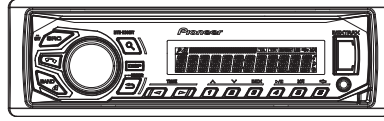


**Pioneer**

# **Service Manual**



MVH-X360BT/XINEW5

ORDER NO.  
**CRT5389**

**RDS MEDIA CENTER RECEIVER**

# **MVH-X360BT** /XINEW5

# **MVH-X360BT** /XINUC

# **MVH-X365BT** /XINCS

# **MVH-X365BT** /XINGS



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# SAFETY INFORMATION

A **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.

**WARNING**

This product may contain a chemical known to the State of California to cause cancer, or birth defects or other reproductive harm.

B Health & Safety Code Section 25249.6 - Proposition 65

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:



C

**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.

D

E

F

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# 1. SERVICE PRECAUTIONS

## 1.1 SERVICE PRECAUTIONS



1. You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.
2. Before disassembling the unit, be sure to turn off the power. Unplugging and plugging the connectors during power-on mode may damage the ICs inside the unit.
3. Be careful in handling ICs. Some ICs such as MOS type are so fragile that they can be damaged by electrostatic induction.
4. Notes about installation and pin number description of Power IC (IC301: PA2032A)

The Power IC, PA2032A used on the Tuner Amp Unit is a 25 pin IC.

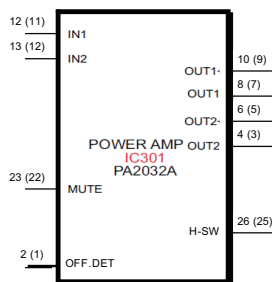
The same PCB of the Tuner Amp Unit is used for other models that use a 27 pin IC, too.

So, the PCB has lands for a 27 pin IC.

When you replace the Power IC, install the Power IC onto 25 pins (2- 26 pin) located in the center of 27 pins for IC301.

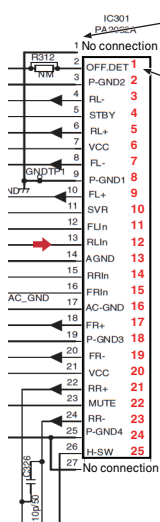
Therefore, when you check the Power IC on the block diagram, the schematic diagram and the PCB connection diagram, you have to pay attention as follows.

BLOCK DIAGRAM



The pin number is a number on the PCB (silk printing).  
The number in parentheses means the pin number of IC itself.

SCHEMATIC DIAGRAM



The pin number of left side is a number on the PCB (silk printing).

The pin number of right side (in the IC frame) means the pin number of IC itself.

## 1.2 NOTES ON SOLDERING

- For environmental protection, lead-free solder is used on the printed circuit boards mounted in this unit. Be sure to use lead-free solder and a soldering iron that can meet specifications for use with lead-free solders for repairs accompanied by reworking of soldering.

- Compared with conventional eutectic solders, lead-free solders have higher melting points, by approximately 40°C. Therefore, for lead-free soldering, the tip temperature of a soldering iron must be set to around 373°C in general, although the temperature depends on the heat capacity of the PC board on which reworking is required and the weight of the tip of the soldering iron.

Compared with eutectic solders, lead-free solders have higher bond strengths but slower wetting times and higher melting temperatures (hard to melt/easy to harden).

The following lead-free solders are available as service parts:

- Parts numbers of lead-free solder:  
GYP1006 1.0 in dia.  
GYP1007 0.6 in dia.  
GYP1008 0.3 in dia.

# 2. SPECIFICATIONS

## 2.1 SPECIFICATIONS

### • MVH-X360BT/XINEW5

#### General

Power source .....14.4 V DC (10.8 V to 15.1 V allowable)  
 Grounding system .....Negative type  
 Maximum current consumption .....10.0 A  
 Backup current..... 4.0 mA or less  
 Dimensions (W × H × D):  
 DIN  
 Chassis ..... 178 mm × 50 mm × 165 mm  
 Nose ..... 188 mm × 58 mm × 15 mm  
 D  
 Chassis ..... 178 mm × 50 mm × 165 mm  
 Nose ..... 170 mm × 46 mm × 16 mm  
 Weight ..... 0.7 kg

#### Audio

Maximum power output ... 50 W × 4  
 70 W × 1/2 Ω (for subwoofer)  
 Continuous power output  
 ..... 22 W × 4 (50 Hz to 15 000 Hz,  
 5% THD, 4 Ω load, both channels driven)  
 Load impedance ..... 4 Ω (4 Ω to 8 Ω allowable)  
 Preout maximum output level  
 ..... 2.0 V  
 Loudness contour ..... +10 dB (100 Hz), +6.5 dB  
 (10 kHz) (volume: -30 dB)  
 Equalizer (5-Band Graphic Equalizer):  
 Frequency ..... 80 Hz/250 Hz/800 Hz/2.5 kHz/  
 8 kHz  
 Equalization range ..... ±12 dB (2 dB step)  
 Subwoofer (mono):  
 Frequency ..... 50 Hz/63 Hz/80 Hz/100 Hz/  
 125 Hz/160 Hz/200 Hz  
 Slope ..... -12 dB/oct, -24 dB/oct  
 Gain ..... +6 dB to -24 dB  
 Phase ..... Normal/Reverse

#### USB

USB standard specification  
 ..... USB 2.0 full speed  
 Maximum current supply  
 ..... 1 A  
 USB Class ..... MSC (Mass Storage Class)  
 File system..... FAT12, FAT16, FAT32  
 MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3

WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11, 12 (2 ch audio)  
 (Windows Media Player)  
 WAV signal format ..... Linear PCM & MS ADPCM  
 (Non-compressed)

#### FM tuner

Frequency range ..... 87.5 MHz to 108.0 MHz  
 Usable sensitivity ..... 9 dBf (0.8 μV/75 Ω, mono, S/N: 30 dB)  
 Signal-to-noise ratio ..... 72 dB (IEC-A network)

#### MW tuner

Frequency range ..... 531 kHz to 1 602 kHz  
 Usable sensitivity ..... 25 μV (S/N: 20 dB)  
 Signal-to-noise ratio ..... 62 dB (IEC-A network)

#### LW tuner

Frequency range ..... 153 kHz to 281 kHz  
 Usable sensitivity ..... 28 μV (S/N: 20 dB)  
 Signal-to-noise ratio ..... 62 dB (IEC-A network)

#### Bluetooth

Version ..... Bluetooth 3.0 certified  
 Output power ..... +4 dBm Maximum  
 (Power class 2)

#### Note

Specifications and the design are subject to modifications without notice.

## • MVH-X360BT/XINUC

### General

Power source .....	14.4 V DC (10.8 V to 15.1 V allowable)
Grounding system .....	Negative type
Maximum current consumption .....	10.0 A
Backup current .....	4.0 mA or less
Dimensions (W × H × D):	
DIN	
Chassis .....	178 mm × 50 mm × 165 mm (7 in. × 2 in. × 6-1/2 in.)
Nose .....	188 mm × 58 mm × 16 mm (7-3/8 in. × 2-1/4 in. × 5/8 in.)
D	
Chassis .....	178 mm × 50 mm × 165 mm (7 in. × 2 in. × 6-1/2 in.)
Nose .....	170 mm × 46 mm × 16 mm (6-3/4 in. × 1-3/4 in. × 5/8 in.)
Weight .....	0.7 kg (1.5 lbs)

### Audio

Maximum power output ...	50 W × 4 70 W × 1/2 Ω (for subwoofer)
Continuous power output .....	22 W × 4 (50 Hz to 15 000 Hz, 5 % THD, 4 Ω load, both channels driven)
Load impedance .....	4 Ω (4 Ω to 8 Ω allowable)
Preout maximum output level .....	2.0 V
Loudness contour .....	+10 dB (100 Hz), +6.5 dB (10 kHz) (volume: -30 dB)
Equalizer (5-Band Graphic Equalizer):	
Frequency .....	80 Hz/250 Hz/800 Hz/2.5 kHz/ 8 kHz
Equalization range .....	±12 dB (2 dB step)
Subwoofer (mono):	
Frequency .....	50 Hz/63 Hz/80 Hz/100 Hz/ 125 Hz/160 Hz/200 Hz
Slope .....	-12 dB/oct, -24 dB/oct
Gain .....	+6 dB to -24 dB
Phase .....	Normal/Reverse

### USB

USB standard specification .....	USB 2.0 full speed
----------------------------------	--------------------

Maximum current supply .....	1 A
USB Class .....	MSC (Mass Storage Class)
File system .....	FAT12, FAT16, FAT32
MP3 decoding format .....	MPEG-1 & 2 Audio Layer 3
WMA decoding format .....	Ver. 7, 7.1, 8, 9, 10, 11, 12 (2ch audio) (Windows Media Player)
WAV signal format .....	Linear PCM & MS ADPCM (Non-compressed)

### FM tuner

Frequency range .....	87.9 MHz to 107.9 MHz
Usable sensitivity .....	9 dBf (0.8 μV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio .....	72 dB (IHF-A network)

### AM tuner

Frequency range .....	530 kHz to 1 710 kHz
Usable sensitivity .....	25 μV (S/N: 20 dB)
Signal-to-noise ratio .....	62 dB (IHF-A network)

### Bluetooth

Version .....	Bluetooth 3.0 certified
Output power .....	+4 dBm Maximum (Power class 2)

### CEA2006 Specifications



Power output .....	14 W RMS × 4 Channels (4 Ω and ≤ 1 % THD+N)
S/N ratio .....	91 dBA (reference: 1 W into 4 Ω)

### Note

Specifications and the design are subject to modifications without notice.

## • MVH-X365BT/XINCS

### General

Rated power source .....	14.4 V DC (allowable voltage range: 12.0 V to 14.4 V DC)
Grounding system .....	Negative type
Maximum current consumption .....	10.0 A
Backup current.....	4.0 mA or less
Dimensions (W × H × D): DIN	
Chassis .....	178 mm × 50 mm × 165 mm
Nose .....	188 mm × 58 mm × 15 mm
D	
Chassis .....	178 mm × 50 mm × 165 mm
Nose .....	170 mm × 46 mm × 16 mm
Weight .....	0.7 kg

### Audio

Maximum power output ...	50 W × 4 70 W × 1/2 Ω (for subwoofer)
Continuous power output .....	22 W × 4 (50 Hz to 15 000 Hz, 5 % THD, 4 Ω load, both chan- nels driven)
Load impedance .....	4 Ω(4 Ω to 8 Ω allowable)
Preout maximum output level .....	2.0 V
Loudness contour .....	+10 dB(100 Hz), +6.5 dB (10 kHz) (volume:-30 dB)
Equalizer (5-Band Graphic Equalizer):	
Frequency .....	80 Hz/250 Hz/800 Hz/2.5 kHz/ 8 kHz
Equalization range .....	±12 dB (2 dBstep)
Subwoofer (mono):	
Frequency .....	50 Hz/63 Hz/80 Hz/100 Hz/ 125 Hz/160 Hz/200 Hz
Slope .....	-12 dB/oct, -24 dB/oct
Gain .....	+6 dB to -24 dB
Phase .....	Normal/Reverse

### USB

USB standard specification .....	USB 2.0 full speed
Maximum current supply .....	1 A
USB Class .....	MSC(Mass Storage Class)
File system.....	FAT12, FAT16, FAT32

MP3 decoding format .....	MPEG-1 & 2 Audio Layer 3
WMA decoding format .....	Ver. 7, 7.1, 8, 9, 10, 11, 12 (2 ch audio) (Windows Media Player)
WAV signal format .....	Linear PCM & MS ADPCM (Non-compressed)

### FM tuner

Frequency range .....	87.5 MHz to 108.0 MHz
Usable sensitivity .....	9 dBf(0.8 μV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio .....	72 dB (IEC-A network)

### AM tuner

Frequency range .....	531 kHz to 1 602 kHz (9 kHz) 530 kHz to 1 640 kHz (10 kHz)
Usable sensitivity .....	25 μV (S/N: 20 dB)
Signal-to-noise ratio .....	62 dB (IEC-A network)

### Bluetooth

Version .....	Bluetooth 3.0 certified
Output power .....	+4 dBm Maximum (Power class 2)

### Note

Specifications and the design are subject to modifications without notice.

## • MVH-X365BT/XINGS

### General

Rated power source ..... 14.4 V DC  
(allowable voltage range:  
12.0 V to 14.4 V DC)

Grounding system ..... Negative type

Maximum current consumption

..... 10.0 A

Backup current ..... 4.0 mA or less

Dimensions (W × H × D):

DIN

Chassis ..... 178 mm × 50 mm × 165 mm

Nose ..... 188 mm × 58 mm × 15 mm

D

Chassis ..... 178 mm × 50 mm × 165 mm

Nose ..... 170 mm × 46 mm × 16 mm

Weight ..... 0.7 kg

### Audio

Maximum power output ... 50 W × 4  
70 W × 1/2 Ω (for subwoofer)

Continuous power output

..... 22 W × 4 (50 Hz to 15 000 Hz,  
5% THD, 4 Ω load, both chan-  
nels driven)

Load impedance ..... 4 Ω (4 Ω to 8 Ω allowable)

Preout maximum output level

..... 2.0 V

Loudness contour ..... +10 dB (100 Hz), +6.5 dB  
(10 kHz) (volume: -30 dB)

Equalizer (5-Band Graphic Equalizer):

Frequency ..... 80 Hz/250 Hz/800 Hz/2.5 kHz/  
8 kHz

Equalization range ..... ±12 dB (2 dB step)

Subwoofer (mono):

Frequency ..... 50 Hz/63 Hz/80 Hz/100 Hz/  
125 Hz/160 Hz/200 Hz

Slope ..... -12 dB/oct, -24 dB/oct

Gain ..... +6 dB to -24 dB

Phase ..... Normal/Reverse

### USB

USB standard specification

..... USB 2.0 full speed

Maximum current supply

..... 1 A

USB Class ..... MSC (Mass Storage Class)

File system ..... FAT12, FAT16, FAT32

MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3

WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11, 12 (2 ch  
audio)

(Windows Media Player)

WAV signal format ..... Linear PCM & MS ADPCM

(Non-compressed)

### FM tuner

Frequency range ..... 87.5 MHz to 108.0 MHz

Usable sensitivity ..... 9 dBf (0.8 μV/75 Ω, mono, S/N:  
30 dB)

Signal-to-noise ratio ..... 72 dB (IEC-A network)

### MW tuner/AM tuner

Frequency range ..... 531 kHz to 1 602 kHz (9 kHz)

530 kHz to 1 640 kHz (10 kHz)

Usable sensitivity ..... 25 μV (S/N: 20 dB)

Signal-to-noise ratio ..... 62 dB (IEC-A network)

### SW tuner

Frequency range ..... 2 300 kHz to 7 735 kHz

(2 300 kHz to 2 495 kHz,

2 940 kHz to 4 215 kHz,

4 540 kHz to 5 175 kHz,

5 820 kHz to 6 455 kHz,

7 100 kHz to 7 735 kHz)

9 500 kHz to 21 975 kHz

(9 500 kHz to 10 135 kHz,

11 580 kHz to 12 215 kHz,

13 570 kHz to 13 870 kHz,

15 100 kHz to 15 735 kHz,

17 500 kHz to 17 985 kHz,

18 015 kHz to 18 135 kHz,

21 340 kHz to 21 975 kHz)

Usable sensitivity ..... 28 μV (S/N: 20 dB)

Signal-to-noise ratio ..... 62 dB (IEC-A network)

### Bluetooth

Version ..... Bluetooth 3.0 certified

Output power ..... +4 dBm Maximum

(Power class 2)

### Note

Specifications and the design are subject to  
modifications without notice.

## 2.2 DISC/CONTENT FORMAT

Made for



iPod



iPhone



The *Bluetooth*® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by PIONEER CORPORATION is under license. Other trademarks and trade names are those of their respective owners.



## 3. BASIC ITEMS FOR SERVICE

### 3.1 CHECK POINTS AFTER SERVICING

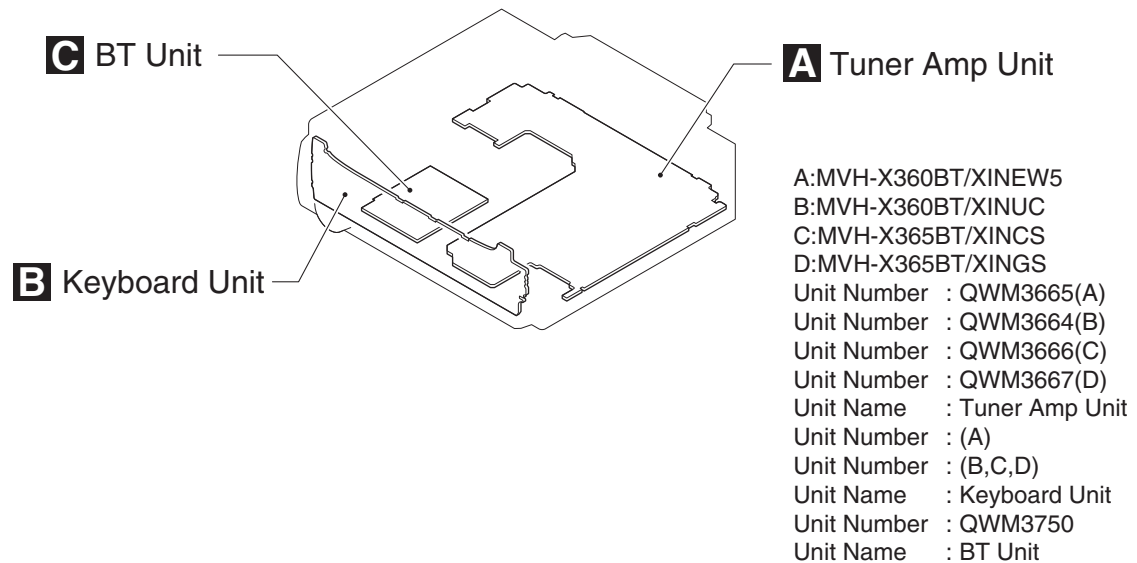
To keep the product quality after servicing, please confirm following check points.

