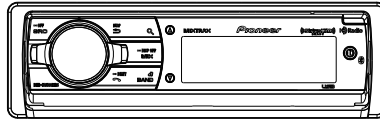


Service Manual



DEH-X9600BHS/XNUC

ORDER NO.
CRT5428

CD RDS RECEIVER

DEH-X9600BHS/XNUC

DEH-X9600BT/XNEW5

DEH-X9650BT/XNGS

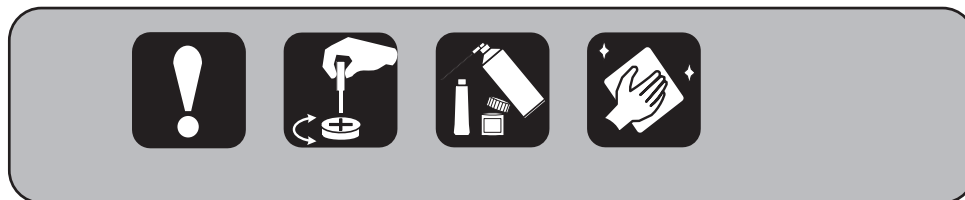
DEH-X9650BT/XNCS

DEH-X9650SD/XNGS

DEH-X9650SD/XNCS

This service manual should be used together with the following manual(s):

Model No.	Order No.	Mech. Module	Remarks
CX-3287	CRT4759	S11.6STD	CD Mech. Module : Circuit Descriptions, Mech. Descriptions, Disassembly



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.

WARNING

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



● Safety Precautions for those who Service this Unit.

When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.

Caution:

1. During repair or tests, minimum distance of 13 cm from the focus lens must be kept.
2. During repair or tests, do not view laser beam for 10 seconds or longer.

CAUTION:

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION

This product is a class 1 laser product classified under the Safety of laser products, IEC 60825-1:2007, and contains a class 1M laser module. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel.

CLASS 1 LASER PRODUCT

CAUTION—CLASS 1M INVISIBLE LASER
RADIATION WHEN OPEN, DO NOT VIEW
DIRECTLY WITH OPTICAL INSTRUMENTS.

WARNING!

The AEL (accessible emission level) of the laser power output is less than CLASS 1 but the laser component is capable of emitting radiation exceeding the limit for CLASS 1.

A specially instructed person should do servicing operation of the apparatus.

Laser diode characteristics

Wave length : 785 nm to 814 nm

Maximum output : 1 190 μ W(Emitting period : unlimited)

Additional Laser Caution

Transistors Q101 in PCB drive the laser diodes.

When Q101 is shorted between their terminals, the laser diodes will radiate beam.

If the top cover is removed with no disc loaded while such short-circuit is continued, the naked eyes may be exposed to the laser beam.

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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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. To protect the pickup unit from electrostatic discharge during servicing, take an appropriate treatment (shorting-solder) by referring to "the DISASSEMBLY".
4. After replacing the pickup unit, be sure to check the grating.
5. Be careful in handling ICs. Some ICs such as MOS type are so fragile that they can be damaged by electrostatic induction.

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

A

DEH-X9600BHS/XNUC

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	6.0 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 × 17 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 × 17 mm (6-3/4 in. × 1-3/4 in. × 5/8 in.)
Weight	1.1 kg (2.4 lbs)

B

C

D

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 to 8 Ω × 4 4 Ω to 8 Ω × 2 + 2 Ω × 1
Preout maximum output level	4.0 V
Equalizer (5-Band Graphic Equalizer):	
Frequency	100 Hz/315 Hz/1.25 kHz/ 3.15 kHz/8 kHz
Gain	±12 dB
HPF:	
Frequency	50 Hz/63 Hz/80 Hz/100 Hz/ 125 Hz
Slope	–12 dB/oct
Subwoofer (mono):	
Frequency	50 Hz/63 Hz/80 Hz/100 Hz/ 125 Hz
Slope	–18 dB/oct
Gain	+6 dB to –24 dB
Phase	Normal/Reverse
Bass boost:	
Gain	+12 dB to 0 dB

E

F

CD player

System	Compact disc audio system
Usable discs	Compact disc
Signal-to-noise ratio	94 dB (1 kHz) (IHF-A network)
Number of channels	2 (stereo)
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)
AAC decoding format	MPEG-4 AAC (iTunes encoded only) (.m4a) (Ver. 10.7 and earlier)
WAV signal format	Linear PCM & MS ADPCM (Non-compressed)

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)
AAC decoding format	MPEG-4 AAC (iTunes encoded only) (.m4a) (Ver. 10.7 and earlier)
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 μ V/75 Ω , mono, S/N:
 30 dB)
 Signal-to-noise ratio 80 dB (digital broadcasting)
 (IHF-A network)

AM tuner

Frequency range 530 kHz to 1 710 kHz
 Usable sensitivity 25 μ V (S/N: 20 dB)
 Signal-to-noise ratio 80 dB (digital broadcasting)
 (IHF-A network)

Bluetooth

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

CEA2006 Specifications



Power output 14 W RMS \times 4 Channels (4 Ω
 and \leq 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.

DEH-X9600BT/XNEW5

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	6.0 mA or less
Dimensions (W × H × D):	
DIN	
Chassis	178 mm × 50 mm × 165 mm
Nose	188 mm × 58 mm × 17 mm
D	
Chassis	178 mm × 50 mm × 165 mm
Nose	170 mm × 46 mm × 17 mm
Weight	1.1 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 to 8 Ω × 4
	4 Ω to 8 Ω × 2 + 2 Ω × 1
Preout maximum output level	4.0 V
Equalizer (5-Band Graphic Equalizer):	
Frequency.....	100 Hz/315 Hz/1.25 kHz/3.15 kHz/8 kHz
Gain	±12 dB
HPF:	
Frequency.....	50 Hz/63 Hz/80 Hz/100 Hz/125 Hz
Slope	–12 dB/oct
Subwoofer (mono):	
Frequency.....	50 Hz/63 Hz/80 Hz/100 Hz/125 Hz
Slope	–18 dB/oct
Gain	+6 dB to –24 dB
Phase	Normal/Reverse
Bass boost:	
Gain	+12 dB to 0 dB

CD player

System	Compact disc audio system
Usable discs	Compact disc
Signal-to-noise ratio.....	94 dB (1 kHz) (IEC-A network)
Number of channels	2 (stereo)
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)
AAC decoding format.....	MPEG-4 AAC (iTunes encoded only) (.m4a) (Ver. 10.7 and earlier)
WAV signal format.....	Linear PCM & MS ADPCM (Non-compressed)

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)
AAC decoding format.....	MPEG-4 AAC (iTunes encoded only) (.m4a) (Ver. 10.7 and earlier)
WAV signal format.....	Linear PCM & MS ADPCM (Non-compressed)

SD

Compatible physical format	Version 2.00
Maximum memory capacity	32 GB (for SD and SDHC)
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)
AAC decoding format.....	MPEG-4 AAC (iTunes encoded only) (.m4a) (Ver. 10.7 and earlier)
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. 

DEH-X9650BT/XNGS, DEH-X9650BT/XNCS, DEH-X9650SD/XNGS, DEH-X9650SD/XNCS

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 6.0 mA or less
 Dimensions (W × H × D):
 DIN
 Chassis 178 mm × 50 mm × 165 mm
 Nose 188 mm × 58 mm × 17 mm
 D
 Chassis 178 mm × 50 mm × 165 mm
 Nose 170 mm × 46 mm × 17 mm
 Weight 1.1 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 to 8 Ω × 4
 4 Ω to 8 Ω × 2 + 2 Ω × 1
 Preout maximum output level
 4.0 V
 Equalizer (5-Band Graphic Equalizer):
 Frequency 100 Hz/315 Hz/1.25 kHz/
 3.15 kHz/8 kHz
 Gain ±12 dB
 HPF:
 Frequency 50 Hz/63 Hz/80 Hz/100 Hz/
 125 Hz
 Slope -12 dB/oct
 Subwoofer (mono):
 Frequency 50 Hz/63 Hz/80 Hz/100 Hz/
 125 Hz
 Slope -18 dB/oct
 Gain +6 dB to -24 dB
 Phase Normal/Reverse

Bass boost:

Gain +12 dB to 0 dB

CD player

System Compact disc audio system
 Usable discs Compact disc
 Signal-to-noise ratio 94 dB (1 kHz) (IEC-A network)
 Number of channels 2 (stereo)
 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)
 AAC decoding format MPEG-4 AAC (iTunes encoded
 only) (.m4a)
 (Ver. 10.7 and earlier)
 WAV signal format Linear PCM & MS ADPCM
 (Non-compressed)

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)
 AAC decoding format MPEG-4 AAC (iTunes encoded
 only) (.m4a)
 (Ver. 10.7 and earlier)
 WAV signal format Linear PCM & MS ADPCM
 (Non-compressed)

SD

Compatible physical format
 Version 2.00
 Maximum memory capacity
 32 GB (for SD and SDHC)
 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)
 AAC decoding format MPEG-4 AAC (iTunes encoded
 only) (.m4a)
 (Ver. 10.7 and earlier)

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 μ V/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 μ V (S/N: 20 dB)
Signal-to-noise ratio 62 dB (IEC-A network)

Bluetooth(DEH-X9650SD/XNGS, DEH-X9650SD/XNCS)

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

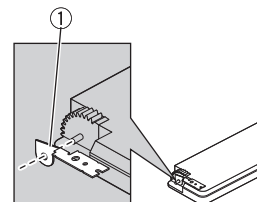
Note

Specifications and the design are subject to modifications without notice.

Fastening the front panel

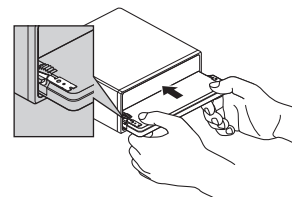
If you do not plan to detach the front panel, the front panel can be fastened with supplied screws and holders.

- 1 Attach the holders to both sides of the front panel.

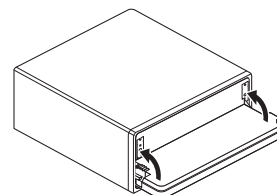


- ① Holder : CND1249, CND1250 (UC)
Holder : CXX1644, CXX1645 (EW5, GS, CS)

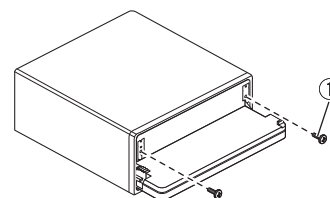
- 2 Replace the front panel to the unit.



- 3 Flip the holders into upright positions.



- 4 Fix the front panel to the unit using fixing screws.



- ① Screw : BPZ20P060FTC (UC)
Screw : XXX7020 (EW5, GS, CS)

2.2 DISC/CONTENT FORMAT



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.



This HD Radio receiver enables:

PSD)

HD2/HD3)

Digital Sound)

iTunes® Tagging)



3. BASIC ITEMS FOR SERVICE

3.1 CHECK POINTS AFTER SERVICING

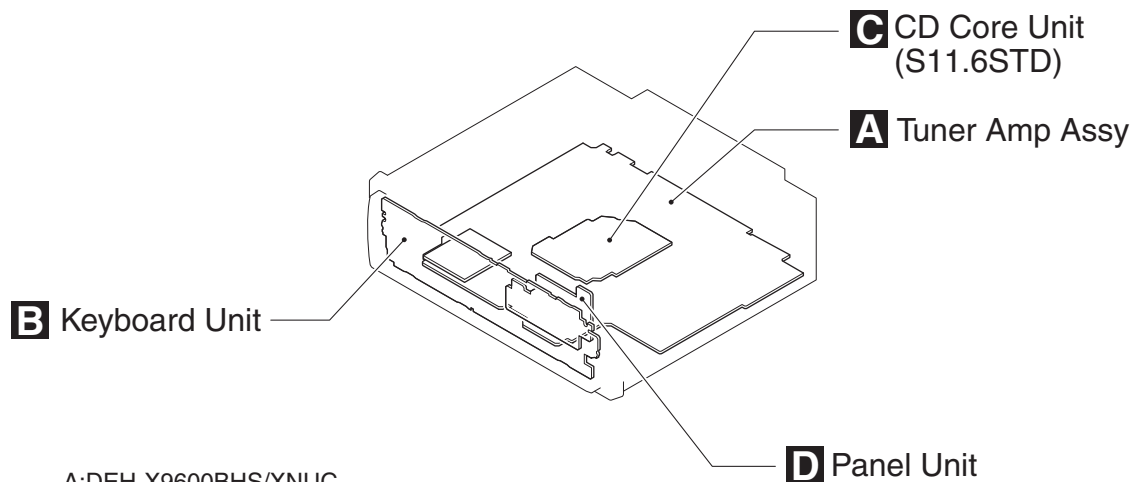
To keep the product quality after servicing, please confirm following check points.

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	CD	Play back a CD. (Track search)	No malfunction on display, audio and operation.
3	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.
4		Check whether no disc is inside the product.	The media used for the operating check must be ejected.
5		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



A:DEH-X9600BHS/XNUC
 B:DEH-X9600BT/XNEW5
 C:DEH-X9650BT/XNGS
 D:DEH-X9650BT/XNCS
 E:DEH-X9650SD/XNGS
 F:DEH-X9650SD/XNCS

Unit Number : QWM3792(A)
 Unit Number : QWM3789(B)
 Unit Number : QWM3790(C)
 Unit Number : QWM3791(D)
 Unit Number : QWM3787(E)
 Unit Number : QWM3788(F)
 Unit Name : Tuner Amp Assy

Unit Number :
 Unit Name : Keyboard Unit
 Unit Number : CWX4023
 Unit Name : CD Core Unit (S11.6STD)
 Unit Number : YWM5577
 Unit Name : Panel Unit

3.3 JIGS LIST

● Jigs List

Name	Jig No.	Remarks
16P FFC	GGD1310	Tuner Amp Unit - CD Core Unit
Test Disc	TCD-782	Checking the grating
L.P.F.		Checking the grating (Two pieces)

● Grease List

Name	Grease No.	Remarks
Grease	GEM1024	CD Mechanism Module
Grease	GEM1043	CD Mechanism Module
Grease	GEM1013	Panel Assy

3.4 CLEANING



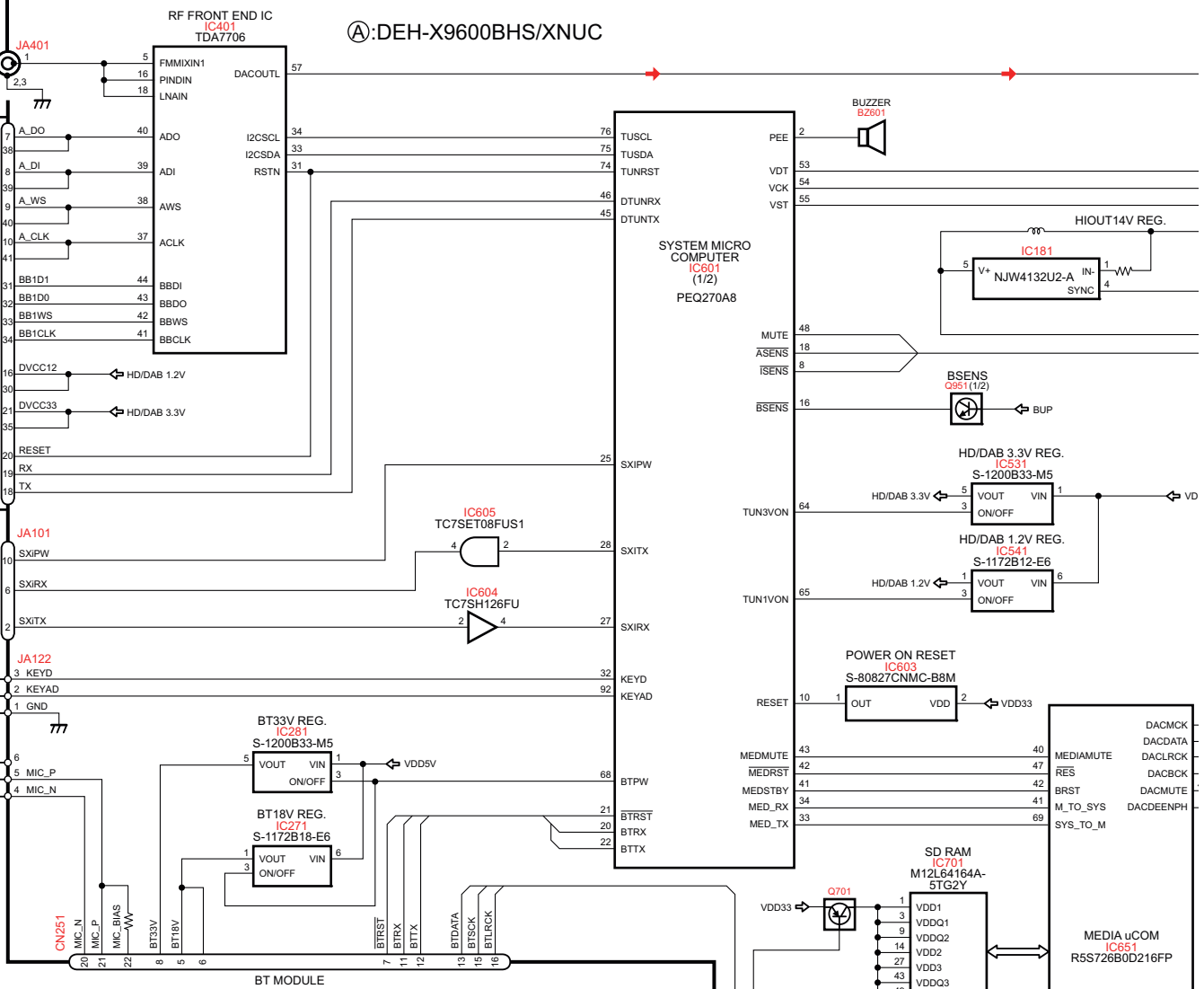
Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

Portions to be cleaned	Cleaning tools
CD pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

4. BLOCK DIAGRAM

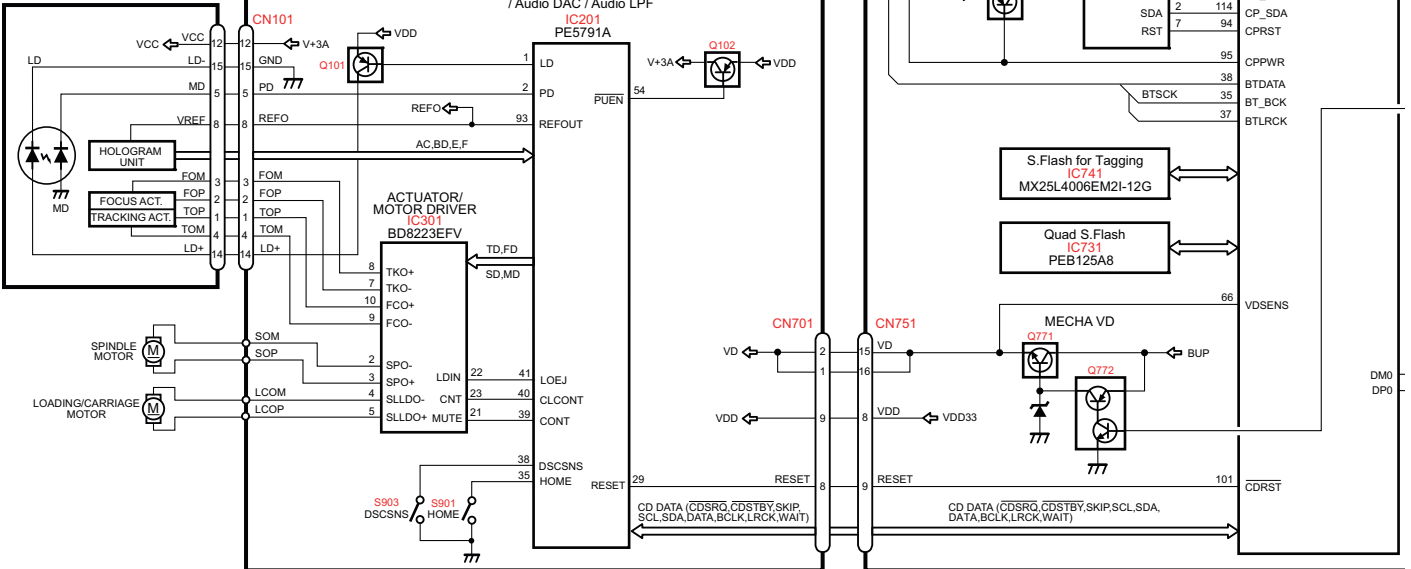
A TUNER AMP ASSY

Ⓐ:DEH-X9600BHS/XNUC

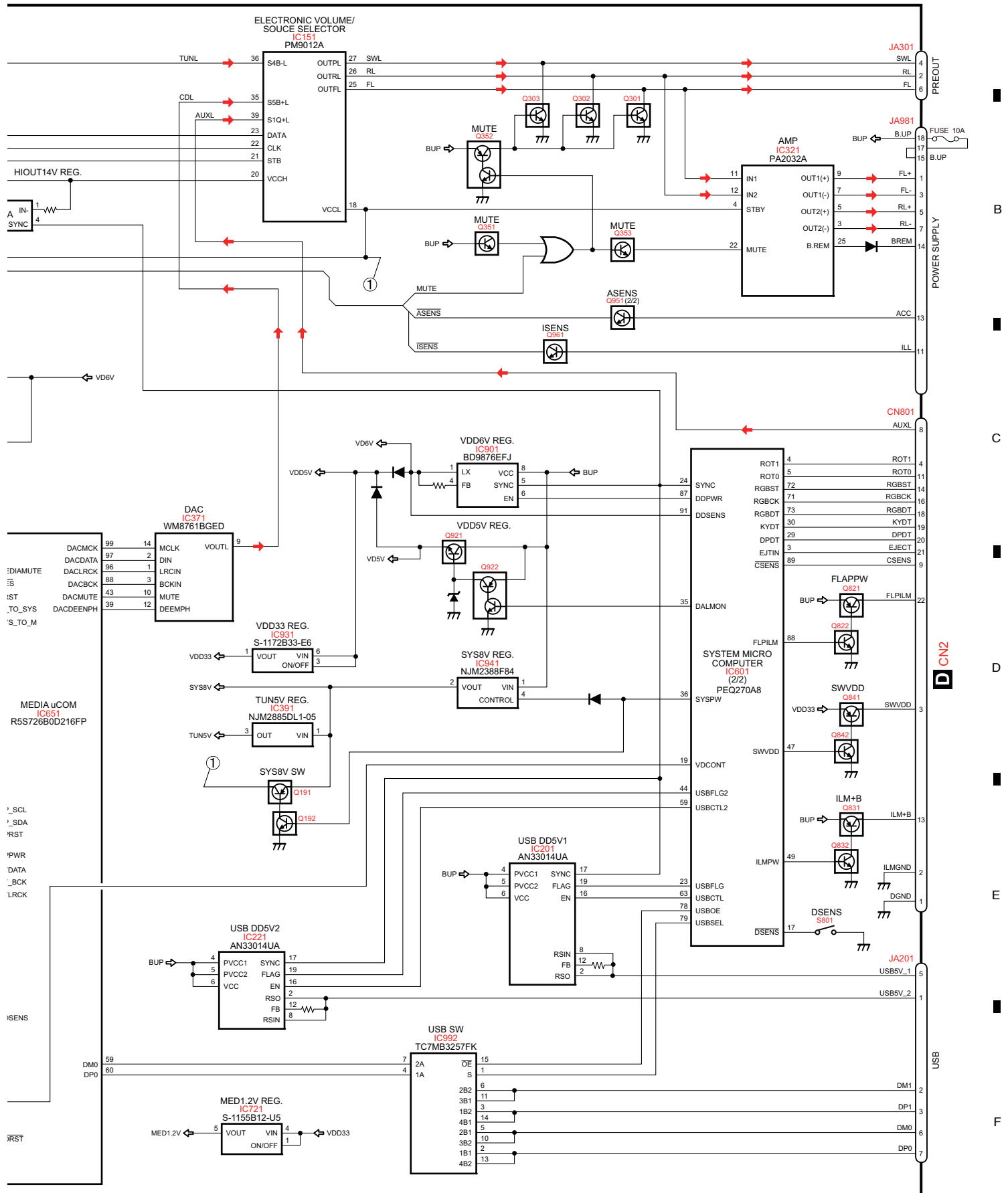


C CD CORE UNIT(S11.6STD)

PICKUP UNIT (P10.6)(SERVICE)



DEH-X9600BHS/XNUC



A TUNER AMP ASSY

A

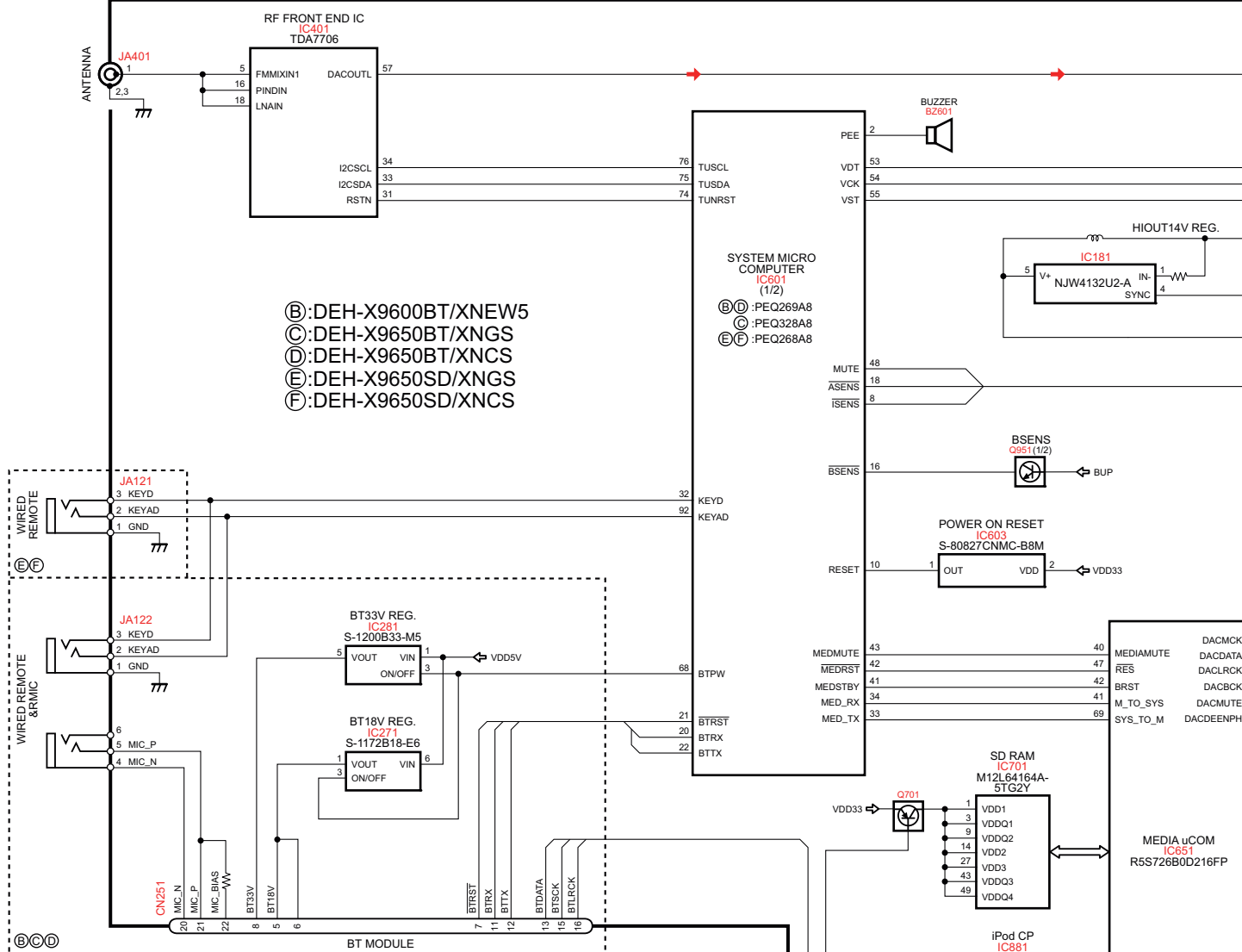
B

C

D

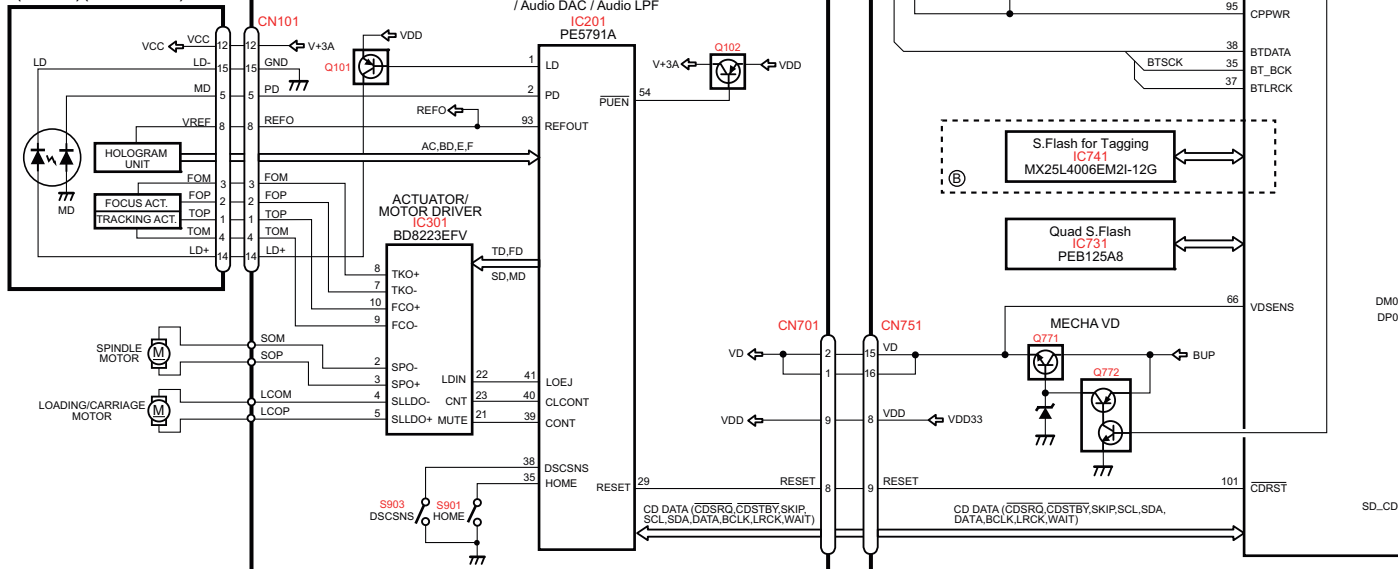
E

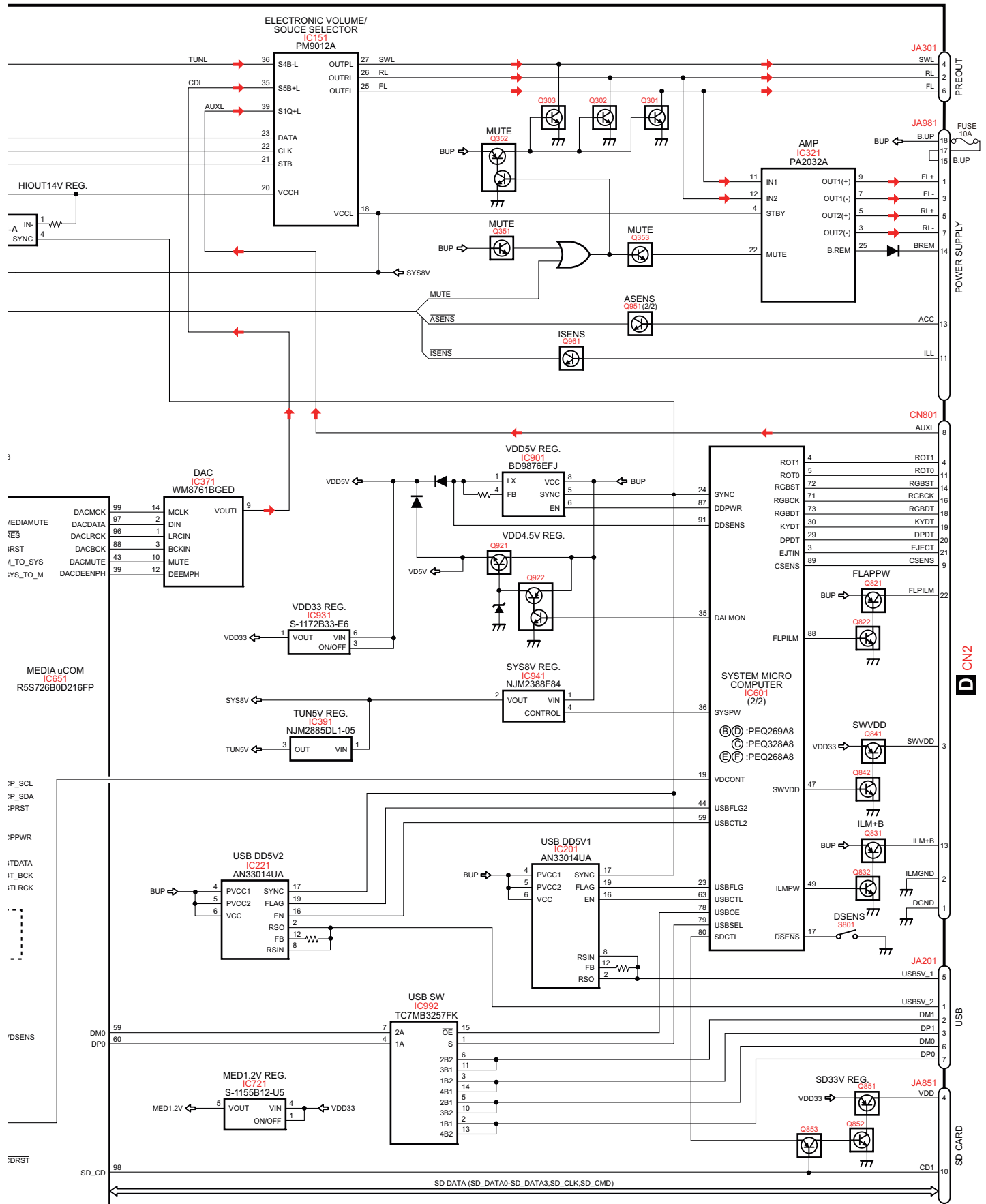
F



C CD CORE UNIT (S11.6STD)

