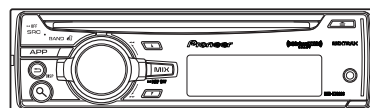


Service Manual



DEH-X7600S/XNUC

ORDER NO.
CRT5431

CD RDS RECEIVER

DEH-X7600S/XNUC

DEH-X7650SD/XNGS

DEH-X7650SD/XNGS1

DEH-X7650SD/XNCS

DEH-X7690SD/XNID

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)

A

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.

B

CAUTION

Danger of explosion if battery is incorrectly replaced.

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

Discord used batteries according to the manufacturer's instructions.

C

D

E

F

CONTENTS

	SAFETY INFORMATION.....	2
	1. SERVICE PRECAUTIONS.....	5
A	1.1 SERVICE PRECAUTIONS	5
	1.2 NOTES ON SOLDERING	5
	2. SPECIFICATIONS.....	6
	2.1 SPECIFICATIONS	6
	2.2 DISC/CONTENT FORMAT	8
	3. BASIC ITEMS FOR SERVICE.....	9
	3.1 CHECK POINTS AFTER SERVICING.....	9
	3.2 PCB LOCATIONS	9
	3.3 JIGS LIST	10
	3.4 CLEANING.....	10
	4. BLOCK DIAGRAM.....	12
	5. DIAGNOSIS.....	15
B	5.1 OPERATIONAL FLOWCHART	15
	5.2 ERROR CODE LIST	16
	5.3 CONNECTOR FUNCTION DESCRIPTION.....	20
	6. SERVICE MODE	21
	6.1 DISPLAY TEST MODE	21
	6.2 CD TEST MODE	24
	7. DISASSEMBLY	25
	8. EACH SETTING AND ADJUSTMENT	31
	8.1 CD ADJUSTMENT.....	31
	8.2 CHECKING THE GRATING AFTER CHANGING THE PICKUP UNIT.....	32
	8.3 PCL OUTPUT CONFIRMATION.....	34
C	9. EXPLODED VIEWS AND PARTS LIST.....	36
	9.1 PACKING	36
	9.2 EXTERIOR.....	38
	9.3 CD MECHANISM MODULE.....	40
	10. SCHEMATIC DIAGRAM.....	42
	10.1 TUNER AMP ASSY(1/2)(GUIDE PAGE)	42
	10.2 TUNER AMP ASSY(2/2)(GUIDE PAGE)	48
	10.3 KEYBOARD UNIT	54
	10.4 CD CORE UNIT (S11.6STD)	56
	10.5 WAVEFORMS.....	58
	11. PCB CONNECTION DIAGRAM.....	60
	11.1 TUNER AMP ASSY.....	60
D	11.2 KEYBOARD UNIT	64
	11.3 CD CORE UNIT (S11.6STD).....	66
	12. ELECTRICAL PARTS LIST	68

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

DEH-X7600S/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 × 18 mm
(7-3/8 in. × 2-1/4 in. × 3/4 in.)

Chassis 178 mm × 50 mm × 165 mm
(7 in. × 2 in. × 6-1/2 in.)
Nose 170 mm × 46 mm × 18 mm
(6-3/4 in. × 1-3/4 in. × 3/4 in.)
Weight 1.1 kg(2.4 lbs)

Audio

Maximum power output ... 50 W × 4
70 W × 1/2 Ω (for subwoofer)
Continuous power output 22 W × 4 (50 Hz to 15 000 Hz,
5 % THD, 4 Ω load, both channels driven)
Load impedance 4 Ω 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) (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 μV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio 72 dB (analog broadcasting) (IHF-A network)

AM tuner

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

CEA2006 Specifications



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

Note

Specifications and the design are subject to modifications without notice.

DEH-X7650SD/XNGS, DEH-X7650SD/XNGS1, DEH-X7650SD/XNCS, DEH-X7690SD/XNID

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 × 18 mm
D	
Chassis	178 mm × 50 mm × 165 mm
Nose	170 mm × 46 mm × 18 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 μV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio	72 dB (IEC-A network)

AM tuner

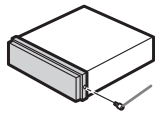
Frequency range	531 kHz to 1 602 kHz (9 kHz)
	530 kHz to 1 640 kHz (10 kHz)
Usable sensitivity	25 μV (S/N: 20 dB)
Signal-to-noise ratio	62 dB (IEC-A network)

Note

Specifications and the design are subject to modifications without notice.

Securing the front panel

The front panel can be secured with the supplied screw.



Screw
(BPZ20P060FTC) (UC)
(XXX7020) (GS, GS1, CS, ID)

2.2 DISC/CONTENT FORMAT



3. BASIC ITEMS FOR SERVICE

3.1 CHECK POINTS AFTER SERVICING

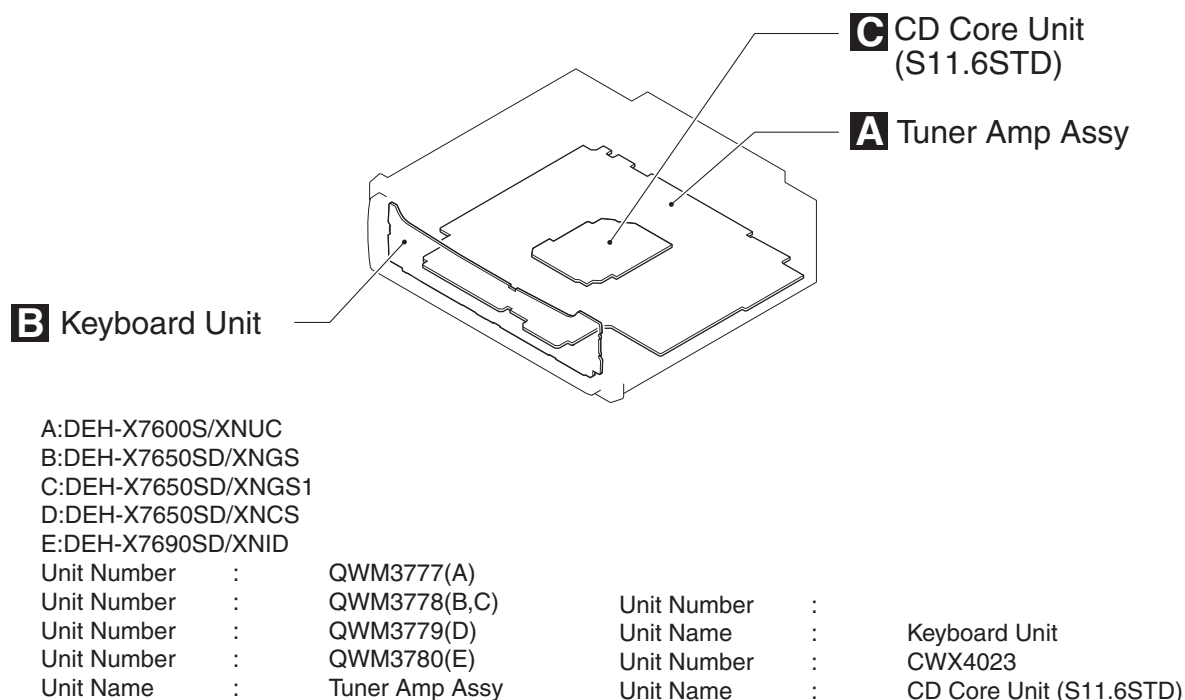
To keep the product quality after servicing, please confirm following check points.

No.		Procedures	Item to be confirmed
1		Confirm whether the customer complain has been solved. If the customer complain occurs with the specific media, use it for the operation check.	The customer complain must not be reappeared. Display, audio and operations must be normal.
2	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



3.3 JIGS LIST

A

● 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)

B

● Grease List

Name	Grease No.	Remarks
Grease	GEM1024	CD Mechanism Module
Grease	GEM1043	CD Mechanism Module

3.4 CLEANING

C



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

D

E

F

■

5

■

6

■

7

■

8

■

A

■

B

■

C

■

D

■

E

■

F

■

5

■

6

■

7

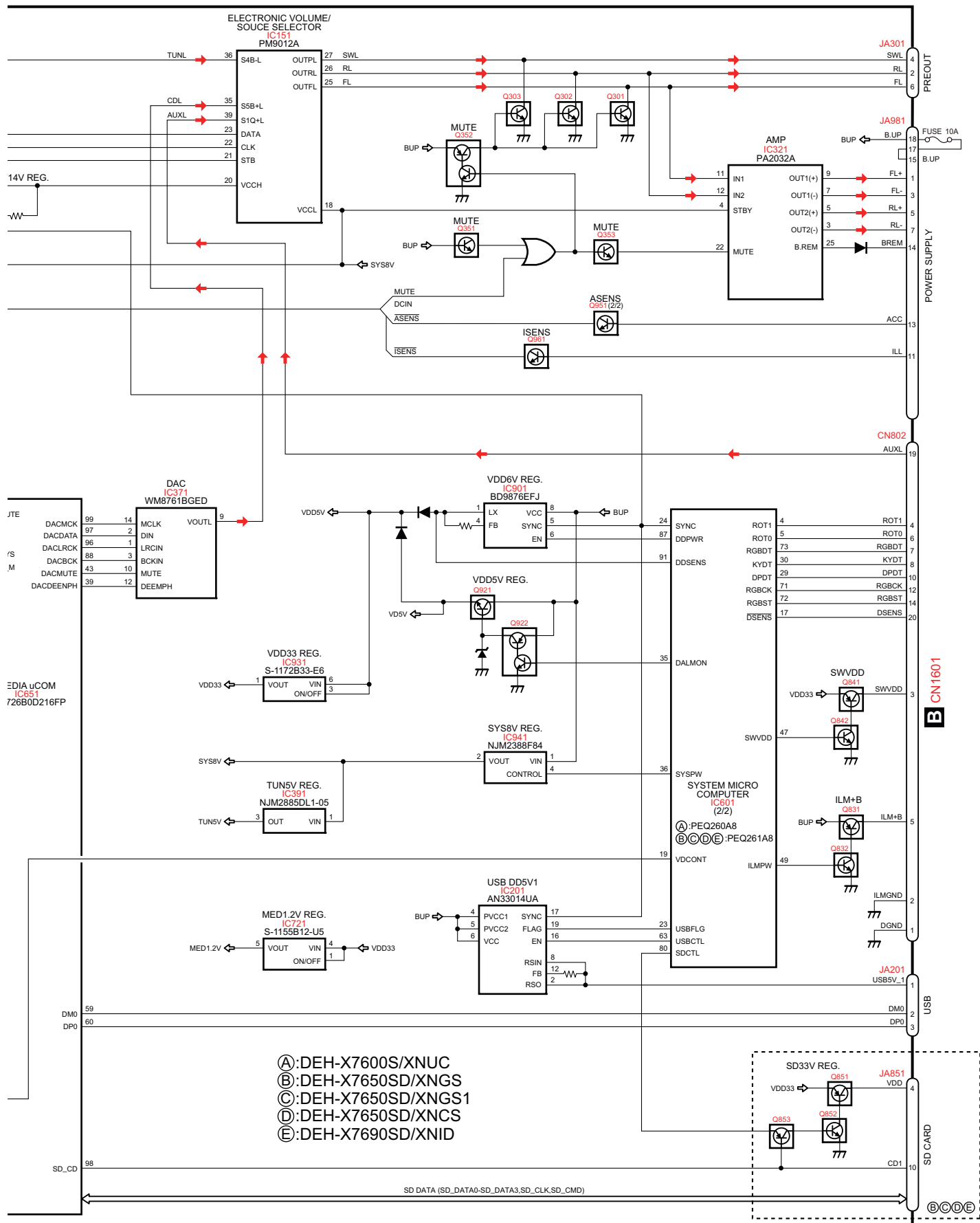
■

8

■

4





B KEYBOARD UNIT

A

B

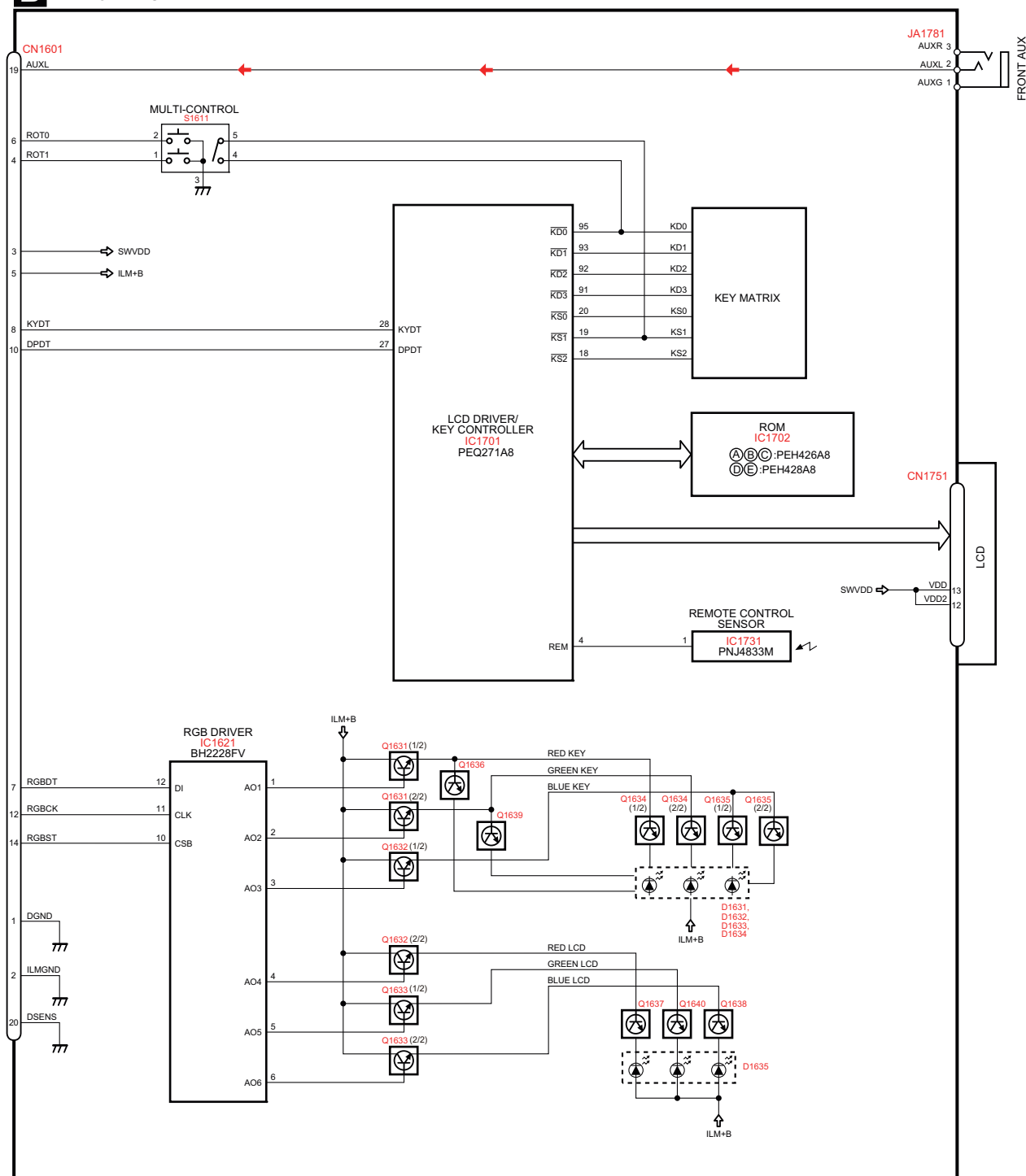
C

D

E

F

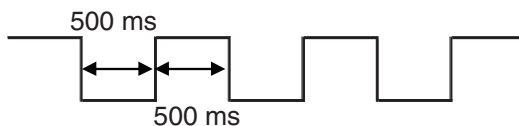
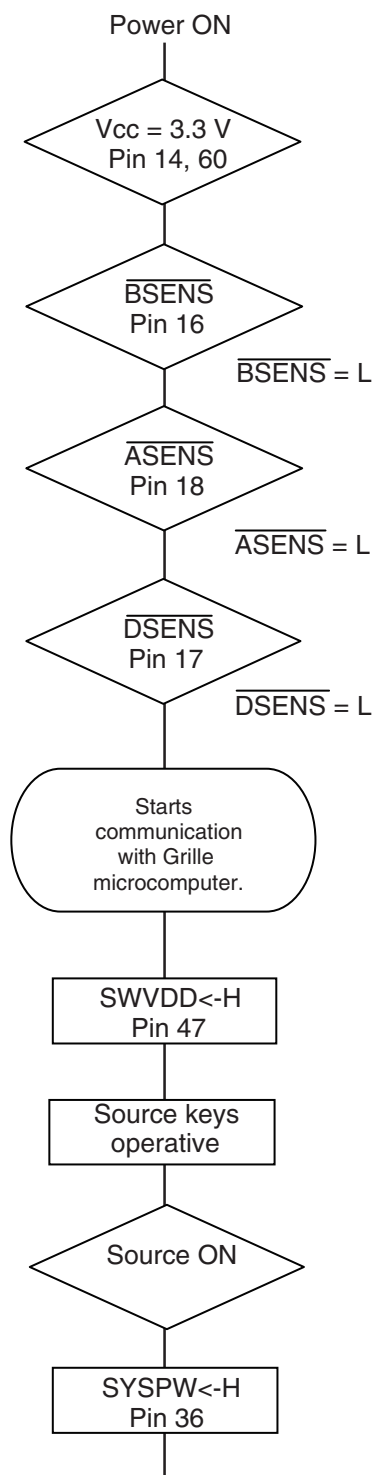
A CN802



- (A): DEH-X7600S/XNUC
 (B): DEH-X7650SD/XNGS
 (C): DEH-X7650SD/XNGS1
 (D): DEH-X7650SD/XNCS
 (E): DEH-X7690SD/XNID

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

ERROR-xx

6-digit display

ERR-xx

4-digit display

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.	• 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.

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.	• 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.

