J	CHIP R 18K J 1/10W	7/9	
R175,176			RK73FB2A103J	CHIP R 10K J 1/10W	7/9	
R177,178			RK73FB2A183J	CHIP R 18K J 1/10W	7/9	
R179,180			RK73FB2A103J	CHIP R 10K J 1/10W	7/9	
R181			RK73FB2A563J	CHIP R 56K J 1/10W	7/9	
R182			RK73FB2A183J	CHIP R 18K J 1/10W	7/9	
R183			RK73FB2A472J	CHIP R 4.7K J 1/10W	7/9	
R184,185			RK73FB2A103J	CHIP R 10K J 1/10W	7/9	
R186,187			RK73FB2A682J	CHIP R 6.8K J 1/10W		
R188,189			RK73FB2A133J	CHIP R 13K J 1/10W		
R190			RK73FB2A471J	CHIP R 470 J 1/10W	7/9	
R190,191			RK73FB2A682J	CHIP R 6.8K J 1/10W	6/8	
R191			RK73FB2A682J	CHIP R 6.8K J 1/10W	7/9	
R192			RK73FB2A562J	CHIP R 5.6K J 1/10W	7/9	
R192,193			RK73FB2A133J	CHIP R 13K J 1/10W	6/8	
R193			RK73FB2A133J	CHIP R 13K J 1/10W	7/9	
R194			RK73FB2A123J	CHIP R 12K J 1/10W		
R195			RK73FB2A392J	CHIP R 3.9K J 1/10W		
R196			RK73FB2A103J	CHIP R 10K J 1/10W		
R197			RK73FB2A752J	CHIP R 7.5K J 1/10W		
R198			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R199			RK73FB2A103J	CHIP R 10K J 1/10W		
R203,204			RK73FB2A101J	CHIP R 100 J 1/10W		
R205,206			RK73FB2A112J	CHIP R 1.1K J 1/10W		
R207,208			RK73FB2A821J	CHIP R 820 J 1/10W		
R209,210			RK73FB2A104J	CHIP R 100K J 1/10W		
R213,214			RK73FB2A101J	CHIP R 100 J 1/10W		
R215,216			RK73FB2A112J	CHIP R 1.1K J 1/10W		
R217,218			RK73FB2A821J	CHIP R 820 J 1/10W		
R219-222			RK73FB2A104J	CHIP R 100K J 1/10W		
R223,224			RK73FB2A151J	CHIP R 150 J 1/10W		
R225,226			RK73FB2A105J	CHIP R 1.0M J 1/10W		
R228			RK73FB2A821J	CHIP R 820 J 1/10W		
R229,230			RK73FB2A103J	CHIP R 10K J 1/10W		
R231			RK73FB2A104J	CHIP R 100K J 1/10W		
R232			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R233			RK73FB2A103J	CHIP R 10K J 1/10W		
R234			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R235			RK73FB2A103J	CHIP R 10K J 1/10W		
R236-241			RK73FB2A104J	CHIP R 100K J 1/10W		
R244-250			RK73FB2A104J	CHIP R 100K J 1/10W		
R253,254			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R255-262			RK73FB2A104J	CHIP R 100K J 1/10W		
R263			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R264-269			RK73FB2A104J	CHIP R 100K J 1/10W		
R270			RK73FB2A103J	CHIP R 10K J 1/10W		
R271			RK73FB2A101J	CHIP R 100 J 1/10W		
R273-278			RK73FB2A101J	CHIP R 100 J 1/10W		

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13

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R291-297			RK73FB2A101J	CHIP R 100 J 1/10W		
R299-307			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R308,309			RK73FB2A101J	CHIP R 100 J 1/10W		
R310			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R311,312			RK73FB2A331J	CHIP R 330 J 1/10W		
R313-319			RK73FB2A101J	CHIP R 100 J 1/10W		
R320-323			RK73FB2A104J	CHIP R 100K J 1/10W		
R324			RK73FB2A101J	CHIP R 100 J 1/10W		
R325,326			RK73FB2A104J	CHIP R 100K J 1/10W		
R327,328			RK73FB2A101J	CHIP R 100 J 1/10W		
R329,330			RK73FB2A223J	CHIP R 22K J 1/10W		
R401,402			RK73FB2A223J	CHIP R 22K J 1/10W	TEQ	
R403			RK73FB2A473J	CHIP R 47K J 1/10W	TEQ	
R404			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R405,406			RK73FB2A102J	CHIP R 1.0K J 1/10W	TEQ	
R407			RK73FB2A101J	CHIP R 100 J 1/10W	TEQ	
R504,505			RK73FB2A471J	CHIP R 470 J 1/10W		
R506			RK73FB2A750J	CHIP R 75 J 1/10W		
R507			RK73FB2A470J	CHIP R 47 J 1/10W		
R508-514			RK73FB2A104J	CHIP R 100K J 1/10W		
R515,516			RK73FB2A470J	CHIP R 47 J 1/10W		
R517,518			RK73FB2A104J	CHIP R 100K J 1/10W		
R519,520			RK73FB2A331J	CHIP R 330 J 1/10W		
R521,522			RK73FB2A101J	CHIP R 100 J 1/10W		
R607,608			RD14NB2E821J	RD 820 J 1/4W		
R609,610			RK73FB2A123J	CHIP R 12K J 1/10W		
R611,612			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R615			RK73FB2A473J	CHIP R 47K J 1/10W		
R622,623			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R624			RK73FB2A103J	CHIP R 10K J 1/10W		
R625,626			RK73FB2A470J	CHIP R 47 J 1/10W		
W301-303			R92-0670-05	CHIP R 0 OHM		
W351-360			R92-0670-05	CHIP R 0 OHM		
S1			S31-2132-05	SLIDE SWITCH		
D12 ,13			HZS6.2N(B)	ZENER DIODE		
D12 ,13			RD6.2ES(B)	ZENER DIODE		
D14 ,15			HZS10N(B)	ZENER DIODE		
D14 ,15			RD10ES(B)	ZENER DIODE		
D21 -36			HSS104	DIODE		
D21 -36			1SS133	DIODE		
D39			HZS4.7N(B)	ZENER DIODE		
D39			RD4.7ES(B)	ZENER DIODE		
D61 -64			HSS104	DIODE		
D61 -64			1SS133	DIODE		
D69			HSS104	DIODE		
D69			1SS133	DIODE		
D70			S5688B	DIODE		
D72 -87			HSS104	DIODE		
D72 -87			1SS133	DIODE		
D151			S5688B	DIODE		
D152			DA204U	DIODE		
D152			MA143A	DIODE		
D152			1SS302	DIODE		
D153			HSS104	DIODE		

