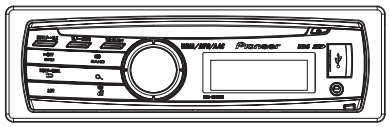
Pioneer

Service Manual



DEH-8300SD/XNEW5

ORDER NO.
CRT4662

CD RDS RECEIVER

DEH-8300SD/XNEW5
DEH-P8300UB/XNUC
DEH-8350SD/XNES
DEH-8350SD/XNES1

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

Model No.	Order No.	Mech. Module	Remarks
CX-3269	CRT4488	S11STD-DOUT	CD Mech. Module : Circuit Descriptions, Mech. Descriptions, Disassembly

For details, refer to "Important Check Points for Good Servicing".

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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 µW(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 manufacture.
Discord used batteries according to the manufacture's instructions.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety

Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments

To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts

Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning

For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws

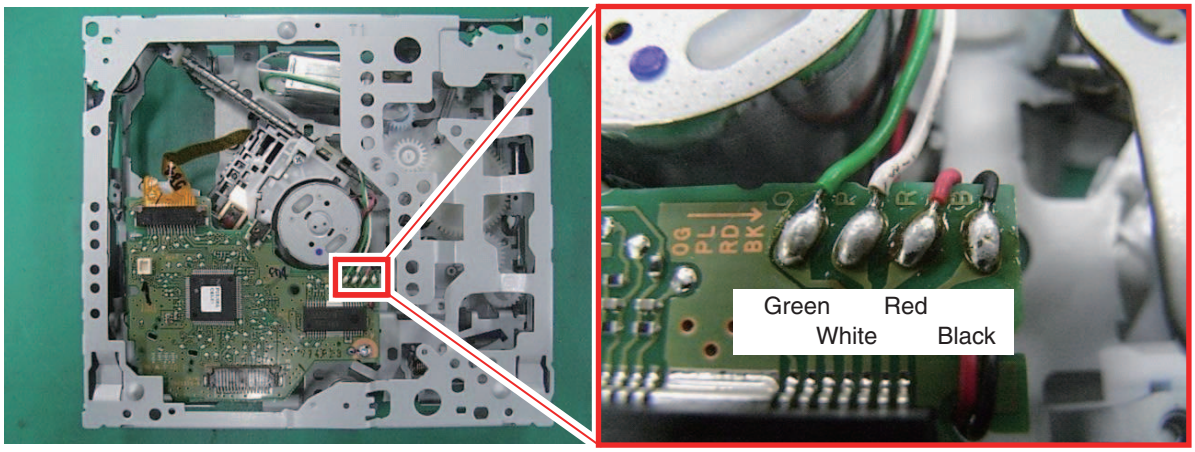
To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

CONTENTS

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.
6. On CD Core Unit, actual cable colors and silk print are different.



7. When a CD-DA (regular music CD) is played in the CD test mode, its sound quality will be temporarily deteriorated. The CD will then repeat normal, deteriorated, normal… playback.
   This is due to the difference in the playback modes between the normal operation mode and the CD test mode, and the interval of generating deteriorated mode and the time taken to return to the normal mode depend on the error of each clock.
   The time taken to turn to the deteriorated mode is at a minimum around 20 seconds while the time to return to the normal mode is maximum 40 seconds approximately.
   Make sure to check the sound quality in the normal operation mode.

8. How to Handle Infrared Detecting unit for Remote Control of Grille
   The infrared detecting unit for remote control of keyboard unit is not fixed with cushion, etc.
   When external force is applied on the infrared detecting unit for remote control, the light receiving sensitivity might be deteriorated since the lead bents and attaching angle of the light receiving part may be varied.
   Please do not apply external force onto the infrared detecting unit for remote control. If any external force is applied by mistake, please confirm whether lead bending may exist or not.
   If the lead is bent, please correct the angle between the lead and the light receiving part to be 90 degrees or replace the infrared detecting unit for remote control (GP1UXC14RK).

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-8300SD/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 ..... 5.0 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 ..... 1.4 kg

Audio

Maximum power output ..... 50 W × 4
50 W × 2/4 Ω + 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 + 2Ω × 1
Preout maximum output level ..... 4.0 V
Equalizer (5-Band Graphic Equalizer):
Frequency ..... 100/315/1.25k/3.15k/8k Hz
Gain ..... ±12 dB
HPF:
Frequency ..... 50/63/80/100/125 Hz
Slope ..... –12 dB/oct
Subwoofer (mono):
Frequency ..... 50/63/80/100/125 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 (2ch audio) (Windows Media Player)
AAC decoding format ..... MPEG-4 AAC (iTunes encoded only) (.m4a) (Ver. 9.2 and earlier)
WAV signal format ..... Linear PCM & MS ADPCM (Non-compressed)

USB

USB standard specification ..... USB 2.0 full speed
Maximum current supply ..... 500 mA
USB Class ..... MSC (Mass Storage Class)
File system FAT12, FAT16, FAT32
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11, 12 (2ch audio) (Windows Media Player)
AAC decoding format ..... MPEG-4 AAC (iTunes encoded only) (.m4a) (Ver. 9.2 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 (2ch audio) (Windows Media Player)
AAC decoding format ..... MPEG-4 AAC (iTunes encoded only) (.m4a) (Ver. 9.2 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 (9 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)

Note

Specifications and the design are subject to modifications without notice. ■

• **DEH-P8300UB/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 ..... 5.0 mA or less
Dimensions (W × H × D):
DIN
Chassis..... 178 mm × 50 mm × 165 mm
(7 in. × 2 in. × 6-3/8 in.)
Nose ..... 188 mm × 58 mm × 18 mm
(7-3/8 in.× 2-1/4 in.× 3/4 in.)
D
Chassis..... 178 mm × 50 mm × 165 mm
(7 in.× 2 in.× 6-3/8 in.)
Nose ..... 170 mm × 46 mm × 18 mm
(6-3/4 in.× 1-3/4 in.× 3/4 in.)
Weight ..... 1.4 kg (3.1 lbs)

Audio

Maximum power output ... 50 W × 4
50 W × 2/4 Ω + 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 + 2Ω × 1
Preout maximum output level
..... 4.0 V
Equalizer (5-Band Graphic Equalizer):
Frequency.....100/315/1.25k/3.15k/8k Hz
Gain .....±12 dB
HPF:
Frequency.....50/63/80/100/125 Hz
Slope ..... –12 dB/oct
Subwoofer (mono):
Frequency.....50/63/80/100/125 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 (2ch audio)
(Windows Media Player)
AAC decoding format .....MPEG-4 AAC (iTunes encoded only) (.m4a)
(Ver. 9.2 and earlier)
WAV signal format .....Linear PCM & MS ADPCM
(Non-compressed)

USB

USB standard specification
..... USB 2.0 full speed
Maximum current supply
..... 500 mA
USB Class ..... MSC (Mass Storage Class)
File system..... FAT12, FAT16, FAT32
MP3 decoding format .....MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11, 12 (2ch audio)
(Windows Media Player)
AAC decoding format .....MPEG-4 AAC (iTunes encoded only) (.m4a)
(Ver. 9.2 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 (IHF-A network)

AM tuner

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

CEA2006 Specifications

Power output ..... 14 W RMS × 4 Channels (4W 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-8350SD/XNES, XNES1**

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 ..... 5.0 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 ..... 1.4 kg

Audio

Maximum power output ... 50 W × 4
50 W × 2/4 Ω + 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 + 2Ω × 1
Preout maximum output level
..... 4.0 V
Equalizer (5-Band Graphic Equalizer):
Frequency.....100/315/1.25k/3.15k/8k Hz
Gain ..... ±12 dB
HPF:
Frequency..... 50/63/80/100/125 Hz
Slope ..... –12 dB/oct
Subwoofer (mono):
Frequency..... 50/63/80/100/125 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 (2ch audio)
(Windows Media Player)
AAC decoding format ..... MPEG-4 AAC (iTunes encoded only) (.m4a)
(Ver. 9.2 and earlier)
WAV signal format .....Linear PCM & MS ADPCM
(Non-compressed)

USB

USB standard specification
..... USB 2.0 full speed
Maximum current supply
..... 500 mA
USB Class ..... MSC (Mass Storage Class)
File system..... FAT12, FAT16, FAT32
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11, 12 (2ch audio)
(Windows Media Player)
AAC decoding format ..... MPEG-4 AAC (iTunes encoded only) (.m4a)
(Ver. 9.2 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 (2ch audio)
(Windows Media Player)
AAC decoding format ..... MPEG-4 AAC (iTunes encoded only) (.m4a)
(Ver. 9.2 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)

Infrared remote control

Wavelength..... 940 nm ±50 nm
Output .....typ; 12 mw/sr per Infrared LED

Note

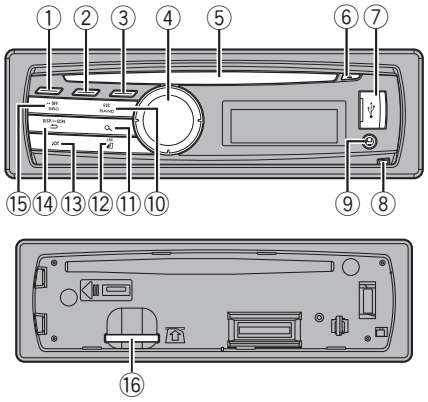
Specifications and the design are subject to modifications without notice.

2.2 DISC/CONTENT FORMAT

2.3 PANEL FACILITIES

• **DEH-8300SD/XNEW5**

Head unit



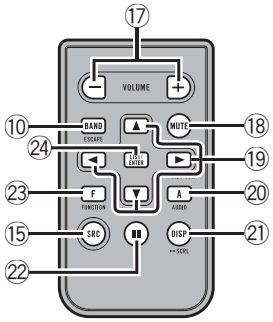
	Part		Part
①	**MUTE/CLK**	⑨	AUX input jack (3.5 mm stereo jack)
②	**TA/NEWS**	⑩	**BAND/ESC**
③	**TAG/S.Rtrv**	⑪	🔍 (list)
④	**MULTI-CONTROL (M.C.)**	⑫	(iPod)/**LOC**
⑤	Disc loading slot	⑬	(random)
⑥	⏏ (eject)	⑭	**DISP/ ⮌ /SCRL**
⑦	USB port	⑮	**SRC/OFF**
⑧	Detach button	⑯	SD memory card slot Remove the front panel to access the SD memory card slot.

CAUTION

Use an optional Pioneer USB cable (CD-U50E) to connect the USB audio player/USB memory as any device connected directly to the unit will protrude out from the unit and may be dangerous. Do not use unauthorized products. ■

Optional remote control

The remote control CD-R320 is sold separately.