1 2 3 4

5.3 CONNECTOR FUNCTION DESCRIPTION

A

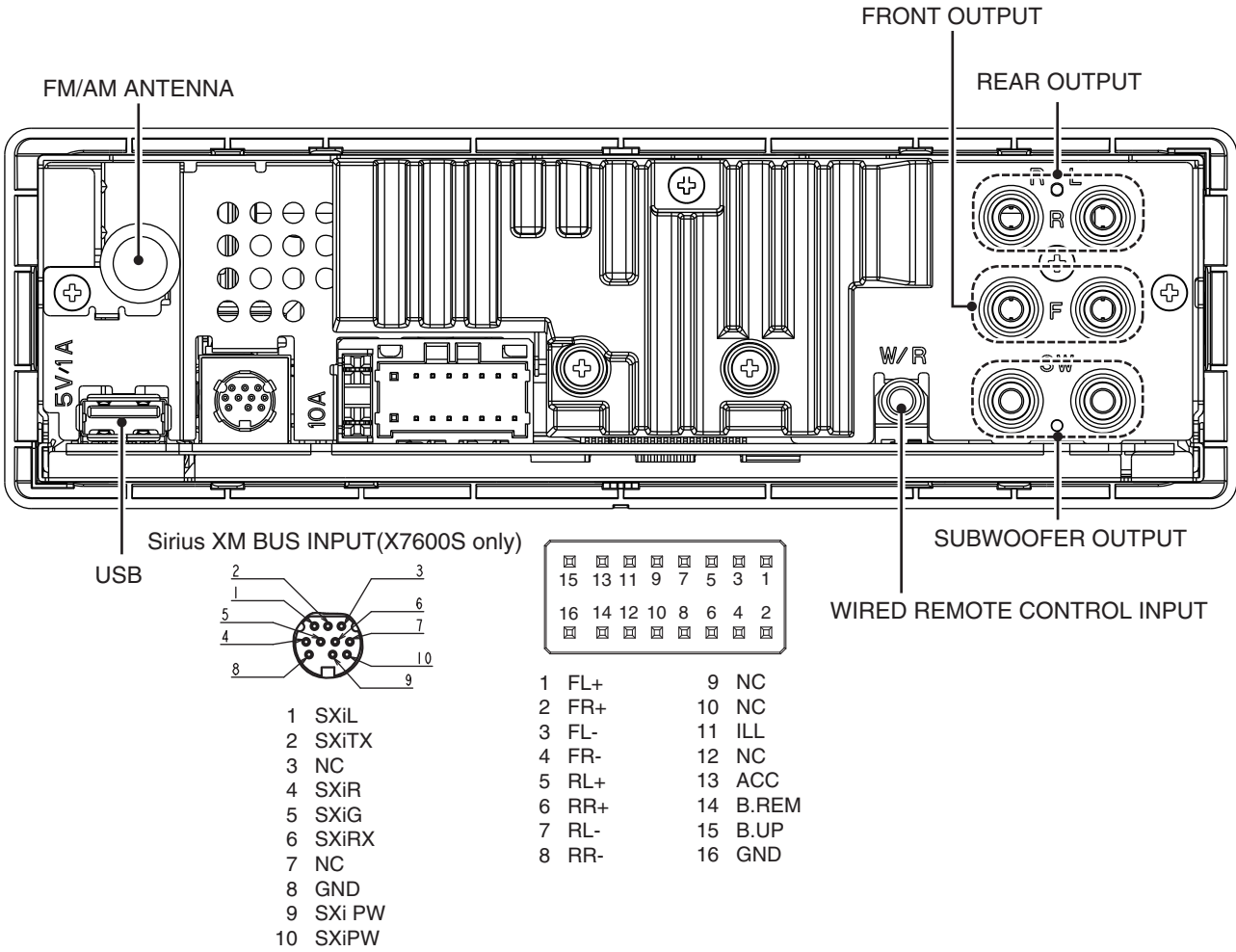
B

C

D

E

F



6. SERVICE MODE

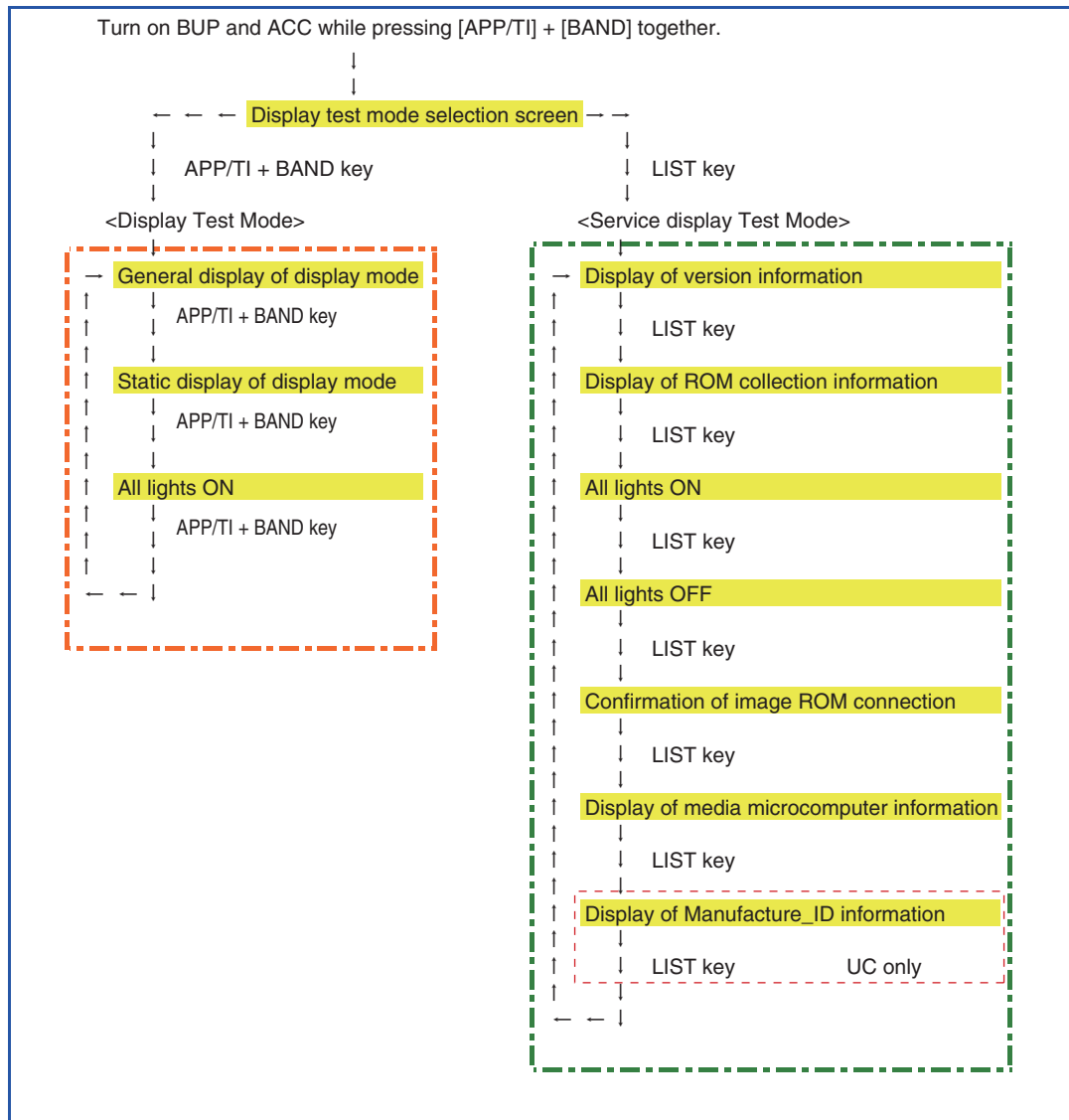
6.1 DISPLAY TEST MODE

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	DISPLAY:						*1		+ BAND															
32																								
40	SERVICE:						LIST																	
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					D	I	S	P	L	A	Y	:		#	#	#	#	-	!	!	!	!		
32																								
40					S	Y	S	T	E	M	:		#	#	#	#	-	!	!	!	!			
48																								

####: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.

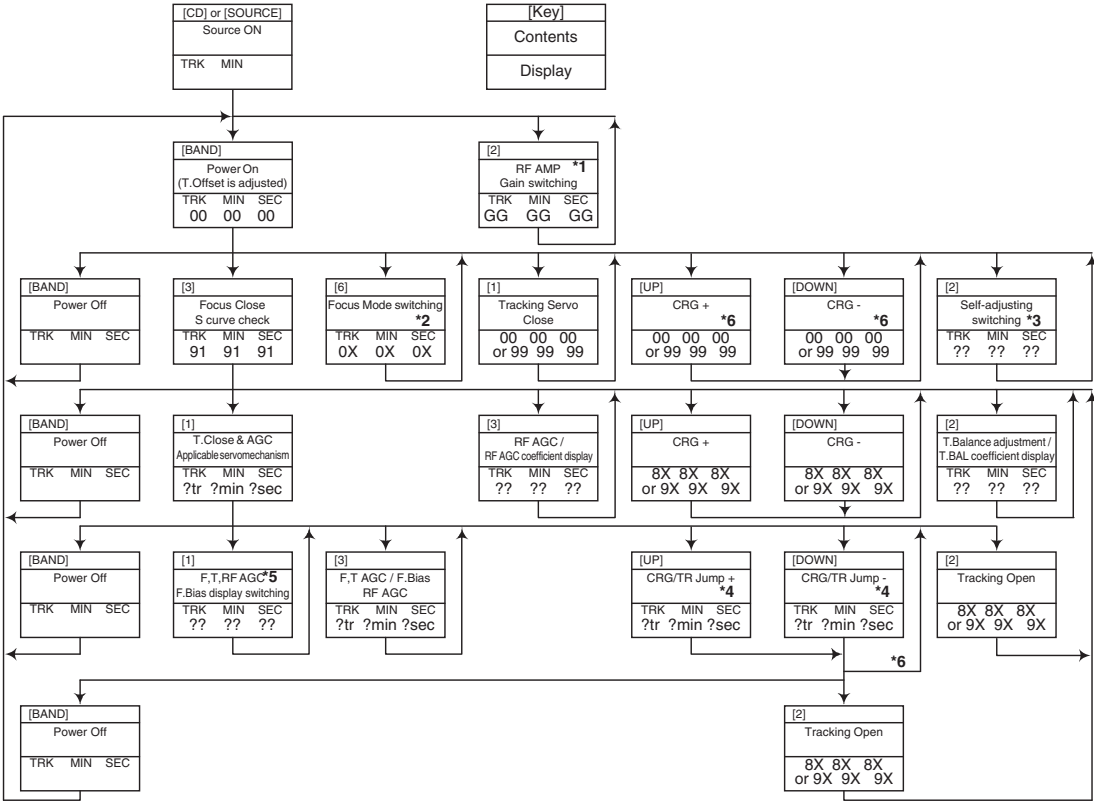
Display of Manufacture_ID information (UC only)

	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																									

6.2 CD TEST MODE

Flow Chart

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.



- *1) TYP → + 6 dB → + 12 dB
TRK MIN SEC TRK06MIN06SEC06 TRK12MIN12SEC12
- *2) Focus Close → S. Curve → F EQ measurement setting
TRK00MIN00SEC00 TRK01MIN01SEC01 TRK02MIN02SEC02
(TRK99MIN99SEC99)
- *3) F. Offset Display → RF. Offset → T. Offset Display → Switch to the order of the original display
- *4) 100TR Jump
- *5) TRK/MIN/SEC → F.AGC → T.AGC Gain → F.Bias → RF AGC
- *6) CRG motor voltage = 2 [V]

[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

- 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 Assy (Fig.1)

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

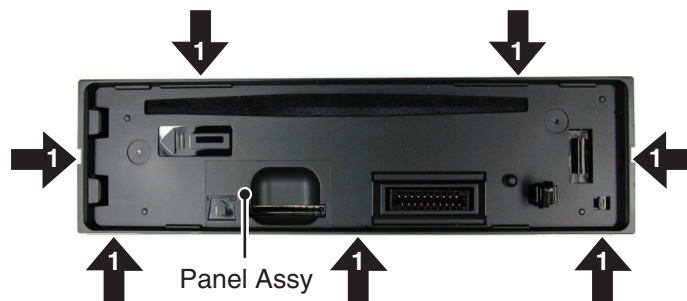
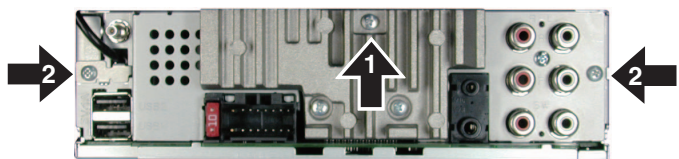


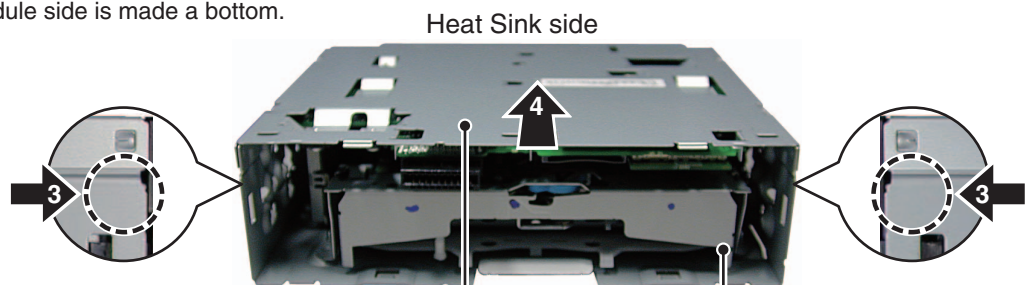
Fig.1

● 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.

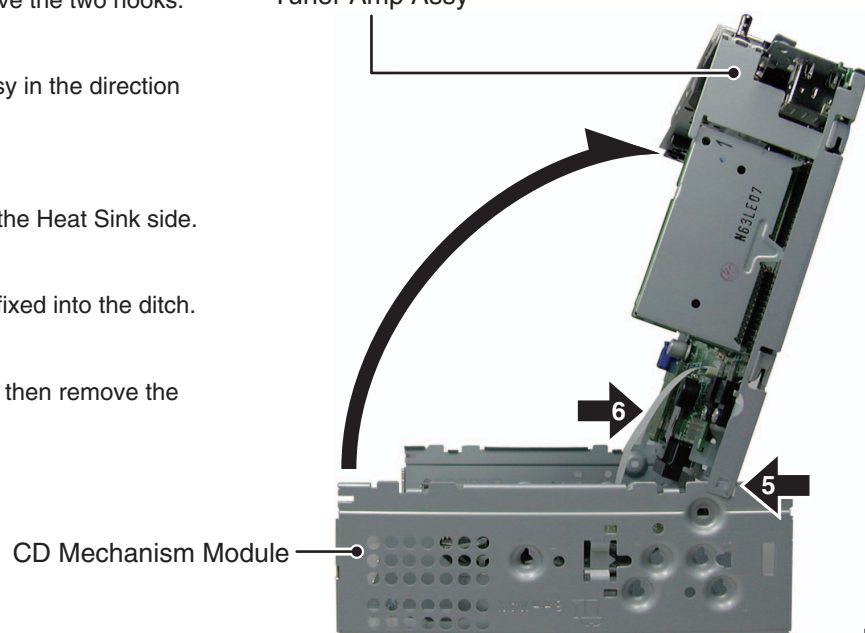


Fig.2

● Removing the Tuner Amp Assy (Fig.3)

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

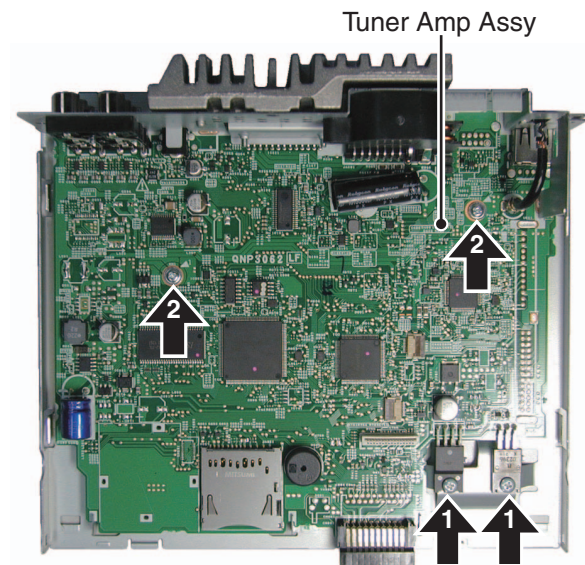


Fig.3

● Attention of removing (Fig.4)

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

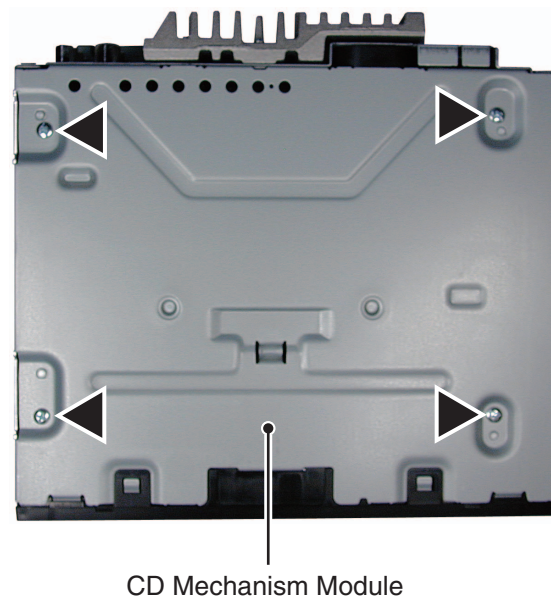


Fig.4

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

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

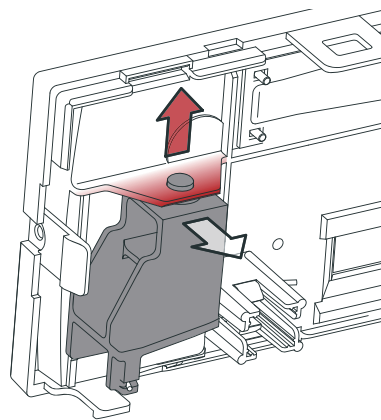


Fig.5

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

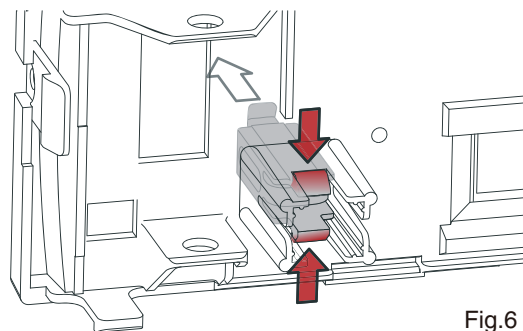


Fig.6

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

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

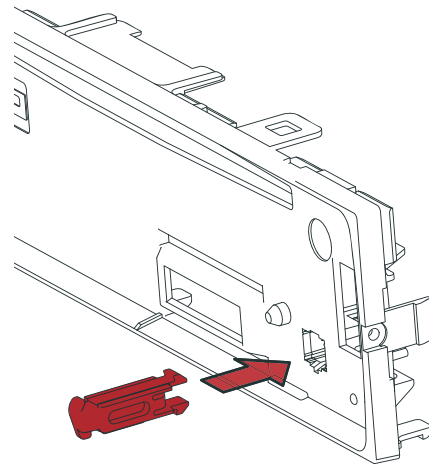


Fig.7

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

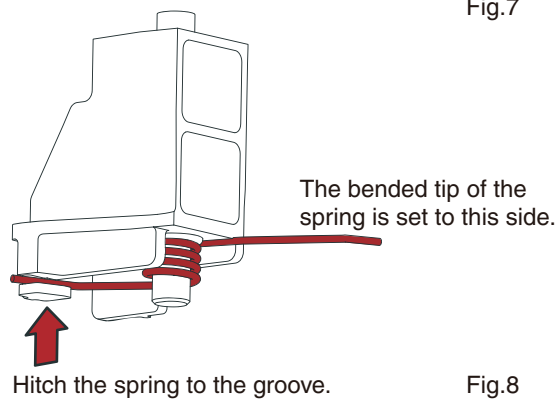


Fig.8

3. Fit the spring in the groove at the position shown in the figure.

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

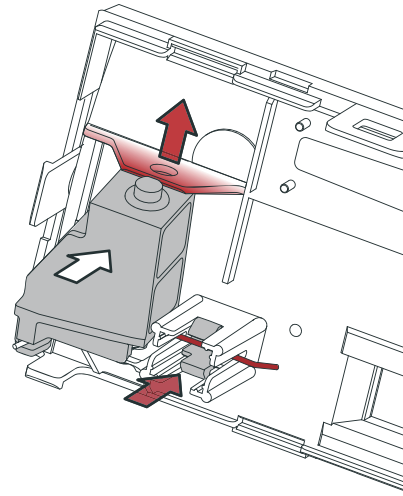
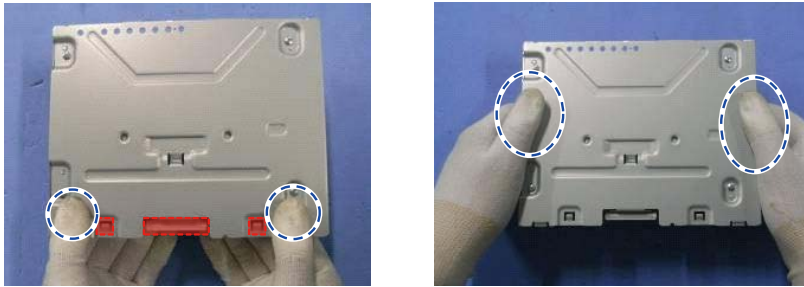


Fig.9

● 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



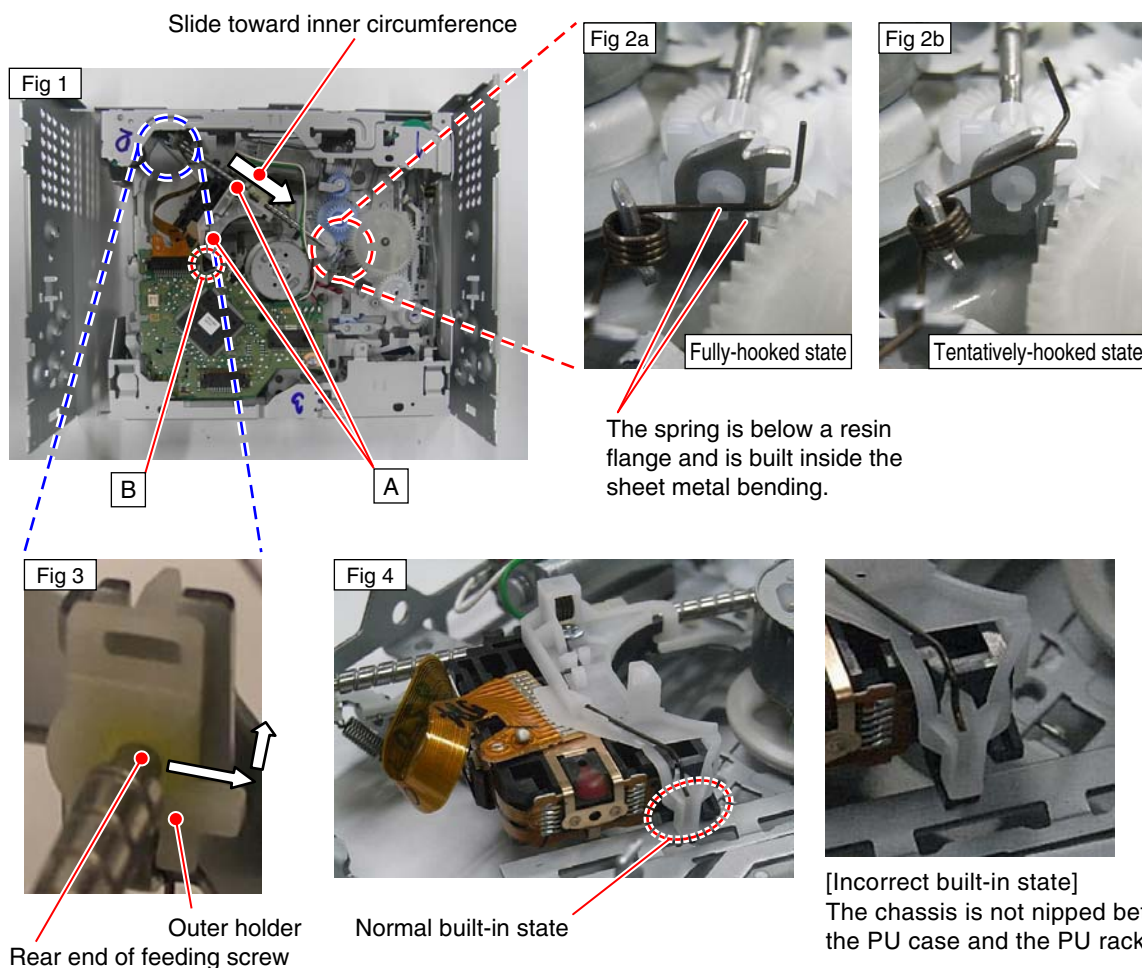
● How to remove the PU unit

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:

- During ejection, do not press any other keys than the EJECT key until the loaded disc is ejected.
- 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.
- For the TR jump modes except 100TR, the track jump operation will continue even if the key is released.
- For the CRG move and 100TR jump modes, the tracking loop will be closed at the same time when the key is released.
- 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.