PICKUP UNIT (P10.6)(SERVICE)





A

B

C

D

E

F

D PANEL UNIT**B** KEYBOARD UNIT

A

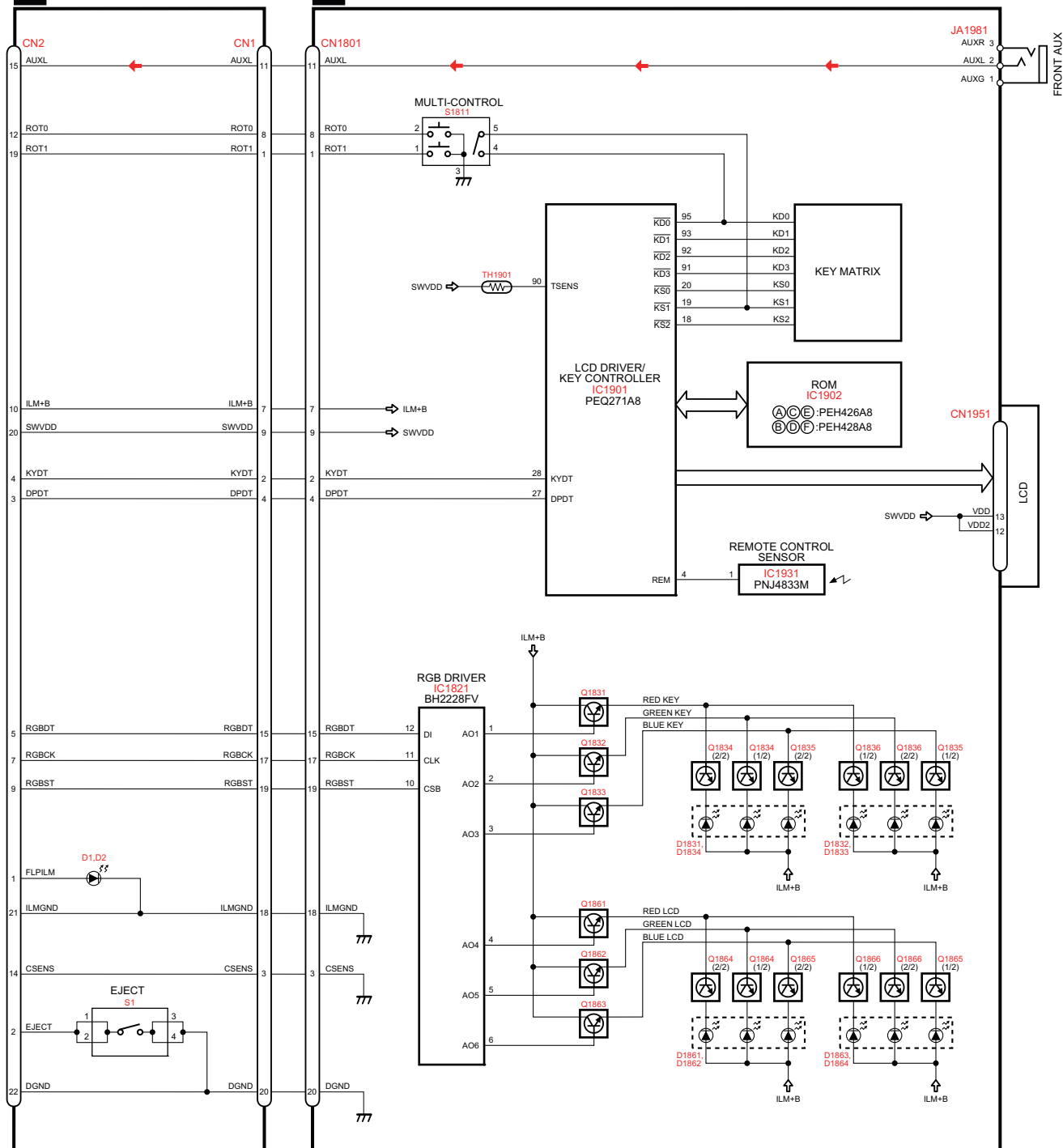
B

C

D

E

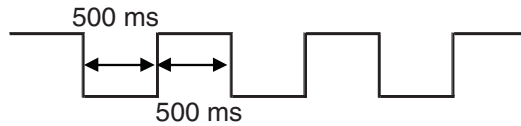
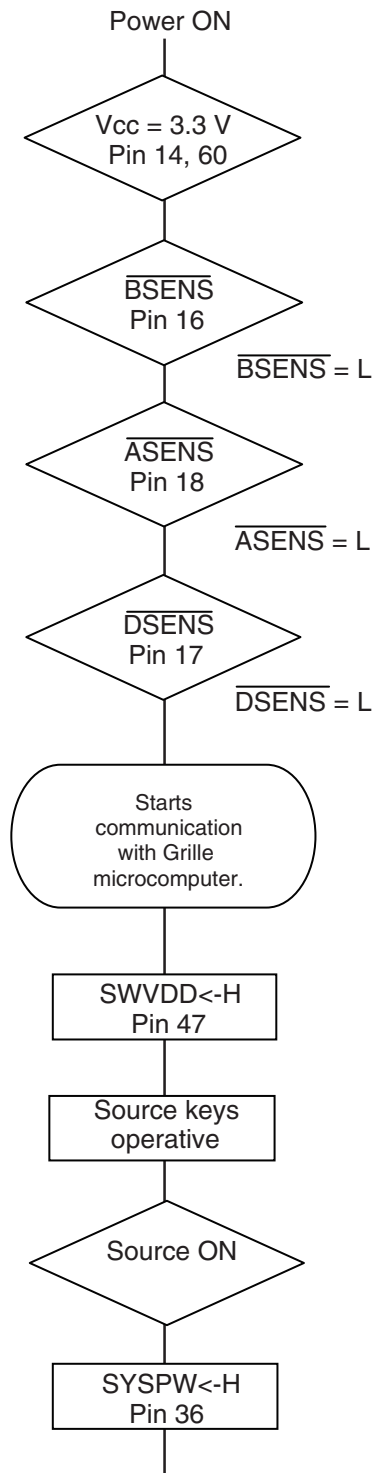
A CN801



- (A): DEH-X9600BHS/XNUC
 (B): DEH-X9600BT/XNEW5
 (C): DEH-X9650BT/XNGS
 (D): DEH-X9650BT/XNCS
 (E): DEH-X9650SD/XNGS
 (F): DEH-X9650SD/XNCS

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 500 msec, the oscillator may be defective.

Completes power-on operation.
(After that, proceed to each source operation)

5.2 ERROR CODE LIST

● ERROR CODES

If a CD memory device is inoperable, or operation of such media is stopped by an error, the error mode is established and a cause of the error is displayed by an error code. Indication of error codes is intended to reduce the number of calls from customers and facilitate failure analysis and repair work in servicing.

(1) DISPLAY METHOD

If “0xFD” error mode is displayed in CD MODE (CD MODE area for display), an error code will be displayed in the MIN (minute display) and SEC (second display) areas.

The same code is displayed in the MIN and SEC areas.
The TNO area is blank (#0FFH), as it conventionally was.

- Display example of the head unit
Depending on the display capability of LCDs, the display format varies, as shown below. XX denotes an error number.

Note: In a case of an OEM product, the error display format is subject to the specifications used by the equipment manufacturer.

8-digit display	6-digit display	4-digit display
ERROR-xx	ERR-xx	E-xx

(2) LIST OF CD ERROR CODES (Error Mode: 0xFD)

Code	Classification	Error code to be displayed	Details and possible causes
07	Servo	TOC reading NG	TOC information cannot be read. --> The partial disk or TOC content is illegal.
10	Servo	Carriage Home NG	The pickup cannot move toward the inner track. The CRG cannot move from the inner track. --> Defective HOME SW; Failure in CRG movement.
11	Servo	Focus NG	Focusing not available --> Disc placed upside-down; Stains on the disc; excessive vibration.
12	Servo	Spindle Lock NG Subcode NG RF-amp NG	Spindle not locked. Subcode not readable. Proper RF AMP gain not obtained. --> Defective spindle; Scratches or stains on the disc; excessive vibration. --> A CD-R/RW disc that does not contain data loaded, or in a rare case, disc placed upside-down. --> RF signal error.
15	Servo	RF NG	The digital signal from the disc cannot be detected. --> A CD-R/RW disc that does not contain data loaded.
17	Servo	Setup NG	The laser output cannot be adjusted. Focus can be easily lost. --> Scratches or stains on the disc; excessive vibration.
30	Servo	Search Time Out	Failed to reach a target address. And, the search became a timeout. --> Carriage/Tracking error; Scratches on the disc; Stains on the disc
50	Mechanism	Load NG Eject NG	Disc loading/ejection not completed --> A foreign object inserted in the mechanism; Disc jammed.
51	Mechanism	Failure in retried turning for ejection	Disc could not be ejected even after disc turning had been retried. --> A foreign object inserted in the mechanism; Disc jammed.

NOTES

- Indications of error codes are available only during disc operations, because CD operations are unavailable if a mechanical error is generated.
- If the TOC cannot be read, It stops because of error 07.
- If you design a new head unit, be sure to use one of the display formats indicated in “Display example of the head unit.”
- The 2 high-order digits of an error code denote the main classification, shown below.

code	classification
0x	Servo-related errors
1x	
3x	
5x	Mechanism-related errors

- How to restore from each error is shown below.
- Servo-related errors(0X, 1X, 3X) : Servo-related errors CD Off, Eject, ACC Off, Back-up Off, Communication reset, Reset
Load NG/Eject NG(50) : Reload, Eject, ACC Off, Back-up Off, Communication reset, Reset
Failure in retried turning for ejection : CD On, Eject, ACC Off, Back-up Off, Communication reset, Reset

USB storage device/iPod

Message	Cause	Action
NO DEVICE	No USB storage device or iPod is connected.	Connect a compatible 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 files embedded with Windows Media™ DRM 9/10.	Play an audio file not embedded with Windows Media DRM 9/10.
PROTECT	All the files in the USB storage device are embedded with Windows Media DRM 9/10.	Transfer audio files not embedded with Windows Media DRM 9/10 to the USB storage device and connect.
NOT COMPATIBLE	The USB device connected to is not supported by this unit.	<ul style="list-style-type: none"> • Connect a USB Mass Storage Class compliant device. • Disconnect your device and replace it with a compatible USB storage device.
	Non-compatible iPod	Disconnect your device and replace it with a compatible iPod.
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.

Message	Cause	Action
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

Message	Cause	Action
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.

Pandora

Message	Cause	Action
ERROR-19	Communication failed.	Disconnect the cable from the iPod. Once the iPod's main menu is displayed, reconnect the iPod and reset it.
Start up the Pandora Application	The Pandora application has not started running yet.	Start up the Pandora application from your iPhone.
Can't operate	The operation was disabled.	Run the same command for another track.
Try again later	Communications failed.	Try again later.
MAINTENANCE	Pandora system is undergoing maintenance.	Try again later.
Skip limit reached	Skip limit reached.	Do not exceed the skip limit.
Check Application	This version of the Pandora application is not supported.	Connect an iPhone 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 iPhone.
No Available Station	No station found.	Create a station in the Pandora application on your iPhone.

Message	Cause	Action
No Active Stations	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.
BT error. Press BAND key to retry.	Bluetooth connection failed.	Follow the instructions that appear on the screen.
Start up Pandora. Press BAND key to retry.	Connection to the Pandora application failed.	Follow the instructions that appear on the screen.
Check Pandora. Press BAND key to retry.	Connection to the Pandora application failed.	Follow the instructions that appear on the screen.
Disconnected.Press BAND key to retry.	Bluetooth connection lost.	Follow the instructions that appear on the screen.

Apps

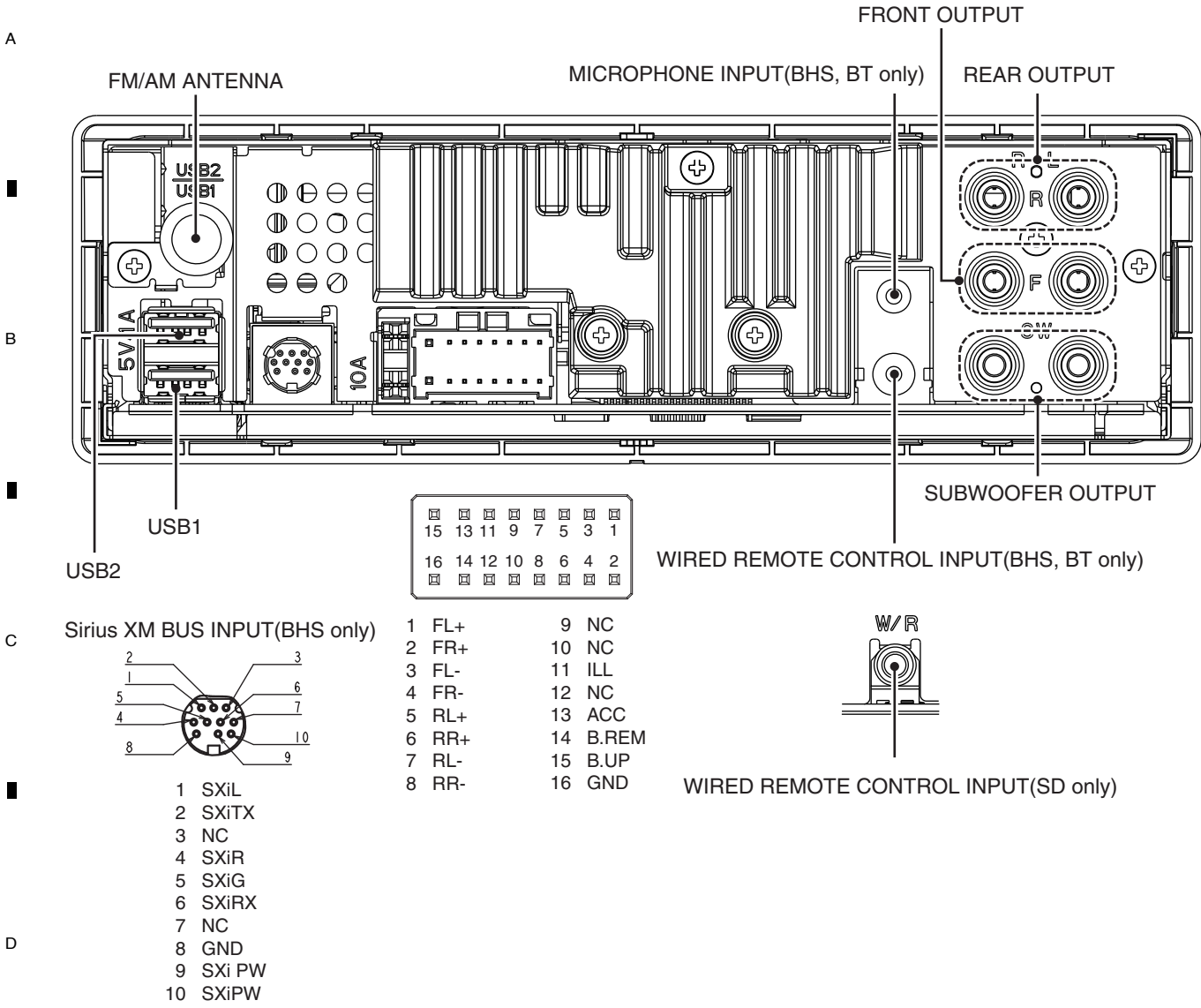
Message	Cause	Action
No BT device.Go to BT MENU to register.	No Bluetooth device found.	Follow the instructions that appear on the screen.
BT error. Press BAND key to retry.	Bluetooth connection failed.	Follow the instructions that appear on the screen.
Check your App.Press BAND key to retry.	Connection to the application failed.	Follow the instructions that appear on the screen.
Start up and play your Application.	The application has not started running yet.	Follow the instructions that appear on the screen.

SiriusXM Satellite Radio

Message	Cause	Action
Check Antenna	The antenna connection is incorrect.	Check the antenna 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.
Check Tuner	The SiriusXM Connect Vehicle Tuner connection is incorrect.	Check the tuner 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.
No Signal	The SiriusXM Connect Vehicle Tuner is having difficulty receiving the SiriusXM satellite signal.	<ul style="list-style-type: none"> • Verify that your vehicle is outdoors with a clear view of the southern sky. • Verify that the SiriusXM magnetic mount antenna is mounted on a metal surface on the outside the vehicle. • Move the SiriusXM antenna away from any obstructions.

Message	Cause	Action
Subscription Updated -	This unit has detected a change in your SiriusXM subscription status.	Press any keys to clear the message.
Not Available	The channel that you have requested is not a valid SiriusXM channel.	Check the SiriusXM channel lineup.
Not Subscribed	The channel that you have requested is not included in your SiriusXM subscription package.	Check the content of your SiriusXM subscription package.
Channel Locked	Locked by the radio Parental Control feature.	Release the channel lock.

5.3 CONNECTOR FUNCTION DESCRIPTION



6. SERVICE MODE

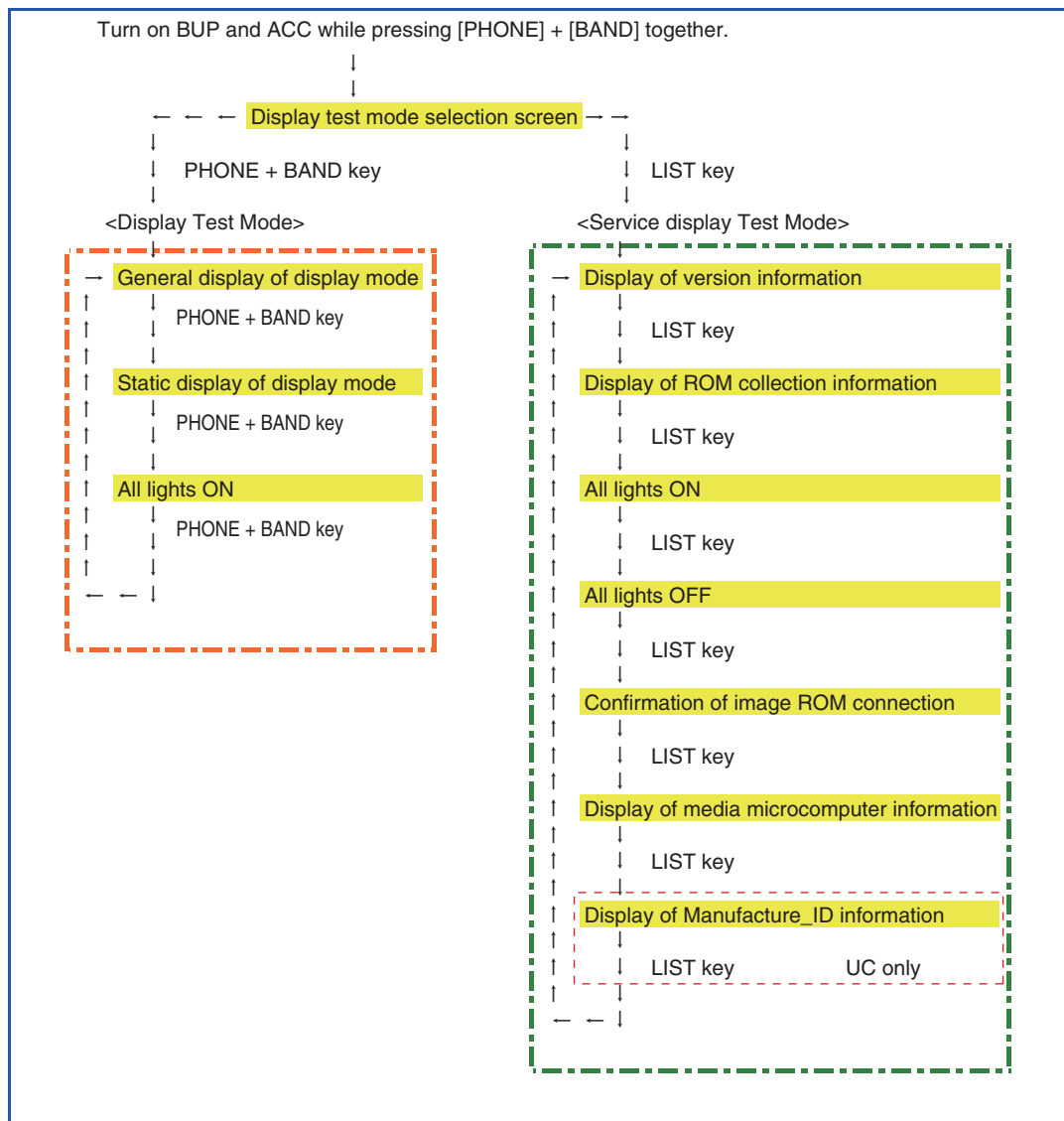
6.1 DISPLAY TEST MODE

Service Display Test Mode

1. Overview

This is the test mode which summarized the confirmation of the system microcomputer version and the all light ON/OFF functions of a display part.

2. Operation method



3. Contents to be displayed

Display test mode selection screen

A

0	8	16	24	32	40	48	56	64	72	80	88	96	04	12	20	28	36	44	52	60	68	76	84	92
8	TEST								-	M	o	d	e		S	e	l	e	c	t	-			
16																								
24	D I S P L A Y :						*1		+ B A N D															
32																								
40	S E R V I C E :						L I S T																	
48																								

*1 : PHONE

*1 : PHONE

All lights ON

B

0	8	16	24	32	40	48	56	64	72	80	88	96	04	12	20	28	36	44	52	60	68	76	84	92	
8																									
16																									
24																									
32																									
40																									
48																									

- If nothing appears on the screen:

There might be a problem in communication or abnormality in the display microcomputer.

- If noise appears on the screen:

There might be abnormality in the display microcomputer or a problem, for instance, in connection between the display microcomputer and the OEL driver.

C

Display of version information

0	8	16	24	32	40	48	56	64	72	80	88	96	04	12	20	28	36	44	52	60	68	76	84	92
8	I	C		I	n	f	o	.																
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24					P	D						V	e	r					U	N	I	T		
32	S	Y	S		*	*	*	*	*		*	.	*	*		○	?	?	?	?				
40	D	I	S		#	#	#	#	#		#	.	#	#		○	&	&	&	&				
48	P	I	C		!	!	!	!	!		!	.	!	!										

Description:

UNIT

???:The unit number information of the system microcomputer

&&&&:The unit number information of the display microcomputer

Display the four-digit number only.
(For CWW1969, display 1969)

Display of ROM collection information

(1) If no information could be acquired from EEPROM

D

0	8	16	24	32	40	48	56	64	72	80	88	96	04	12	20	28	36	44	52	60	68	76	84	92
8	E	E	P	R	O	M		I	n	f	o	.												
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
24					D	I	S	P	L	A	Y	:		\$	\$	\$	\$	\$	\$	\$				
32																								
40					S	Y	S	T	E	M	:		\$	\$	\$	\$	\$	\$	\$	\$				
48																								

\$\$\$\$\$\$\$\$\$:Error information

When ROM collection is not connected:
NO_EEPROM

ROM collection data error:ROM_ERROR

(2) If information is successfully acquired from EEPROM

E

0	8	16	24	32	40	48	56	64	72	80	88	96	04	12	20	28	36	44	52	60	68	76	84	92
8	E	E	P	R	O	M			I	n	f	o	.											
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
24																								
32					D	I	S	P	L	A	Y	:		#	#	#	#	-	!	!	!	!		
40																								
48					S	Y	S	T	E	M	:		#	#	#	#	-	!	!	!	!			

####:EEPROM collection version information

!!!!:CH use information

(1: Used, 0: Not used. Corresponding to:
CH1, CH2, CH3 and CH4 from left)

- If nothing appears on the screen:

There might be a problem in communication or abnormality in the display microcomputer.

- If an obviously weird numeral appears as the version:

There might be a problem in communication.

- If the number of CHs used is not properly displayed despite the version displayed:

There might be defective connection with EEPROM.

F

All lights OFF

0	8	16	24	32	40	48	56	64	72	80	88	96	04	12	20	28	36	44	52	60	68	76	84	92
8																								
16																								
24																								
32																								
40																								
48																								

- If noise appears on the screen:
There might be abnormality in the display microcomputer or a problem, for instance, in connection between the display microcomputer and the OEL driver.

Confirmation of image ROM connection

0	8	16	24	32	40	48	56	64	72	80	88	96	04	12	20	28	36	44	52	60	68	76	84	92
8	B	u	s		C	o	n	n	e	c	t		T	e	s	t								
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
24		D	A	T	A		B	u	s		:		#	#										
32																								
40		A	D	R	S		B	u	s		:		#	#										
48																								

##:OK or NG

- If nothing appears on the screen:
There might be a problem in communication or abnormality in the display microcomputer.
- If NG appears somewhere:
There might be defective connection between the display microcomputer and image ROM.
For instance, NG appearing with respect to the data bus does not necessarily mean data bus connection is definitely defective.
Where the address bus is the reason for NG appearing, an error could still occur when checking the data bus.

Display of media microcomputer information

	0	8	16	24	32	40	48	56	64	72	80	88	96	04	12	20	28	36	44	52	60	68	76	84	92
8	M	E	D	I	A		I	n	f	o	.														
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	P	D					*	*	*	*	*														
32	U	N	I	T			○	?	?	?	?														
40	V	e	r				*	*	.	*	*														
48																									

Description:

UNIT

○:

Caution: The display is blank because nothing is sent from the media microcomputer.

???:Media microcomputer unit number information

- If nothing appears on the screen:
There might be a problem in communication to the display microcomputer, or abnormality in the display microcomputer itself.
- If an obviously weird numeral appears on the media microcomputer version:
There might be a problem in communication between the system microcomputer and display microcomputer, or between the system and media microcomputer.

Display of Manufacture_ID information (UC only)

	0	8	16	24	32	40	48	56	64	72	80	88	96	04	12	20	28	36	44	52	60	68	76	84	92
8	M	a	n	u	f	a	c	t	u	r	e		I	D											
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
24	0	x	C	0	2	8	2	0	E	D															
32																									
40																									
48																									

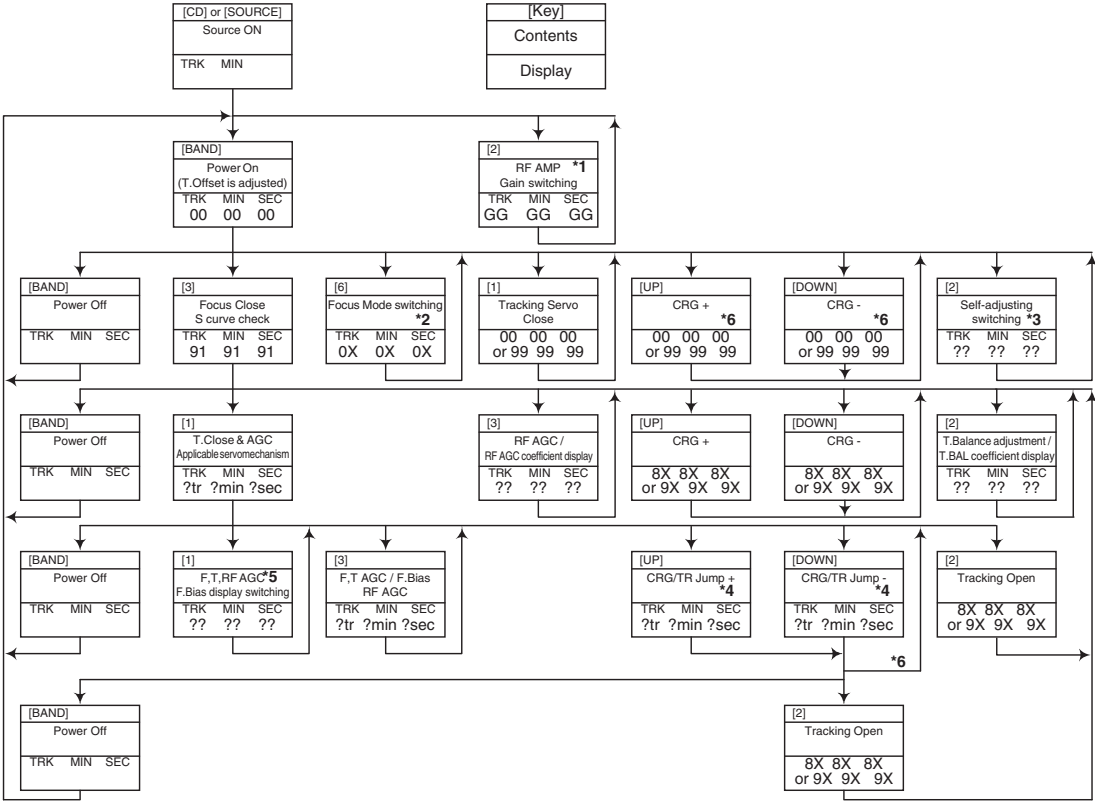
● Flow Chart

A

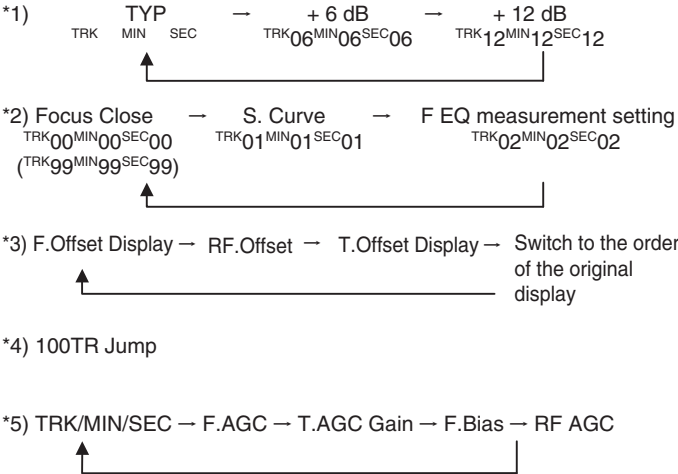
To enter the test mode: [EJECT] + [BAND] -> BUP + ACC ON
Operate with a Remote Control with 1 - 6 keys for a CD Receiver in the test mode.