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14

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D153			1SS133	DIODE		
D154			DA204U	DIODE		
D154			MA143A	DIODE		
D154			1SS302	DIODE		
D156			DAN202U	DIODE		
D156			MA142WK	DIODE		
D156			1SS301	DIODE		
D157			DAP202U	DIODE		
D157			MA142WA	DIODE		
D157			1SS300	DIODE		
IC1			SN761200N	ANALOGUE IC		
IC2			NJU7311AM	MOS-IC		
IC3 ,4			NJM4565M	IC(OP AMP X2)		
IC5			TC9412AP	MOS-IC		
IC6			NJM4565M	IC(OP AMP X2)		
IC7			TC9413P	MOS-IC		
IC8			NJM4565M	IC(OP AMP X2)		
IC9			TC9413P	MOS-IC		
IC10,11			NJM4565M	IC(OP AMP X2)		
IC12			NJU7311AM	MOS-IC		70/90
IC13			TC9184AP	MOS-IC		
IC14-17			NJM4565M	IC(OP AMP X2)		
IC18		*	CS5331	MOS-IC		
IC19,20		*	CS4331	MOS-IC		
IC21,22		*	TC74HCU04AF	IC(HEX INVERTER SMD)		
IC24,25			TA7805S	IC(VOLTAGE REGULATOR/ +5V)		
IC24,25			UPC7805AHF	ANALOGUE IC		
IC26		*	DSP56004FJ66	MOS-IC		
IC27			S-806D-Z	ANALOGUE IC		
IC28			CXP82840-124Q	MI-COM IC		CM
IC28			CXP82852-108Q	MI-COM IC		TEQ
IC29		*	HM62832HLP-25	MEMORY IC		
IC29		*	W24257AK-15	MEMORY IC		
IC40		*	SAA6579	ANALOGUE IC		TEQ
Q1 ,2			DTC124EUA	DIGITAL TRANSISTOR		
Q1 ,2			UN5212	DIGITAL TRANSISTOR		
Q5 ,6			2SC3115(D27,28	TRANSISTOR		
Q7			2SB764(E,F)	TRANSISTOR		
Q8			2SD863(E,F)	TRANSISTOR		
Q9			2SC2458(Y,GR)	TRANSISTOR		
Q9			2SC3311A(Q,R)	TRANSISTOR		
Q10			UN4112	DIGITAL TRANSISTOR		
Q11			2SC2458(Y,GR)	TRANSISTOR		
Q11			2SC3311A(Q,R)	TRANSISTOR		
Q16			2SC2458(Y,GR)	TRANSISTOR		
Q16			2SC3311A(Q,R)	TRANSISTOR		
AUDIO UNIT(X09-456x-xx) for KR-V8090/1060VR						
C1 ,2			CC45FSL1H101JN	CERAMIC 100PF J		
C3 ,4			CE04KW1H100M	ELECTRO 10UF 50WV		
C5 ,6			CC45FSL1H221JN	CERAMIC 220PF J		
C7 ,8			CE04KW1A101M	ELECTRO 100UF 10WV		
C9 ,10			CC45FSL1H101JN	CERAMIC 100PF J		TEQ
C11 ,12			CQ93FMG1H123J	MYLAR 0.012UF J		
C13 ,14			CQ93FMG1H332J	MYLAR 3300PF J		

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15

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C15 ,16			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C21 -38			C91-0749-05	CERAMIC 220PF K	TEQ	
C23 ,24			C91-0749-05	CERAMIC 220PF K	KPY	
C23 ,24			C91-0749-05	CERAMIC 220PF K	MC	
C27 ,28			C91-0749-05	CERAMIC 220PF K	KPY	
C27 ,28			C91-0749-05	CERAMIC 220PF K	MC	
C35 ,36			C91-0749-05	CERAMIC 220PF K	KPY	
C35 ,36			C91-0749-05	CERAMIC 220PF K	MC	
C41 ,42			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C43 ,44			CC45FSL1H221JN	CERAMIC 220PF J		
C45 ,46			CE04KW1C470M	ELECTRO 47UF 16WV		
C47			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C48			CC45FSL1H101JN	CERAMIC 100PF J		
C49 ,50			CC45FSL1H331JN	CERAMIC 330PF J		
C51 ,52			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C53 ,54			CK45FB1H471KMM	CERAMIC 470PF K		
C55 ,56			CE04KW1C470M	ELECTRO 47UF 16WV		
C57 -60			CC45FSL1H101JN	CERAMIC 100PF J		
C61 ,62			C90-3536-05	ELECTRO 6800UF 71WV		
C65 ,66			CK45FE2H103PMM	CERAMIC 0.010UF P		
C70			CE04KW1H100M	ELECTRO 10UF 50WV		
C71 ,72			CE04KW1V102M	ELECTRO 1000UF 35WV		
C73			CE04KW1E470M	ELECTRO 47UF 25WV		
C74			CE04KW1E101M	ELECTRO 100UF 25WV		
C75 ,76			CK45FB1H102KMM	CERAMIC 1000PF K		
C77 -79			CE04KW1E470M	ELECTRO 47UF 25WV		
C80			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C81			CE04KW1J470M	ELECTRO 47UF 63WV		
C82 ,83			CE04KW1V100M	ELECTRO 10UF 35WV		
C84			CE04KW1A470M	ELECTRO 47UF 10WV		
C89			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C90			CE04KW1C222M	ELECTRO 2200UF 16WV		
C91 ,92			CF92FV1H124J	MF-C 0.12UF J		
C93 -96			CK45FE2H103PMM	CERAMIC 0.010UF P		
C101,102			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C103-108			CK45FB1H471KMM	CERAMIC 470PF K		
C113,114			CE04KW0J221M	ELECTRO 220UF 6.3WV		
C115,116			CQ93FMG1H103J	MYLAR 0.010UF J		
C119,120			CC45FSL2H330JN	CERAMIC 33PF J		
C121,122			CC45FSL1H100DN	CERAMIC 10PF D		
C127,128			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C129,130			CQ93FMG1H104J	MYLAR 0.10UF J	KP	
C131,132			CK45FF1H472ZMM	CERAMIC 4700PF Z		
C133			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C135,136			CK45FF1H472ZMM	CERAMIC 4700PF Z		
C137			CK45FB1H332KMM	CERAMIC 3300PF K		
C141-143			CC45FSL1H101JN	CERAMIC 100PF J		
C145			CC45FSL1H101JN	CERAMIC 100PF J		
C146-149			CF92FV1H224J	MF-C 0.22UF J		
C151			CE04KW1H3R3M	ELECTRO 3.3UF 50WV	EQMCTY	
C152-154			CK45FB1H471KMM	CERAMIC 470PF K		
C157			CE04KW0J221M	ELECTRO 220UF 6.3WV		
C158			CQ93FMG1H103J	MYLAR 0.010UF J		
C160			CC45FSL2H330JN	CERAMIC 33PF J		
C161			CC45FSL1H100DN	CERAMIC 10PF D		