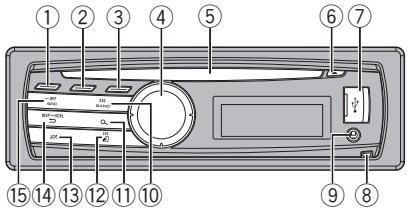


	Part	Operation
⑰	**VOLUME**	Press to increase or decrease volume.
⑱	**MUTE**	Press to mute. Press again to unmute.
⑲	**▲/▼/◄/►**	Press to perform manual seek tuning, fast forward, reverse and track search controls. Also used for controlling functions.
⑳	**AUDIO**	Press to select an audio function.
㉑	**DISP/SCRL**	Press to select different displays. Press and hold to scroll through the text information.
㉒	⏸	Press to pause or resume playback.
㉓	**FUNCTION**	Press to select functions. Press and hold to recall the initial setting menu when the sources are off.
㉔	**LIST/ ENTER**	Press to display the disc title, track title, folder, or file list depending on the source. While in the operating menu, press to control functions.

■

• **DEH-P8300UB/XNUC**

Head unit



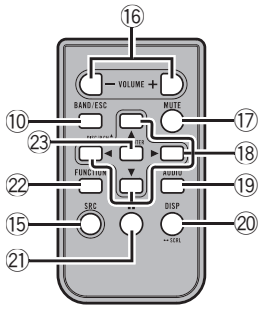
	Part		Part
①	**CLK/DISP OFF**	⑨	AUX input jack (3.5 mm stereo jack)
②	**S.Rtrv/SAT MODE**	⑩	**BAND/ESC**
③	**TAG**	⑪	(list)
④	**MULTI-CONTROL (M.C.)**	⑫	(iPod)/**LOC**
⑤	Disc loading slot	⑬	(random)
⑥	⏏ (eject)	⑭	**DISP/⮌/SCRL**
⑦	USB port	⑮	**SRC/OFF**
⑧	Detach button		

⚠ CAUTION

Use an optional Pioneer USB cable (CD-U50E) to connect the USB audio player/USB memory as any device connected directly to the unit will protrude out from the unit and may be dangerous.

Do not use unauthorized products.

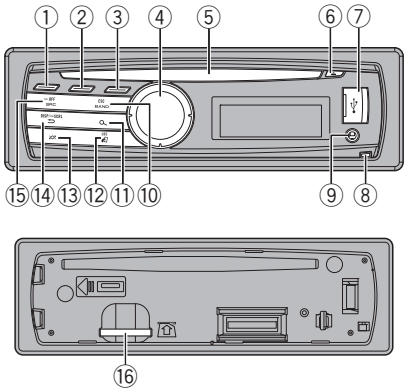
Remote control



	Part	Operation
⑯	**VOLUME**	Press to increase or decrease volume.
⑰	**MUTE**	Press to mute. Press again to unmute.
⑱	▲/▼/◄/►	Press to perform manual seek tuning, fast forward, reverse and track search controls. Also used for controlling functions.
⑲	**AUDIO**	Press to select an audio function.
⑳	**DISP/SCRL**	Press to select different displays. Press and hold to scroll through the text information.
㉑	⏸	Press to pause or resume playback.
㉒	**FUNCTION**	Press to select functions. Press and hold to recall the initial setting menu when the sources are off.
㉓	**LIST/ ENTER**	Press to display the disc title, track title, folder, or file list depending on the source. While in the operating menu, press to control functions.

• **DEH-8350SD/XNES, XNES1**

Head unit



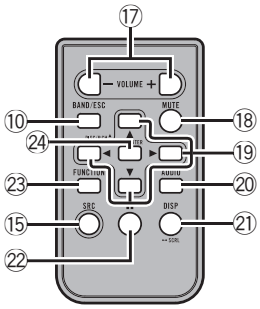
	Part		Part
①	**CLK/DISP OFF**	⑨	AUX input jack (3.5 mm stereo jack)
②	**SW/BASS**	⑩	**BAND/ESC**
③	**S.Rtrv**	⑪	(list)
④	**MULTI-CONTROL (M.C.)**	⑫	(iPod)/**LOC**
⑤	Disc loading slot	⑬	(random)
⑥	▲ (eject)	⑭	**DISP/ ⮌ /SCRL**
⑦	USB port	⑮	**SRC/OFF**
⑧	Detach button	⑯	SD memory card slot Remove the front panel to access the SD memory card slot.

⚠ CAUTION

Use an optional Pioneer USB cable (CD-U50E) to connect the USB audio player/USB memory as any device connected directly to the unit will protrude out from the unit and may be dangerous.

Do not use unauthorized products.

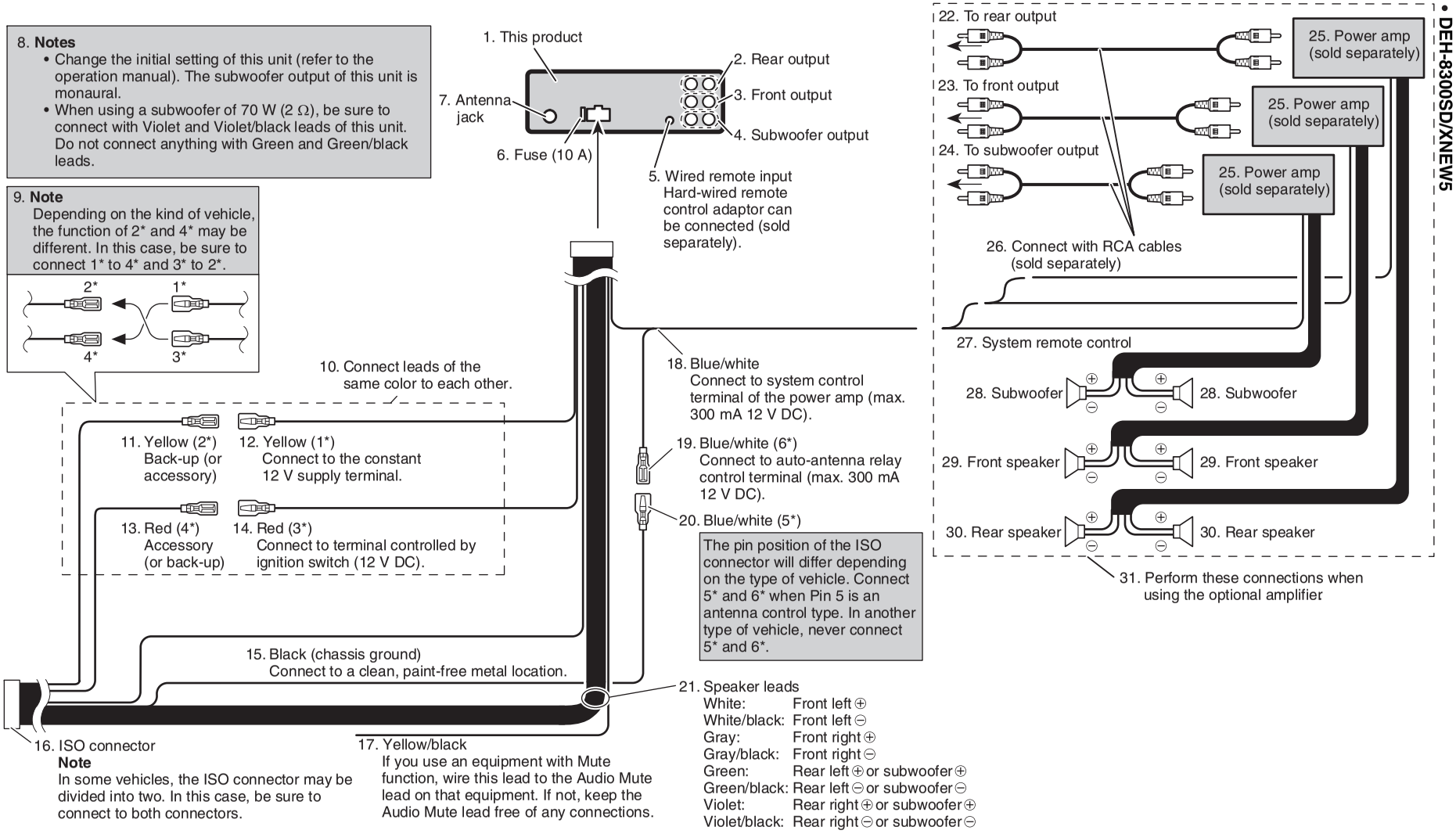
Remote control



	Part	Operation
⑰	**VOLUME**	Press to increase or decrease volume.
⑱	**MUTE**	Press to mute. Press again to unmute.
⑲	**▲/▼/◄/►**	Press to perform manual seek tuning, fast forward, reverse and track search controls. Also used for controlling functions.
⑳	**AUDIO**	Press to select an audio function.
㉑	**DISP/SCRL**	Press to select different displays. Press and hold to scroll through the text information.
㉒	❚❚	Press to pause or resume playback.
㉓	**FUNCTION**	Press to select functions. Press and hold to recall the initial setting menu when the sources are off.
㉔	**LIST/ENTER**	Press to display the disc title, track title, folder, or file list depending on the source. While in the operating menu, press to control functions.

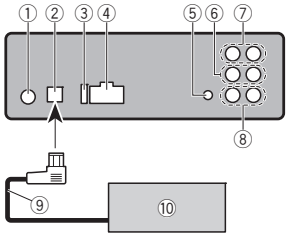
2.4 CONNECTION DIAGRAM

• DEH-8300SD/XNEW5



• DEH-P8300UB/XNUC, DEH-8350SD/XNES, XNES1

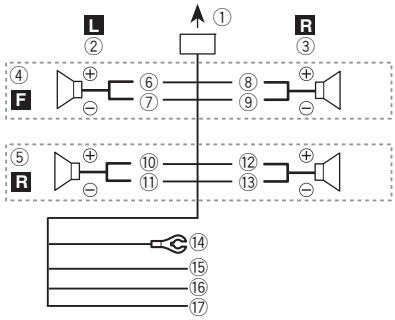
This unit



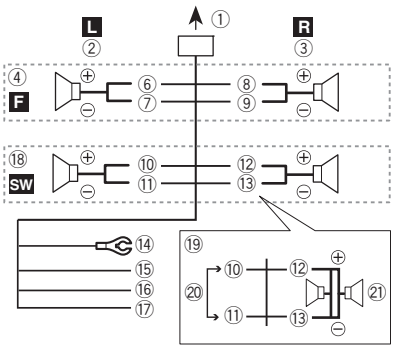
① Antenna input
② IP-BUS input (blue) (DEH-P8300UB/XNUC)
③ Fuse (10 A)
④ Power cord input
⑤ Wired remote input
Hard-wired remote control adaptor can be connected (sold separately).
⑥ Front output
⑦ Rear output
⑧ Subwoofer output
⑨ IP-BUS cable (sold separately) (DEH-P8300UB/XNUC)
⑩ Pioneer IP-BUS accessories (sold separately) (DEH-P8300UB/XNUC)

Power cord

Perform these connections when not connecting a rear speaker lead to a subwoofer.