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

### 3.2 PCB LOCATIONS



# 4. BLOCK DIAGRAM

A

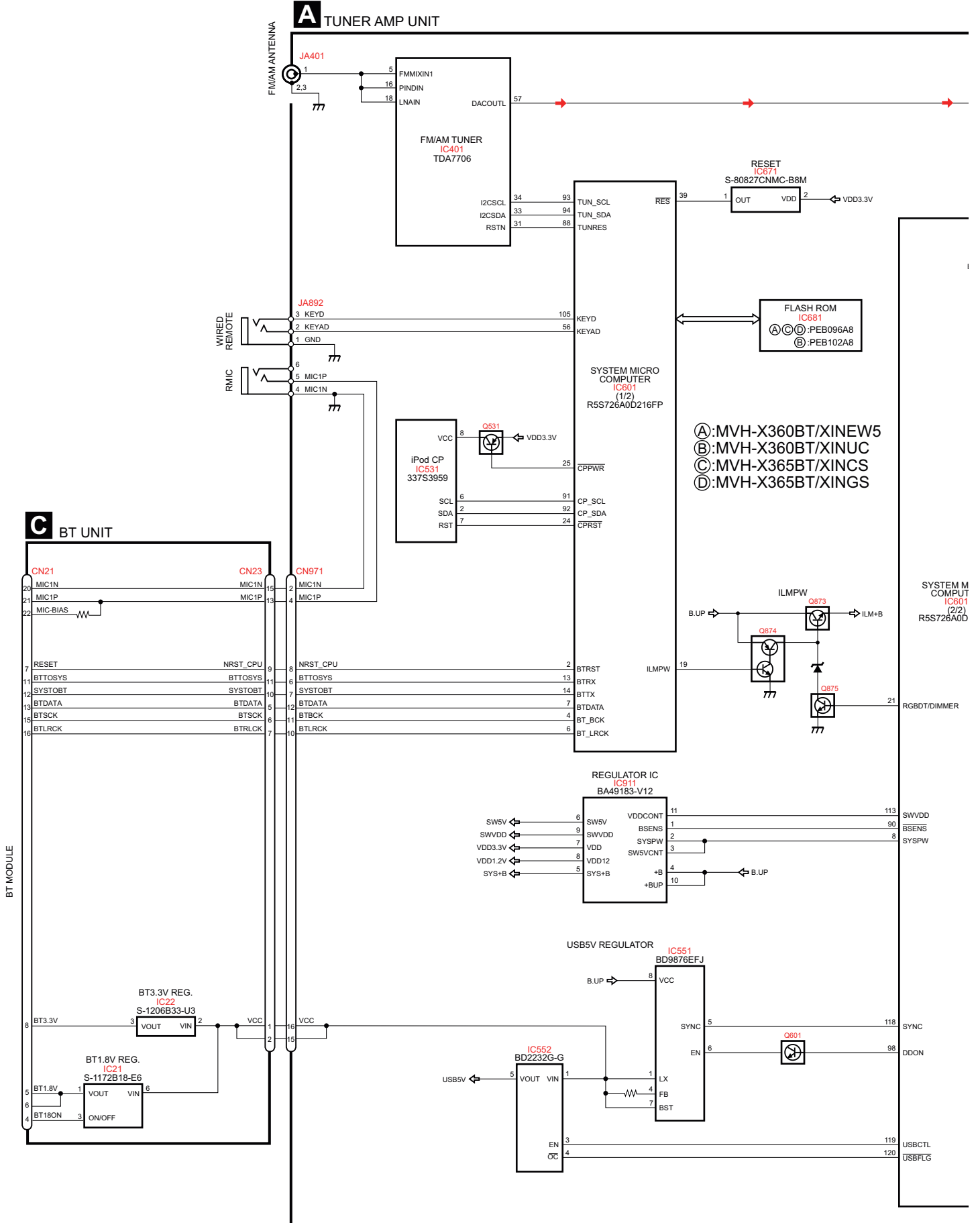
B

C

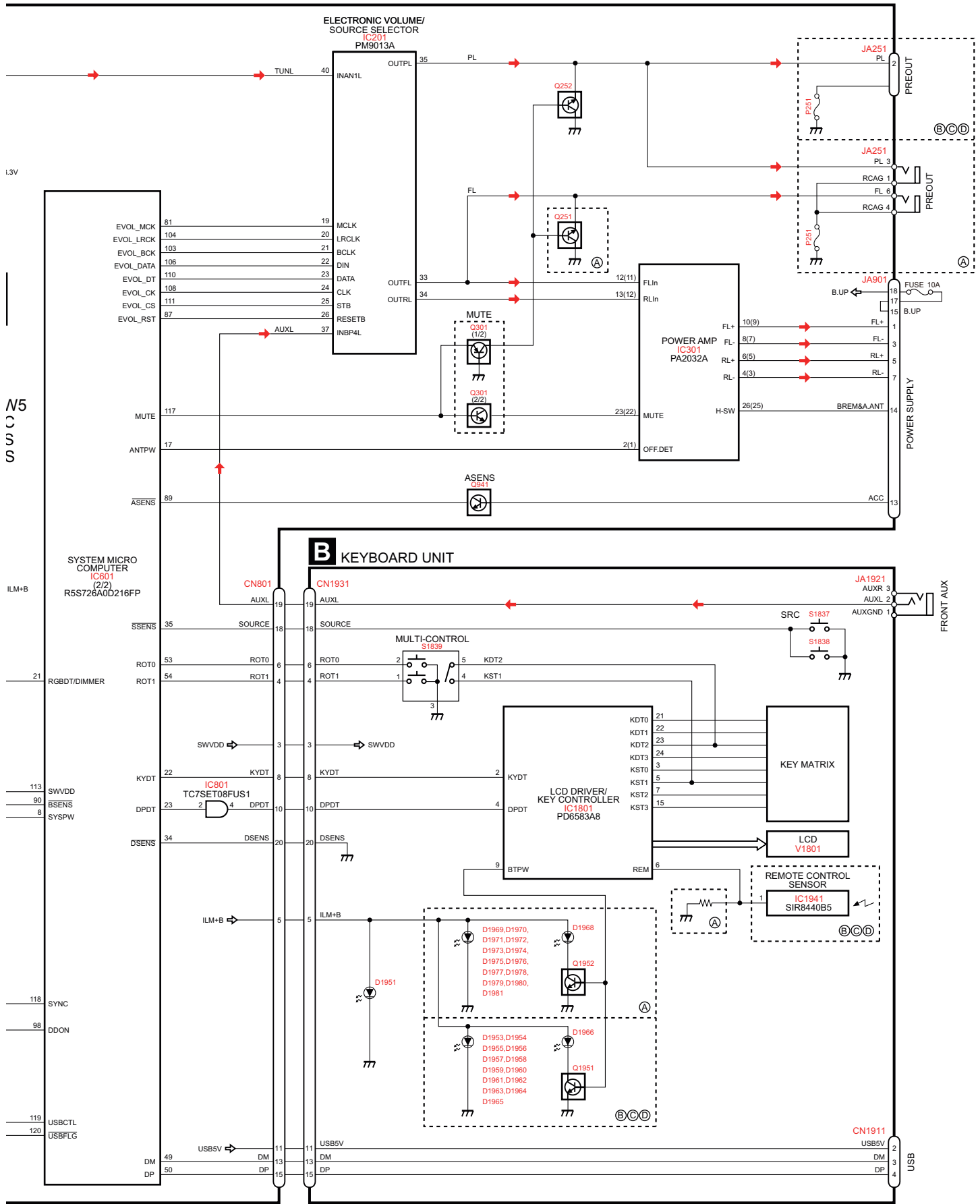
D

E

F

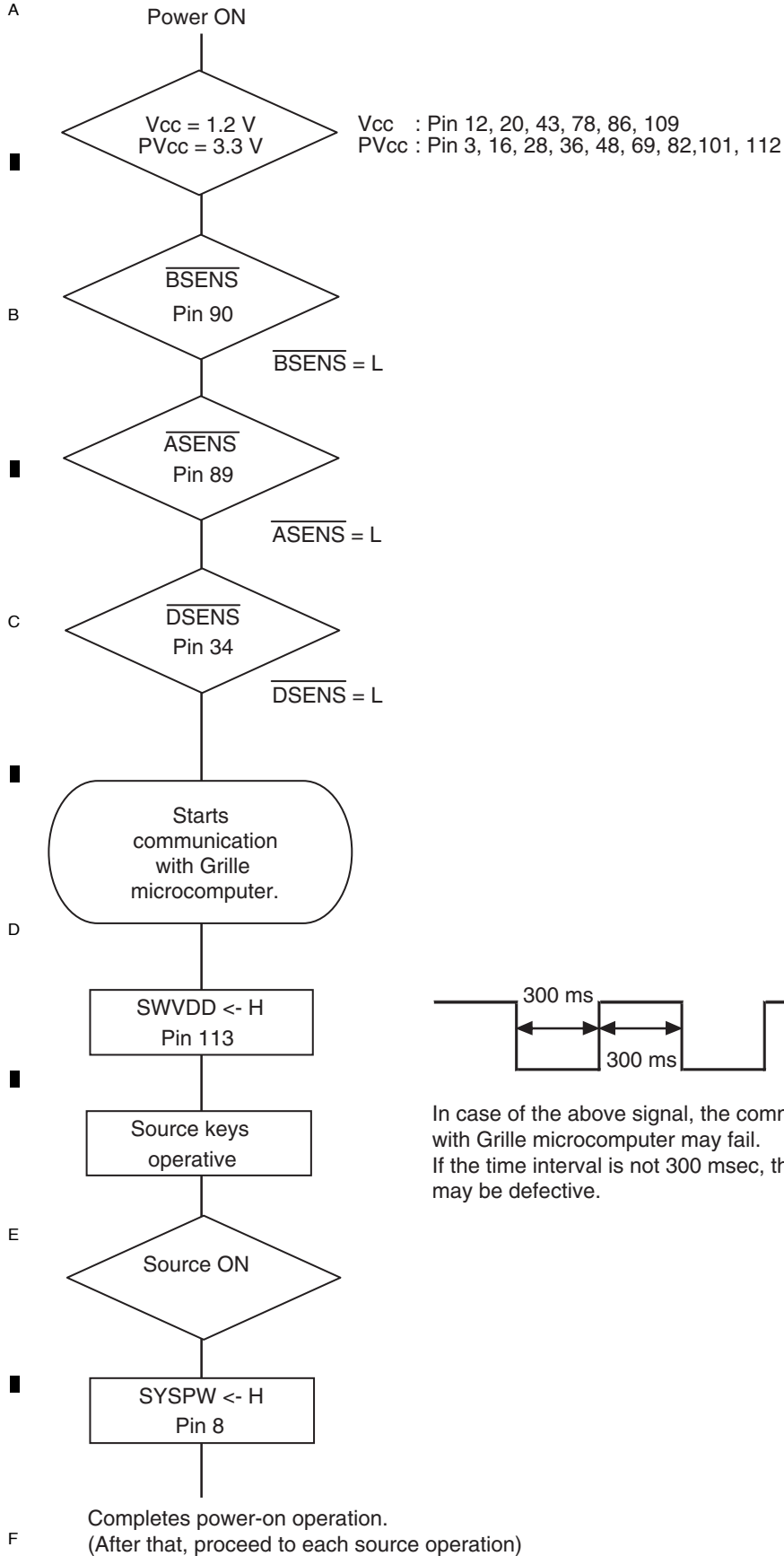


MVH-X360BT/XINEW5



# 5. DIAGNOSIS

## 5.1 OPERATIONAL FLOWCHART



In case of the above signal, the communication with Grille microcomputer may fail. If the time interval is not 300 msec, the oscillator may be defective.

**Common**

**AMP ERROR**

This unit fails to operate or the speaker connection is incorrect; the protective circuit is activated.  
 Check the speaker connection. If the message fails to disappear even after the engine is switched off/on, contact your dealer or an authorized Pioneer Service Station for assistance.

**USB storage 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 storage device and connect.  
 The connected USB storage device has security enabled.  
 Follow the USB storage device instructions to disable the security.

**SKIPPED**

The connected USB storage device contains DRM protected files.  
 The protected files are skipped.

**PROTECT**

All the files on the connected USB storage device are embedded with DRM.  
 Replace the USB storage device.

**N/A USB**

The connected USB device is not supported by this unit.  
 ! Connect a USB Mass Storage Class compliant device.  
 ! Disconnect your device and replace it with a compatible USB storage 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.

**CHECK USB**

The connected USB storage device consumes more than maximum allowable current.  
 Disconnect the USB storage device and do not use it. Turn the ignition switch to OFF, then to ACC or ON and then connect only compliant USB storage devices.

**CHECK USB**

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 ON, or disconnect the iPod and reconnect.

**ERROR-19**

Communication failed.  
 Perform one of the following operations.  
 -Turn the ignition switch OFF and back ON.  
 -Disconnect the USB storage device.  
 -Change to a different source.  
 Then, return to the USB 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 storage device was not formatted with FAT12, FAT16 or FAT32.  
 USB storage device should be formatted with FAT12, FAT16 or FAT32.

**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.

**Bluetooth device**

**ERROR-10**

The power failed for the Bluetooth module of this unit.  
 Turn the ignition switch OFF and then to ACC or ON.  
 If the error message is still displayed after performing the above action, please contact your dealer or an authorized Pioneer Service Station.

**Application**

**NO BT DEVICE GO TO BT MENU TO REGISTER**

No Bluetooth device found.  
 Follow the instructions that appear on the screen.

**CONN. FAILED PRESS BAND KEY TO RETRAY**

Bluetooth connection failed.  
 Follow the instructions that appear on the screen.

**DISCONNECTED PRESS BAND KEY TO RETRAY**

Bluetooth connection failed.  
 Follow the instructions that appear on the screen.

**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.  
 Follow the instructions that appear on the screen.

**Pandora (/GS, /UC)**

**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 AGAIN**

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**

Skip limit reached.  
 ! Do not exceed the skip limit.  
 ! Due to music licensing restrictions, Pandora limits the total number of skips per hour.

**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 Pandora application.  
 Unable to play music from Pandora.  
 Please check your connected device.

**NO STATION**

No station found.  
 Create a station in the Pandora application on your connected device.

**NO ACTIVE ST**

No station selected.  
 Select a station.

**NO BT DEVICE GO TO BT MENU TO REGISTER**

No Bluetooth device found.  
 Follow the instructions that appear on the screen.

**CONN. FAILED PRESS BAND KEY TO RETRAY**

Bluetooth connection failed.  
 Follow the instructions that appear on the screen.

**CHECK APP PRESS BAND KEY TO RETRAY**

Connection to the Pandora application failed.  
 Follow the instructions that appear on the screen.

**DISCONNECTED PRESS BAND KEY TO RETRAY**

Bluetooth connection lost.  
 Follow the instructions that appear on the screen.

**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 connected device to a network.

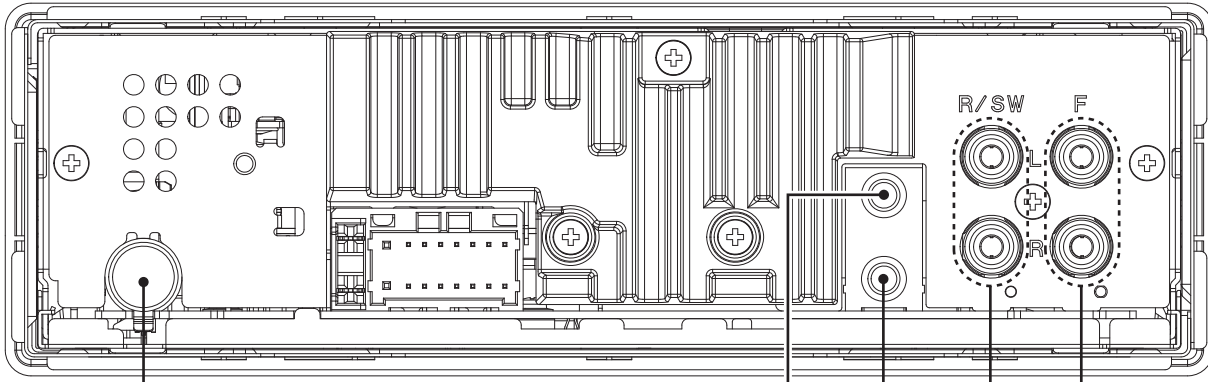
**NO SERVICE**

The connected device is out of area.  
 Connect the connected device to a network.

**CAN.T PLAY**

The operation was disabled.  
 Run the same command for another station.

# 5.3 CONNECTOR FUNCTION DESCRIPTION



ANTENNA INPUT

MICROPHONE INPUT

WIRED REMOTE CONTROL

FRONT OUTPUT (EW5 Only)

REAR OUTPUT or SUBWOOFER OUTPUT

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

1 FL+	9 NC
2 FR+	10 NC
3 FL-	11 NC
4 FR-	12 NC
5 RL+	13 ACC
6 RR+	14 B.REM
7 RL-	15 B.UP
8 RR-	16 GND

5

6

7

8

# 6. SERVICE MODE

## 6.1 DISPLAY TEST MODE 1

[How to enter Test mode]

Press and hold "PHONE" and "LIST" buttons together, and turn BUP and ACC on.

The diagram shows a Pioneer car stereo with several buttons labeled: SOURCE, LIST, PHONE, BAND, and ROTARY. The stereo has a digital display and various control buttons like TRACK, MUTE, and REPEAT.

Conf. item	Operate	Grille condition	
		Show LCD	ILM
All light up	PHONE + 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	ROTARY center	Draw 4	ILM(1)

### Drawings Style

Draw1 ALL light up

Draw2 ALL light off

Draw3

This drawing shows the display area of the stereo with red outlines around the characters '333333333333', representing the 'Draw 3' test mode.

Draw4

This drawing shows the display area of the stereo with red vertical bars around the characters '100000000000', representing the 'Draw 4' test mode.

MVH-X360BT/XINEW5

5

6

7

8

15

## 6.2 DISPLAY TEST MODE 2

A 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	

B

### [Test items]

Start display test mode.  
Press and hold "1" and "3" buttons together, and turn  
BUP and ACC on.

System Version information is displayed.

S | \$\$\$\$ | ### |

\$ PD number For PEA010A, "010A" is displayed  
# System microcomputer version For Ver.7.01, "701" is displayed

Switching to next display  
by pressing "①" + "③" buttons together.

Display is normally updated

Product operation is performed as usual, in appearance.  
Switching to next display  
by pressing "①" + "③" buttons together.

Display update is stopped

The screen gets still when entering this item.  
Switching to next display  
by pressing "①" + "③" buttons together.

Key Illumination	Icon
Off	All off
On (an initial value)	All off
On (an initial value or setting value of default menu)	All off
On (an initial value or setting value of default menu)	On (lighting condition of normal times)
On (an initial value or setting value of default menu)	On (state when entering test mode)

\* Initial condition

F



## 6.3 SOFTWARE VERSION UP METHOD

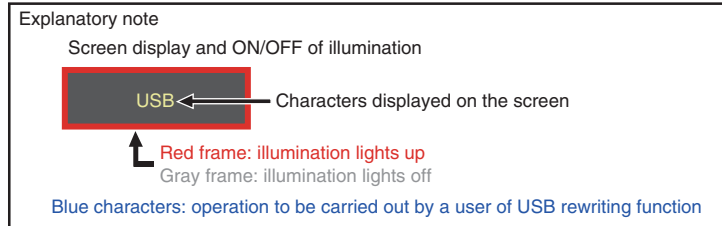
### Overview

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

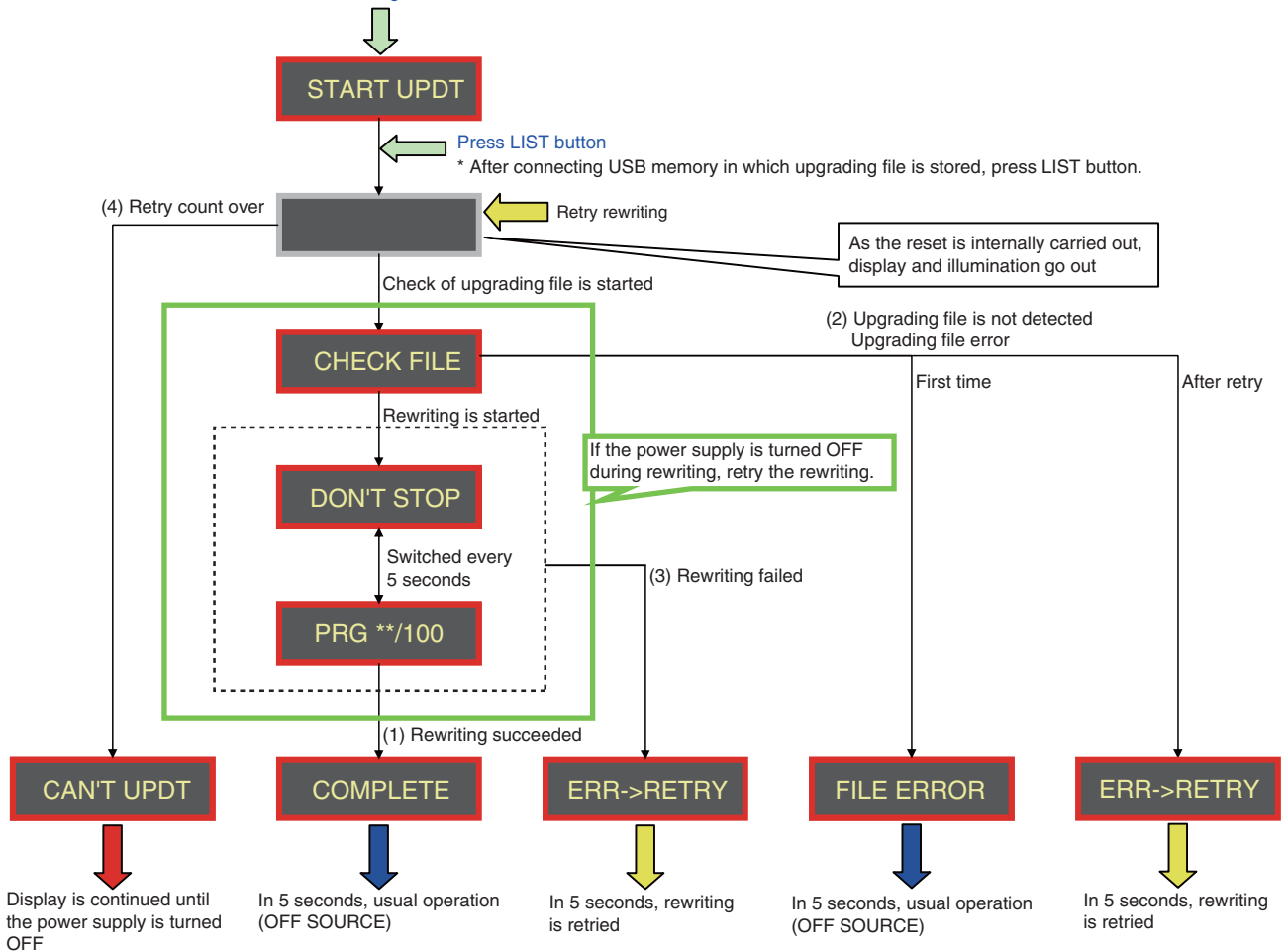
### How to enter in USB rewriting mode

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

### USB rewriting operation flow



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



### Result of rewriting

(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.

# 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.

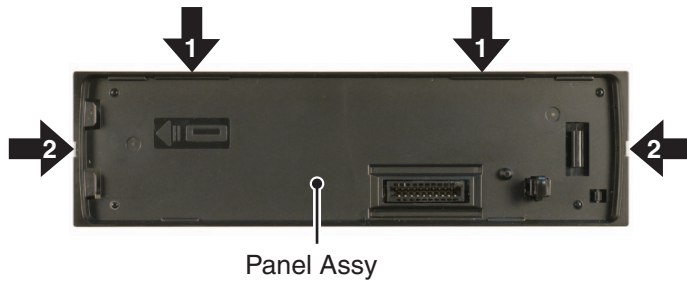
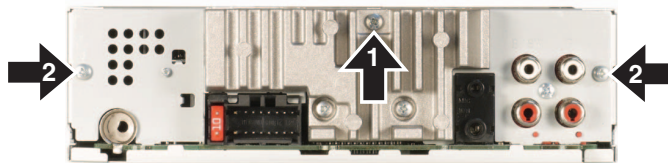


Fig.1

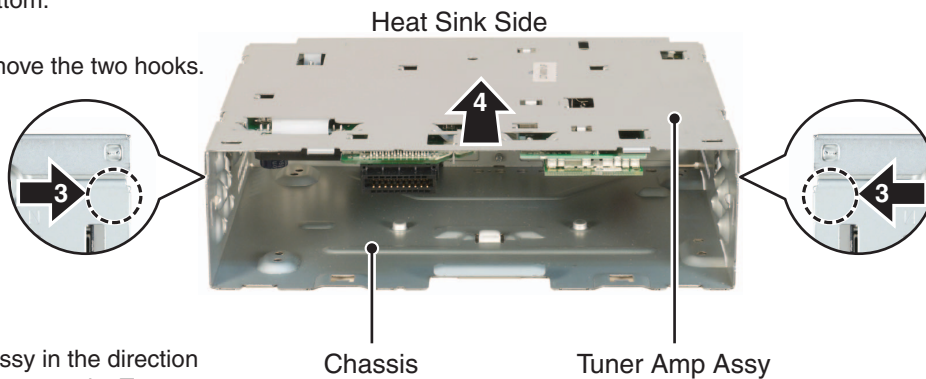
## ● Removing the Tuner Amp Assy (Fig.2)

- 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 and the BT Unit (Fig.3)

- 1** Disconnect the connector.
- 2** Remove the two screws.
- 3** Remove the two screws and then remove the Tuner Amp Unit.
- 4** Remove the screw and then remove the BT Unit.