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16

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C164			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C165			CF92FV1H224J	MF-C 0.22UF J	EQCTMY	
C165			CQ93FMG1H104J	MYLAR 0.10UF J	KP	
C167-169			CF92FV1H224J	MF-C 0.22UF J	EQCTMY	
C171			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C173			CK45FB1H471KMM	CERAMIC 470PF K		
C175			CK45FB1H471KMM	CERAMIC 470PF K		
C177			CK45FB1H471KMM	CERAMIC 470PF K		
C179			CE04KW0J221M	ELECTRO 220UF 6.3WV		
C181			CQ93FMG1H103J	MYLAR 0.010UF J		
C185			CC45FSL2H330JN	CERAMIC 33PF J		
C187			CC45FSL1H100DN	CERAMIC 10PF D		
C191			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C193			CQ93FMG1H104J	MYLAR 0.10UF J	KP	
C195-198			CE04KW1H100M	ELECTRO 10UF 50WV		
C201,202			CE04KW2A471M	ELECTRO 470UF 100WV		
C203			CE04KW2A100M	ELECTRO 10UF 100WV		
C204			CE04KW1C101M	ELECTRO 100UF 16WV		
C205,206			CE04KW1A101M	ELECTRO 100UF 10WV		
C207			CE04KW1C220M	ELECTRO 22UF 16WV		
C208			CE04KW1E470M	ELECTRO 47UF 25WV		
C209			CE04KW1C470M	ELECTRO 47UF 16WV		
C210			CK45FB1H102KMM	CERAMIC 1000PF K		
C211			CE04HW1H010M	NP-ELEC 1.0UF 50WV		
C212			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C214			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C215			CE04HW1A220M	NP-ELEC 22UF 10WV		
C218			CK45FB1H102KMM	CERAMIC 1000PF K		
C220-223			CK45FB1H222KMM	CERAMIC 2200PF K		
C225-228			CK45FB1H102KMM	CERAMIC 1000PF K		
▲ C230,231			-1488-05	MF 6800PF 250VAC		
C232			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C233			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C234			CE04KW1E471M	ELECTRO 470UF 25WV		
C235			CE04KW1A470M	ELECTRO 47UF 10WV		
C236,237			CF92FV1H124J	MF-C 0.12UF J		
CN1			E40-4906-05	FLAT CABLE CONNECTOR		
CN3 -5			E40-4871-05	PIN ASSY		
CN6			E40-4245-05	PIN ASSY		
CN7			E40-4871-05	PIN ASSY		
CN23			E40-4295-05	FLAT CABLE CONNECTOR		
J1 ,2			E63-0141-15	PHONO JACK		
J3			E63-0139-15	PHONO JACK		
J4			E63-0135-15	PHONO JACK		
J5			E70-0049-05	SCREW TERMINAL BOARD		
J6			E70-0065-05	LOCK TERMINAL BOARD		
▲ J7			E03-0148-05	AC OUTLET	KPY	
▲ J7			E03-0149-05	AC OUTLET	EQMC	
▲ J7			E03-0310-05	AC OUTLET	T1	
▲ J7			E03-0330-05	AC OUTLET	MC	
▲ F1			F05-3121-05	FUSE (SEMKO) (250V T3.15AL)	CTEMQ	
▲ F1			F50-0076-05	FUSE(5X20)	KP	
▲ F1 ,2			F05-3121-05	FUSE (SEMKO) (250V T3.15AL)	YMC	
▲ F2			F05-2525-05	FUSE (SEMKO) (250V T2.5AL)	E1	

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17

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△ F3			F05-8013-05	FUSE (SEMKO) (250V T800MAL)	EQMICYT	
△ F3			F50-0066-05	FUSE(5X20)	KP	
△ F4 ,5			F06-1022-05	FUSE (SEMKO) (250V T1AL)	EQMICYT	
△ F4 ,5			F50-0069-05	FUSE(5X20)	KP	
CN9 -18			J13-0075-05	FUSE CLIP	YMCE	
CN9 ,10			J13-0075-05	FUSE CLIP	KPCM	
CN13-18			J13-0075-05	FUSE CLIP	KPCQTM	
E11			J11-0808-05	WIRE CLAMPER		
E15			J11-0808-05	WIRE CLAMPER		
T1			L07-2320-05	POWER TRANSFORMER	KP	
T1			L07-2321-05	POWER TRANSFORMER	MCY	
T1			L07-2322-05	POWER TRANSFORMER	CTEMQ	
R89			RD14NB2E220J	RD 22 J 1/4W		
R90			RD14NB2E682J	RD 6.8K J 1/4W		
R91			RD14NB2E470J	RD 47 J 1/4W		
R92			RD14NB2E3R3J	RD 3.3 J 1/4W		
R127,128			RD14NB2E221J	RD 220 J 1/4W		
R133,134			RD14NB2E121J	RD 120 J 1/4W		
R135,136			RD14NB2E221J	RD 220 J 1/4W		
R143-146			RD14NB2E470J	RD 47 J 1/4W		
R151-154			RD14NB2E332J	RD 3.3K J 1/4W		
R157-160			RD14NB2E101J	RD 100 J 1/4W		
R167,168			RS14KB3D3R3JFR	FL-PROOF RS 3.3 J 2W		
R184			RD14NB2E221J	RD 220 J 1/4W		
R187			RD14NB2E121J	RD 120 J 1/4W		
R188			RD14NB2E221J	RD 220 J 1/4W		
R192,193			RD14NB2E470J	RD 47 J 1/4W		
R196,197			RD14NB2E332J	RD 3.3K J 1/4W		
R199,200			RD14NB2E101J	RD 100 J 1/4W		
R203			RS14KB3D3R3JFR	FL-PROOF RS 3.3 J 2W		
R229			RD14NB2E221J	RD 220 J 1/4W		
R235			RD14NB2E121J	RD 120 J 1/4W		
R237			RD14NB2E221J	RD 220 J 1/4W		
R243			RD14NB2E470J	RD 47 J 1/4W		
R245			RD14NB2E470J	RD 47 J 1/4W		
R251			RD14NB2E332J	RD 3.3K J 1/4W		
R253			RD14NB2E332J	RD 3.3K J 1/4W		
R257			RD14NB2E101J	RD 100 J 1/4W		
R259			RD14NB2E101J	RD 100 J 1/4W		
R265			RS14KB3D3R3JFR	FL-PROOF RS 3.3 J 2W		
R281,282			RD14NB2E1R0J	RD 1.0 J 1/4W		
R291,292			RD14NB2E470J	RD 47 J 1/4W		
R293			RD14NB2E272J	RD 2.7K J 1/4W		
R303			RD14NB2E220J	RD 22 J 1/4W		
R310			RS14KB3D822JFR	FL-PROOF RS 8.2K J 2W		
R331			R92-1844-05	CARBON 3.3M J 1/2W	KP	
VR1 -3			R12-0605-05	TRIMMING POT.(220)		
VR5			R12-0605-05	TRIMMING POT.(220)		
K1 -3			S76-0056-05	MAGNETIC RELAY		
K5			S76-0063-05	MAGNETIC RELAY		
K6			S76-0070-05	MAGNETIC RELAY		
△ S1			S31-3010-05	SLIDE SWITCH	YMC	
D1 ,2			D5SBA20F03	DIODE		