8.2 CHECKING THE GRATING AFTER CHANGING THE PICKUP UNIT



• Note :

The grating angle of the PU unit cannot be adjusted after the PU unit is changed. The PU unit in the CD mechanism module is adjusted on the production line to match the CD mechanism module and is thus the best adjusted PU unit for the CD mechanism module. Changing the PU unit is thus best considered as a last resort. However, if the PU unit must be changed, the grating should be checked using the procedure below.

• Purpose :

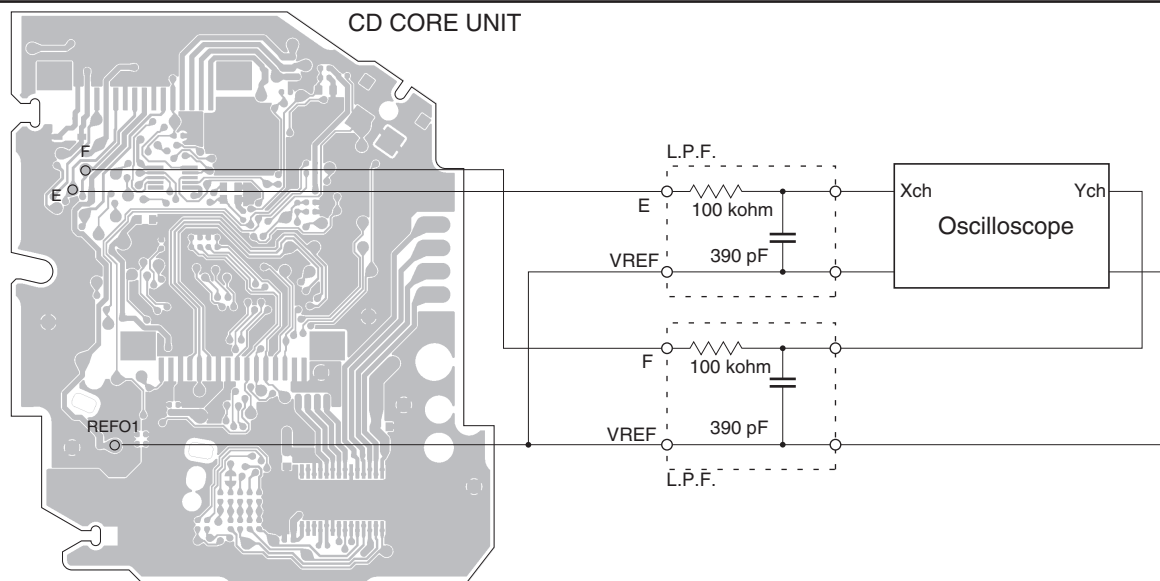
To check that the grating is within an acceptable range when the PU unit is changed.

• Symptoms of Mal-adjustment :

If the grating is off by a large amount symptoms such as being unable to close tracking, being unable to perform track search operations, or taking a long time for track searching.

• Method :

- | | |
|-----------------------|----------------------------|
| • Measuring Equipment | • Oscilloscope, Two L.P.F. |
| • Measuring Points | • E, F, REFO1 |
| • Disc | • TCD-782 |
| • Mode | • TEST MODE |



• Checking Procedure

1. In test mode, load the disc and switch the 3 V regulator on.
2. Using the **UP** and **DOWN** buttons, move the PU unit to the innermost track.
3. Press key **3** to close focus, the display should read "91". Press key **2** to implement the tracking balance adjustment the display should now read "81". Press key **3**. The display will change, returning to "81" on the fourth press.
4. As shown in the diagram above, monitor the LPF outputs using the oscilloscope and check that the phase difference is within 75° . Refer to the photographs supplied to determine the phase angle.
5. If the phase difference is determined to be greater than 75° try changing the PU unit to see if there is any improvement. If, after trying this a number of times, the grating angle does not become less than 75° then the mechanism should be judged to be at fault.

• Note

Because of eccentricity in the disc and a slight misalignment of the clamping center the grating waveform may be seen to "wobble" (the phase difference changes as the disc rotates). The angle specified above indicates the average angle.

• Hint

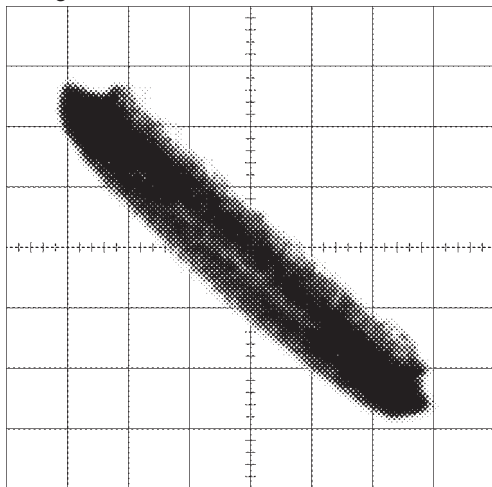
Reloading the disc changes the clamp position and may decrease the "wobble".

Grating waveform

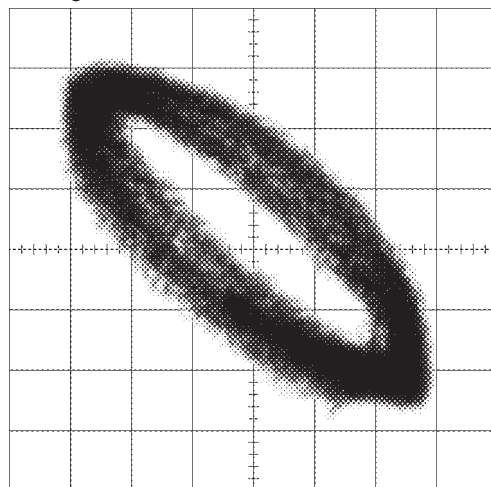
Ech -> Xch 20 mV/div, AC

Fch -> Ych 20 mV/div, AC

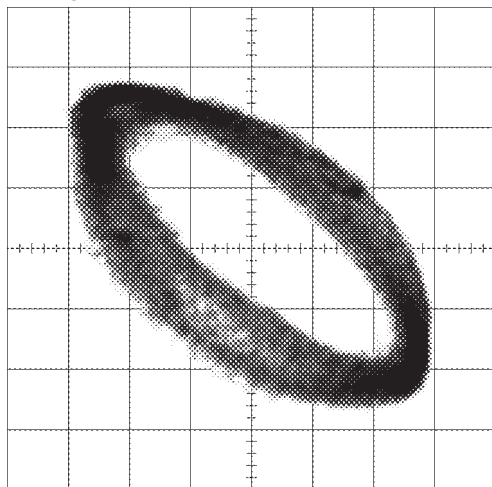
0 degrees



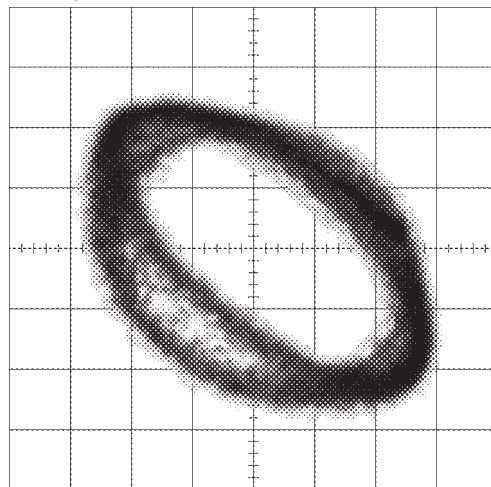
30 degrees



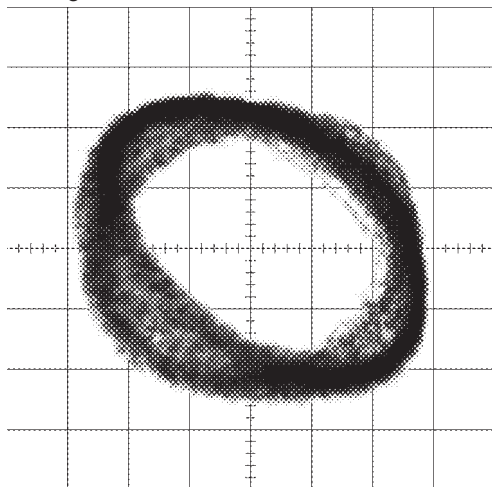
45 degrees



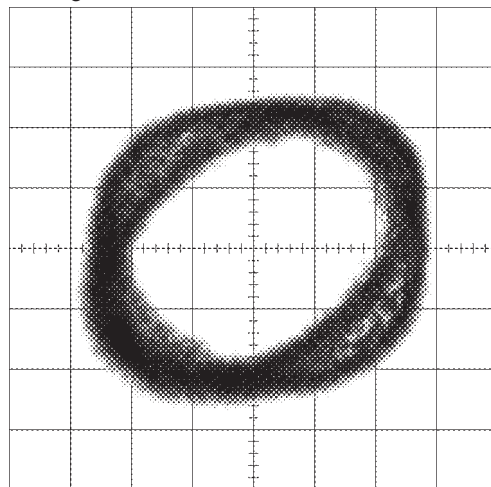
60 degrees



75 degrees



90 degrees



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

■

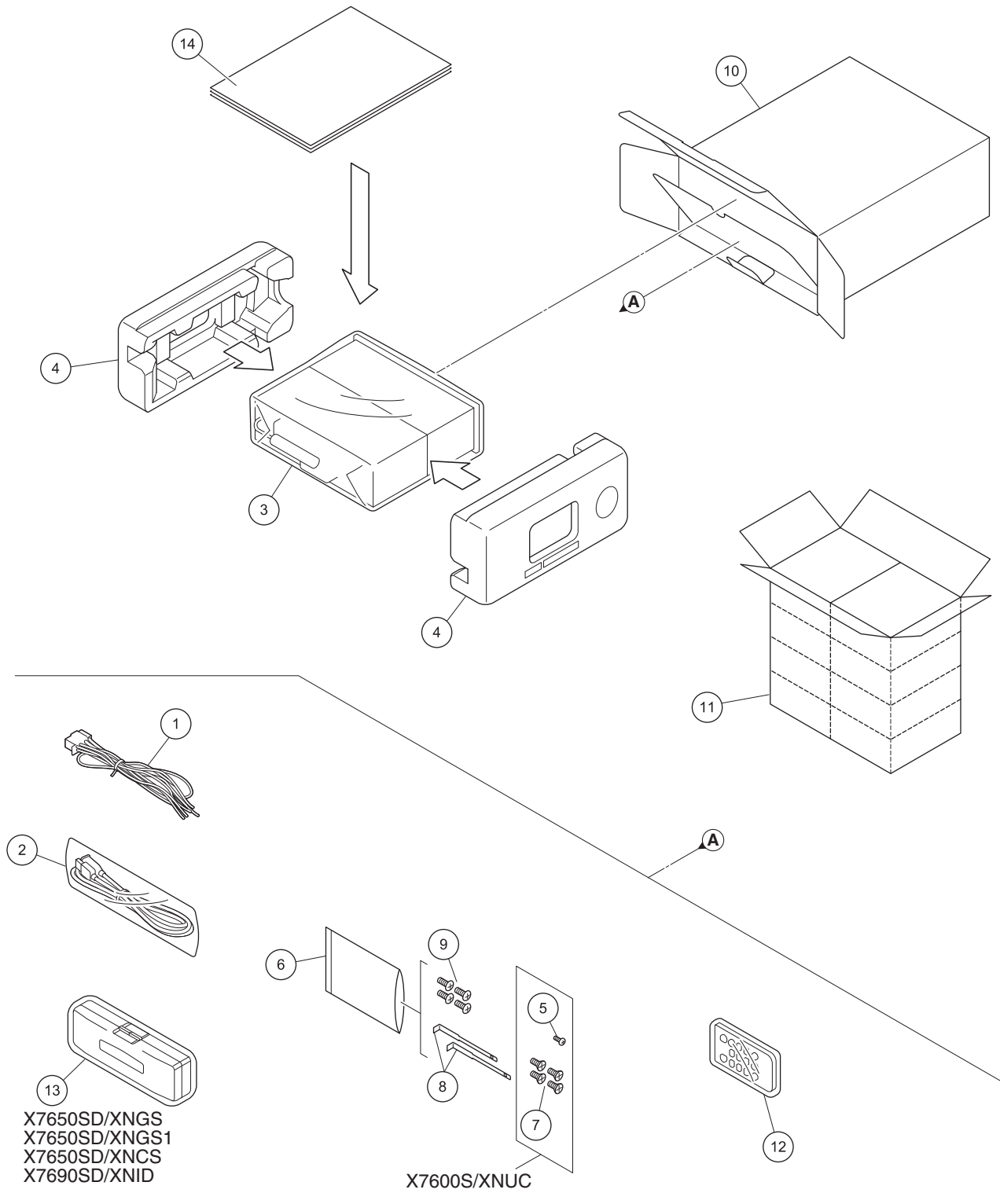
8

■

9. EXPLODED VIEWS AND PARTS LIST

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

9.1 PACKING



(1) PACKING SECTION PARTS LIST

<u>Mark</u>	<u>No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark</u>	<u>No.</u>	<u>Description</u>	<u>Part No.</u>
	1	Cord Assy	CDP1484		10	Unit Box	See Contrast table (2)
	2	USB Extended Cable	CDP1587				
	3	Polyethylene Bag	See Contrast table (2)		11	Contain Box	See Contrast table (2)
	4	Protector	CHP4594		12	Card Remote Control Unit	QXE1047
	5	Screw	See Contrast table (2)		13	Case Assy	See Contrast table (2)
					14-1	Owner's Manual	See Contrast table (2)
	6	Polyethylene Bag	CEG1160	*	14-2	Warranty Card	See Contrast table (2)
	7	Screw	See Contrast table (2)				
	8	Handle	QNC3021	*	14-3	Service Network	See Contrast table (2)
	9	Screw	TRZ50P080FTC				

(2) CONTRAST TABLE

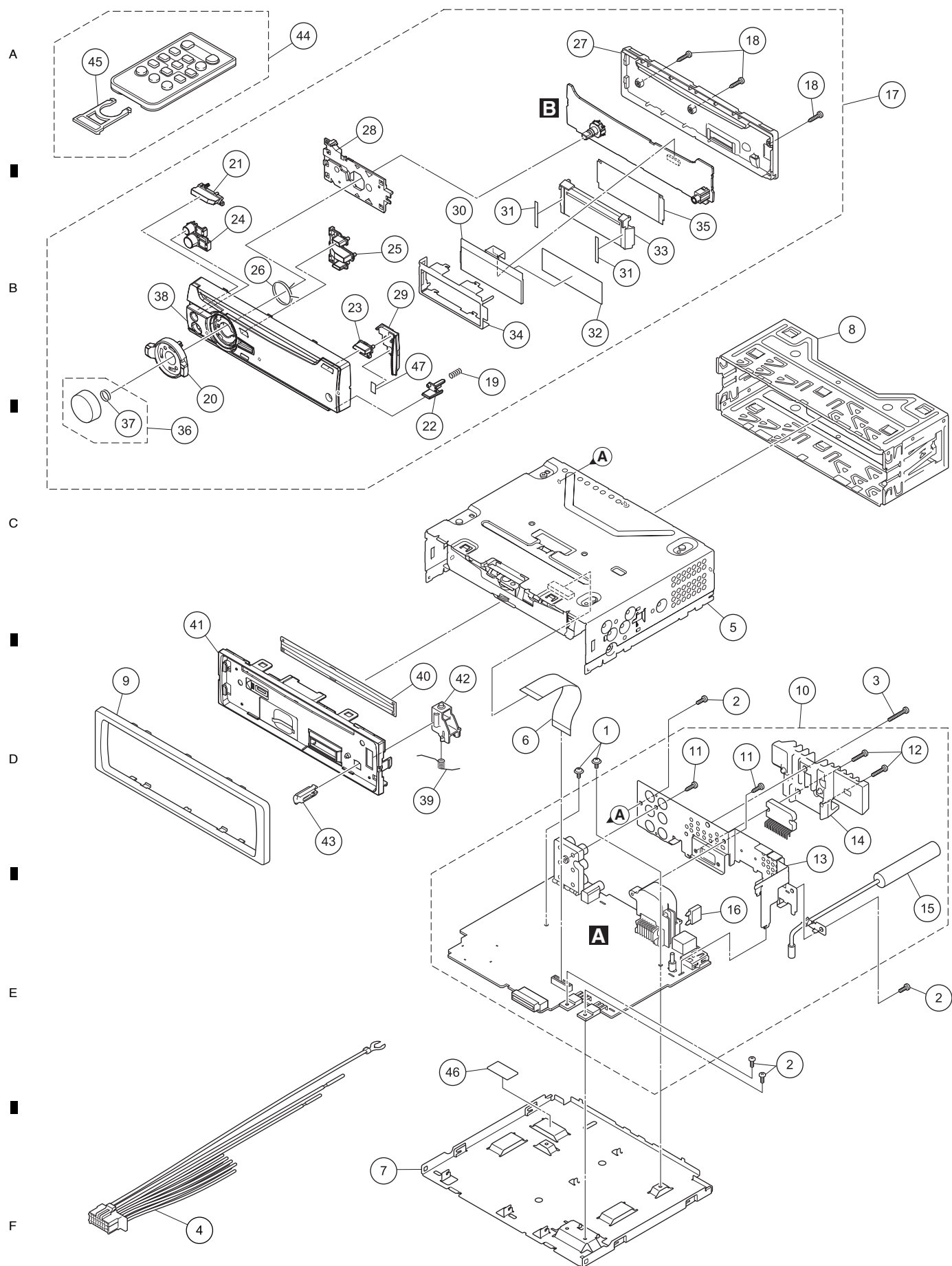
DEH-X7600S/XNUC, DEH-X7650SD/XNGS, DEH-X7650SD/XNGS1, DEH-X7650SD/XNCS and DEH-X7690SD/XNID are constructed the same except for the following:

