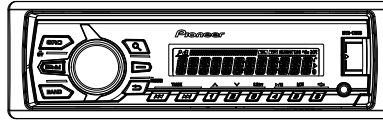


Pioneer

Service Manual



MVH-170UB/XINEW5

ORDER NO.
CRT5568

RDS MEDIA CENTER RECEIVER

MVH-170UB /XINEW5

MVH-170UBG /XINEW5

MVH-170UI /XINEW5

MVH-X175UI /XINCS

MVH-X175UI /XINGS

MVH-X175UI /XINGS1

MVH-X179UI /XINID



SAFETY INFORMATION

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.

If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

Where in a manufacturer's service documentation, for example in circuit diagrams or lists of components, a symbol is used to indicate that a specific component shall be replaced only by the component specified in that documentation for safety reasons, the following symbol shall be used:



CAUTION

Danger of explosion if battery is incorrectly replaced.

Replaced only with the same or equivalent type recommended by the manufacturer.

Discard used batteries according to the manufacturer's instructions.

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2. SPECIFICATIONS

2.1 SPECIFICATIONS

For all items except the backup current, refer to the Owner's Manual.

Backup current..... 4.0 mA or less

2.2 DISC/CONTENT FORMAT



3. BASIC ITEMS FOR SERVICE

3.1 CHECK POINTS AFTER SERVICING

To keep the product quality after servicing, please confirm following check points.

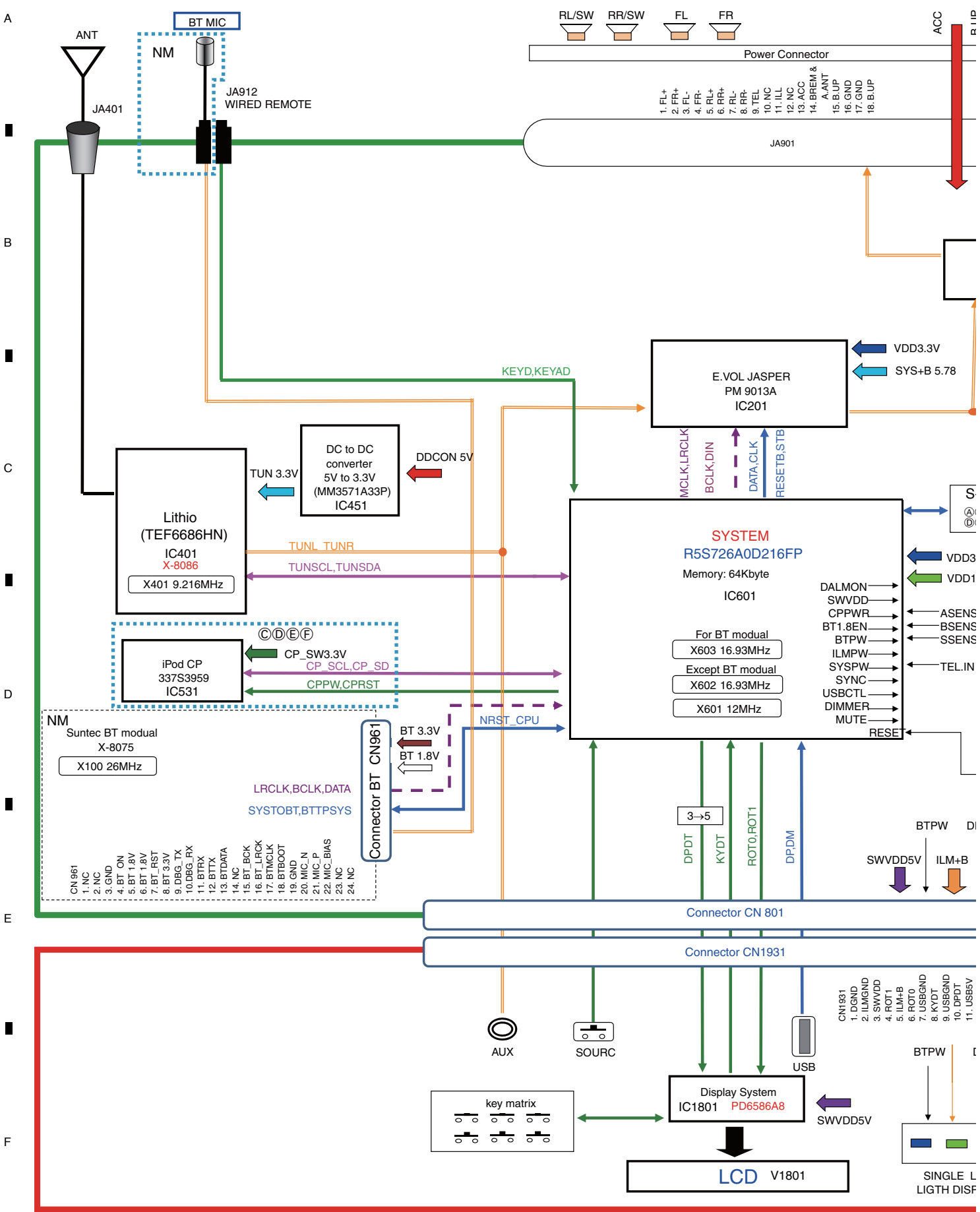
No.		Procedures	Item to be confirmed
1		Confirm whether the customer complain has been solved. If the customer complain occurs with the specific media, use it for the operation check.	The customer complain must not be reappeared. Display, audio and operations must be normal.
2	FM/AM tuner	Check FM/AM tuner action. (Seek, Preset) Switch band to check both FM and AM.	Display, audio and operations must be normal.
3		Appearance check	No scratches or dirt on its appearance after receiving it for service.

See the table below for the items to be checked regarding audio:

Item to be checked regarding audio
Distortion
Noise
Volume too low
Volume too high
Volume fluctuating
Sound interrupted

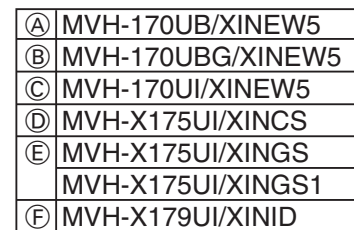
4. BLOCK DIAGRAM

4.1 BLOCK DIAGRAM



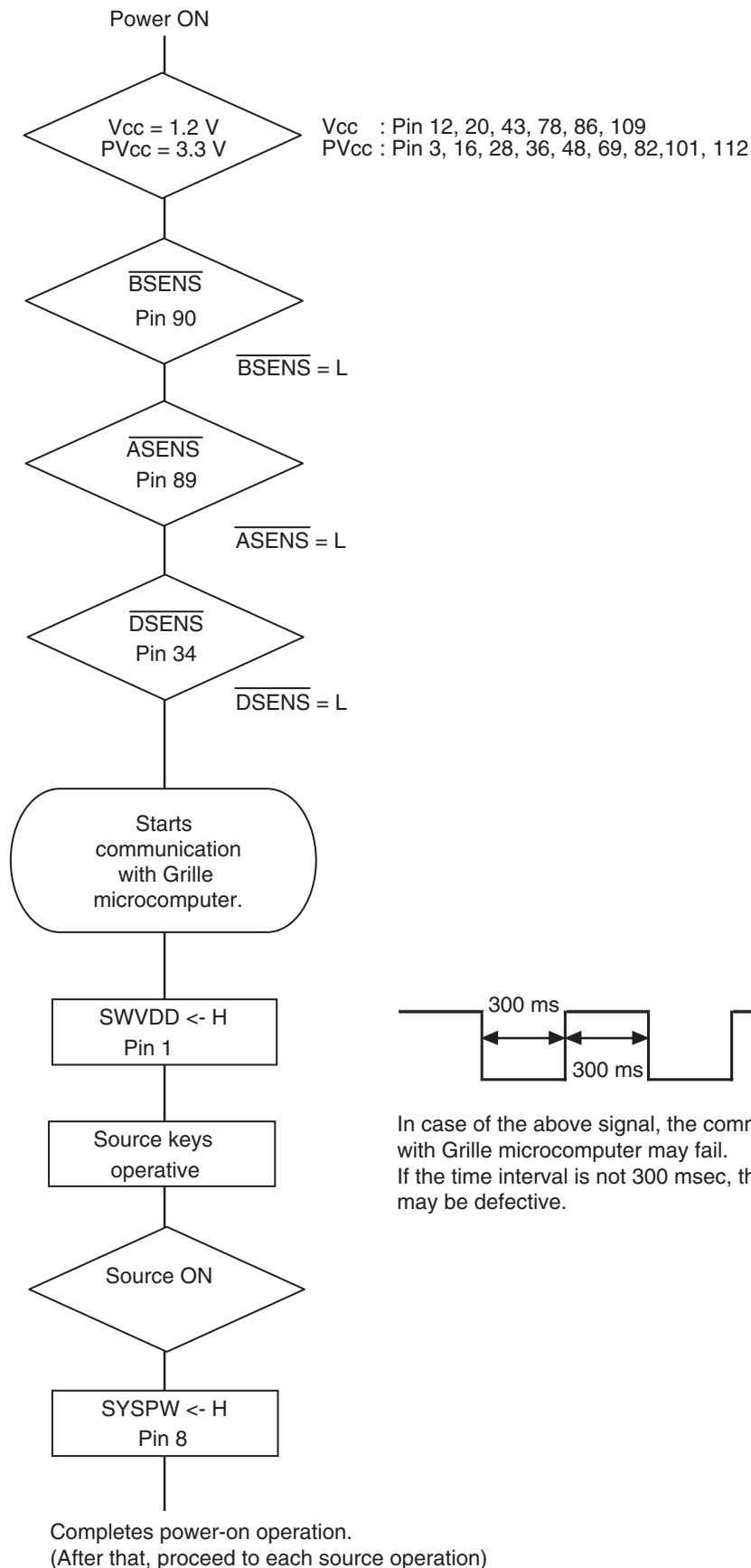


4



5. DIAGNOSIS

5.1 OPERATIONAL FLOWCHART



1

2

3

4

5.2 ERROR CODE LIST

A

Common	
AMP ERROR	
→ This unit fails to operate or the speaker connection is incorrect; the protection circuit is activated.	
– Check the speaker connection.	
– Check the power IC and its peripheral circuit.	
NO XXXX (NO TITLE, for example)	
→ There is no embedded text information.	
– Switch the display or play another track/file.	
USB device/iPod	
FORMAT READ	
→ Sometimes there is a delay between the start of playback and when you start to hear any sound.	
– Wait until the message disappears and you hear sound.	
NO AUDIO	
→ There are no songs.	
– Transfer the audio files to the USB device and connect.	
→ The connected USB device has security enabled.	
– Follow the USB device instructions to disable the security.	
SKIPPED	
→ The connected USB device contains DRM protected files.	
– The protected files are skipped.	
PROTECT	
→ All the files on the connected USB device are embedded with DRM.	
– Replace the USB device.	
N/A USB	
→ The connected USB device is not supported by this unit.	
– Disconnect your device and replace it with a compatible USB device.	
CHECK USB	
→ The USB connector or USB cable has short-circuited.	
– Check that the USB connector or USB cable is not caught in something or damaged.	
→ The connected USB device consumes more than maximum allowable current.	
– Disconnect the USB device and do not use it. Turn the ignition switch OFF and back to ACC or ON. Connect only compliant USB devices.	
→ The iPod operates correctly but does not charge.	
– Make sure the connection cable for the iPod has not shorted out (e.g., not caught in metal objects). After checking, turn the ignition switch OFF and back to ON, or disconnect the iPod and reconnect.	
ERROR-19	
→ Communication failed.	
– Perform one of the following operations, then return to the USB source.	
• Turn the ignition switch OFF and back to ON.	
• Disconnect the USB device.	
• Change to a different source.	
→ iPod failure.	
– Disconnect the cable from the iPod. Once the iPod's main menu is displayed, reconnect the iPod and reset it.	
ERROR-23	
→ USB device was not formatted properly.	
– Format the USB device with FAT12, FAT16 or FAT32.	