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18

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D1 ,2			RBV-602LFA	DIODE		
D5 -8			S5688B	DIODE		
D5 -8			1SR139-400	DIODE		
D9 ,10			HZS8.2N(B2)	ZENER DIODE		
D9 ,10			RD8.2ES(B2)	ZENER DIODE		
D11 ,12			S5688B	DIODE		
D11 ,12			1SR139-400	DIODE		
D13 ,14			HZS16N(B2)	ZENER DIODE		
D13 ,14			RD16ES(B2)	ZENER DIODE		
D17 -21			S5688B	DIODE		
D17 -21			1SR139-400	DIODE		
D22			HSS104	DIODE		
D22			1SS133	DIODE		
D23			S5688B	DIODE		
D23			1SR139-400	DIODE		
D24			HSS104	DIODE		
D24			1SS133	DIODE		
D25			S5688B	DIODE		
D25			1SR139-400	DIODE		
D26			HSS104	DIODE		
D26			1SS133	DIODE		
D27 ,28			HSS104A	DIODE		
D27 ,28			1SS131	DIODE		
D29			HSS104	DIODE		
D29			1SS133	DIODE		
D30			HZS11N(B2)	ZENER DIODE		KPYMC
D30			HZS7.5S(B)	ZENER DIODE		TEQ
D30			RD11ES(B2)	ZENER DIODE		KPYMC
D30			RD7.5JS(B)	ZENER DIODE		TEQ
D31 -34			HSS104	DIODE		
D31 -34			1SS133	DIODE		
D35 -38			HSS104A	DIODE		
D35 -38			1SS131	DIODE		
D39 ,40			HSS104	DIODE		
D39 ,40			1SS133	DIODE		
D41 -43			HSS104A	DIODE		
D41 -43			1SS131	DIODE		
D45			HSS104A	DIODE		
D45			1SS131	DIODE		
D46			HZS20S(B2)	ZENER DIODE		
D46			RD20JS(B2)	ZENER DIODE		
D51 ,52			HSS104	DIODE		
D51 ,52			1SS133	DIODE		
D53 ,54			HSS104A	DIODE		
D53 ,54			1SS131	DIODE		
D61			HSS104	DIODE		
D61			1SS133	DIODE		
D63			HSS104	DIODE		
D63			1SS133	DIODE		
D65			HSS104A	DIODE		
D65			1SS131	DIODE		
D67			HSS104A	DIODE		
D67			1SS131	DIODE		
D81 -83			HSS104	DIODE		
D81 -83			1SS133	DIODE		

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19

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D84			HZS18N(B)	ZENER DIODE	TEQ	
D84			HZS24N(B)	ZENER DIODE	KPTMC	
D84			RD18ES(B)	ZENER DIODE	TEQ	
D84			RD24ES(B)	ZENER DIODE	KPYMC	
D85			HZS10N(B)	ZENER DIODE	KPTMC	
D85			HZS8.2N(B2)	ZENER DIODE	TEQ	
D85			RD10ES(B)	ZENER DIODE	KPTMC	
D85			RD8.2ES(B2)	ZENER DIODE	TEQ	
D91 -93			HSS104	DIODE		
D91 -93			1SS133	DIODE		
D95 -97			HSS104	DIODE		
D95 -97			1SS133	DIODE		
D98			HZS4.7N(B2)	ZENER DIODE		
D98			RD4.7ES(B2)	ZENER DIODE		
D99 -103			HSS104	DIODE		
D99 -103			1SS133	DIODE		
D111-114			S5688B	DIODE		
D111-114			1SR139-400	DIODE		
D115-117			HSS104	DIODE		
D115-117			1SS133	DIODE		
IC1			NJM4580L-D	ANALOGUE IC		
IC2			NJM4565D-D	IC(OP AMP X2)		
IC3			NJU7312AL	ANALOGUE IC		
IC4			NJU7313AL	ANALOGUE IC		
IC6			TA7808S	IC(REGULATOR)		
IC6			UPC7808AHF	IC(VOLTAGE REGULATOR/ +8V)		
IC7			NJM4565D-D	IC(OP AMP X2)		
IC8			TA78057S	IC(VOLTAGE REGULATOR/+5.75V)		
Q1 ,2			2SB1370(E,F)	TRANSISTOR		
Q3			2SC2458(Y,GR)	TRANSISTOR		
Q3			2SC3311A(Q,R)	TRANSISTOR		
Q4			2SA992(F,E)	TRANSISTOR		
Q5			2SC2458(Y,GR)	TRANSISTOR		
Q5			2SC3311A(Q,R)	TRANSISTOR		
Q6			2SA1534A(R,S)	TRANSISTOR		
Q9 -12			2SC2878(B)	TRANSISTOR		
Q13 -16			2SA992(F,E)	TRANSISTOR		
Q17 -20			2SC2631(R,S)	TRANSISTOR		
Q21 ,22			2SA1123(R,S)	TRANSISTOR		
Q23 ,24			2SC1845(F,E)	TRANSISTOR		
Q25 ,26			2SA992(F,E)	TRANSISTOR		
Q30 ,31			2SC2878(B)	TRANSISTOR		
Q32 ,33			2SA992(F,E)	TRANSISTOR		
Q34 ,35			2SC2631(R,S)	TRANSISTOR		
Q36			2SA1123(R,S)	TRANSISTOR		
Q37			2SC1845(F,E)	TRANSISTOR		
Q38			2SA992(F,E)	TRANSISTOR		
Q39			2SC2878(B)	TRANSISTOR		
Q41			2SC2878(B)	TRANSISTOR		
Q43			2SA992(F,E)	TRANSISTOR		
Q45			2SA992(F,E)	TRANSISTOR		
Q47			2SC2631(R,S)	TRANSISTOR		
Q49			2SC2631(R,S)	TRANSISTOR		
Q51			2SA1123(R,S)	TRANSISTOR		
Q53			2SC1845(F,E)	TRANSISTOR		