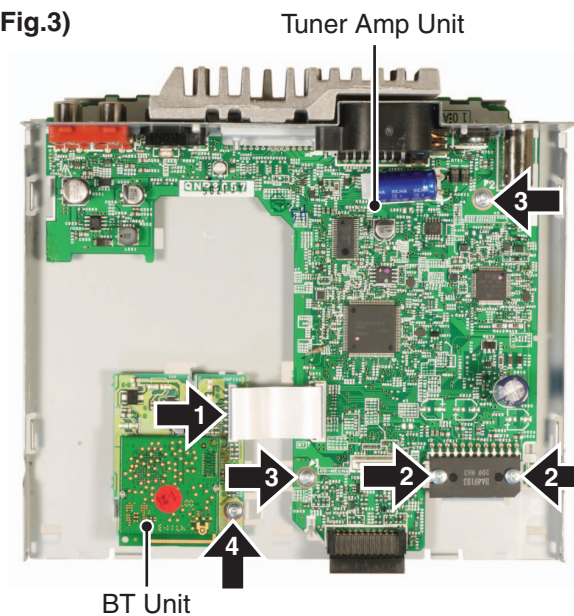


Fig.3

### ● Disassembling the Panel Part (Fig.4, 5)

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

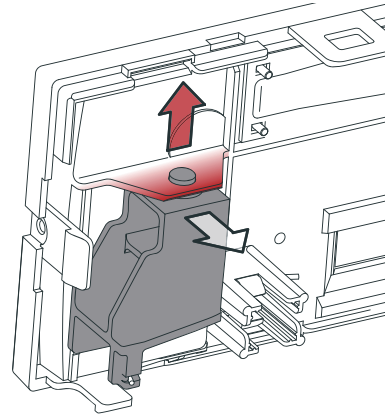


Fig.4

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

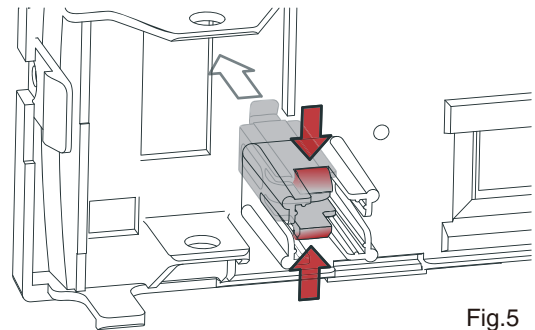


Fig.5

### ● Assembling the Panel Part (Fig.6, 7, 8)

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

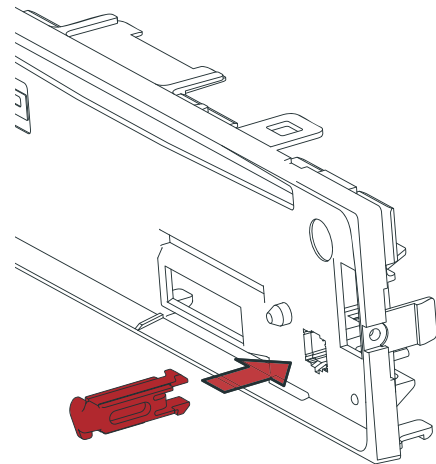
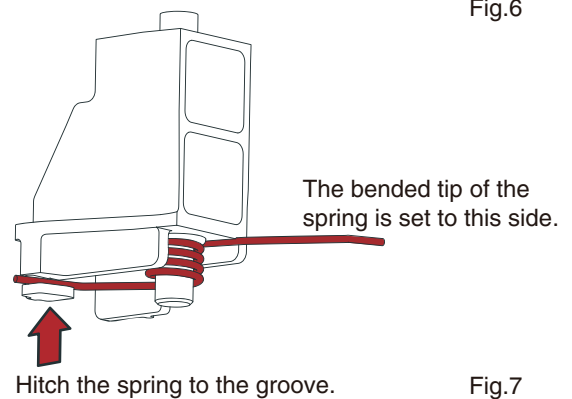


Fig.6

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



Hitch the spring to the groove.

Fig.7

A

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.

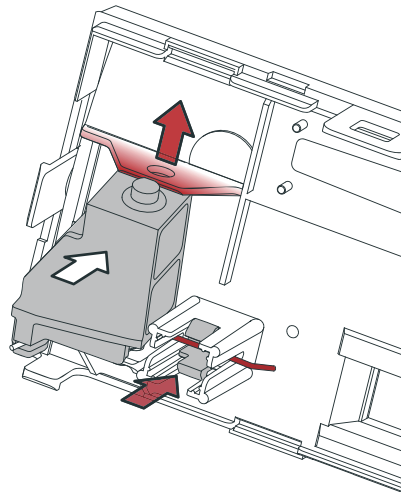


Fig.8

B

C

D

E

F

# 8. EACH SETTING AND ADJUSTMENT

## 8.1 PCL OUTPUT CONFIRMATION



### ● 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 terminal IC601(Pin115).

The frequency of the clock signal is 600 kHz that is divided by 20th of the oscillation frequency of X601 (12MHz).

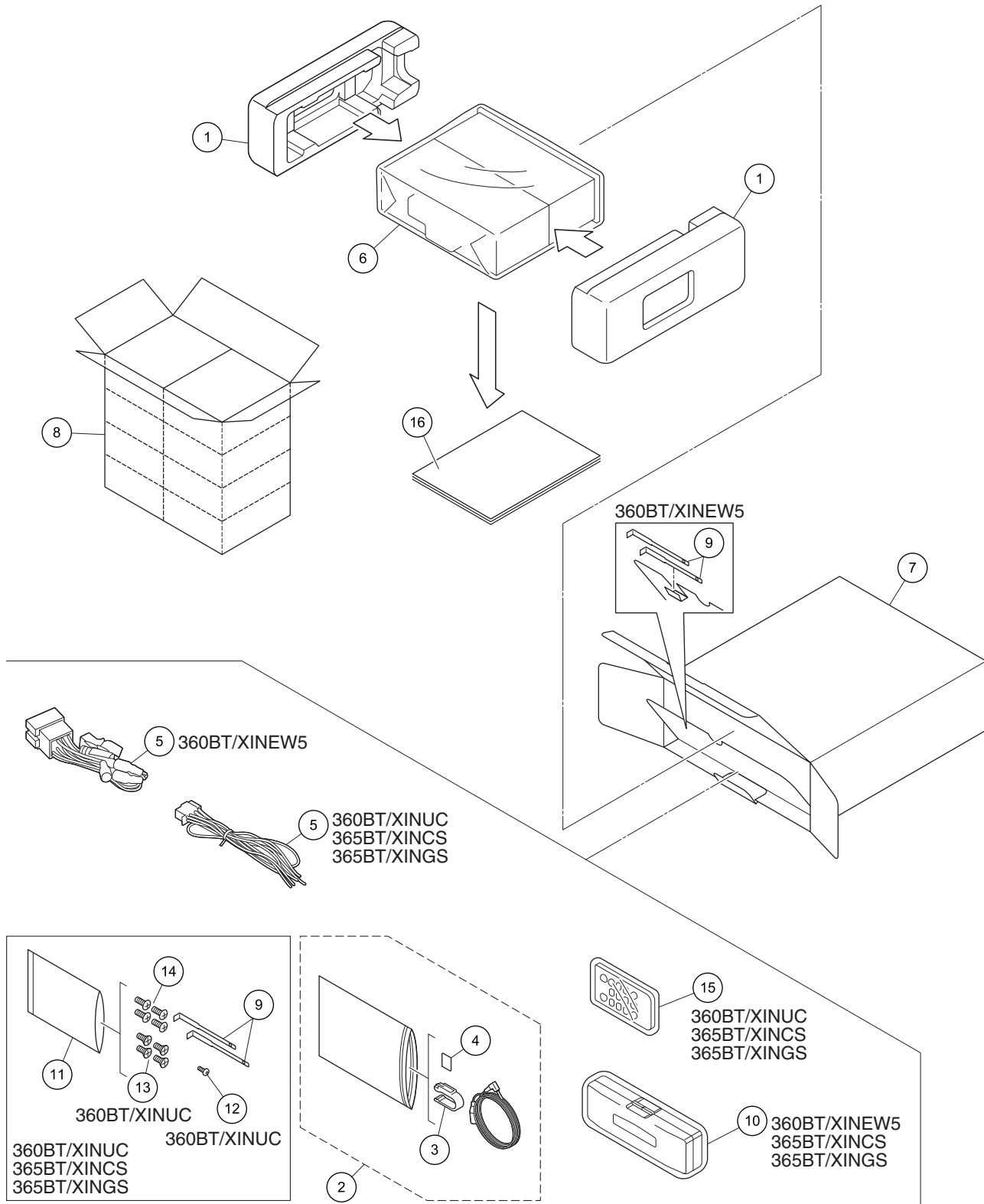
The clock signal should be 600 kHz(- 25 Hz, + 25 Hz).

If the clock signal is out of the range, the X'tal (X601) should be replaced with new one.

# 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	Protector	CHP4595	10	Case Assy	See Contrast table (2)
2	Microphone Assy	CPM1083			
3	Holder	CZN7192	11	Polyethylene Bag	See Contrast table (2)
4	Cushion	CZN7193	12	Screw	See Contrast table (2)
5	Cord Assy	See Contrast table (2)	13	Screw	See Contrast table (2)
			14	Screw	See Contrast table (2)
6	Polyethylene Bag	See Contrast table (2)	15	Card Remote Control Unit	See Contrast table (2)
7	Unit Box	See Contrast table (2)			
8	Contain Box	See Contrast table (2)	16-1	Owner's Manual	See Contrast table (2)
9	Handle	QNC3021	* 16-2	Warranty Card	See Contrast table (2)

**(2) CONTRAST TABLE**

MVH-X360BT/XINEW5, MVH-X360BT/XINUC, MVH-X365BT/XINCS and MVH-X365BT/XINGS are constructed the same except for the following:

Mark	No.	Description	MVH-X360BT /XINEW5	MVH-X360BT /XINUC	MVH-X365BT /XINCS	MVH-X365BT /XINGS
	5	Cord Assy	QDP3014	CDP1480	CDP1480	CDP1480
	6	Polyethylene Bag	QEG3001	CEG1173	QEG3001	QEG3001
	7	Unit Box	QHG3531	QHG3539	QHG3532	QHG3533
	8	Contain Box	QHL3531	QHL3539	QHL3532	QHL3533
	10	Case Assy	QXA3129	Not used	QXA3129	QXA3129
	11	Polyethylene Bag	Not used	CEG1160	CEG1160	CEG1160
	12	Screw	Not used	BPZ20P060FTC	Not used	Not used
	13	Screw	Not used	CRZ50P090FTC	Not used	Not used
	14	Screw	Not used	TRZ50P080FTC	TRZ50P080FTC	TRZ50P080FTC
	15	Card Remote Control Unit	Not used	QXE1044	QXE1044	QXE1044
	16-1	Owner's Manual	QRD3211	QRD3221	QRD3212	QRD3213
*	16-2	Warranty Card	CRY1376	QRY3001	Not used	Not used

**Owner's Manual, Installation Manual**

Part No.	Language
QRD3211	English, French, Italian, Spanish(Espanol), German, Dutch, Russian
QRD3212	English, Spanish(Espanol), Portuguese(B)
QRD3213	English, Traditional Chinese, Arabic, Persian
QRD3221	English, French, Spanish(Espanol)

# 9.2 EXTERIOR

1

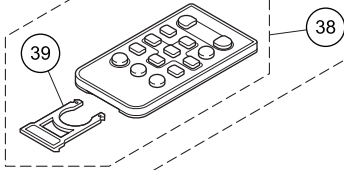
2

3

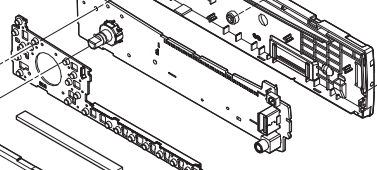
4

A

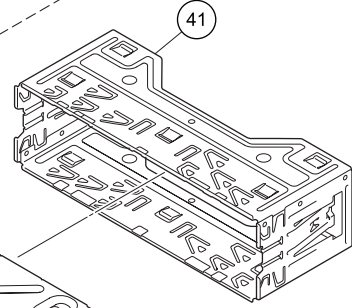
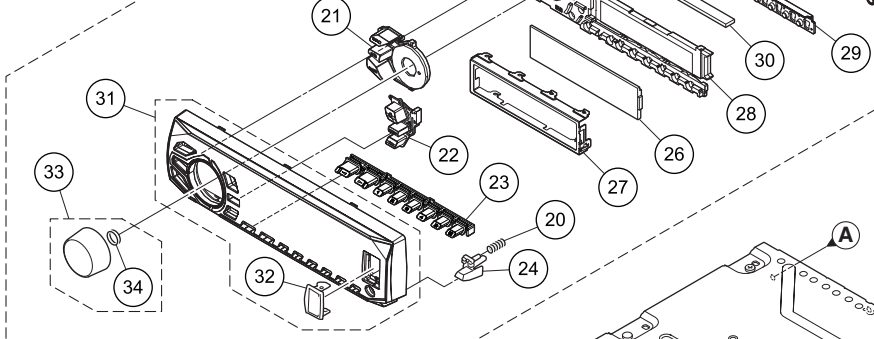
360BT/XINUC  
365BT/XINCS  
365BT/XINGS



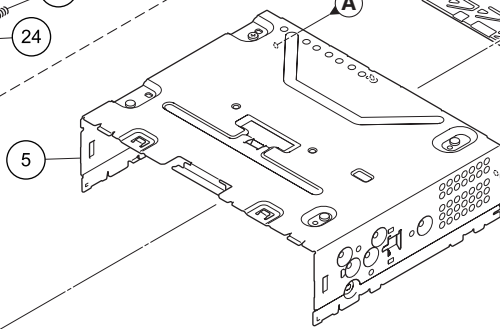
**B**



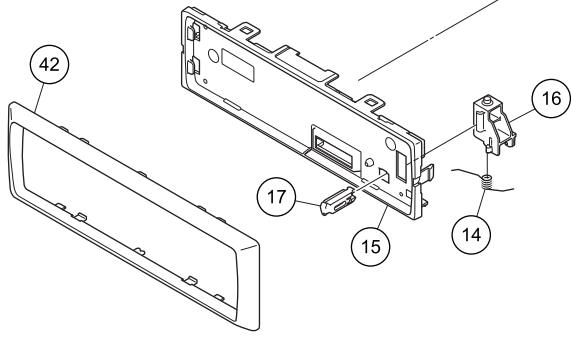
B



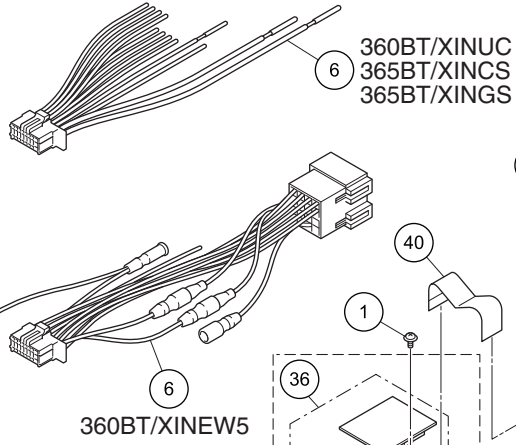
C



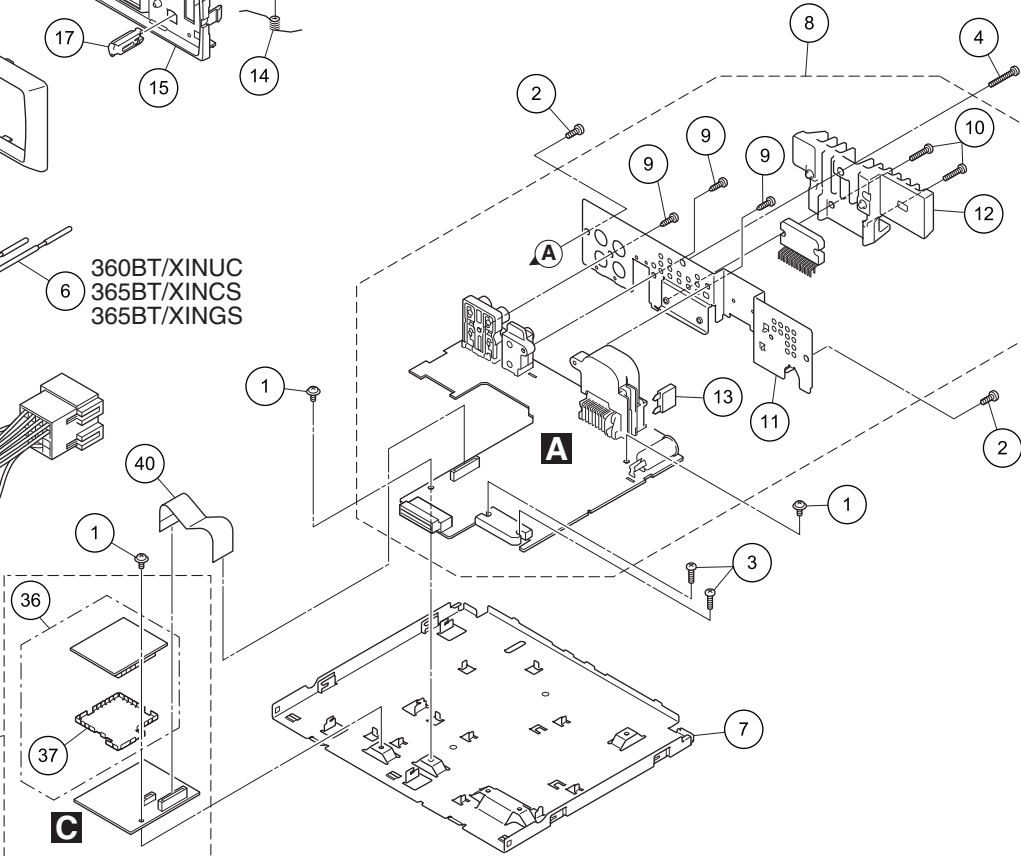
D



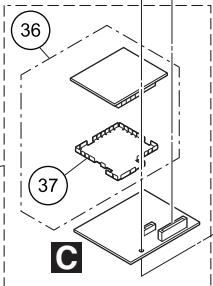
E



F



**C**



MVH-X360BT/XINEW5

1

2

3

4



**(1) EXTERIOR 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	Screw	ASZ26P050FTC	22	Button (DISP)	QAC3125
2	Screw	BSZ26P060FTC	23	Button (< > 1-6)	QAC3126
3	Screw	BSZ26P080FTC	24	Button (DETACH)	QAC3127
4	Screw	BSZ26P120FTC	25	Cover	QNS3567
5	Chassis	CNA3181			
6	Cord Assy	See Contrast table (2)	26	Segment LCD (V1801)	CAW2024
7	Case	QNB3014	27	Holder	QNC3067
8	Tuner Amp Unit	See Contrast table (2)	28	Lighting Conductor	QNV3069
9	Screw	BPZ26P080FTC	29	Contact Rubber	QNV3070
10	Screw	BSZ26P120FTC	30	Rubber Connector	QNV3071
11	Holder	See Contrast table (2)	31	Grille Unit	See Contrast table (2)
12	Heat Sink	See Contrast table (2)	32	Door	QAT3011
13	Fuse (10 A)	YEK5001	33	Knob Unit	See Contrast table (2)
14	Spring	QBH3001	34	Spring	YBL5010
15	Panel	QNS3289	35	BT Unit	QWM3750
16	Arm	QNV3025	36	BT Module	YWX5044
17	Button	QNV3026	37	Shield Case	YNC5123
18	Detachable Grille Assy	See Contrast table (2)	38	Card Remote Control Unit	See Contrast table (2)
19	Screw	BPZ20P100FTC	39	Cover	See Contrast table (2)
20	Spring	CBH2210	40	FFC	QDE3028
21	Button (SRC, BAND)	QAC3120	41	Holder	QNC3020
			42	Panel	QNS3568

**(2) CONTRAST TABLE**

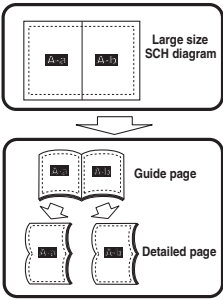
MVH-X360BT/XINEW5, MVH-X360BT/XINUC, MVH-X365BT/XINCS and MVH-X365BT/XINGS are constructed the same except for the following:

Mark	No.	Description	MVH-X360BT /XINEW5	MVH-X360BT /XINUC	MVH-X365BT /XINCS	MVH-X365BT /XINGS
	6	Cord Assy	QDP3014	CDP1480	CDP1480	CDP1480
	8	Tuner Amp Unit	QWM3665	QWM3664	QWM3666	QWM3667
	11	Holder	QNC3053	QNC3054	QNC3054	QNC3054
	12	Heat Sink	QNR3010	QNR3010	QNR3010	QNR3002
	18	Detachable Grille Assy	QXA3858	QXA4069	QXA3859	QXA4037
	31	Grille Unit	QXA3890	QXA4070	QXA3891	QXA3869
	33	Knob Unit	QXA3671	QXA3670	QXA3670	QXA3670
	38	Card Remote Control Unit	Not used	QXE1044	QXE1044	QXE1044
	39	Cover	Not used	CNS7068	CNS7068	CNS7068