F

ERROR-16	
→ The iPod firmware version is old.	
– Update the iPod version.	
→ iPod failure.	
– Disconnect the cable from the iPod. Once the iPod's main menu is displayed, reconnect the iPod and reset it.	
STOP	
→ There are no songs in the current list.	
– Select a list that contains songs.	
NOT FOUND	
→ No related songs.	
– Transfer songs to the iPod.	

Pandora (/GS, /GS1)

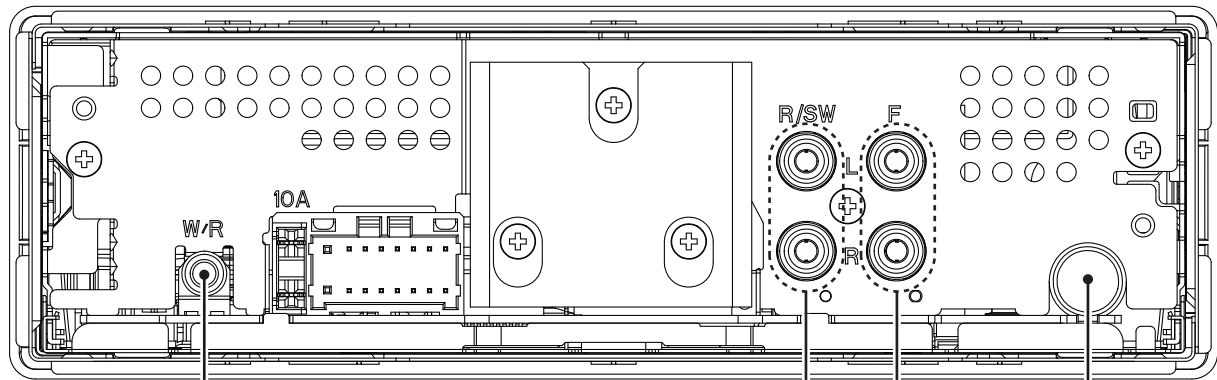
ERROR-19	
→ Communication failed.	
– Disconnect the cable from the device. Once the device's main menu is displayed, reconnect the device and reset it.	
START UP APP	
→ The Pandora application has not started running yet.	
– Start up the Pandora application.	
INOPERABLE	
→ The operation was disabled.	
– Run the same command for another track.	
TRY LATER	
→ Unable to save thumb rating.	
→ Unable to save BookMark.	
→ Unable to add station.	
– Try again later.	
MAINTENANCE	
→ Pandora system is undergoing maintenance.	
– Try again later.	
SKIP LIMIT	
→ Due to music licensing restrictions, Pandora limits the total number of skips per hour.	
– Wait until Pandora allows you to skip again.	
CHECK APP	
→ This version of the Pandora application is not supported.	
– Connect a device that has a compatible version of the Pandora application installed.	
CHECK DEVICE	
→ Device error message displayed in the Pandora application.	
– Check the connected device.	
NO STATION	
→ No station found.	
– Create a station in the Pandora application on your connected device.	
SELECT STN	
→ No station selected.	
– Select a station.	
NO BT DEVICE GO TO BT MENU TO REGISTER	
→ No Bluetooth device found.	
– Connect the unit and the device via Bluetooth.	

CONN. FAILED PRESS BAND KEY TO RETRY	
→ Bluetooth connection failed.	
– Press BAND/ to make a connection again.	
CHECK APP PRESS BAND KEY TO RETRY	
→ Connection to the Pandora application failed.	
– Press BAND/ to make a connection again.	
DISCONNECTED PRESS BAND KEY TO RETRY	
→ Bluetooth connection lost.	
– Press BAND/ to make a connection again.	
STATION FULL	
→ A new station cannot be added.	
– Delete an old station to open a spot for a new one.	
CAN.T DELETE	
→ The station could not be deleted.	
– Run the same command for another station.	
NO NETWORK	
→ The connected device is out of area.	
– Connect the device to a network.	
NO SERVICE	
→ The connected device is out of area.	
– Connect the device to a network.	
CAN.T PLAY	
→ The operation was disabled.	
– Run the same command for another station.	

Apps

NO BT DEVICE GO TO BT MENU TO REGISTER	
→ No Bluetooth device found.	
– Connect the unit and the device via Bluetooth.	
CONN. FAILED PRESS BAND KEY TO RETRY	
→ Bluetooth connection failed.	
– Press BAND/ to make a connection again.	
DISCONNECTED PRESS BAND KEY TO RETRY	
→ Bluetooth connection failed.	
– Press BAND/ to make a connection again.	
CHECK APP	
→ Connection to the application failed.	
– Follow the instructions that appear on the screen.	
START UP APP	
→ The application has not started running yet.	
– Operate the mobile device to start up the application.	

5.3 CONNECTOR FUNCTION DESCRIPTION



WIRED
REMOTE
CONTROL

FRONT
PRE-OUT
(MVH-170UI/XINEW5)

FM/AM ANTENNA
INPUT

REAR OUTPUT or
SUBWOOFER OUTPUT

15	13	11	9	7	5	3	1
16	14	12	10	8	6	4	2

- | | |
|-------|-------------------------------|
| 1 FL+ | 9 TEL (MVH-170UI/XINEW5 Only) |
| 2 FR+ | NC (Except MVH-170UI/XINEW5) |
| 3 FL- | 10 NC |
| 4 FR- | 11 NC |
| 5 RL+ | 12 NC |
| 6 RR+ | 13 ACC |
| 7 RL- | 14 B.REM |
| 8 RR- | 15 B.UP |
| | 16 GND |

1 2 3 4

6. SERVICE MODE

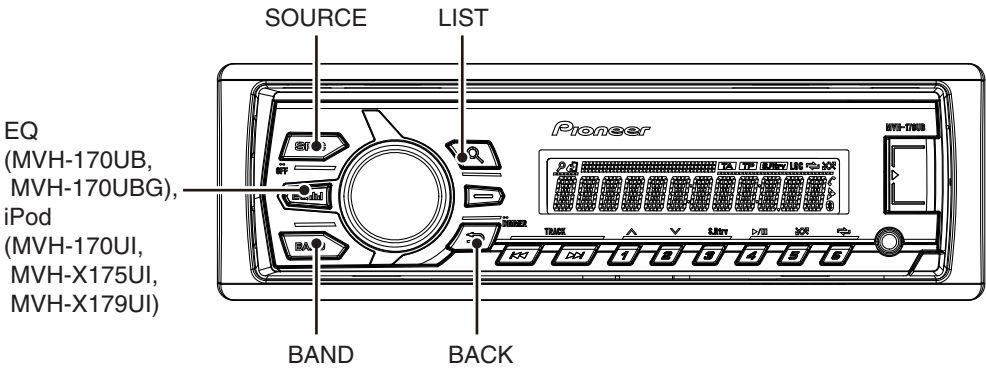
6.1 DISPLAY TEST MODE 1

A

[How to enter Test mode]

Press and hold "EQ (MVH-170UB, MVH-170UBG), iPod (MVH-170UI, MVH-X175UI, MVH-X179UI)" and "LIST" buttons together, and turn BUP and ACC on.

B



C

		Grille condition	
Conf. item	Operate	Show LCD	ILM
All light up	EQ (MVH-170UB, MVH-170UBG), iPod (MVH-170UI, MVH-X175UI, MVH-X179UI) + LIST	Draw 1	ILM(1)
All light off	SOURCE	No light Draw2	No light
Conf. LCD pattern 1 (* And change ILM color)	BAND	Draw 3	ILM(2) (If not have, ILM(1) light on)
Conf. LCD pattern 2	BACK	Draw 4	ILM(1)

Drawings Style

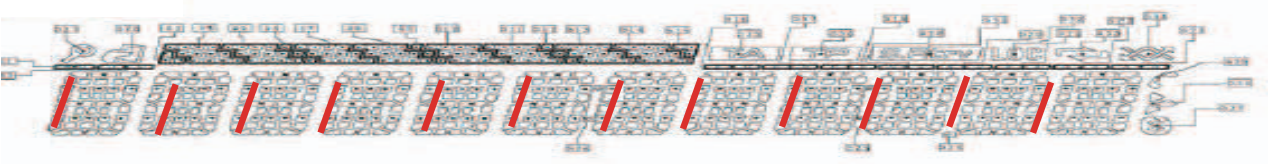
D

Draw1 ALL light up
Draw2 ALL light off
Draw3



E

Draw4



F

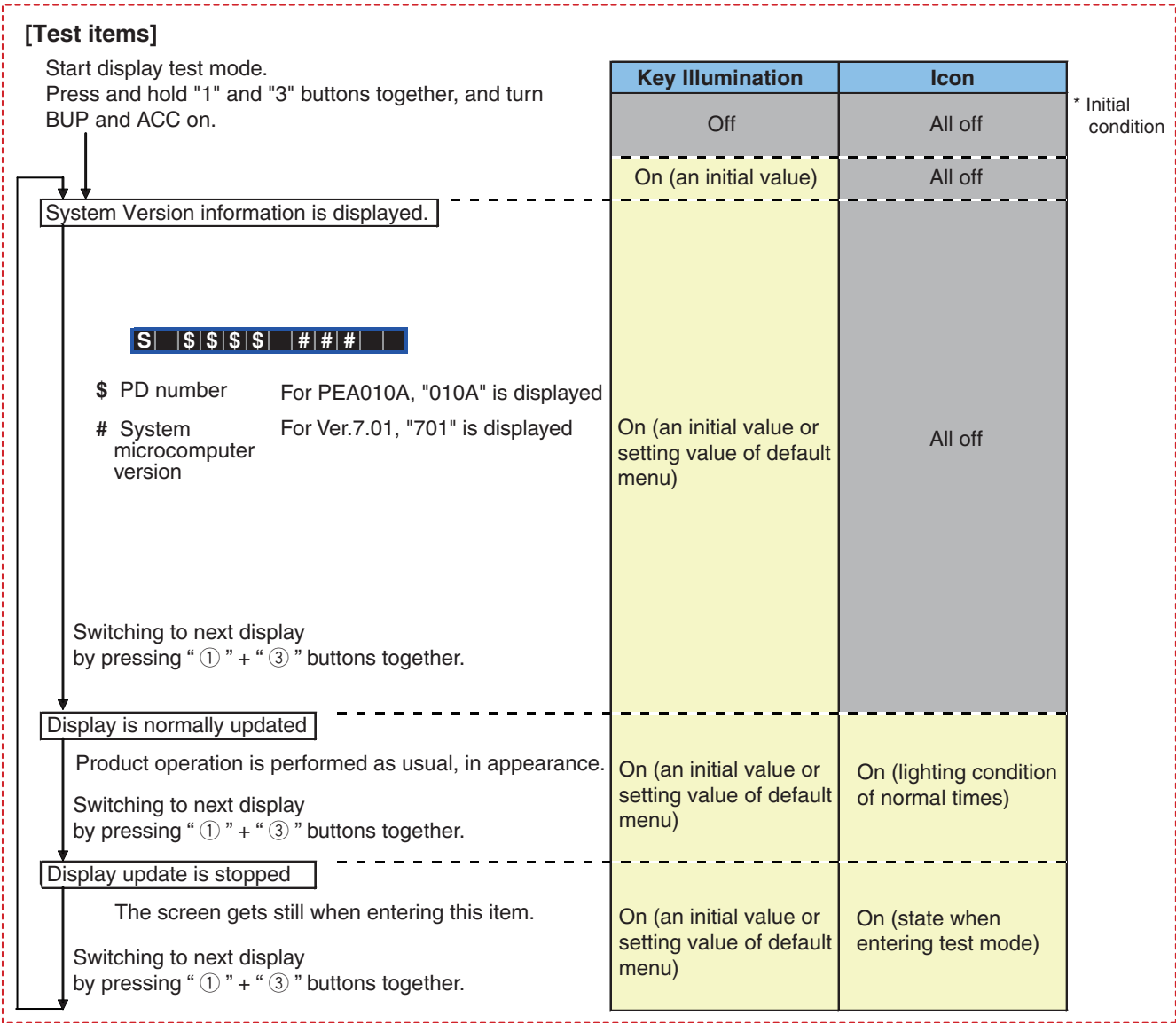
The information such as the system microcomputer version is checked.