Perform these connections when using a subwoofer without the optional amplifier.



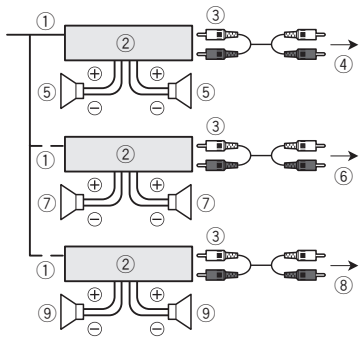
① To power cord input
② Left
③ Right
④ Front speaker
⑤ Rear speaker
⑥ White
⑦ White/black
⑧ Gray
⑨ Gray/black
⑩ Green
⑪ Green/black
⑫ Violet
⑬ Violet/black
⑭ Black (chassis ground)
Connect to a clean, paint-free metal location.
⑮ Yellow
Connect to the constant 12 V supply terminal.
⑯ Red
Connect to terminal controlled by ignition switch (12 V DC).
⑰ Blue/white
Connect to system control terminal of the power amp or auto-antenna relay control terminal (max. 300 mA 12 V DC).
⑱ Subwoofer (4 Ω)
⑲ When using a subwoofer of 70 W (2 Ω), be sure to connect the subwoofer to the violet and violet/black leads of this unit. Do not connect anything to the green and green/black leads.
⑳ Not used.
㉑ Subwoofer (4 Ω) × 2

Notes

- With a 2 speaker system, do not connect anything to the speaker leads that are not connected to speakers.
- Change the initial setting of this unit. Refer to **S/W control** (rear output and subwoofer setting).
The subwoofer output of this unit is monaural.

Power amp (sold separately)

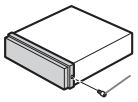
Perform these connections when using the optional amplifier.



① System remote control
Connect to Blue/white cable.
② Power amp (sold separately)
③ Connect with RCA cables (sold separately)
④ To Rear output
⑤ Rear speaker
⑥ To Front output
⑦ Front speaker
⑧ To subwoofer output
⑨ Subwoofer

Securing the front panel

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



Screw
BPZ20P060FTC

3. BASIC ITEMS FOR SERVICE

3.1 CHECK POINTS AFTER SERVICING

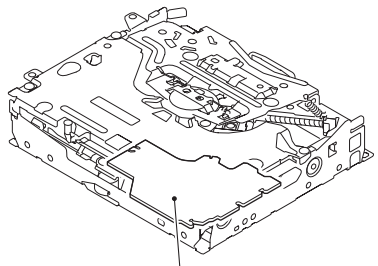
To keep the product quality after servicing, please confirm following check points.

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.

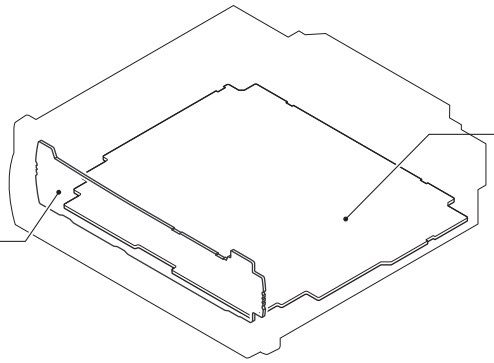
See the table below for the items to be checked regarding audio:

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

3.2 PCB LOCATIONS



C CD Core Unit (S11STD-DOUT)



A Tuner Amp Assy

B Keyboard Unit

A:DEH-8300SD/XNEW5
B:DEH-P8300UB/XNUC
C:DEH-8350SD/XNES
D:DEH-8350SD/XNES1

Unit Number : QWM3185(A)
: QWM3187(B)
: QWM3186(C,D)
Unit Name : Tuner Amp Assy
Unit Number :
Unit Name : Keyboard Unit
Unit Number : CWX3774
Unit Name : CD Core Unit(S11STD-DOUT)

3.3 JIGS LIST

● **Jigs List**

Name	Jig No.	Remarks
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	GEM1038	CD Mechanism Module
Grease	GEM1043	CD Mechanism Module
Grease	GEM1045	CD Mechanism Module

3.4 CLEANING

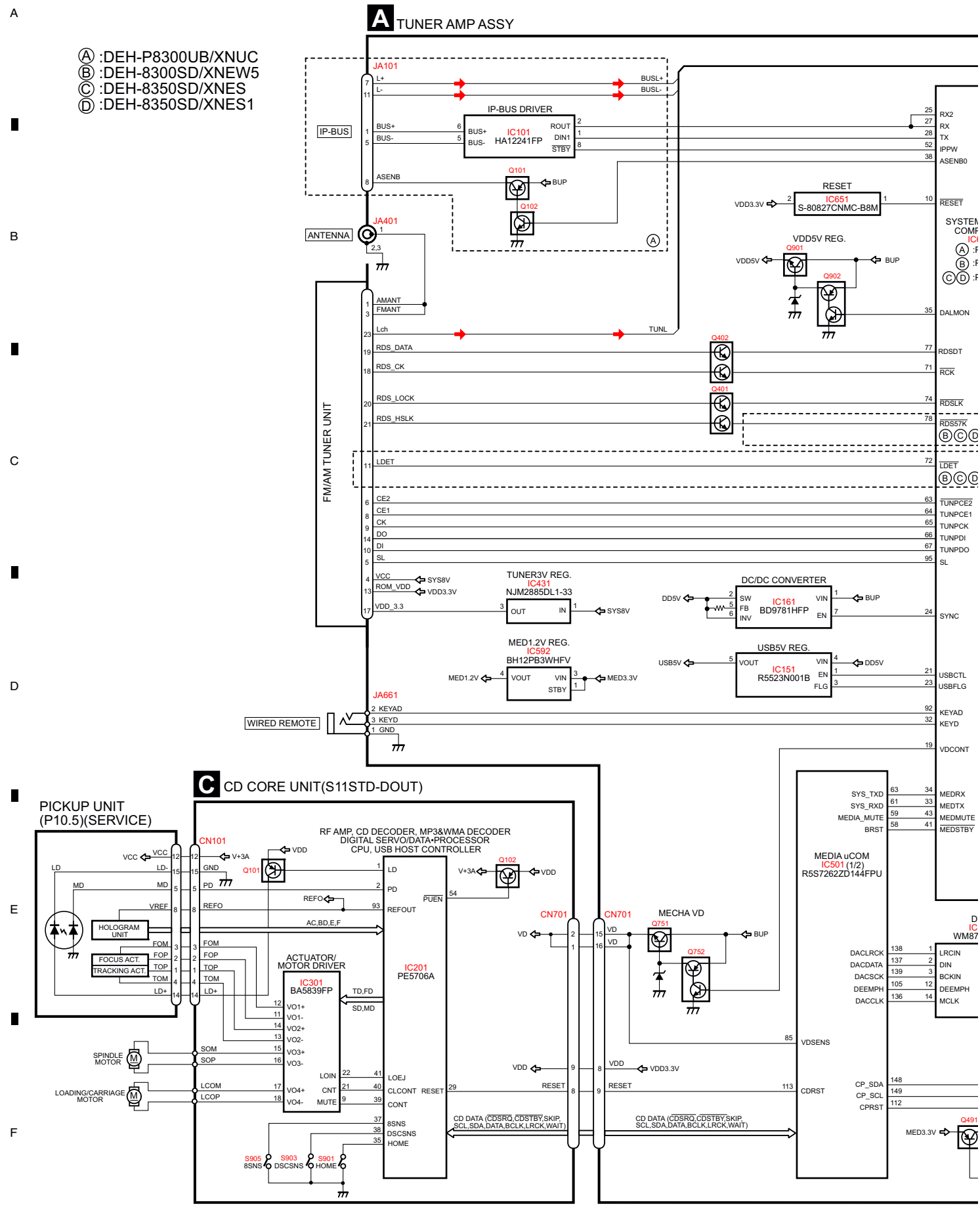
Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

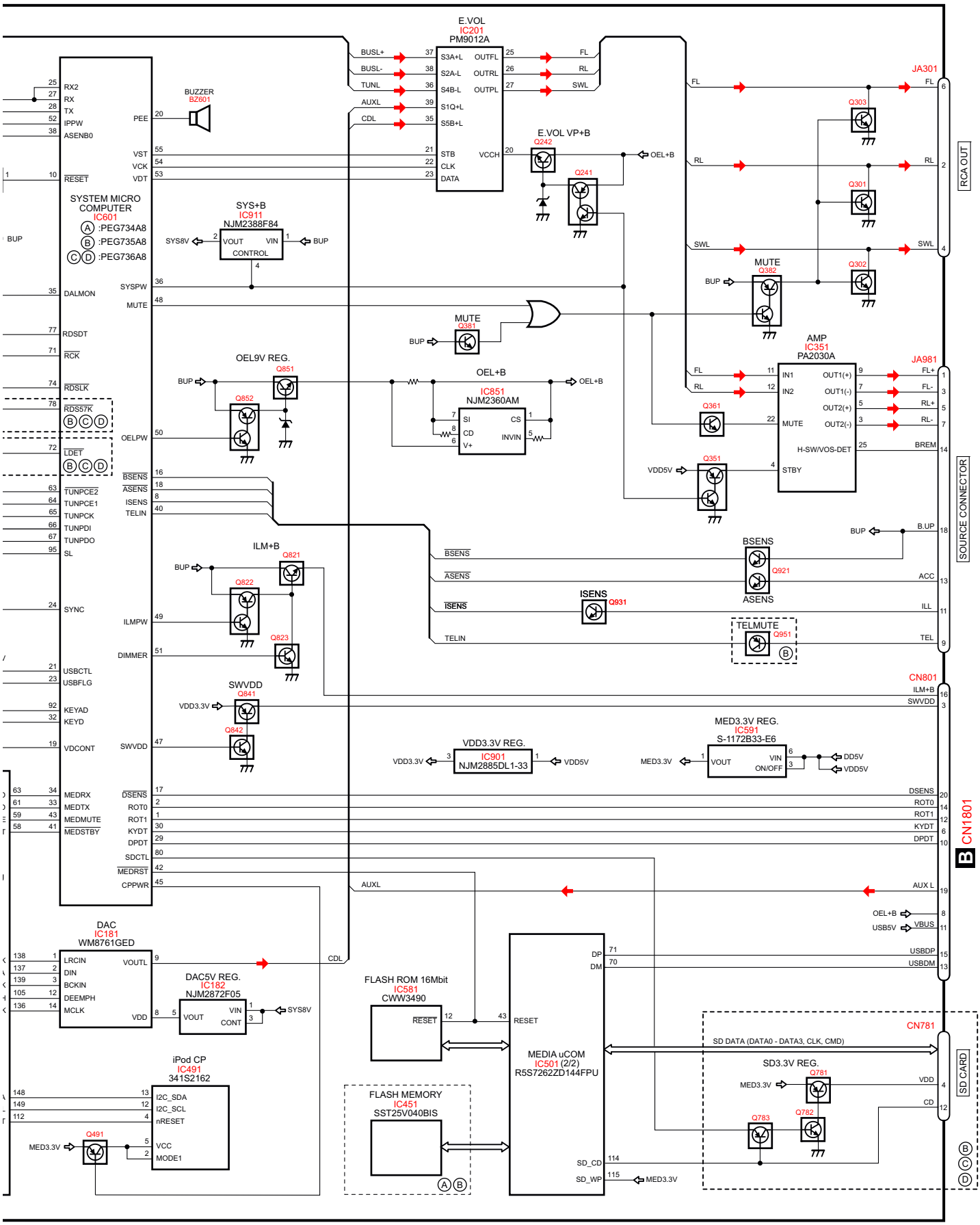
Portions to be cleaned	Cleaning tools
CD pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