Mark	No.	Description	DEH-X7600S/ XNUC	DEH-X7650SD/ XNGS	DEH-X7650SD/ XNGS1	DEH-X7650SD/ XNCS	DEH-X7690SD/ XNID
	3	Polyethylene Bag	CEG1173	QEG3001	QEG3001	QEG3001	QEG3001
	5	Screw	BPZ20P060FTC	Not used	Not used	Not used	Not used
	7	Screw	CRZ50P090FTC	Not used	Not used	Not used	Not used
	10	Unit Box	QHG3607	QHG3609	QHG3610	QHG3608	QHG3611
	11	Contain Box	QHL3607	QHL3609	QHL3610	QHL3608	QHL3611
	13	Case Assy	Not used	YXA5856	YXA5856	YXA5856	YXA5856
	14-1	Owner's Manual	QRD3228	QRD3230	QRD3230	QRD3229	QRB3386
*	14-2	Warranty Card	QRY3001	Not used	CRY1394	Not used	CRY1304
*	14-3	Service Network	Not used	Not used	CRY1395	Not used	CRY1305

Owner's Manual,Installation Manual

Part No.	Language
QRD3228	English, French, Spanish(Espanol)
QRD3230	English, Traditional Chinese, Arabic, Persian
QRD3229	English, Spanish(Espanol), Portuguese(B)
QRB3386	English

9.2 EXTERIOR



(1) EXTERIOR SECTION PARTS LIST

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	Screw	ASZ26P050FTC	25	Button (MIX)	QAC3149
2	Screw	BSZ26P060FTC			
3	Screw	BSZ26P120FTC	26	Spring	QBH3006
4	Cord Assy	CDP1484	27	Cover	QNS3628
5	CD Mechanism Module (S11.6)	CXK5804	28	Lighting Conductor	QNV3080
			29	Lighting Conductor	QNV3081
6	FFC	QDE3029	30	LCD	See Contrast table (2)
7	Case	QNB3018			
8	Holder	QNC3020	31	Tape	QNM3063
9	Panel	QNS3576	32	Sheet	QNM3098
10	Tuner Amp Assy	See Contrast table (2)	33	Lighting Conductor	QNV3089
			34	Holder	YNC5101
11	Screw	BPZ26P080FTC	35	Sheet	YNM5187
12	Screw	BSZ26P120FTC			
13	Holder	See Contrast table (2)	36	Knob Unit	QXA3981
14	Heat Sink	See Contrast table (2)	37	Spring	YBL5010
15	Antenna Attached Cable	YDH5001	38	Grille Unit	See Contrast table (2)
			39	Spring	QBH3001
⚠ 16	Fuse (10A)	YEK5001	40	Cover	QNM3029
17	Detachable Grille Assy	See Contrast table (2)			
18	Screw	BPZ20P100FTC	41	Panel	See Contrast table (2)
19	Spring	CBH2210	42	Arm	QNV3025
20	Lever	QAA3040	43	Button	QNV3026
			44	Card Remote Control Unit	QXE1047
21	Button (APP)	QAC3144	45	Cover	CNS7068
22	Button (DETACH)	QAC3146			
23	Button (EJECT)	QAC3147	46	Sheet	QNM3105
24	Button (DISP)	QAC3148	47	Sheet	QNM3101

(2) CONTRAST TABLE

DEH-X7600S/XNUC, DEH-X7650SD/XNGS, DEH-X7650SD/XNGS1, DEH-X7650SD/XNCS and DEH-X7690SD/XNID are constructed the same except for the following:

Mark	No.	Description	DEH-X7600S/ XNUC	DEH-X7650SD/ XNGS	DEH-X7650SD/ XNGS1	DEH-X7650SD/ XNCS	DEH-X7690SD/ XNID
	10	Tuner Amp Assy	QWM3777	QWM3778	QWM3778	QWM3779	QWM3780
	13	Holder	QNC3061	YNC5109	YNC5109	YNC5109	YNC5109
	14	Heat Sink	QNR3010	QNR3002	QNR3002	QNR3010	QNR3002
	17	Detachable Grille Assy	QXA3988	QXA3990	QXA3990	QXA3989	QXA3991
	30	LCD	CAW2043	CAW2040	CAW2040	CAW2040	CAW2040
	38	Grille Unit	QXA4000	QXA4001	QXA4001	QXA4001	QXA4003
	41	Panel	QNS3669	QNS3627	QNS3627	QNS3627	QNS3627

9.3 CD MECHANISM MODULE

A

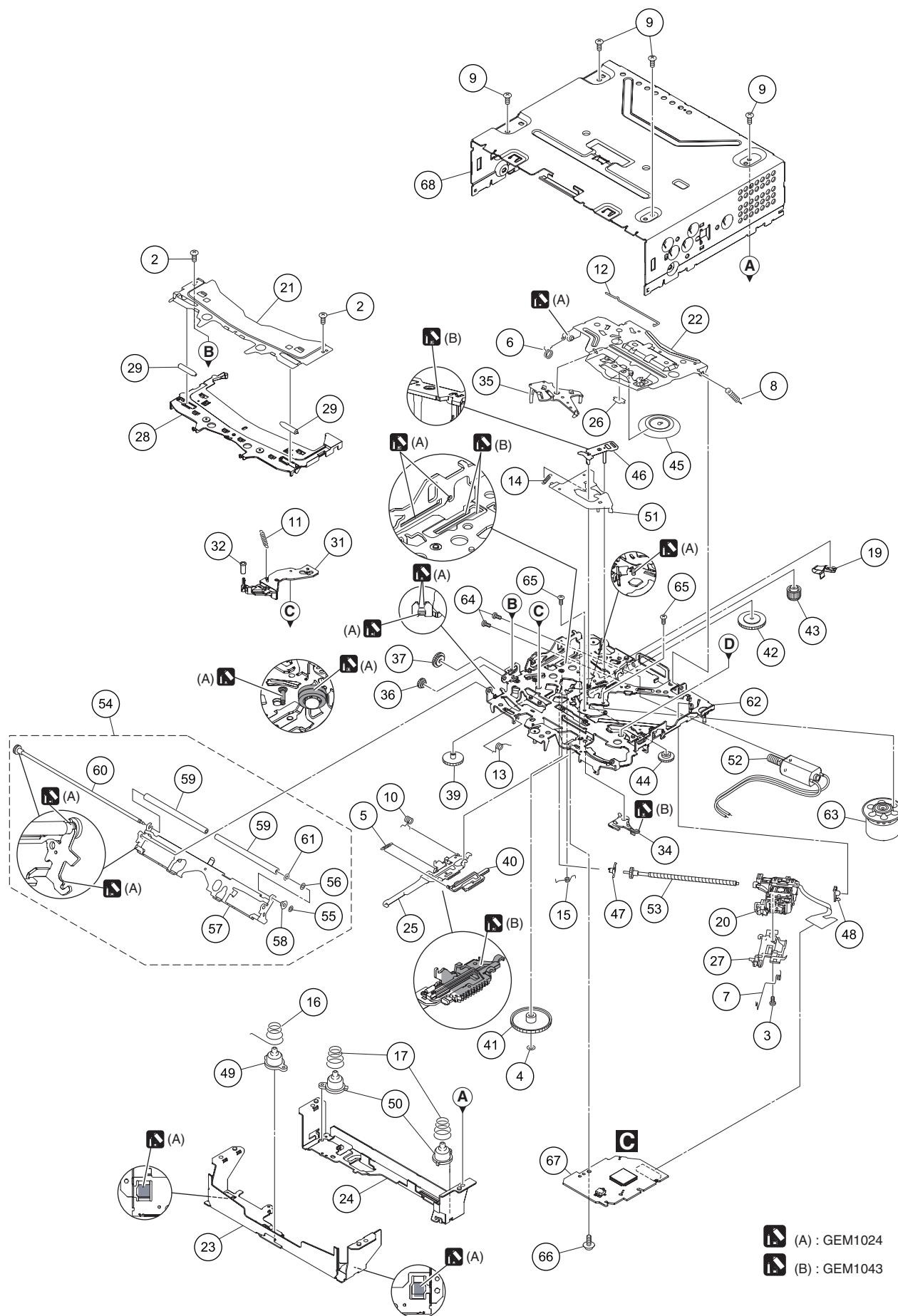
B

C

D

E

F



DEH-X7600S/XNUC

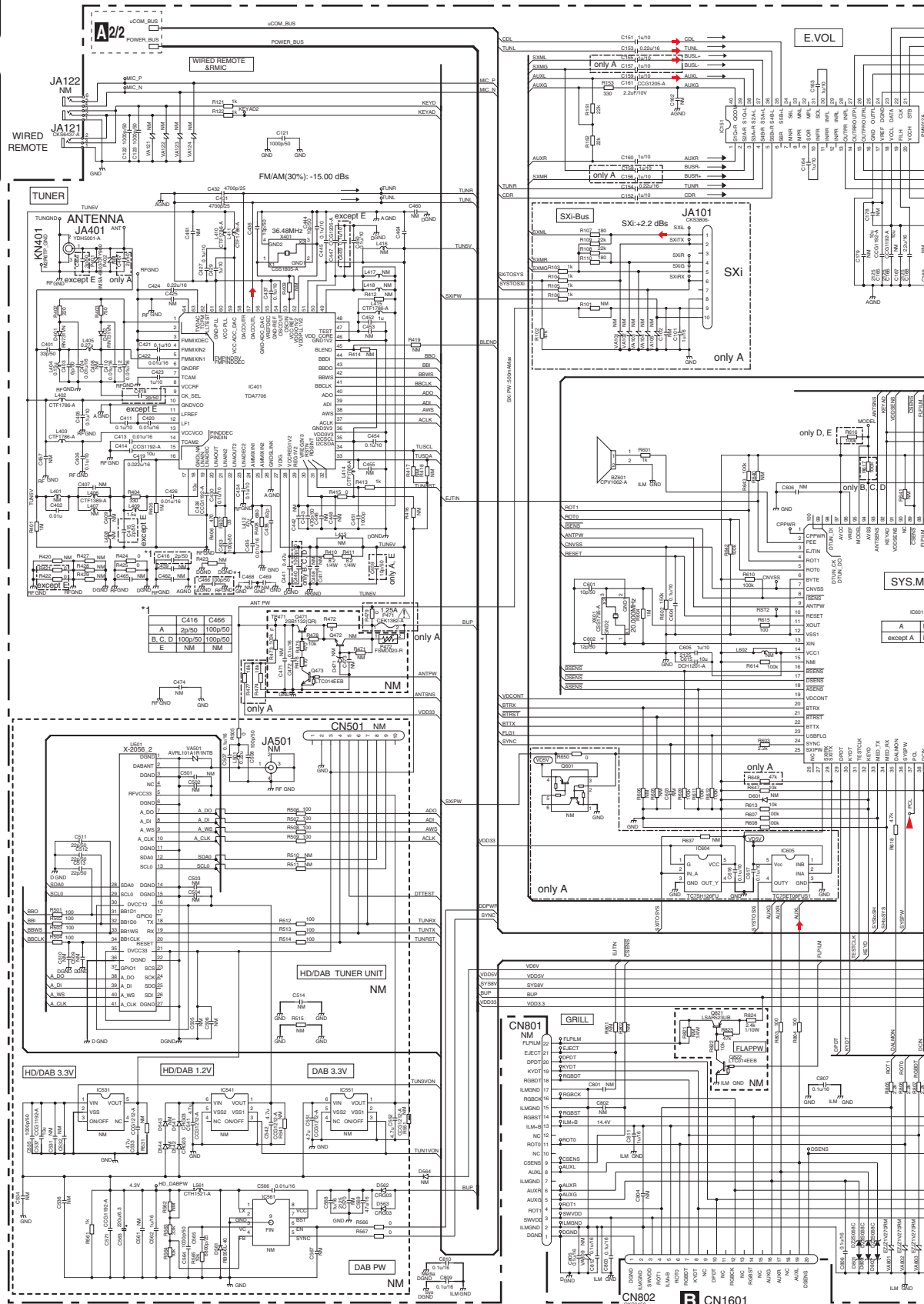
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	
1			50	Damper	CNW1198	
2	Screw	BSZ20P040FTC	51	Arm	CNW1726	A
3	Screw(M2 x 4)	CBA1835	52	Motor Unit(M2)(LOAD/CRG)	CXC4026	
4	Washer	CBF1038	53	Screw Unit	CXC8894	
5	Spring	CBH3010	54	Arm Assy	CXE6232	
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



A1/2

DEH-X7600S/XNUC

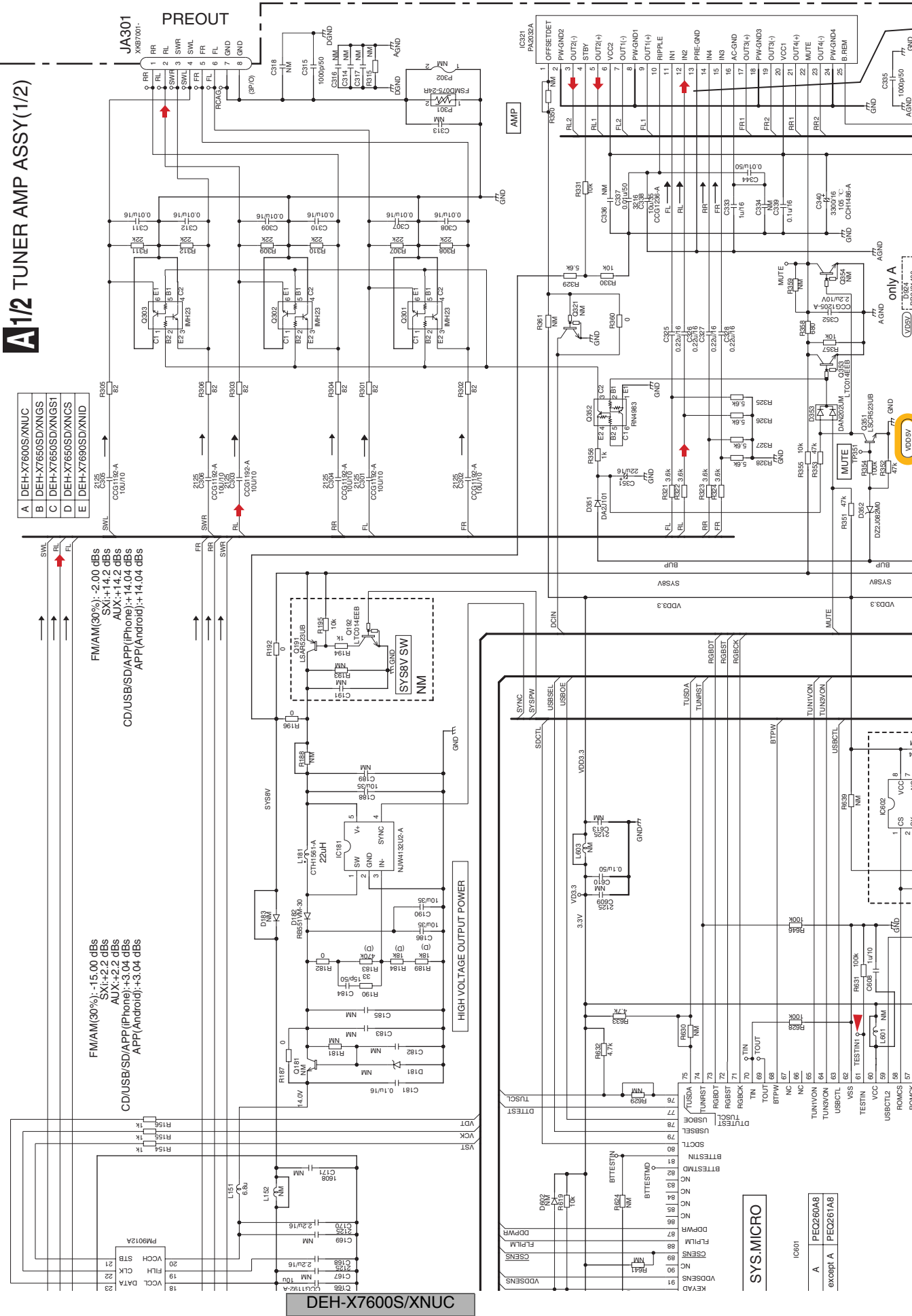
A^{1/2}

A1/2 TUNER AMP ASSY(1/2)

A	DEH-X7600S/XNUC
B	DEH-X7600SD/XNGS
C	DEH-X7600SD/XNGS1
D	DEH-X7600SD/XNCS
E	DEH-X7600SD/XNUID

FM/AM(30%):-2.00 dBs
 SXI:-+14.2 dBs
 CD/USB/SD/APP(IPhone):-+14.0 dBs
 APP(Android):-+14.0 dBs

FM/AM(30%):-15.00 dBs
 SXI:-+2.2 dBs
 AUX:-+2.2 dBs
 CD/USB/SD/APP(IPhone):-+3.04 dBs
 APP(Android):-+3.04 dBs



DEH-X7600S/XNUC

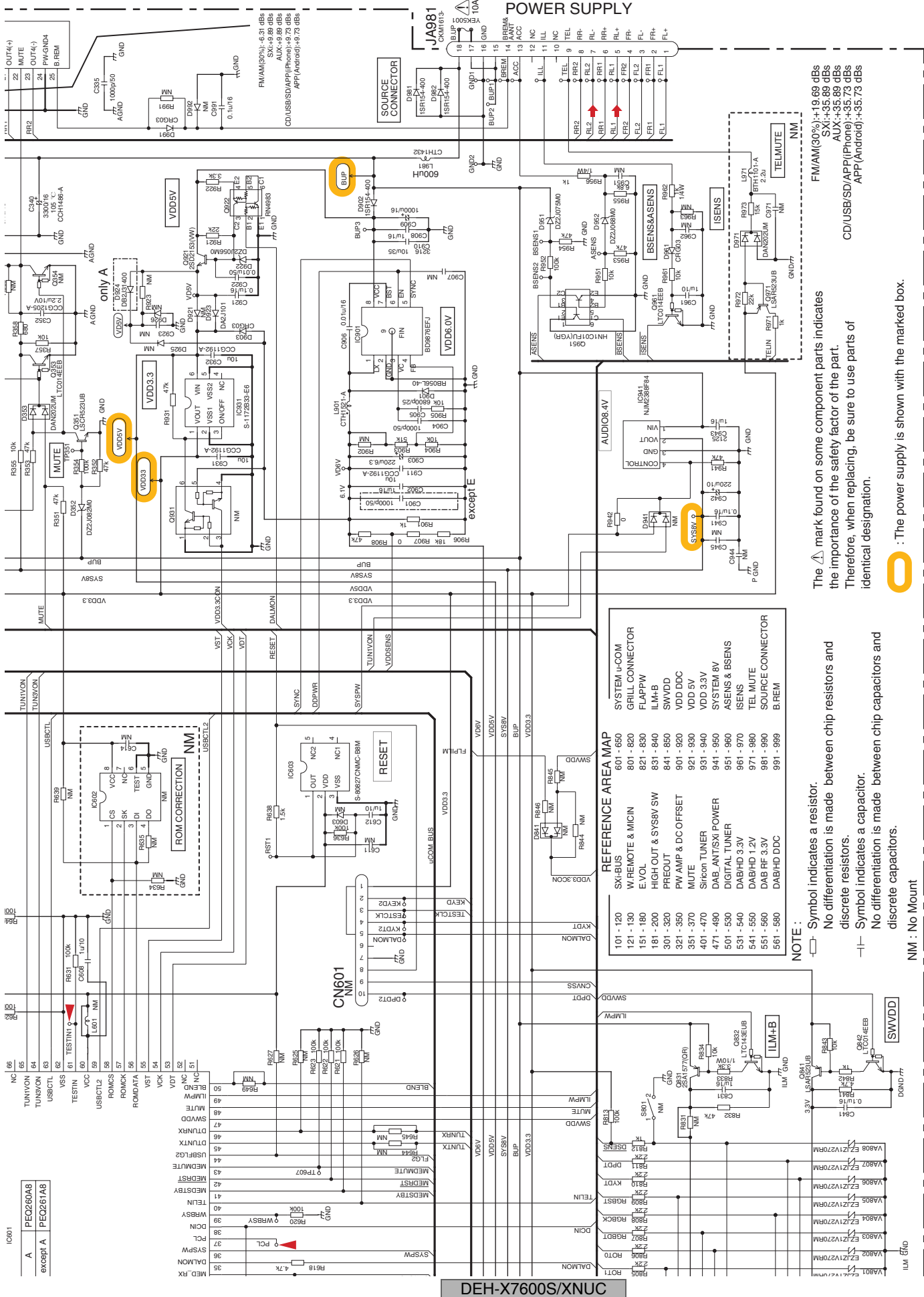
SYS.MICRO

A	PEQ260A8
except A	PEQ261A8

IC601

A-a

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.