[How to enter Test mode]

Press and hold "1" and "3" buttons together, and turn BUP and ACC on.

[Operation key]

Operation key	Processing	Remarks
① + ③	Enter display test mode Switch to next test mode	



1 2 3 4

6.3 SOFTWARE VERSION UP METHOD

A

Overview

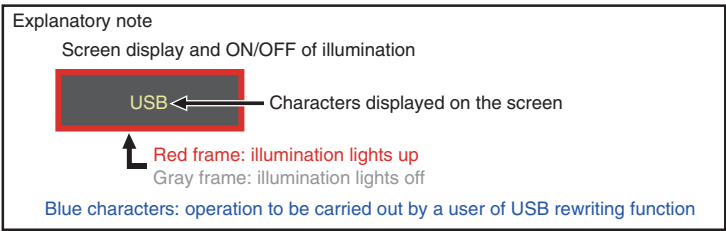
This mode is used for upgrading the MCU software of system using USB memory.

How to enter in USB rewriting mode

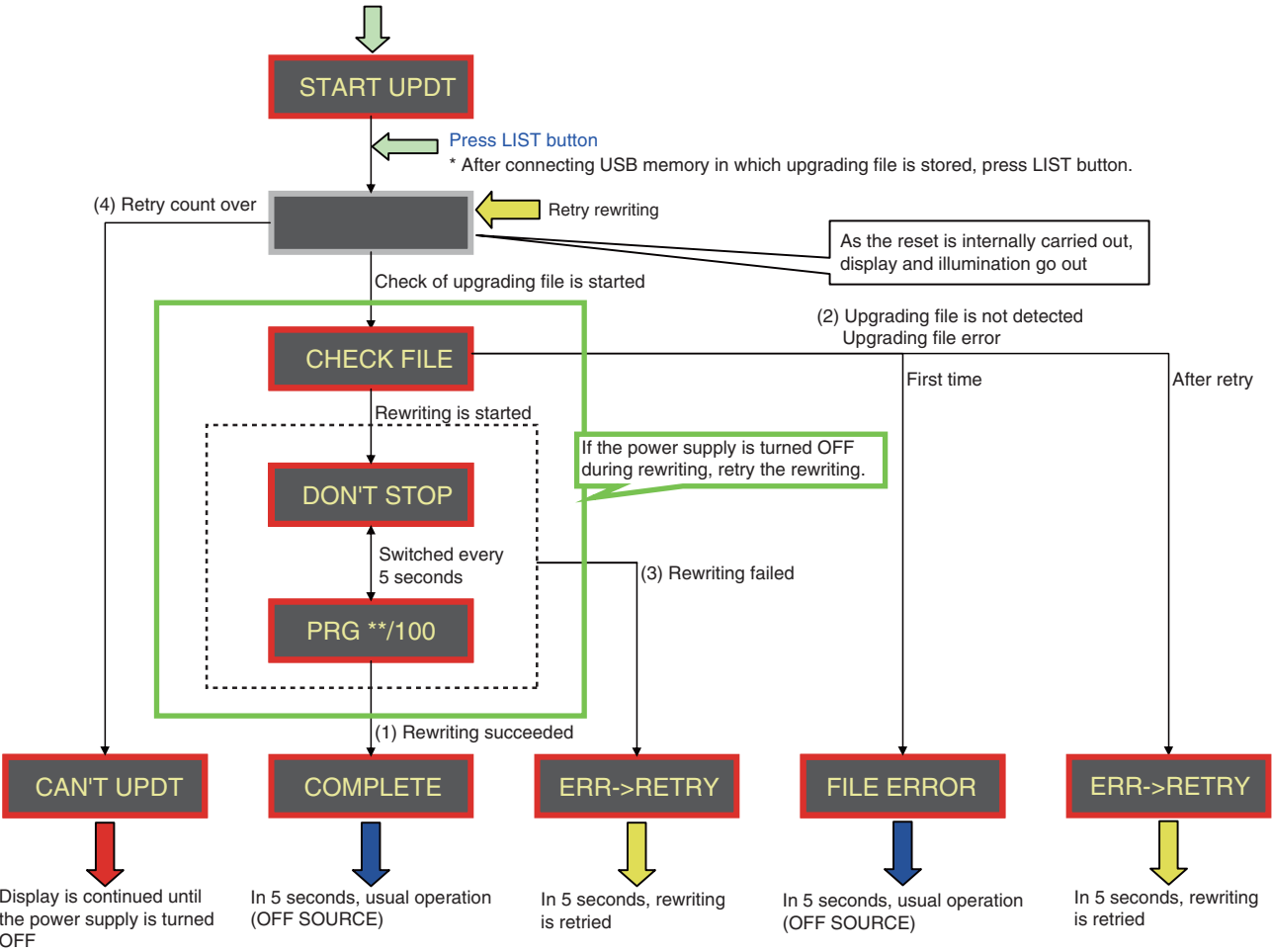
Press and hold "1" and "2" buttons together, and turn BUP and ACC on.

B

USB rewriting operation flow



Press and hold "1" and "2" buttons together, and turn BUP and ACC on.



D

Result of rewriting

E

(1) Rewriting succeeded	Displayed when USB rewriting is normally terminated. In 5 seconds, usual operation (OFF SOURCE) is started.
(2) Upgrading file error Upgrading file is not detected	Displayed when there is no upgrading file in USB memory or the data of upgrading file is different. In 5 seconds, usual operation (OFF SOURCE) is started. If the upgrading file error is detected or the upgrading file is not detected after the rewriting is retried, the rewriting is failed. In 5 seconds, rewriting is retried.
(3) Rewriting failed	Displayed when the writing of upgrading file in serial Flash is not normally terminated. Or, displayed if the upgrading file error is detected or the upgrading file is not detected after the rewriting is retried. In 5 seconds, rewriting is retried.
(4) Retry count over	Displayed when the retry becomes unavailable because the retry count is exceeded. The display is continued until the power supply is turned OFF. If the power supply is turned ON again, the display is not changed. The upgrading using USB is disabled, so it is necessary to write programs in serial Flash using E10A.

F

7. DISASSEMBLY

While the photograph shown is slightly different from this model in shape, the disassembly procedure is the same.

● Removing the Panel Assy (Fig.1)

- ➡ 1 Release the two latches.
- ➡ 2 Release the two latches and then remove the Panel Assy.

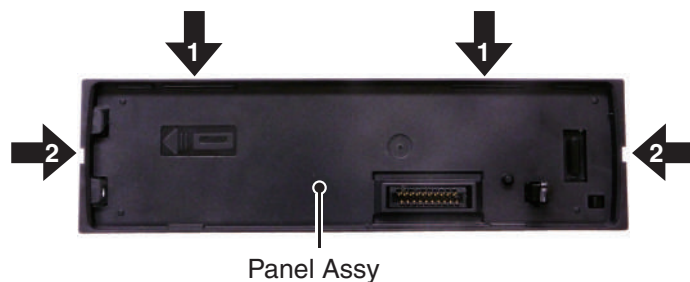
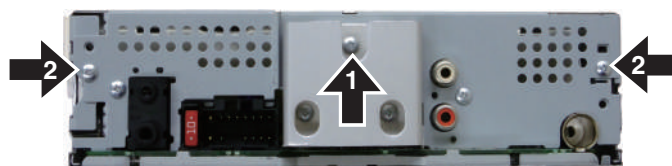


Fig.1

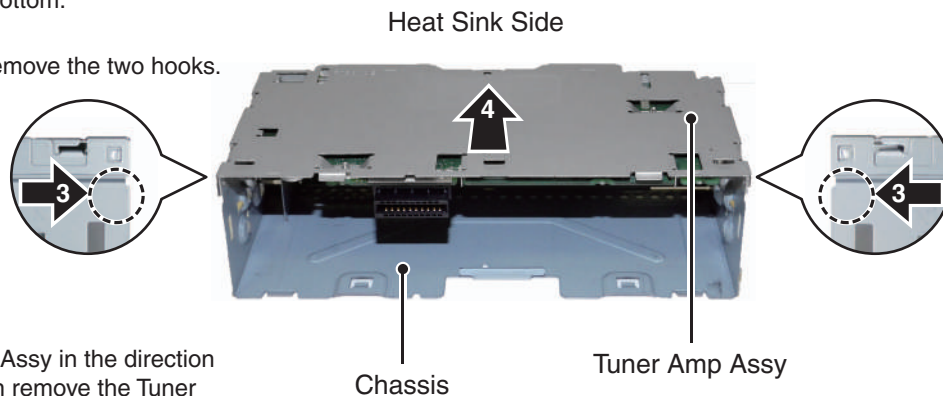
● Removing the Tuner Amp Assy (Fig.2)

- ➡ 1 Remove the screw.
- ➡ 2 Remove the two screws.



The Chassis side is made a bottom.

- ➡ 3 Push the area and remove the two hooks.



- ➡ 4 Slide the Tuner Amp Assy in the direction of the arrow and then remove the Tuner Amp Assy.

Fig.2

● Removing the Tuner Amp Unit (Fig.3)

- ➡ 1 Remove the two screws.
- ➡ 2 Release the latch and then remove the Tuner Amp Unit.