4. BLOCK DIAGRAM

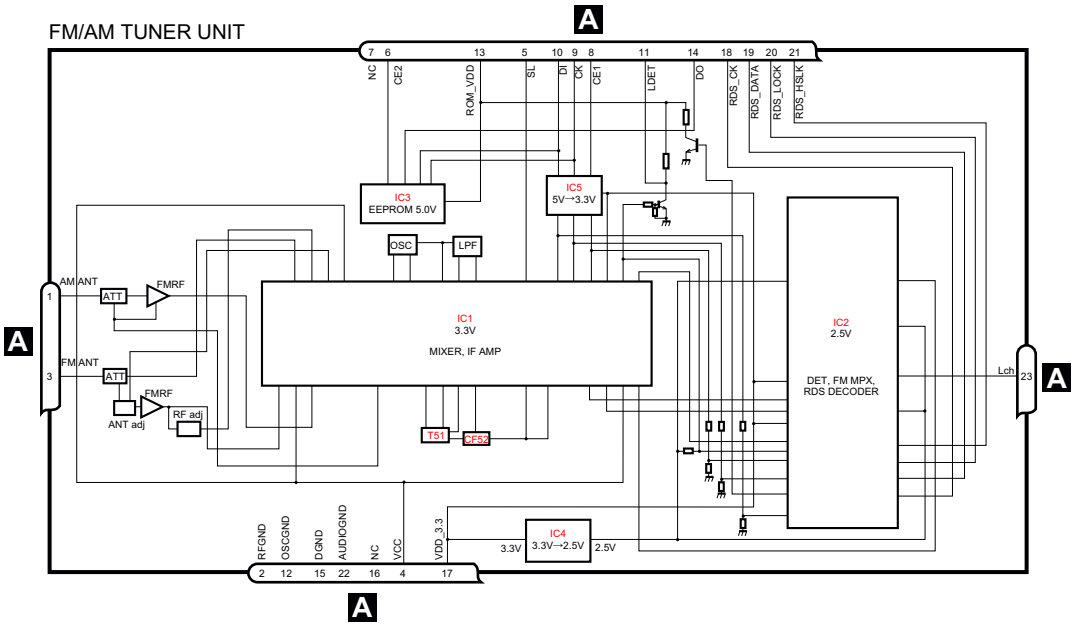
4.1 BLOCK DIAGRAM

Ⓐ :DEH-P8300UB/XNUC
Ⓑ :DEH-8300SD/XNEW5
Ⓒ :DEH-8350SD/XNES
Ⓓ :DEH-8350SD/XNES1

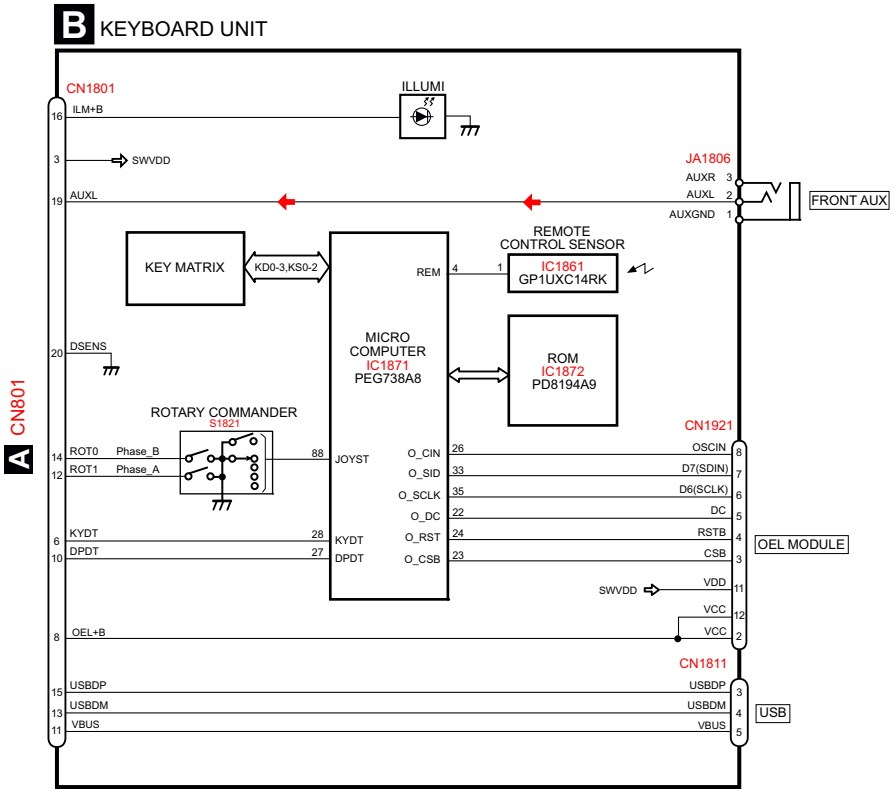



E.VOL
IC201
PM9012A
SYSTEM MICRO COMPUTER
IC601
A :PEG734A8
B :PEG735A8
C D :PEG736A8
BUZZER
BZ601
SYS+B
IC911
NJM2388F84
E.VOL VP+B
MUTE
AMP
IC351
PA2030A
JA301
JA981
RCA OUT
SOURCE CONNECTOR
OEL9V REG.
OEL+B
IC851
NJM2360AM
ILM+B
SWVDD
VDD3.3V REG.
IC901
NJM2885DL1-33
MED3.3V REG.
IC591
S-1172B33-E6
BSENS
ASENS
ISENS
TELMUTE
CN801
CN1801
DAC
IC181
WM8761GED
DAC5V REG.
IC182
NJM2872F05
iPod CP
IC491
341S2162
FLASH ROM 16Mbit
IC581
CWW3490
FLASH MEMORY
IC451
SST25V040BIS
MEDIA uCOM
IC501 (2/2)
R5S7262ZD144FPU
CN781
SD CARD
SD DATA (DATA0 - DATA3, CLK, CMD)
SD3.3V REG.

FM/AM TUNER UNIT

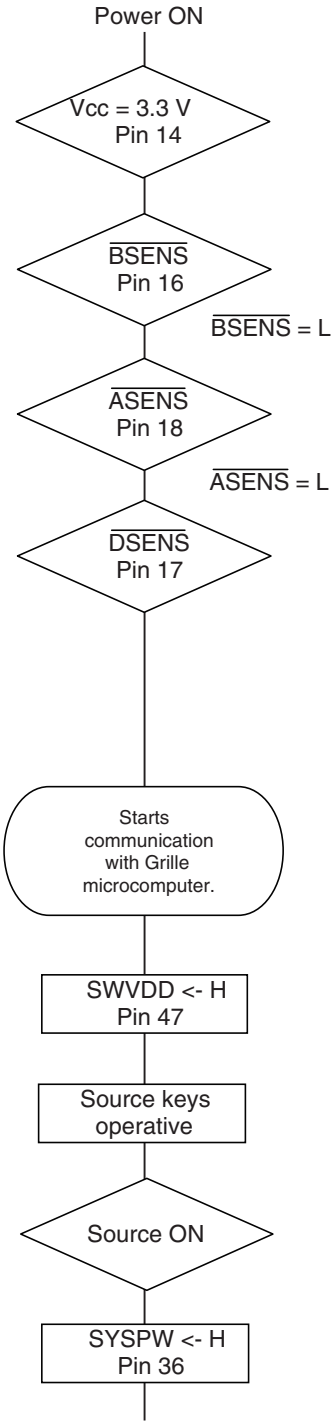


B KEYBOARD UNIT

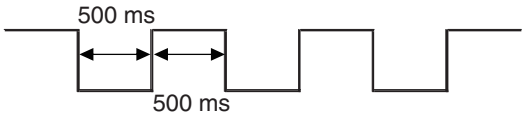


5. DIAGNOSIS

5.1 OPERATIONAL FLOWCHART



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



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.