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20

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
Q55			2SA992(F,E)	TRANSISTOR		
Q60			2SA1048(Y,GR)	TRANSISTOR		
Q60			2SA1309A(Q,R)	TRANSISTOR		
Q61			2SA1110(R,S)	TRANSISTOR		
Q62			2SA1048(Y,GR)	TRANSISTOR		
Q62			2SA1309A(Q,R)	TRANSISTOR		
Q63			DTC124ESA	DIGITAL TRANSISTOR		
Q63			UN4212	DIGITAL TRANSISTOR		
Q64			2SA992(F,E)	TRANSISTOR		
Q65 ,66			2SC1845(F,E)	TRANSISTOR		
Q69			2SC2878(B)	TRANSISTOR		
Q70			2SA1048(Y,GR)	TRANSISTOR		
Q70			2SA1309A(Q,R)	TRANSISTOR		
Q71 -73			DTC113ZSA	DIGITAL TRANSISTOR		
Q71 -73			UN4219	DIGITAL TRANSISTOR		
Q74			2SC2878(B)	TRANSISTOR		
Q75			DTC113ZSA	DIGITAL TRANSISTOR		
Q75			UN4219	DIGITAL TRANSISTOR		
Q76			2SC2003(L,K)	TRANSISTOR		
Q77			2SC2458(Y,GR)	TRANSISTOR		
Q77			2SC3311A(Q,R)	TRANSISTOR		
Q78			DTC124ESA	DIGITAL TRANSISTOR		
Q78			UN4212	DIGITAL TRANSISTOR		
Q79			2SC2878(B)	TRANSISTOR		
Q80			2SA1048(Y,GR)	TRANSISTOR		
Q80			2SA1309A(Q,R)	TRANSISTOR		
Q81 ,82			TRAI4R4N	TRANSISTOR		
Q83 ,84			TRAI4R4P	TRANSISTOR		
Q85			TRAI4R4N	TRANSISTOR		
Q86			TRAI4R4P	TRANSISTOR		
Q87			TRAI4R4N	TRANSISTOR		
Q89			TRAI4R4P	TRANSISTOR		
AUDIO UNIT(X09-458x-xx) for KR-V9090/1070VR						
C1 ,2			CC45FSL1H101JN	CERAMIC	100PF	J
C3 ,4			CE04KW1H100M	ELECTRO	10UF	50WV
C5 ,6			CC45FSL1H221JN	CERAMIC	220PF	J
C7 ,8			CE04KW1A101M	ELECTRO	100UF	10WV
C9 ,10			CC45FSL1H101JN	CERAMIC	100PF	J
C11 ,12			CQ93FMG1H123J	MYLAR	0.012UF	J
C13 ,14			CQ93FMG1H332J	MYLAR	3300PF	J
C15 ,16			CE04KW1V4R7M	ELECTRO	4.7UF	35WV
C21 -38			C91-0749-05	CERAMIC	220PF	K
C23 ,24			C91-0749-05	CERAMIC	220PF	K
C27 ,28			C91-0749-05	CERAMIC	220PF	K
C35 ,36			C91-0749-05	CERAMIC	220PF	K
C41 ,42			CE04KW1H2R2M	ELECTRO	2.2UF	50WV
C43 ,44			CC45FSL1H221JN	CERAMIC	220PF	J
C45 ,46			CE04KW1C470M	ELECTRO	47UF	16WV
C47			CK45FF1H103ZMM	CERAMIC	0.010UF	Z
C48			CC45FSL1H101JN	CERAMIC	100PF	J
C49 ,50			CC45FSL1H331JN	CERAMIC	330PF	J
C51 ,52			CE04KW1H2R2M	ELECTRO	2.2UF	50WV
C53 ,54			CK45FB1H471KMM	CERAMIC	470PF	K
C55 ,56			CE04KW1C470M	ELECTRO	47UF	16WV

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21

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
C57 -60			CC45FSL1H101JN	CERAMIC 100PF J		
C61 ,62			C90-3602-05	ELECTRO 12000UF 71WV		
C63 ,64			C90-3735-05	ELECTRO 3300UF 50WV		
C65 -67			CK45FE2H103PMM	CERAMIC 0.010UF P		
C70			CE04KW1H100M	ELECTRO 10UF 50WV		
C71 ,72			CE04KW1V102M	ELECTRO 1000UF 35WV		
C73			CE04KW1E470M	ELECTRO 47UF 25WV		
C74			CE04KW1E101M	ELECTRO 100UF 25WV		
C75 ,76			CK45FB1H102KMM	CERAMIC 1000PF K		
C77 -79			CE04KW1E470M	ELECTRO 47UF 25WV		
C80			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C81			CE04KW1J470M	ELECTRO 47UF 63WV		
C82 ,83			CE04KW1V100M	ELECTRO 10UF 35WV		
C84			CE04KW1A470M	ELECTRO 47UF 10WV		
C89			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C90			CE04KW1C222M	ELECTRO 2200UF 16WV		
C91 ,92			CF92FV1H124J	MF-C 0.12UF J		
C93 -96			CK45FE2H103PMM	CERAMIC 0.010UF P		
C101,102			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C103-108			CK45FB1H471KMM	CERAMIC 470PF K		
C113,114			CE04KW0J221M	ELECTRO 220UF 6.3WV		
C115,116			CQ93FMG1H103J	MYLAR 0.010UF J		
C119,120			CC45FSL2H330JN	CERAMIC 33PF J		
C121,122			CC45FSL1H100DN	CERAMIC 10PF D		
C127,128			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C129,130			CQ93FMG1H104J	MYLAR 0.10UF J	KP	
C131,132			CK45FF1H472ZMM	CERAMIC 4700PF Z		
C133			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C135,136			CK45FF1H472ZMM	CERAMIC 4700PF Z		
C137,138			CK45FB1H332KMM	CERAMIC 3300PF K		
C141-145			CC45FSL1H101JN	CERAMIC 100PF J		
C146-150			CF92FV1H224J	MF-C 0.22UF J	YTEQMX	
C151			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C152-154			CK45FB1H471KMM	CERAMIC 470PF K		
C157			CE04KW0J221M	ELECTRO 220UF 6.3WV		
C158			CQ93FMG1H103J	MYLAR 0.010UF J		
C160			CC45FSL2H330JN	CERAMIC 33PF J		
C161			CC45FSL1H100DN	CERAMIC 10PF D		
C164			CK45FF1H103ZMM	CERAMIC 0.010UF Z	YTEQMX	
C165			CF92FV1H224J	MF-C 0.22UF J	YTEQMX	
C165			CQ93FMG1H104J	MYLAR 0.10UF J	KP	
C167-170			CF92FV1H224J	MF-C 0.22UF J	YTEQMX	
C171,172			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C173-178			CK45FB1H471KMM	CERAMIC 470PF K		
C179,180			CE04KW0J221M	ELECTRO 220UF 6.3WV		
C181,182			CQ93FMG1H103J	MYLAR 0.010UF J		
C185,186			CC45FSL2H560JN	CERAMIC 56PF J		
C187,188			CC45FSL1H100DN	CERAMIC 10PF D		
C191,192			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C193,194			CQ93FMG1H104J	MYLAR 0.10UF J	KP	
C195-199			CE04KW1H100M	ELECTRO 10UF 50WV		
C201,202			CE04KW2A471M	ELECTRO 470UF 100WV		
C203			CE04KW2A100M	ELECTRO 10UF 100WV		
C204			CE04KW1C101M	ELECTRO 100UF 16WV		
C205,206			CE04KW1A101M	ELECTRO 100UF 10WV		