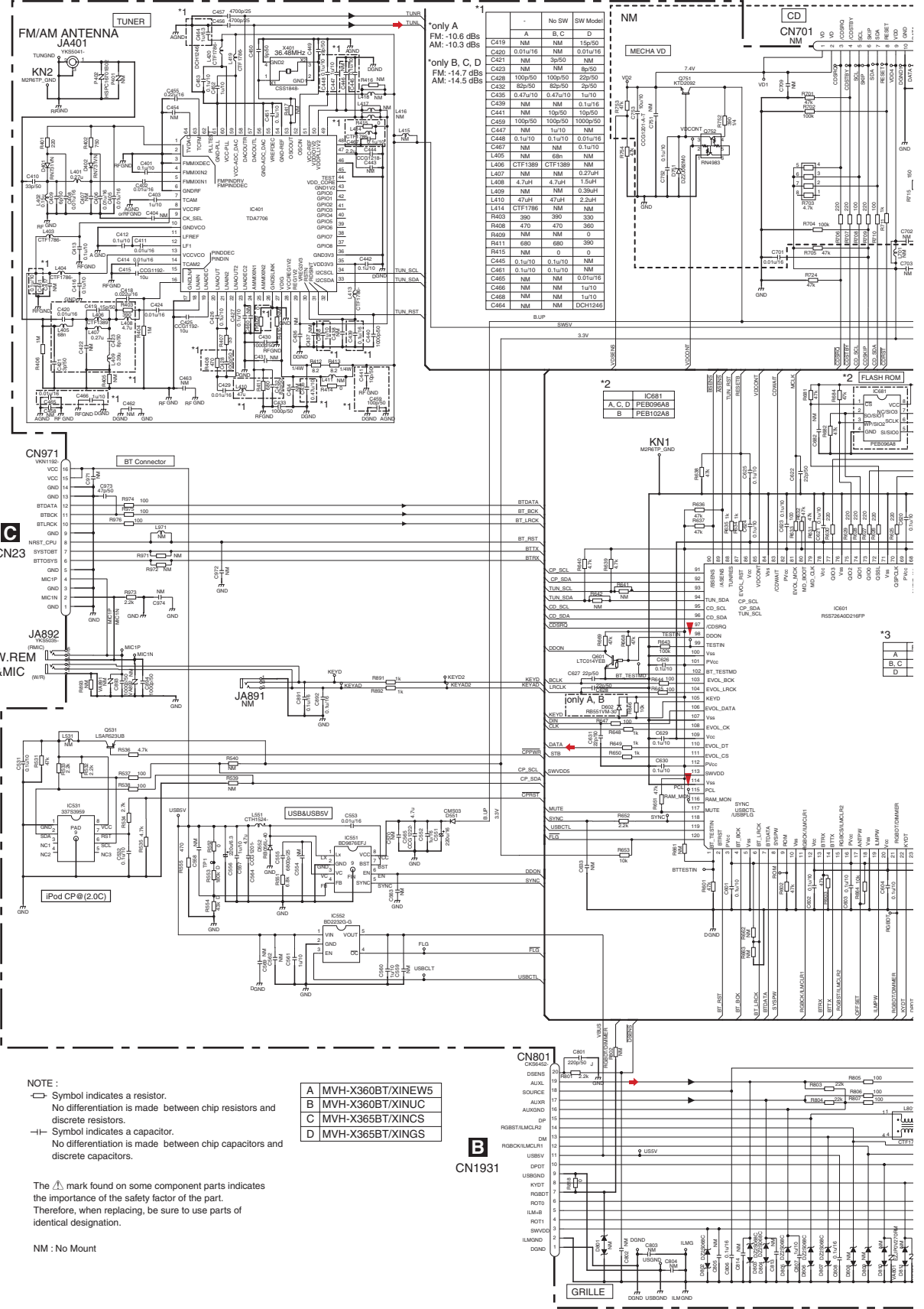
# 10. SCHEMATIC DIAGRAM

## 10.1 TUNER AMP UNIT (GUIDE PAGE)

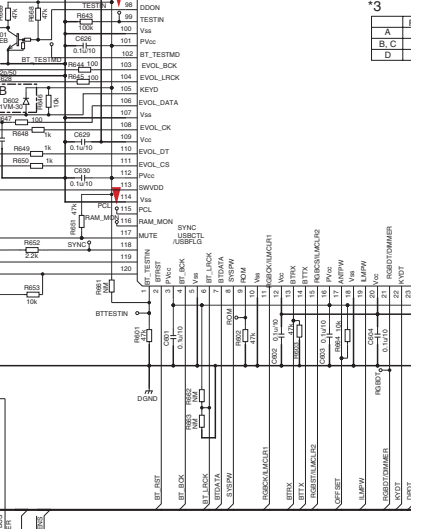
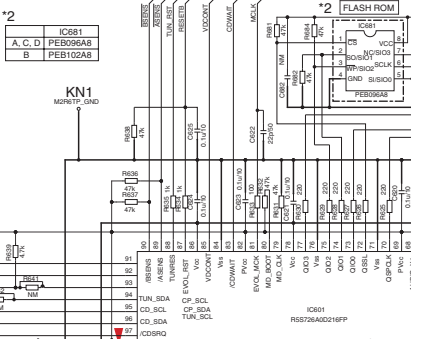
**Note:** When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



**A-a**



*only A		No SW Model	
A	B, C, D	A	D
C419	NM	NM	15p50
C420	0.01u16	NM	0.01u16
C421	NM	3950	NM
C423	NM	NM	8p50
C428	100p50	100p50	22p50
C430	82p50	82p50	2p50
C435	0.47u10	0.47u10	1u10
C439	NM	NM	0.1u16
C441	NM	10p50	10p50
C443	100p50	100p50	100p50
C447	NM	1u10	NM
C448	0.1u10	0.1u10	0.01u16
C467	NM	NM	0.1u10
C468	NM	58p	NM
L406	CTF1389	CTF1389	NM
L407	NM	NM	0.27uH
L408	4.7uH	4.7uH	1.5uH
L409	NM	NM	0.39uH
L410	47uH	47uH	2.2uH
L414	CTF1786	NM	NM
R400	390	390	330
R408	470	470	360
R409	NM	NM	0
R411	680	680	390
R415	NM	0	0
C445	0.1u10	0.1u10	NM
C481	0.1u10	0.1u10	NM
C485	NM	NM	0.01u16
C486	NM	NM	1u10
C488	NM	NM	1u10
C464	NM	NM	5CH124E



**NOTE:**  
 □ Symbol indicates a resistor.  
 No differentiation is made between chip resistors and discrete resistors.  
 □— Symbol indicates a capacitor.  
 No differentiation is made between chip capacitors and discrete capacitors.

The  $\Delta$  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.

NM: No Mount

A	MVH-X360BT/XINEW5
B	MVH-X360BT/XINXC
C	MVH-X365BT/XINCS
D	MVH-X365BT/XINGS

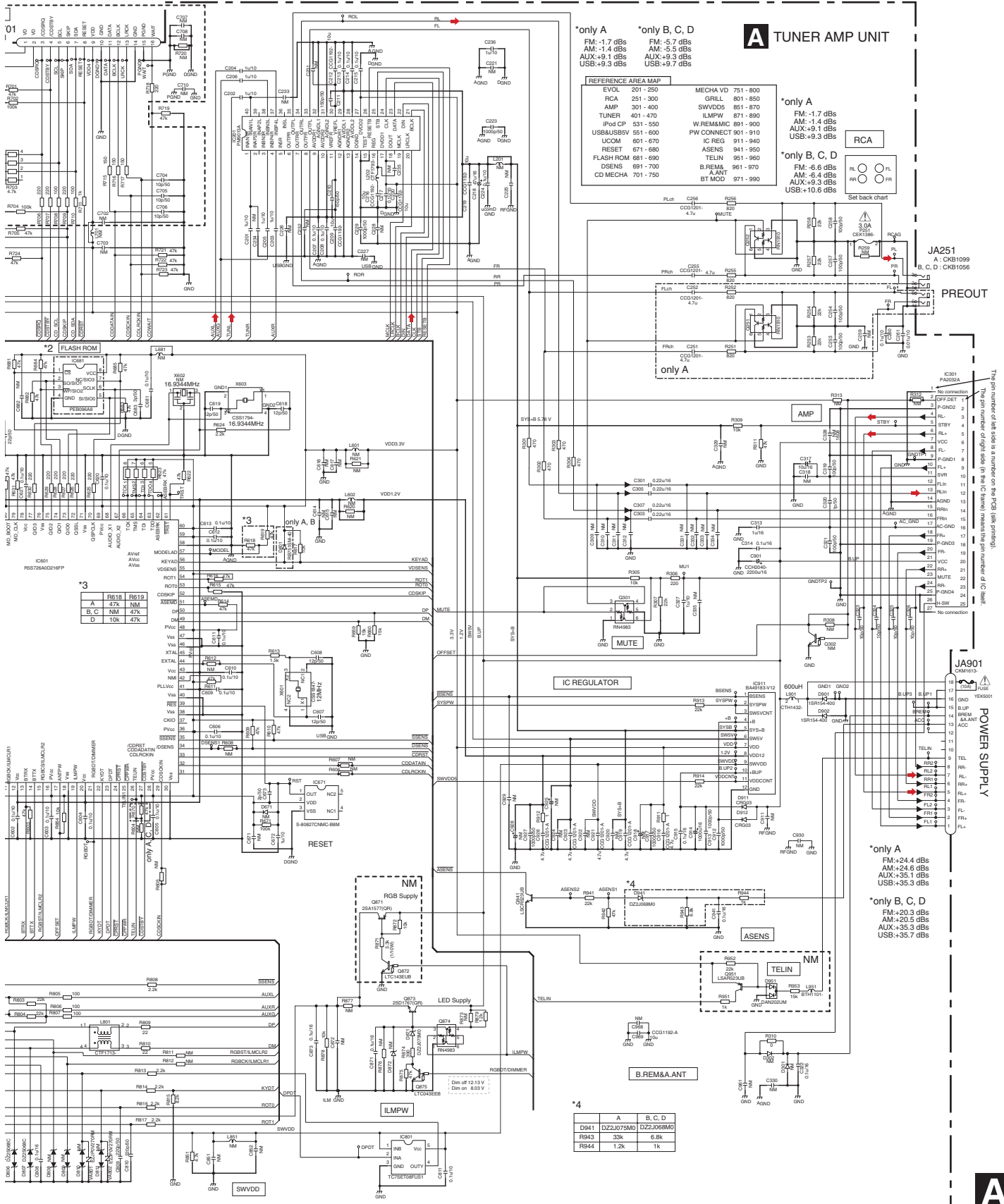
**B**

CN1931

**A**

MVH-X360BT/XINEW5

# A-b



A

B

C

D

E

F

# A TUNER AMP UNIT

**\*only A**  
 FM:-1.7 dBs  
 AM:-1.4 dBs  
 AUX:+9.1 dBs  
 USB:+9.3 dBs

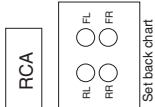
**REFERENCE AREA MAP**

EVOL	201 - 250
RCA	251 - 300
AMP	301 - 400
TUNER	401 - 470
W.REM&M.C	891 - 900
IC REG	911 - 940
ASENS	941 - 960
FLASH ROM	881 - 890
DSENS	691 - 700
CD MECHA	701 - 750

**\*only B, C, D**  
 FM:-5.7 dBs  
 AM:-5.5 dBs  
 AUX:+9.1 dBs  
 USB:+9.3 dBs

**\*only A**  
 FM:-1.7 dBs  
 AM:-1.4 dBs  
 AUX:+9.1 dBs  
 USB:+9.3 dBs

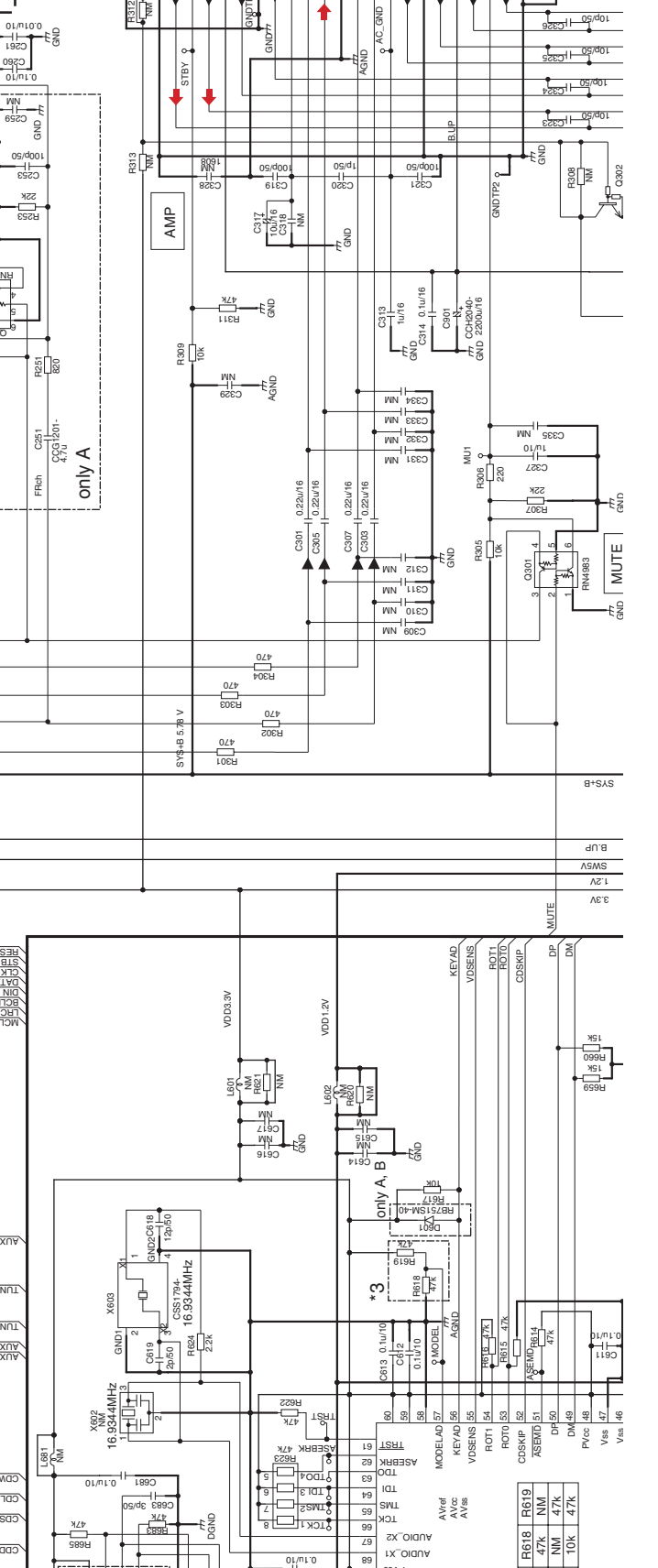
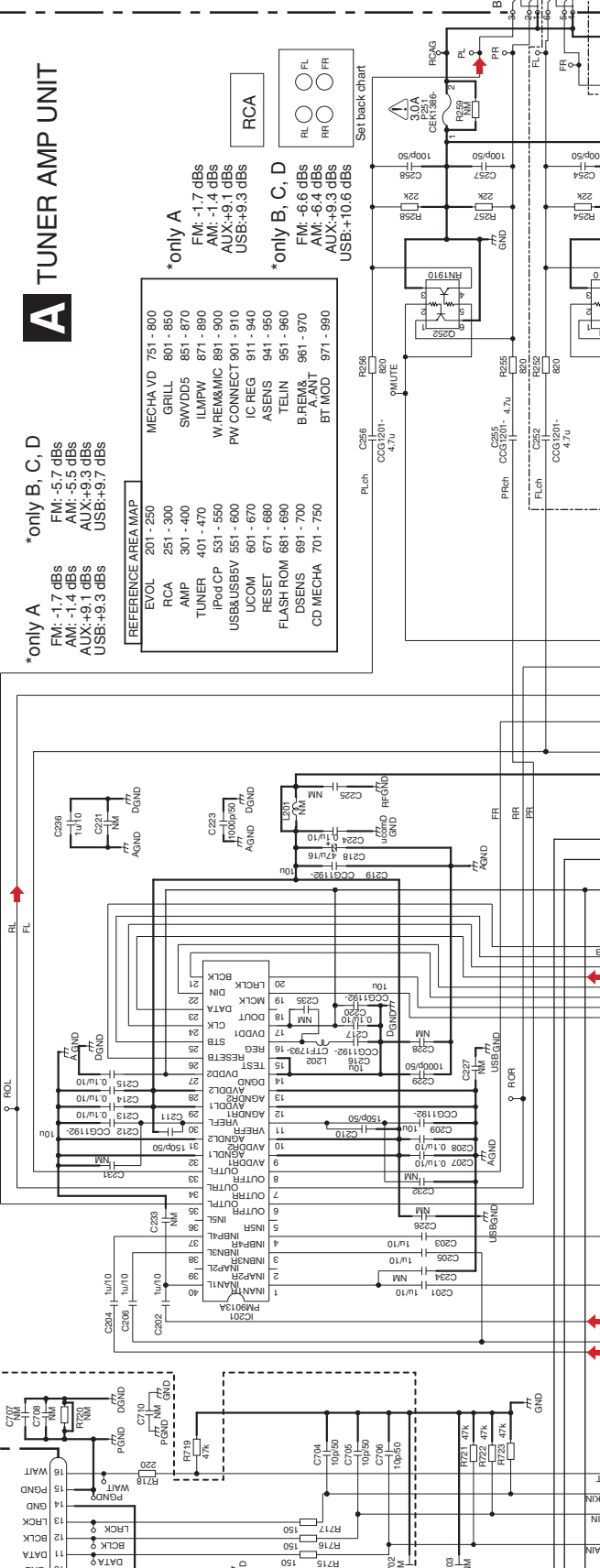
**\*only B, C, D**  
 FM:-6.6 dBs  
 AM:-6.4 dBs  
 AUX:+9.3 dBs  
 USB:+10.6 dBs



**JAZ251**  
 A:CKB1089  
 B, C, D:CKB1056

## PREOUT

The pin number of left side is a number on the PCB (silk printing).  
 The pin number of right side (in the IC frame) means the pin number of IC itself.

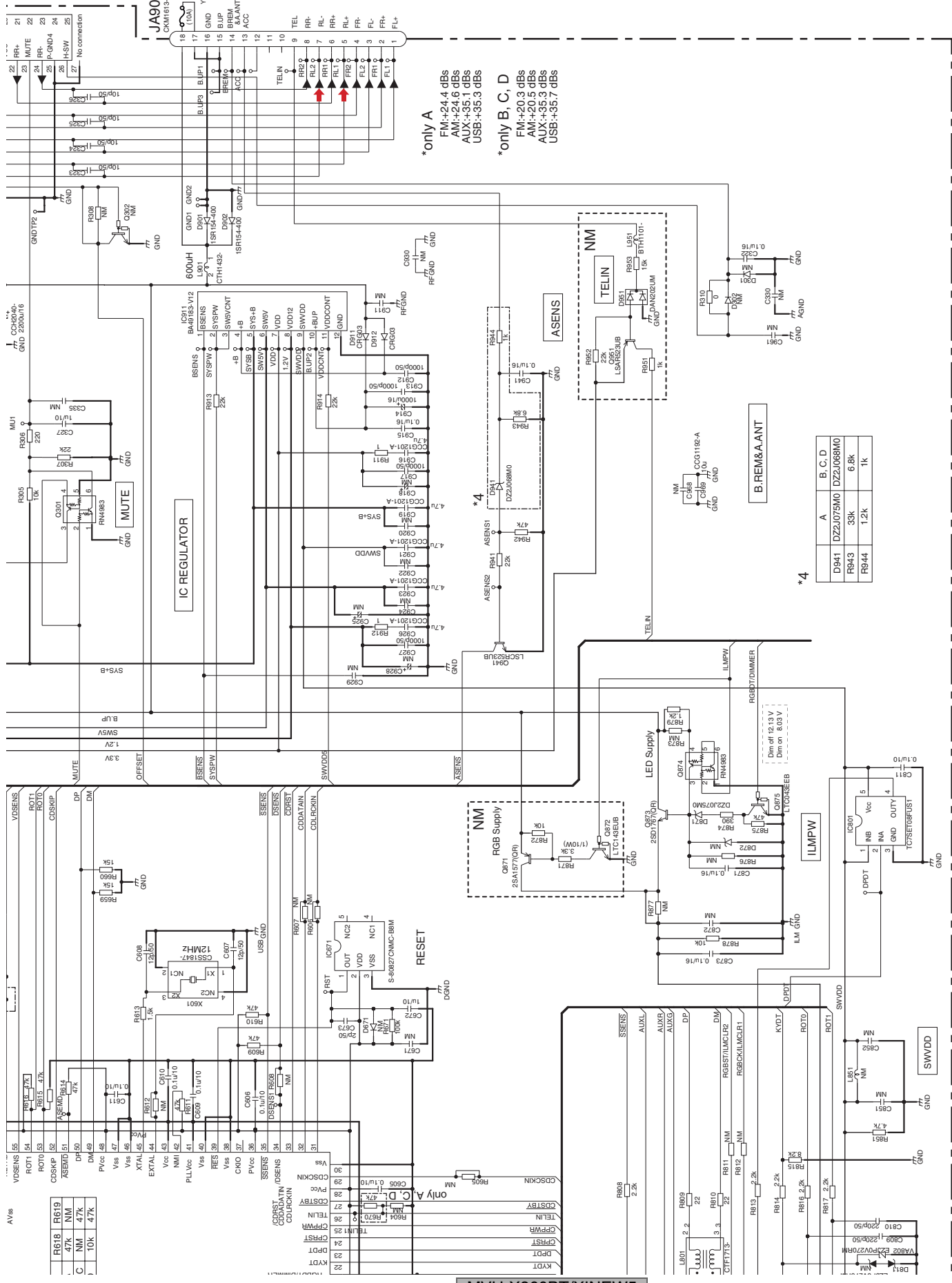


A-a

A-b

MVH-X360BT/XINEW5

number of IC itself.