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 main 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
7	Servo	TOC reading NG	TOC information cannot be read. --> The partial disk or TOC content is illegal.
10	Servo	Carriage Home NG	The CRG cannot move toward the inner track. The CRG cannot move from the inner track. --> Defective HOME SW; Failure in CRG movement.
11	Servo	Focus Search 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 disc that does not contain data loaded, or in a rare case, disc placed upside-down. --> CD signal error.
15	Servo	Failure in RF data	RF not read --> A CD-R disc that does not contain data loaded --> A CD-RW disc that does not contain data loaded
17	Servo	Setup NG	AGC protection does not work. Focus can be easily lost. --> Scratches or stains on the disc; excessive vibration.
30	Servo	Search Time Out	Failed to reach a target address --> CRG tracking error; Scratches on the disc; Stains on the disc
50	Mechanism	Failure in ejection Load NG	Disc ejection not completed Disc loading 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

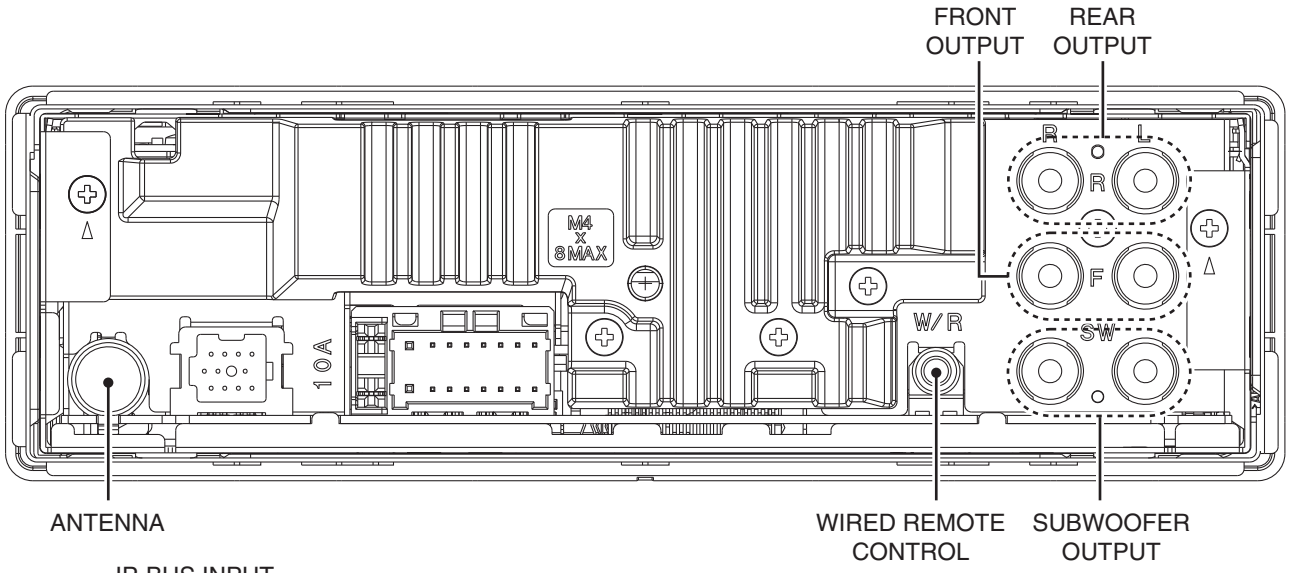
- Indications of error codes are available only during disc operations, because CD operations are unavailable if a mechanical error is generated.
- If the TOC cannot be read, this is not processed as an error, and operation continues accordingly.
- If you design a new head unit, be sure to use one of the display formats indicated in “Display example of the main unit.”
- The 2 high-order digits of an error code denote the main classification, shown below.
  0x: Servo-related errors
  1x: Servo-related errors
  3x: Servo-related errors
  5x: Mechanism-related errors
- How to restore from each error is shown below.
  0x, 1x and 3x: ACC-OFF then ON, CD-OFF then ON, Disc ejection
  5X: ACC-OFF then ON, Disc ejection, Disc reloading

External storage device (USB, SD)/iPod

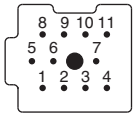
Message	Cause	Action
NO DEVICE	When plug and play is off, no USB storage device or iPod is connected.	• Turn the plug and play on. • Connect a compatible USB storage device/iPod.
FORMAT READ	Sometimes there is a delay between the start of playback and when you start to hear any sound.	Wait until the 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 connected USB storage device is not supported by this unit.	• Connect a USB Mass Storage Class compliant device. • Disconnect your device and replace it with a compatible USB storage device.
	Non-compatible iPod	Disconnect your device and replace it with a compatible iPod.
	Non-compatible SD storage device	Remove your device and replace it with a compatible SD storage device.
CHECK USB	The USB connector or USB cable has short-circuited.	Check that the USB connector or USB cable is not caught in something or damaged.
	The connected USB storage device consumes more than 500 mA (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.
	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 or eject the external storage device. –Change to a different source. Then, return to the USB or SD source. • Disconnect the cable from the iPod. Once the iPod's main menu is displayed, reconnect the iPod and reset it.
	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.

▣

5.3 CONNECTOR FUNCTION DESCRIPTION

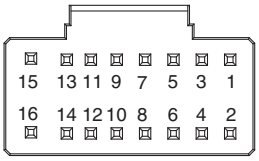


IP-BUS INPUT



1. BUS+
2. GND
3. GND
4. NC
5. BUS-
6. GND
7. BUSL1
8. ASENB1
9. BUSR1
10. BUSR2
11. BUSL2

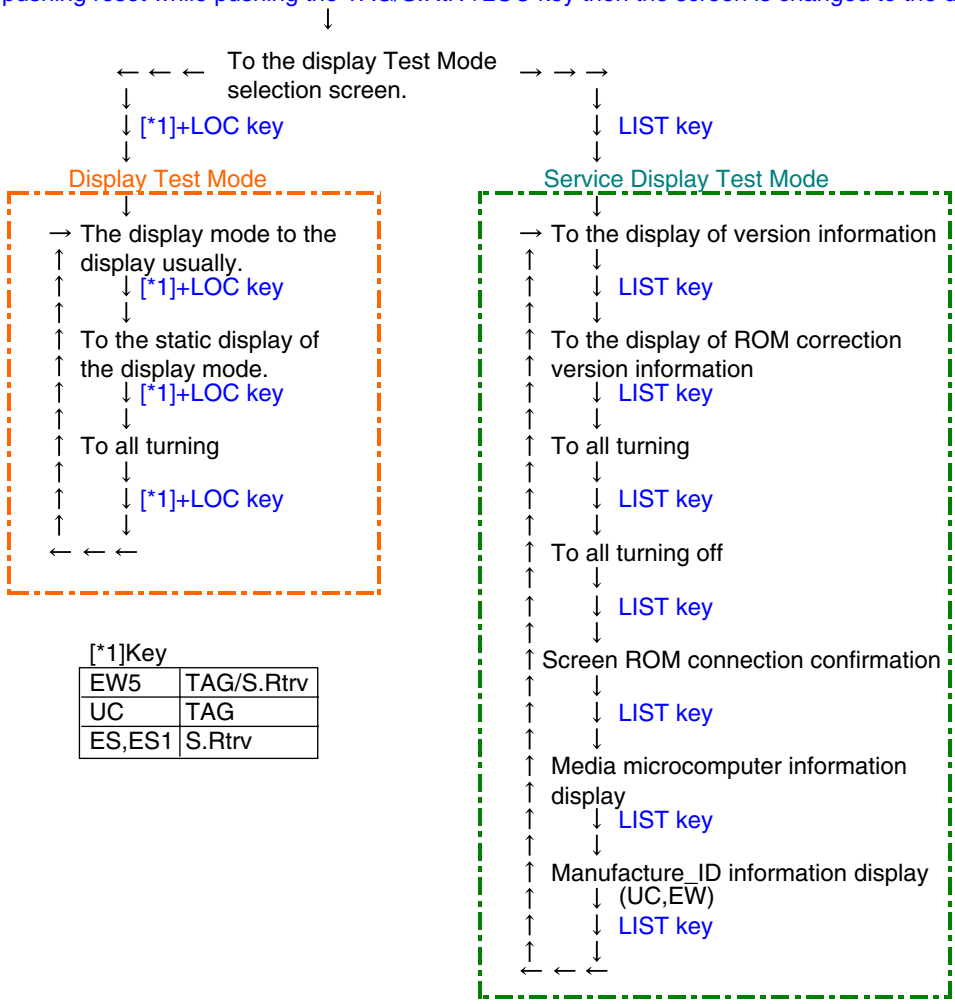
(DEH-P8300UB/XNUC)



1. FL+
2. FR+
3. FL-
4. FR-
5. RL+
6. RR+
7. RL-
8. RR-
9. TEL (DEH-8300SD/XNEW5)
10. NC
11. ILL
12. NC
13. ACC
14. BREM
15. B.UP
16. GND

6. SERVICE MODE
6.1 DISPLAY TEST MODE

Display Test Mode
Restarted pushing reset while pushing the TAG/S.Rtrv+LOC key then the screen is changed to the display test mode.

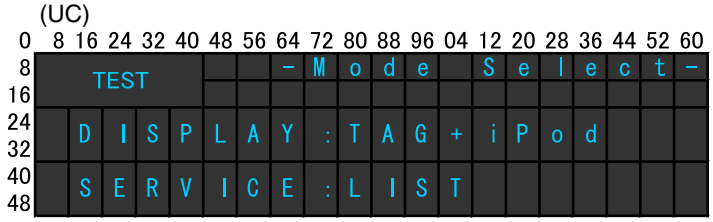


[*1]Key

EW5	TAG/S.Rtrv
UC	TAG
ES,ES1	S.Rtrv

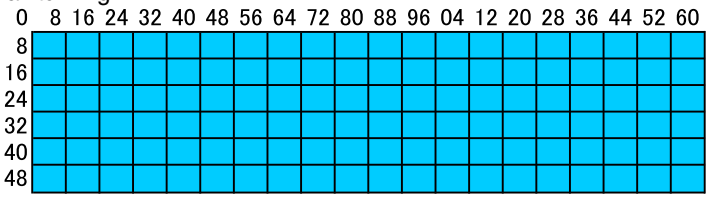
Display Test Mode selection screen

(UC)



(EW5, ES, ES1)

To all turning



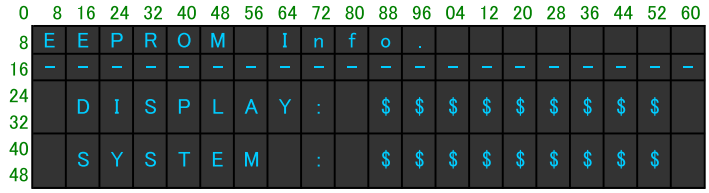
If a noise is observed on the screen:
The display microcomputer may have an error, or the connection between the display microcomputer and the OEL driver may have a problem.
If nothing is displayed on the screen:
There may be a problem with the communication, or the display microcomputer may have an error.

To the display of version information

UNIT
○ : WW number
? ? ? ? : Unit number information of System microcomputer
& & & & : Unit number information of Display microcomputer
(When the Unit number is QWW3007, it is displayed as 3007.)

ROM CORRECTION information display

When information couldn't be acquired from EEPROM.



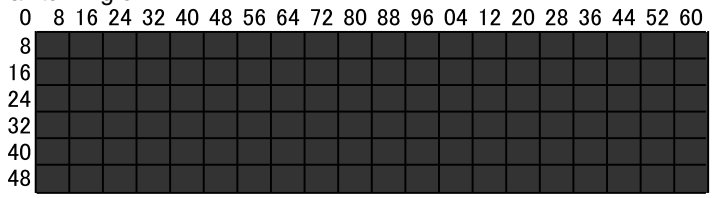
$ $ $ $ $ $ $ $: Error information
NO_EEPROM (ROM CORRECTION is not connected)
ROM_ERROR (ROM CORRECTION data error)

When information could be acquired from EEPROM.