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22

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C207			CE04KW1C220M	ELECTRO 22UF 16WV		
C208			CE04KW1E470M	ELECTRO 47UF 25WV		
C209			CE04KW1C470M	ELECTRO 47UF 16WV		
C210			CK45FB1H102KMM	CERAMIC 1000PF K		
C211			CE04HW1H010M	NP-ELEC 1.0UF 50WV		
C212			CE04KW1H2R2M	ELECTRO 2.2UF 50WV		
C214			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C215			CE04HW1A220M	NP-ELEC 22UF 10WV		
C216			CE04KW1J470M	ELECTRO 47UF 63WV		
C217			CE04KW1J100M	ELECTRO 10UF 63WV		
C218			CK45FB1H102KMM	CERAMIC 1000PF K		
C220-224			CK45FB1H222KMM	CERAMIC 2200PF K		
C225-229			CK45FB1H102KMM	CERAMIC 1000PF K		
C230,231			C91-1488-05	MF 6800PF 250VAC		
C232			CK45FF1H103ZMM	CERAMIC 0.010UF Z		
C233			CE04KW1H3R3M	ELECTRO 3.3UF 50WV		
C234			CE04KW1E471M	ELECTRO 47UF 25WV		
C235			CE04KW1A470M	ELECTRO 47UF 10WV		
C236,237			CF92FV1H124J	MF-C 0.12UF J		
CN1			E40-4906-05	FLAT CABLE CONNECTOR		
CN3 -5			E40-4871-05	PIN ASSY		
CN6			E40-4245-05	PIN ASSY		
CN7 ,8			E40-4871-05	PIN ASSY		
CN23			E40-4295-05	FLAT CABLE CONNECTOR		
J1 ,2			E63-0141-15	PHONO JACK		
J3			E63-0139-15	PHONO JACK		
J4			E63-0135-15	PHONO JACK		
J5			E70-0049-05	SCREW TERMINAL BOARD		
J6			E70-0065-05	LOCK TERMINAL BOARD		
Δ J7			E03-0148-05	AC OUTLET		KPYEQ
Δ J7			E03-0149-05	AC OUTLET		MX
Δ J7			E03-0310-05	AC OUTLET		T
Δ J7			E03-0325-05	AC OUTLET		MX
W250,251			E29-1614-03	LEAD PLATE		
W252,253			E29-1615-04	LEAD PLATE		
Δ F1			F05-4025-05	FUSE (SEMKO) (250V T4A L)		TEQMX
Δ F1			F50-0077-05	FUSE(5X20)		KP
Δ F1 ,2			F05-4025-05	FUSE (SEMKO) (250V T4A L)		YMX
Δ F2			F05-2525-05	FUSE (SEMKO) (250V T2.5AL)		E
Δ F3			F05-8013-05	FUSE (SEMKO) (250V T800MAL)		YTEQMX
Δ F3			F50-0066-05	FUSE(5X20)		KP
Δ F4 ,5			F06-1022-05	FUSE (SEMKO) (250V T1AL)		YTEQMX
Δ F4 ,5			F50-0069-05	FUSE(5X20)		KP
Δ F6 ,7			F05-3121-05	FUSE (SEMKO) (250V T3.15AL)		YMX
Δ F6 ,7			F05-4025-05	FUSE (SEMKO) (250V T4A L)		TEQ
Δ F6 ,7			F50-0073-05	FUSE(5X20)		KP
CN9 -22			J13-0075-05	FUSE CLIP		YEMX
CN9 ,10			J13-0075-05	FUSE CLIP		KPTMXQ
CN13-22			J13-0075-05	FUSE CLIP		KPTMXQ
E11 -15			J11-0808-05	WIRE CLAMPER		
T1			L07-2320-05	POWER TRANSFORMER		KP
T1			L07-2321-05	POWER TRANSFORMER		YMX
T1			L07-2322-05	POWER TRANSFORMER		MX

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23

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
R89			RD14NB2E220J	RD 22 J 1/4W		
R90			RD14NB2E682J	RD 6.8K J 1/4W		
R91			RD14NB2E470J	RD 47 J 1/4W		
R92			RD14NB2E3R3J	RD 3.3 J 1/4W		
R127,128			RD14NB2E221J	RD 220 J 1/4W		
R133,134			RD14NB2E121J	RD 120 J 1/4W		
R135,136			RD14NB2E221J	RD 220 J 1/4W		
R143-146			RD14NB2E470J	RD 47 J 1/4W		
R151-154			RD14NB2E332J	RD 3.3K J 1/4W		
R157-160			RD14NB2E101J	RD 100 J 1/4W		
R167,168			RS14KB3D3R3JFR	FL-PROOF RS 3.3 J 2W		
R184			RD14NB2E221J	RD 220 J 1/4W		
R187			RD14NB2E121J	RD 120 J 1/4W		
R188			RD14NB2E221J	RD 220 J 1/4W		
R192,193			RD14NB2E470J	RD 47 J 1/4W		
R196,197			RD14NB2E332J	RD 3.3K J 1/4W		
R199,200			RD14NB2E101J	RD 100 J 1/4W		
R203			RS14KB3D3R3JFR	FL-PROOF RS 3.3 J 2W		
R205,206			RD14NB2E470J	RD 47 J 1/4W		
R229,230			RD14NB2E221J	RD 220 J 1/4W		
R235,236			RD14NB2E121J	RD 120 J 1/4W		
R237,238			RD14NB2E221J	RD 220 J 1/4W		
R243-246			RD14NB2E470J	RD 47 J 1/4W		
R251-254			RD14NB2E332J	RD 3.3K J 1/4W		
R257-260			RD14NB2E101J	RD 100 J 1/4W		
R265,266			RS14KB3D3R3JFR	FL-PROOF RS 3.3 J 2W		
R281,282			RD14NB2E1R0J	RD 1.0 J 1/4W		
R291,292			RD14NB2E470J	RD 47 J 1/4W		
R293			RD14NB2E272J	RD 2.7K J 1/4W		
R303			RD14NB2E220J	RD 22 J 1/4W		
R310			RS14KB3D822JFR	FL-PROOF RS 8.2K J 2W		
R331			R92-1844-05	CARBON 3.3M J 1/2W	KP	
VR1 -5			R12-0605-05	TRIMMING POT.(220)		
K1 -4			S76-0056-05	MAGNETIC RELAY		
K5			S76-0063-05	MAGNETIC RELAY		
K6			S76-0070-05	MAGNETIC RELAY		
S1			S31-3010-05	SLIDE SWITCH	YMX	
D1 ,2			D5SBA20F03	DIODE		
D1 ,2			RBV-602LFA	DIODE		
D3			D3SBA20F03	DIODE		
D3			RBV-402LFA	DIODE		
D5 -8			S5688B	DIODE		
D5 -8			1SR139-400	DIODE		
D9 ,10			HZS8.2N(B2)	ZENER DIODE		
D9 ,10			RD8.2ES(B2)	ZENER DIODE		
D11 ,12			S5688B	DIODE		
D11 ,12			1SR139-400	DIODE		
D13 ,14			HZS16N(B2)	ZENER DIODE		
D13 ,14			RD16ES(B2)	ZENER DIODE		
D17 -21			S5688B	DIODE		
D17 -21			1SR139-400	DIODE		
D22			HSS104	DIODE		
D22			1SS133	DIODE		
D23			S5688B	DIODE		