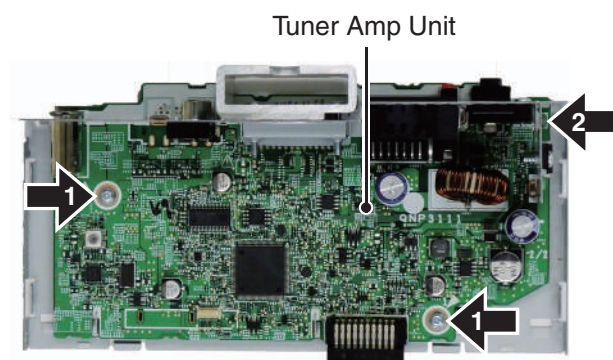


Fig.3

● Disassembling the Panel Part (Fig.5, 6)

1. Remove the arm while bending the rib of the panel upward.

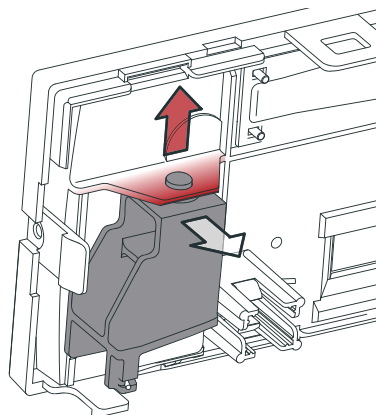


Fig.5

2. Press the upside hook and the bottom side hook of the button at the same time, and pull out the button.

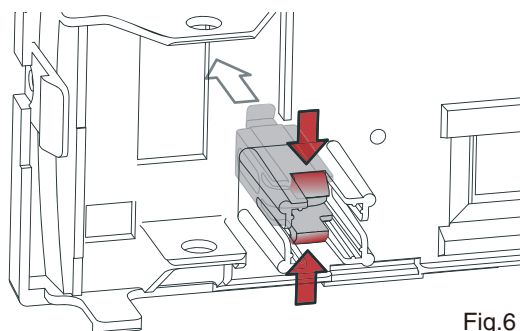


Fig.6

● Assembling the Panel Part (Fig.7, 8, 9)

1. Attach the button from the front side of the panel.

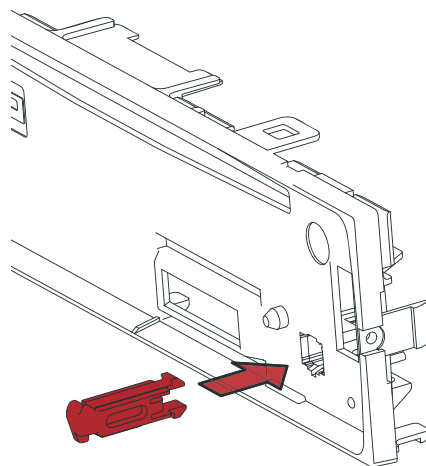


Fig.7

2. Attach the spring to the arm as shown in the figure.

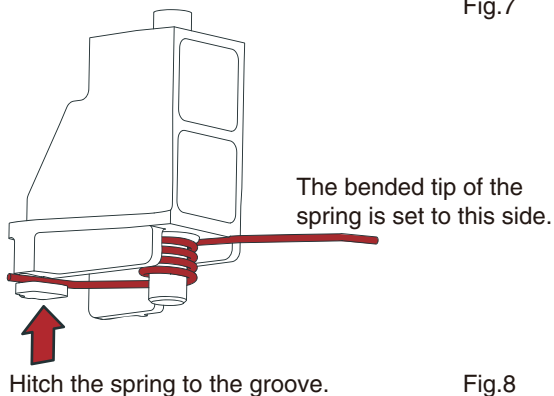


Fig.8

3. Fit the spring in the groove at the position shown in the figure.
4. Fit the boss on the lower side of the arm in the lower hole of the panel, and then warp the rib on the panel in the direction shown in the figure and fit the boss of the arm in the panel.

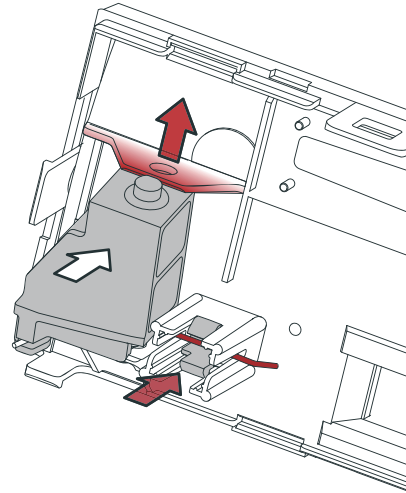


Fig.9

8. EACH SETTING AND ADJUSTMENT

8.1 PCL OUTPUT CONFIRMATION

A



● PCL Output

In the normal operation mode (with the detachable panel installed, the ACC switched ON, the standby mode cancelled), shift the TESTIN IC601(Pin 99) terminal to H.
The clock signal is output from the PCL_RAM_MON terminal IC601(Pin116).
The frequency of the clock signal is 600 kHz that is divided by 20th of the oscillation frequency of X601 (12MHz).
The clock signal should be 600 kHz(- 25 Hz, + 25 Hz).
If the clock signal is out of the range, the X'tal (X601) should be replaced with new one.

B

■

C

■

D

■

E

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F

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5

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6

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7

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8

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A

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B

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C

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D

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E

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F

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5

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6

MVH-170UB/XINEW5

■

7

■

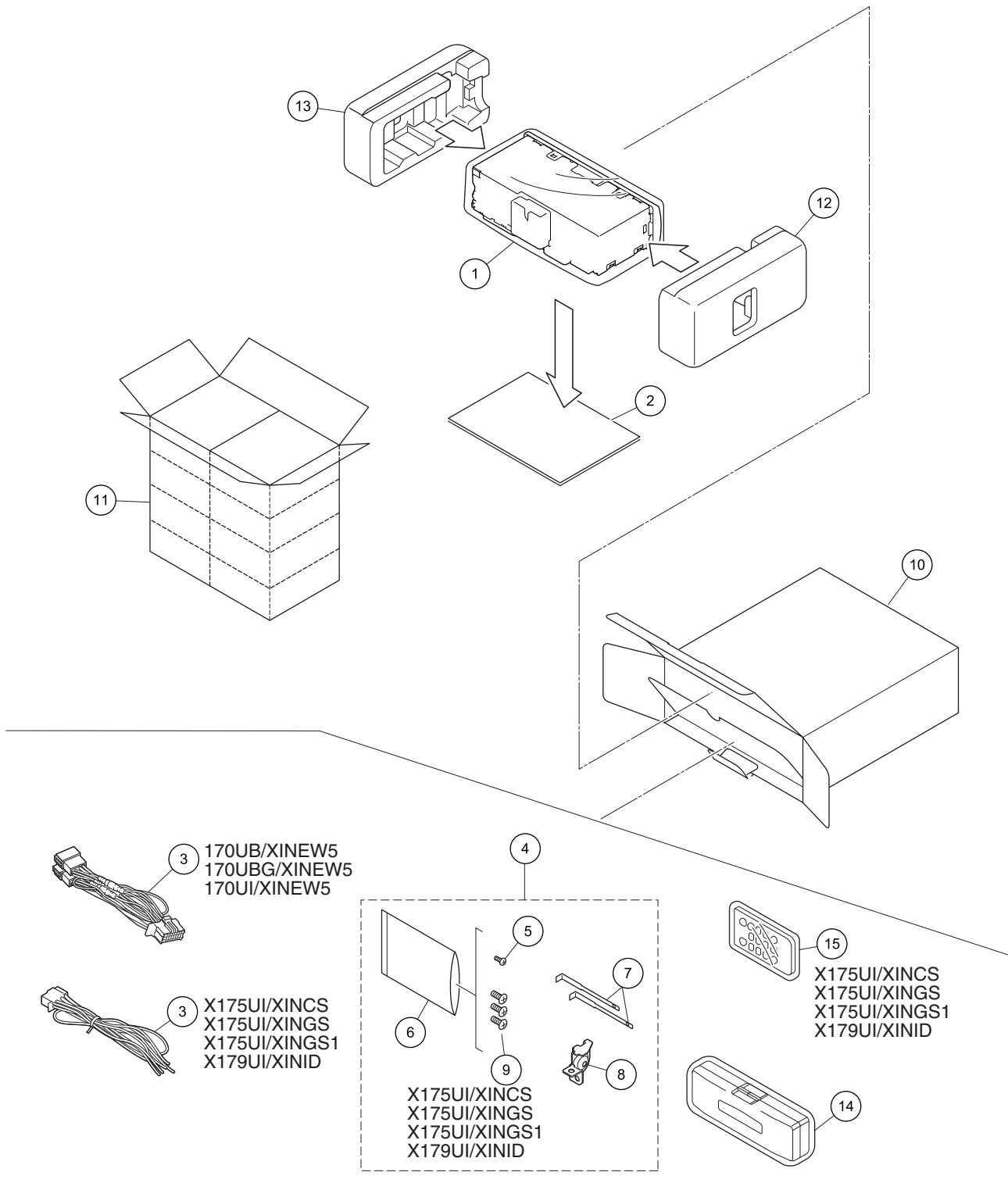
8

■

9. EXPLODED VIEWS AND PARTS LIST

- NOTES :
- Parts marked by " * " are generally unavailable because they are not in our Master Spare Parts List.
 - The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - Screw adjacent to ▽ mark on the product are used for disassembly.
 - For the applying amount of lubricants or glue, follow the instructions in this manual.
- (In the case of no amount instructions, apply as you think it appropriate.)

9.1 PACKING



(1) PACKING SECTION PARTS LIST

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	Polyethylene Bag	CEG1260	8	Bracket	QNC3086
* 2-1	Warranty Card	See Contrast table (2)	9	Screw	See Contrast table (2)
2-2	Owner's Manual	See Contrast table (2)	10	Unit Box	See Contrast table (2)
* 2-3	Service Network	See Contrast table (2)	11	Contain Box	See Contrast table (2)
3	Code Assy	See Contrast table (2)	12	Protector	QHP3037
* 4	Accessory Assy	See Contrast table (2)	13	Protector	QHP3038
5	Screw	BSZ26P060FTC			
6	Polyethylene Bag	CEG1160	14	Case Assy	QXA3129
7	Handle	QNC3021	15	Card Remote Control Unit	See Contrast table (2)

(2) CONTRAST TABLE

MVH-170UB/XINEW5, MVH-170UBG/XINEW5, MVH-170UI/XINEW5, MVH-X175UI/XINCS, MVH-X175UI/XINGS, MVH-X175UI/XINGS1, and MVH-X179UI/XINID are constructed the same except for the following:

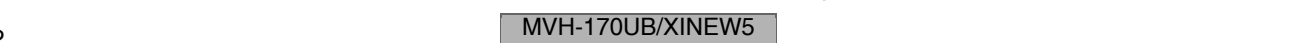
Mark	No.	Description	MVH-170UB /XINEW5	MVH-170UBG /XINEW5	MVH-170UI /XINEW5	MVH-X175UI /XINCS	MVH-X175UI /XINGS
*	2-1	Warranty Card	CRY1376	CRY1376	CRY1376	Not used	Not used
	2-2	Owner's Manual	QRD3283	QRD3283	QRD3283	QRD3285	QRD3286
*	2-3	Service Network	Not used	Not used	Not used	Not used	Not used
	3	Code Assy	QDP3071	QDP3071	QDP3070	CDP1480	CDP1480
*	4	Accessory Assy	QEA3164	QEA3164	QEA3164	QEA3165	QEA3165
	9	Screw	Not used	Not used	Not used	TRZ50P080FTC	TRZ50P080FTC
	10	Unit Box	QHG3722	QHG3724	QHG3717	QHG3718	QHG3719
	11	Contain Box	QHL3722	QHL3724	QHL3717	QHL3718	QHL3719
	15	Card Remote Control Unit	Not used	Not used	Not used	QXE1047	QXE1047

Mark	No.	Description	MVH-X175UI /XINGS1	MVH-X179UI /XINID
*	2-1	Warranty Card	CRY1394	CRY1304
	2-2	Owner's Manual	QRD3286	QRB3474
*	2-3	Service Network	CRY1395	CRY1305
	3	Code Assy	CDP1480	CDP1480
*	4	Accessory Assy	QEA3165	QEA3165
	9	Screw	TRZ50P080FTC	TRZ50P080FTC
	10	Unit Box	QHG3720	QHG3721
	11	Contain Box	QHL3720	QHL3721
	15	Card Remote Control Unit	QXE1047	QXE1047

Owner's Manual,Installation Manual

Part No.	Language
QRD3283	English, French, Italian, Spanish(Espanol), German, Dutch, Russian
QRD3285	English, Spanish(Espanol), Portuguese(B)
QRD3286	English, Traditional Chinese, Arabic, Persian
QRB3474	English