: EEPROM Ver.Info
! ! ! ! : CH use information
(1:Use / 0:Not use Corresponds from the left to CH1, CH2, CH3, CH4)

If nothing is displayed on the screen:
There may be a problem with the communication, or the display microcomputer may have an error.
If a number apparently strange is displayed as the EEPROM version:
There may be a problem with the communication.
If a version display is being made but the number of CH used is not displayed properly:
The connection with the EEPROM may be defective.

To all turning off



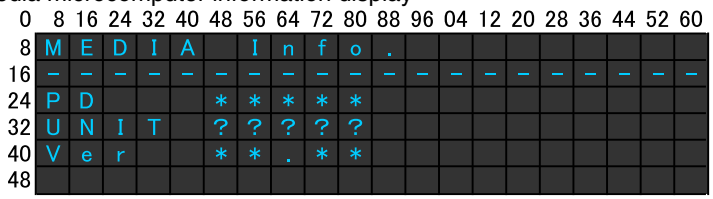
If a noise is observed on the screen:
The display microcomputer may have an error, or the connection between the display microcomputer and the OEL driver may have a problem.

Screen ROM connection confirmation

: OK or NG

If nothing is displayed on the screen:
There may be a problem with the communication, or the display microcomputer may have an error.
If NG is displayed somewhere:
The connection between the display microcomputer and the image ROM may be defective. For example, even if NG is displayed for the data bus, it is not necessarily a data bus connection defective.
A problem with the address bus may also cause an error during data bus check.

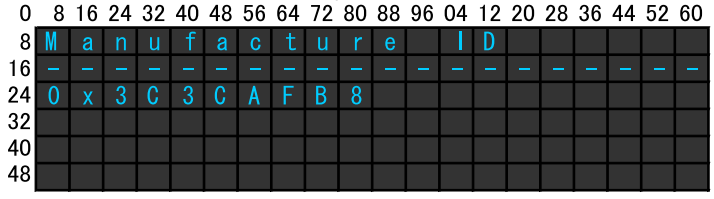
Media microcomputer information display



UNIT
? ? ? ? : Unit number information of media microcomputer

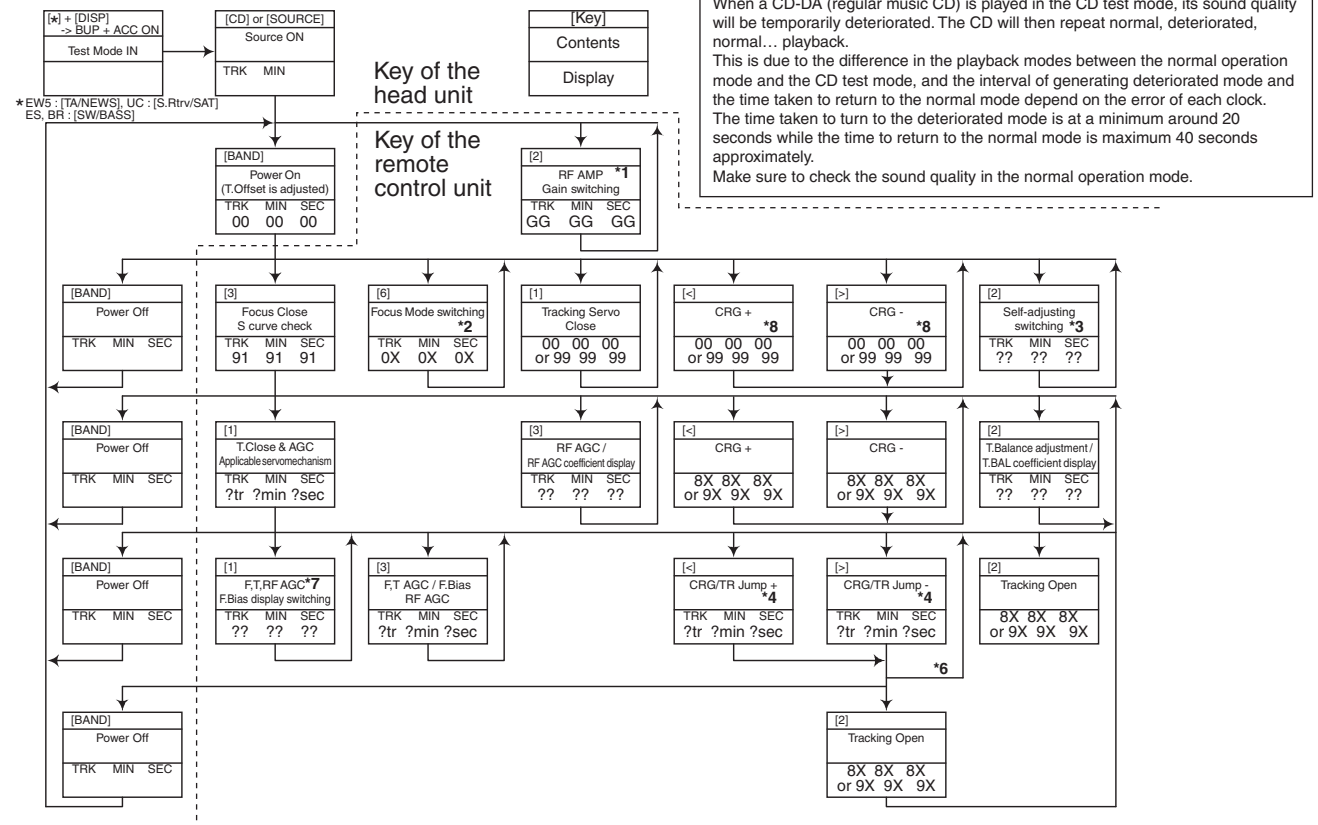
If nothing is displayed on the screen:
There may be a problem with the communication, or the display microcomputer may have an error.
If a number apparently strange is displayed as the media version:
There may be a problem with the communication.

Manufacture ID information display (UC, EW)



6.2 CD TEST MODE

● Flow Chart



NOTE

When a CD-DA (regular music CD) is played in the CD test mode, its sound quality will be temporarily deteriorated. The CD will then repeat normal, deteriorated, normal… playback.
This is due to the difference in the playback modes between the normal operation mode and the CD test mode, and the interval of generating deteriorated mode and the time taken to return to the normal mode depend on the error of each clock.
The time taken to turn to the deteriorated mode is at a minimum around 20 seconds while the time to return to the normal mode is maximum 40 seconds approximately.
Make sure to check the sound quality in the normal operation mode.

*1) TYP (TRK MIN SEC) → + 6 dB ($TRK_{06}MIN_{06}SEC_{06}$) → + 12 dB ($TRK_{12}MIN_{12}SEC_{12}$)

*2) Focus Close ($TRK_{00}MIN_{00}SEC_{00}$ ($TRK_{99}MIN_{99}SEC_{99}$)) → S. Curve ($TRK_{01}MIN_{01}SEC_{01}$) → F EQ measurement setting ($TRK_{02}MIN_{02}SEC_{02}$)

*3) F.Offset Display → T.Offset Display → Switch to the order of the original display

*4) 100TR Jump

*7) TRK/MIN/SEC → F.AGC → T.AGC Gain → F.Bias → RF AGC

*8) CRG motor voltage = 2 [V]

*9) TYP (1X) (TRK MIN SEC) → 2X ($TRK_{22}MIN_{22}SEC_{22}$) → 1X ($TRK_{11}MIN_{11}SEC_{11}$)

*10) OFF(TYP) (TRK MIN SEC) → FORCUS ($TRK_{70}MIN_{70}SEC_{70}$) → TRACKING ($TRK_{71}MIN_{71}SEC_{71}$)

[Key]	Operation Test Mode
[BAND]	Power On/Off
[<]	CRG + / TR Jump + (Direction of the external surface)
[>]	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 [2] or [3] 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).
- 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 Case (not shown)

1. Remove the Case.

●Removing the CD Mechanism Module (Fig.1)

1 Release the two latches and then remove the Panel Assy.

2 Remove the four screws.

Disconnect the connector and then remove the CD Mechanism Module.

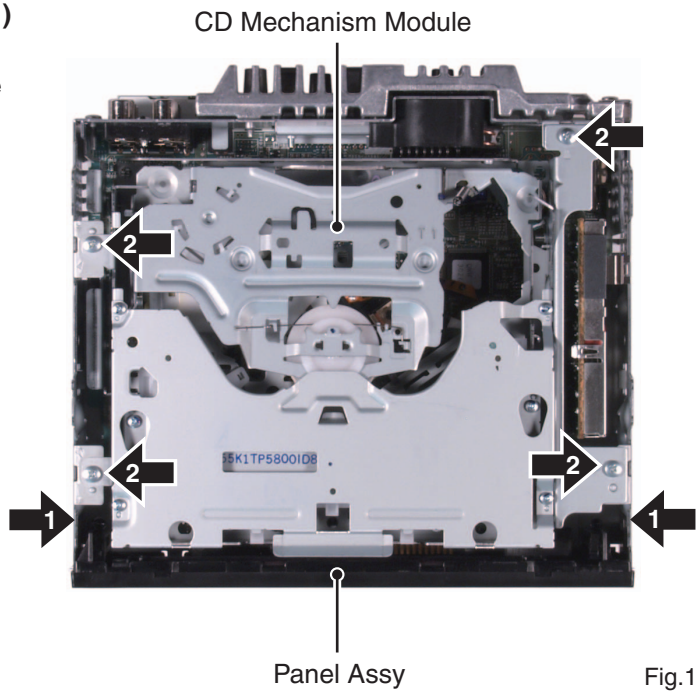


Fig.1

●Removing the Tuner Amp Assy (Fig.2)