B

C



D



E

[Key]	Operation
	Test Mode
[BAND]	Power On/Off
[UP]	CRG + / TR Jump + (Direction of the external surface)
[DOWN]	CRG - / TR Jump - (Direction of the internal surface)
[1]	T. CLS & AGC & Applicable servomechanism / AGC, AGC display setting
[2]	RF Gain switching / Offset adjustment display / T. Balance adjustment / T. Open
[3]	F. Close, S. Curve / Rough Servo and RF AGC / F, T, RF AGC
[6]	F. Mode switching / Tracking Close

F

- After the [EJECT] key is pressed keys other than the [EJECT] key should not be pressed, until disc ejection is complete.
- When the key [UP] or [DOWN] is pressed during the Focus Search, the power supply should be immediately turned off (otherwise the lens sticks to Wall, causing the actuator to be damaged).
- In the case of 100TR Jump, the mechanism shall be set to the Tracking Close mode when the key is released.
- When the power is turned on/off the gain of the RFAMP is reset to 0 dB. At the same time all the self-adjusting values shall return to the default setting.
- Do not do Tracking Servo Close before doing Focus Servo Close. (Because the overcurrent flows)

7. DISASSEMBLY

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

● Removing the Panel Unit (Fig.1)

- ➡ 1 Remove the two screws.
- ➡ 2 Release the seven latches and then remove the Panel Unit.

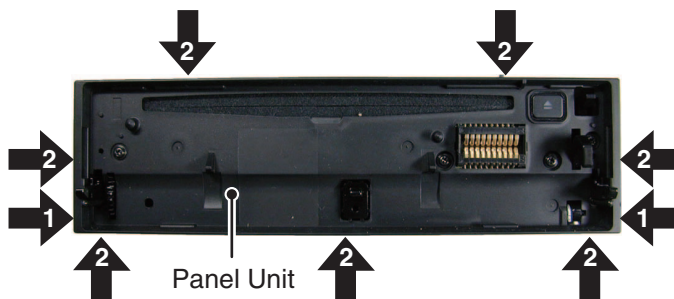
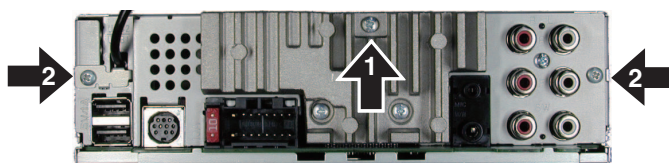


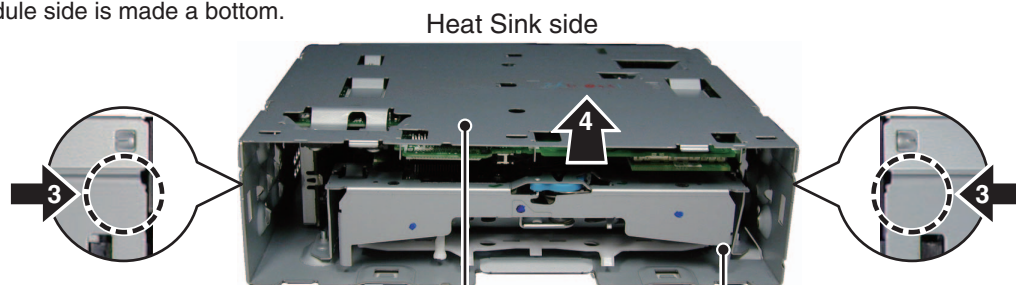
Fig.1

● Removing the CD Mechanism Module (Fig.2)

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



The CD Mechanism Module 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.

Lift off the Tuner Amp Assy from the Heat Sink side.

- ➡ 5 The Tuner Amp Assy is fixed into the ditch.
- ➡ 6 Disconnect the FFC and then remove the CD Mechanism Module.

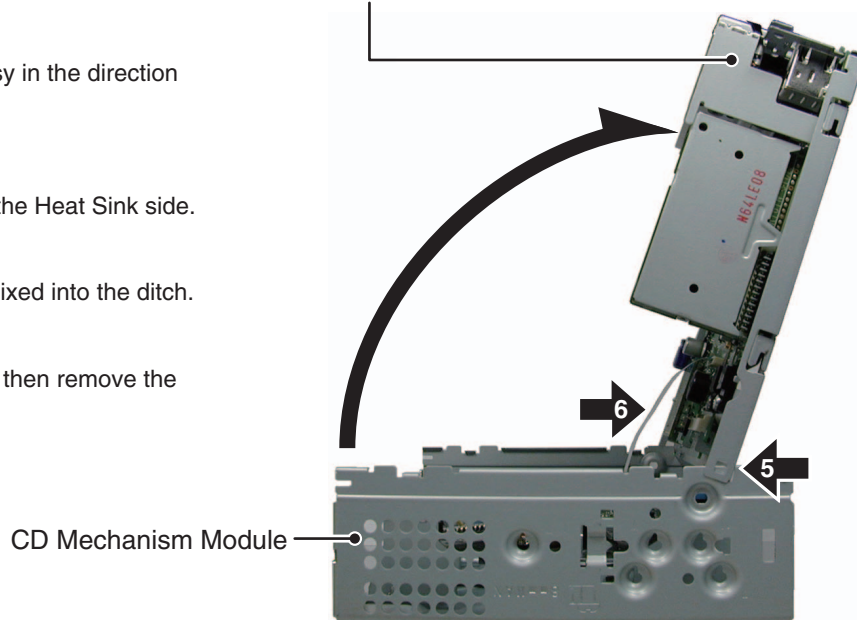


Fig.2

● Removing the Tuner Amp Assy (Fig.3)

- 1** Remove the two screws.
- 2** Remove the two screws and then remove the Tuner Amp Assy.

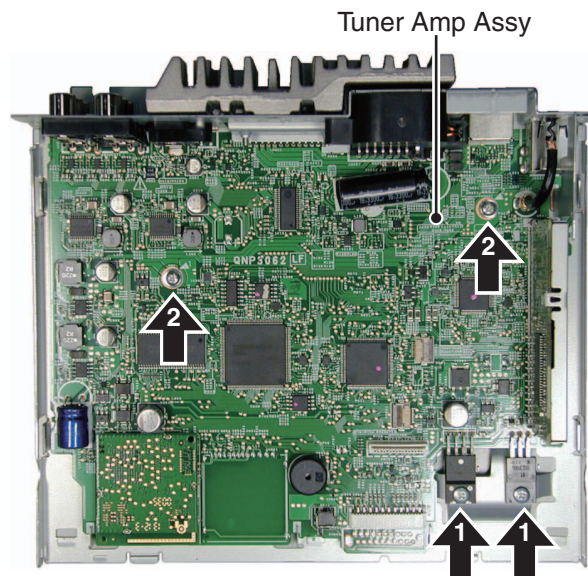


Fig.3

● Attention of removing (Fig.4)

Don't remove this screws excluding the dismantlement of the CD Mechanism Module.

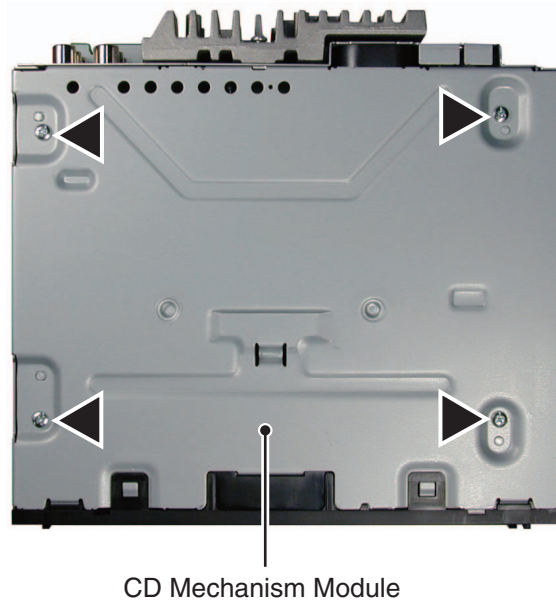
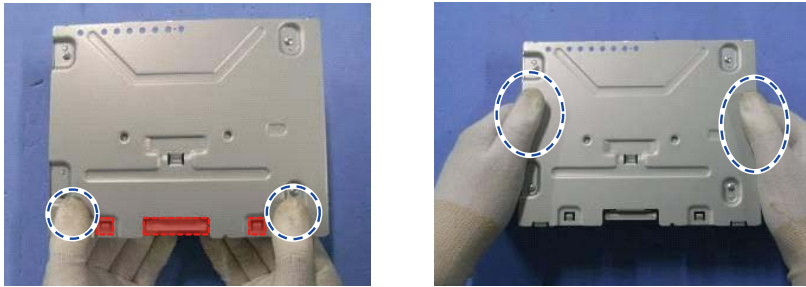


Fig.4

● How to carry the mecha unit

1. Hold the designated points (shown with dashed lines) of the upper chassis and the front/rear bracket.
2. Be careful not to hold the solid line portions or the CRG mecha part or insert foreign substances, to prevent distortion.
3. When holding the sides of the upper chassis, do not apply excessive force to prevent distortion. (Approx. 8N or less)

Handling OK



Handling NG



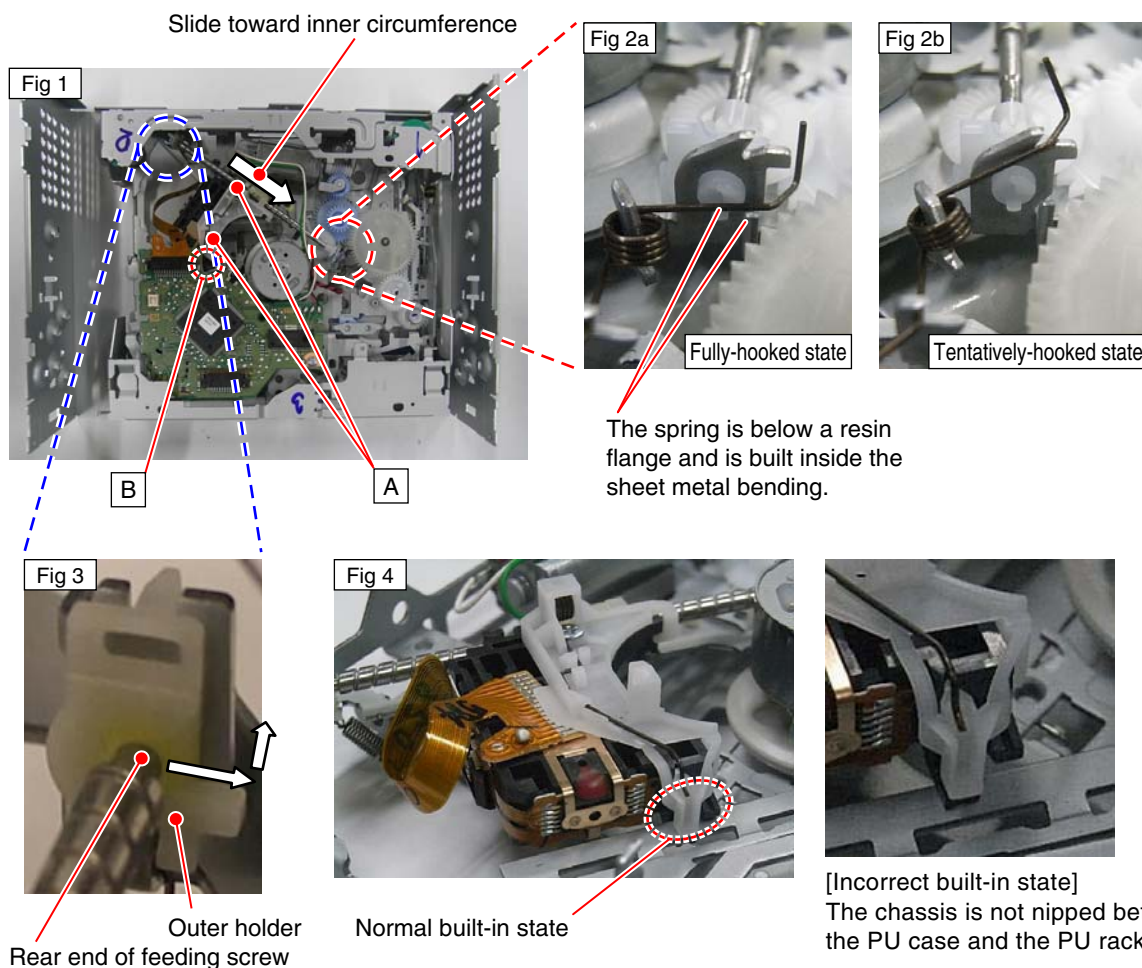
● How to remove the PU unit

1. Create an empty-clamp state according to “How to create empty clamp state (motor drive)”.
2. Hook the feeding screw biasing spring to a tentative hooking portion (Fig 2b). Be careful not to get injured by the spring edge.
3. Hold the PU at the position A as shown in Fig 1. Slide the PU as far as possible toward the holder in the feeding screw so that a joint on the outer end of the feeding screw is loosened.
4. As shown in Fig 3, move the rear end of the feeding screw laterally and then upward, to remove it from the outer holder.
5. Lift the PU unit to disengage it from Part B of the chassis (Fig 4), and remove the PU unit.

(Cautions) When re-installing the PU, be sure to first nip the chassis and the PU unit (Fig 4) at the position B.

Also, make sure to fully hook the feeding screw biasing spring (Fig 2a).

Please follow the service manual for adjustment of the PU unit after the re-installation.



8. EACH SETTING AND ADJUSTMENT

8.1 CD ADJUSTMENT

1) Cautions on adjustments

- In this product the single voltage (3.3 V) is used for the regulator. The reference voltage is the REFO1 (1.65 V) instead of the GND.

If you should mistakenly short the REFO1 with the GND during adjustment, accurate voltage will not be obtained, and the servo's misoperation will apply excessive shock to the pickup. To avoid such problems:

- a. Do not mix up the REFO1 with the GND when connecting the (-) probe of measuring instruments. Especially on an oscilloscope, avoid connecting the (-) probe for CH1 to the GND.
- b. In many cases, measuring instruments have the same potential as that for the (-) probe. Be sure to set the measuring instruments to the floating state.
- c. If you have mistakenly connected the REFO1 to the GND, turn off the regulator or the power immediately.

- Before mounting and removing filters or leads for adjustment, be sure to turn off the regulator.

- For stable circuit operation, keep the mechanism operating for about one minute or more after the regulator is turned on.

- In the test mode, any software protections will not work. Avoid applying any mechanical or electrical shock to the mechanism during adjustment.

- The RFAGC and RFO signals with a wide frequency range are easy to oscillate. When observing the signals, insert a resistor of 1k ohms in series.

- The load and eject operation is not guaranteed with the mechanism upside down. If the mechanism is blocked due to mistaken eject operation, reset the product or turn off and on the ACC to restore it.

2) Test mode

This mode is used to adjust the CD mechanism module.

- To enter the test mode.

[EJECT] + [BAND] -> Reset

- To exit from the test mode.

Turn off the ACC and back up.

Notes:

- a. During ejection, do not press any other keys than the EJECT key until the loaded disc is ejected.
- b. If you have pressed the [2] key or [3] key during focus search, turn off the power immediately to protect the actuator from damage caused by the lens stuck.
- c. For the TR jump modes except 100TR, the track jump operation will continue even if the key is released.
- d. For the CRG move and 100TR jump modes, the tracking loop will be closed at the same time when the key is released.
- e. When the power is turned off and on, the jump mode is reset to the single TR (91), the RF amp gain is set to 0 dB, and the auto-adjustment values are reset to the default settings.

4



5

B

7



E

5

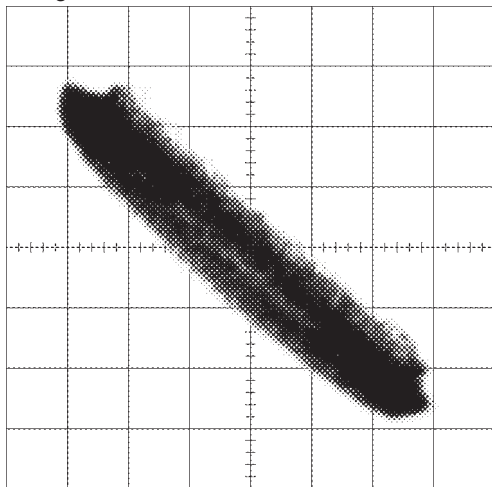
F

Grating waveform

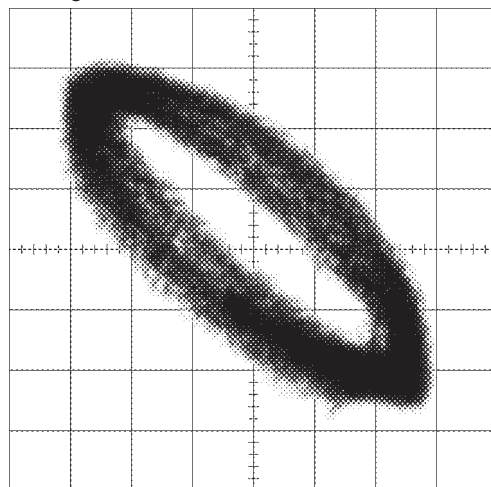
Ech -> Xch 20 mV/div, AC

Fch -> Ych 20 mV/div, AC

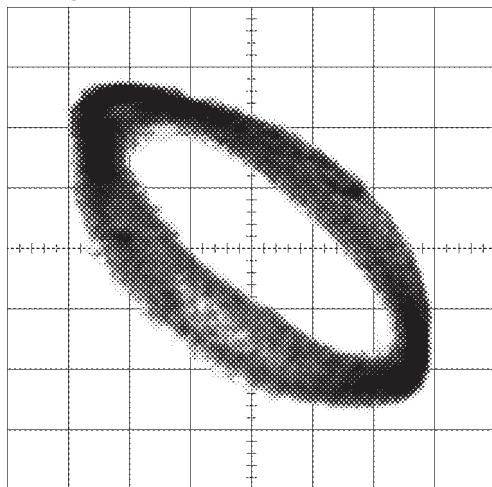
0 degrees



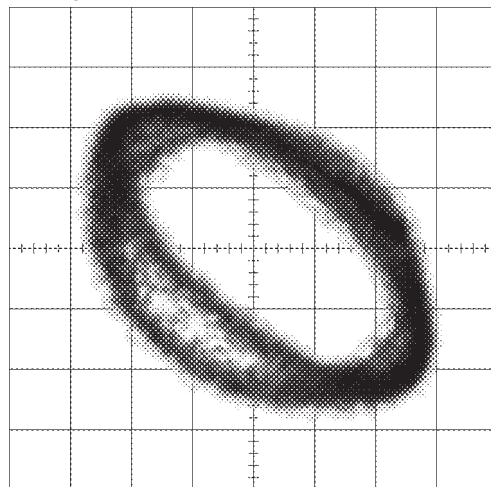
30 degrees



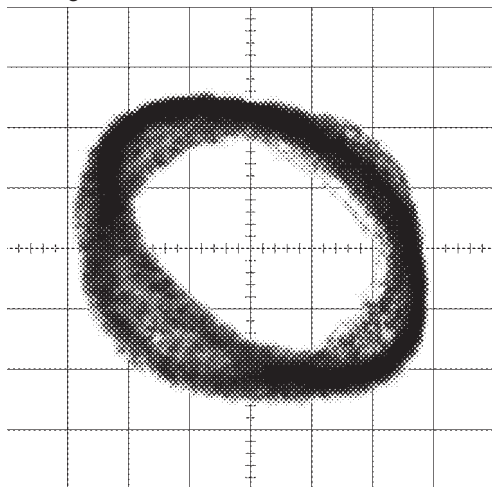
45 degrees



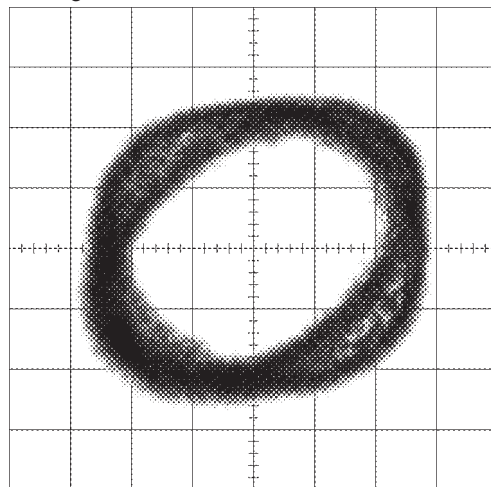
60 degrees



75 degrees



90 degrees



A

B

C

D

E

F

8.3 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 61) terminal(TP : TESTIN1) to H.
The clock signal is output from the PCL terminal IC601 (Pin 37)(TP : PCL).
The frequency of the clock signal is 625.0 kHz that is one 32th of the fundamental frequency (20 MHz).
If the clock signal out of the range, the X'tal (X601) should be replaced with new one.

B

■

C

■

D

■

E

■

F

■

5

■

6

■

7

■

8

■

A

■

B

■

C

■

D

■

E

■

F

■

5

■

6

■

7

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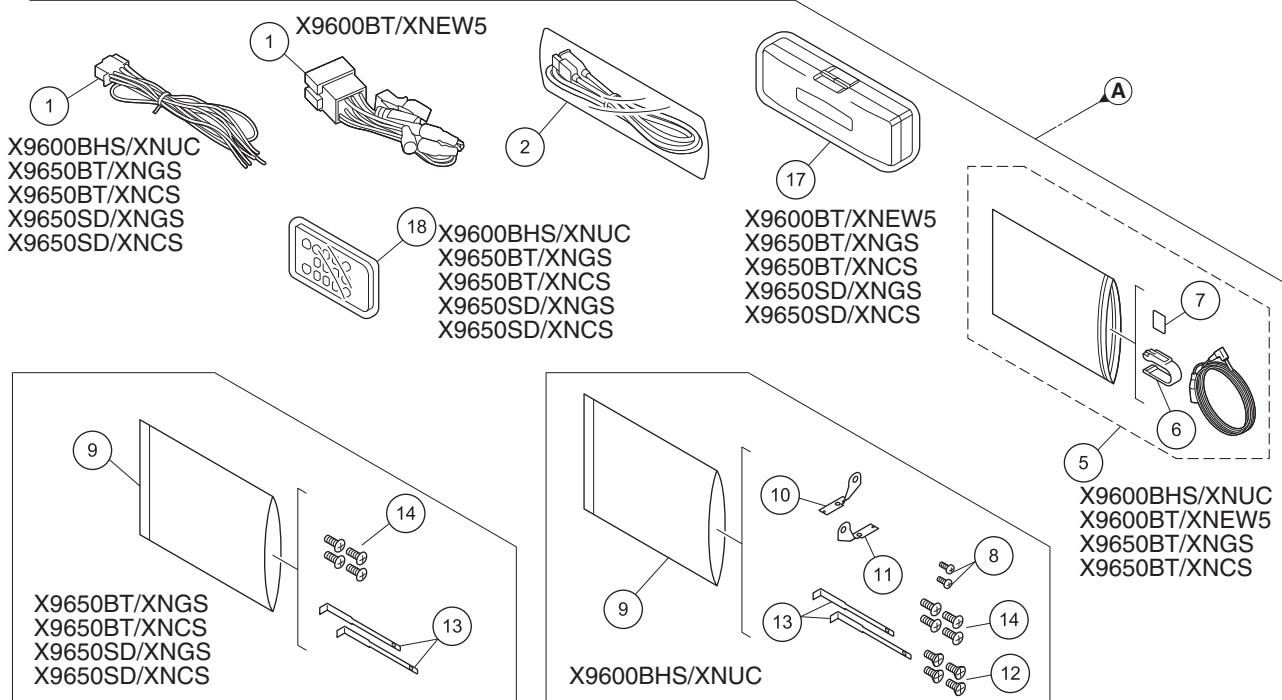
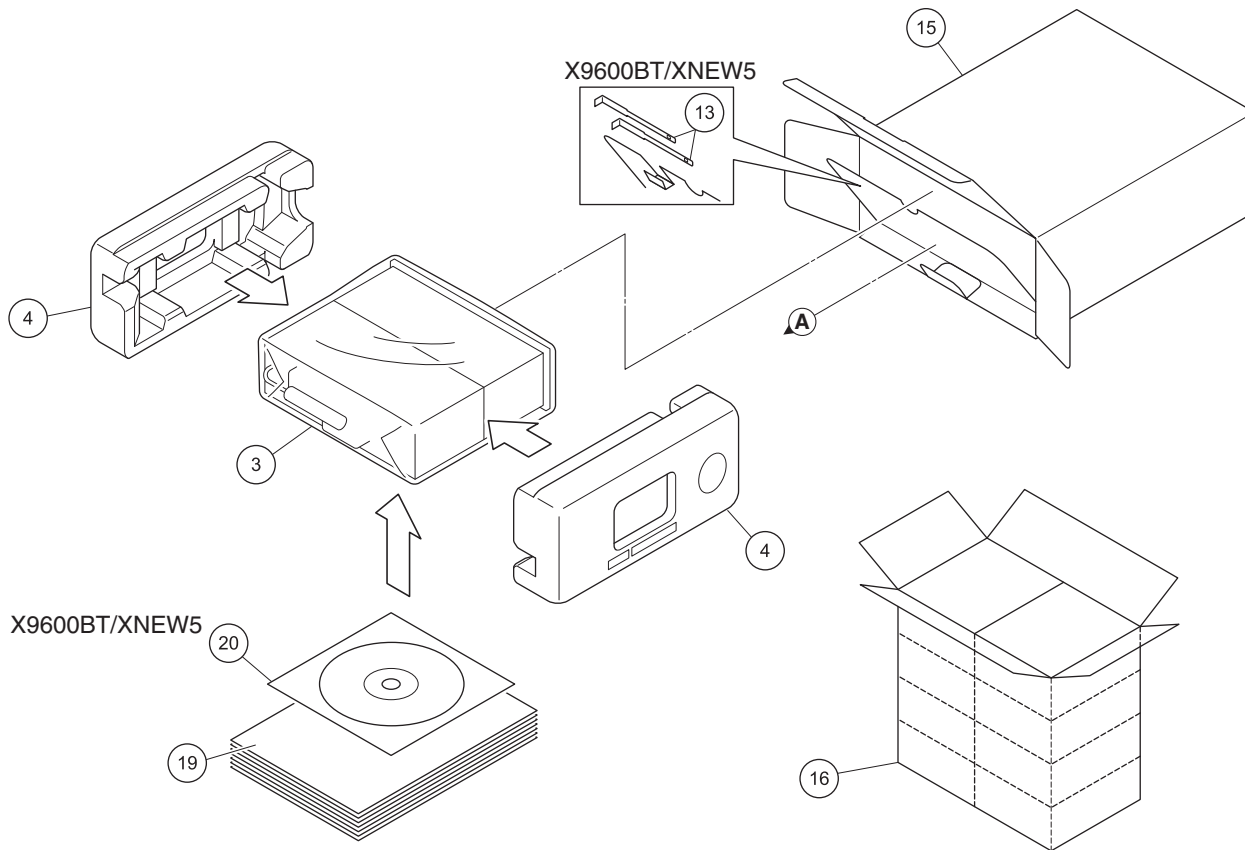
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9. EXPLODED VIEWS AND PARTS LIST

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



PACKING SECTION PARTS LIST

Mark	No.	Description	DEH-X9600BHS/XNUC	DEH-X9600BT/XNEW5	DEH-X9650BT/XNGS
	1	Cord Assy	CDP1484	QDP3024	CDP1484
	2	USB Extended Cable	CDP1587	CDP1587	CDP1587
	3	Polyethylene Bag	CEG1173	QEG3001	QEG3001
	4	Protector	CHP4594	CHP4594	CHP4594
	5	Microphone Assy	CPM1083	CPM1083	CPM1083
	6	Holder	CZN7192	CZN7192	CZN7192
	7	Cushion	CZN7193	CZN7193	CZN7193
	8	Screw	BPZ20P060FTC	Not used	Not used
	9	Polyethylene Bag	CEG1160	Not used	CEG1160
	10	Holder	CND1249	Not used	Not used
	11	Holder	CND1250	Not used	Not used
	12	Screw	CRZ50P090FTC	Not used	Not used
	13	Handle	QNC3021	QNC3021	QNC3021
	14	Screw	TRZ50P080FTC	Not used	TRZ50P080FTC
	15	Unit Box	QHG3594	QHG3595	QHG3597
	16	Contain Box	QHL3594	QHL3595	QHL3597
	17	Case Assy	Not used	QXA3129	QXA3129
	18	Card Remote Control Unit	QXE1044	Not used	QXE1044
	19-1	Owner's Manual	QRD3228	QRB3364	QRD3230
*	19-2	Warranty Card	QRY3001	CRY1376	Not used
*	19-3	Caution Card	Not used	CRP1438	Not used
*	19-4	Caution Card	Not used	CRP1441	Not used
	19-5	Quick Start Guide	Not used	QRD3224	Not used
	19-6	Installation Manual	Not used	QRD3226	Not used
	20	IM CD-ROM	Not used	QPJ3023	Not used

Mark	No.	Description	DEH-X9650BT/XNCS	DEH-X9650SD/XNGS	DEH-X9650SD/XNCS
	1	Cord Assy	CDP1484	CDP1484	CDP1484
	2	USB Extended Cable	CDP1587	CDP1587	CDP1587
	3	Polyethylene Bag	QEG3001	QEG3001	QEG3001
	4	Protector	CHP4594	CHP4594	CHP4594
	5	Microphone Assy	CPM1083	Not used	Not used
	6	Holder	CZN7192	Not used	Not used
	7	Cushion	CZN7193	Not used	Not used
	8	Screw	Not used	Not used	Not used
	9	Polyethylene Bag	CEG1160	CEG1160	CEG1160
	10	Holder	Not used	Not used	Not used
	11	Holder	Not used	Not used	Not used
	12	Screw	Not used	Not used	Not used
	13	Handle	QNC3021	QNC3021	QNC3021
	14	Screw	TRZ50P080FTC	TRZ50P080FTC	TRZ50P080FTC
	15	Unit Box	QHG3596	QHG3599	QHG3598
	16	Contain Box	QHL3596	QHL3599	QHL3598
	17	Case Assy	QXA3129	QXA3129	QXA3129
	18	Card Remote Control Unit	QXE1044	QXE1047	QXE1047
	19-1	Owner's Manual	QRD3229	QRD3230	QRD3229
*	19-2	Warranty Card	Not used	Not used	Not used
*	19-3	Caution Card	Not used	Not used	Not used
*	19-4	Caution Card	Not used	Not used	Not used
	19-5	Quick Start Guide	Not used	Not used	Not used
	19-6	Installation Manual	Not used	Not used	Not used
	20	IM CD-ROM	Not used	Not used	Not used

Owner's Manual, Installation Manual

Part No.	Language
QRD3228	English, French, Spanish(Espanol)
QRB3364	Russian
QRD3224	English, French, Italian, Spanish(Espanol), German, Dutch, Russian
QRD3226	English, French, Italian, Spanish(Espanol), German, Dutch, Russian
QRD3230	English, Traditional Chinese, Arabic, Persian
QRD3229	English, Spanish(Espanol), Portuguese(B)

CONTENTS OF CD-ROM (Operation Manual), QPJ3023

Part No.	Language
* QRB3358	English
* QRB3359	French
* QRB3360	Italian
* QRB3361	Spanish(Espanol)
* QRB3362	German
* QRB3363	Dutch
* QRB3364	Russian
* QRB3365	Swedish
* QRB3366	Norwegian
* QRB3367	Finnish
* QRB3368	Danish
* QRB3369	Portuguese
* QRB3370	Greek
* QRB3371	Turkish

All operation manuals are supplied in PDF files by the CD-ROM.