4



(1) EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	Screw	ASZ26P050FTC	21	Screw	BPZ20P100FTC	A
2	Screw	BSZ26P060FTC	22	Spring	CBH2210	
3	Screw	BSZ26P160FTC	23	Button (DISP)	QAC3179	
4	Code Assy	See Contrast table (2)	24	Button (< > 1-6)	QAC3180	
5	Chassis	QNA3024	25	Button (DETACH)	QAC3181	
6	Case	QNB3030	26	Button (SRC, BAND)	See Contrast table (2)	B
7	Holder	QNC3020	27	Cover	QNS3767	
8	Panel	QNS3568	28	LCD (V1801)	CAW2055	
9	Tuner Amp Unit	See Contrast table (2)	29	Holder	QNC3067	
10	Screw	BPZ26P080FTC	30	Sheet	QNM3128	
11	Screw	BSZ26P060FTC	31	Rubber Connector	QNV3071	C
12	Screw	BSZ26P160FTC	32	Lighting Conductor	QNV3098	
13	Holder	See Contrast table (2)	33	Contact Rubber	QNV3102	
14	Heat Sink	QNR3012	34	Knob Unit	See Contrast table (2)	
⚠ 15	Fuse (10 A)	YEK5001	35	Grille Unit	See Contrast table (2)	
16	Spring	QBH3001	36	Door	QAT3014	D
17	Panel	QNS3289	37	Card Remote Control Unit	See Contrast table (2)	
18	Arm	QNV3025	38	Cover	See Contrast table (2)	
19	Button	QNV3026				
20	Detachable Grille Assy	See Contrast table (2)				

(2) CONTRAST TABLE

MVH-170UB/XINEW5, MVH-170UBG/XINEW5, MVH-170UI/XINEW5, MVH-X175UI/XINCS, MVH-X175UI/XINGS, MVH-X175UI/XINGS1, and MVH-X179UI/XINID are constructed the same except for the following:

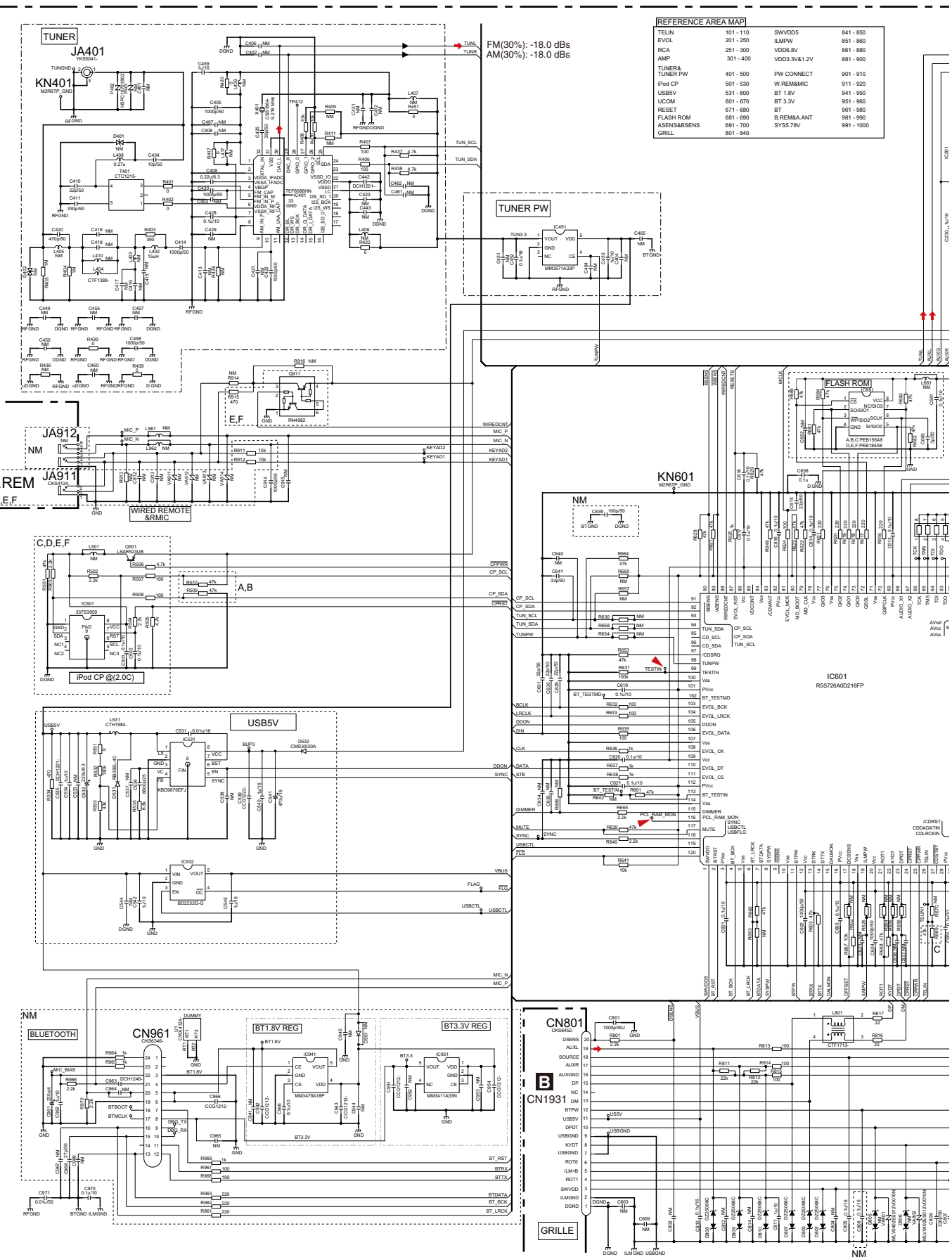
Mark	No.	Description	MVH-170UB /XINEW5	MVH-170UBG /XINEW5	MVH-170UI /XINEW5	MVH-X175UI /XINCS	MVH-X175UI /XINGS
	4	Code Assy	QDP3071	QDP3071	QDP3070	CDP1480	CDP1480
	9	Tuner Amp Unit	QWM3945	QWM3945	QWM3939	QWM3940	QWM3941
	13	Holder	QNC3106	QNC3106	QNC3104	QNC3105	QNC3105
	20	Detachable Grille Assy	QXA4362	QXA4363	QXA4187	QXA4189	QXA4190
	26	Button (SRC, BAND)	QAC3204	QAC3204	QAC3185	QAC3185	QAC3185
	34	Knob Unit	QXA3673	QXA3673	QXA3673	QXA3673	QXA3671
	35	Grille Unit	QXA4364	QXA4365	QXA4202	QXA4204	QXA4204
	37	Card Remote Control Unit	Not used	Not used	Not used	QXE1047	QXE1047
	38	Cover	Not used	Not used	Not used	CNS7068	CNS7068

Mark	No.	Description	MVH-X175UI /XINGS1	MVH-X179UI /XINID
	4	Code Assy	CDP1480	CDP1480
	9	Tuner Amp Unit	QWM3941	QWM3942
	13	Holder	QNC3105	QNC3105
	20	Detachable Grille Assy	QXA4190	QXA4192
	26	Button (SRC, BAND)	QAC3185	QAC3185
	34	Knob Unit	QXA3671	QXA3671
	35	Grille Unit	QXA4204	QXA4207
	37	Card Remote Control Unit	QXE1047	QXE1047
	38	Cover	CNS7068	CNS7068

10. SCHEMATIC DIAGRAM

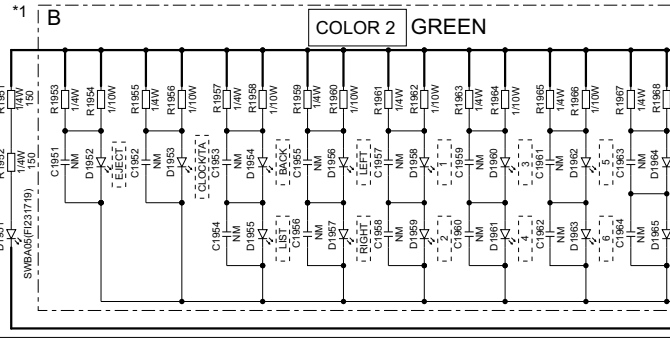
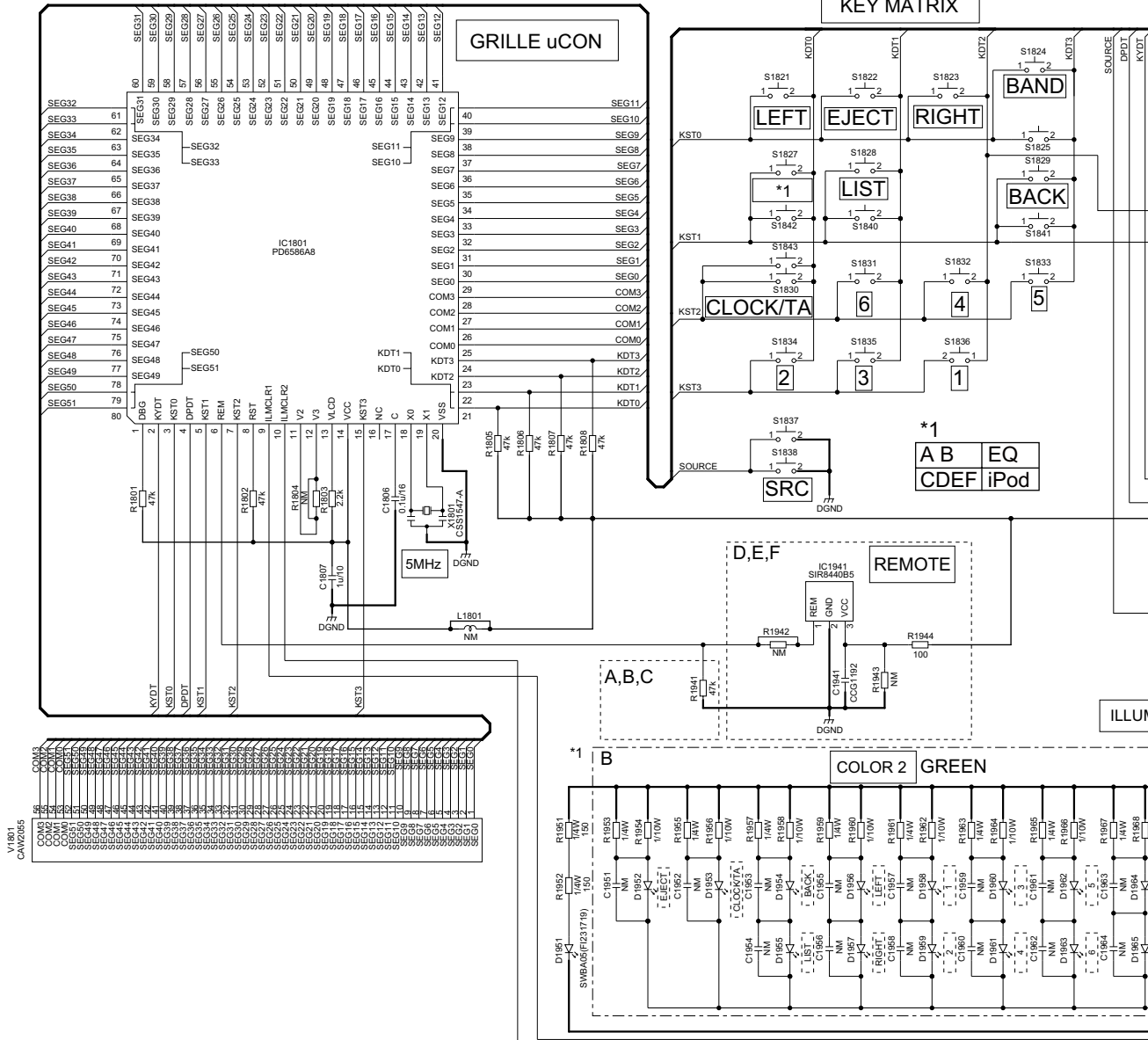
10.1 TUNER AMP UNIT (1/2 scale)