A-b 1/2

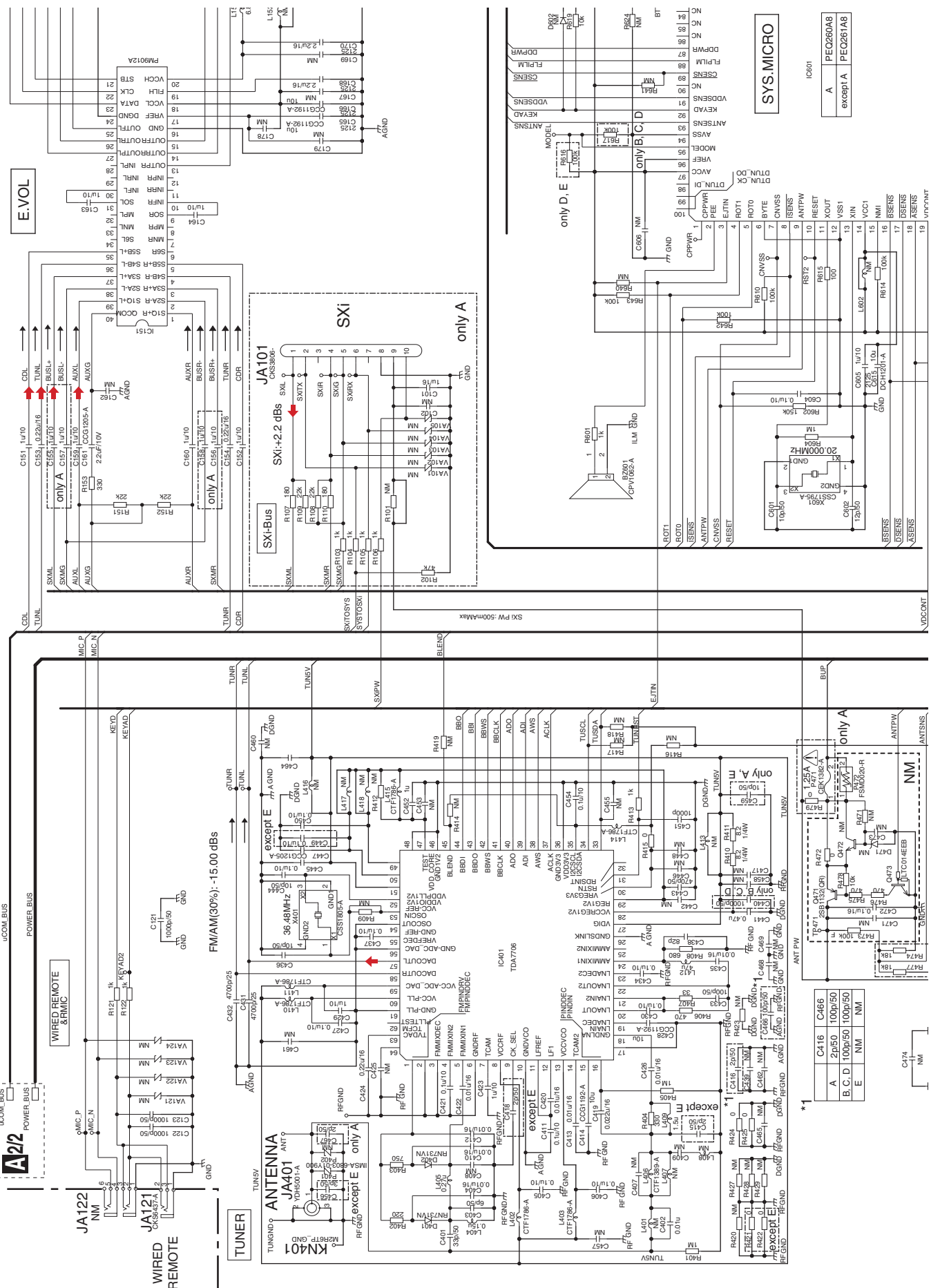
A-a A-b

D

E

F

45



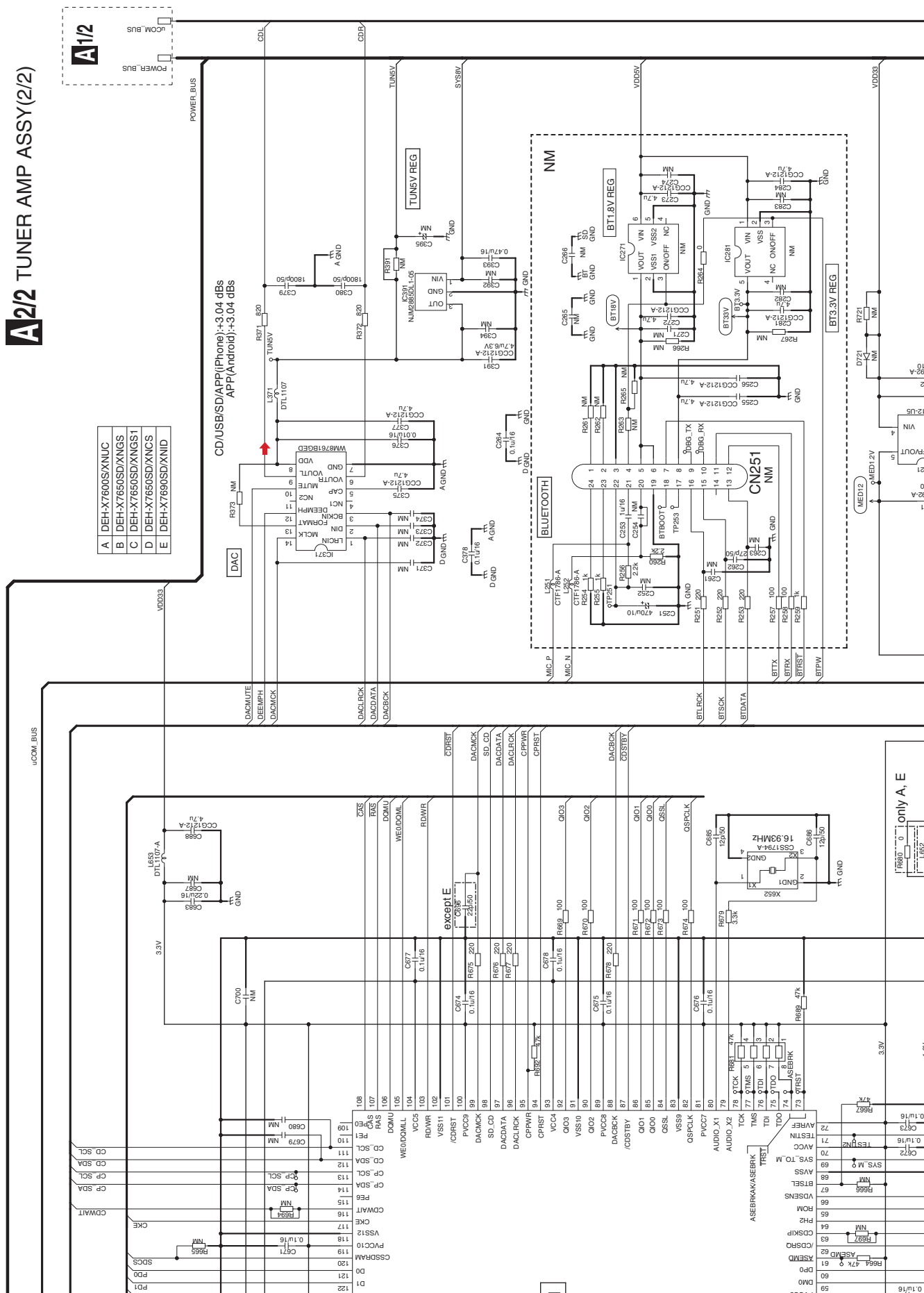


A-a 2/2



A^{1/2}

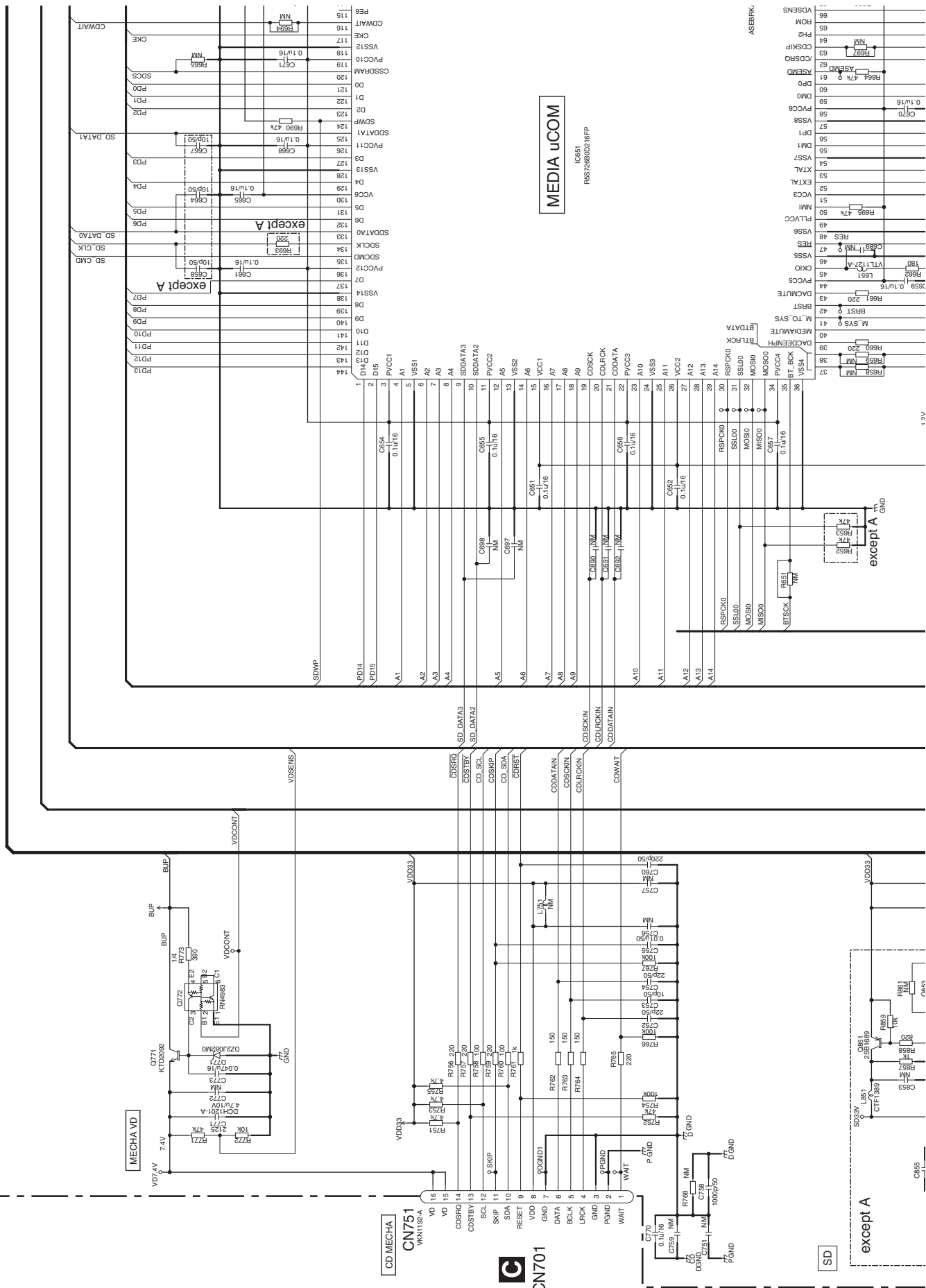
A	DEH-X7600S/XNUC
B	DEH-X7650SD/XNGS
C	DEH-X7650SD/XNGS1
D	DEH-X7650SD/XNCS
E	DEH-X7690SD/XNID



R680	0	only A. E
------	---	-----------

3

DEH-X7600S/XNUC



4

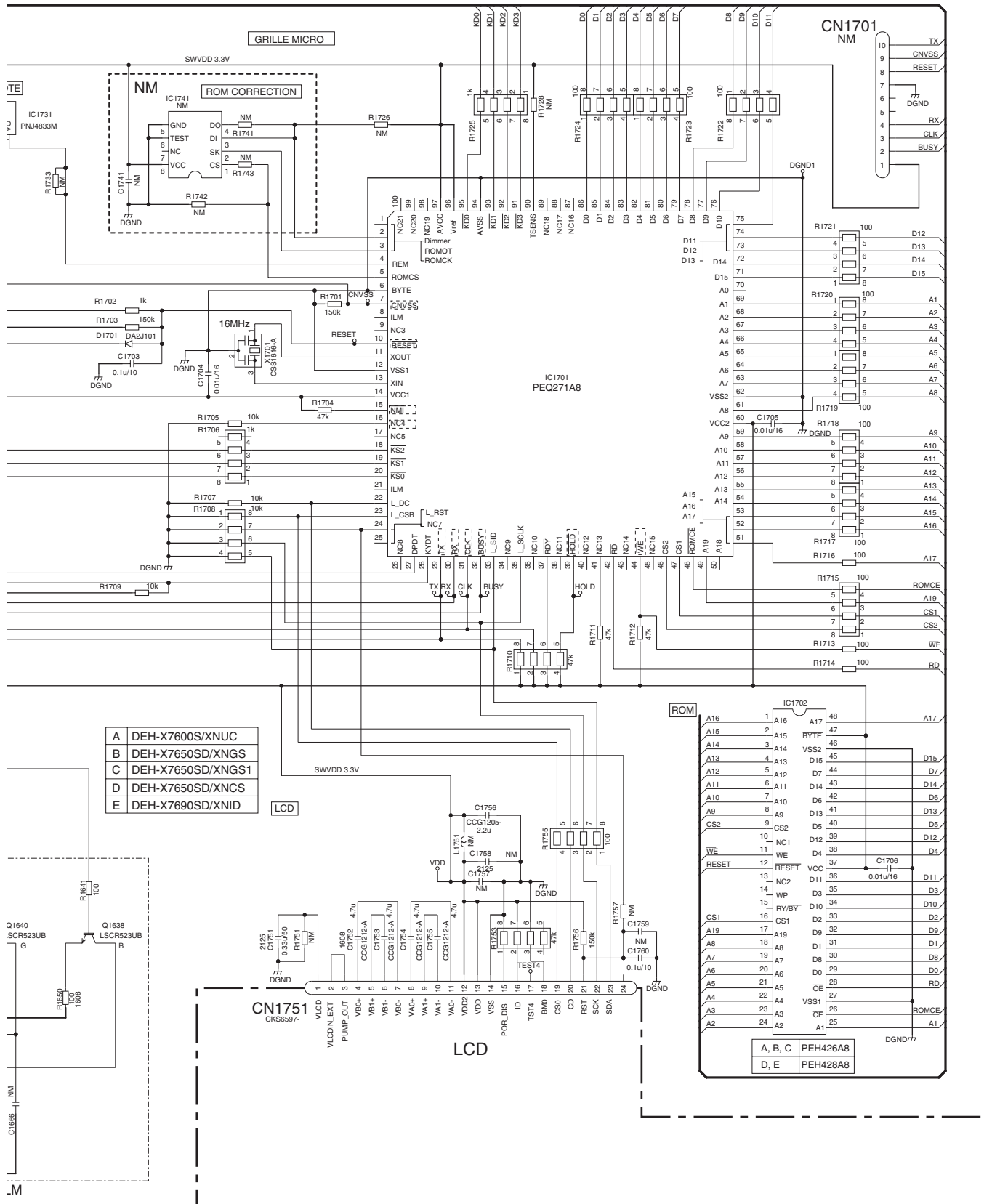


1601-1610	CONNECTOR
1611-1620	ROTARY ENCODEF
1621-1630	RGB DRIVER
1631-1680	RGB ILM
1701-1730	GRILLE MICRO & R

REFERENCE AREA MAP

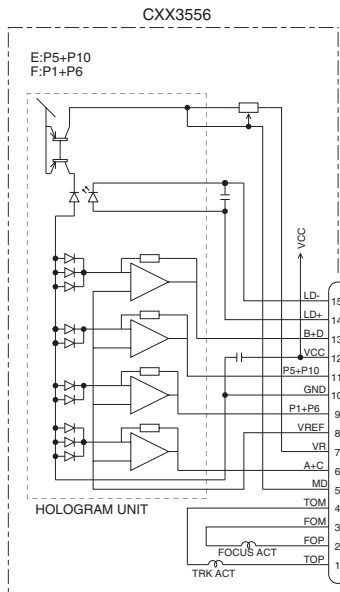
- | | |
|-----------------------|--------------------------|
| 10 CONNECTOR | 1731~1740 REMOTE&KEY |
| 20 ROTARY ENCODER | 1741~1750 ROM CORRECTION |
| 30 RGB DRIVER | 1751~1780 LCD |
| 40 RGB ILM | 1781~1790 AUX |
| 50 GRILLE MICRO & ROM | |

B KEYBOARD UNIT

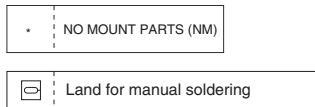


10.4 CD CORE UNIT (S11.6STD)

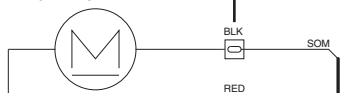
PICK UP UNIT(P10.6) (SERVICE)



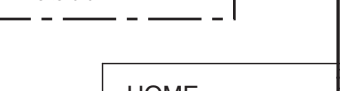
F.ACT: Applying positive voltage to FOP, the lens approaches DISC.
T.ACT: Applying positive voltage to TOP, the lens moves outer circumference of DISC.



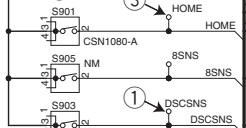
M1 SPDL MOTOR CXE2273



M2 LOAD/CRG MOTOR CXC4026



HOME



DSCSNS

SWITCHES:
CD CORE UNIT (S11.6STD)
S901:HOME SWITCH.....ON-OFF
S903:DSCSNS SWITCH.....ON-OFF

The underlined indicates the switch position.