Regarding the availability of paper manual, contact Pioneer Service representative in your region.

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<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	50	Screw (M2 x 4.5)	CBA1925	
2	Screw	BMZ30P040FTC				
3	Screw	BSZ26P060FTC	51	Washer	CBF1038	A
4	Screw	BSZ26P120FTC	52	Spring	CBH2650	
5	Cord Assy	See Contrast table (2)	53	Spring	CBH2651	
			54	Spring	CBH2652	
6	CD Machanism Module(S11.6)	CXK5804	55	Spring	CBH2653	
7	FFC	QDE3029				
8	Case	See Contrast table (2)	56	Holder	CND1254	
9	Holder	QNC3020	57	Gear	CNV5997	
10	Tuner Amp Assy	See Contrast table (2)	58	Arm	CNV7400	
			59	Arm	CNV7401	
11	Screw	BPZ26P080FTC	60	Arm	CNV7402	B
12	Screw	BSZ26P120FTC				
13	WWR Core Tuner Unit	See Contrast table (2)	61	Arm	CNV7403	
14	Holder	See Contrast table (2)	62	Holder Unit	CXB9501	
15	Holder	See Contrast table (2)	63	Holder Unit	CXB9502	
			64	Damper Unit	CXB9503	
16	Heat Sink	See Contrast table (2)	65	Panel Unit	YWM5577	
17	Antenna Attached Cable	YDH5001				
⚠ 18	Fuse (10A)	YEK5001	66	Panel Unit	See Contrast table (2)	
19	BT Module	See Contrast table (2)	67	Button	YAC5395	
20	Shield Case	See Contrast table (2)	68	Spring	YBH5013	C
21	Detachable Grille Assy	See Contrast table (2)				
22	Screw	BPZ20P100FTC				
23	Lever	QAA3030				
24	Button (DISP)	QAC3107				
25	Button (MIX)	See Contrast table (2)				
26	Button (BAND)	See Contrast table (2)				
27	Button (SRC)	See Contrast table (2)				
28	LCD	CAW2042				
29	Holder	YNC5097				D
30	Sheet	YNM5174				
31	Sheet	YNM5199				
32	Plate Unit	YXA5834				
33	Knob Unit	QXA3804				
34	Spring	YBL5010				
35	Grille Unit	See Contrast table (2)				
36	Spring	XBH7001				
37	Button (DETACH)	YAC5447				
38	Button (UP, DOWN)	YAC5448				E
39	Spring	YBH5016				
40	Sheet	YNM5195				
41	Cover	YNS5657				
42	Lighting Conductor	YNV5226				
43	Card Remote Control Unit	See Contrast table (2)				
44	Cover	See Contrast table (2)				
45	FFC	YDE5097				
46	Sheet	QNM3105				F
47	Panel	YNS5687				
48	Button (EJECT)	CAC7752				
49	Screw (M2 x 4)	CBA1649				

(2) CONTRAST TABLE

DEH-X9600BHS/XNUC, DEH-X9600BT/XNEW5, DEH-X9650BT/XNGS, DEH-X9650BT/XNCS, DEH-X9650SD/XNGS and DEH-X9650SD/XNCS are constructed the same except for the following:

Mark	No.	Description	DEH-X9600BHS/XNUC	DEH-X9600BT/XNEW5	DEH-X9650BT/XNGS
A	5	Cord Assy	CDP1484	QDP3024	CDP1484
	8	Case	QNB3017	QNB3018	QNB3018
	10	Tuner Amp Assy	QWM3792	QWM3789	QWM3790
	13	WWR Core Tuner Unit	CWE2364	Not used	Not used
	14	Holder	CND6449	Not used	Not used
	15	Holder	QNC3064	YNC5100	YNC5100
	16	Heat Sink	QNR3010	QNR3010	QNR3002
	19	BT Module	YWX5048	YWX5048	YWX5048
	20	Shield Case	YNC5123	YNC5123	YNC5123
	21	Detachable Grille Assy	QXA4095	QXA4096	QXA4106
B	25	Button (MIX)	QAC3116	QAC3114	QAC3116
	26	Button (BAND)	QAC3119	QAC3108	QAC3117
	27	Button (SRC)	QAC3157	QAC3158	QAC3159
	35	Grille Unit	QXA4103	QXA4104	QXA4104
	43	Card Remote Control Unit	QXE1044	Not used	QXE1044
	44	Cover	CNS7068	Not used	CNS7068
	66	Panel Unit	YXA5858	YXA5832	YXA5832

Mark	No.	Description	DEH-X9650BT/XNCS	DEH-X9650SD/XNGS	DEH-X9650SD/XNCS
C	5	Cord Assy	CDP1484	CDP1484	CDP1484
	8	Case	QNB3018	QNB3018	QNB3018
	10	Tuner Amp Assy	QWM3791	QWM3787	QWM3788
	13	WWR Core Tuner Unit	Not used	Not used	Not used
	14	Holder	Not used	Not used	Not used
	15	Holder	YNC5100	YNC5099	YNC5099
	16	Heat Sink	QNR3010	QNR3002	QNR3010
	19	BT Module	YWX5048	Not used	Not used
	20	Shield Case	YNC5123	Not used	Not used
	21	Detachable Grille Assy	QXA4097	QXA4098	QXA4114
D	25	Button (MIX)	QAC3116	QAC3116	QAC3116
	26	Button (BAND)	QAC3117	QAC3118	QAC3118
	27	Button (SRC)	QAC3159	QAC3160	QAC3160
	35	Grille Unit	QXA4105	QXA4104	QXA4104
	43	Card Remote Control Unit	QXE1044	QXE1047	QXE1047
	44	Cover	CNS7068	CNS7068	CNS7068
	66	Panel Unit	YXA5832	YXA5832	YXA5832

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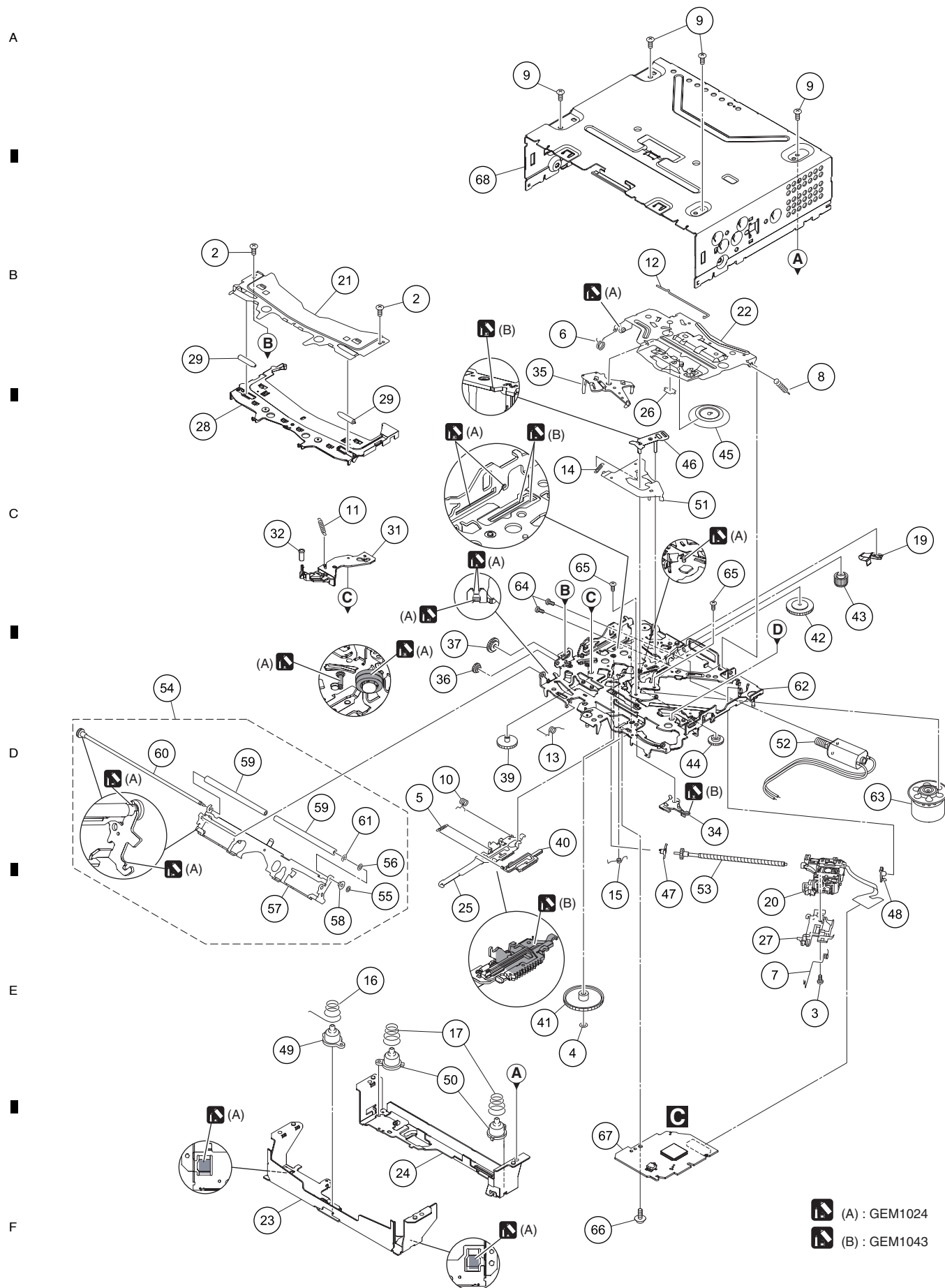
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9.3 CD MECHANISM MODULE



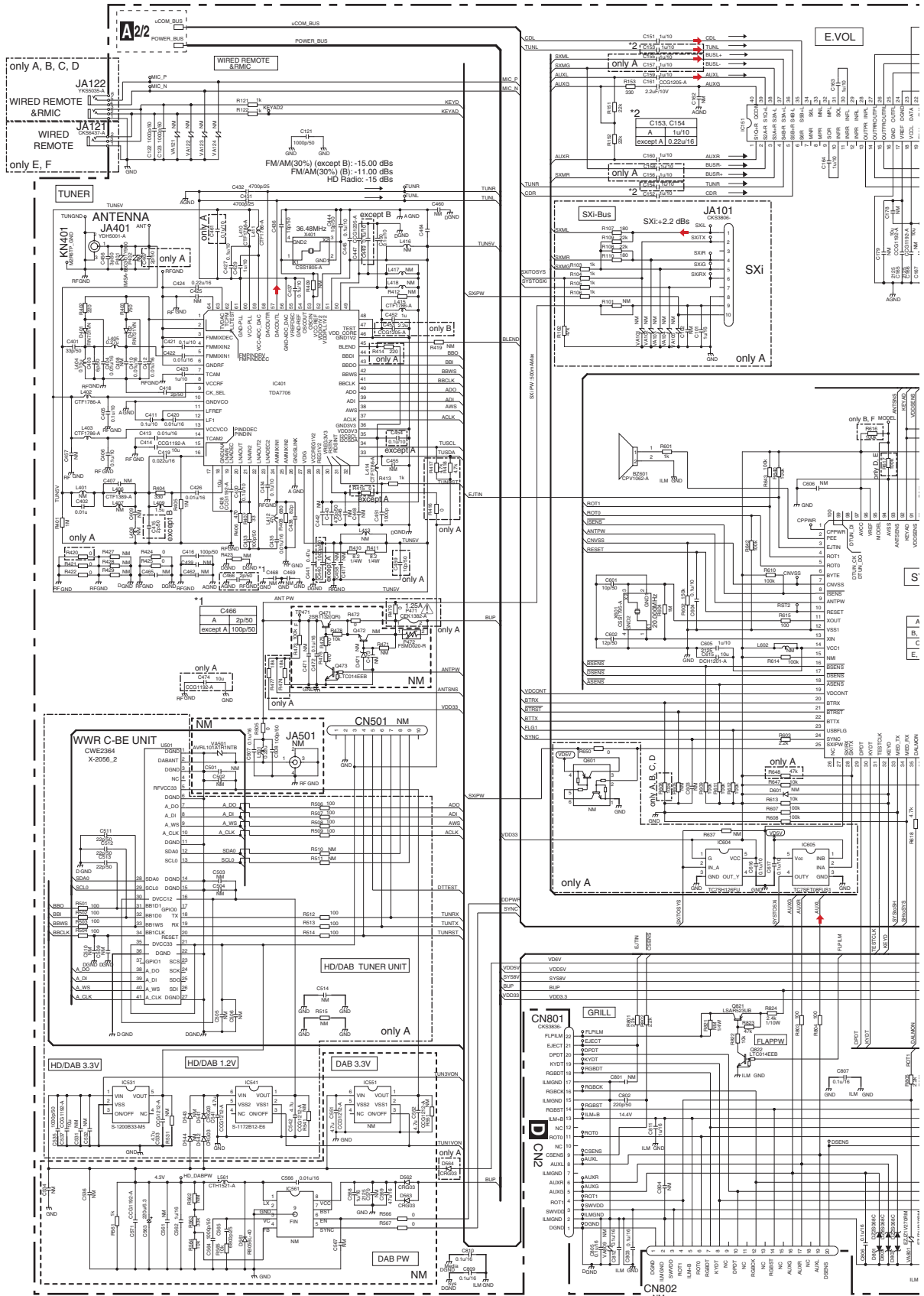
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	
1	.....		50	Damper	CNW1198	
2	Screw	BSZ20P040FTC	51	Arm	CNW1726	A
3	Screw(M2 x 4)	CBA1835	52	Motor Unit(M2)(LOAD/CRG)	CXC4026	
4	Washer	CBF1038	53	Screw Unit	CXC8894	
5	Spring	CBH3010	54	Arm Assy	CXE6232	
6	Spring	CBH2855	55	Washer	CBF1037	
7	Spring	CBH2856				
8	Spring	CBH2860	56	Washer	CBF1038	
9	Screw	BSZ26P060FTC	57	Arm	CND6242	
10	Spring	CBH3011	58	Collar	CNW2444	
11	Coil Spring	CBH3095	59	Roller	CNW2500	
12	Spring	CBH3014	60	Gear Unit	CXE6225	B
13	Spring	CBH3015	61	Washer	YE15FTC	
14	Spring	CBH3016	62	Chassis Unit	CXE4528	
15	Spring	CBH3017	63	Motor Unit(M1)(SPDL)	CXE2273	
16	Spring	CBH3086	64	Screw	JFZ20P025FTC	
17	Spring	CBH3019	65	Screw	JGZ17P022FTC	
18	.....		66	Screw	EBA1028	
19	Leaf Spring	CBL1824	67	CD Core Unit (S11.6STD)	CWX4023	
20	Pickup Unit(P10.6)(Service)	CXX3556	68	Chassis	CNA3181	C
21	Bracket	CND4553				
22	Arm	CND6406				
23	Bracket	CND6127				
24	Bracket	CND5710				
25	Lever	CND5398				
26	Sheet	CNN3678				
27	Rack	CNV8342				
28	Guide	CNW2240				
29	Roller	CNW1172				D
30	.....				
31	Arm	CNW2241				
32	Roller	CNW1175				
33	.....				
34	Arm	CNW1177				
35	Arm	CNW1178				
36	Gear	CNW1180				
37	Gear	CNW1181				
38	.....					E
39	Gear	CNW1183				
40	Rack	CNW1184				
41	Gear	CNW1185				
42	Gear	CNW1186				
43	Gear	CNW1187				
44	Gear	CNW2287				
45	Clamper	CNW1190				
46	Arm	CNW1192				
47	Holder	CNW1193				F
48	Holder	CNW1194				
49	Damper	CNW1197				

10. SCHEMATIC DIAGRAM

10.1 TUNER AMP ASSY(1/2)(GUIDE PAGE)

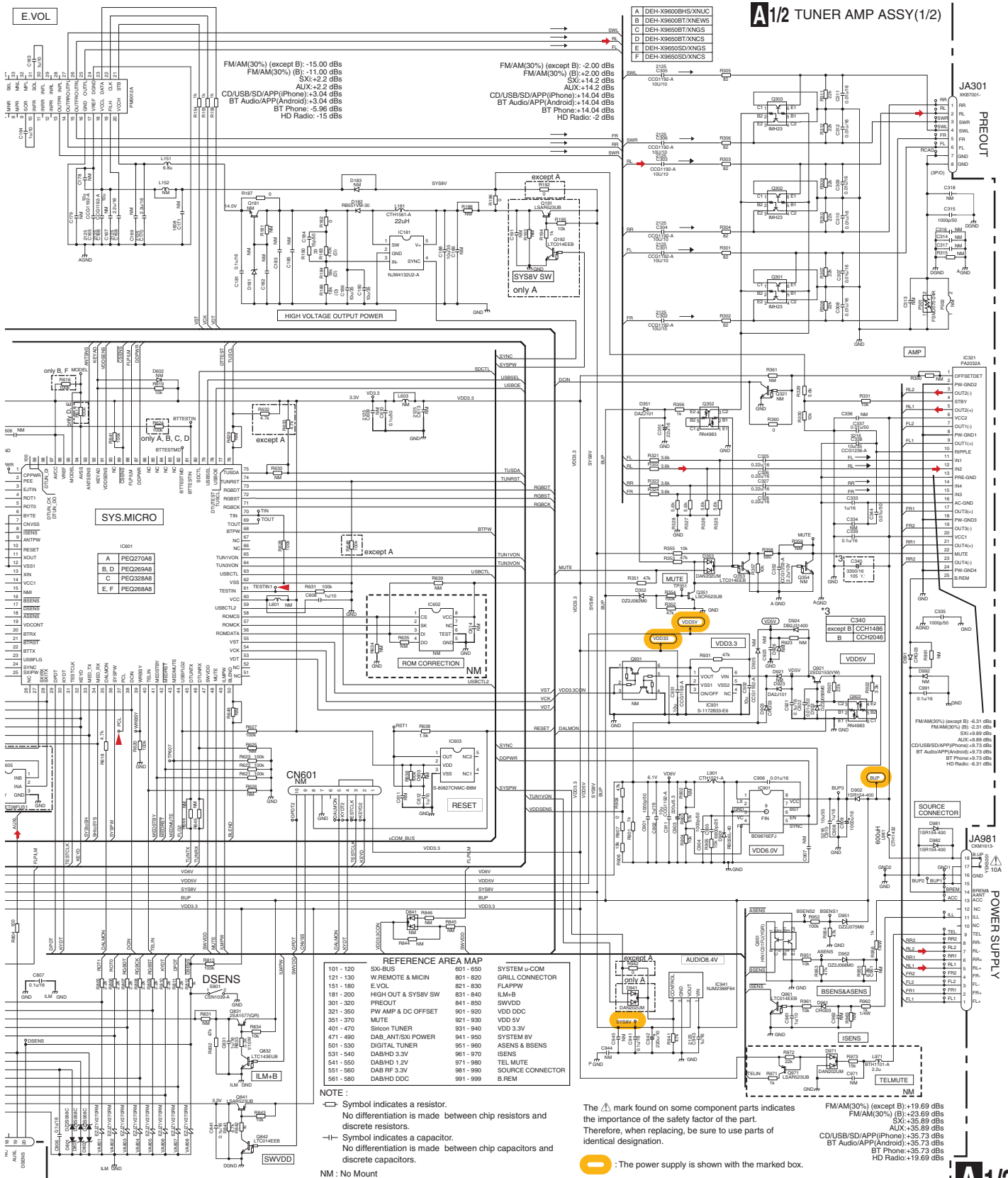
Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".

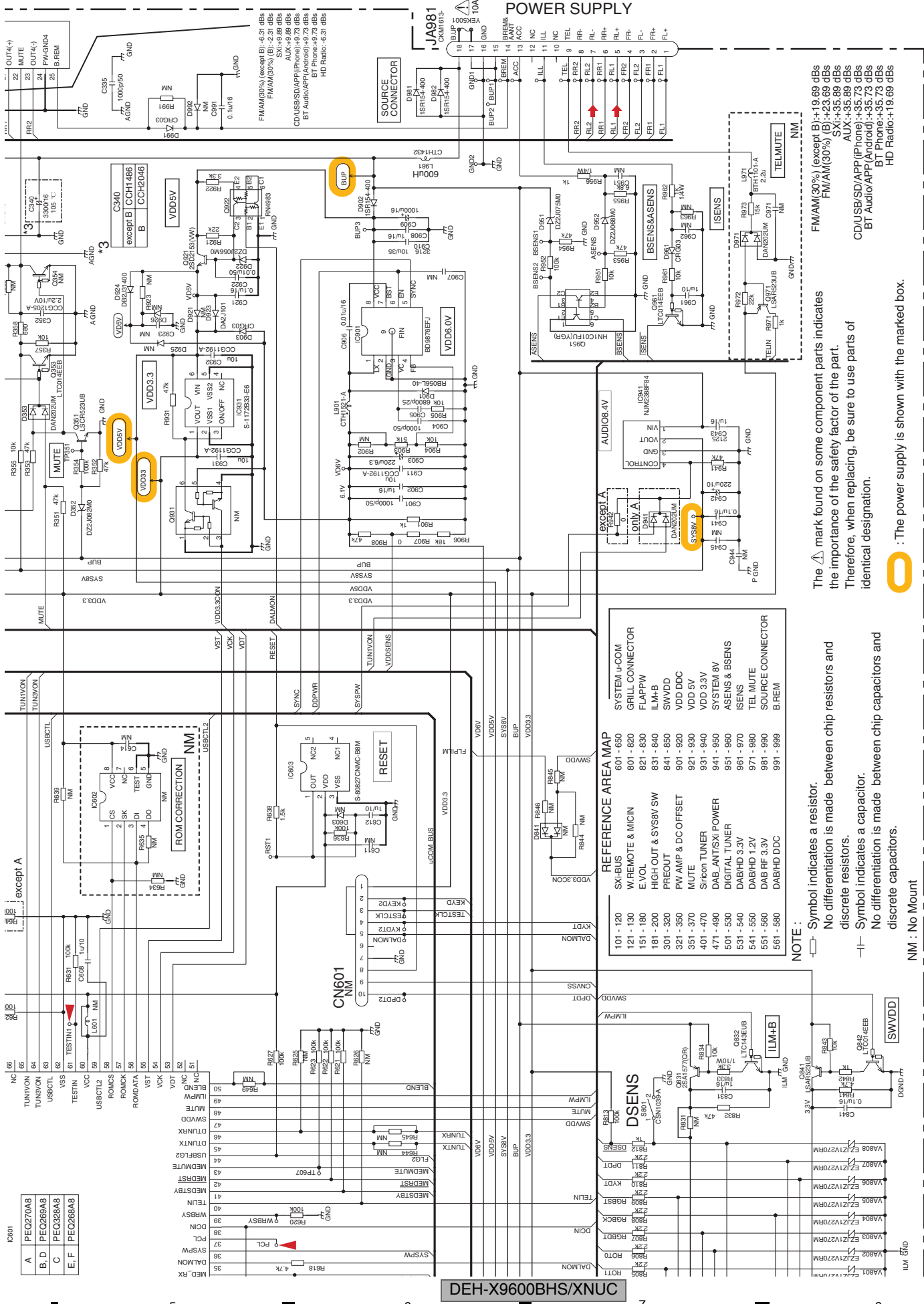
A-a 1/2



DEH-X9600BHS/XNUC

A-b 1/2





The Δ 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.

Δ : The power supply is shown with the marked box.

FM/AM(30%) (except B): +19.69 dBs
FM/AM(30%) (B): +23.69 dBs
AUX: +33.89 dBs
CD/USB/SD/APP(PHONE): +35.73 dBs
BT Audio/APP(Android): +35.73 dBs
HD Radio: +19.69 dBs

A-b 1/2

A-a A-b

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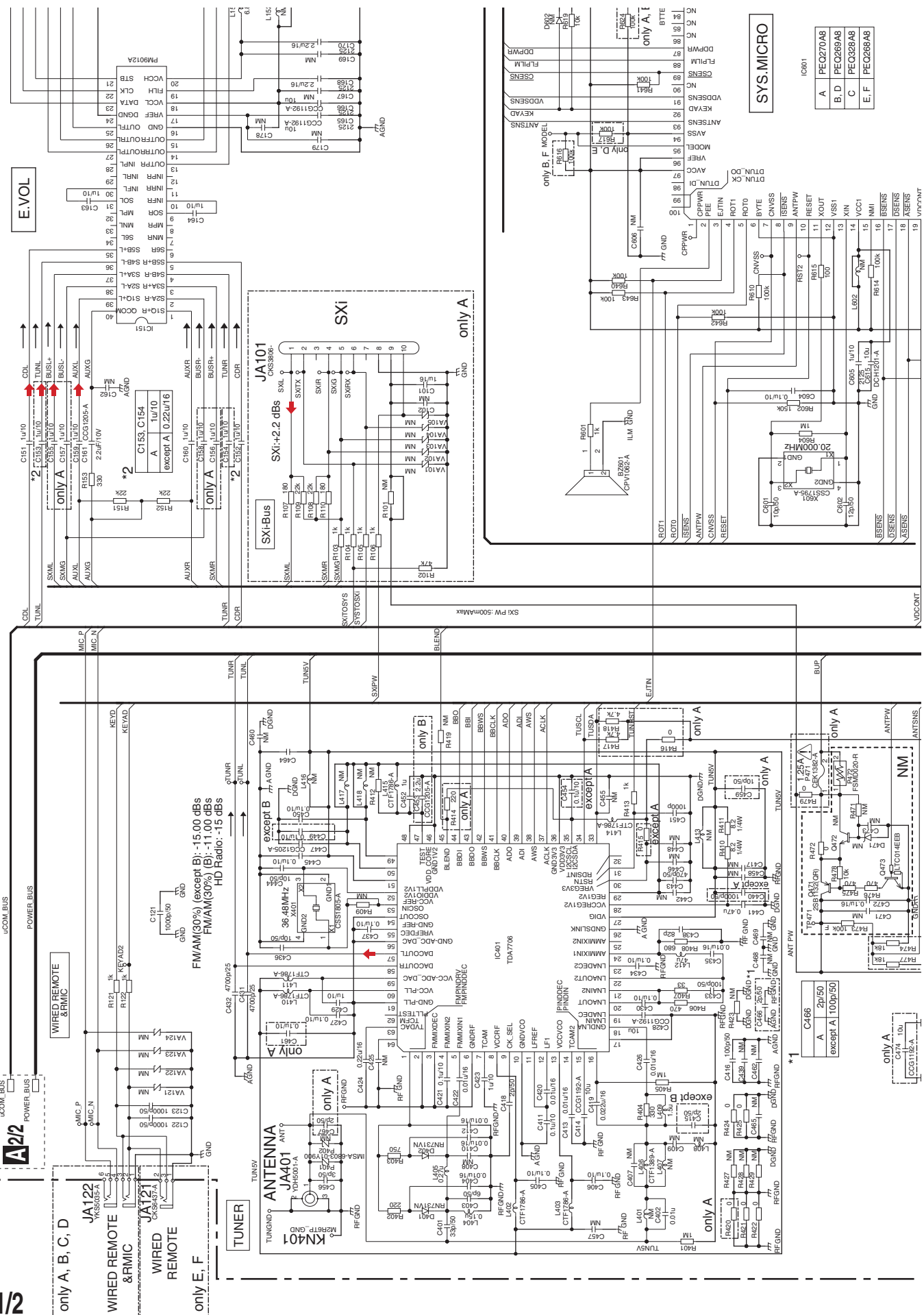
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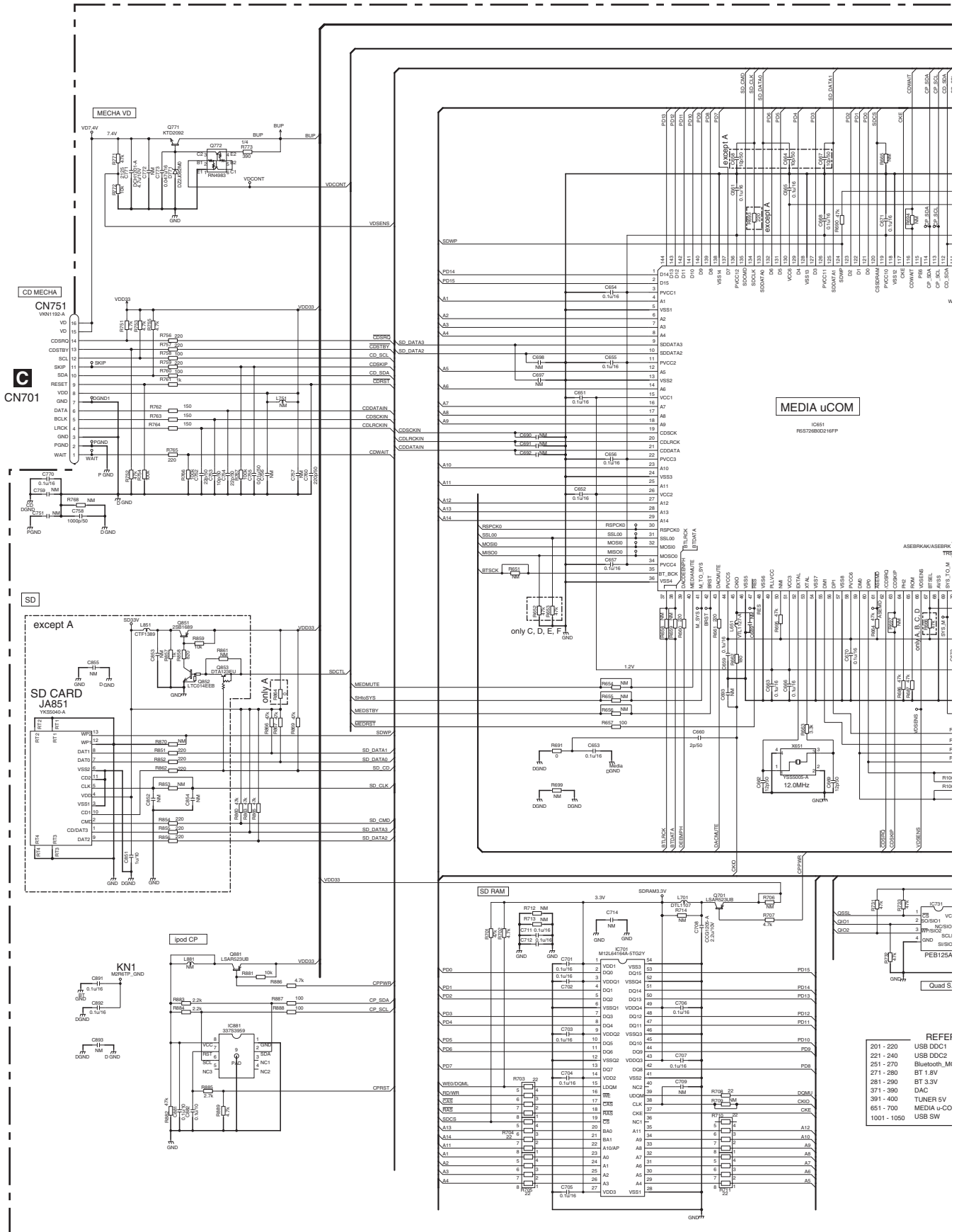
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10.2 TUNER AMP ASSY(2/2)(GUIDE PAGE)