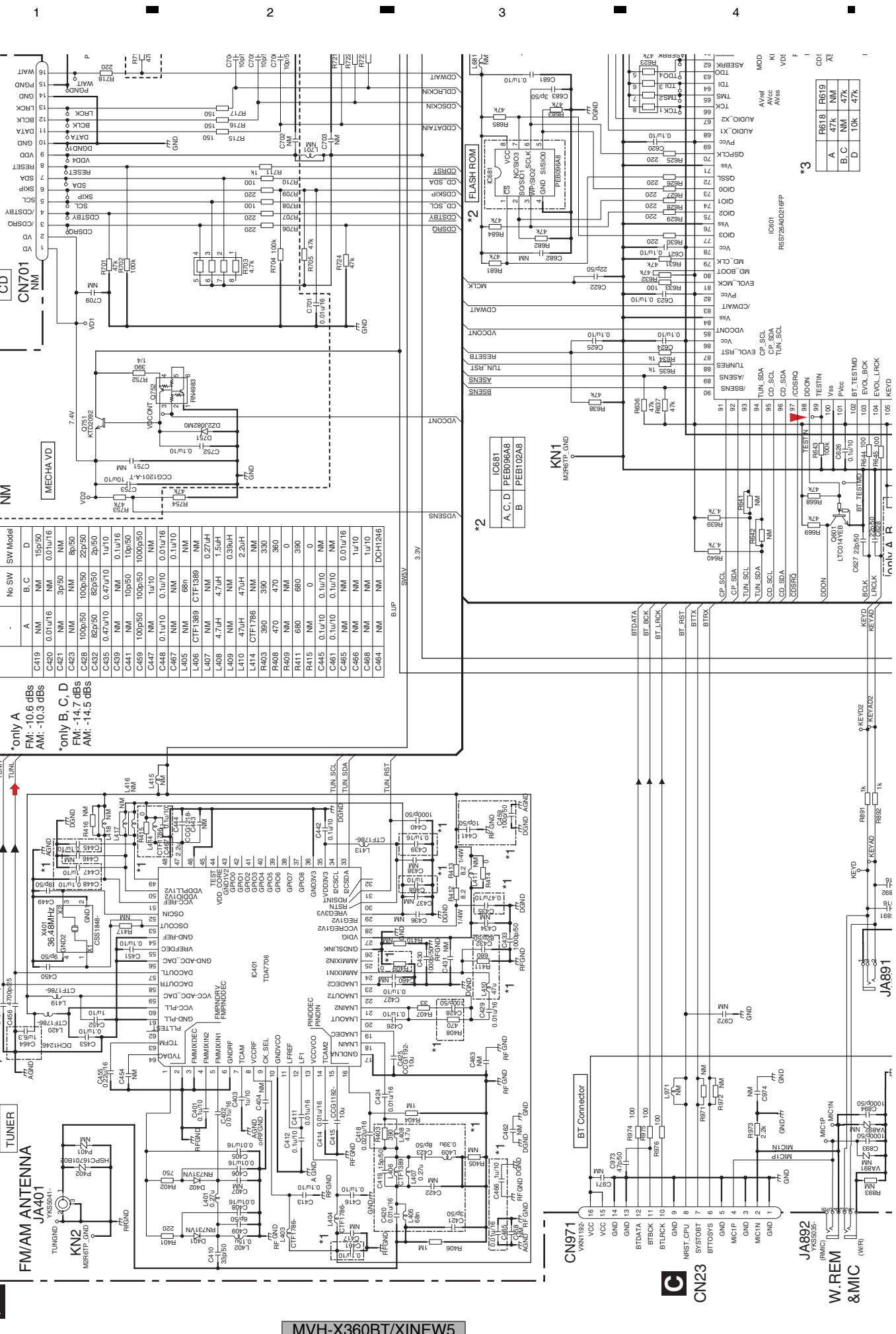
RV18	RV19
47k	NM
C	47k
	10k

	A	B	C	D
D941	DZ2J075M0	DZ2J068M0		
R943	33k	6.8k		
R944	1.2k	1k		

\*only A  
FM+24.4 GBS  
AM+24.6 GBS  
AUX+35.1 GBS  
USB+35.3 GBS

\*only B, C, D  
FM+20.3 GBS  
AM+20.5 GBS  
AUX+35.3 GBS  
USB+35.7 GBS

A-b

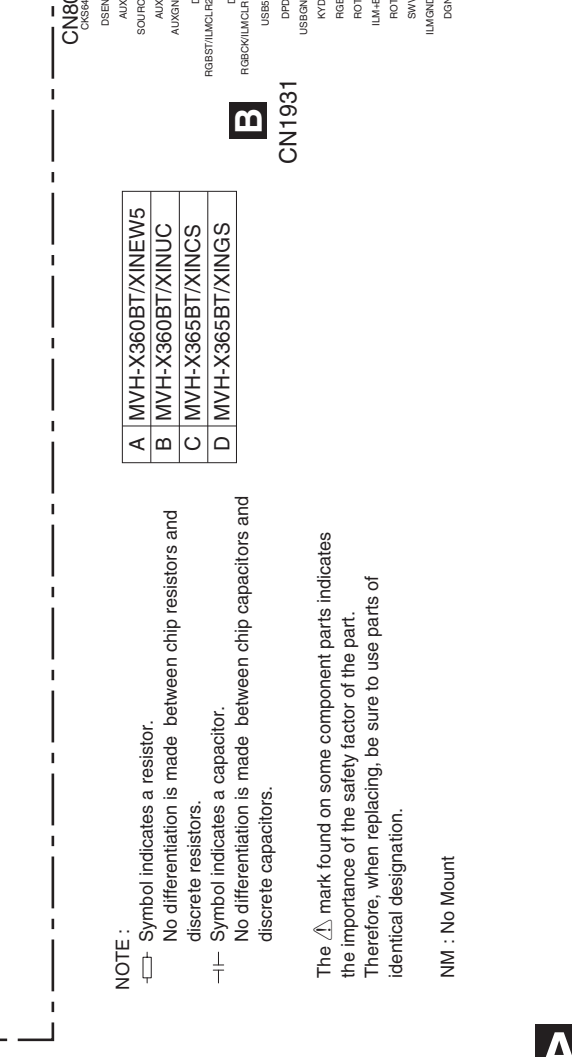
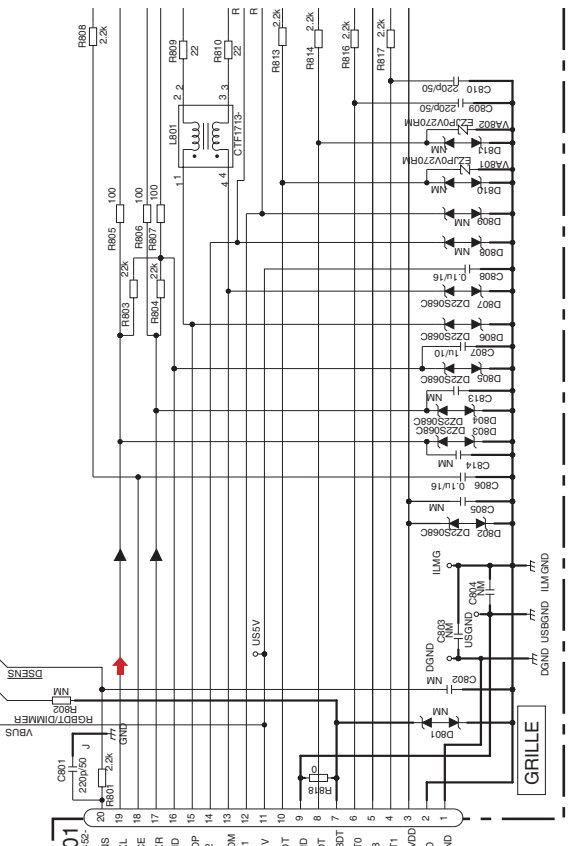
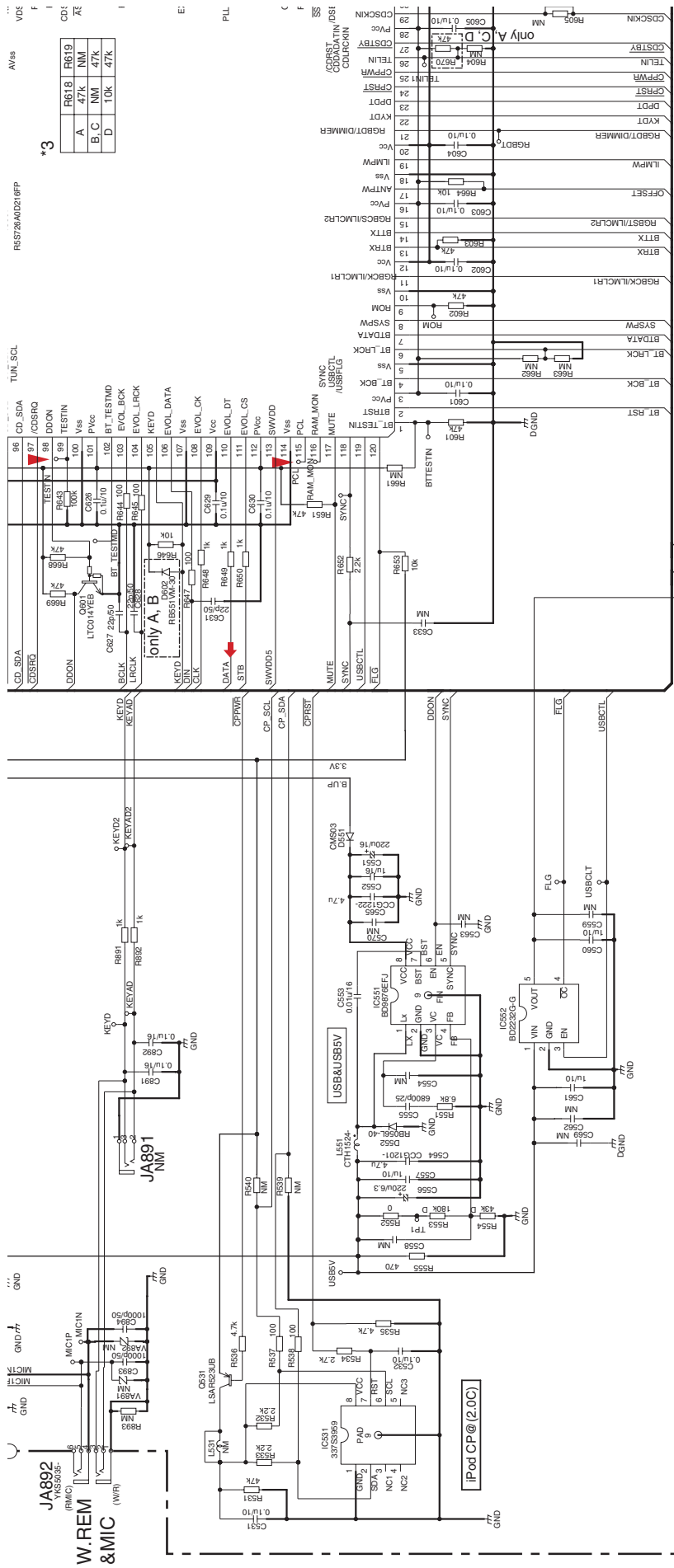


BUMP

	A	B.C.	D
C419	NM	NM	15p/50
C420	0.01u/16	NM	0.01u/16
C421	NM	3p/50	NM
C422	NM	NM	8p/50
C423	100p/50	100p/50	22p/50
C424	82p/50	82p/50	2p/50
C425	0.47u/10	0.47u/10	1u/10
C426	NM	NM	0.1u/16
C427	NM	1u/10	NM
C428	100p/50	100p/50	100p/50
C429	NM	NM	0.1u/16
C430	NM	NM	0.1u/16
C431	1u/10	1u/10	NM
C432	NM	86n	NM
C433	CTF1389	CTF1389	NM
C434	NM	NM	0.27uH
C435	4.7uH	4.7uH	1.5uH
C436	4.7uH	4.7uH	0.39uH
C437	4.7uH	4.7uH	2.2uH
C438	390	390	NM
C439	470	470	390
C440	NM	NM	0
C441	680	680	390
C442	NM	0	NM
C443	0.1u/10	0.1u/10	NM
C444	0.1u/10	0.1u/10	NM
C445	0.1u/10	0.1u/10	NM
C446	NM	NM	1u/10
C447	NM	NM	1u/10
C448	NM	NM	1u/10
C449	NM	NM	1u/10
C450	NM	NM	1u/10

SW Model

No SW	Model	A	B.C.	D
C419	NM	NM	15p/50	
C420	0.01u/16	NM	0.01u/16	
C421	NM	3p/50	NM	
C422	NM	NM	8p/50	
C423	100p/50	100p/50	22p/50	
C424	82p/50	82p/50	2p/50	
C425	0.47u/10	0.47u/10	1u/10	
C426	NM	NM	0.1u/16	
C427	NM	1u/10	NM	
C428	100p/50	100p/50	100p/50	
C429	NM	NM	0.1u/16	
C430	NM	NM	0.1u/16	
C431	1u/10	1u/10	NM	
C432	NM	NM	0.1u/16	
C433	CTF1389	CTF1389	NM	
C434	NM	NM	0.27uH	
C435	4.7uH	4.7uH	1.5uH	
C436	4.7uH	4.7uH	0.39uH	
C437	4.7uH	4.7uH	2.2uH	
C438	390	390	NM	
C439	470	470	390	
C440	NM	NM	0	
C441	680	680	390	
C442	NM	0	NM	
C443	0.1u/10	0.1u/10	NM	
C444	0.1u/10	0.1u/10	NM	
C445	0.1u/10	0.1u/10	NM	
C446	NM	NM	1u/10	
C447	NM	NM	1u/10	
C448	NM	NM	1u/10	
C449	NM	NM	1u/10	
C450	NM	NM	1u/10	



	A	B	C	D
RB11	MVH-X360BT/XINEW5	MVH-X360BT/XINUC	MVH-X365BT/XINCS	MVH-X365BT/XINGS
RB12	MVH-X360BT/XINEW5	MVH-X360BT/XINUC	MVH-X365BT/XINCS	MVH-X365BT/XINGS
RB13	MVH-X360BT/XINEW5	MVH-X360BT/XINUC	MVH-X365BT/XINCS	MVH-X365BT/XINGS
RB14	MVH-X360BT/XINEW5	MVH-X360BT/XINUC	MVH-X365BT/XINCS	MVH-X365BT/XINGS

**NOTE :**  
 □ Symbol indicates a resistor.  
 No differentiation is made between chip resistors and discrete resistors.  
 ⊖ Symbol indicates a capacitor.  
 No differentiation is made between chip capacitors and discrete capacitors.

The  $\Delta$  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.

NM : No Mount

A-b

A-a

A-a



# 10.2 KEYBOARD UNIT

A

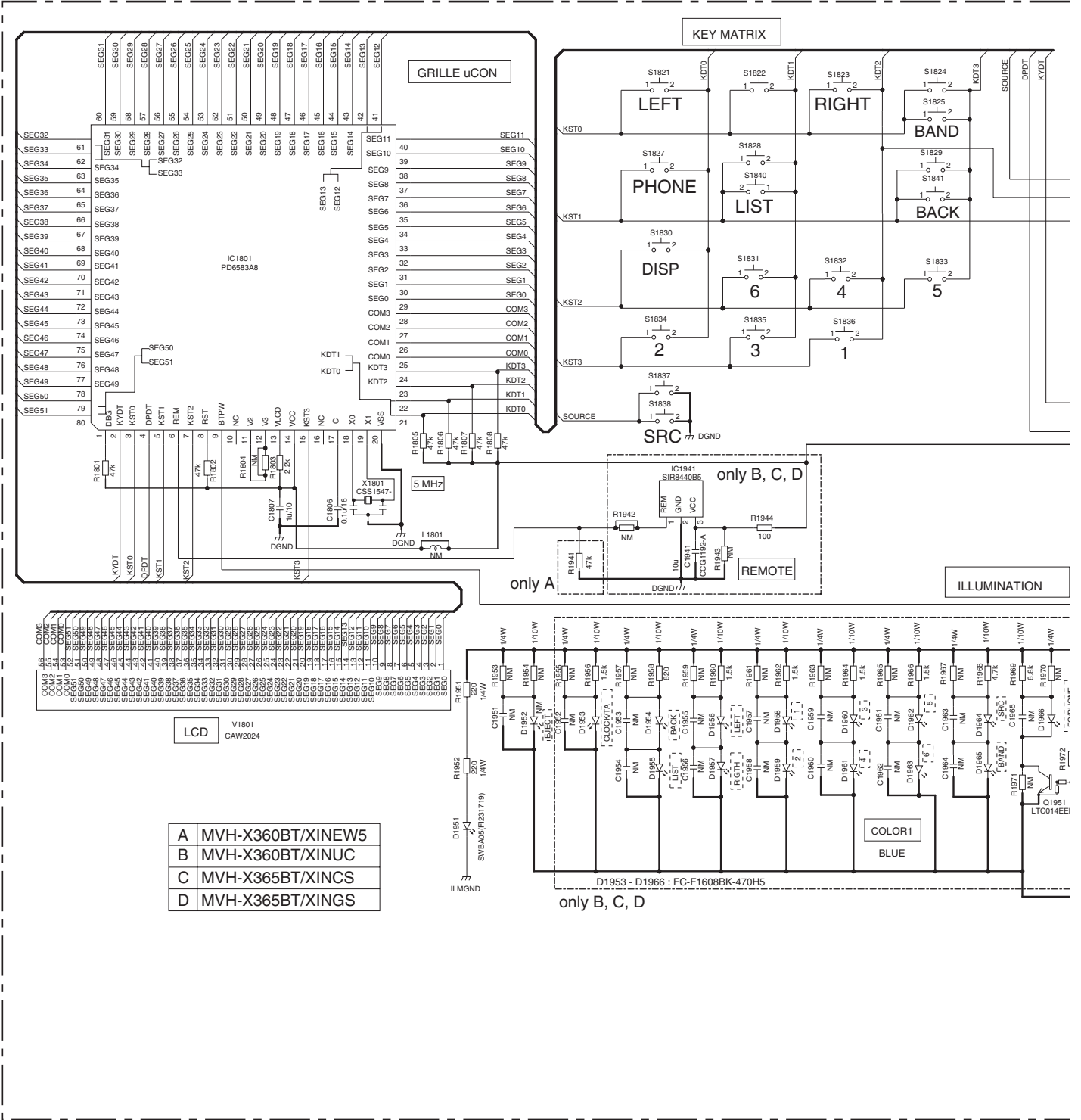
B

C

D

E

F



A	MVH-X360BT/XINEW5
B	MVH-X360BT/XINUC
C	MVH-X365BT/XINCS
D	MVH-X365BT/XINGS

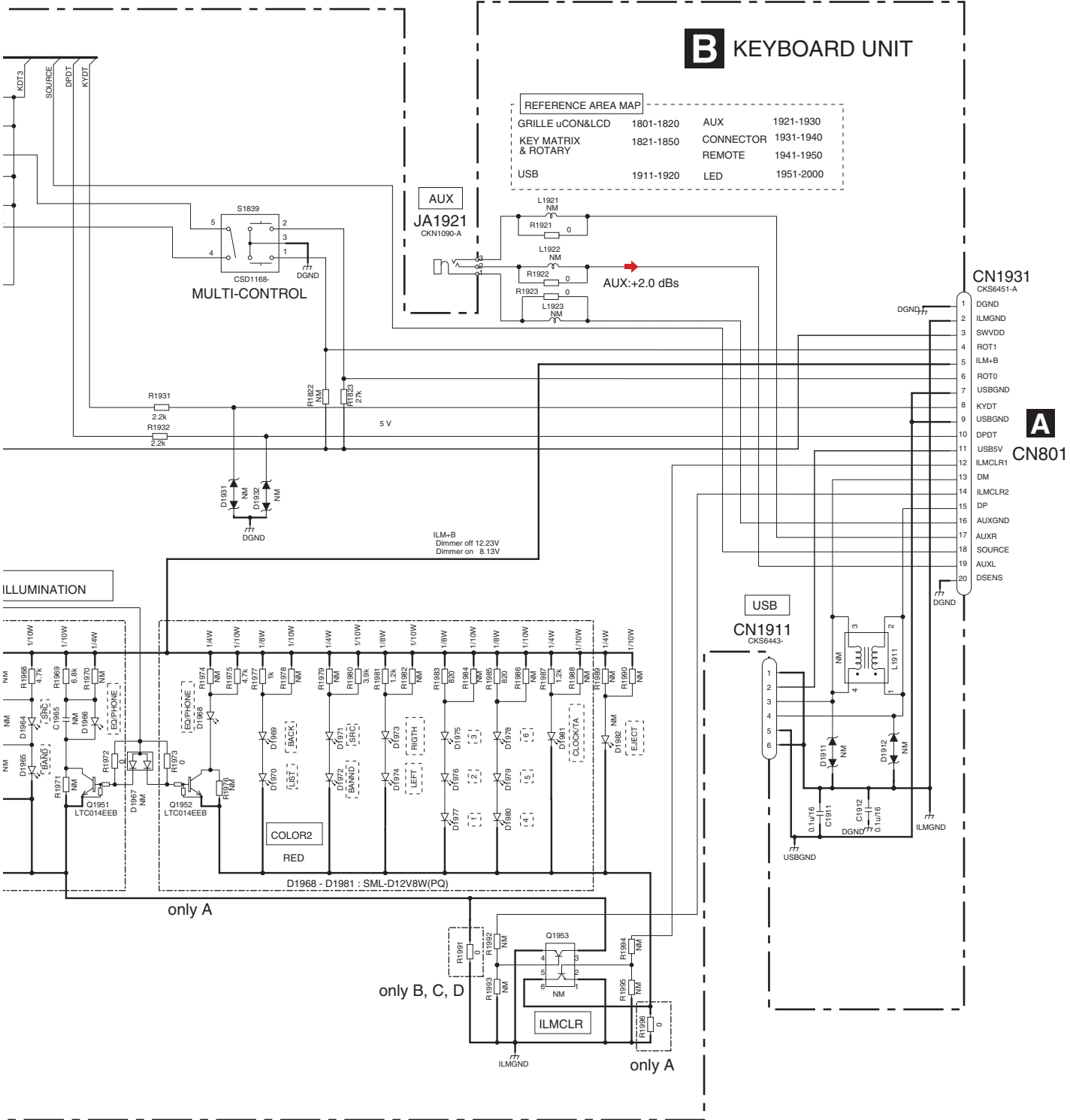




# B KEYBOARD UNIT

REFERENCE AREA MAP

GRILLE uCON&LCD	1801-1820	AUX	1921-1930
KEY MATRIX & ROTARY	1821-1850	CONNECTOR	1931-1940
USB	1911-1920	REMOTE	1941-1950
		LED	1951-2000