DEH-X7600S/XNUC

1608:PARTS
C205 C209 C238
C240 C307 C308
C708
R101 R102 R103
R246
2125:PARTS
C104

Parts with Polarity
IC201 IC301
D101
Q101 Q102 Q201
C301

	LOAD	EJ	PLAY	OFF
CLCONT	H	H	L	L
LOEJ	H	L	H	L
CONT	L	L	H	L

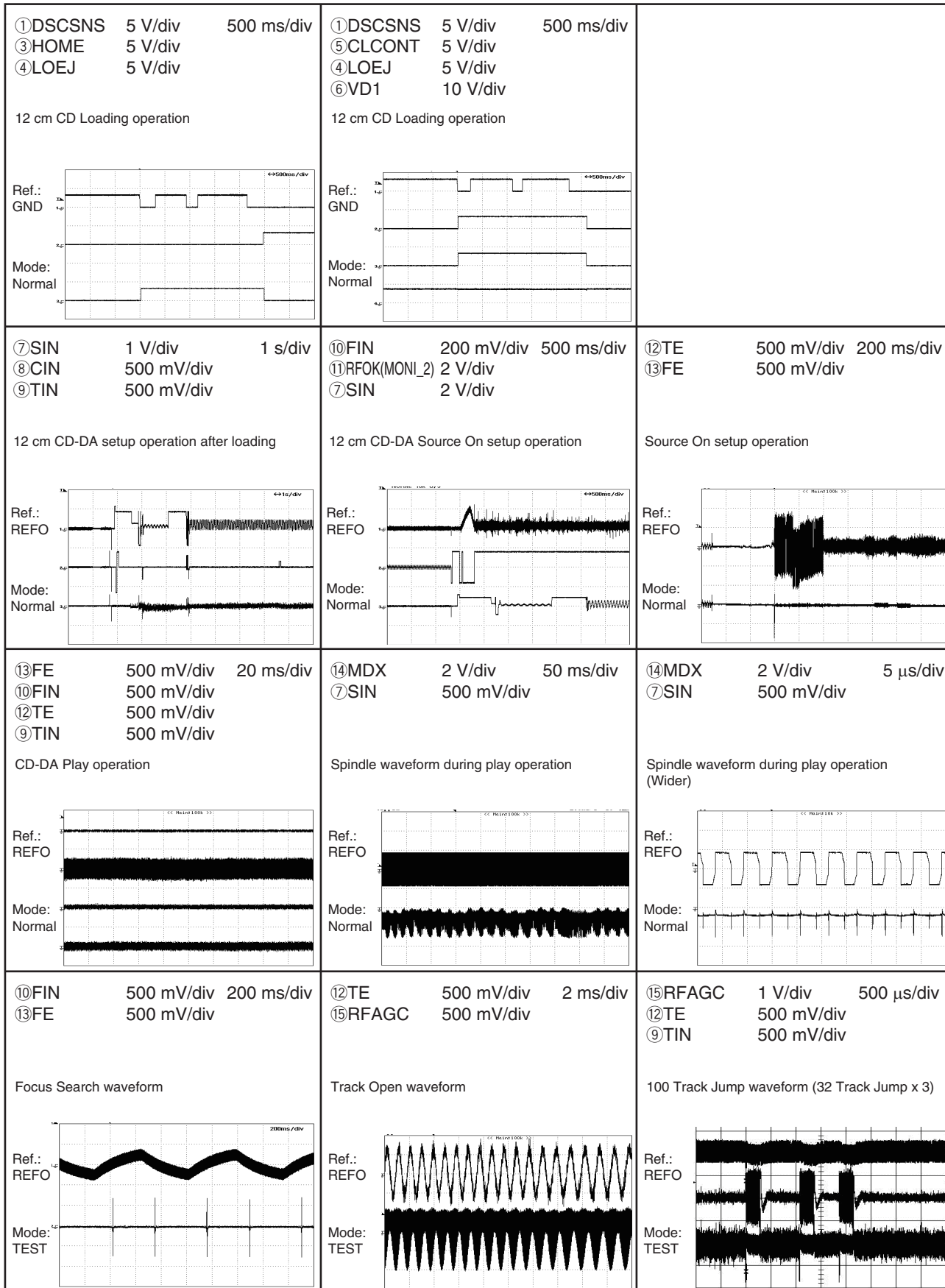
F

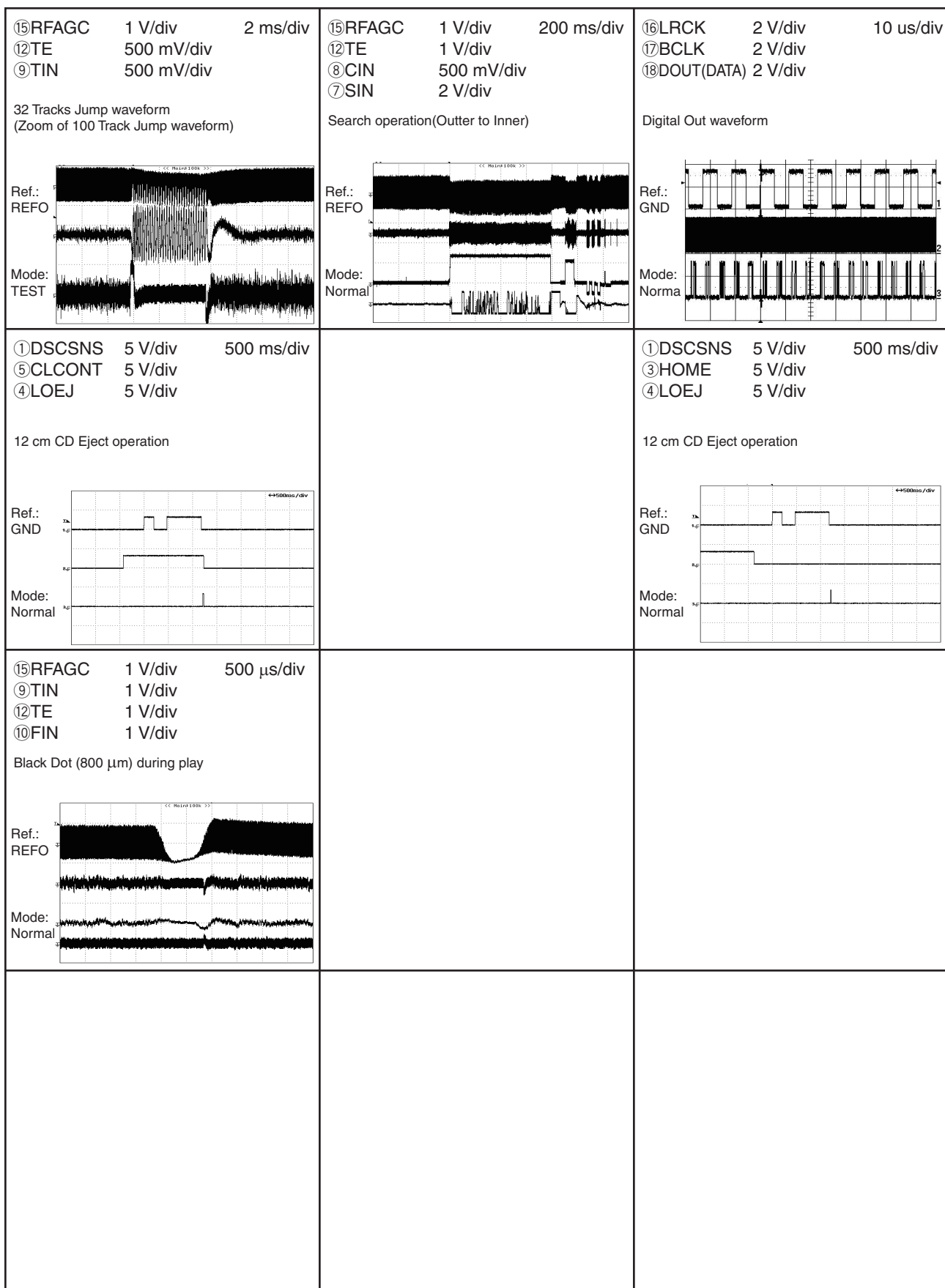


10.5 WAVEFORMS

● CD CORE UNIT(S11.6STD)