A-a 2/2

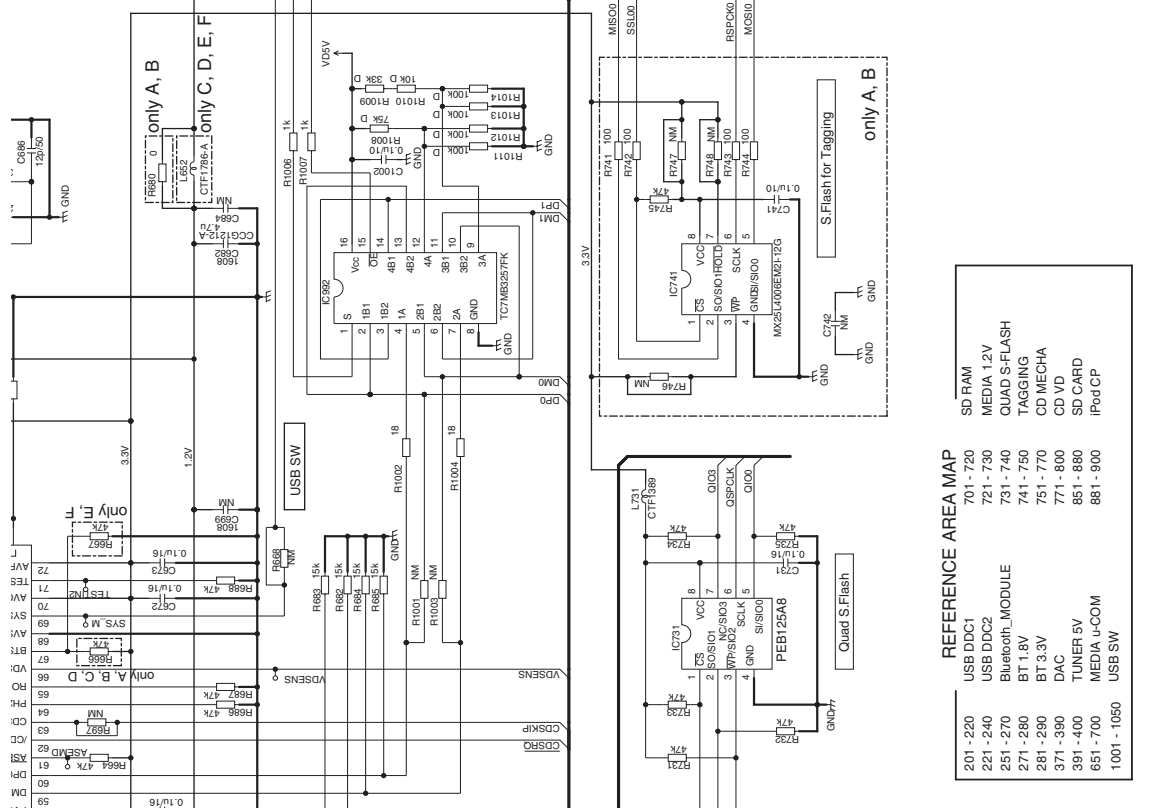


A2/2

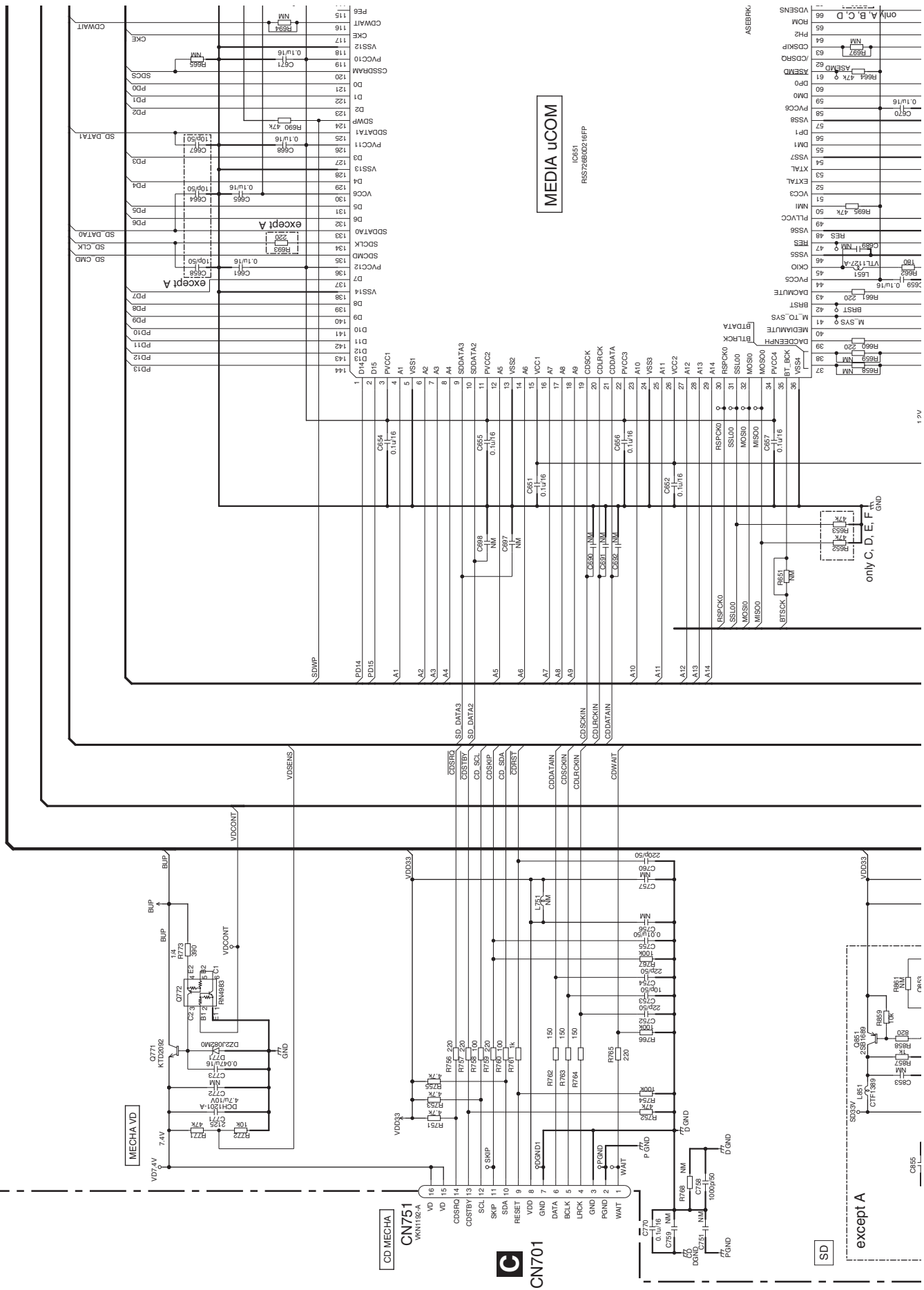
DEH-X9600BHS/XNUC

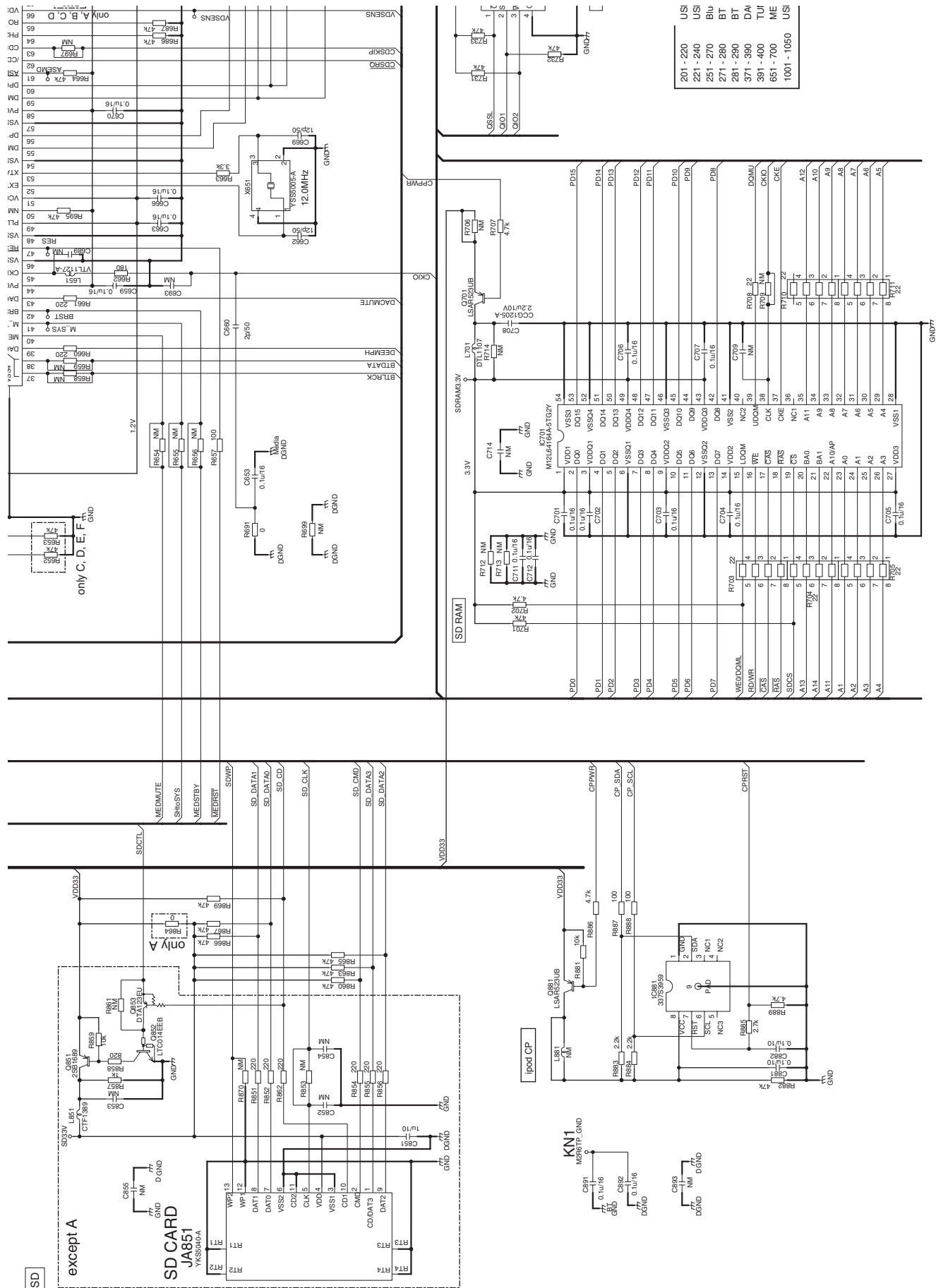
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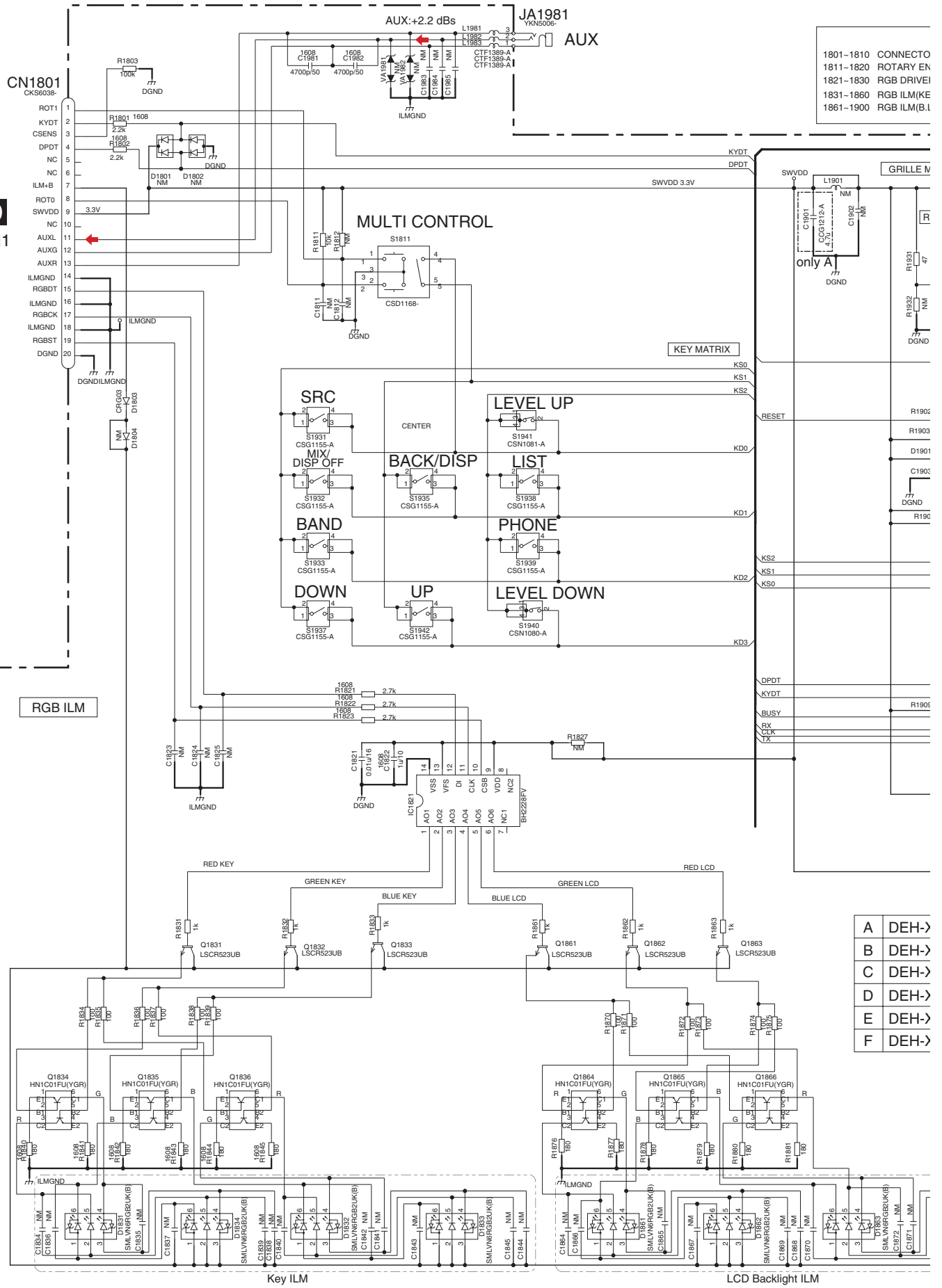


REFERENCE AREA MAP	
201 ~ 220	USB DDC1 701 ~ 720
221 ~ 240	USB DDC2 721 ~ 730
251 ~ 270	Bluetooth_MODULE 731 ~ 740
271 ~ 280	BT 1.8V 741 ~ 750
281 ~ 290	BT 3.3V 751 ~ 770
371 ~ 390	DAC 771 ~ 800
391 ~ 400	TUNER 5V 851 ~ 880
651 ~ 700	MEDIA uCOM 881 ~ 900
1001 ~ 1050	USB SW



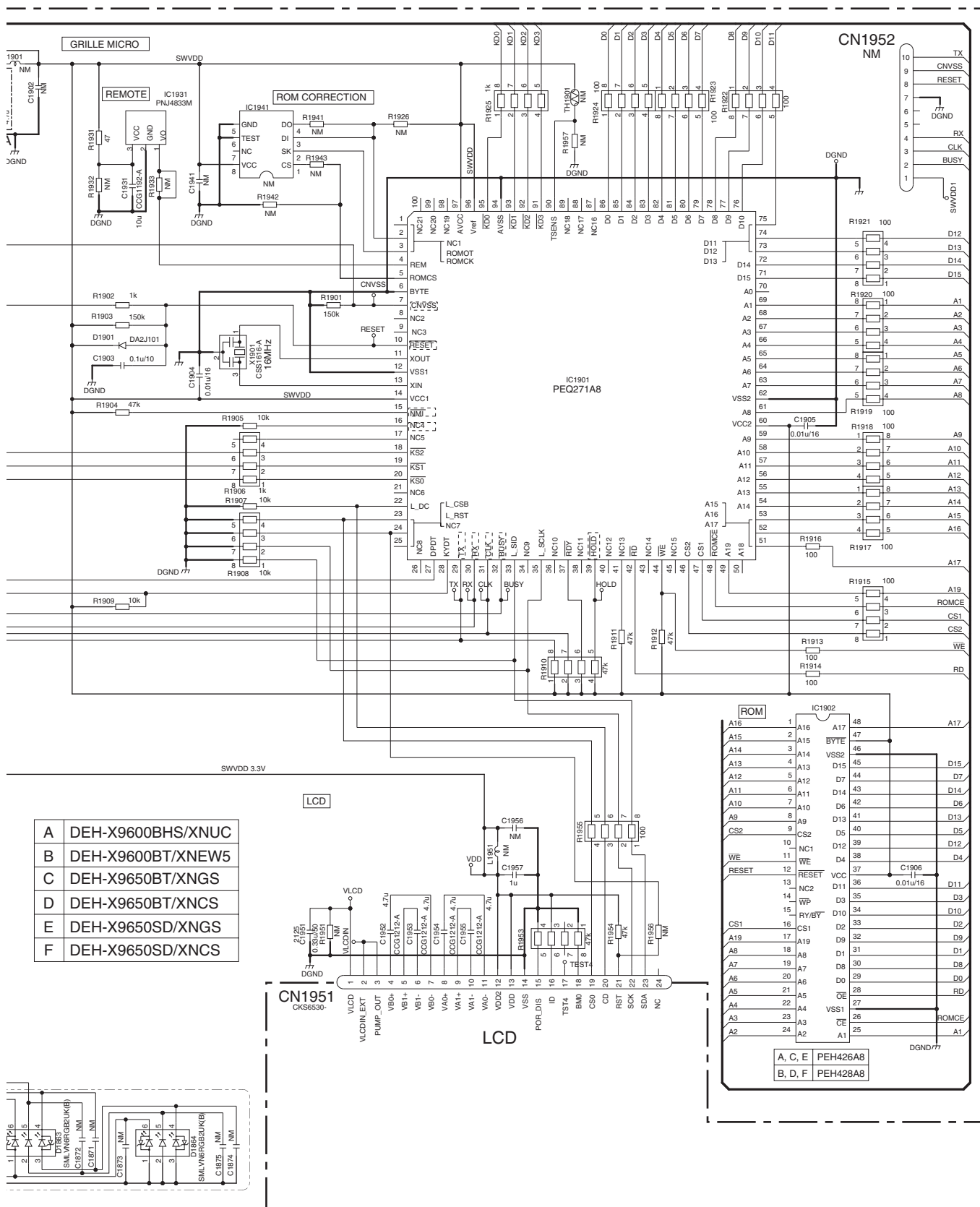


10.3 KEYBOARD UNIT



B KEYBOARD UNIT

801-1810	CONNECTOR	1901-1930	GRILLE MICRO & ROM
811-1820	ROTARY ENCODER	1931-1940	REMOTE&KEY
821-1830	RGB DRIVER	1941-1950	ROM CORRECTION
831-1860	RGB ILM(KEY)	1951-1980	LCD
861-1900	RGB ILM(B.LIGHT)	1981-1990	AUX



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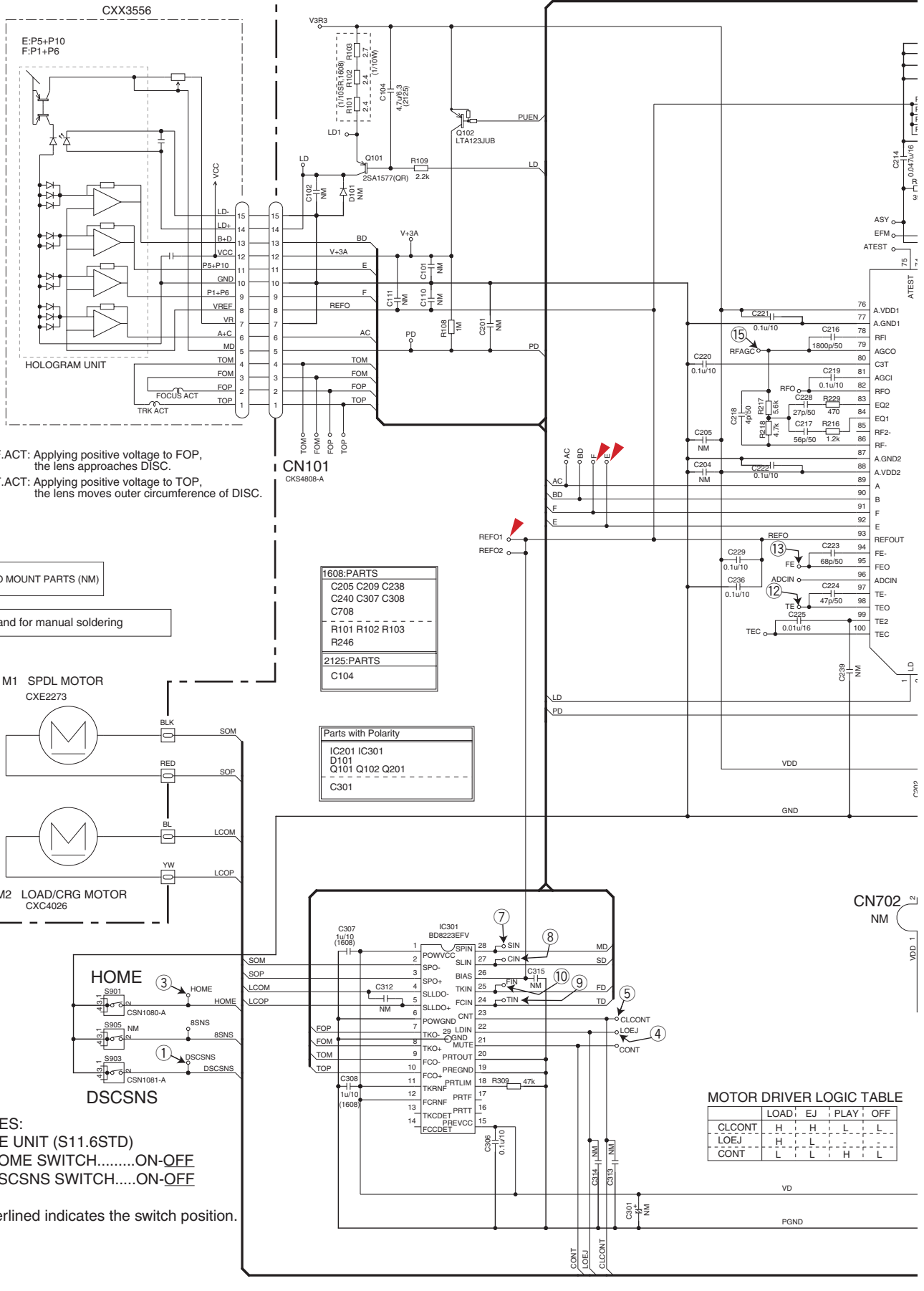
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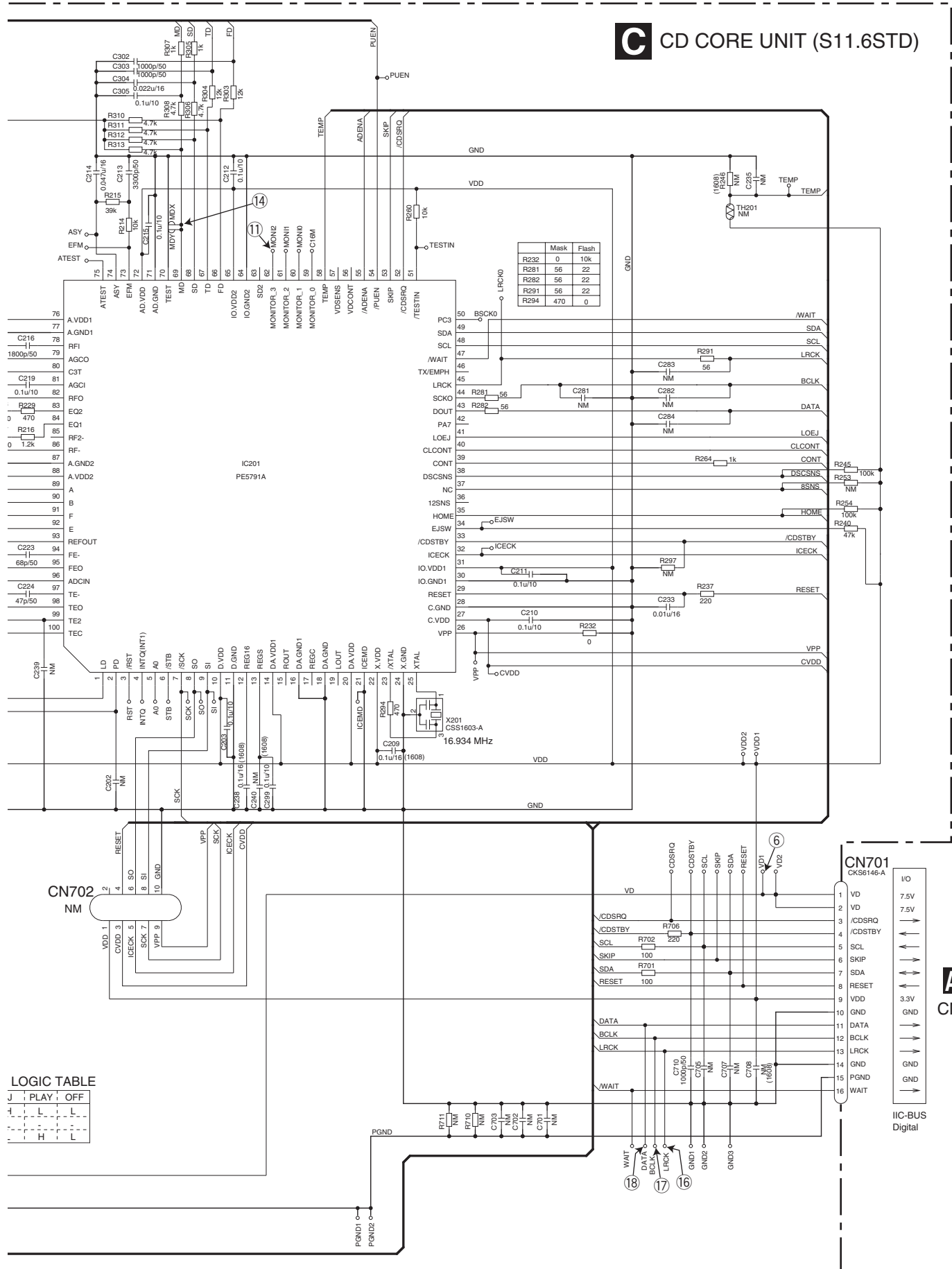
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10.4 CD CORE UNIT (S11.6STD)

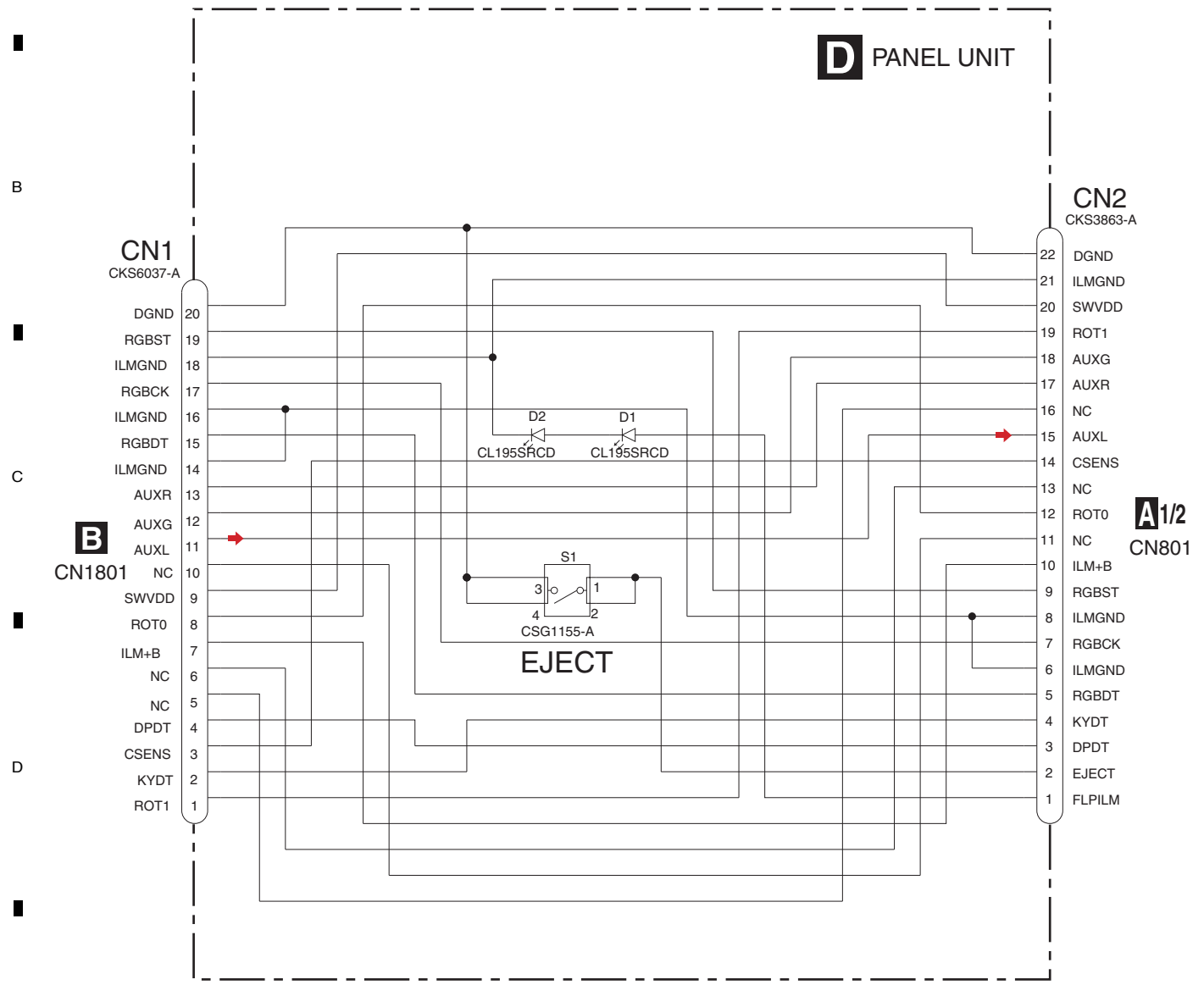
PICK UP UNIT(P10.6) (SERVICE)