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



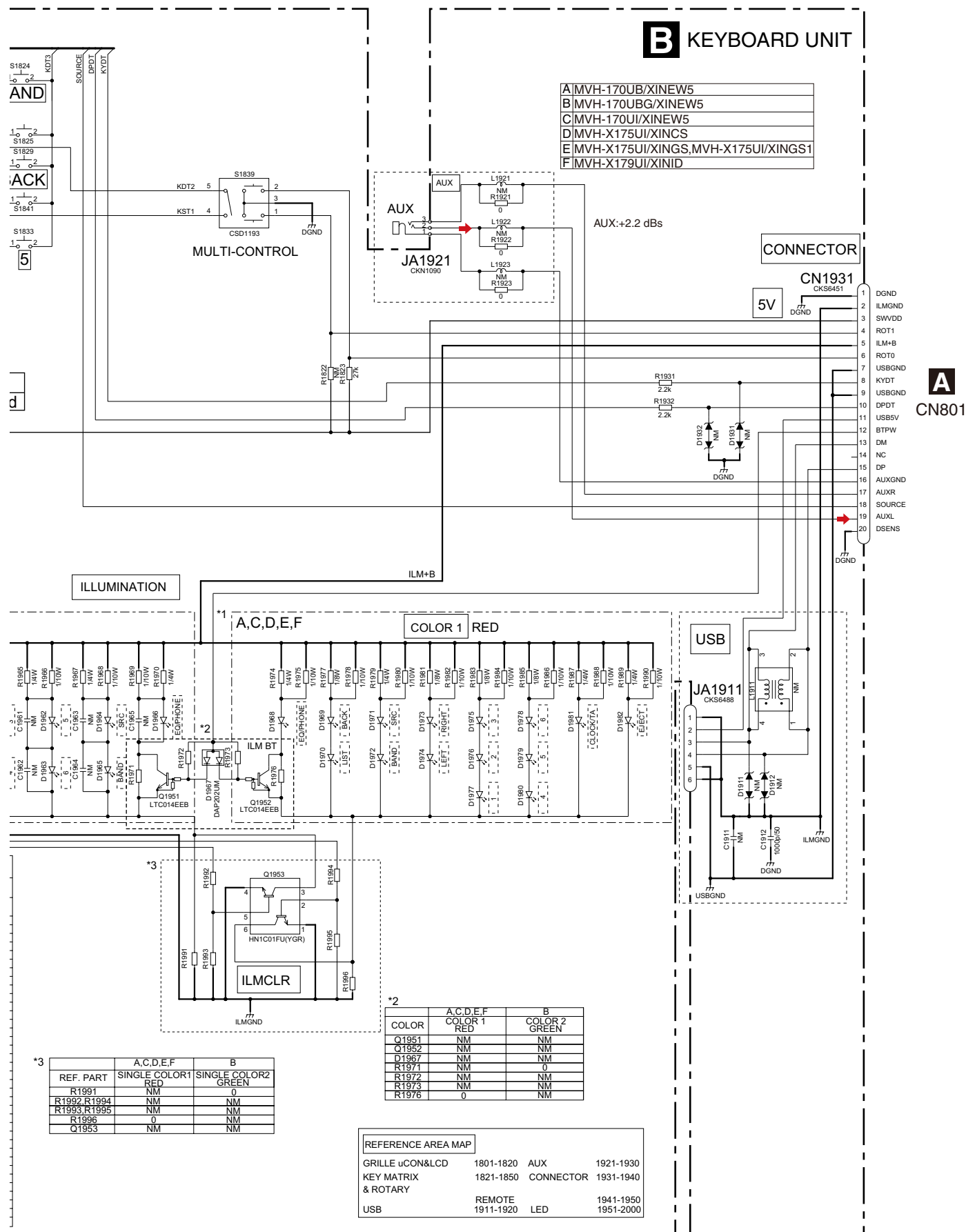
8

10.2 KEYBOARD UNIT



MODEL	A,C,D,E,F	B
D1952-D1966 (D1952=NM)	-	GREEN SML-D12P8W(KL)
D1968-D1982 (D1982=NM)	RED SML-D12V8W(PQ)	-
R1953	NM	NM
R1954	NM	NM
R1955	NM	680
R1956	NM	NM
R1957	NM	470
R1958	NM	NM
R1959	NM	470
R1960	NM	NM
R1961	NM	470
R1962	NM	NM
R1963	NM	470
R1964	NM	NM
R1965	NM	470
R1966	NM	NM
R1967	NM	470
R1968	NM	NM
R1969	NM	NM
R1970	NM	560
R1971	NM	0
R1972	NM	NM
R1973	2.2k	NM
R1974	0	NM
R1975	560	NM
R1976	NM	NM
R1977	NM	NM
R1978	NM	NM
R1979	1.8k	NM
R1980	820	NM
R1981	NM	NM
R1982	330	NM
R1983	NM	NM
R1984	330	NM
R1985	NM	NM
R1986	NM	NM
R1987	680	NM
R1988	NM	NM
R1989	NM	NM
R1990	NM	NM

*3
REF. PART
R1991
R1992,R1994
R1993,R1995
R1996
Q1953



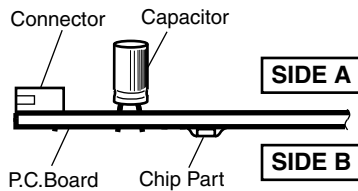
11. PCB CONNECTION DIAGRAM

11.1 TUNER AMP UNIT

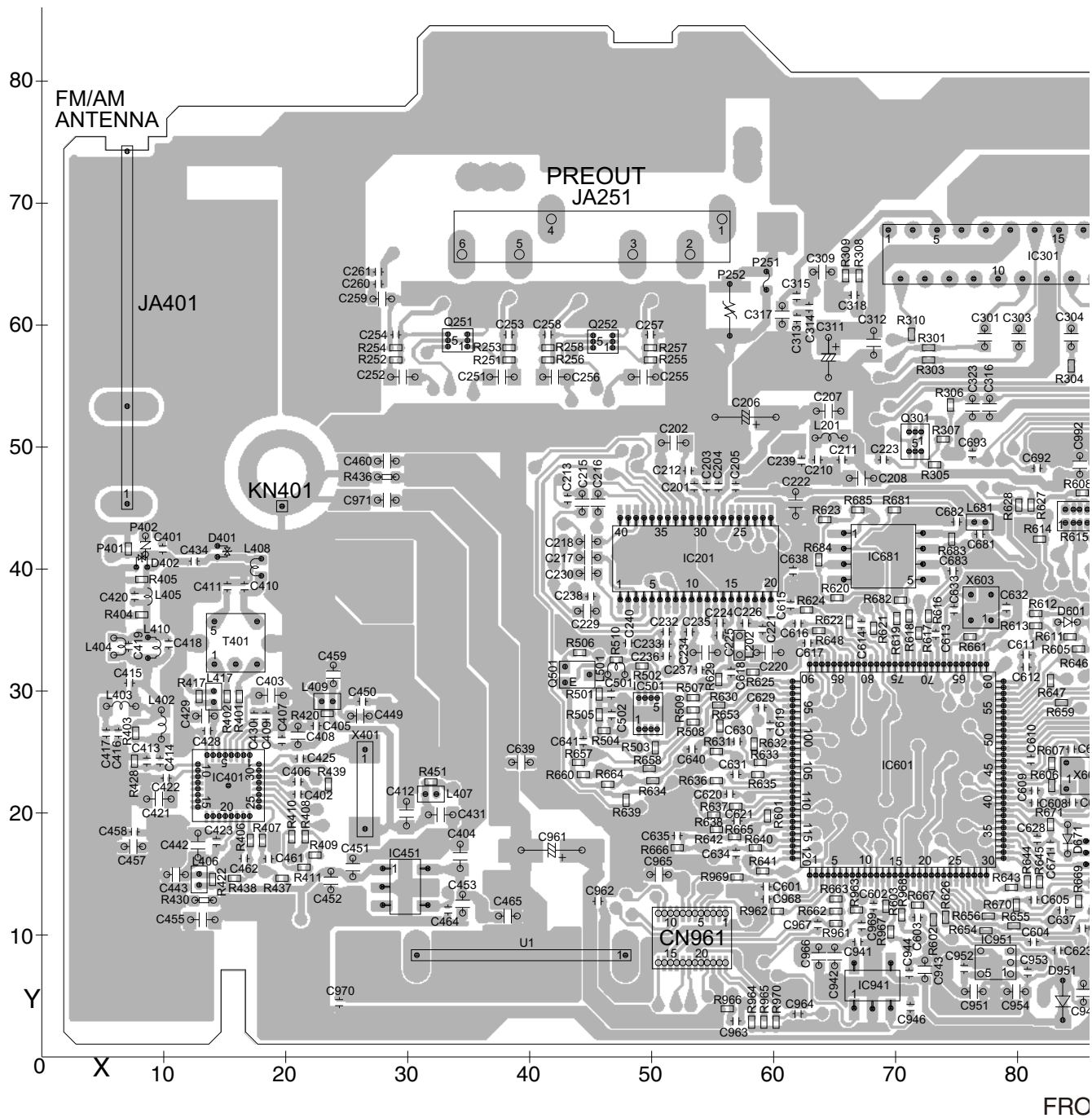
NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination. For further information for respective destinations, be sure to check with the schematic diagram.