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





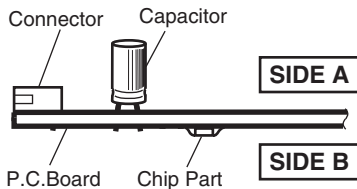
11. PCB CONNECTION DIAGRAM

11.1 TUNER AMP ASSY

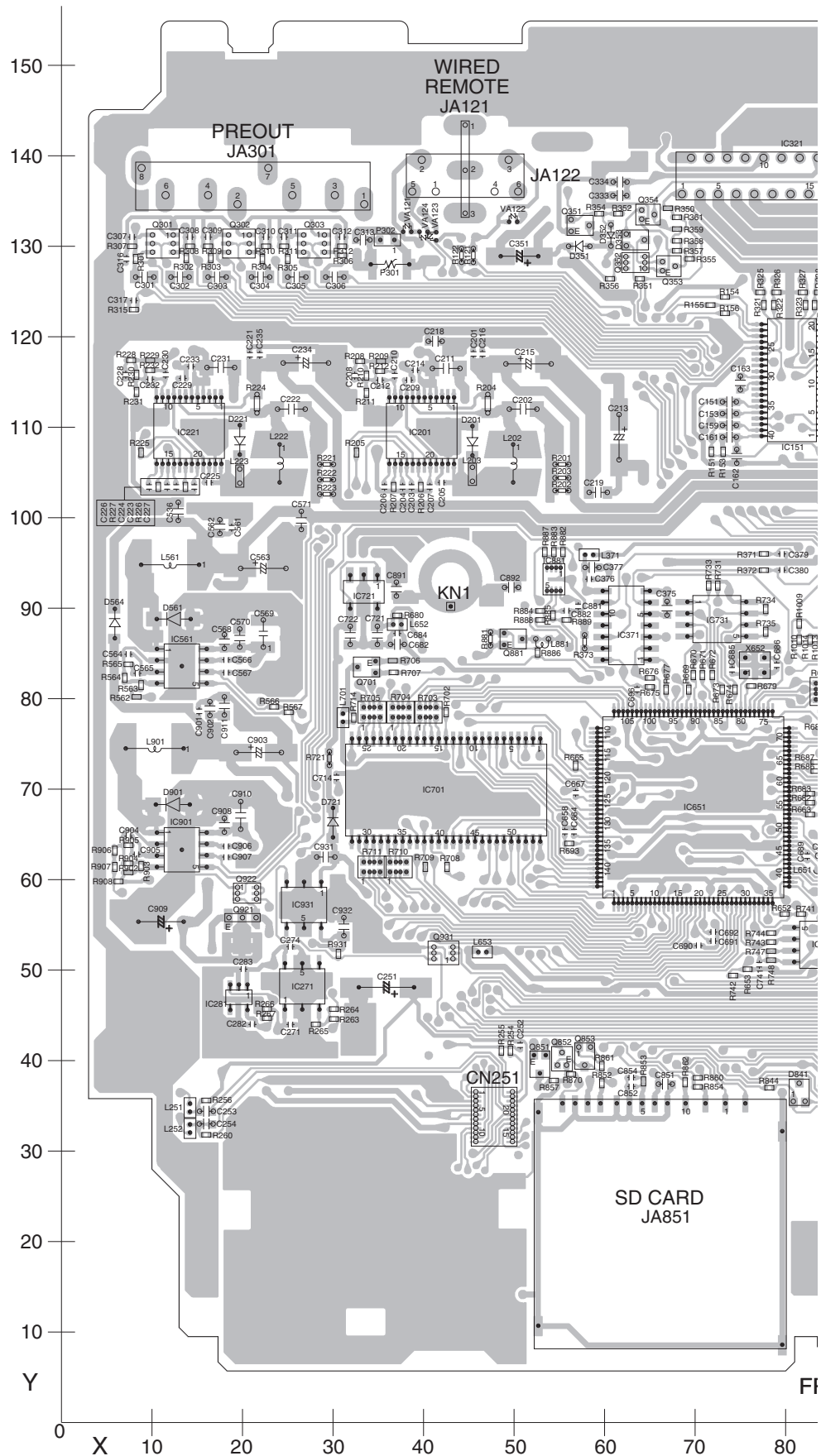
NOTE FOR PCB DIAGRAMS

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

2. Viewpoint of PCB diagrams

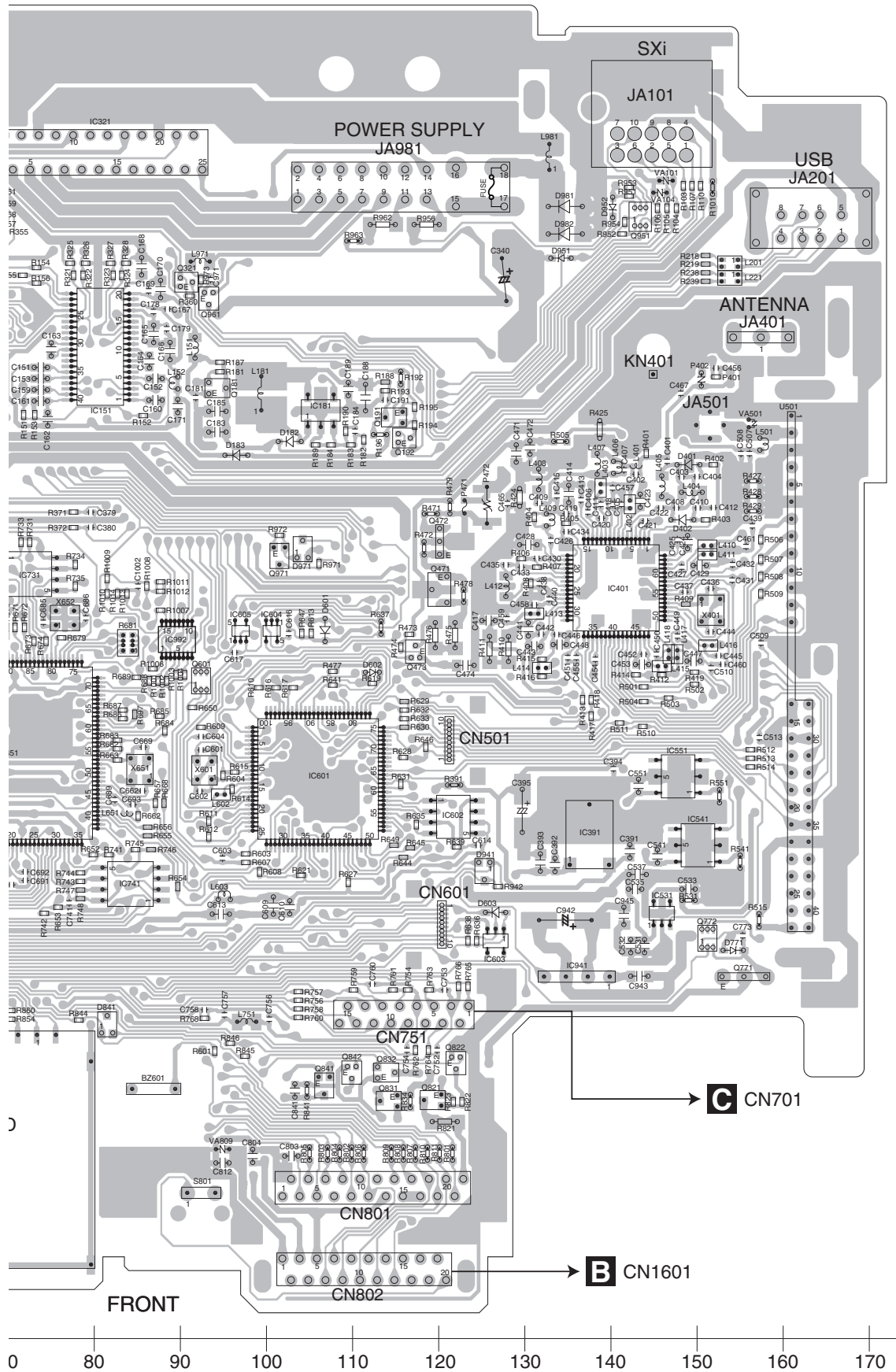


A TUNER AMP ASSY



SIDE A

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



C CN701

B CN1601

A

A TUNER AMP ASSY

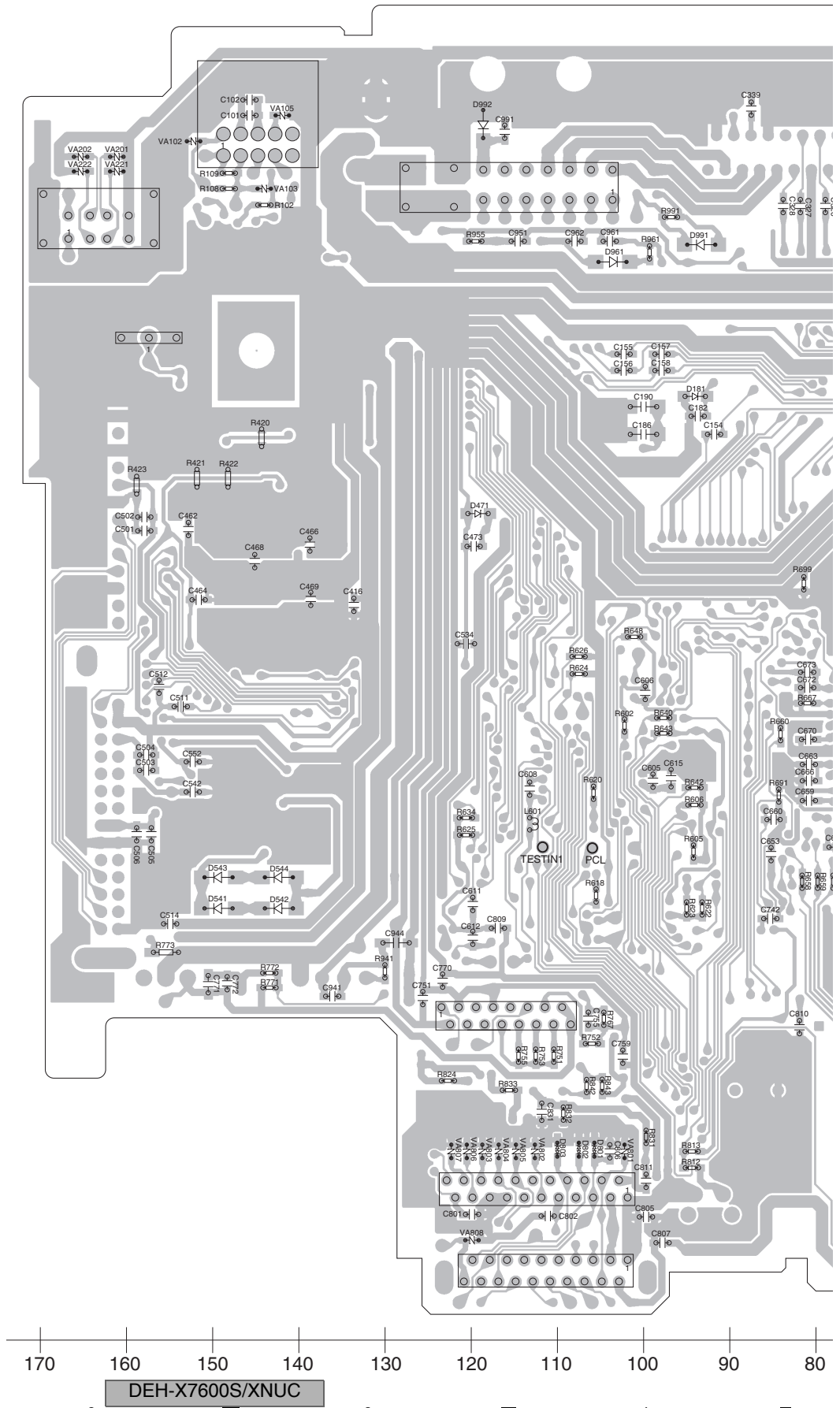
B

C

D

E

F



SIDE B

A

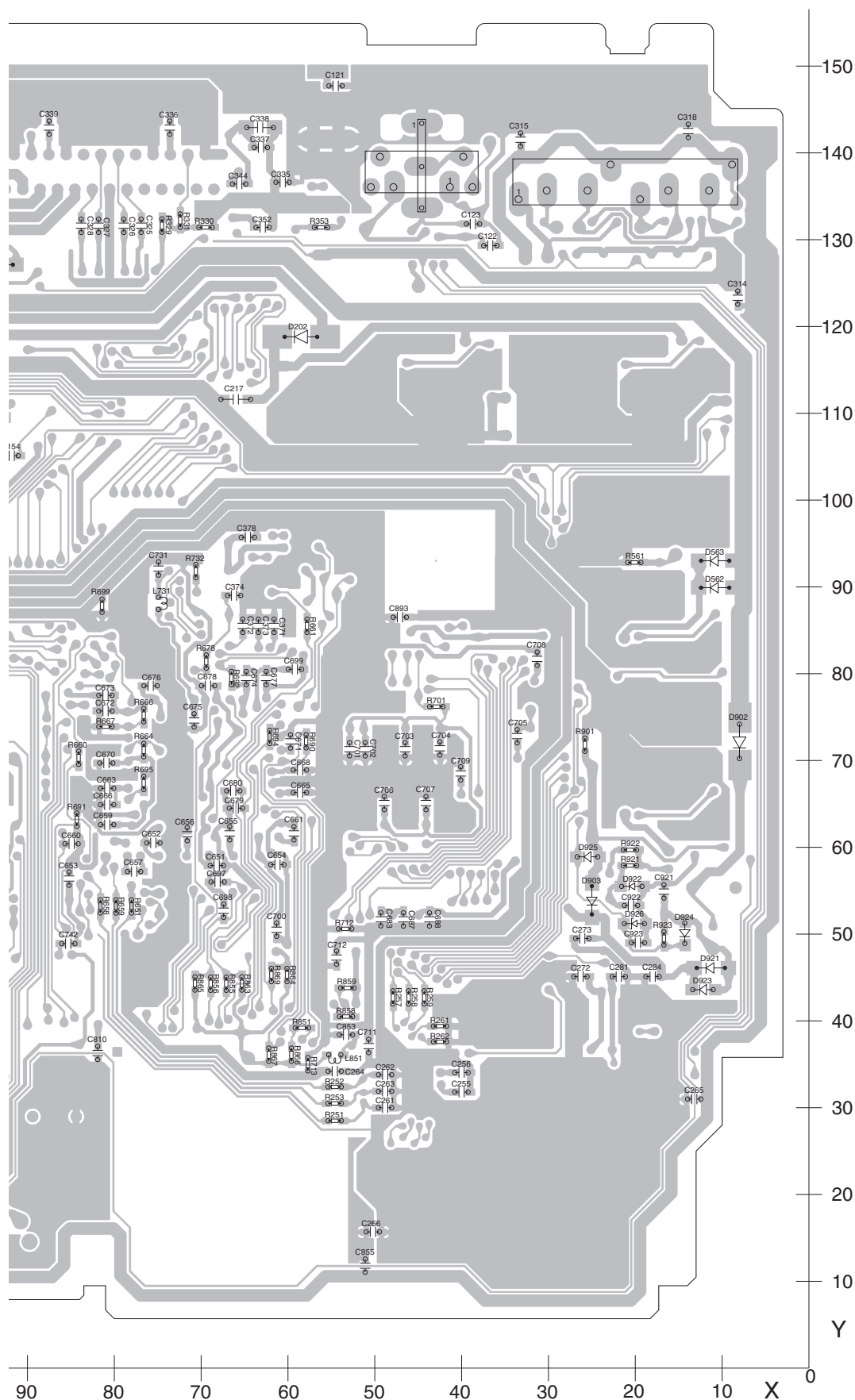
B

C

D

E

F



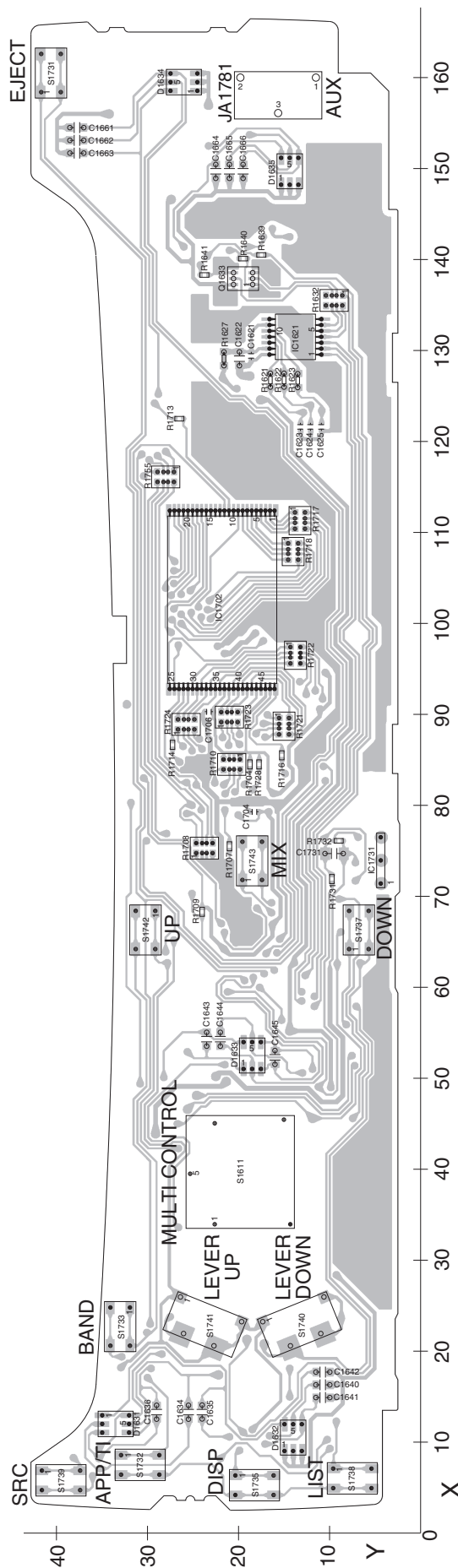
DEH-X7600S/XNUC

A

11.2 KEYBOARD UNIT

B KEYBOARD UNIT

SIDE A



DEH-X7600S/XNUC

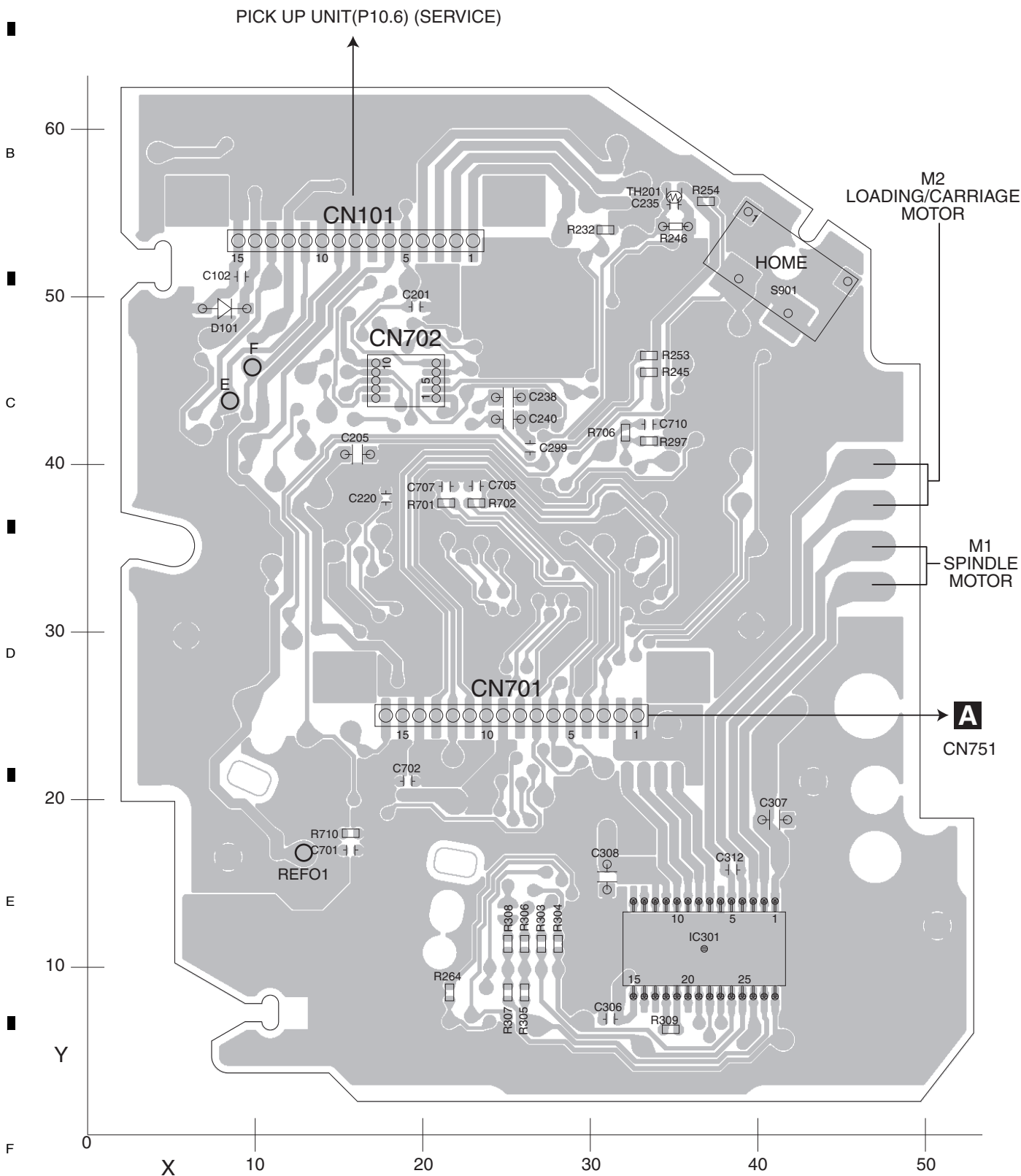
B

11.3 CD CORE UNIT (S11.6STD)

C CD CORE UNIT (S11.6STD)

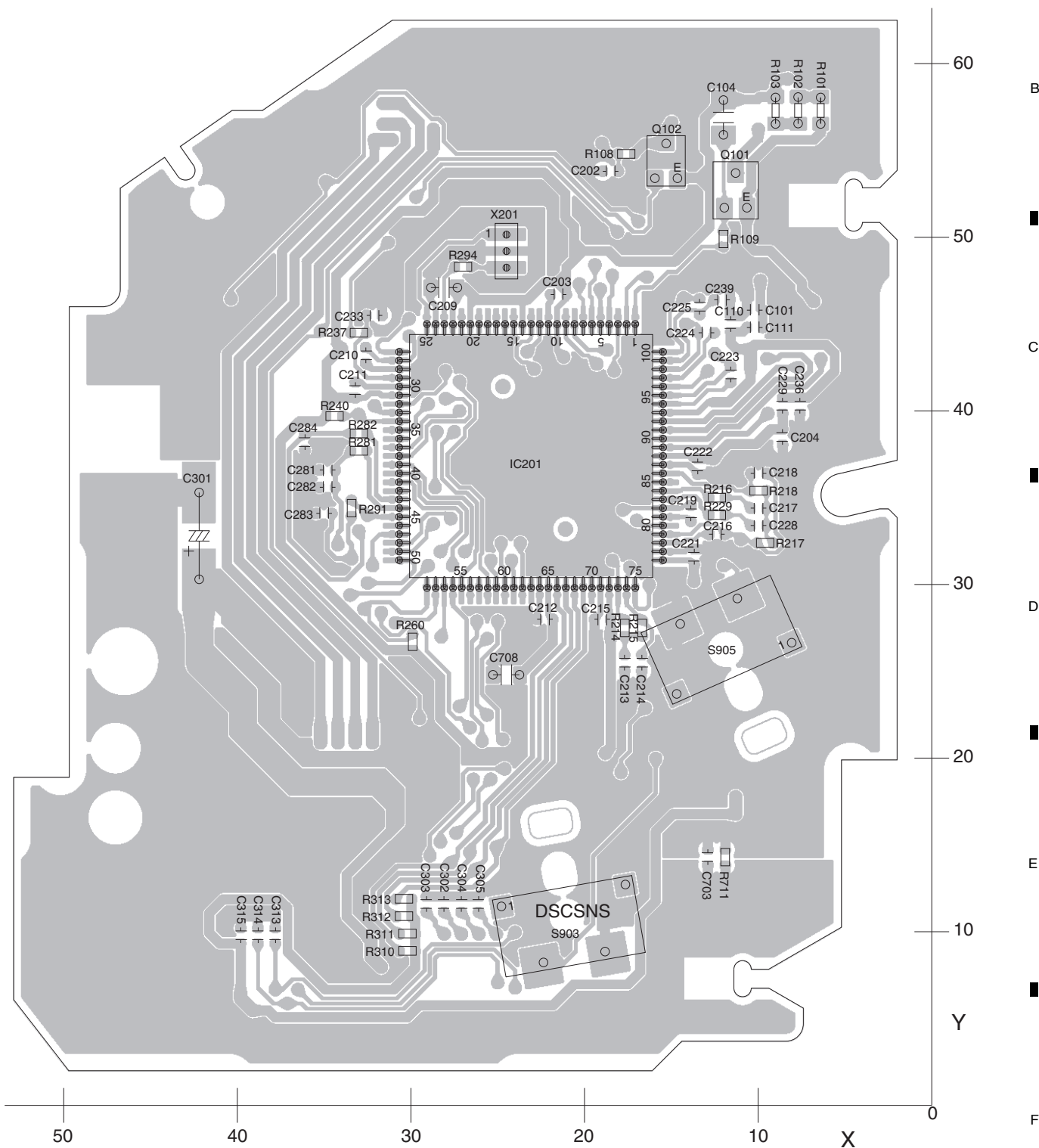
SIDE A

A



C

DEH-X7600S/XNUC



5	6	7	8
<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>
D 401 (A,149,102) Diode	RN731VN	JA101 (A,145,143) Connector(A)	CKS3806
D 402 (A,148,95) Diode	RN731VN	JA121 (A,45,138) Jack	CKS6437
D 771 (A,154,45) Diode	DZ2J082M0	JA201 (A,163,135) USB Jack	CKN1091
D 801 (B,106,22) Diode	DZ2S068C	JA301 (A,22,138) Pin Jack	XKB7001
D 802 (B,108,22) Diode	DZ2S068C		
D 803 (B,110,22) Diode	DZ2S068C	JA401 (A,157,116) ANT Pigtail Cable	YDH5001
		JA851 (A,66,21) Connector(B,C,D,E)	YKS040
		JA981 (A,116,141) Connector	CKM1613
D 901 (A,12,68) Diode	RB056L-40	RESISTORS	
D 902 (B,8,72) Diode	1SR154-400	R 102 (B,144,132) (A)	RS1/10SR473J
D 903 (B,25,54) Diode	CRG03	R 103 (A,148,134) (A)	RS1/16SS102J
D 922 (B,20,56) Diode	DZ2J056M0	R 104 (A,148,131) (A)	RS1/16SS102J
D 923 (B,12,44) Diode	DA2J101	R 105 (A,147,131) (A)	RS1/16SS102J
		R 106 (A,145,131) (A)	RS1/16SS102J
D 924 (B,14,50) Diode(A)	DB2J31400		
D 951 (A,134,126) Diode	DZ2J075M0	R 107 (A,149,134) (A)	RS1/16SS181J
D 952 (A,140,131) Diode	DZ2J068M0	R 108 (B,148,134) (A)	RS1/10SR223J
D 961 (B,104,125) Diode	CRG03	R 109 (B,148,135) (A)	RS1/10SR223J
D 981 (A,135,132) Diode	1SR154-400	R 110 (A,150,134) (A)	RS1/16SS181J
		R 121 (A,46,129)	RS1/10SR102J
D 982 (A,135,128) Diode	1SR154-400		
D 991 (B,93,127) Diode	CRG03	R 122 (A,44,129)	RS1/10SR102J
L 151 (A,92,115) Inductor	LCTAW6R8J2520	R 151 (A,72,107)	RS1/16SS223J
L 181 (A,99,110) Choke Coil 22 uH	CTH1561	R 152 (A,86,107)	RS1/16SS223J
L 201 (A,154,125) Inductor	CTF1713	R 153 (A,73,107)	RS1/16SS331J
L 202 (A,50,106) Inductor	CTH1524	R 154 (A,73,124)	RS1/16SS102J
L 371 (A,58,96) Chip Ferrite Bead	DTL1107	R 155 (A,72,124)	RS1/16SS102J
L 402 (A,142,97) Inductor	CTF1786	R 156 (A,73,123)	RS1/16SS102J
L 403 (A,139,99) Inductor	CTF1786	R 182 (A,111,104)	RS1/16SS0R0J
L 404 (A,149,98) Chip Coil	LCTAWR15J2520	R 183 (A,110,104)	RS1/16SS4703D
L 405 (A,146,99) Chip Coil	LCTAWR27J2520	R 184 (A,108,104)	RS1/16SS1802D
L 406 (A,140,101) Inductor	CTF1389	R 187 (A,95,113)	RS1/16SS0R0J
L 409 (A,133,95) Inductor	LCTC1R5K1608	R 189 (A,106,104)	RS1/16SS1802D
L 410 (A,151,92) Inductor	CTF1786	R 190 (A,109,105)	RS1/16SS330J
L 411 (A,151,91) Inductor	CTF1786	R 192 (A,116,112)	RS1/10SR0R0J
L 412 (A,128,87) Chip Coil	LCTAW470J2520	R 196 (A,113,105)	RS1/10SR0R0J
L 414 (A,132,78) Inductor	CTF1786	R 202 (A,55,103)	RS1/10SR681J
L 415 (A,146,78) Inductor	CTF1786	R 203 (A,55,104)	RS1/10SR681J
L 651 (A,84,61) Chip Beads	VTL1127	R 204 (A,47,113) 0.056 ohm	ACN7160
L 652 (A,37,88) Inductor(B,C,D)	CTF1786	R 206 (A,40,103)	RS1/16SS4702D
L 653 (A,47,52) Chip Ferrite Bead	DTL1107	R 207 (A,37,103)	RS1/16SS224J
L 701 (A,31,78) Chip Ferrite Bead	DTL1107		
L 731 (B,75,88) Inductor	CTF1389	R 208 (A,33,117)	RS1/16SS152J
L 851 (B,55,36) Inductor(B,C,D,E)	CTF1389	R 210 (A,34,116)	RS1/16SS3302D
L 901 (A,10,75) Inductor	CTH1521	R 211 (A,34,114)	RS1/16SS8201D
L 981 (A,114,141) Choke Coil 600 uH	CTH1432	R 212 (A,35,116)	RS1/16SS223J
X 401 (A,152,85) Resonator 36.480 MHz	CSS1805	R 301 (A,8,129)	RS1/16SS820J
X 601 (A,93,66) Resonator 20.000 MHz	CSS1795		
X 651 (A,85,66) Resonator 12.000 MHz	YSS5005	R 302 (A,14,129)	RS1/16SS820J
X 652 (A,77,84) Resonator 16.93 MHz	CSS1794	R 303 (A,17,129)	RS1/16SS820J
P 301 (A,36,128) Poly Switch	FSMD075-24R	R 304 (A,22,129)	RS1/16SS820J
P 401 (A,152,112) Surge Absorber	IMSA-6803-01Y900	R 305 (A,25,129)	RS1/16SS820J
△P471 (A,123,97) Fuse 1.25 A(A)	CEK1382	R 306 (A,31,129)	RS1/16SS820J
BZ601 (A,87,29) Buzzer	CPV1062	R 307 (A,8,130)	RS1/16SS223J
VA801 (B,102,22) Varistor	EZJZ1V270RM	R 308 (A,14,130)	RS1/16SS223J
VA802 (B,113,22) Varistor	EZJZ1V270RM	R 309 (A,16,130)	RS1/16SS223J
VA803 (B,119,22) Varistor	EZJZ1V270RM	R 310 (A,23,130)	RS1/16SS223J
VA804 (B,117,22) Varistor	EZJZ1V270RM	R 311 (A,25,130)	RS1/16SS223J
VA805 (B,115,22) Varistor	EZJZ1V270RM	R 312 (A,31,130)	RS1/16SS223J
VA806 (B,121,22) Varistor	EZJZ1V270RM	R 321 (A,78,124)	RS1/16SS362J
VA807 (B,122,22) Varistor	EZJZ1V270RM	R 322 (A,79,124)	RS1/16SS362J
VA808 (B,120,12) Varistor	EZJZ1V270RM	R 323 (A,82,124)	RS1/16SS362J
CN751 (A,116,38) Connector	VKN1192	R 324 (A,83,124)	RS1/16SS362J
CN802 (A,111,4) Connector	CKS6452		