**A** CN801

**B**

# 10.3 BT UNIT

A

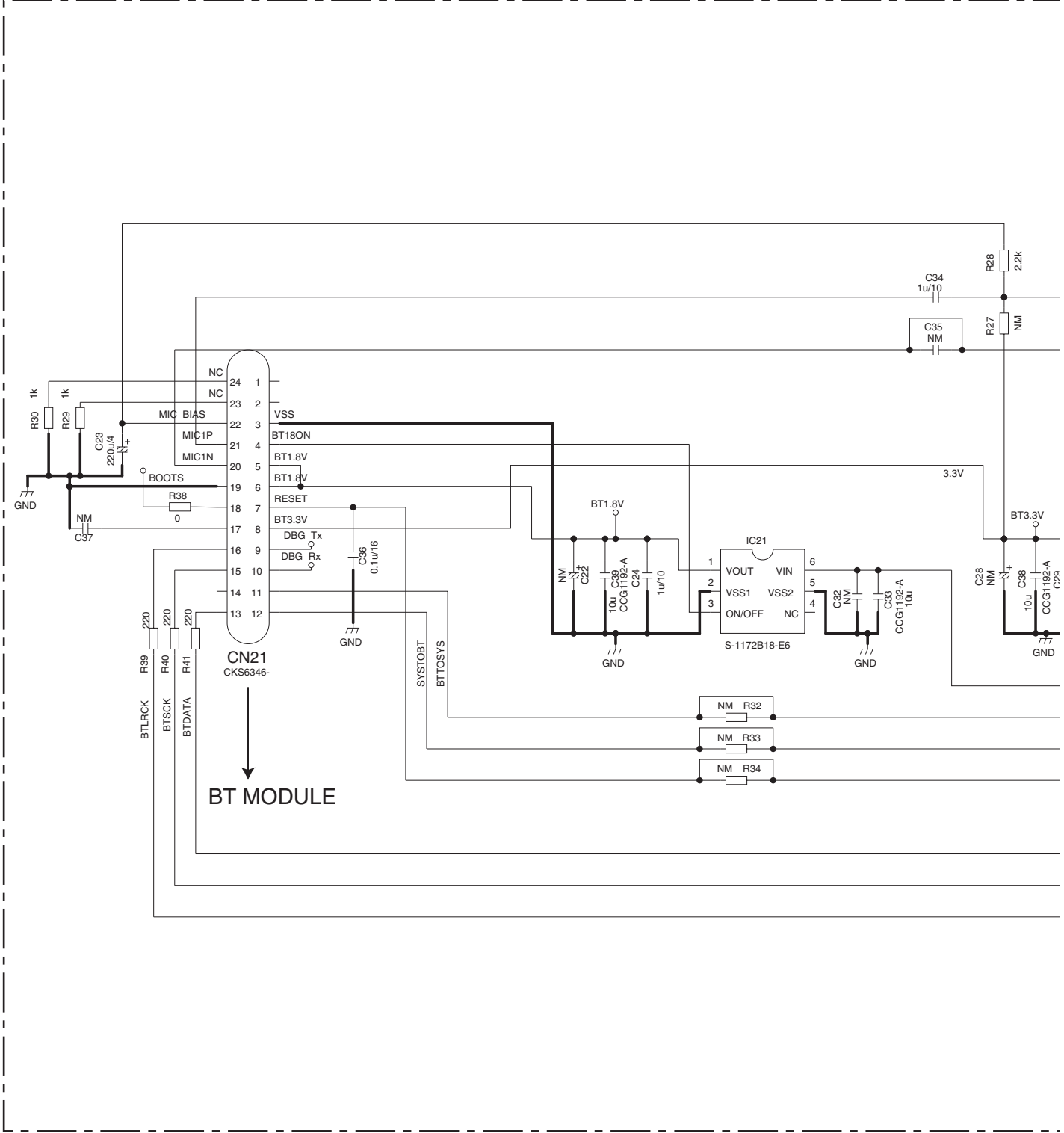
B

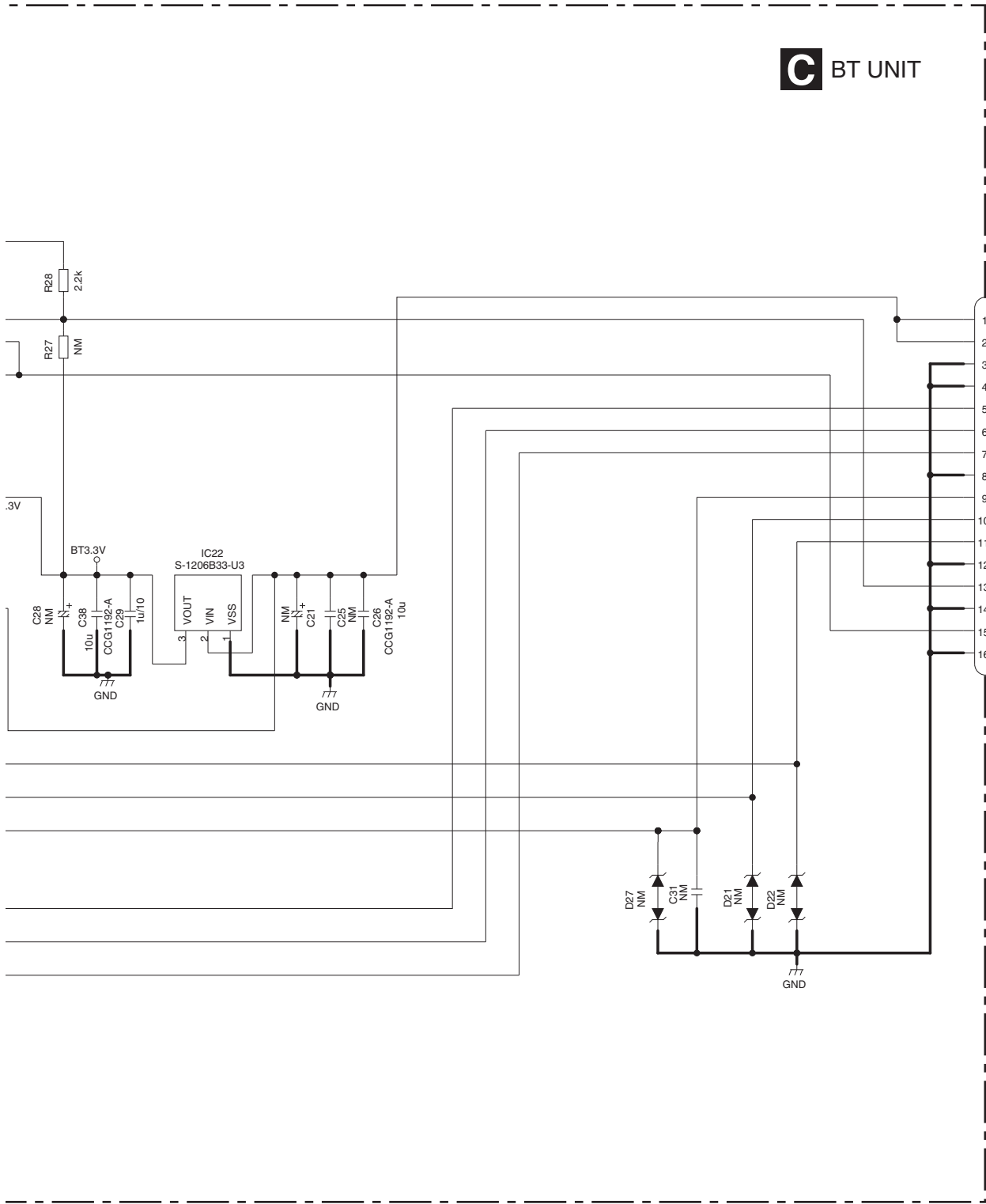
C

D

E

F





**C** BT UNIT

**CN23**  
CKS3857-A

- 1 VCC
- 2 VCC
- 3 GND
- 4 GND
- 5 BTDATA
- 6 BT SCK
- 7 BTRCLK
- 8 GND
- 9 NRST\_CPU
- 10 SYSTOBT
- 11 BTTO SYS
- 12 GND
- 13 MIC1P
- 14 GND
- 15 MIC1N
- 16 GND

**A**

**CN971**

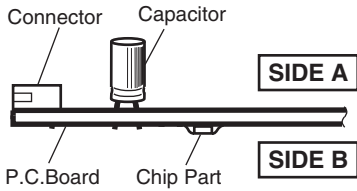
# 11. PCB CONNECTION DIAGRAM

## 11.1 TUNER AMP UNIT

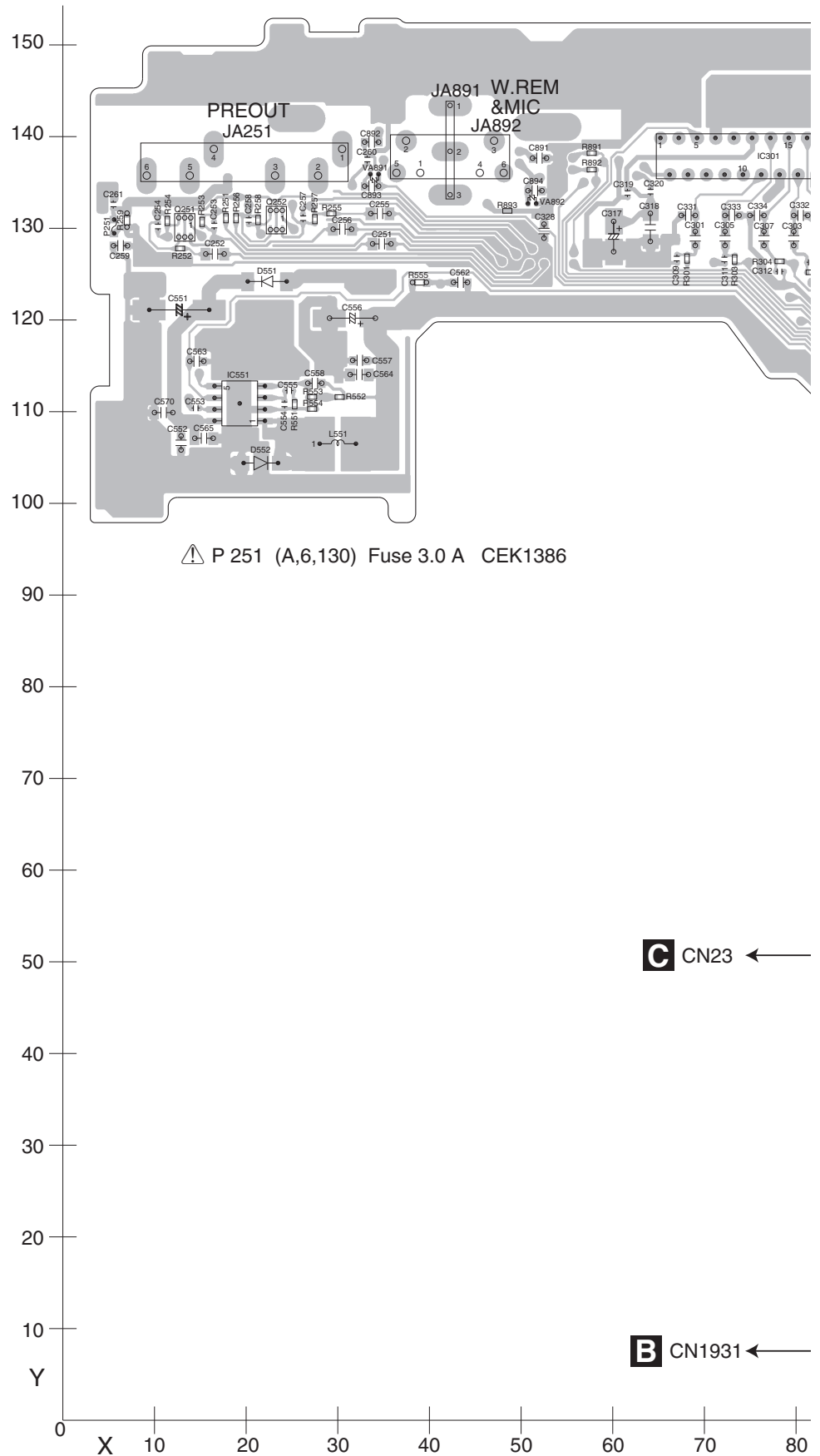
### A NOTE FOR PCB DIAGRAMS

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



MVH-X360BT/XINEW5

SIDE A

A

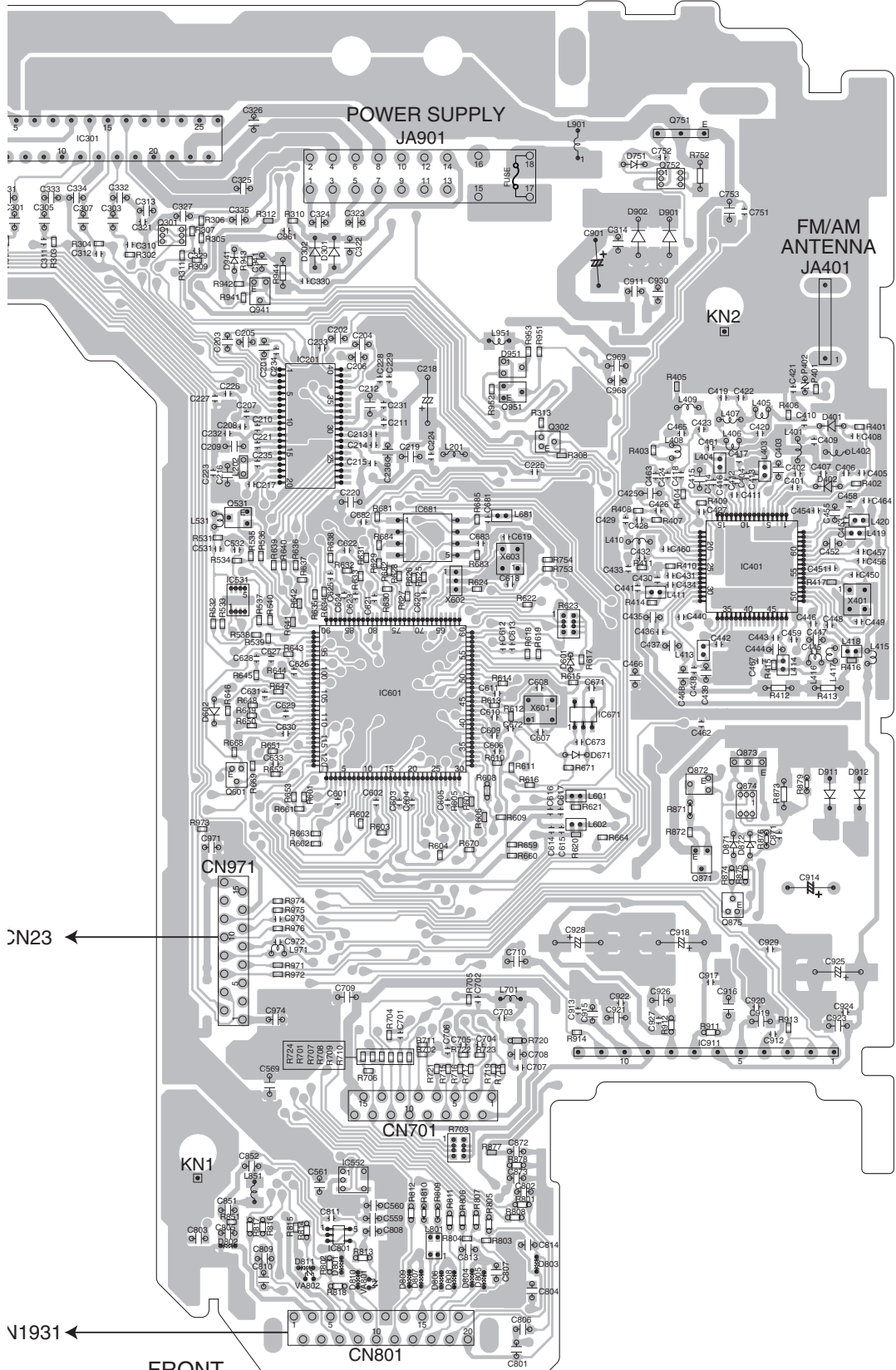
B

C

D

E

F



← CN23

← V1931

FRONT

70 80 90 100 110 120 130 140 150 160

MVH-X360BT/XINEW5

A

A

# A TUNER AMP UNIT

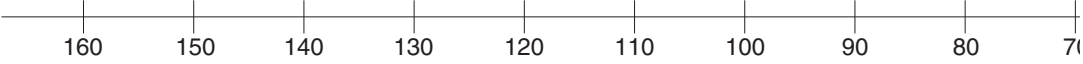
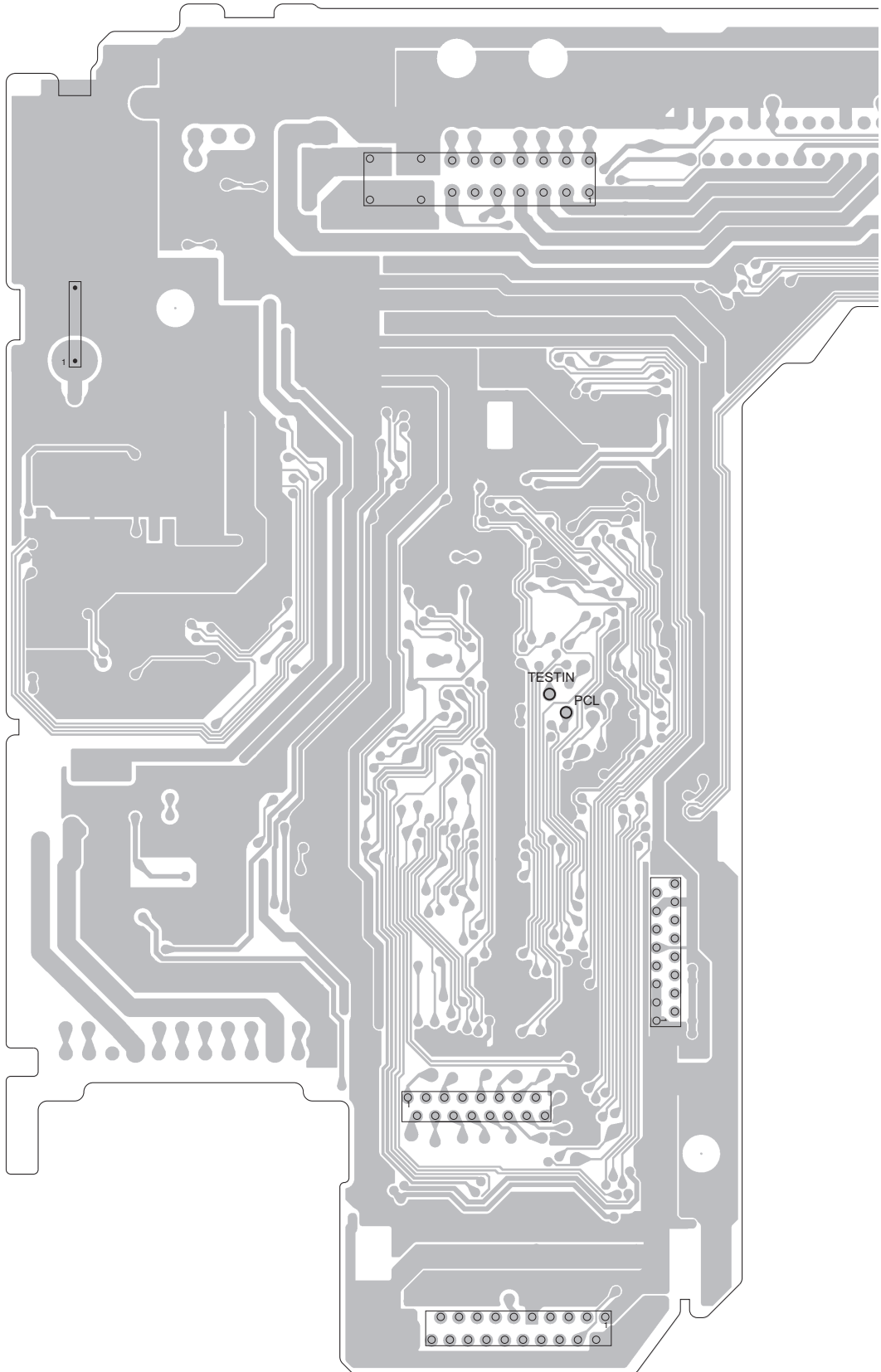
B