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24

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
D23			1SR139-400	DIODE		
D24			HSS104	DIODE		
D24			1SS133	DIODE		
D25			S5688B	DIODE		
D25			1SR139-400	DIODE		
D26			HSS104	DIODE		
D26			1SS133	DIODE		
D27 ,28			HSS104A	DIODE		
D27 ,28			1SS131	DIODE		
D29			HSS104	DIODE		
D29			1SS133	DIODE		
D30			HZS11N(B2)	ZENER DIODE		KPYMX
D30			HZS7.5S(B)	ZENER DIODE		TEQ
D30			RD11ES(B2)	ZENER DIODE		KPYMX
D30			RD7.5JS(B)	ZENER DIODE		TEQ
D31 -34			HSS104	DIODE		
D31 -34			1SS133	DIODE		
D35 -38			HSS104A	DIODE		
D35 -38			1SS131	DIODE		
D39 ,40			HSS104	DIODE		
D39 ,40			1SS133	DIODE		
D41 -45			HSS104A	DIODE		
D41 -45			1SS131	DIODE		
D46			HZS20S(B2)	ZENER DIODE		
D46			RD20JS(B2)	ZENER DIODE		
D51 ,52			HSS104	DIODE		
D51 ,52			1SS133	DIODE		
D53 ,54			HSS104A	DIODE		MX
D53 ,54			1SS131	DIODE		
D61 -64			HSS104	DIODE		
D61 -64			1SS133	DIODE		
D65 -68			HSS104A	DIODE		
D65 -68			1SS131	DIODE		
D81 -83			HSS104	DIODE		
D81 -83			1SS133	DIODE		
D84			HZS18N(B)	ZENER DIODE		
D84			HZS24N(B)	ZENER DIODE		
D84			RD18ES(B)	ZENER DIODE		TEQ
D84			RD24ES(B)	ZENER DIODE		KPYMX
D85			HZS10N(B)	ZENER DIODE		KPYMX
D85			HZS8.2N(B2)	ZENER DIODE		TEQ
D85			RD10ES(B)	ZENER DIODE		KPYMX
D85			RD8.2ES(B2)	ZENER DIODE		TEQ
D91 -93			HSS104	DIODE		
D91 -93			1SS133	DIODE		
D95 -97			HSS104	DIODE		
D95 -97			1SS133	DIODE		
D98			HZS4.7N(B2)	ZENER DIODE		
D98			RD4.7ES(B2)	ZENER DIODE		
D99 -103			HSS104	DIODE		
D99 -103			1SS133	DIODE		
D111-114			S5688B	DIODE		
D111-114			1SR139-400	DIODE		
D115-117			HSS104	DIODE		
D115-117			1SS133	DIODE		

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25

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IC1			NJM4580L-D	ANALOGUE IC		
IC2			NJM4565D-D	IC(OP AMP X2)		
IC3			NJU7312AL	ANALOGUE IC		
IC4			NJU7313AL	ANALOGUE IC		
IC6			TA7808S	IC(REGULATOR)		
IC6			UPC7808AHF	IC(VOLTAGE REGULATOR/ +8V)		
IC7			NJM4565D-D	IC(OP AMP X2)		
IC8			TA78057S	IC(VOLTAGE REGULATOR/+5.75V)		
Q1 ,2			2SB1370(E,F)	TRANSISTOR		
Q3			2SC2458(Y,GR)	TRANSISTOR		
Q3			2SC3311A(Q,R)	TRANSISTOR		
Q4			2SA992(F,E)	TRANSISTOR		
Q5			2SC2458(Y,GR)	TRANSISTOR		
Q5			2SC3311A(Q,R)	TRANSISTOR		
Q6			2SA1534A(R,S)	TRANSISTOR		
Q9 -12			2SC2878(B)	TRANSISTOR		
Q13 -16			2SA992(F,E)	TRANSISTOR		
Q17 -20			2SC2631(R,S)	TRANSISTOR		
Q21 ,22			2SA1123(R,S)	TRANSISTOR		
Q23 ,24			2SC1845(F,E)	TRANSISTOR		
Q25 ,26			2SA992(F,E)	TRANSISTOR		
Q30 ,31			2SC2878(B)	TRANSISTOR		
Q32 ,33			2SA992(F,E)	TRANSISTOR		
Q34 ,35			2SC2631(R,S)	TRANSISTOR		
Q36			2SA1123(R,S)	TRANSISTOR		
Q37			2SC1845(F,E)	TRANSISTOR		
Q38			2SA992(F,E)	TRANSISTOR		
Q39 -42			2SC2878(B)	TRANSISTOR		
Q43 -46			2SA992(F,E)	TRANSISTOR		
Q47 -50			2SC2631(R,S)	TRANSISTOR		
Q51 ,52			2SA1123(R,S)	TRANSISTOR		
Q53 ,54			2SC1845(F,E)	TRANSISTOR		
Q55 ,56			2SA992(F,E)	TRANSISTOR		
Q60			2SA1048(Y,GR)	TRANSISTOR		
Q60			2SA1309A(Q,R)	TRANSISTOR		
Q61			2SA1110(R,S)	TRANSISTOR		
Q62			2SA1048(Y,GR)	TRANSISTOR		
Q62			2SA1309A(Q,R)	TRANSISTOR		
Q63			DTC124ESA	DIGITAL TRANSISTOR		
Q63			UN4212	DIGITAL TRANSISTOR		
Q64			2SA992(F,E)	TRANSISTOR		
Q65 ,66			2SC1845(F,E)	TRANSISTOR		
Q69			2SC2878(B)	TRANSISTOR		
Q70			2SA1048(Y,GR)	TRANSISTOR		
Q70			2SA1309A(Q,R)	TRANSISTOR		
Q71 -73			DTC113ZSA	DIGITAL TRANSISTOR		
Q71 -73			UN4219	DIGITAL TRANSISTOR		
Q74			2SC2878(B)	TRANSISTOR		
Q75			DTC113ZSA	DIGITAL TRANSISTOR		
Q75			UN4219	DIGITAL TRANSISTOR		
Q76			2SC2003(L,K)	TRANSISTOR		
Q77			2SC2458(Y,GR)	TRANSISTOR		
Q77			2SC3311A(Q,R)	TRANSISTOR		
Q78			DTC124ESA	DIGITAL TRANSISTOR		
Q78			UN4212	DIGITAL TRANSISTOR		

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

▲ 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.