1 Remove the two screws.

2 Remove the two screws.

3 Straighten the tabs at four locations indicated and then remove the Tuner Amp Assy.

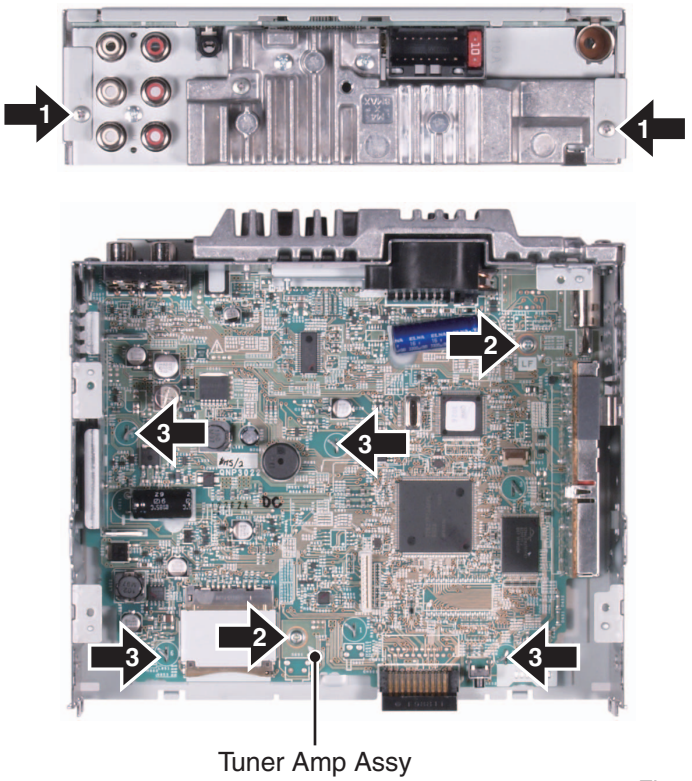
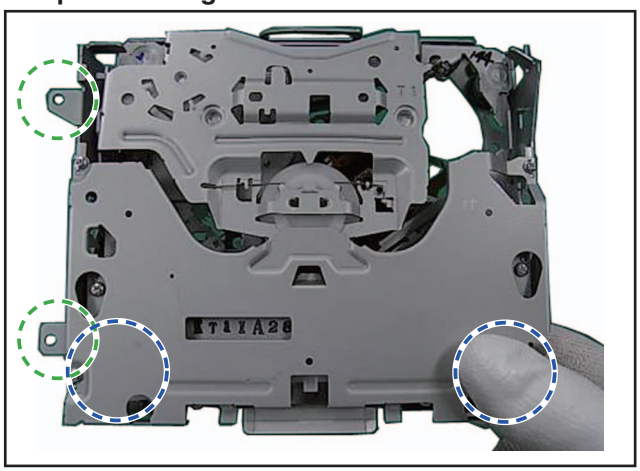


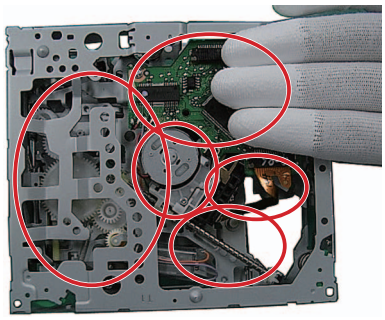
Fig.2

● How to Hold the Mechanism Unit

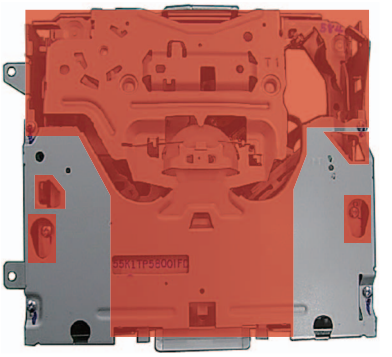
1. Hold the Upper and Lower Frames at the specified parts (circled with broken blue lines in the photo below).
2. You can hold the tabs of the Lower Frame (circled with broken green lines in the photo below) if you do so only while lifting the Mechanism Unit from the table. Keeping the Mechanism Unit lifted by holding these tabs with your fingers may result in deformation.
3. Be careful NOT to hold the front part of the Upper Frame or the CRG Mechanism and NOT to insert foreign objects into these mechanisms. Doing so may result in deformation.

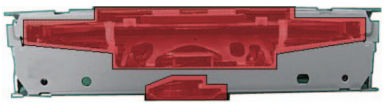
Proper handling

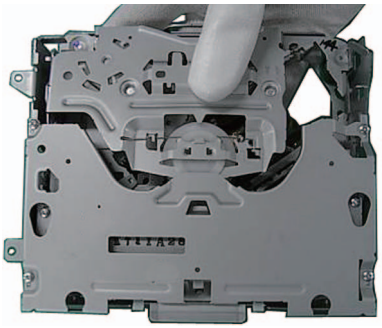


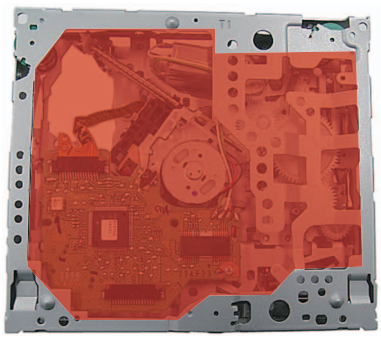


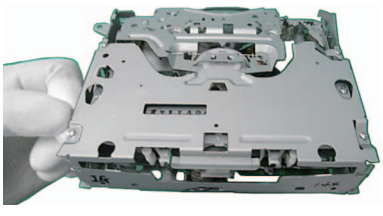
Improper handling











● Mechanism Module: How to Set to the Quasi-Clamp State (Driven by the Motor)

1. Remove the solder from the CRG-motor lead wire (Fig. 1).
2. Push in the Disc Detection Arm while applying 4-V power to the CRG Motor (Fig. 2). (Apply 4-V power to the green lead wire. The white lead wire is for grounding.)
   The Mechanism Module is set to the clamped state, and the PU will move toward the outer track.
   Note: NEVER apply power to the CRG-motor lead wire without removing the solder from the wire. Doing so may result in damage to the ICs and the PU.
3. Stop the motor when the PU reaches around the middle track.
   Note: Jumpiness will occur when the PU reaches the outermost track. Although jumpiness does not constitute a problem, it is recommended that it occur as least frequently as possible.

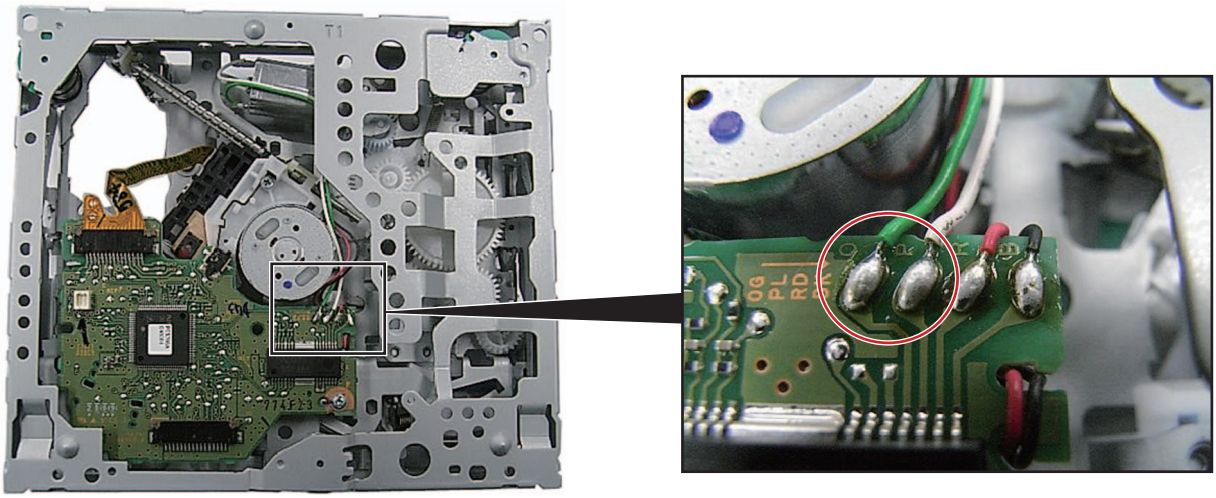


Fig. 1

Note: Be aware that the colors of the lead wires do not match the indications on the Core Board Pattern (green wire to O and white wire to P).

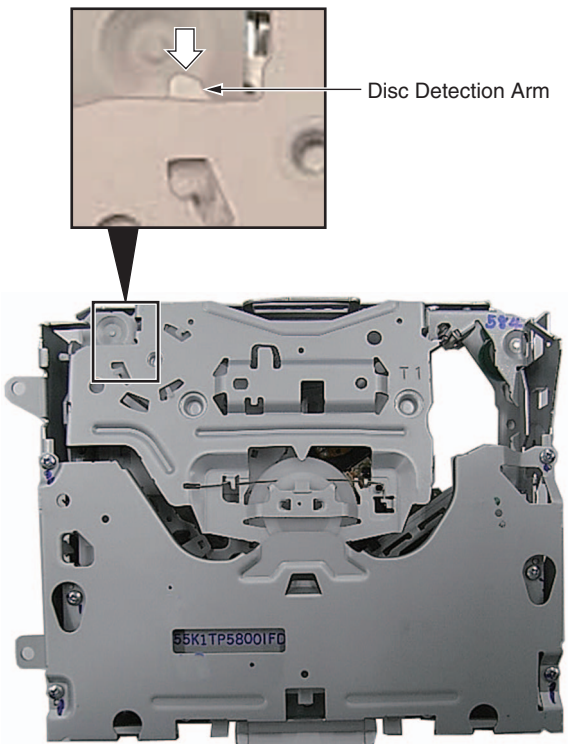


Fig. 2

● How to Remove the PU Unit

1. Set the unit to the quasi-clamp state, following the procedures described in “Mechanism Module: How to Set to the Quasi-Clamp State (Driven by the Motor).”
2. Temporarily change the engagement position of the bias spring of the feed screw (Fig. 2b).
   Be careful not to cut yourself on the tip of the spring.
3. Hold the PU unit by parts A in Fig. 1 then slide it toward the inner track.
4. Remove the backend of the feed screw from the outer holder, by first sliding it, as shown in Fig. 3, then lifting it.
5. Remove the PU unit, by lifting it. Lifting the PU unit will disengage the PU unit from the part B of the chassis.

Note: When reassembling the PU unit, be sure to securely engage the PU unit with the part B of the chassis, as shown in Fig. 4. Also, be sure to change the engagement position of the bias spring of the feed screw to its original position (Fig. 2a). After reassembling, perform the PU adjustment, following the description in the service manual.