C CD CORE UNIT (S11.6STD)



10.5 PANEL UNIT



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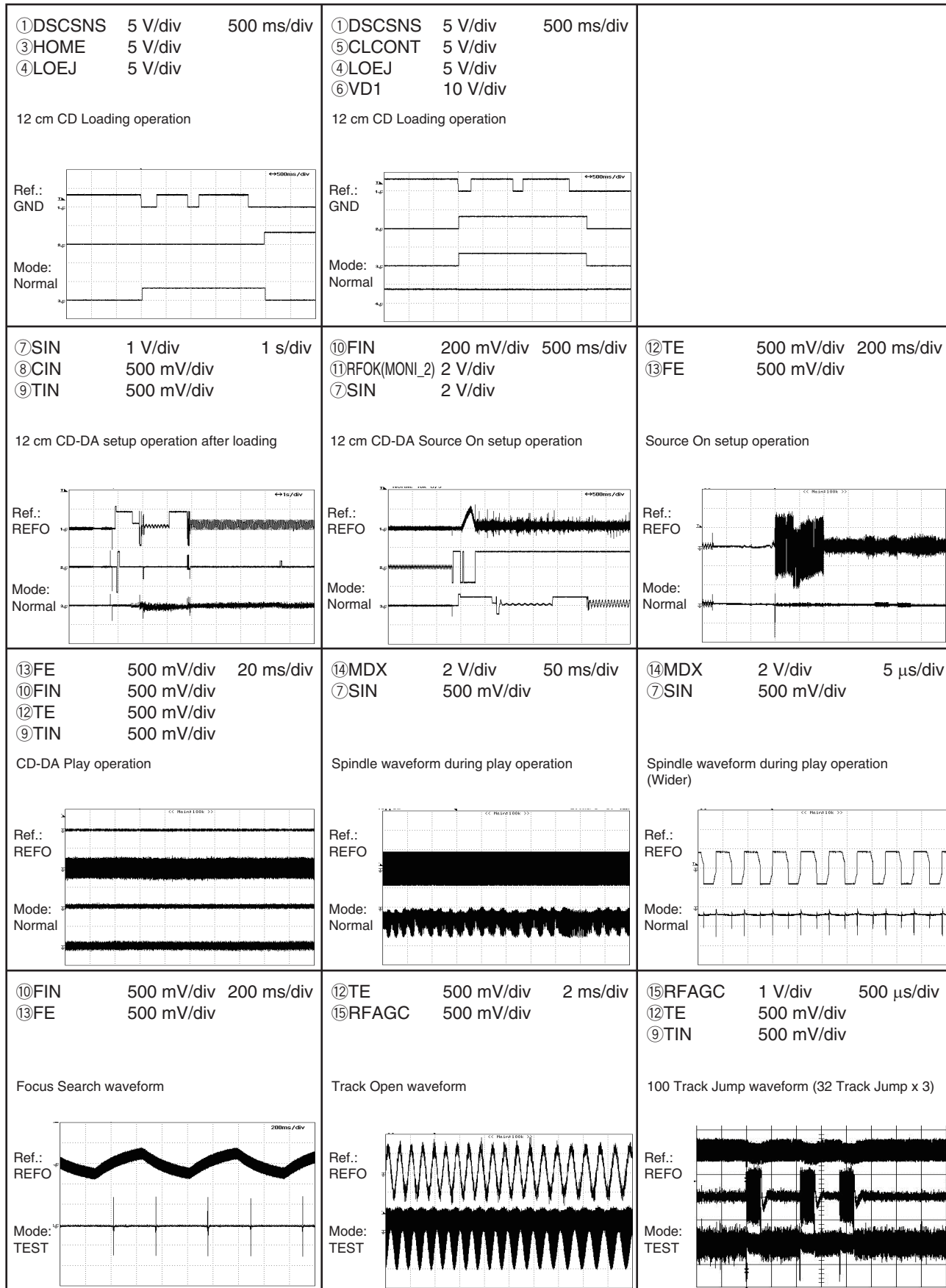
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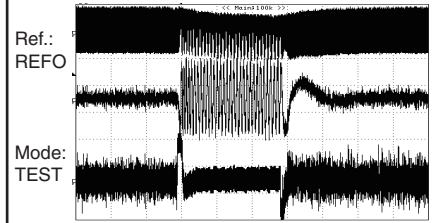
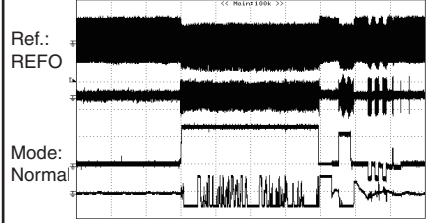
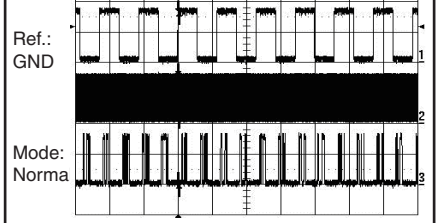
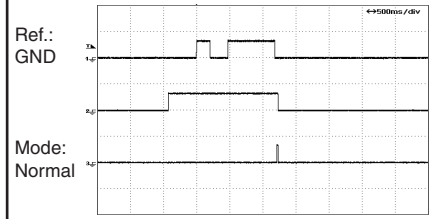
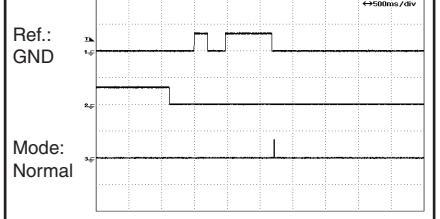
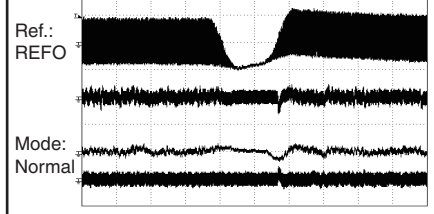
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10.6 WAVEFORMS

● CD CORE UNIT(S11.6STD)

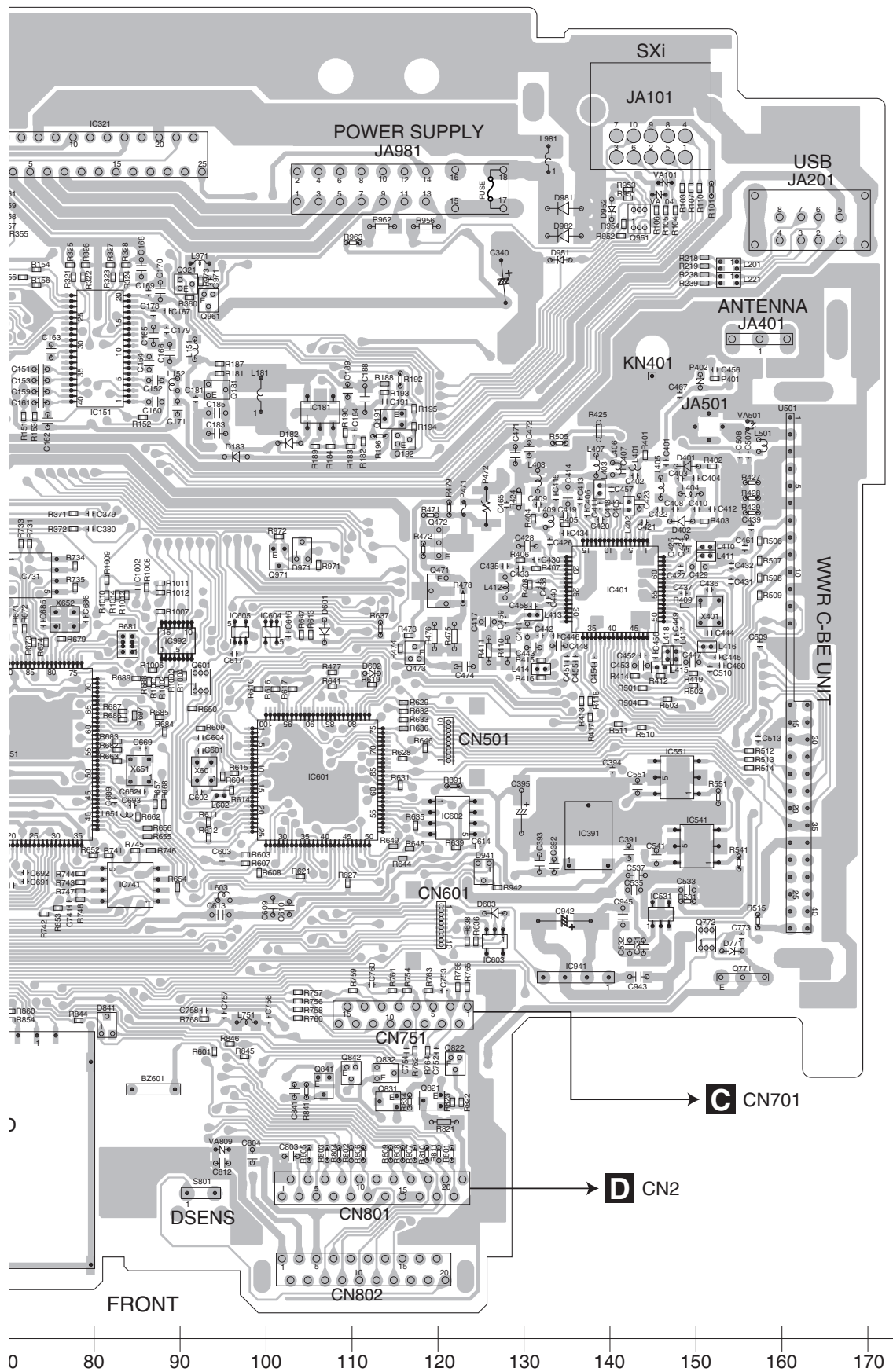
Note : 1. The encircled numbers denote measuring points in the circuit diagram.
2. Reference voltage REFO1(1.65 V)



<p> ⑮RFAGC 1 V/div 2 ms/div ⑫TE 500 mV/div ⑨TIN 500 mV/div </p> <p>32 Tracks Jump waveform (Zoom of 100 Track Jump waveform)</p>  <p>Ref.: REFO Mode: TEST</p>	<p> ⑮RFAGC 1 V/div 200 ms/div ⑫TE 1 V/div ⑧CIN 500 mV/div ⑦SIN 2 V/div </p> <p>Search operation(Outer to Inner)</p>  <p>Ref.: REFO Mode: Normal</p>	<p> ⑯LRCK 2 V/div 10 us/div ⑰BCLK 2 V/div ⑱DOUT(DATA) 2 V/div </p> <p>Digital Out waveform</p>  <p>Ref.: GND Mode: Normal</p>
<p> ①DSCSNS 5 V/div 500 ms/div ⑤CLCONT 5 V/div ④LOEJ 5 V/div </p> <p>12 cm CD Eject operation</p>  <p>Ref.: GND Mode: Normal</p>		<p> ①DSCSNS 5 V/div 500 ms/div ③HOME 5 V/div ④LOEJ 5 V/div </p> <p>12 cm CD Eject operation</p>  <p>Ref.: GND Mode: Normal</p>
<p> ⑮RFAGC 1 V/div 500 μs/div ⑨TIN 1 V/div ⑫TE 1 V/div ⑩FIN 1 V/div </p> <p>Black Dot (800 μm) during play</p>  <p>Ref.: REFO Mode: Normal</p>		

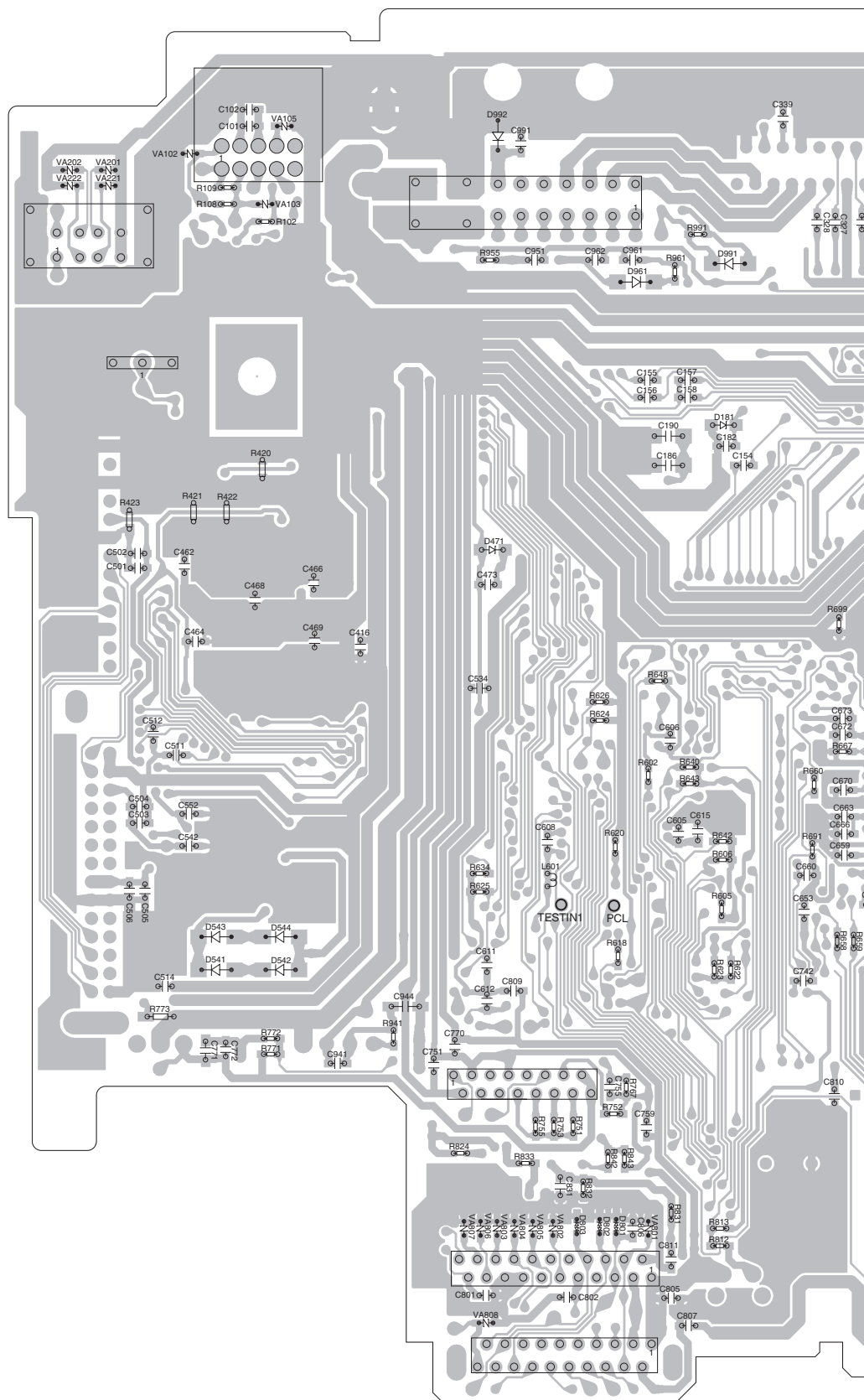
SIDE A

⚠ P 471 (A,123,97) Fuse 1.25 A CEK1382



A

A TUNER AMP ASSY



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SIDE B

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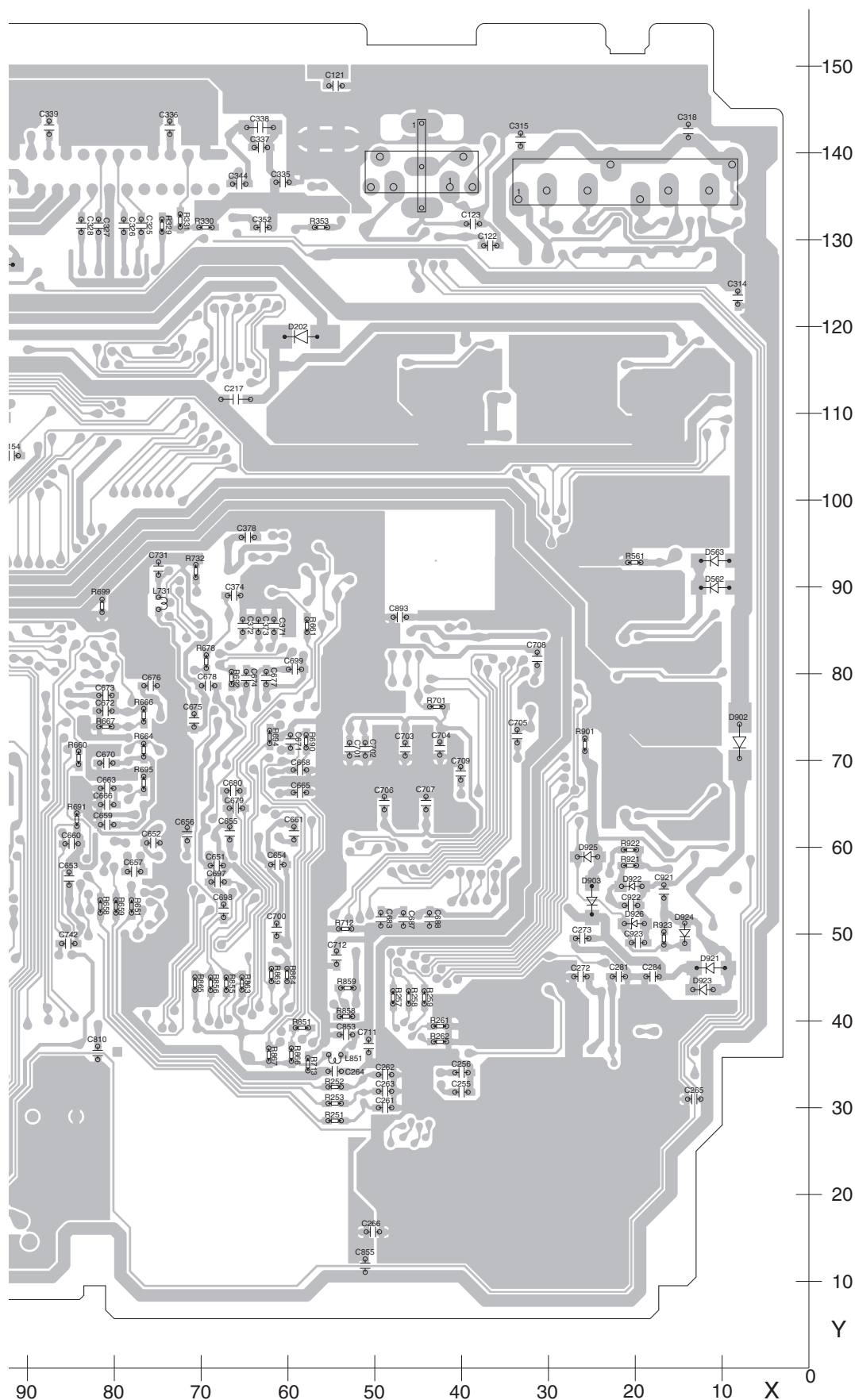
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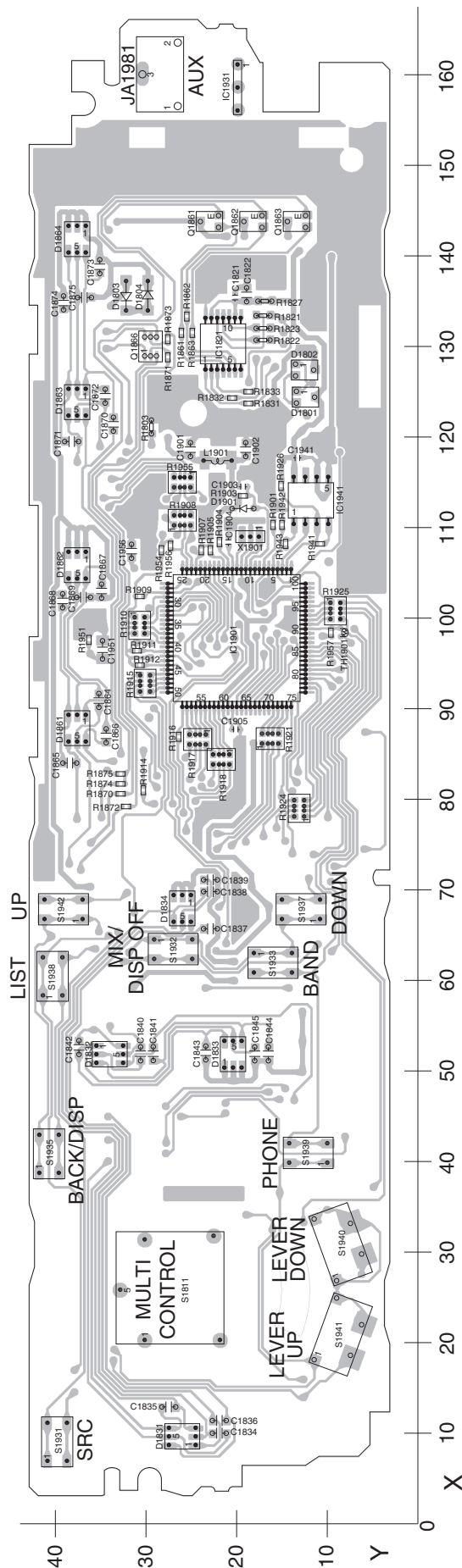


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11.2 KEYBOARD UNIT

B KEYBOARD UNIT

SIDE A



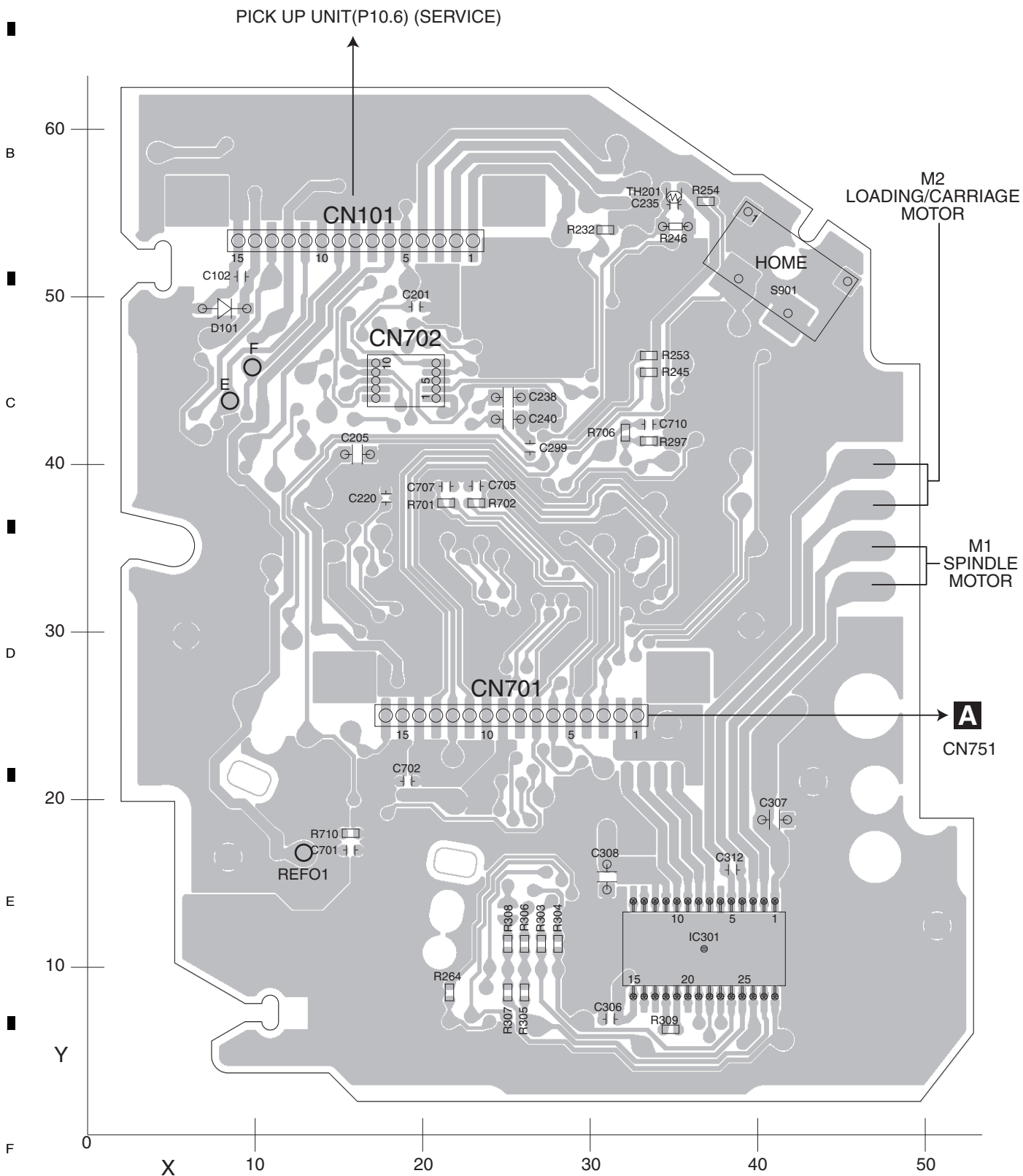
DEH-X9600BHS/XNUC

11.3 CD CORE UNIT (S11.6STD)

C CD CORE UNIT (S11.6STD)