1

2

3

4

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

A	R 325	(A,77,125)	RS1/16SS562J	R 633	(A,116,72)	RS1/16SS472J
	R 326	(A,79,125)	RS1/16SS562J			
	R 327	(A,82,125)	RS1/16SS562J	R 636	(A,124,46)	RS1/16SS104J
	R 328	(A,84,125)	RS1/16SS562J	R 638	(A,123,46)	RS1/16SS152J
	R 329	(B,75,132)	RS1/10SR562J	R 642	(B,94,64)	RS1/10SR104J
	R 330	(B,70,131)	RS1/10SR103J	R 643	(B,98,70)	RS1/10SR104J
	R 331	(B,72,132)	RS1/10SR103J	R 646	(A,119,69)	RS1/16SS104J
	R 351	(A,64,126)	RS1/16SS473J			
	R 352	(A,62,134)	RS1/16SS473J	R 647	(A,104,82)	RS1/16SS103J
	R 353	(B,56,131)	RS1/10SR473J	R 648	(B,101,82) (A)	RS1/10SR473J
	R 354	(A,59,134)	RS1/16SS104J	R 650	(A,91,73) (A)	RS1/16SS0R0J
	R 355	(A,69,129)	RS1/16SS103J	R 652	(A,80,56) (B,C,D,E)	RS1/16SS473J
	R 356	(A,61,126)	RS1/16SS102J	R 653	(A,76,50) (B,C,D,E)	RS1/16SS473J
	R 357	(A,68,130)	RS1/16SS103J	R 657	(A,87,62)	RS1/16SS101J
	R 358	(A,68,131)	RS1/16SS681J	R 660	(B,84,70)	RS1/10SR221J
B	R 360	(A,91,121)	RS1/16SS0R0J	R 661	(B,58,86)	RS1/10SR221J
	R 371	(A,78,96)	RS1/16SS821J	R 662	(A,85,61)	RS1/16SS181J
	R 372	(A,78,94)	RS1/16SS821J	R 663	(A,83,67)	RS1/16SS332J
	R 401	(A,144,103)	RS1/16SS105J	R 664	(B,77,71)	RS1/10SR473J
	R 402	(A,152,102)	RS1/16SS221J	R 667	(B,81,74)	RS1/10SR473J
	R 403	(A,151,95)	RS1/16SS751J	R 669	(A,69,81)	RS1/16SS101J
	R 404	(A,131,95)	RS1/16SS331J	R 670	(A,70,83)	RS1/16SS101J
	R 405	(A,135,95)	RS1/16SS105J	R 671	(A,71,83)	RS1/16SS101J
	R 406	(A,130,91)	RS1/16SS471J	R 672	(A,72,83)	RS1/16SS101J
	R 407	(A,131,90)	RS1/16SS330J	R 673	(A,73,81)	RS1/16SS101J
C	R 408	(A,131,88)	RS1/16SS681J	R 674	(A,74,81)	RS1/16SS101J
	R 410	(A,128,80)	RS1/4SA8R2J	R 675	(A,65,81)	RS1/16SS221J
	R 411	(A,126,80)	RS1/4SA8R2J	R 676	(A,65,82)	RS1/16SS221J
	R 413	(A,137,74)	RS1/16SS102J	R 677	(A,67,81)	RS1/16SS221J
	R 415	(A,132,79)	RS1/16SS0R0J	R 678	(B,69,81)	RS1/10SR221J
	R 421	(B,152,100) (A,B,C,D)	RS1/8SQ0R0J	R 679	(A,76,81)	RS1/16SS332J
	R 422	(B,148,100) (A,B,C,D)	RS1/8SQ0R0J	R 680	(A,37,89) (A,E)	RS1/16SS0R0J
	R 424	(A,129,98)	RS1/8SQ0R0J	R 681	(A,84,81)	RAB4CQ473J
	R 425	(A,139,106)	RS1/8SQ0R0J	R 682	(A,83,69)	RS1/16SS153J
	R 474	(A,116,80) (A)	RS1/16SS183J	R 683	(A,83,70)	RS1/16SS153J
D	R 477	(A,108,78) (A)	RS1/16SS183J	R 684	(A,88,71)	RS1/16SS153J
	R 479	(A,121,97) (A)	RS1/10SR0R0J	R 685	(A,88,72)	RS1/16SS153J
	R 601	(A,94,33)	RS1/16SS102J	R 686	(A,83,72)	RS1/16SS473J
	R 602	(B,102,71)	RS1/10SR154J	R 687	(A,83,73)	RS1/16SS473J
	R 603	(A,98,56)	RS1/16SS222J	R 688	(A,86,76)	RS1/16SS473J
	R 604	(A,95,65)	RS1/16SS105J	R 689	(A,85,77)	RS1/16SS473J
	R 607	(A,98,55)	RS1/16SS104J	R 690	(B,58,72)	RS1/10SR473J
	R 608	(A,99,54)	RS1/16SS104J	R 691	(B,84,63)	RS1/10SR0R0J
	R 609	(A,92,71)	RS1/16SS104J	R 692	(B,67,80)	RS1/10SR473J
	R 610	(A,99,76)	RS1/16SS104J	R 693	(A,56,64) (B,C,D,E)	RS1/16SS221J
	R 611	(A,93,60)	RS1/16SS104J	R 695	(B,77,67)	RS1/10SR473J
	R 612	(A,93,58)	RS1/16SS104J			
	R 613	(A,105,82)	RS1/16SS103J	R 701	(B,43,76)	RS1/10SR473J
	R 614	(A,96,64)	RS1/16SS104J	R 702	(A,43,79)	RS1/16SS472J
	R 615	(A,96,66)	RS1/16SS101J	R 703	(A,41,79)	RAB4CQ220J
E	R 616	(A,101,76) (D,E)	RS1/16SS104J	R 704	(A,38,79)	RAB4CQ220J
	R 617	(A,103,76) (B,C,D)	RS1/16SS104J	R 705	(A,34,79)	RAB4CQ220J
	R 618	(B,106,52)	RS1/10SR472J	R 707	(A,37,83)	RS1/16SS472J
	R 619	(A,112,76)	RS1/16SS103J	R 708	(A,43,61)	RS1/16SS220J
	R 620	(B,106,64)	RS1/10SR104J	R 710	(A,37,61)	RAB4CQ220J
	R 621	(A,104,54)	RS1/16SS104J	R 711	(A,34,61)	RAB4CQ220J
	R 622	(B,93,50)	RS1/10SR104J	R 731	(A,73,93)	RS1/16SS473J
F	R 623	(B,95,50)	RS1/10SR104J	R 732	(B,71,92)	RS1/10SR473J
	R 628	(A,116,68)	RS1/16SS104J	R 733	(A,72,93)	RS1/16SS473J
	R 631	(A,116,64)	RS1/16SS104J	R 734	(A,78,90)	RS1/16SS473J
	R 632	(A,116,73)	RS1/16SS472J	R 735	(A,78,87)	RS1/16SS473J
				R 741	(A,82,56) (A)	RS1/16SS101J
				R 742	(A,74,49) (A)	RS1/16SS101J

1

2

3

4

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 743	(A,78,53) (A)	RS1/16SS101J		R 885	(A,54,89)	RS1/16SS272J	
R 744	(A,78,54) (A)	RS1/16SS101J		R 886	(A,53,85)	RS1/16SS472J	
R 745	(A,85,57) (A)	RS1/16SS473J		R 887	(A,53,96)	RS1/16SS101J	
R 751	(B,110,33)	RS1/10SR472J					
R 752	(B,106,34)	RS1/10SR473J		R 888	(A,53,89)	RS1/16SS101J	A
R 753	(B,113,33)	RS1/10SR472J		R 889	(A,56,89)	RS1/16SS472J	
R 754	(A,116,41)	RS1/16SS104J		R 901	(B,26,72)	RS1/10SR102J	
R 755	(B,115,33)	RS1/10SR472J		R 903	(A,9,62)	RS1/16SS513J	
R 756	(A,104,39)	RS1/16SS221J		R 904	(A,7,62)	RS1/16SS103J	
R 757	(A,104,40)	RS1/16SS221J		R 905	(A,7,64)	RS1/16SS103J	
R 758	(A,104,38)	RS1/16SS101J		R 906	(A,6,63)	RS1/16SS183J	
R 759	(A,110,41)	RS1/16SS221J		R 907	(A,6,61)	RS1/16SS0R0J	
R 760	(A,104,37)	RS1/16SS101J		R 908	(A,6,60)	RS1/16SS473J	
R 761	(A,115,41)	RS1/16SS102J		R 921	(B,21,58)	RS1/10SR223J	
R 762	(A,117,34)	RS1/16SS151J		R 922	(B,21,60)	RS1/10SR332J	
R 763	(A,119,41)	RS1/16SS151J		R 931	(A,31,52)	RS1/16SS473J	B
R 764	(A,119,34)	RS1/16SS151J		R 941	(B,130,43)	RS1/10SR473J	
R 765	(A,123,41)	RS1/16SS221J		R 942	(A,127,53)	RS1/16SS0R0J	
R 766	(A,122,41)	RS1/16SS104J		R 951	(A,142,133)	RS1/16SS103J	
R 767	(B,105,37)	RS1/10SR104J		R 952	(A,141,128)	RS1/16SS104J	
R 771	(B,143,41)	RS1/10SR473J		R 953	(A,142,134)	RS1/16SS473J	
R 772	(B,143,43)	RS1/10SR103J		R 954	(A,142,130)	RS1/16SS473J	
R 773	(B,155,45)	RS1/4SA391J		R 955	(B,120,128)	RS1/10SR682J	
R 803	(A,107,22)	RS1/10SR101J		R 956	(A,119,129)	RS1/4SA102J	
R 804	(A,109,22)	RS1/10SR101J		R 961	(B,99,126)	RS1/10SR103J	
R 805	(A,105,22)	RS1/10SR222J		R 962	(A,114,129)	RS1/4SA102J	C
R 806	(A,111,22)	RS1/10SR222J		R 1001	(A,87,76)	RS1/16SS220J	
R 807	(A,117,22)	RS1/10SR222J		R 1003	(A,90,77)	RS1/16SS220J	
R 808	(A,116,22)	RS1/10SR222J		<u>CAPACITORS</u>			
R 809	(A,115,22)	RS1/10SR222J		C 101	(B,146,142) (A)	CKSRYB105K16	
R 810	(A,119,22)	RS1/10SR222J		C 121	(B,55,148)	CKSRYB102K50	
R 811	(A,120,22)	RS1/10SR222J		C 122	(B,37,129)	CKSRYB102K50	
R 812	(B,94,20)	RS1/10SR102J		C 123	(B,39,132)	CKSRYB102K50	
R 813	(B,94,22)	RS1/10SR104J		C 151	(A,74,113)	CKSRYB105K10	
R 832	(B,109,26)	RS1/10SR473J		C 152	(A,87,112)	CKSRYB105K10	
R 833	(B,116,29)	RS1/10SR332J		C 153	(A,74,112)	CKSRYB224K16	D
R 834	(A,117,28)	RS1/10SR103J		C 154	(B,92,105)	CKSRYB224K16	
R 841	(A,105,29)	RS1/10SR472J		C 155	(B,102,114) (A)	CKSRYB105K10	
R 842	(B,107,30)	RS1/10SR102J		C 156	(B,102,113) (A)	CKSRYB105K10	
R 843	(B,105,30)	RS1/10SR103J		C 157	(B,98,114) (A)	CKSRYB105K10	
R 851	(B,58,39) (B,C,D,E)	RS1/10SR221J		C 158	(B,98,113) (A)	CKSRYB105K10	
R 852	(A,60,38) (B,C,D,E)	RS1/16SS221J		C 159	(A,74,110)	CKSRYB105K10	
R 854	(A,70,37) (B,C,D,E)	RS1/16SS221J		C 160	(A,87,109)	CKSRYB105K10	
R 855	(B,67,44) (B,C,D,E)	RS1/10SR221J		C 161	(A,74,109) 2.2 uF	CCG1205	
R 856	(B,69,44) (B,C,D,E)	RS1/10SR221J		C 163	(A,75,115)	CKSRYB105K10	
R 857	(A,54,38) (B,C,D,E)	RS1/16SS102J		C 164	(A,86,114)	CKSRYB105K10	
R 858	(B,53,41) (B,C,D,E)	RS1/10SR821J		C 165	(A,87,117) 10 uF	CCG1192	E
R 859	(B,53,44) (B,C,D,E)	RS1/10SR103J		C 166	(A,89,115) 10 uF	CCG1192	
R 860	(A,70,38)	RS1/16SS473J		C 168	(A,86,125)	CKSQYB225K16	
R 862	(A,69,38) (B,C,D,E)	RS1/16SS221J		C 170	(A,88,122)	CKSQYB225K16	
R 863	(B,65,44)	RS1/10SR473J		C 181	(A,92,109)	CKSSYB104K16	
R 864	(B,60,45) (A)	RS1/10SR0R0J		C 184	(A,110,105)	CCSSCH150J50	
R 865	(B,71,44)	RS1/10SR473J		C 186	(B,100,105) 10 uF	CCG1236	
R 866	(B,60,36)	RS1/10SR473J		C 188	(A,112,109) 10 uF	CCG1236	
R 867	(B,62,36)	RS1/10SR473J		C 190	(B,100,108) 10 uF	CCG1236	
R 869	(B,62,45)	RS1/10SR473J		C 201	(A,46,118)	CKSSYB104K10	
R 881	(A,47,87)	RS1/10SR103J		C 202	(A,51,112) 22 uF	CCG1254	
R 882	(A,55,96)	RS1/16SS473J		C 204	(A,38,103)	CKSSYB102K50	F
R 883	(A,54,96)	RS1/16SS222J		C 205	(A,42,104)	CKSSYB104K16	
R 884	(A,53,90)	RS1/16SS222J					

1

2

3

4

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

A	C 206	(A,36,103)	CKSSYB472K25	C 418	(A,140,97) (A,B,C,D)	CCSSCK2R0C50
	C 207	(A,41,103)	CKSSYB104K16			CKSSYB223K16
	C 208	(A,32,116)	CCSSCH151J50			CKSSYB103K16
	C 209	(A,38,115) 1 uF	DCH1246			CKSSYB104K10
	C 210	(A,37,116)	CKSSYB472K25			CKSSYB103K16
	C 211	(A,43,117) 10 uF	DCH1165	C 423	(A,143,97)	CKSRYB105K10
	C 212	(A,35,115)	CCSSCH270J50			CKSRYB224K16
	C 213	(A,62,109)	CEVW101M16			CKSSYB103K16
	C 214	(A,39,116)	CKSSYB104K16			CKSSYB104K10
	C 215	(A,52,117) Capacitor	CEHVW101M6R3			CCG1192
B	C 216	(A,47,118) (A,B,C,D)	CKSSYB102K50	C 429	(A,150,90)	CKSRYB105K10
	C 217	(B,66,112) 22 uF	CCG1254			CKSSYB104K10
	C 264	(B,55,34)	CKSRYB104K16			CKSSYB472K25
	C 301	(A,9,127) 10 uF	CCG1192			CKSSYB472K25
	C 302	(A,13,127) 10 uF	CCG1192			CCSSCH101J50
	C 303	(A,17,127) 10 uF	CCG1192	C 434	(A,135,94)	CKSSYB104K10
	C 304	(A,22,127) 10 uF	CCG1192			CKSSYB103K16
	C 305	(A,26,127) 10 uF	CCG1192			CCSSCH100D50
	C 306	(A,30,127) 10 uF	CCG1192			CKSSYB104K10
	C 307	(A,8,131)	CKSSYB103K16			CCSSCH820J50
C	C 308	(A,14,131)	CKSSYB103K16	C 440	(A,133,86) (B,C,D)	CCSSCH100D50
	C 309	(A,16,131)	CKSSYB103K16			CKSRYB474K10
	C 310	(A,23,131)	CKSSYB103K16			CCSRCH471J50
	C 311	(A,25,131)	CKSSYB103K16			CCSSCH100D50
	C 312	(A,31,131)	CKSSYB103K16			CKSSYB104K10
	C 315	(B,33,142)	CKSRYB102K50	C 447	(A,150,79) 2.2 uF	CCG1205
	C 325	(B,77,132)	CKSRYB224K16			CKSSYB104K10
	C 326	(B,79,132)	CKSRYB224K16			CKSSYB104K10
	C 327	(B,82,132)	CKSRYB224K16			CKSSYB102K50
	C 328	(B,84,132)	CKSRYB224K16			DCH1246
D	C 333	(A,62,136)	CKSRYB105K16	C 454	(A,138,79)	CKSSYB104K10
	C 335	(B,61,137)	CKSRYB102K50			CCSSCJ3R0C50
	C 337	(B,63,141)	CKSRYB103K50			CCSSCH100D50
	C 338	(B,63,143) 10 uF	CCG1236			CCSRCH101J50
	C 339	(B,88,143)	CKSRYB104K16			CCSSCK2R0C50
	C 340	(A,128,123) 3 300 uF/16 V	CCH1486	C 601	(A,92,68)	CCSSCH100D50
	C 344	(B,66,136)	CKSRYB103K50			CCSSCH120J50
	C 351	(A,51,129) Capacitor	CEVW220M16			CKSSYB104K10
	C 352	(B,63,131) 2.2 uF	CCG1205			CKSRYB105K10
	C 375	(A,67,90) 4.7 uF	CCG1212			CKSRYB105K10
E	C 376	(A,58,93)	CKSSYB103K16	C 610	(A,103,50)	CKSRYB104K50
	C 377	(A,59,95) 4.7 uF	CCG1212			CKSRYB105K10
	C 378	(B,65,96)	CKSRYB104K16			DCH1201
	C 379	(A,80,96)	CKSSYB182K50			CKSSYB104K10
	C 380	(A,80,94)	CKSSYB182K50			CKSSYB104K10
	C 391	(A,142,57) 4.7 uF	CCG1212	C 651	(B,68,58)	CKSRYB104K16
	C 393	(A,132,55)	CKSQYB474K16			CKSRYB104K16
	C 401	(A,147,102)	CCSSCH330J50			CKSRYB104K16
	C 402	(A,143,100)	CKSSYB103K16			CKSRYB104K16
	C 403	(A,148,100)	CCSSCH6R0D50			CKSRYB104K16
F	C 404	(A,150,100)	CKSSYB103K16	C 656	(B,72,62)	CKSRYB104K16
	C 405	(A,141,97)	CKSSYB104K10			CKSRYB104K16
	C 406	(A,137,96)	CKSSYB104K10			CKSRYB104K16
	C 410	(A,150,97)	CKSSYB103K16			CKSRYB104K16
	C 411	(A,139,97)	CKSSYB104K10			CKSRYB104K16
	C 412	(A,152,97)	CKSSYB103K16	C 661	(B,59,62)	CKSRYB104K16
	C 413	(A,137,97)	CKSSYB103K16			CCSSCH120J50
	C 414	(A,135,98) 10 uF	CCG1192			CKSRYB104K16
	C 415	(A,134,98) (A,B,C,D)	CCSSCK2R0C50			CCSSCH100D50
	C 416	(B,134,85) (A)	CCSRCK2R0C50			CKSRYB104K16
		(B,134,85) (B,C,D)	CCSRCH101J50	C 665	(B,59,66)	CKSRYB104K16

1

2

3

4

1

Circuit Symbol and No.

CN1751 (B,114,29) Connector
JA1781 (A,160,16) Jack

2

Part No.

CKS6597
YKN5006

3

Circuit Symbol and No.

R 1783 (B,151,13)

4

Part No.

RS1/10SR0R0J

RESISTORS

R 1601 (B,92,7) RS1/10SR222J
R 1602 (B,92,8) RS1/10SR222J
R 1611 (B,58,22) RS1/16SS103J
R 1621 (A,127,17) RS1/10SR272J
R 1622 (A,127,15) RS1/10SR272J

R 1623 (A,127,14) RS1/10SR272J
R 1631 (B,60,15) RAB4CQ102J
R 1632 (A,136,10) RAB4CQ102J
R 1633 (B,55,20) RS1/16SS101J
R 1634 (B,55,19) RS1/16SS101J

R 1635 (B,27,9) RS1/16SS101J
R 1636 (B,57,14) RS1/16SS101J
R 1637 (B,14,22) RS1/16SS101J
R 1638 (B,14,23) RS1/16SS101J
R 1639 (A,141,18) RS1/16SS101J

R 1640 (A,140,20) RS1/16SS101J
R 1641 (A,138,24) RS1/16SS101J
R 1642 (B,13,11) RS1/10SR201J
R 1643 (B,13,13) RS1/10SR201J
R 1644 (B,13,27) RS1/10SR201J

R 1645 (B,13,26) RS1/10SR820J
R 1646 (B,53,18) RS1/10SR820J
R 1647 (B,54,18) RS1/10SR820J
R 1648 (B,136,24) RS1/10SR101J
R 1649 (B,136,22) RS1/10SR101J

R 1650 (B,135,27) RS1/10SR101J
R 1701 (B,73,17) RS1/16SS154J
R 1702 (B,68,21) RS1/16SS102J
R 1703 (B,68,20) RS1/16SS154J
R 1704 (A,85,19) RS1/16SS473J

R 1705 (B,70,23) RS1/16SS103J
R 1706 (B,68,26) RAB4CQ102J
R 1707 (A,76,21) RS1/16SS103J
R 1708 (A,75,24) RAB4CQ103J
R 1709 (A,68,24) RS1/16SS103J

R 1710 (A,85,21) RAB4CQ473J
R 1711 (B,85,31) RS1/16SS473J
R 1712 (B,87,31) RS1/16SS473J
R 1713 (A,123,27) RS1/16SS101J
R 1714 (A,87,27) RS1/16SS101J

R 1715 (B,96,28) RAB4CQ101J
R 1716 (A,86,15) RS1/16SS101J
R 1717 (A,111,13) RAB4CQ101J
R 1718 (A,108,14) RAB4CQ101J
R 1719 (B,95,20) RAB4CQ101J

R 1720 (B,96,17) RAB4CQ101J
R 1721 (A,89,15) RAB4CQ101J
R 1722 (A,97,14) RAB4CQ101J
R 1723 (A,90,21) RAB4CQ101J
R 1724 (A,89,26) RAB4CQ101J

R 1725 (B,80,10) RAB4CQ102J
R 1731 (A,72,10) RS1/16SS470J
R 1753 (B,123,23) RAB4CQ473J
R 1755 (A,116,28) RAB4CQ101J
R 1756 (B,124,25) RS1/16SS154J

CAPACITORS

C 1621 (A,129,19) CKSSYB103K16
C 1622 (A,129,20) CKSRYB105K10
C 1701 (B,102,17) 10 uF CCG1192
C 1703 (B,70,21) CKSSYB104K10
C 1704 (A,79,18) CKSSYB103K16

C 1705 (B,95,22) CKSSYB103K16
C 1706 (A,90,23) CKSSYB103K16
C 1731 (A,75,10) 10 uF CCG1192
C 1751 (B,108,23) CKSQYB334K50
C 1752 (B,111,20) 4.7 uF CCG1212

C 1753 (B,111,22) 4.7 uF CCG1212
C 1754 (B,114,20) 4.7 uF CCG1212
C 1755 (B,114,22) 4.7 uF CCG1212
C 1756 (B,116,18) 2.2 uF CCG1205
C 1760 (B,126,28) CKSSYB104K10

C 1781 (B,145,17) CKSRYB472K50
C 1782 (B,141,17) CKSRYB472K50
C 1783 (B,148,15) CKSRYB471K50

**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
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

5		6	7	8
<u>Circuit Symbol and No.</u>		<u>Part No.</u>		
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		A
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		B
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
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		
C 223	(B,12,42)	CCSSCH680J50		D
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		E
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		