C

D

E

F



MVH-X360BT/XINEW5

A

SIDE B

A

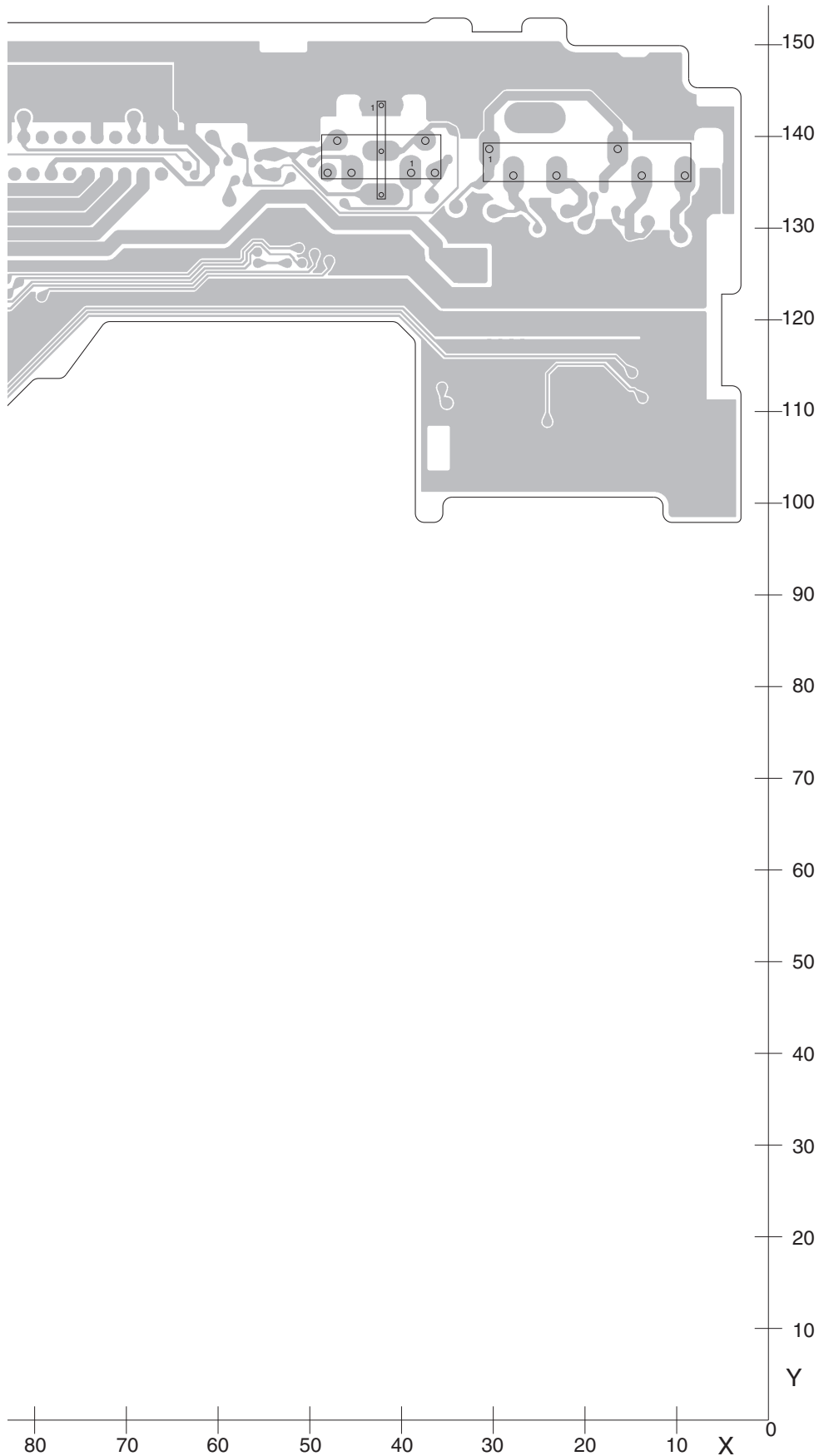
B

C

D

E

F



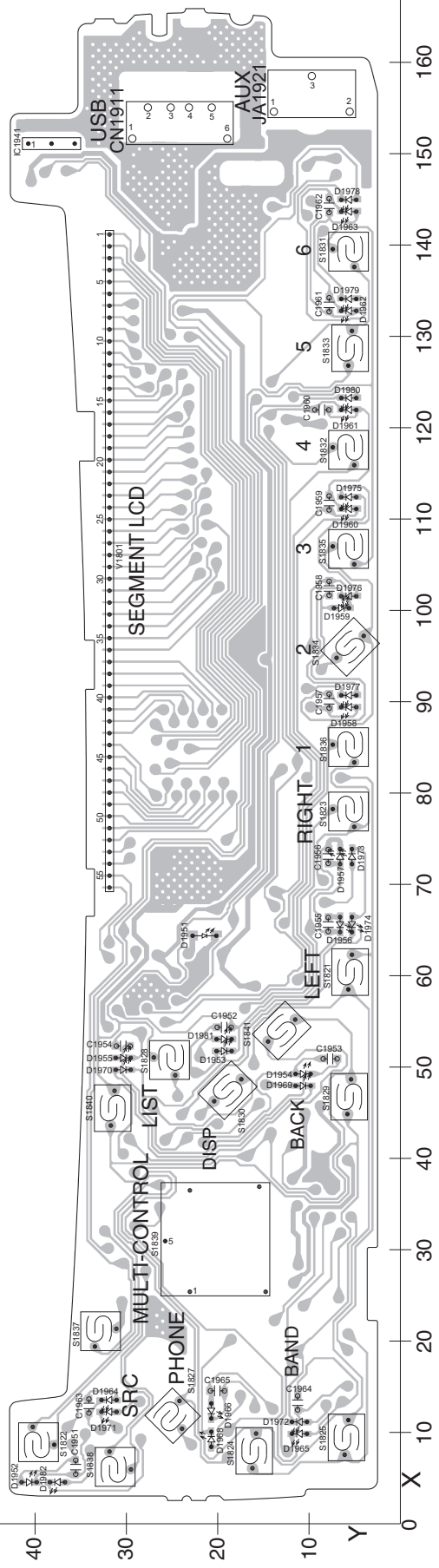
MVH-X360BT/XINEW5

A

# 11.2 KEYBOARD UNIT

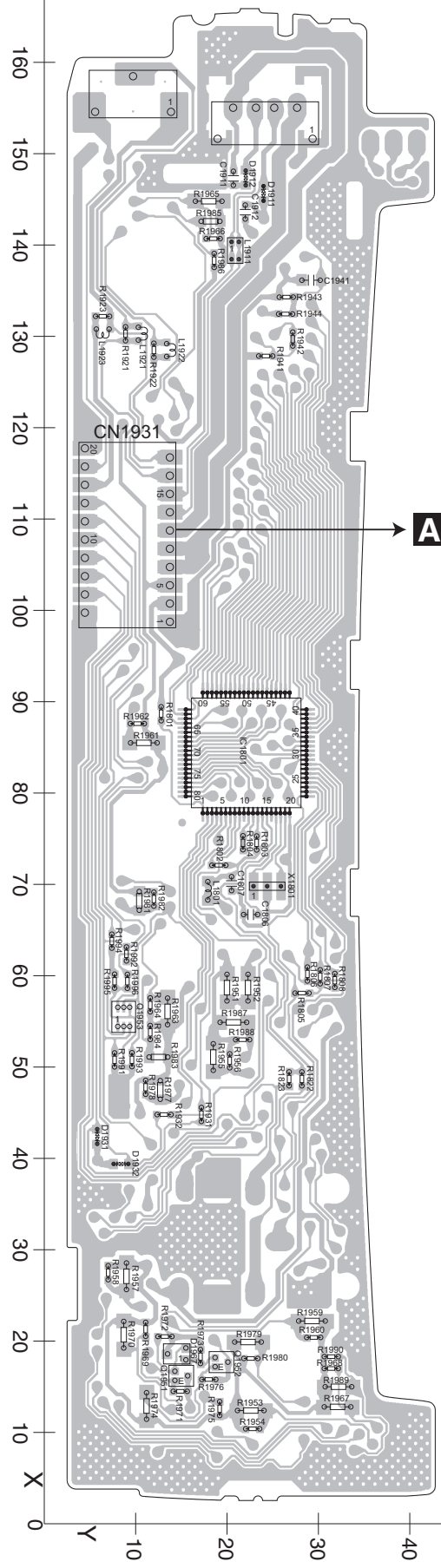
**B** KEYBOARD UNIT

**SIDE A**



**B** KEYBOARD UNIT

**SIDE B**



**A** CN801

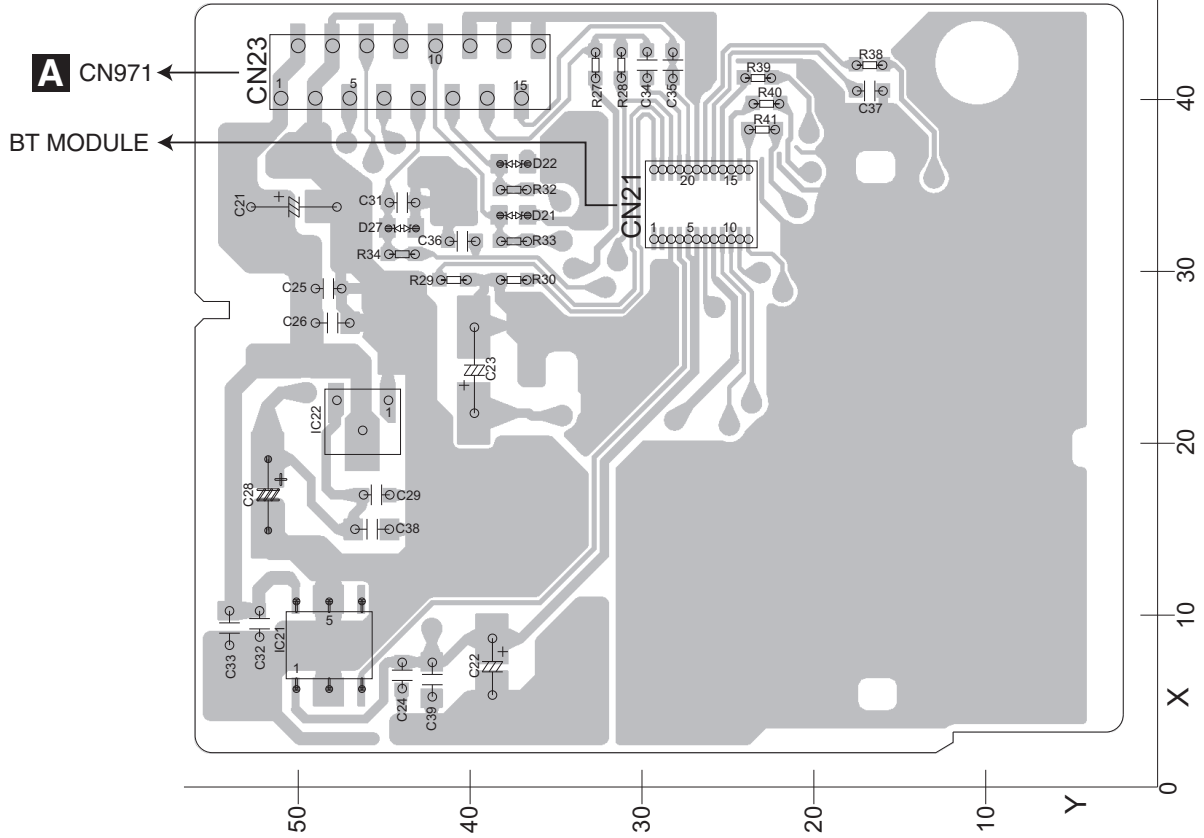


5 6 7 8

# 11.3 BT UNIT

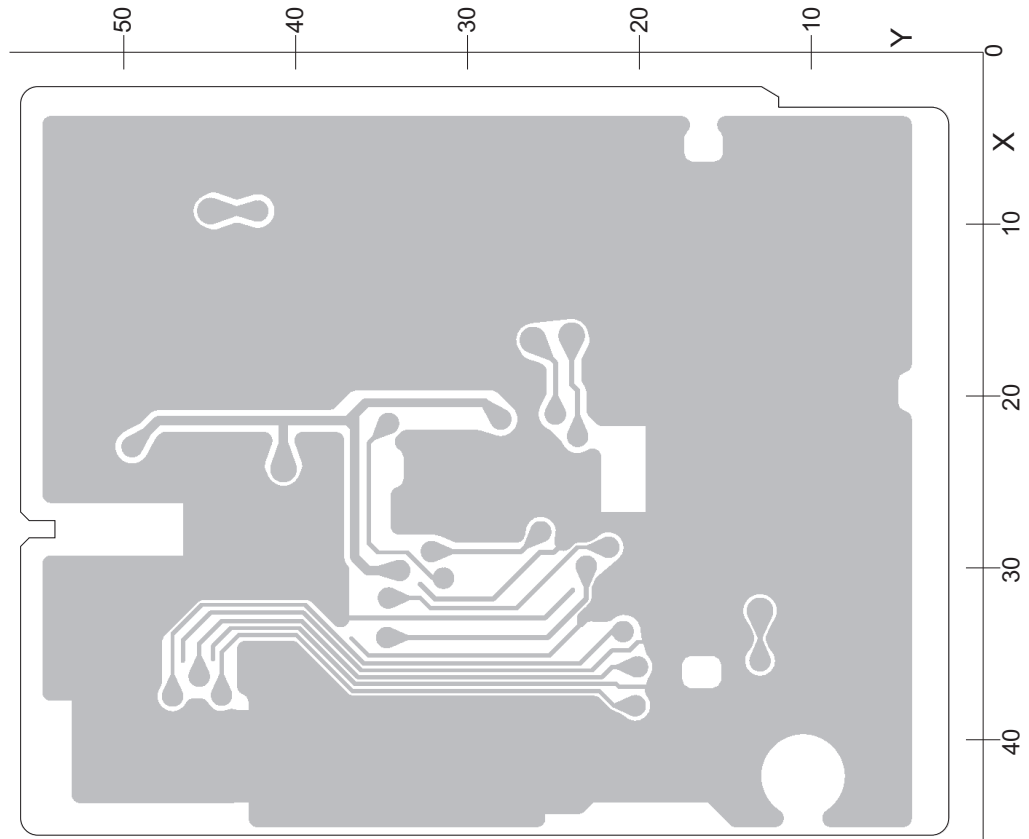
**C** BT UNIT

**SIDE A**



**C** BT UNIT

**SIDE B**



# 12. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○○J,RS1/○○S○○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

- The  $\triangle$  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.
- Meaning of the figures and others in the parentheses in the parts list.

Example) IC 301 is on the point (face A, 91 of x-axis, and 111 of y-axis) of the corresponding PC board.

IC 301 (A, 91, 111) IC NJM2068V

- The expression of the unit in this manual is shown by u instead of  $\mu$ . Please do not make a mistake.

	<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>
A:	MVH-X360BT/XINEW5		IC 681 (A,114,94) Flash ROM Unit(A,C,D)	PEB096A8
B:	MVH-X360BT/XINUC		(A,114,94) Flash ROM Unit(B)	PEB102A8
C:	MVH-X365BT/XINCS		IC 801 (A,104,18) L-MOS And Gate	TC7SET08FUS1
D:	MVH-X365BT/XINGS		IC 911 (A,145,28) IC	BA49183-V12
Unit Number:	QWM3665(A)		Q 251 (A,13,130) Chip Transistor(A)	RN1910
Unit Number:	QWM3664(B)		Q 252 (A,23,131) Chip Transistor	RN1910
Unit Number:	QWM3666(C)		Q 301 (A,86,127) Chip Transistor	RN4983
Unit Number:	QWM3667(D)		Q 531 (A,93,97) Transistor	LSAR523UB
Unit Name :	Tuner Amp Unit		Q 601 (A,93,68) Transistor	LTC014YEB
Unit Number:	(A)		Q 873 (A,149,72) Transistor	2SD1767
Unit Number:	(B,C,D)		Q 874 (A,149,65) Chip Transistor	RN4983
Unit Name :	Keyboard Unit		Q 875 (A,147,54) Transistor	LTC043EEB
Unit Number:	QWM3750		Q 941 (A,96,121) Transistor	LSCR523UB
Unit Name :	BT Unit		D 401 (A,158,107) Diode	RN731VN
Unit Number:	QWM3665(A)		D 402 (A,158,100) Diode	RN731VN
Unit Number:	QWM3664(B)		D 551 (A,22,124) Diode	CMS03
Unit Number:	QWM3666(C)		D 552 (A,22,104) Diode	RB056L-40
Unit Number:	QWM3667(D)		D 601 (A,130,81) Diode(A,B)	RB751SM-40
Unit Name :	Tuner Amp Unit		D 602 (A,91,75) Diode(A,B)	RB551VM-30
Unit Number:	QWM3665(A)		D 802 (A,92,17) Diode	DZ2S068C
Unit Number:	QWM3664(B)		D 803 (A,126,15) Diode	DZ2S068C
Unit Number:	QWM3666(C)		D 804 (A,119,14) Diode	DZ2S068C
Unit Number:	QWM3667(D)		D 805 (A,120,13) Diode	DZ2S068C
Unit Name :	Tuner Amp Unit		D 806 (A,116,13) Diode	DZ2S068C
MISCELLANEOUS			D 807 (A,113,13) Diode	DZ2S068C
IC 201 (A,101,107) LSI	PM9013A		D 871 (A,148,61) Diode	DZ2J075M0
IC 301 (A,78,142) IC	PA2032A		D 901 (A,141,127) Diode	1SR154-400
IC 401 (A,150,91) IC	TDA7706		D 902 (A,137,127) Diode	1SR154-400
IC 531 (A,93,88) IC	337S3959		D 911 (A,158,66) Diode	CRG03
IC 551 (A,19,111) Regulator IC	BD9876EFJ		D 912 (A,161,66) Diode	CRG03
IC 552 (A,106,24) IC	BD2232G-G		D 941 (A,93,125) Diode(A)	DZ2J075M0
IC 601 (A,110,77) IC	R5S726A0D216FP		(A,93,125) Diode(B,C,D)	DZ2J068M0
IC 671 (A,131,75) IC	S-80827CNMC-B8M		L 202 (A,94,102) Inductor	CTF1793
			L 401 (A,155,104) Chip Coil	LCTAWR27J2520
			L 402 (A,159,104) Chip Coil	LCTAWR15J2520
			L 403 (A,151,102) Inductor	CTF1786
			L 404 (A,146,102) Inductor	CTF1786
			L 405 (A,151,108) Inductor(B,C)	LCYB68NJ1608
			L 406 (A,147,105) Inductor(A,B,C)	CTF1389
			L 407 (A,147,107) Chip Coil(D)	LCTAWR27J2520