26

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
Q79			2SC2878(B)	TRANSISTOR		
Q80			2SA1048(Y,GR)	TRANSISTOR		
Q80			2SA1309A(Q,R)	TRANSISTOR		
Q81 ,82			TRAITR4N	TRANSISTOR		
Q83 ,84			TRAITR4P	TRANSISTOR		
Q85			TRAITR4N	TRANSISTOR		
Q86			TRAITR4P	TRANSISTOR		
Q87 ,88			TRAITR3N	TRANSISTOR		
Q89 ,90			TRAITR3P	TRANSISTOR		
DISPLAY UNIT(X14-431x-xx)						
D3 -5		*	B30-2509-05	LED(RED)		
C1 ,2			CK45FF1H103ZMM	CERAMIC	0.010UF	Z
C3			CE04KW1C330M	ELECTRO	33UF	16WV
C4			CK45FF1H103ZMM	CERAMIC	0.010UF	Z
C5			CC45FSL1H101JN	CERAMIC	100PF	J
C6			CK45FB1H471KMM	CERAMIC	470PF	K
C7 -11			CC45FSL1H101JN	CERAMIC	100PF	J
C12			CE04KW1C330M	ELECTRO	33UF	16WV
C13			CK45FF1H103ZMM	CERAMIC	0.010UF	Z
C15 -18			CK45FF1H103ZMM	CERAMIC	0.010UF	Z
C21 ,22			CK45FB1H471KMM	CERAMIC	470PF	K
C30			C91-0737-05	CERAMIC	47PF	J
C31 ,32			CK45FF1H103ZMM	CERAMIC	0.010UF	Z
C33 ,34			C91-0749-05	CERAMIC	220PF	K
C51			CE04KW1H100M	ELECTRO	10UF	50WV
CN1			E40-4293-05	FLAT CABLE CONNECTOR		
J1			E11-0272-05	PHONE JACK		
J2		*	E63-1002-05	PHONO JACK		
E21 ,22			J19-5626-03	HOLDER		
			J11-0809-05	WIRE CLAMPER		
R29			RD14NB2E100J	RD	10	J 1/4W
R45 ,46			RS14KB3D471JFR	FL-PROOF RS	470	J 2W
S1 -10			S70-0031-05	TACT SWITCH		CM
S1 -36			S70-0031-05	TACT SWITCH		TEQ
S12 -19			S70-0031-05	TACT SWITCH		KPYMXC
S21 -28			S70-0031-05	TACT SWITCH		CM
▲ S39			S40-1138-05	PUSH SWITCH (POWER TYPE)		CTE
S37		*	T99-0587-05	ROTARY ENCODER		
S38		*	T99-0588-05	ROTARY ENCODER		
D1 ,2			HZS3.3N(B2)	ZENER DIODE		
D1 ,2			RD3.3ES(B2)	ZENER DIODE		
D6 -14			HSS104A	DIODE		
D6 -14			1SS131	DIODE		
D25 -28			HSS104	DIODE		
D25 -28			1SS133	DIODE		
ED1			11-MT-110GK	INDICATOR TUBE		
IC1			UPD16311	MOS-IC		
Q1 ,2			2SC2458(Y,GR)	TRANSISTOR		
Q1 ,2			2SC3311A(Q,R)	TRANSISTOR		
A1			W02-2561-05	ELECTRIC CIRCUIT MODULE		

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SPECIFICATIONS

AUDIO section

Rated power output during STEREO operation

(1070VR)

120 watts per channel minimum RMS, both channels driven, at 8 Ω from 20 Hz to 20 kHz with no more than 0.06 % total harmonic distortion.(FTC)

(1060VR)

110 watts per channel minimum RMS, both channels driven, at 8 Ω from 20 Hz to 20 kHz with no more than 0.06 % total harmonic distortion.(FTC)

Rated power output during SURROUND operation

(1070VR)

FRONT

(1kHz, 0.7% T.H.D. at 8 Ω)120 W + 120 W

CENTER

(1kHz, 0.7% T.H.D. at 8 Ω)120 W

SURROUND

(1kHz, 0.7% T.H.D. at 8 Ω)60 W + 60 W

(1060VR)

FRONT

(1kHz, 0.7% T.H.D. at 8 Ω)110 W + 110 W

CENTER

(1kHz, 0.7% T.H.D. at 8 Ω)110 W

SURROUND

(1kHz, 0.7% T.H.D. at 8 Ω)110 W

Total harmonic distortion

(1070VR)0.015%(1 kHz, 60W, 8 Ω)

(1060VR)0.015%(1 kHz, 55W, 8 Ω)

Frequency response

CD5 Hz ~ 85 kHz, +0.5 dB, -3 dB

Signal to noise ratio (IHF'66)

PHONO (MM)75 dB

CD95 dB

Input sensitivity / impedance

PHONO (MM)2.5 mV / 47 kΩ

CD200 mV / 47 kΩ

ADAPTOR IN400 mV / 10 kΩ

Output level / impedance

TAPE REC200 mV / 1 kΩ

ADAPTOR OUT200 mV / 1 kΩ

PRE OUT (CENTER, SURROUND)1 V / 600 Ω

PRE OUT (SUBWOOFER)1 V / 1 kΩ

Tone control

BASS±8 dB (at 100 Hz)

TREBLE±8 dB (at 10 kHz)

LOUDNESS control

VOLUME at -40dB level....+7 dB(100 Hz), +3 dB(10 kHz)

VIDEO section

VIDEO inputs / outputs

VIDEO (composite)1 Vp-p / 75 Ω

FM tuner section

Tuning frequency range87,5 MHz ~ 108 MHz

Usable sensitivity (MONO)

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

50dB quieting sensitivity

STEREO31.6uV (75 Ω)/41.2 dBf

Total harmonic distortion (1 kHz)

(for U.S.A. and Canada)

MONO0.2 % (65 dBf input)

STEREO0.5 % (65 dBf input)

(except for U.S.A. and Canada)

MONO0.6 % (65 dBf input)

STEREO0.7 % (65 dBf input)

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

MONO75 dB (65 dBf input)

STEREO68 dB (65 dBf input)

Stereo separation (1 kHz)40 dB

Selectivity (±400 kHz)

(for U.S.A. and Canada)70 dB

(except for U.S.A. and Canada)50 dB

Frequency response30 Hz ~ 15kHz,+0.5 dB, -3.0 dB

AM tuner section

Tuning frequency range (for U.S.A. and Canada)

10 kHz step530 kHz ~ 1.700 kHz

Tuning frequency range (except for U.S.A. and Canada)

9 kHz step531 kHz ~ 1,602 kHz

10 kHz step530 kHz ~ 1,610 kHz

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

.....16 uV / (600 uV/m)

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

GENERAL

Power consumption

(1070VR)2.9 A

(1060VR)2.5 A

AC outlet

SWITCHED2 (total 100 W, 0.83 A max.)

DimensionsW : 440 mm (17-5/16")

H : 147 mm (5-13/16")

D : 392 mm (15-7/16")

Weight (Net)

(1070VR)11 kg (24.3 lb)

(1060VR)10 kg (22.0 lb)



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

1060VR/1070VR/KR-V8090/KR-V9090

Note:

Component and circuit are subject to modification to insure best operation under differing local conditions. This manual is based on Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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