2.Viewpoint of PCB diagrams



A TUNER AMP UNIT



W.REM
MIC



A

1

2

3

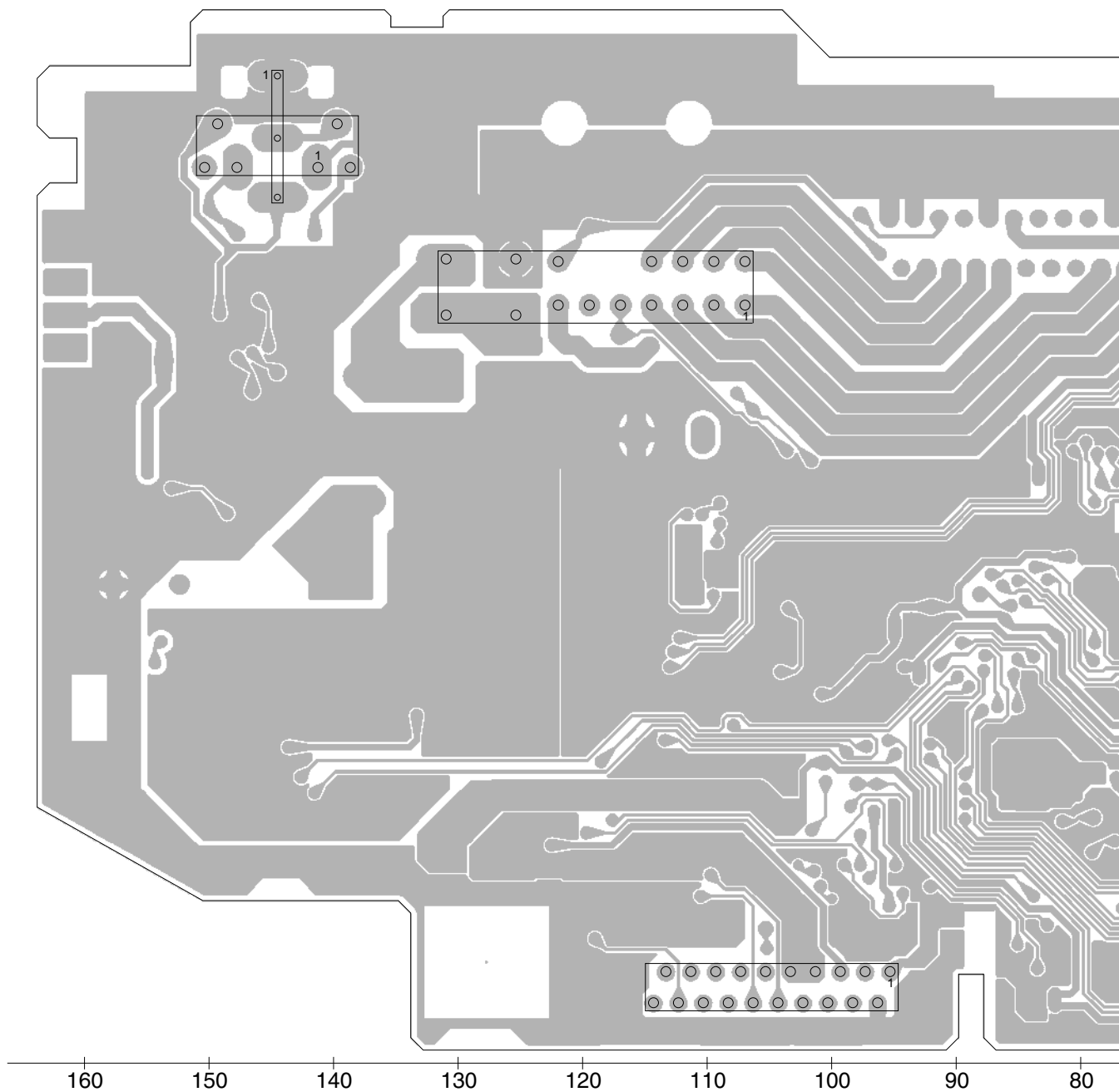
4

B

A TUNER AMP UNIT

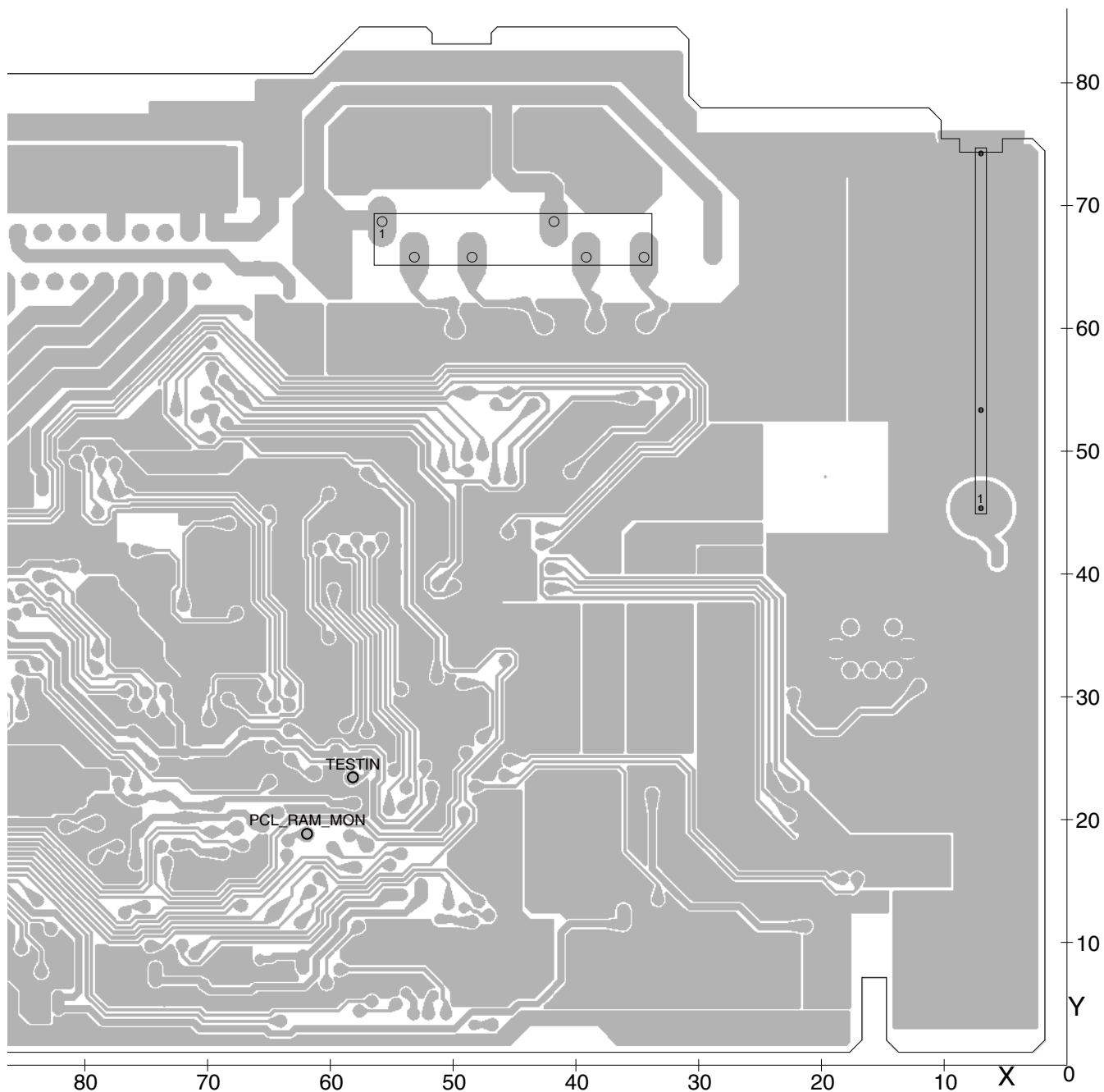
D

F



A

SIDE B



A

4

C

D

E



4

5			6		7			8	
Circuit Symbol and No.			Part No.		Circuit Symbol and No.			Part No.	
D 810	(A,116,11)	Diode	DZ2S068C		R 422	(A,14,15)		RS1/16SS0R0J	
D 851	(A,116,31)	Diode	DZ2J100M0		R 430	(A,13,13)		RS1/10SR0R0J	
D 861	(A,145,38)	Diode	D1F60-5053		R 437	(A,20,15)		RS1/16SS472J	
D 862	(A,155,60)	Diode	DZ2J068M0		R 438	(A,16,15)		RS1/16SS472J	A
D 863	(A,115,39)	Diode	CRG03		R 439	(A,24,22)		RS1/16SS0R0J	
					R 451	(A,32,23)		RS1/16SS0R0J	
D 901	(A,141,59)	Diode	D1F60-5053		R 501	(A,46,30) (C,D,E,F)		RS1/16SS473J	
D 902	(A,141,63)	Diode	D1F60-5053		R 502	(A,49,32) (C,D,E,F)		RS1/16SS222J	
D 982	(A,93,59)	Diode	CRG03		R 503	(A,50,25) (C,D,E,F)		RS1/16SS222J	
L 101	(A,108,34)	Chip Coil(C)	BTH1101						
L 202	(A,57,34)	Inductor	CTF1793		R 504	(A,46,27) (C,D,E,F)		RS1/16SS272J	
					R 505	(A,46,28) (C,D,E,F)		RS1/16SS472J	
L 402	(A,10,27)	Inductor	LCTAW150J2520		R 506	(A,44,33) (C,D,E,F)		RS1/16SS472J	
L 404	(A,6,34)	Inductor	CTF1389		R 507	(A,53,29) (C,D,E,F)		RS1/16SS101J	
L 408	(A,18,40)	Inductor	LCMAR27J1608		R 508	(A,53,27) (C,D,E,F)		RS1/16SS101J	
X 531	(A,129,32)	Inductor	CTH1584						
L 801	(A,112,15)	Inductor	CTF1713		R 509	(A,53,28) (A,B)		RS1/16SS473J	B
					R 510	(A,47,33) (A,B)		RS1/16SS473J	
L 901	(A,138,50)	Choke Coil 600 uH	CTH1221		R 531	(A,129,24)		RS1/16SS0R0J	
T 401	(A,16,34)	Variable Coil	CTC1215		R 532	(A,130,23)		RS1/16SS1803D	
X 401	(A,27,22)	Crystal Resonator 9.216 MHz	CSS1864		R 533	(A,130,25)		RS1/16SS4302D	
X 601	(A,85,23)	Crystal Resonator 12.0 MHz	CSS1847						
X 603	(A,77,37)	Resonator 16.93 MHz	CSS1794		R 534	(A,134,18)		RS1/10SR471J	
⚠ P251	(A,59,64)	Fuse 3.0 A	CEK1386		R 535	(A,131,25)		RS1/16SS682J	
P 402	(A,9,42)	Absorber	HSPC16701B02		R 601	(A,60,20)		RS1/16SS473J	
VA801	(A,110,13)	Varistor	MLV0402ES012V0010N		R 603	(A,69,12)		RS1/16SS473J	
VA802	(A,101,11)	Varistor	MLV0402ES012V0010N		R 604	(A,96,16)		RS1/16SS473J	
CN801	(A,105,2)	Connector	CKS6452		R 605	(A,85,33)		RS1/16SS473J	C
					R 607	(A,83,24)		RS1/16SS152J	
JA251	(A,44,68)	Pin Jack(A,B,D,E,F)	YKB5010		R 608	(A,85,46)		RS1/16SS473J	
	(A,44,68)	Jack(C)	CKB1109		R 609	(A,87,30)		RS1/16SS473J	
JA401	(A,7,60)	Antenna Jack	YKS5041		R 610	(A,87,34) (A,B,C,D)		RS1/16SS103J	
JA901	(A,119,70)	Plug	CKM1624			(A,87,34) (E,F)		RS1/16SS1002F	
JA911	(A,145,74)	Jack(C,D,E,F)	CKS6437						
⚠	Fuse (10 A)		YEK5001		R 611	(A,84,34)		RS1/16SS103J	
RESISTORS					R 612	(A,82,36) (A,B,C)		RS1/16SS473J	
						(A,82,36) (E)		RS1/16SS223J	
						(A,82,36) (F)		RS1/16SS103J	
R 101	(A,108,32) (C)		RS1/16SS153J		R 613	(A,82,35) (A,B,D,E,F)		RS1/16SS473J	
R 102	(A,106,29) (C)		RS1/16SS223J						
R 103	(A,101,27) (C)		RS1/16SS102J		R 614	(A,82,42)		RS1/16SS473J	D
R 251	(A,38,57) (C)		RS1/16SS821J		R 615	(A,85,44)		RAB4CQ473J	
R 252	(A,29,57) (C)		RS1/16SS821J		R 616	(A,73,36)		RS1/16SS221J	
					R 617	(A,72,35)		RS1/16SS221J	
R 253	(A,38,58) (C)		RS1/16SS223J		R 618	(A,71,36)		RS1/16SS221J	
R 254	(A,29,58) (C)		RS1/16SS223J						
R 255	(A,50,57)		RS1/16SS821J		R 619	(A,70,36)		RS1/16SS221J	
R 256	(A,42,57)		RS1/16SS821J		R 620	(A,65,38)		RS1/16SS221J	
R 257	(A,50,58)		RS1/16SS223J		R 621	(A,68,35)		RS1/16SS221J	
					R 622	(A,66,36)		RS1/16SS473J	
R 258	(A,42,58)		RS1/16SS223J		R 623	(A,64,44)		RS1/16SS473J	
R 305	(A,73,49)		RS1/16SS103J						
R 306	(A,75,53)		RS1/16SS221J		R 624	(A,63,37)		RS1/16SS101J	
R 307	(A,74,51)		RS1/16SS223J		R 625	(A,58,32)		RS1/16SS102J	E
R 308	(A,67,64)		RS1/16SS103J		R 627	(A,81,45)		RS1/16SS473J	
					R 628	(A,80,45)		RS1/16SS473J	
R 401	(A,16,30)		RS1/16SS0R0J		R 629	(A,56,31)		RS1/16SS473J	
R 402	(A,15,30)		RS1/16SS0R0J						
R 403	(A,8,27)		RS1/16SS391J		R 631	(A,55,25)		RS1/16SS104J	
R 404	(A,8,36)		RS1/16SS105J		R 632	(A,58,26)		RS1/16SS101J	
R 405	(A,8,39)		RS1/16SS105J		R 633	(A,59,24)		RS1/16SS101J	
					R 635	(A,59,23)		RS1/16SS101J	
R 406	(A,17,18)		RS1/16SS101J		R 636	(A,55,23)		RS1/16SS102J	
R 407	(A,18,18)		RS1/16SS101J						
R 408	(A,22,18)		RS1/16SS103J		R 637	(A,57,21)		RS1/16SS102J	
R 410	(A,21,18)		RS1/16SS103J		R 638	(A,55,20)		RS1/16SS102J	
R 417	(A,13,30)		RS1/16SS0R0J		R 639	(A,48,21)		RS1/16SS473J	F
					R 640	(A,59,17)		RS1/16SS222J	
R 420	(A,23,28)		RS1/16SS0R0J		R 641	(A,59,15)		RS1/16SS103J	