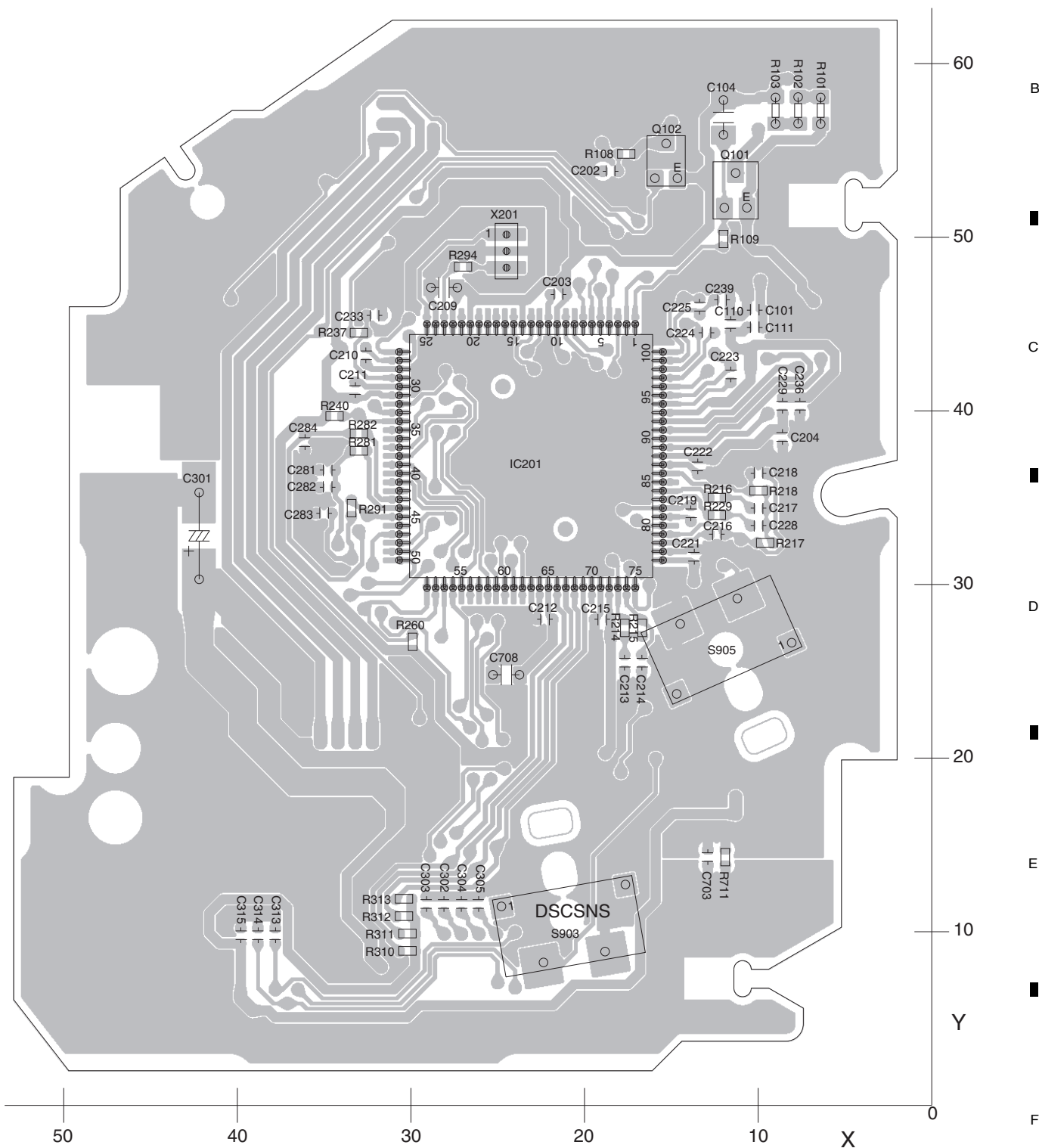
SIDE A

A



C

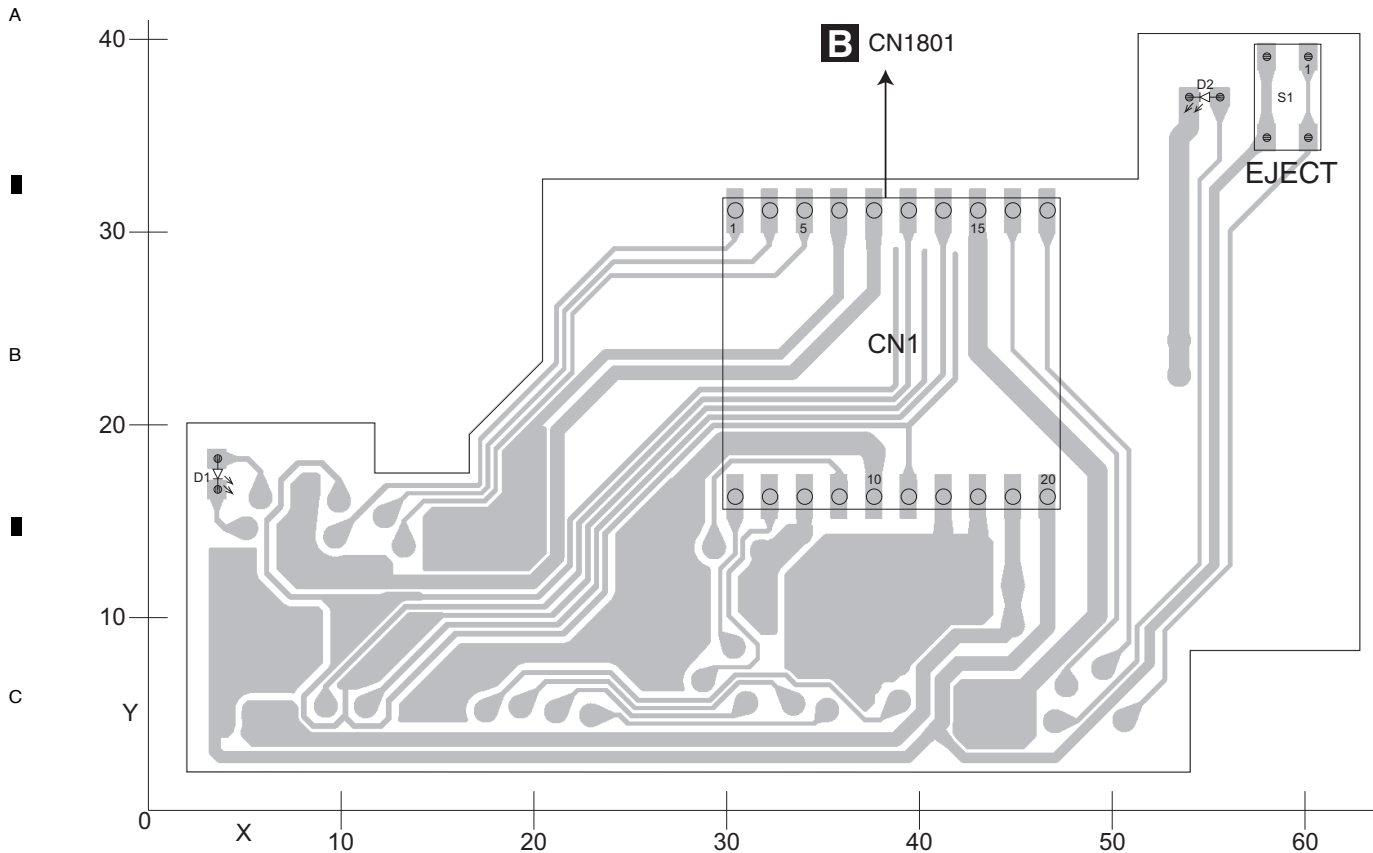
DEH-X9600BHS/XNUC



11.4 PANEL UNIT

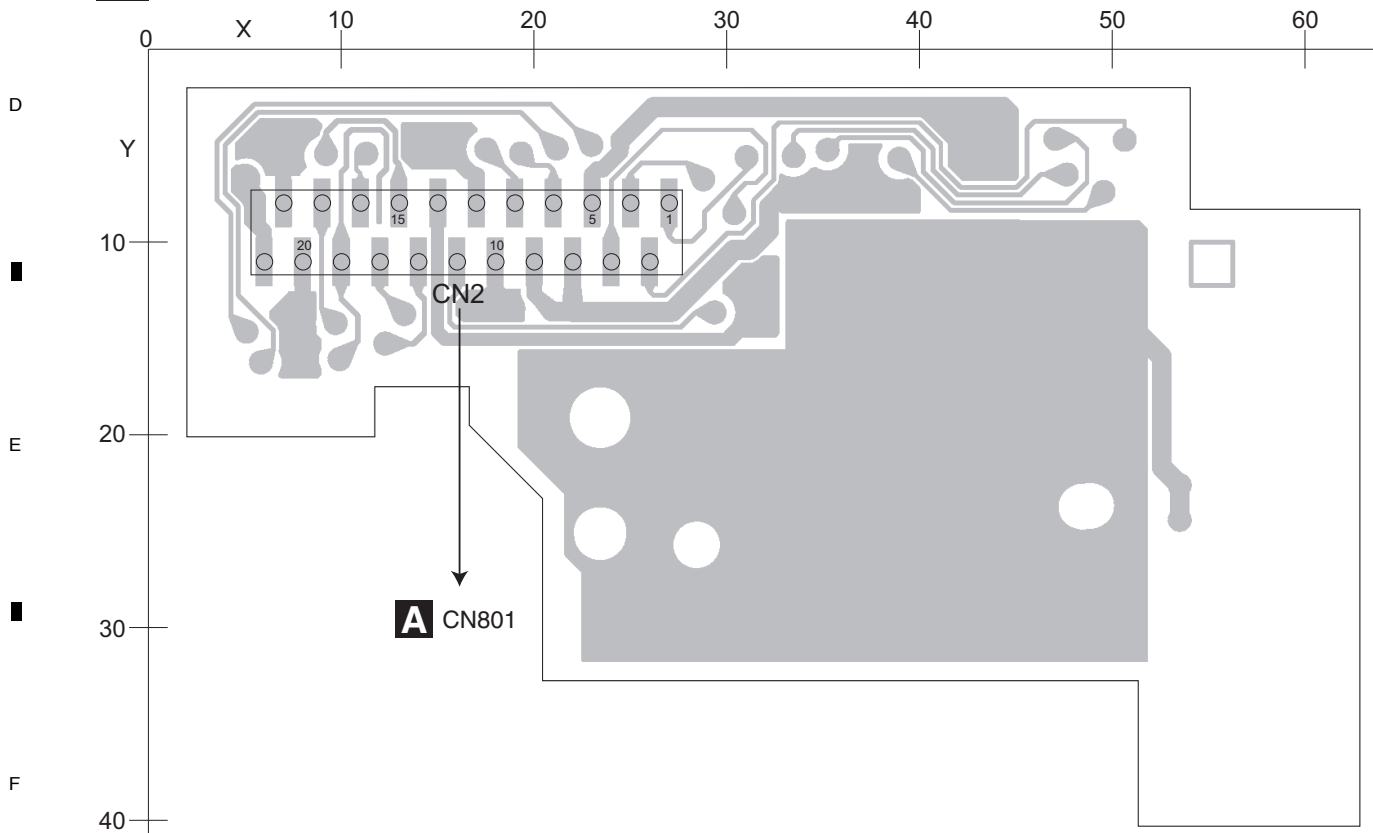
D PANEL UNIT

SIDE A



D PANEL UNIT

SIDE B



D

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 μ instead of μ . Please do not make a mistake.

Circuit Symbol and No.	Part No.	Circuit Symbol and No.	Part No.
A:DEH-X9600BHS/XNUC		MISCELLANEOUS	
B:DEH-X9600BT/XNEW5		IC 151	(A,81,115) IC PM9012A
C:DEH-X9650BT/XNGS		IC 181	(A,106,108) IC NJW4132U2-A
D:DEH-X9650BT/XNCS		IC 201	(A,40,110) IC AN33014UA
E:DEH-X9650SD/XNGS		IC 221	(A,14,110) IC AN33014UA
F:DEH-X9650SD/XNCS		IC 271	(A,27,48) Regulator IC(A,B,C,D) S-1172B18-E6
Unit Number : QWM3792(A)		IC 281	(A,20,47) IC(A,B,C,D) S-1200B33-M5
Unit Number : QWM3789(B)		IC 321	(A,81,142) IC PA2032A
Unit Number : QWM3790(C)		IC 371	(A,62,88) IC WM8761BGED
Unit Number : QWM3791(D)		IC 391	(A,138,60) Regulator IC NJM2885DL1-05
Unit Number : QWM3787(E)		IC 401	(A,141,87) IC TDA7706
Unit Number : QWM3788(F)		IC 531	(A,146,49) IC(A) S-1200B33-M5
Unit Name : Tuner Amp Assy		IC 541	(A,150,57) Regulator IC(A) S-1172B12-E6
Unit Number :		IC 601	(A,106,65) IC(A) PEQ270A8
Unit Name : Keyboard Unit			(A,106,65) IC(B,D) PEQ269A8
Unit Number : CWX4023			(A,106,65) IC(C) PEQ328A8
Unit Name : CD Core Unit (S11.6STD)			(A,106,65) IC(E,F) PEQ268A8
Unit Number : YWM5577		IC 603	(A,127,46) IC S-80827CNMC-B8M
Unit Name : Panel Unit		IC 604	(A,101,82) IC(A) TC7SH126FU
A		IC 605	(A,97,82) L-MOS And Gate(A) TC7SET08FUS1
Unit Number : QWM3792(A)		IC 651	(A,70,68) IC R5S726B0D216FP
Unit Number : QWM3789(B)		IC 701	(A,43,70) RAM IC M12L64164A-5TG2Y
Unit Number : QWM3790(C)		IC 721	(A,33,92) Regulator IC S-1155B12-U5
Unit Number : QWM3791(D)		IC 731	(A,72,89) Flash ROM Unit PEB125A8
Unit Number : QWM3787(E)		IC 741	(A,84,53) IC(A,B) MX25L4006EM2I-12G
Unit Number : QWM3788(F)		IC 881	(A,54,93) IC 337S3959
Unit Name : Tuner Amp Assy		IC 901	(A,13,63) Regulator IC BD9876EFJ
		IC 931	(A,27,57) Regulator IC S-1172B33-E6
		IC 941	(A,140,42) IC NJM2388F84
		IC 992	(A,90,81) IC TC7MB3257FK
		Q 191	(A,115,107) Transistor(A) LSAR523UB
		Q 192	(A,116,105) Transistor(A) LTC014EEB
		Q 301	(A,11,130) Transistor IMH23
		Q 302	(A,20,130) Transistor IMH23
		Q 303	(A,28,130) Transistor IMH23
		Q 351	(A,57,132) Transistor LSCR523UB
		Q 352	(A,63,128) Chip Transistor RN4983
		Q 353	(A,67,128) Transistor LTC014EEB
		Q 701	(A,34,84) Transistor LSAR523UB
		Q 771	(A,155,41) Transistor KTD2092

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

Q 772	(A,151,47) Chip Transistor	RN4983
Q 821	(A,119,28) Transistor	LSAR523UB
Q 822	(A,122,32) Transistor	LTC014EEB
Q 831	(A,114,28) Transistor	2SA1577
Q 832	(A,114,31) Transistor	LTC143EUB
Q 841	(A,107,29) Transistor	LSAR523UB
Q 842	(A,110,31) Transistor	LTC014EEB
Q 851	(A,53,40) Chip Transistor(B,C,D,E,F) 2SB1689	
Q 852	(A,55,40) Transistor(B,C,D,E,F) LTC014EEB	
Q 853	(A,58,41) Transistor(B,C,D,E,F) DTA123EU	
Q 881	(A,50,87) Transistor	LSAR523UB
Q 921	(A,20,54) Transistor	2SD2153
Q 922	(A,21,59) Chip Transistor	RN4983
Q 951	(A,143,130) Chip Transistor	HN1C01FU
Q 961	(A,93,121) Transistor	LTC014EEB
D 182	(A,103,104) Diode	RB551VM-30
D 201	(A,45,109) Diode	RB060M-30
D 202	(B,59,119) Diode	RB056L-40
D 221	(A,20,109) Diode	RB060M-30
D 351	(A,57,130) Diode	DA2J101
D 352	(A,61,131) Diode	DZ2J082M0
D 353	(A,63,131) Diode	DAN202UM
D 401	(A,149,102) Diode	RN731VN
D 402	(A,148,95) Diode	RN731VN
D 541	(B,149,50) Diode(A)	CRG03
D 542	(B,142,50) Diode(A)	CRG03
D 564	(A,6,88) Diode(A)	CRG03
D 771	(A,154,45) Diode	DZ2J082M0
D 801	(B,106,22) Diode	DZ2S068C
D 802	(B,108,22) Diode	DZ2S068C
D 803	(B,110,22) Diode	DZ2S068C
D 901	(A,12,68) Diode	RB056L-40
D 902	(B,8,72) Diode	1SR154-400
D 903	(B,25,54) Diode	CRG03
D 922	(B,20,56) Diode	DZ2J056M0
D 923	(B,12,44) Diode	DA2J101
D 924	(B,14,50) Diode	DB2J31400
D 941	(A,125,54) Diode(A)	DAN202UM
D 951	(A,134,126) Diode	DZ2J075M0
D 952	(A,140,131) Diode	DZ2J068M0
D 961	(B,104,125) Diode	CRG03
D 981	(A,135,132) Diode	1SR154-400
D 982	(A,135,128) Diode	1SR154-400
D 991	(B,93,127) Diode	CRG03
L 151	(A,92,115) Inductor	LCTAW6R8J2520
L 181	(A,99,110) Choke Coil 22 uH	CTH1561
L 201	(A,154,125) Inductor	CTF1713
L 202	(A,50,106) Inductor	CTH1524
L 221	(A,154,123) Inductor	CTF1713
L 222	(A,24,106) Inductor	CTH1524
L 251	(A,14,35) Inductor(A,B,C,D)	CTF1786
L 252	(A,14,33) Inductor(A,B,C,D)	CTF1786
L 371	(A,58,96) Chip Ferrite Bead	DTL1107
L 402	(A,142,97) Inductor	CTF1786
L 403	(A,139,99) Inductor	CTF1786
L 404	(A,149,98) Chip Coil	LCTAWR15J2520
L 405	(A,146,99) Chip Coil	LCTAWR27J2520
L 406	(A,140,101) Inductor	CTF1389
L 409	(A,133,95) Inductor	LCTC1R5K1608
L 410	(A,151,92) Inductor	CTF1786

L 411	(A,151,91) Inductor	CTF1786
L 412	(A,128,87) Chip Coil	LCTAW470J2520
L 414	(A,132,78) Inductor	CTF1786
L 415	(A,146,78) Inductor	CTF1786
L 651	(A,84,61) Chip Beads	VTL1127
L 652	(A,37,88) Inductor(C,D,E,F)	CTF1786
L 653	(A,47,52) Chip Ferrite Bead	DTL1107
L 701	(A,31,78) Chip Ferrite Bead	DTL1107
L 731	(B,75,88) Inductor	CTF1389
L 851	(B,55,36) Inductor(B,C,D,E,F)	CTF1389
L 901	(A,10,75) Inductor	CTH1521
L 981	(A,114,141) Choke Coil 600 uH	CTH1432
X 401	(A,152,85) Resonator 36.480 MHz	CSS1805
X 601	(A,93,66) Resonator 20.000 MHz	CSS1795
X 651	(A,85,66) Resonator 12.000 MHz	YSS5005
X 652	(A,77,84) Resonator 16.93 MHz	CSS1794
S 801	(A,92,15) Switch(DSENS)	CSN1039
P 301	(A,36,128) Poly Switch	FSMD075-24R
P 401	(A,152,112) Surge Absorber	IMSA-6803-01Y900
△P471	(A,123,97) Fuse 1.25 A(A)	CEK1382
U 501	(A,162,77) WWR C-BE Unit(A)	CWE2364
BZ601	(A,87,29) Buzzer	CPV1062
VA801	(B,102,22) Varistor	EZJZ1V270RM
VA802	(B,113,22) Varistor	EZJZ1V270RM
VA803	(B,119,22) Varistor	EZJZ1V270RM
VA804	(B,117,22) Varistor	EZJZ1V270RM
VA805	(B,115,22) Varistor	EZJZ1V270RM
VA806	(B,121,22) Varistor	EZJZ1V270RM
VA807	(B,122,22) Varistor	EZJZ1V270RM
VA808	(B,120,12) Varistor	EZJZ1V270RM
CN251	(A,48,34) Connector(A,B,C,D)	CKS6346
CN751	(A,116,38) Connector	VKN1192
CN801	(A,112,15) Connector	CKS3836
JA101	(A,145,143) Connector(A)	CKS3806
JA121	(A,45,138) Jack(E,F)	CKS6437
JA122	(A,45,141) Jack(A,B,C,D)	YKS5035
JA201	(A,163,135) Connector	YKS5043
JA301	(A,22,138) Pin Jack	XKB7001
JA401	(A,157,116) ANT Pigtail Cable	YDH5001
JA851	(A,66,21) Connector(B,C,D,E,F)	YKS5040
JA981	(A,116,141) Connector	CKM1613

RESISTORS

R 102	(B,144,132) (A)	RS1/10SR473J
R 103	(A,148,134) (A)	RS1/16SS102J
R 104	(A,148,131) (A)	RS1/16SS102J
R 105	(A,147,131) (A)	RS1/16SS102J
R 106	(A,145,131) (A)	RS1/16SS102J
R 107	(A,149,134) (A)	RS1/16SS181J
R 108	(B,148,134) (A)	RS1/10SR223J
R 109	(B,148,135) (A)	RS1/10SR223J
R 110	(A,150,134) (A)	RS1/16SS181J
R 121	(A,46,129)	RS1/10SR102J
R 122	(A,44,129)	RS1/10SR102J
R 151	(A,72,107)	RS1/16SS223J
R 152	(A,86,107)	RS1/16SS223J
R 153	(A,73,107)	RS1/16SS331J
R 154	(A,73,124)	RS1/16SS102J
R 155	(A,72,124)	RS1/16SS102J

5		6		7		8	
<u>Circuit Symbol and No.</u>		<u>Part No.</u>		<u>Circuit Symbol and No.</u>		<u>Part No.</u>	
R 156	(A,73,123)	RS1/16SS102J		R 329	(B,75,132)	RS1/10SR562J	
R 182	(A,111,104)	RS1/16SS0R0J		R 330	(B,70,131)	RS1/10SR103J	
R 183	(A,110,104)	RS1/16SS4703D		R 331	(B,72,132)	RS1/10SR103J	
				R 351	(A,64,126)	RS1/16SS473J	A
R 184	(A,108,104)	RS1/16SS1802D		R 352	(A,62,134)	RS1/16SS473J	
R 187	(A,95,113)	RS1/16SS0R0J					
R 189	(A,106,104)	RS1/16SS1802D		R 353	(B,56,131)	RS1/10SR473J	
R 190	(A,109,105)	RS1/16SS330J		R 354	(A,59,134)	RS1/16SS104J	
R 192	(A,116,112) (B,C,D,E,F)	RS1/10SR0R0J		R 355	(A,69,129)	RS1/16SS103J	
R 194	(A,117,106) (A)	RS1/16SS102J		R 356	(A,61,126)	RS1/16SS102J	
R 195	(A,117,108) (A)	RS1/16SS103J		R 357	(A,68,130)	RS1/16SS103J	
R 196	(A,113,105)	RS1/10SR0R0J		R 358	(A,68,131)	RS1/16SS681J	
R 202	(A,55,103)	RS1/10SR681J		R 360	(A,91,121)	RS1/16SS0R0J	
R 203	(A,55,104)	RS1/10SR681J		R 371	(A,78,96)	RS1/16SS821J	
R 204	(A,47,113) 0.056 ohm	ACN7160		R 372	(A,78,94)	RS1/16SS821J	
R 206	(A,40,103)	RS1/16SS4702D		R 401	(A,144,103)	RS1/16SS105J	B
R 207	(A,37,103)	RS1/16SS224J		R 402	(A,152,102)	RS1/16SS221J	
R 208	(A,33,117)	RS1/16SS152J		R 403	(A,151,95)	RS1/16SS751J	
R 210	(A,34,116)	RS1/16SS3302D		R 404	(A,131,95)	RS1/16SS331J	
R 211	(A,34,114)	RS1/16SS8201D		R 405	(A,135,95)	RS1/16SS105J	
R 212	(A,35,116)	RS1/16SS223J		R 406	(A,130,91)	RS1/16SS471J	
R 222	(A,29,104)	RS1/10SR681J		R 407	(A,131,90)	RS1/16SS330J	
R 223	(A,29,103)	RS1/10SR681J		R 408	(A,131,88)	RS1/16SS681J	
R 224	(A,22,113) 0.056 ohm	ACN7160		R 410	(A,128,80)	RS1/4SA8R2J	
R 226	(A,14,103)	RS1/16SS4702D		R 411	(A,126,80)	RS1/4SA8R2J	
R 227	(A,11,103)	RS1/16SS224J		R 413	(A,137,74)	RS1/16SS102J	
							C
R 228	(A,8,117)	RS1/16SS152J		R 414	(A,143,77) (A)	RS1/16SS221J	
R 230	(A,8,116)	RS1/16SS3302D		R 415	(A,132,79) (B,C,D,E,F)	RS1/16SS0R0J	
R 231	(A,8,114)	RS1/16SS8201D		R 416	(A,132,77) (A)	RS1/16SS0R0J	
R 232	(A,10,116)	RS1/16SS223J		R 417	(A,138,72) (A)	RS1/16SS472J	
R 251	(B,55,29) (A,B,C,D)	RS1/10SR221J		R 418	(A,138,74) (A)	RS1/16SS472J	
R 252	(B,55,32) (A,B,C,D)	RS1/10SR221J		R 420	(B,144,105) (A)	RS1/8SQ0R0J	
R 253	(B,55,31) (A,B,C,D)	RS1/10SR221J		R 421	(B,152,100)	RS1/8SQ0R0J	
R 254	(A,50,41) (A,B,C,D)	RS1/16SS102J		R 422	(B,148,100)	RS1/8SQ0R0J	
R 255	(A,49,41) (A,B,C,D)	RS1/16SS102J		R 424	(A,129,98)	RS1/8SQ0R0J	
R 256	(A,16,36) (A,B,C,D)	RS1/16SS222J		R 425	(A,139,106)	RS1/8SQ0R0J	
R 257	(B,48,43) (A,B,C,D)	RS1/10SR101J		R 474	(A,116,80) (A)	RS1/16SS183J	D
R 258	(B,46,43) (A,B,C,D)	RS1/10SR101J		R 477	(A,108,78) (A)	RS1/16SS183J	
R 259	(B,44,43) (A,B,C,D)	RS1/10SR102J		R 479	(A,121,97) (A)	RS1/10SR0R0J	
R 260	(A,16,32) (A,B,C,D)	RS1/16SS222J		R 501	(A,144,76) (A)	RS1/16SS101J	
R 264	(A,30,46) (A,B,C,D)	RS1/16SS0R0J		R 502	(A,150,76) (A)	RS1/16SS101J	
				R 503	(A,147,74) (A)	RS1/16SS101J	
R 301	(A,8,129)	RS1/16SS820J		R 504	(A,144,74) (A)	RS1/16SS101J	
R 302	(A,14,129)	RS1/16SS820J		R 506	(A,157,93) (A)	RS1/16SS101J	
R 303	(A,17,129)	RS1/16SS820J		R 507	(A,157,91) (A)	RS1/16SS101J	
R 304	(A,22,129)	RS1/16SS820J		R 508	(A,157,89) (A)	RS1/16SS101J	
R 305	(A,25,129)	RS1/16SS820J		R 509	(A,157,87) (A)	RS1/16SS101J	
R 306	(A,31,129)	RS1/16SS820J		R 512	(A,156,68) (A)	RS1/16SS101J	E
R 307	(A,8,130)	RS1/16SS223J		R 513	(A,156,67) (A)	RS1/16SS101J	
R 308	(A,14,130)	RS1/16SS223J		R 514	(A,156,66) (A)	RS1/16SS101J	
R 309	(A,16,130)	RS1/16SS223J		R 601	(A,94,33)	RS1/16SS102J	
R 310	(A,23,130)	RS1/16SS223J					
R 311	(A,25,130)	RS1/16SS223J		R 602	(B,102,71)	RS1/10SR154J	
R 312	(A,31,130)	RS1/16SS223J		R 603	(A,98,56)	RS1/16SS222J	
R 321	(A,78,124)	RS1/16SS362J		R 604	(A,95,65)	RS1/16SS105J	
R 322	(A,79,124)	RS1/16SS362J		R 606	(B,94,62) (A,B,C,D)	RS1/10SR104J	
R 323	(A,82,124)	RS1/16SS362J					
				R 607	(A,98,55)	RS1/16SS104J	
R 324	(A,83,124)	RS1/16SS362J		R 608	(A,99,54)	RS1/16SS104J	
R 325	(A,77,125)	RS1/16SS562J		R 609	(A,92,71)	RS1/16SS104J	F
R 326	(A,79,125)	RS1/16SS562J		R 610	(A,99,76)	RS1/16SS104J	
R 327	(A,82,125)	RS1/16SS562J		R 611	(A,93,60)	RS1/16SS104J	
R 328	(A,84,125)	RS1/16SS562J					
				R 612	(A,93,58)	RS1/16SS104J	

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

R 613 (A,105,82) RS1/16SS103J
 R 614 (A,96,64) RS1/16SS104J
 R 615 (A,96,66) RS1/16SS101J
 R 616 (A,101,76) (B,F) RS1/16SS104J
 R 617 (A,103,76) (D,E) RS1/16SS104J

R 692 (B,67,80) RS1/10SR473J
 R 693 (A,56,64) (B,C,D,E,F) RS1/16SS221J
 R 695 (B,77,67) RS1/10SR473J
 R 701 (B,43,76) RS1/10SR473J
 R 702 (A,43,79) RS1/16SS472J

R 618 (B,106,52) RS1/10SR472J
 R 619 (A,112,76) RS1/16SS103J
 R 620 (B,106,64) RS1/10SR104J
 R 621 (A,104,54) RS1/16SS104J
 R 622 (B,93,50) RS1/10SR104J

R 703 (A,41,79) RAB4CQ220J
 R 704 (A,38,79) RAB4CQ220J
 R 705 (A,34,79) RAB4CQ220J
 R 707 (A,37,83) RS1/16SS472J
 R 708 (A,43,61) RS1/16SS220J

R 623 (B,95,50) RS1/10SR104J
 R 624 (B,108,77) (A,B,C,D) RS1/10SR104J
 R 627 (A,110,53) RS1/16SS104J
 R 628 (A,116,68) RS1/16SS104J
 R 631 (A,116,64) RS1/16SS104J

R 710 (A,37,61) RAB4CQ220J
 R 711 (A,34,61) RAB4CQ220J
 R 731 (A,73,93) RS1/16SS473J
 R 732 (B,71,92) RS1/10SR473J
 R 733 (A,72,93) RS1/16SS473J

R 632 (A,116,73) (B,C,D,E,F) RS1/16SS472J
 R 633 (A,116,72) (B,C,D,E,F) RS1/16SS472J
 R 636 (A,124,46) RS1/16SS104J
 R 638 (A,123,46) RS1/16SS152J
 R 640 (B,98,72) RS1/10SR104J

R 734 (A,78,90) RS1/16SS473J
 R 735 (A,78,87) RS1/16SS473J
 R 741 (A,82,56) (A,B) RS1/16SS101J
 R 742 (A,74,49) (A,B) RS1/16SS101J
 R 743 (A,78,53) (A,B) RS1/16SS101J

R 641 (A,108,76) RS1/16SS104J
 R 642 (B,94,64) RS1/10SR104J
 R 643 (B,98,70) RS1/10SR104J
 R 646 (A,119,69) (B,C,D,E,F) RS1/16SS104J

R 744 (A,78,54) (A,B) RS1/16SS101J
 R 745 (A,85,57) (A,B) RS1/16SS473J
 R 751 (B,110,33) RS1/10SR472J
 R 752 (B,106,34) RS1/10SR473J
 R 753 (B,113,33) RS1/10SR472J

R 647 (A,104,82) RS1/16SS103J
 R 648 (B,101,82) (A) RS1/10SR473J
 R 650 (A,91,73) (A) RS1/16SS0R0J
 R 652 (A,80,56) (C,D,E,F) RS1/16SS473J
 R 653 (A,76,50) (C,D,E,F) RS1/16SS473J

R 754 (A,116,41) RS1/16SS104J
 R 755 (B,115,33) RS1/10SR472J
 R 756 (A,104,39) RS1/16SS221J
 R 757 (A,104,40) RS1/16SS221J
 R 758 (A,104,38) RS1/16SS101J

R 657 (A,87,62) RS1/16SS101J
 R 660 (B,84,70) RS1/10SR221J
 R 661 (B,58,86) RS1/10SR221J
 R 662 (A,85,61) RS1/16SS181J
 R 663 (A,83,67) RS1/16SS332J

R 759 (A,110,41) RS1/16SS221J
 R 760 (A,104,37) RS1/16SS101J
 R 761 (A,115,41) RS1/16SS102J
 R 762 (A,117,34) RS1/16SS151J
 R 763 (A,119,41) RS1/16SS151J

R 664 (B,77,71) RS1/10SR473J
 R 666 (B,77,75) (A,B,C,D) RS1/10SR473J
 R 667 (B,81,74) (E,F) RS1/10SR473J
 R 669 (A,69,81) RS1/16SS101J
 R 670 (A,70,83) RS1/16SS101J
 R 671 (A,71,83) RS1/16SS101J

R 764 (A,119,34) RS1/16SS151J
 R 765 (A,123,41) RS1/16SS221J
 R 766 (A,122,41) RS1/16SS104J
 R 767 (B,105,37) RS1/10SR104J
 R 771 (B,143,41) RS1/10SR473J

R 672 (A,72,83) RS1/16SS101J
 R 673 (A,73,81) RS1/16SS101J
 R 674 (A,74,81) RS1/16SS101J
 R 675 (A,65,81) RS1/16SS221J
 R 676 (A,65,82) RS1/16SS221J

R 772 (B,143,43) RS1/10SR103J
 R 773 (B,155,45) RS1/4SA391J
 R 801 (A,122,22) RS1/10SR222J
 R 802 (A,110,22) RS1/10SR222J
 R 803 (A,107,22) RS1/10SR101J

R 677 (A,67,81) RS1/16SS221J
 R 678 (B,69,81) RS1/10SR221J
 R 679 (A,76,81) RS1/16SS332J
 R 680 (A,37,89) (A,B) RS1/16SS0R0J
 R 681 (A,84,81) RAB4CQ473J

R 804 (A,109,22) RS1/10SR101J
 R 805 (A,105,22) RS1/10SR222J
 R 806 (A,111,22) RS1/10SR222J
 R 807 (A,117,22) RS1/10SR222J
 R 808 (A,116,22) RS1/10SR222J

R 682 (A,83,69) RS1/16SS153J
 R 683 (A,83,70) RS1/16SS153J
 R 684 (A,88,71) RS1/16SS153J
 R 685 (A,88,72) RS1/16SS153J
 R 686 (A,83,72) RS1/16SS473J

R 809 (A,115,22) RS1/10SR222J
 R 810 (A,119,22) RS1/10SR222J
 R 811 (A,120,22) RS1/10SR222J
 R 812 (B,94,20) RS1/10SR102J
 R 813 (B,94,22) RS1/10SR104J

R 687 (A,83,73) RS1/16SS473J
 R 688 (A,86,76) RS1/16SS473J
 R 689 (A,85,77) RS1/16SS473J
 R 690 (B,58,72) RS1/10SR473J
 R 691 (B,84,63) RS1/10SR0R0J

R 822 (A,123,28) RS1/16SS103J
 R 823 (A,122,28) RS1/16SS473J
 R 824 (B,123,30) RS1/10SR242J
 R 832 (B,109,26) RS1/10SR473J
 R 833 (B,116,29) RS1/10SR332J