5		6		7		8	
<u>Circuit Symbol and No.</u>		<u>Part No.</u>		<u>Circuit Symbol and No.</u>		<u>Part No.</u>	
L 408	(A,141,104) Inductor(A,B,C)	LCTC4R7K1608		R 412	(A,152,78)	RS1/4SA8R2J	
	(A,141,104) Inductor(D)	LCTC1R5K1608		R 413	(A,158,78)	RS1/4SA8R2J	
L 409	(A,143,109) Chip Coil(D)	LCTAWR39J2520		R 414	(A,139,87)	RS1/16SS0R0J	
L 410	(A,137,94) Chip Coil(A,B,C)	LCTAW470J2520		R 415	(A,152,80) (B,C,D)	RS1/16SS0R0J	A
	(A,137,94) Inductor(D)	LCTAW2R2J2520		R 531	(A,91,94)	RS1/16SS473J	
L 413	(A,144,82) Inductor	CTF1786		R 532	(A,91,85)	RS1/16SS222J	
L 414	(A,153,80) Inductor(A)	CTF1786		R 533	(A,92,85)	RS1/16SS222J	
L 419	(A,161,95) Inductor	CTF1786		R 534	(A,93,92)	RS1/16SS272J	
L 420	(A,161,96) Inductor	CTF1786		R 535	(A,95,92)	RS1/16SS472J	
L 551	(A,30,107) Inductor	CTH1524		R 536	(A,96,92)	RS1/16SS472J	
L 801	(A,115,17) Inductor	CTF1713		R 537	(A,96,85)	RS1/16SS101J	
L 901	(A,112,141) Choke Coil 600 uH	CTH1432		R 538	(A,95,84)	RS1/16SS101J	
X 401	(A,161,88) Crystal Resonator 36.48 MHz	CSS1848		R 551	(A,25,111)	RS1/16SS682J	
X 601	(A,126,76) Crystal Resonator 12 MHz	CSS1847		R 552	(A,30,112)	RS1/16SS0R0J	
X 603	(A,123,92) Resonator 16.93 MHz	CSS1794		R 553	(A,27,112)	RS1/16SS1803D	B
△ P251	(A,6,130) Fuse 3.0 A	CEK1386		R 554	(A,27,110)	RS1/16SS4302D	
P 402	(A,155,111) Surge Absorber	HSPC16701B02		R 555	(A,39,124)	RS1/10SR471J	
VA801	(A,108,13) SMD Varistor	MLV0402ES012V0010N		R 601	(A,101,66)	RS1/16SS473J	
VA802	(A,101,13) SMD Varistor	MLV0402ES012V0010N		R 602	(A,107,63)	RS1/16SS473J	
CN801	(A,109,4) Connector	CKS6452		R 603	(A,109,62)	RS1/16SS473J	
CN971	(A,93,49) Connector	VKN1192		R 609	(A,122,64)	RS1/16SS473J	
JA251	(A,19,138) Pin Jack(A)	CKB1099		R 610	(A,122,70)	RS1/16SS473J	
	(A,19,138) Pin Jack(B,C,D)	CKB1056		R 611	(A,123,69)	RS1/16SS473J	
JA401	(A,158,129) Antenna Jack	YKS5041		R 613	(A,121,76)	RS1/16SS152J	
JA892	(A,42,141) Jack	YKS5035		R 614	(A,122,78)	RS1/16SS473J	
JA901	(A,113,141) Connector	CKM1613		R 615	(A,130,79)	RS1/16SS473J	C
△ Fuse (10 A)		YEK5001		R 616	(A,125,67)	RS1/16SS473J	
				R 617	(A,131,81)	RS1/16SS103J	
				R 618	(A,125,82) (A)	RS1/16SS473J	
					(A,125,82) (D)	RS1/16SS103J	
				R 619	(A,126,82) (B,C,D)	RS1/16SS473J	
				R 622	(A,125,87)	RS1/16SS473J	
R 251	(A,18,131) (A)	RS1/16SS821J					
R 252	(A,13,128) (A)	RS1/16SS821J					
R 253	(A,15,131) (A)	RS1/16SS223J					
R 254	(A,11,131) (A)	RS1/16SS223J		R 623	(A,130,85)	RAB4CQ473J	
R 255	(A,29,132)	RS1/16SS821J		R 624	(A,120,89)	RS1/16SS222J	
				R 625	(A,114,90)	RS1/16SS221J	
				R 626	(A,113,90)	RS1/16SS221J	
R 256	(A,19,131)	RS1/16SS821J					
R 257	(A,28,131)	RS1/16SS223J					D
R 258	(A,21,131)	RS1/16SS223J		R 627	(A,112,88)	RS1/16SS221J	
R 301	(A,68,127)	RS1/16SS471J		R 628	(A,111,90)	RS1/16SS221J	
R 302	(A,82,125)	RS1/16SS471J		R 629	(A,109,92)	RS1/16SS221J	
				R 630	(A,110,89)	RS1/16SS221J	
				R 631	(A,107,92)	RS1/16SS473J	
R 303	(A,73,127)	RS1/16SS471J					
R 304	(A,78,126)	RS1/16SS471J					
R 305	(A,89,127)	RS1/16SS103J		R 632	(A,105,91)	RS1/16SS473J	
R 306	(A,89,129)	RS1/16SS221J		R 633	(A,107,90)	RS1/16SS101J	
R 307	(A,88,128)	RS1/16SS223J		R 634	(A,103,88)	RS1/16SS102J	
				R 635	(A,102,88)	RS1/16SS102J	
				R 636	(A,100,91)	RS1/16SS473J	
R 309	(A,89,125)	RS1/16SS103J					
R 310	(A,99,129)	RS1/16SS0R0J					
R 311	(A,87,125)	RS1/16SS473J		R 637	(A,100,90)	RS1/16SS473J	E
R 401	(A,161,106)	RS1/16SS221J		R 638	(A,104,92)	RS1/16SS473J	
R 402	(A,161,100)	RS1/16SS751J		R 639	(A,97,91)	RS1/16SS472J	
				R 640	(A,98,91)	RS1/16SS472J	
				R 643	(A,99,82)	RS1/16SS104J	
R 403	(A,139,104) (A,B,C)	RS1/16SS391J					
	(A,139,104) (D)	RS1/16SS331J					
R 404	(A,142,99)	RS1/16SS105J		R 644	(A,98,79)	RS1/16SS101J	
R 406	(A,154,108)	RS1/16SS105J		R 645	(A,95,79)	RS1/16SS101J	
				R 646	(A,92,75)	RS1/16SS103J	
R 407	(A,139,96)	RS1/16SS330J		R 647	(A,98,78)	RS1/16SS101J	
R 408	(A,137,97) (A,B,C)	RS1/16SS471J		R 648	(A,95,76)	RS1/16SS102J	
	(A,137,97) (D)	RS1/16SS361J					
R 409	(A,144,98) (D)	RS1/16SS0R0J		R 649	(A,95,75)	RS1/16SS102J	F
				R 650	(A,95,74)	RS1/16SS102J	
R 411	(A,138,91) (A,B,C)	RS1/16SS681J		R 651	(A,97,71)	RS1/16SS473J	
	(A,138,91) (D)	RS1/16SS391J		R 652	(A,98,69)	RS1/16SS222J	
				R 653	(A,100,66)	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>
	R 659 (A,123,61)	RS1/16SS153J	C 203 (A,92,116)	CKSRYB105K10
	R 660 (A,123,60)	RS1/16SS153J	C 204 (A,107,115)	CKSRYB105K10
	R 664 (A,133,62)	RS1/16SS103J	C 205 (A,94,116)	CKSRYB105K10
A	R 668 (A,93,71)	RS1/16SS473J	C 206 (A,107,114)	CKSRYB105K10
	R 669 (A,95,69)	RS1/16SS473J	C 207 (A,94,108)	CKSSYB104K10
	R 670 (A,119,60) (A,C,D)	RS1/16SS473J	C 208 (A,94,106)	CKSSYB104K10
	R 671 (A,130,69)	RS1/16SS104J	C 209 (A,93,104) 10 uF	CCG1192
	R 681 (A,109,97)	RS1/16SS473J	C 210 (A,96,106)	CCSSCH151J50
	R 682 (A,110,91)	RS1/16SS473J	C 211 (A,109,107)	CCSSCH151J50
	R 683 (A,120,92)	RS1/16SS473J	C 212 (A,108,109) 10 uF	CCG1192
	R 684 (A,109,94)	RS1/16SS473J	C 213 (A,108,106)	CKSSYB104K10
	R 685 (A,120,96)	RS1/16SS473J	C 214 (A,108,104)	CKSSYB104K10
	R 705 (A,119,44)	RS1/16SS473J	C 215 (A,108,102)	CKSSYB104K10
B	R 719 (A,121,36)	RS1/16SS473J	C 216 (A,92,101) 10 uF	CCG1192
	R 721 (A,115,36)	RS1/16SS473J	C 217 (A,95,100)	CKSSYB104K10
	R 722 (A,118,38)	RS1/16SS473J	C 218 (A,114,109)	XCEVW470M16
	R 723 (A,120,38)	RS1/16SS473J	C 219 (A,112,103) 10 uF	CCG1192
	R 724 (A,107,38)	RS1/16SS473J	C 220 (A,106,98) 10 uF	CCG1192
	R 754 (A,127,92)	RS1/16SS473J	C 223 (A,91,101)	CKSSYB102K50
	R 801 (A,124,22)	RS1/10SR222J	C 224 (A,115,103)	CKSSYB104K10
	R 803 (A,121,18)	RS1/16SS223J	C 229 (A,110,112)	CKSSYB102K50
	R 804 (A,118,18)	RS1/16SS223J	C 236 (A,110,104)	CKSRYB105K10
	R 805 (A,121,19)	RS1/10SR101J	C 251 (A,35,128) 4.7 uF(A)	CCG1201
	R 806 (A,118,20)	RS1/10SR101J	C 252 (A,17,127) 4.7 uF(A)	CCG1201
C	R 807 (A,119,20)	RS1/10SR101J	C 253 (A,17,130) (A)	CCSSCH101J50
	R 808 (A,124,20)	RS1/10SR222J	C 254 (A,10,130) (A)	CCSSCH101J50
	R 809 (A,115,21)	RS1/10SR220J	C 255 (A,35,132) 4.7 uF	CCG1201
	R 810 (A,114,21)	RS1/10SR220J	C 256 (A,31,130) 4.7 uF	CCG1201
	R 813 (A,107,16)	RS1/10SR222J	C 257 (A,26,131)	CCSSCH101J50
	R 814 (A,101,19)	RS1/10SR222J	C 258 (A,20,131)	CCSSCH101J50
	R 815 (A,100,19)	RS1/16SS822J	C 260 (A,33,138)	CKSSYB104K10
	R 816 (A,96,19)	RS1/10SR222J	C 261 (A,6,133)	CKSSYB103K16
	R 817 (A,95,19)	RS1/10SR222J	C 301 (A,69,129)	CKSRYB224K16
	R 818 (A,104,13)	RS1/10SR0R0J	C 303 (A,80,129)	CKSRYB224K16
D	R 851 (A,93,20)	RS1/16SS472J	C 305 (A,72,129)	CKSRYB224K16
	R 874 (A,147,58)	RS1/10SR391J	C 307 (A,77,129)	CKSRYB224K16
	R 875 (A,149,58)	RS1/10SR473J	C 313 (A,83,130)	CKSRYB105K16
	R 878 (A,124,26)	RS1/10SR103J	C 314 (A,135,126)	CKSRYB104K16
	R 879 (A,156,67)	RS1/10SR122J	C 317 (A,60,129)	XCEVW100M16
	R 891 (A,58,138)	RS1/16SS102J	C 319 (A,62,134)	CCSSCH101J50
	R 892 (A,58,136)	RS1/16SS102J	C 320 (A,64,134)	CCSSCK1R0C50
	R 911 (A,145,40)	RS1/10SR1R0J	C 321 (A,83,129)	CCSSCH101J50
	R 912 (A,141,41)	RS1/10SR1R0J	C 322 (A,106,126)	CKSRYB104K16
	R 913 (A,154,41)	RS1/16SS223J	C 323 (A,106,129)	CCSRCH100D50
	R 914 (A,130,40)	RS1/16SS223J	C 324 (A,102,129)	CCSRCH100D50
	R 941 (A,94,121)	RS1/16SS223J	C 325 (A,94,132)	CCSRCH100D50
E	R 942 (A,94,122)	RS1/16SS473J	C 326 (A,95,140)	CCSRCH100D50
	R 943 (A,95,125) (A)	RS1/16SS333J	C 327 (A,87,129)	CKSRYB105K10
	R 944 (A,95,125) (B,C,D)	RS1/16SS682J	C 401 (A,154,100)	CKSSYB104K10
	R 944 (A,98,123) (A)	RS1/4SA122J	C 402 (A,155,101)	CKSSYB103K16
	R 944 (A,98,123) (B,C,D)	RS1/4SA102J	C 403 (A,152,102)	CKSRYB105K10
	R 973 (A,90,63)	RS1/16SS222J	C 405 (A,162,101)	CKSSYB103K16
	R 974 (A,98,55)	RS1/16SS101J	C 406 (A,160,101)	CKSSYB103K16
	R 975 (A,98,54)	RS1/16SS101J	C 408 (A,161,105)	CKSSYB103K16
	R 976 (A,98,52)	RS1/16SS101J	C 409 (A,156,105)	CCSSCH6R0D50
			C 410 (A,155,107)	CCSSCH330J50
			C 411 (A,148,99)	CKSSYB103K16
			C 412 (A,148,101)	CKSSYB104K10
F	<b>CAPACITORS</b>			
	C 201 (A,96,115)	CKSRYB105K10	C 413 (A,150,101)	CKSSYB104K10
	C 202 (A,104,116)	CKSRYB105K10	C 414 (A,145,100)	CKSSYB103K16

5		6		7		8	
<u>Circuit Symbol and No.</u>		<u>Part No.</u>		<u>Circuit Symbol and No.</u>		<u>Part No.</u>	
C 415	(A,144,101) 10 uF	CCG1192		C 605	(A,116,65)	CKSSYB104K10	
C 416	(A,147,100)	CKSSYB104K10		C 606	(A,122,71)	CKSSYB104K10	
C 418	(A,142,101)	CKSSYB223K16		C 607	(A,126,73)	CCSSCH120J50	
C 419	(A,146,110) (D)	CCSSCH150J50		C 608	(A,126,78)	CCSSCH120J50	A
C 420	(A,150,106) (A,D)	CKSSYB103K16		C 609	(A,121,73)	CKSSYB104K10	
C 421	(A,154,111) (B,C)	CCSSCJ3R0C50		C 610	(A,121,75)	CKSSYB104K10	
C 423	(A,144,106) (D)	CCSSCH8R0D50		C 611	(A,122,77)	CKSSYB104K10	
C 424	(A,140,101)	CKSSYB103K16		C 612	(A,122,82)	CKSSYB104K10	
C 425	(A,138,99) 10 uF	CCG1192		C 613	(A,123,82)	CKSSYB104K10	
C 426	(A,139,97)	CKSSYB104K10		C 618	(A,123,89)	CCSSCH120J50	
C 427	(A,144,97)	CKSSYB104K10		C 619	(A,123,94)	CCSSCH120J50	
C 428	(A,137,96) (A,B,C)	CCSSCH101J50		C 620	(A,114,88)	CKSSYB104K10	
	(A,137,96) (D)	CCSSCH220J50		C 621	(A,108,88)	CKSSYB104K10	
C 429	(A,136,96)	CKSSYB103K16		C 622	(A,105,93)	CCSSCH220J50	B
C 430	(A,139,90)	CKSSYB102K50		C 623	(A,106,88)	CKSSYB104K10	
C 432	(A,138,92) (A,B,C)	CCSSCH820J50		C 624	(A,105,88)	CKSSYB104K10	
	(A,138,92) (D)	CCSSCK2R0C50		C 625	(A,104,90)	CKSSYB104K10	
C 433	(A,136,91)	CKSSYB102K50		C 626	(A,100,80)	CKSSYB104K10	
C 435	(A,139,86) (A,B,C)	CKSRYB474K10		C 627	(A,97,81)	CCSSCH220J50	
	(A,139,86) (D)	CKSRYB105K10		C 628	(A,95,81)	CCSSCH220J50	
C 439	(A,145,80) (D)	CKSRYB104K16		C 629	(A,99,75)	CKSSYB104K10	
C 440	(A,142,86)	CKSSYB102K50		C 630	(A,99,73)	CKSSYB104K10	
C 441	(A,137,89) (B,C,D)	CCSSCH100D50		C 631	(A,96,77)	CCSSCH220J50	
C 442	(A,146,83)	CKSSYB104K10		C 672	(A,123,73) 1 uF	DCH1246	C
C 444	(A,152,82) 2.2 uF	CCG1218		C 681	(A,121,96)	CKSSYB104K10	
C 445	(A,156,82) (A,B,C)	CKSSYB104K10		C 683	(A,120,94)	CCSSCJ3R0C50	
C 447	(A,157,83) (B,C)	CKSRYB105K10		C 801	(A,124,6)	CCSRCH221J50	
C 448	(A,158,85) (A,B,C)	CKSSYB104K10		C 806	(A,125,8)	CKSRYB104K16	
	(A,158,85) (D)	CKSSYB103K16		C 807	(A,122,14)	CKSRYB105K10	
C 449	(A,161,85)	CCSSCH9R0D50		C 808	(A,108,19)	CKSRYB104K16	
C 450	(A,161,90)	CCSSCH9R0D50		C 809	(A,96,16)	CCSRCH221J50	
C 451	(A,158,91)	CKSSYB104K10		C 810	(A,96,13)	CCSRCH221J50	
C 452	(A,158,94)	CKSRYB105K10		C 811	(A,104,20)	CKSSYB104K10	
C 453	(A,160,96)	CKSSYB104K10		C 871	(A,153,62)	CKSSYB104K16	
C 455	(A,159,97)	CKSRYB224K16		C 873	(A,124,24)	CKSRYB104K16	
C 456	(A,161,92)	CKSSYB472K25		C 891	(A,52,138)	CKSRYB104K16	D
C 457	(A,161,93)	CKSSYB472K25		C 892	(A,34,139)	CKSRYB104K16	
C 459	(A,154,83) (A,B,C)	CCSSCH101J50		C 893	(A,34,135)	CKSRYB102K50	
	(A,154,83) (D)	CKSSYB102K50		C 894	(A,52,134)	CKSRYB102K50	
C 461	(A,145,104) (A,B,C)	CKSSYB104K10		C 901	(A,133,124) 2 200 uF/16 V	CCH2040	
C 464	(A,162,98) 1 uF(D)	DCH1246		C 912	(A,152,40)	CKSSYB102K50	
C 465	(A,142,106) (D)	CKSSYB103K16		C 913	(A,131,43)	CKSSYB102K50	
C 466	(A,137,79) (D)	CKSRYB105K10		C 914	(A,156,56)	XCEAT102M16	
C 467	(A,150,81) (D)	CKSSYB104K10		C 915	(A,132,42)	CKSRYB104K16	
C 468	(A,142,79) (D)	CKSRYB105K10		C 916	(A,147,43) 4.7 uF	CCG1201	
C 531	(A,91,93)	CKSSYB104K10		C 917	(A,145,46)	CKSSYB102K50	
C 532	(A,93,93)	CKSSYB104K10		C 919	(A,151,42) 4.7 uF	CCG1201	E
C 551	(A,13,121)	XCEVW221M16		C 921	(A,135,42) 4.7 uF	CCG1201	
C 552	(A,13,107)	CKSRYB105K16		C 923	(A,159,41) 4.7 uF	CCG1201	
C 553	(A,15,110)	CKSSYB103K16		C 926	(A,140,44) 4.7 uF	CCG1201	
C 555	(A,25,112)	CKSSYB682K25		C 927	(A,139,42)	CKSSYB102K50	
C 556	(A,32,120)	CEVQW221M6R3		C 941	(A,96,124)	CKSRYB104K16	
C 557	(A,32,116)	CKSRYB105K10		C 969	(A,135,113) 10 uF	CCG1192	
C 560	(A,108,21)	CKSRYB105K10		C 973	(A,98,53)	CCSSCH470J50	
C 561	(A,102,24)	CKSRYB105K10					
C 564	(A,32,114) 4.7 uF	CCG1201					
C 565	(A,15,107) 4.7 uF	CCG1222					
C 601	(A,104,66)	CKSSYB104K10					
C 602	(A,109,65)	CKSSYB104K10					
C 603	(A,111,65)	CKSSYB104K10					
C 604	(A,112,65)	CKSSYB104K10					

**B**  
Unit Number : (A)  
Unit Number : (B,C,D)  
Unit Name : Keyboard Unit

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

A	IC 1801	(B,84,22) IC	PD6583A8
	IC 1941	(A,156,38) IR RC REC Module(B,C,D)	SIR8440B5
	Q 1951	(B,16,15) Transistor(B,C,D)	LTC014EEB
	Q 1952	(B,18,19) Transistor(A)	LTC014EEB
	D 1951	(A,64,21) White LED	SWBA05(FI231719)

R 1952	(B,59,22)	RS1/4SA221J
R 1956	(B,51,20) (B,C,D)	RS1/10SR152J
R 1958	(B,28,7) (B,C,D)	RS1/10SR821J
R 1960	(B,20,30) (B,C,D)	RS1/10SR152J
R 1962	(B,88,10) (B,C,D)	RS1/10SR152J
R 1964	(B,57,12) (B,C,D)	RS1/10SR152J
R 1966	(B,141,19) (B,C,D)	RS1/10SR152J

D 1953	(A,52,19) Blue LED (B,C,D)	FC-F1608BK-470H5
D 1954	(A,49,11) Blue LED (B,C,D)	FC-F1608BK-470H5
D 1955	(A,51,30) Blue LED (B,C,D)	FC-F1608BK-470H5
D 1956	(A,66,7) Blue LED (B,C,D)	FC-F1608BK-470H5
D 1957	(A,73,7) Blue LED (B,C,D)	FC-F1608BK-470H5

R 1968	(B,17,31) (B,C,D)	RS1/10SR472J
R 1969	(B,21,11) (B,C,D)	RS1/10SR682J
R 1972	(B,21,13) (B,C,D)	RS1/10SR0R0J
R 1973	(B,18,17) (A)	RS1/10SR0R0J
R 1975	(B,13,19) (A)	RS1/10SR472J

D 1958	(A,89,6) Blue LED (B,C,D)	FC-F1608BK-470H5
D 1959	(A,100,6) Blue LED (B,C,D)	FC-F1608BK-470H5
D 1960	(A,111,6) Blue LED (B,C,D)	FC-F1608BK-470H5
D 1961	(A,122,6) Blue LED (B,C,D)	FC-F1608BK-470H5
D 1962	(A,133,6) Blue LED (B,C,D)	FC-F1608BK-470H5

R 1977	(B,48,13) (A)	RS1/8SQ102J
R 1980	(B,18,23) (A)	RS1/10SR392J
R 1981	(B,68,10) (A)	RS1/8SQ122J
R 1983	(B,51,13) (A)	RS1/8SQ821J
R 1985	(B,143,18) (A)	RS1/8SQ821J

D 1963	(A,144,6) Blue LED (B,C,D)	FC-F1608BK-470H5
D 1964	(A,14,32) Blue LED (B,C,D)	FC-F1608BK-470H5
D 1965	(A,10,11) Blue LED (B,C,D)	FC-F1608BK-470H5
D 1966	(A,12,21) Blue LED (B,C,D)	FC-F1608BK-470H5
D 1968	(A,9,21) LED(Red) (A)	SML-D12V8W(PQ)
D 1969	(A,48,11) LED(Red) (A)	SML-D12V8W(PQ)

R 1987	(B,55,21) (A)	RS1/4SA122J
R 1991	(B,51,8) (B,C,D)	RS1/10SR0R0J
R 1996	(B,59,9) (A)	RS1/10SR0R0J

**CAPACITORS**

C 1806	(B,67,23)	CKSRYB104K16
C 1807	(B,70,21)	CKSRYB105K10
C 1911	(B,147,21)	CKSRYB104K16
C 1912	(B,144,22)	CKSRYB104K16
C 1941	(B,136,29) 10 uF(B,C,D)	CCG1192

**Unit Number : QWM3750****Unit Name : BT Unit****MISCELLANEOUS**

D 1970	(A,50,30) LED(Red) (A)	SML-D12V8W(PQ)
D 1971	(A,12,32) LED(Red) (A)	SML-D12V8W(PQ)
D 1972	(A,11,11) LED(Red) (A)	SML-D12V8W(PQ)
D 1973	(A,73,5) LED(Red) (A)	SML-D12V8W(PQ)
D 1974	(A,66,5) LED(Red) (A)	SML-D12V8W(PQ)

IC 21	(A,8,48) Regulator IC	S-1172B18-E6
IC 22	(A,21,46) IC	S-1206B33-U3
CN21	(A,34,27) Connector	CKS6346
CN23	(A,42,44) Connector	CKS3857

D 1975	(A,112,6) LED(Red) (A)	SML-D12V8W(PQ)
D 1976	(A,102,6) LED(Red) (A)	SML-D12V8W(PQ)
D 1977	(A,91,6) LED(Red) (A)	SML-D12V8W(PQ)
D 1978	(A,145,6) LED(Red) (A)	SML-D12V8W(PQ)
D 1979	(A,134,6) LED(Red) (A)	SML-D12V8W(PQ)

**RESISTORS**

D 1980	(A,123,6) LED(Red) (A)	SML-D12V8W(PQ)
D 1981	(A,53,19) LED(Red) (A)	SML-D12V8W(PQ)
L 1921	(B,130,10) Inductor	CTF1389
L 1922	(B,129,13) Inductor	CTF1389
L 1923	(B,131,6) Inductor	CTF1389

R 28	(A,42,31)	RS1/10SR222J
R 29	(A,30,41)	RS1/10SR102J
R 30	(A,30,37)	RS1/10SR102J
R 38	(A,42,17)	RS1/10SR0R0J
R 39	(A,41,23)	RS1/10SR221J

X 1801	(B,70,24) Ceramic Resonator 5.00 MHz	CSS1547
S 1839	(A,31,19) Encoder(MULTI-CONTROL)	CSD1168
CN1911	(A,155,24) Connector	CKS6443
CN1931	(B,108,9) Connector	CKS6451
JA1921	(A,155,10) Jack	CKN1090

R 40	(A,40,23)	RS1/10SR221J
R 41	(A,38,23)	RS1/10SR221J

**RESISTORS**

R 1801	(B,89,13)	RS1/10SR473J
R 1802	(B,72,19)	RS1/10SR473J
R 1803	(B,75,23)	RS1/10SR222J
R 1805	(B,58,28)	RS1/10SR473J
R 1806	(B,60,29)	RS1/10SR473J

**CAPACITORS**

C 23	(A,24,40)	XCEVW221M4
C 24	(A,7,44)	CKSRYB105K10
C 26	(A,27,48) 10 uF	CCG1192
C 29	(A,17,45)	CKSRYB105K10
C 33	(A,9,54) 10 uF	CCG1192

R 1807	(B,60,30)	RS1/10SR473J
R 1808	(B,60,32)	RS1/10SR473J
R 1823	(B,49,27)	RS1/10SR273J
R 1931	(B,45,17)	RS1/10SR222J
R 1932	(B,45,13)	RS1/10SR222J

C 34	(A,42,30)	CKSRYB105K10
C 36	(A,32,40)	CKSRYB104K16
C 38	(A,15,46) 10 uF	CCG1192
C 39	(A,6,42) 10 uF	CCG1192

R 1941	(B,128,24) (A)	RS1/10SR473J
R 1944	(B,132,26) (B,C,D)	RS1/10SR101J
R 1951	(B,59,20)	RS1/4SA221J