	1	2	3	4
	<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>
			CAPACITORS	
A	R 643 (A,80,14)	RS1/16SS473J	C 201 (A,54,47)	CCSSCH151J50
	R 644 (A,81,14)	RS1/16SS473J	C 202 (A,52,50) 10 uF	DCH1201
	R 645 (A,82,14)	RS1/16SS473J	C 203 (A,55,47)	CKSSYB104K10
	R 646 (A,86,32)	RS1/16SS473J	C 204 (A,56,47)	CKSSYB104K10
	R 647 (A,83,31)	RS1/16SS473J	C 205 (A,57,47)	CKSSYB104K10
	R 648 (A,64,35)	RS1/16SS473J		
	R 650 (A,91,15)	RS1/16SS473J		
	R 651 (A,89,26)	RS1/16SS153J	C 206 (A,58,52)	CEVW470M16
	R 652 (A,89,28)	RS1/16SS153J	C 207 (A,65,53) 10 uF	DCH1201
	R 653 (A,56,27)	RS1/16SS473J	C 210 (A,64,49)	CKSSYB104K16
	R 661 (A,76,34)	RS1/16SS222J	C 215 (A,44,45)	CKSRYB105K10
	R 662 (A,65,12)	RS1/16SS473J	C 216 (A,46,45)	CKSRYB105K10
	R 664 (A,46,22)	RS1/16SS473J		
	R 665 (A,57,18)	RS1/16SS222J	C 217 (A,45,41)	CKSRYB105K10
	R 667 (A,72,12)	RS1/16SS103J	C 218 (A,45,42)	CKSRYB105K10
B			C 220 (A,60,33) 10 uF	DCH1201
			C 221 (A,59,35)	CKSSYB104K10
			C 222 (A,62,45) 10 uF	DCH1201
	R 668 (A,93,15)	RS1/16SS473J		
	R 669 (A,85,13) (C)	RS1/16SS473J		
	R 671 (A,83,19)	RS1/16SS104J	C 229 (A,45,37)	CKSRYB105K10
	R 681 (A,70,45)	RS1/16SS473J	C 230 (A,45,40)	CKSRYB105K10
	R 682 (A,70,37)	RS1/16SS473J	C 232 (A,51,35)	CKSSYB104K10
			C 233 (A,51,34)	CKSSYB104K10
			C 234 (A,54,33) 10 uF	DCH1201
	R 683 (A,75,42)	RS1/16SS473J		
	R 684 (A,64,41)	RS1/16SS473J		
	R 685 (A,67,45)	RS1/16SS473J	C 235 (A,53,35)	CCSSCH151J50
	R 691 (A,102,47)	RS1/16SS103J	C 239 (A,62,49) 1 uF	DCH1246
	R 692 (A,107,44)	RS1/16SS104J	C 251 (A,38,56) 10 uF(C)	DCH1201
C			C 252 (A,30,56) 10 uF(C)	DCH1201
			C 253 (A,38,59) (C)	CCSSCH101J50
	R 693 (A,104,47)	RS1/16SS473J		
	R 694 (A,105,47)	RS1/16SS473J		
	R 695 (A,105,56) (A,B,C)	RS1/10SR333J	C 254 (A,29,59) (C)	CCSSCH101J50
			C 255 (A,49,56) 10 uF	DCH1201
			C 256 (A,42,56) 10 uF	DCH1201
			C 257 (A,50,59)	CCSSCH101J50
	R 696 (A,111,57) (A,B,C)	RS1/4SA122J		
		RS1/4SA102J		
	R 801 (A,120,20)	RS1/10SR222J	C 258 (A,42,59)	CCSSCH101J50
	R 803 (A,120,16)	RS1/10SR222J	C 259 (A,28,62)	CCSRCH102J50
	R 806 (A,98,22)	RS1/10SR222J	C 260 (A,28,63)	CKSSYB104K10
	R 807 (A,89,13)	RS1/10SR222J	C 261 (A,28,64)	CKSSYB103K16
	R 808 (A,86,12)	RS1/16SS822J	C 301 (A,77,59)	CKSRYB474K10
D				
	R 809 (A,99,14)	RS1/10SR222J	C 302 (A,88,59)	CKSRYB474K10
	R 810 (A,97,14)	RS1/10SR222J	C 303 (A,80,59)	CKSRYB474K10
	R 811 (A,117,17)	RS1/10SR223J	C 304 (A,84,59)	CKSRYB474K10
	R 812 (A,114,17)	RS1/10SR223J	C 309 (A,64,64) 2.2 uF	CCG1205
	R 813 (A,117,20)	RS1/10SR101J	C 312 (A,68,59) 10 uF/16 V	DCH1263
	R 814 (A,114,20)	RS1/10SR101J	C 316 (A,78,53)	CKSRYB105K10
	R 815 (A,115,20)	RS1/10SR101J	C 324 (A,90,57)	CKSRYB104K16
	R 816 (A,111,20)	RS1/10SR220J	C 325 (A,113,50) 2 200 uF/16 V	CCH2040
	R 817 (A,113,20)	RS1/10SR220J	C 405 (A,23,27)	CKSSYB102K50
	R 852 (A,118,37)	RS1/10SR102J	C 409 (A,18,28)	CKSSYB224K6R3
E				
	R 854 (A,120,23)	RS1/10SR473J	C 410 (A,17,39)	CCSSCH220J50
	R 861 (A,154,51)	RS1/10SR122J	C 411 (A,15,39)	CCSSCH331J50
	R 862 (A,155,51)	RS1/10SR223J	C 414 (A,10,24)	CKSSYB102K50
	R 880 (A,117,27)	RS1/16SS103J	C 420 (A,8,38)	CCSSCH471J50
	R 881 (A,116,27)	RS1/16SS272J	C 422 (A,10,23)	CKSSYB152K50
	R 882 (A,118,28)	RS1/16SS473J	C 425 (A,21,24)	CCSSCH390J50
	R 883 (A,101,31)	RS1/16SS473J	C 428 (A,14,27)	CKSSYB104K10
	R 911 (A,149,59) (C,D)	RS1/10SR102J	C 430 (A,17,28)	CKSSYB102K50
			C 434 (A,13,41)	CCSSCH100D50
			C 442 (A,13,17) 10 uF	DCH1201
	R 912 (A,146,59) (C,D,E,F)	RS1/10SR1001F		
		RS1/10SR102J		
F				
	R 915 (A,146,60) (E,F)	RS1/16SS471J	C 452 (A,24,14)	CKSRYB104K16
	R 991 (A,88,46)	RS1/16SS2702D	C 453 (A,35,13)	CKSRYB105K10
	R 992 (A,88,45)	RS1/16SS4301D	C 458 (A,8,18)	CCSSCH102J50
			C 459 (A,24,31)	CKSRYB105K10

Circuit Symbol and No.**Part No.**

R 1803	(B,73,22)	RS1/10SR222J
R 1805	(B,46,25)	RS1/10SR473J
R 1806	(B,48,26)	RS1/10SR473J

A

R 1807	(B,46,29)	RS1/10SR473J
R 1808	(B,45,29)	RS1/10SR473J
R 1823	(B,44,25)	RS1/10SR273J
R 1921	(B,130,7)	RS1/10SR0R0J
R 1922	(B,127,10)	RS1/10SR0R0J

R 1923	(B,128,4)	RS1/10SR0R0J
R 1931	(B,45,16)	RS1/10SR222J
R 1932	(B,39,8)	RS1/10SR222J
R 1941	(B,127,23) (A,B,C)	RS1/10SR473J
R 1944	(B,131,25) (D,E,F)	RS1/10SR101J

B

R 1951	(B,57,19)	RS1/4SA151J
R 1952	(B,57,21)	RS1/4SA151J
R 1955	(B,50,18) (B)	RS1/4SA681J
R 1957	(B,25,6) (B)	RS1/4SA471J
R 1959	(B,18,20) (B)	RS1/4SA471J

R 1961	(B,87,9) (B)	RS1/4SA471J
R 1963	(B,53,12) (B)	RS1/4SA471J
R 1965	(B,144,16) (B)	RS1/4SA471J
R 1967	(B,12,30) (B)	RS1/4SA471J
R 1970	(B,18,7) (B)	RS1/4SA561J

C

R 1971	(B,13,13) (B)	RS1/10SR0R0J
R 1975	(B,10,17) (A,C,D,E,F)	RS1/10SR222J
R 1976	(B,12,17) (A,C,D,E,F)	RS1/10SR0R0J
R 1977	(B,48,13) (A,C,D,E,F)	RS1/8SQ561J
R 1980	(B,14,25) (A,C,D,E,F)	RS1/10SR182J

R 1981	(B,80,7) (A,C,D,E,F)	RS1/8SQ821J
R 1983	(B,57,10) (A,C,D,E,F)	RS1/8SQ331J
R 1985	(B,141,17) (A,C,D,E,F)	RS1/8SQ331J
R 1987	(B,54,20) (A,C,D,E,F)	RS1/4SA681J
R 1991	(B,47,7) (B)	RS1/10SR0R0J

R 1996	(B,60,7) (A,C,D,E,F)	RS1/10SR0R0J
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D

CAPACITORS

C 1806	(B,66,22)	CKSRYB104K16
C 1807	(B,64,22)	CKSRYB105K10
C 1912	(B,142,20)	CKSRYB102K50
C 1941	(B,135,28) 10 uF(D,E,F)	DCH1201

E

F