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<u>Circuit Symbol and No.</u>		<u>Part No.</u>		<u>Circuit Symbol and No.</u>		<u>Part No.</u>	
R 834	(A,117,28)	RS1/10SR103J		CAPACITORS			
R 841	(A,105,29)	RS1/10SR472J		C 101	(B,146,142) (A)	CKSRYB105K16	
R 842	(B,107,30)	RS1/10SR102J		C 121	(B,55,148)	CKSRYB102K50	A
R 843	(B,105,30)	RS1/10SR103J		C 122	(B,37,129)	CKSRYB102K50	
R 851	(B,58,39) (B,C,D,E,F)	RS1/10SR221J		C 123	(B,39,132)	CKSRYB102K50	
				C 151	(A,74,113)	CKSRYB105K10	
R 852	(A,60,38) (B,C,D,E,F)	RS1/16SS221J		C 152	(A,87,112)	CKSRYB105K10	
R 854	(A,70,37) (B,C,D,E,F)	RS1/16SS221J					
R 855	(B,67,44) (B,C,D,E,F)	RS1/10SR221J		C 153	(A,74,112) (A)	CKSRYB105K10	
R 856	(B,69,44) (B,C,D,E,F)	RS1/10SR221J			(A,74,112) (B,C,D,E,F)	CKSRYB224K16	
R 857	(A,54,38) (B,C,D,E,F)	RS1/16SS102J		C 154	(B,92,105) (A)	CKSRYB105K10	
					(B,92,105) (B,C,D,E,F)	CKSRYB224K16	
R 858	(B,53,41) (B,C,D,E,F)	RS1/10SR821J		C 155	(B,102,114) (A)	CKSRYB105K10	
R 859	(B,53,44) (B,C,D,E,F)	RS1/10SR103J					
R 860	(A,70,38)	RS1/16SS473J		C 156	(B,102,113) (A)	CKSRYB105K10	
R 862	(A,69,38) (B,C,D,E,F)	RS1/16SS221J		C 157	(B,98,114) (A)	CKSRYB105K10	B
R 863	(B,65,44)	RS1/10SR473J		C 158	(B,98,113) (A)	CKSRYB105K10	
				C 159	(A,74,110)	CKSRYB105K10	
R 864	(B,60,45) (A)	RS1/10SR0R0J		C 160	(A,87,109)	CKSRYB105K10	
R 865	(B,71,44)	RS1/10SR473J		C 161	(A,74,109) 2.2 uF	CCG1205	
R 866	(B,60,36)	RS1/10SR473J					
R 867	(B,62,36)	RS1/10SR473J		C 163	(A,75,115)	CKSRYB105K10	
R 869	(B,62,45)	RS1/10SR473J		C 164	(A,86,114)	CKSRYB105K10	
R 881	(A,47,87)	RS1/10SR103J		C 165	(A,87,117) 10 uF	CCG1192	
				C 166	(A,89,115) 10 uF	CCG1192	
R 882	(A,55,96)	RS1/16SS473J		C 168	(A,86,125)	CKSQYB225K16	
R 883	(A,54,96)	RS1/16SS222J					
R 884	(A,53,90)	RS1/16SS222J		C 170	(A,88,122)	CKSQYB225K16	
R 885	(A,54,89)	RS1/16SS272J		C 181	(A,92,109)	CKSSYB104K16	C
R 886	(A,53,85)	RS1/16SS472J		C 184	(A,110,105)	CCSSCH150J50	
				C 186	(B,100,105) 10 uF	CCG1236	
R 887	(A,53,96)	RS1/16SS101J		C 188	(A,112,109) 10 uF	CCG1236	
R 888	(A,53,89)	RS1/16SS101J					
R 889	(A,56,89)	RS1/16SS472J		C 190	(B,100,108) 10 uF	CCG1236	
R 901	(B,26,72)	RS1/10SR102J		C 201	(A,46,118)	CKSSYB104K10	
R 903	(A,9,62)	RS1/16SS513J		C 202	(A,51,112) 22 uF	CCG1254	
				C 204	(A,38,103)	CKSSYB102K50	
R 904	(A,7,62)	RS1/16SS103J		C 205	(A,42,104)	CKSSYB104K16	
R 905	(A,7,64)	RS1/16SS103J					
R 906	(A,6,63)	RS1/16SS183J		C 206	(A,36,103)	CKSSYB472K25	
R 907	(A,6,61)	RS1/16SS0R0J		C 207	(A,41,103)	CKSSYB104K16	
R 908	(A,6,60)	RS1/16SS473J		C 208	(A,32,116)	CCSSCH151J50	D
				C 209	(A,38,115) 1 uF	DCH1246	
R 921	(B,21,58)	RS1/10SR223J		C 210	(A,37,116)	CKSSYB472K25	
R 922	(B,21,60)	RS1/10SR332J					
R 931	(A,31,52)	RS1/16SS473J		C 211	(A,43,117) 10 uF	DCH1165	
R 941	(B,130,43)	RS1/10SR473J		C 212	(A,35,115)	CCSSCH270J50	
R 942	(A,127,53) (B,C,D,E,F)	RS1/16SS0R0J		C 213	(A,62,109)	CEVW101M16	
				C 214	(A,39,116)	CKSSYB104K16	
R 951	(A,142,133)	RS1/16SS103J		C 215	(A,52,117) Capacitor	CEHVW101M6R3	
R 952	(A,141,128)	RS1/16SS104J					
R 953	(A,142,134)	RS1/16SS473J		C 216	(A,47,118)	CKSSYB102K50	
R 954	(A,142,130)	RS1/16SS473J		C 217	(B,66,112) 22 uF	CCG1254	
R 955	(B,120,128)	RS1/10SR682J		C 221	(A,21,118)	CKSSYB104K10	
				C 222	(A,25,112) 22 uF	CCG1254	
R 956	(A,119,129)	RS1/4SA102J		C 224	(A,12,103)	CKSSYB102K50	E
R 961	(B,99,126)	RS1/10SR103J					
R 962	(A,114,129)	RS1/4SA102J		C 225	(A,16,104)	CKSSYB104K16	
R 1002	(A,88,76)	RS1/16SS180J		C 226	(A,10,103)	CKSSYB472K25	
				C 227	(A,15,103)	CKSSYB104K16	
R 1004	(A,91,77)	RS1/16SS180J		C 228	(A,7,116)	CCSSCH151J50	
R 1006	(A,87,78)	RS1/16SS102J		C 229	(A,13,115) 1 uF	DCH1246	
R 1007	(A,88,85)	RS1/16SS102J					
R 1008	(A,86,87)	RS1/16SS7502D		C 230	(A,12,116)	CKSSYB472K25	
R 1009	(A,82,88)	RS1/16SS3302D		C 231	(A,18,117) 22 uF	CCG1254	
				C 232	(A,10,115)	CCSSCH270J50	
R 1010	(A,82,87)	RS1/16SS1002D		C 233	(A,14,117)	CKSSYB104K16	
R 1011	(A,88,88)	RS1/16SS1003D		C 234	(A,27,117)	CEVW101M16	F
R 1012	(A,88,87)	RS1/16SS1003D		C 235	(A,22,118) (A,C,D,E,F)	CKSSYB102K50	
R 1013	(A,84,87)	RS1/16SS1003D					
R 1014	(A,83,87)	RS1/16SS1003D					

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

C 251 (A,36,48) Capacitor(A,B,C,D) CEVW471M10
 C 253 (A,16,34) (A,B,C,D) CKSRYB105K16
 C 255 (B,40,32) 4.7 uF(A,B,C,D) CCG1212
 C 256 (B,40,34) 4.7 uF(A,B,C,D) CCG1212
 C 262 (B,49,34) (A,B,C,D) CCSRCH270J50

C 421 (A,144,95) CKSSYB104K10
 C 422 (A,146,97) CKSSYB103K16
 C 423 (A,143,97) CKSRYB105K10
 C 424 (A,149,93) CKSRYB224K16
 C 426 (A,133,93) CKSSYB103K16
 C 427 (A,148,90) CKSSYB104K10

C 264 (B,55,34) CKSRYB104K16
 C 272 (B,26,45) 4.7 uF(A,B,C,D) CCG1212
 C 273 (B,26,50) 4.7 uF(A,B,C,D) CCG1212
 C 281 (B,22,45) 4.7 uF(A,B,C,D) CCG1212
 C 284 (B,18,45) 4.7 uF(A,B,C,D) CCG1212

C 428 (A,130,92) 10 uF CCG1192
 C 429 (A,150,90) CKSRYB105K10
 C 430 (A,131,91) CKSSYB104K10
 C 431 (A,154,88) CKSSYB472K25
 C 432 (A,154,90) CKSSYB472K25

C 301 (A,9,127) 10 uF CCG1192
 C 302 (A,13,127) 10 uF CCG1192
 C 303 (A,17,127) 10 uF CCG1192
 C 304 (A,22,127) 10 uF CCG1192
 C 305 (A,26,127) 10 uF CCG1192

C 433 (A,130,90) CCSSCH101J50
 C 434 (A,135,94) CKSSYB104K10
 C 435 (A,128,90) CKSSYB103K16
 C 436 (A,152,87) CCSSCH100D50
 C 437 (A,149,87) CKSSYB104K10

C 306 (A,30,127) 10 uF CCG1192
 C 307 (A,8,131) CKSSYB103K16
 C 308 (A,14,131) CKSSYB103K16
 C 309 (A,16,131) CKSSYB103K16
 C 310 (A,23,131) CKSSYB103K16

C 438 (A,132,88) CCSSCH820J50
 C 440 (A,133,86) (B,C,D,E,F) CCSSCH100D50
 C 441 (A,130,82) CKSRYB474K10
 C 443 (A,131,80) CCSRCH471J50
 C 444 (A,152,82) CCSSCH100D50

C 311 (A,25,131) CKSSYB103K16
 C 312 (A,31,131) CKSSYB103K16
 C 315 (B,33,142) CKSRYB102K50
 C 325 (B,77,132) CKSRYB224K16
 C 326 (B,79,132) CKSRYB224K16

C 445 (A,153,79) CKSSYB104K10
 C 447 (A,150,79) 2.2 uF CCG1205
 C 449 (A,148,82) (A,C,D,E,F) CKSSYB104K10
 C 450 (A,145,80) CKSSYB104K10
 C 451 (A,135,79) CKSSYB102K50
 C 452 (A,144,80) 1 uF DCH1246

C 327 (B,82,132) CKSRYB224K16
 C 328 (B,84,132) CKSRYB224K16
 C 333 (A,62,136) CKSRYB105K16
 C 335 (B,61,137) CKSRYB102K50
 C 337 (B,63,141) CKSRYB103K50

C 453 (A,144,78) 2.2 uF(B) CCG1205
 C 454 (A,138,79) (B,C,D,E,F) CKSSYB104K10
 C 456 (A,152,113) CCSSCJ3R0C50
 C 459 (A,128,84) (A) CCSSCH100D50
 C 461 (A,156,92) (A) CKSSYB104K10

C 338 (B,63,143) 10 uF CCG1236
 C 339 (B,88,143) CKSRYB104K16
 C 340 (A,128,123) 3 300 uF/16 V(A,C,D,E,F) CCH1486
 (A,128,123) 3 300 uF/16 V(B) CCH2046
 C 344 (B,66,136) CKSRYB103K50
 C 351 (A,51,129) Capacitor CEVW220M16

C 466 (B,139,92) (A) CCSRCK2R0C50
 (B,139,92) (B,C,D,E,F) CCSRCH101J50
 C 467 (A,148,110) (A) CCSSCK2R0C50
 C 474 (A,123,78) 10 uF(A) CCG1192
 C 511 (B,154,74) (A) CCSRCH220J50
 C 512 (B,156,76) (A) CCSRCH220J50

C 352 (B,63,131) 2.2 uF CCG1205
 C 375 (A,67,90) 4.7 uF CCG1212
 C 376 (A,58,93) CKSSYB103K16
 C 377 (A,59,95) 4.7 uF CCG1212
 C 378 (B,65,96) CKSRYB104K16

C 513 (A,157,70) (A) CCSSCH220J50
 C 533 (A,149,52) 4.7 uF(A) CCG1212
 C 535 (A,143,52) (A) CKSRYB102K50
 C 537 (A,143,54) 10 uF(A) CCG1192
 C 541 (A,145,56) 4.7 uF(A) CCG1212

C 379 (A,80,96) CKSSYB182K50
 C 380 (A,80,94) CKSSYB182K50
 C 391 (A,142,57) 4.7 uF CCG1212
 C 393 (A,132,55) CKSQYB474K16
 C 401 (A,147,102) CCSSCH330J50

C 542 (B,152,64) 4.7 uF(A) CCG1212
 C 601 (A,92,68) CCSSCH100D50
 C 602 (A,92,64) CCSSCH120J50
 C 604 (A,92,70) CKSSYB104K10
 C 605 (B,99,65) CKSRYB105K10

C 402 (A,143,100) CKSSYB103K16
 C 403 (A,148,100) CCSSCH6R0D50
 C 404 (A,150,100) CKSSYB103K16
 C 405 (A,141,97) CKSSYB104K10
 C 406 (A,137,96) CKSSYB104K10

C 608 (B,113,64) CKSRYB105K10
 C 610 (A,103,50) CKSRYB104K50
 C 612 (B,120,47) CKSRYB105K10
 C 615 (B,97,65) 10 uF DCH1201

C 410 (A,150,97) CKSSYB103K16
 C 411 (A,139,97) CKSSYB104K10
 C 412 (A,152,97) CKSSYB103K16
 C 413 (A,137,97) CKSSYB103K16
 C 414 (A,135,98) 10 uF CCG1192
 C 415 (A,134,98) (A,C,D,E,F) CCSSCK2R0C50

C 616 (A,103,82) (A) CKSSYB104K10
 C 617 (A,96,80) (A) CKSSYB104K10
 C 651 (B,68,58) CKSRYB104K16
 C 652 (B,76,61) CKSRYB104K16
 C 653 (B,85,56) CKSRYB104K16

C 416 (B,134,85) CCSRCH101J50
 C 418 (A,140,97) CCSSCK2R0C50
 C 419 (A,135,96) CKSSYB223K16
 C 420 (A,139,95) CKSSYB103K16

C 654 (B,61,58) CKSRYB104K16
 C 655 (B,67,62) CKSRYB104K16
 C 656 (B,72,62) CKSRYB104K16

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<u>Circuit Symbol and No.</u>		<u>Part No.</u>		<u>Circuit Symbol and No.</u>		<u>Part No.</u>	
C 657	(B,78,57)	CKSRYB104K16		C 831	(B,112,27)	CKSQYB105K16	
C 658	(A,56,65) (B,C,D,E,F)	CCSSCH100D50		C 841	(A,103,29)	CKSRYB104K16	
C 659	(B,81,63)	CKSRYB104K16		C 851	(A,67,37) (B,C,D,E,F)	CKSRYB105K10	A
C 660	(B,85,60)	CCSRCK2R0C50		C 881	(A,57,90)	CKSSYB104K10	
C 661	(B,59,62)	CKSRYB104K16		C 882	(A,56,90)	CKSSYB104K10	
C 662	(A,86,64)	CCSSCH120J50		C 891	(A,37,92)	CKSRYB104K16	
C 663	(B,81,67)	CKSRYB104K16		C 892	(A,50,92)	CKSRYB104K16	
C 664	(A,57,65) (B,C,D,E,F)	CCSSCH100D50		C 901	(A,15,79)	CKSSYB102K50	
C 665	(B,59,66)	CKSRYB104K16		C 902	(A,16,79)	CKSRYB105K16	
C 666	(B,81,65)	CKSRYB104K16		C 903	(A,22,74)	CEVQW221M6R3	
C 667	(A,57,70) (B,C,D,E,F)	CCSSCH100D50		C 904	(A,7,65)	CKSSYB102K50	
C 668	(B,59,69)	CKSRYB104K16		C 905	(A,8,63)	CKSSYB682K25	
C 669	(A,86,69)	CCSSCH120J50		C 906	(A,18,64)	CKSSYB103K16	
C 670	(B,81,70)	CKSRYB104K16		C 908	(A,18,66)	CKSRYB105K16	B
C 671	(B,60,72)	CKSRYB104K16		C 909	(A,11,55)	XCEAT102M16	
C 672	(B,81,76)	CKSRYB104K16		C 910	(A,20,67) 10 uF	CCG1236	
C 673	(B,81,78)	CKSRYB104K16		C 911	(A,18,79) 10 uF	CCG1192	
C 674	(B,65,80)	CKSRYB104K16		C 921	(B,17,55)	CKSRYB104K16	
C 675	(B,71,75)	CKSRYB104K16		C 922	(B,21,53)	CKSRYB103K50	
C 676	(B,76,79)	CKSRYB104K16		C 931	(A,29,63) 10 uF	CCG1192	
C 677	(B,63,80)	CKSRYB104K16		C 932	(A,31,55) 10 uF	CCG1192	
C 678	(B,69,79)	CKSRYB104K16		C 941	(B,136,40)	CKSRYB104K16	
C 682	(A,37,86) 4.7 uF	CCG1212		C 942	(A,135,49) Capacitor	CEVW221M10	
C 683	(B,49,52)	CKSRYB224K16		C 943	(A,143,42)	CKSQYB105K16	
C 685	(A,74,83)	CCSSCH120J50		C 961	(B,104,128)	CKSRYB105K10	C
C 686	(A,79,84)	CCSSCH120J50		C 991	(B,116,140)	CKSRYB104K16	
C 688	(B,44,52) 4.7 uF	CCG1212		C 1002	(A,85,87)	CKSSYB104K10	
C 696	(A,64,81)	CCSSCH220J50		<div>B</div> Unit Number : Unit Name : Keyboard Unit			
C 701	(B,53,71)	CKSRYB104K16					
C 702	(B,51,71)	CKSRYB104K16					
C 703	(B,47,71)	CKSRYB104K16		<div>MISCELLANEOUS</div>			
C 704	(B,43,71)	CKSRYB104K16					
C 705	(B,34,73)	CKSRYB104K16		IC 1821	(A,130,22) IC	BH2228FV	D
C 706	(B,49,65)	CKSRYB104K16		IC 1901	(A,98,20) IC	PEQ271A8	
C 707	(B,44,65)	CKSRYB104K16		IC 1902	(B,82,20) Flash ROM Unit(A,C,E)	PEH426A8	
C 708	(B,31,82) 2.2 uF	CCG1205			(B,82,20) Flash ROM Unit(B,D,F)	PEH428A8	
C 711	(B,51,37)	CKSRYB104K16		IC 1931	(A,159,15) IR RC REC Module	PNJ4833M	
C 712	(B,54,47)	CKSRYB104K16		Q 1831	(B,59,10) Transistor	LSCR523UB	
C 721	(A,35,87) 10 uF	CCG1192		Q 1832	(B,55,10) Transistor	LSCR523UB	
C 722	(A,32,87) 10 uF	CCG1192		Q 1833	(B,52,10) Transistor	LSCR523UB	
C 731	(B,75,92)	CKSRYB104K16		Q 1834	(B,39,32) Chip Transistor	HN1C01FU	
C 741	(A,77,51) (A,B)	CKSSYB104K10		Q 1835	(B,47,32) Chip Transistor	HN1C01FU	
C 752	(A,120,34)	CCSSCH220J50		Q 1836	(B,46,11) Chip Transistor	HN1C01FU	
C 753	(A,121,41)	CCSSCH100D50		Q 1861	(A,144,23) Transistor	LSCR523UB	E
C 754	(A,116,34)	CCSSCH220J50		Q 1862	(A,144,18) Transistor	LSCR523UB	
C 755	(B,106,37)	CKSRYB103K50		Q 1863	(A,144,13) Transistor	LSCR523UB	
C 758	(A,93,38)	CKSSYB102K50		Q 1864	(B,75,38) Chip Transistor	HN1C01FU	
C 760	(A,112,41)	CKSSYB221K50		Q 1865	(B,80,34) Chip Transistor	HN1C01FU	
C 770	(B,123,42)	CKSRYB104K16		Q 1866	(A,130,30) Chip Transistor	HN1C01FU	
C 771	(B,151,41) 10 uF	DCH1201		D 1803	(A,136,32) Diode	CRG03	
C 773	(A,155,47)	CKSSYB473K16		D 1831	(A,10,26) LED	SMLVN6RGB2UK(B)	
C 802	(B,111,14)	CKSRYB221K50		D 1832	(A,52,34) LED	SMLVN6RGB2UK(B)	
C 803	(A,103,21)	CKSRYB104K16		D 1833	(A,52,20) LED	SMLVN6RGB2UK(B)	
C 805	(B,100,14)	CKSRYB104K16		D 1834	(A,68,26) LED	SMLVN6RGB2UK(B)	F
C 806	(B,104,22)	CKSRYB104K16		D 1861	(A,88,38) LED	SMLVN6RGB2UK(B)	
C 807	(B,98,11)	CKSRYB104K16		D 1862	(A,106,38) LED	SMLVN6RGB2UK(B)	
C 809	(B,117,48)	CKSRYB104K16		D 1863	(A,124,38) LED	SMLVN6RGB2UK(B)	
C 810	(B,82,36)	CKSRYB104K16		D 1864	(A,142,38) LED	SMLVN6RGB2UK(B)	
C 811	(B,100,19)	CKSRYB105K16					
C 812	(A,95,20)	CKSRYB104K16					

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

D 1901 (A,112,19) Diode DA2J101
 L 1981 (B,150,31) Inductor CTF1389
 L 1982 (B,150,32) Inductor CTF1389
 L 1983 (B,150,29) Inductor CTF1389
 X 1901 (A,109,19) Ceramic Resonator 16.000 MHz CSS1616

S 1811 (A,26,26) Encoder(MULTI-CONTROL) CSD1168
 S 1931 (A,9,40) Push Switch CSG1155
 S 1932 (A,63,27) Push Switch CSG1155
 S 1933 (A,62,16) Push Switch CSG1155
 S 1935 (A,41,41) Push Switch CSG1155

S 1937 (A,68,13) Push Switch CSG1155
 S 1938 (A,60,40) Push Switch CSG1155
 S 1939 (A,41,12) Push Switch CSG1155
 S 1940 (A,30,10) Spring Switch CSN1080
 S 1941 (A,22,10) Spring Switch CSN1081

S 1942 (A,68,39) Push Switch CSG1155
 CN1801 (B,131,26) Connector CKS6038
 CN1951 (B,105,38) Connector CKS6530
 JA1981 (A,160,27) Jack YKN5006

RESISTORS

R 1801 (B,124,14) RS1/10SR222J
 R 1802 (B,125,14) RS1/10SR222J
 R 1803 (A,121,29) RS1/10SR104J
 R 1811 (B,54,24) RS1/16SS103J
 R 1821 (A,133,17) RS1/10SR272J

R 1822 (A,131,17) RS1/10SR272J
 R 1823 (A,132,17) RS1/10SR272J
 R 1831 (A,124,19) RS1/16SS102J
 R 1832 (A,124,21) RS1/16SS102J
 R 1833 (A,125,19) RS1/16SS102J

R 1834 (B,42,30) RS1/16SS101J
 R 1835 (B,46,14) RS1/16SS101J
 R 1836 (B,41,30) RS1/16SS101J
 R 1837 (B,48,12) RS1/16SS101J
 R 1838 (B,47,30) RS1/16SS101J

R 1839 (B,46,30) RS1/16SS101J
 R 1840 (B,39,37) RS1/10SR181J
 R 1841 (B,41,37) RS1/10SR181J
 R 1842 (B,44,37) RS1/10SR181J
 R 1843 (B,46,37) RS1/10SR181J

R 1844 (B,46,7) RS1/10SR181J
 R 1845 (B,48,7) RS1/10SR181J
 R 1861 (A,132,26) RS1/16SS102J
 R 1862 (A,133,26) RS1/16SS102J
 R 1863 (A,132,25) RS1/16SS102J

R 1870 (A,81,33) RS1/16SS101J
 R 1871 (A,129,28) RS1/16SS101J
 R 1872 (A,79,32) RS1/16SS101J
 R 1873 (A,131,28) RS1/16SS101J
 R 1874 (A,82,33) RS1/16SS101J

R 1875 (A,83,33) RS1/16SS101J
 R 1876 (B,72,39) RS1/10SR181J
 R 1877 (B,79,39) RS1/10SR181J
 R 1878 (B,82,37) RS1/10SR181J
 R 1879 (B,81,37) RS1/10SR181J

R 1880 (B,119,38) RS1/10SR181J
 R 1881 (B,136,38) RS1/10SR181J
 R 1901 (A,110,16) RS1/16SS154J

R 1902 (B,94,18) RS1/16SS102J
 R 1903 (A,114,19) RS1/16SS154J

R 1904 (A,108,22) RS1/16SS473J
 R 1905 (A,108,23) RS1/16SS103J
 R 1906 (B,95,22) RAB4CQ102J
 R 1907 (A,108,24) RS1/16SS103J
 R 1908 (A,111,26) RAB4CQ103J

R 1909 (A,102,31) RS1/16SS103J
 R 1910 (A,99,31) RAB4CQ473J
 R 1911 (A,96,31) RS1/16SS473J
 R 1912 (A,95,31) RS1/16SS473J
 R 1913 (B,94,19) RS1/16SS101J

R 1914 (A,81,30) RS1/16SS101J
 R 1915 (A,93,30) RAB4CQ101J
 R 1916 (A,87,26) RS1/16SS101J
 R 1917 (A,87,24) RAB4CQ101J
 R 1918 (A,84,22) RAB4CQ101J

R 1919 (B,94,16) RAB4CQ101J
 R 1920 (B,94,13) RAB4CQ101J
 R 1921 (A,87,16) RAB4CQ101J
 R 1922 (B,80,12) RAB4CQ101J
 R 1923 (B,85,12) RAB4CQ101J

R 1924 (A,79,13) RAB4CQ101J
 R 1925 (A,101,9) RAB4CQ102J
 R 1931 (B,148,19) RS1/16SS470J
 R 1953 (B,108,31) RAB4CQ473J
 R 1954 (A,108,28) RS1/16SS473J

R 1955 (A,115,26) RAB4CQ101J

CAPACITORS

C 1821 (A,135,20) CKSSYB103K16
 C 1822 (A,136,19) CKSRYB105K10
 C 1901 (A,119,25) 4.7 uF(A) CCG1212
 C 1903 (A,115,19) CKSSYB104K10
 C 1904 (A,108,21) CKSSYB103K16
 C 1905 (A,88,20) CKSSYB103K16

C 1906 (B,70,17) CKSSYB103K16
 C 1931 (B,150,19) 10 uF CCG1192
 C 1951 (A,97,35) CKSQYB334K50
 C 1952 (B,100,31) 4.7 uF CCG1212
 C 1953 (B,100,32) 4.7 uF CCG1212

C 1954 (B,102,32) 4.7 uF CCG1212
 C 1955 (B,104,32) 4.7 uF CCG1212
 C 1957 (B,101,27) 1 uF DCH1246
 C 1981 (B,147,30) CKSRYB472K50
 C 1982 (B,148,30) CKSRYB472K50

**Unit Number : CWX4023****Unit Name : CD Core Unit (S11.6STD)****MISCELLANEOUS**

IC 201 (B,23,37) IC PE5791A
 IC 301 (A,37,11) IC BD8223EFV
 Q 101 (B,11,53) Transistor 2SA1577
 Q 102 (B,15,54) Transistor LTA123JUB
 X 201 (B,25,49) Ceramic Resonator 16.934 MHz CSS1603

S 901 (A,42,53) Spring Switch(HOME) CSN1080

5		6	
<u>Circuit Symbol and No.</u>		<u>Part No.</u>	
S 903	(B,21,12)	Spring Switch(DSCSNS)	CSN1081
CN101	(A,16,58)	Connector	CKS4808
CN701	(A,25,29)	Connector	CKS6146

RESISTORS

R 101	(B,6,57)	RS1/10SR2R4J
R 102	(B,8,57)	RS1/10SR2R4J
R 103	(B,9,57)	RS1/10SR2R7J
R 108	(B,18,55)	RS1/16SS105J

R 109	(B,12,50)	RS1/16SS222J
R 214	(B,18,28)	RS1/16SS103J
R 215	(B,17,28)	RS1/16SS393J
R 216	(B,12,35)	RS1/16SS122J

R 217	(B,10,32)	RS1/16SS562J
R 218	(B,10,35)	RS1/16SS472J
R 229	(B,12,34)	RS1/16SS471J
R 232	(A,31,54)	RS1/16SS0R0J
R 237	(B,33,45)	RS1/16SS221J

R 240	(B,34,40)	RS1/16SS473J
R 245	(A,34,46)	RS1/16SS104J
R 254	(A,37,56)	RS1/16SS104J
R 260	(B,30,27)	RS1/16SS103J
R 264	(A,22,9)	RS1/16SS102J

R 281	(B,33,38)	RS1/16SS560J
R 282	(B,33,39)	RS1/16SS560J
R 291	(B,33,34)	RS1/16SS560J
R 294	(B,27,48)	RS1/16SS471J

R 303	(A,27,11)	RS1/16SS123J
R 304	(A,28,11)	RS1/16SS123J
R 305	(A,26,9)	RS1/16SS102J
R 306	(A,26,11)	RS1/16SS472J
R 307	(A,25,9)	RS1/16SS102J

R 308	(A,25,11)	RS1/16SS472J
R 309	(A,35,6)	RS1/16SS473J
R 310	(B,30,9)	RS1/16SS472J
R 311	(B,30,10)	RS1/16SS472J
R 312	(B,30,11)	RS1/16SS472J

R 313	(B,30,12)	RS1/16SS472J
R 701	(A,21,38)	RS1/16SS101J
R 702	(A,23,38)	RS1/16SS101J
R 706	(A,32,42)	RS1/16SS221J

CAPACITORS

C 104	(B,12,57)	CKSQYB475K6R3
C 203	(B,22,47)	CKSSYB104K10
C 209	(B,28,47)	CKSRYB104K16
C 210	(B,33,43)	CKSSYB104K10
C 211	(B,33,41)	CKSSYB104K10

C 212	(B,22,28)	CKSSYB104K10
C 213	(B,18,26)	CKSSYB332K50
C 214	(B,17,26)	CKSSYB473K16
C 215	(B,19,28)	CKSSYB104K10
C 216	(B,12,33)	CKSSYB182K50

C 217	(B,10,34)	CCSSCH560J50
C 218	(B,10,36)	CCSSCH4R0C50
C 219	(B,14,34)	CKSSYB104K10
C 220	(A,18,38)	CKSSYB104K10
C 221	(B,14,32)	CKSSYB104K10

C 222	(B,13,37)	CKSSYB104K10
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<u>Circuit Symbol and No.</u>		<u>Part No.</u>	
C 223	(B,12,42)	CCSSCH680J50	
C 224	(B,13,45)	CCSSCH470J50	
C 225	(B,13,46)	CKSSYB103K16	
C 228	(B,10,33)	CCSSCH270J50	

C 229	(B,9,40)	CKSSYB104K10
C 233	(B,32,46)	CKSSYB103K16
C 236	(B,8,40)	CKSSYB104K10
C 238	(A,25,44)	CKSRYB104K16
C 299	(A,26,41)	CKSSYB104K10

C 302	(B,28,12)	CKSSYB102K50
C 303	(B,29,12)	CKSSYB102K50
C 304	(B,27,12)	CKSSYB223K16
C 305	(B,26,12)	CKSSYB104K10
C 306	(A,31,7)	CKSSYB104K10

C 307	(A,41,19)	CKSRYB105K10
C 308	(A,31,15)	CKSRYB105K10
C 710	(A,34,42)	CKSSYB102K50

D

Unit Number : YWM5577

Unit Name : Panel Unit

MISCELLANEOUS

D 1	(A,5,18)	LED(Red)	SML-D12V8W(PQ)
D 2	(A,56,38)	LED(Red)	SML-D12V8W(PQ)
S 1	(A,60,38)	Push Switch(EJECT)	CSG1155
CN1	(A,40,24)	Connector	CKS6037
CN2	(B,18,10)	Connector	CKS3863