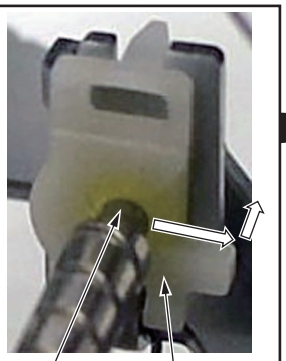


Fig. 3

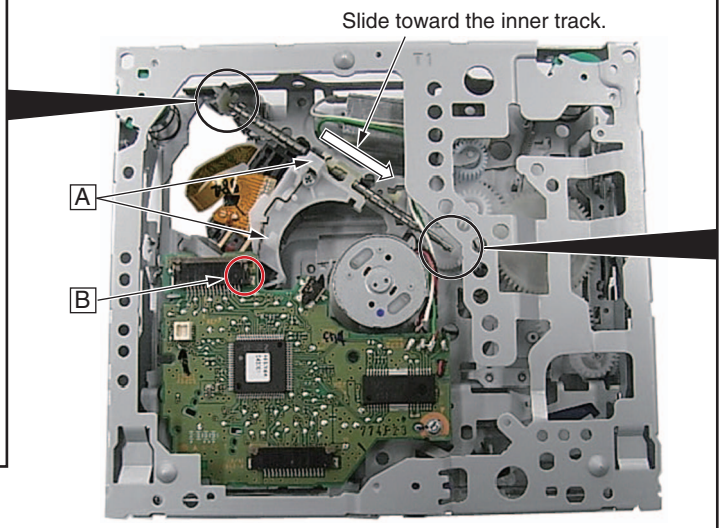
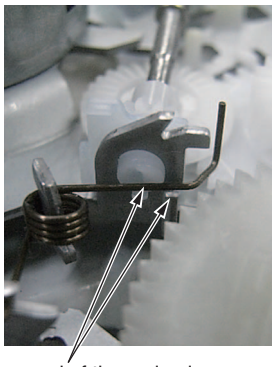


Fig. 1



One end of the spring is engaged beneath the resin flange and plate bend.

Fig. 2a
Original engagement position

Fig. 2b
Temporary engagement position

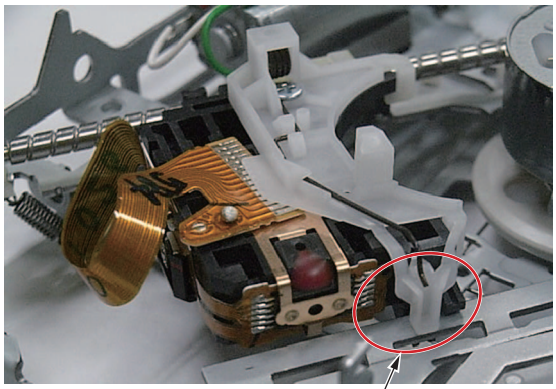


Fig. 4

Properly assembled state

[Improper assembly]
The chassis is not properly pinched by the PU case and PU rack.

● How to Move the PU toward the Outer Track

1. Set the unit to the quasi-clamp state, following the procedures described in “Mechanism Module: How to Set to the Quasi-Clamp State (Driven by the Motor).”
2. Move the PU unit toward the outer track, by applying 1.5-V power to the CRG motor.

Note: After moving the PU toward the outer track and taking the necessary measures, be sure to solder the lead wires.

● How to Remove the PU Rack

1. Remove the PU Unit, following the procedures described in “How to Remove the PU Unit.”
2. Remove the PU Rack fixing screw (Fig. 1).
3. Remove the PU Rack, by applying force in the direction of the arrow in Fig. 2.

Notes:

While handling the PU Unit, be careful NOT to touch the actuator block shown in Fig. 6 or bang the actuator block against your workbench.

Handle the PU and PU Unit with care, according to the description in “How to Hold the PU.”

When reattaching the PU Rack to the PU, first reassemble parts a and b shown in Fig. 3 into the PU case then attach the boss shown in Fig. 4 to the PU case.

After reassembling the PU Rack, insert the feed screw from side c in Fig. 5 (insertion depth: Approx. 18 mm for the part indicated in the photo).

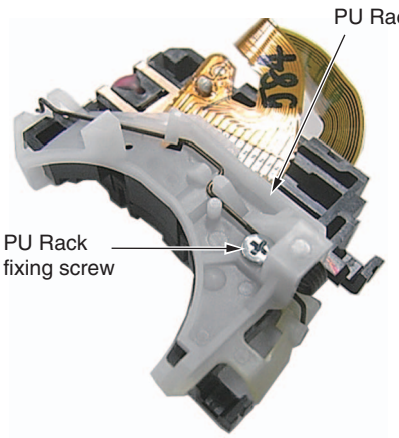


Fig. 1

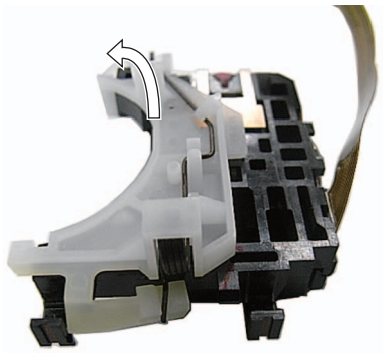


Fig. 2

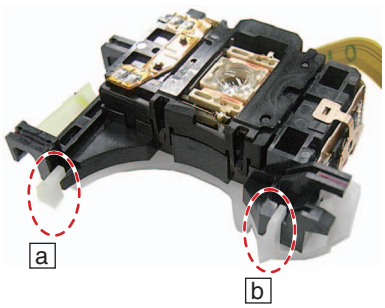


Fig. 3

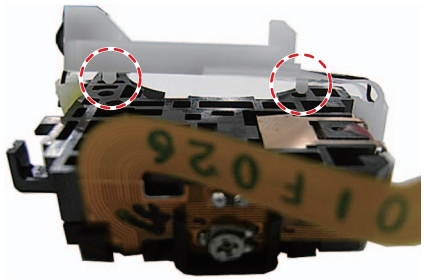


Fig. 4

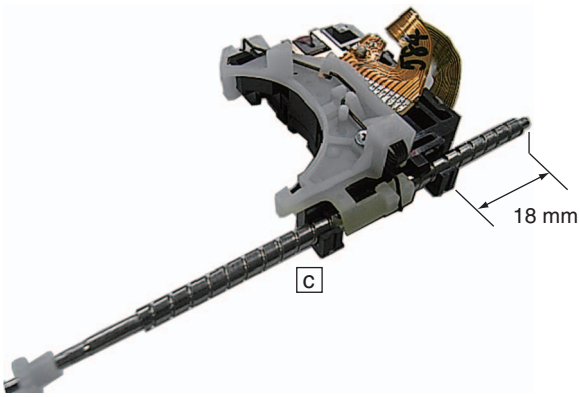


Fig. 5

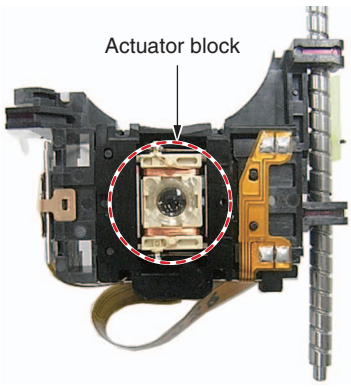
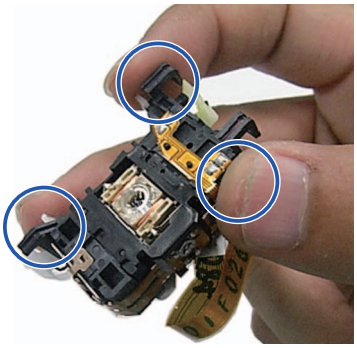


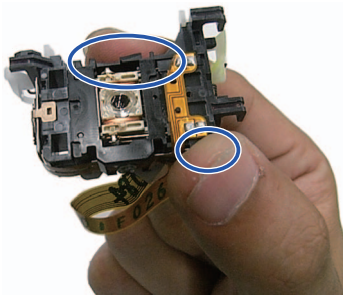
Fig. 6

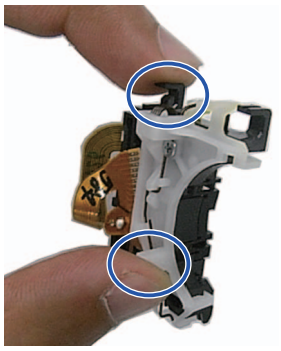
● How to Hold the PU

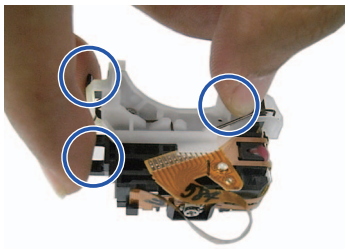
1. Be sure to hold the PU at the positions shown in “Proper handling.” NEVER hold it as shown in “Improper handling.”

Proper handling

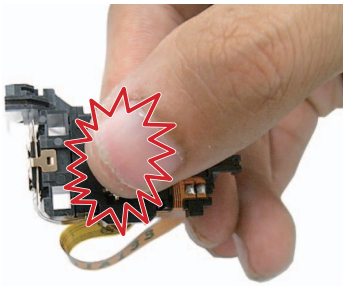




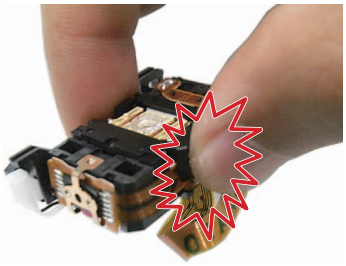




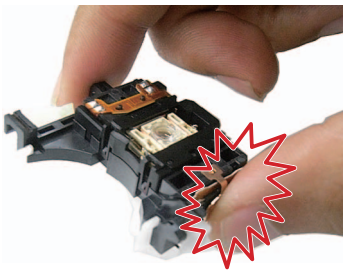
Improper handling



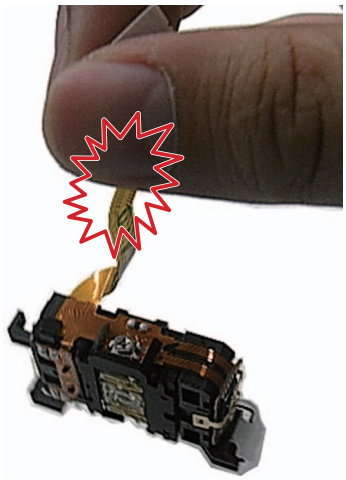
Do not touch the object lens and ACT.



Do not touch the VR.



Do not touch the Hologram.



Do not pull the FPC.

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 guarantied 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.

[*1] + [DISP] -> BUP + ACC ON

*1	EW5	[TA/NEWS]
	UC	[S.Rtrv/SAT]
	ES, BR	[SW/BASS]

• 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 (→) key or (←) 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.

When a CD-DA (regular music CD) is played in the CD test mode, its sound quality will be temporarily deteriorated. The CD will then repeat normal, deteriorated, normal… playback.
This is due to the difference in the playback modes between the normal operation mode and the CD test mode, and the interval of generating deteriorated mode and the time taken to return to the normal mode depend on the error of each clock.
The time taken to turn to the deteriorated mode is at a minimum around 20 seconds while the time to return to the normal mode is maximum 40 seconds approximately. Make sure to check the sound quality in the normal operation mode.

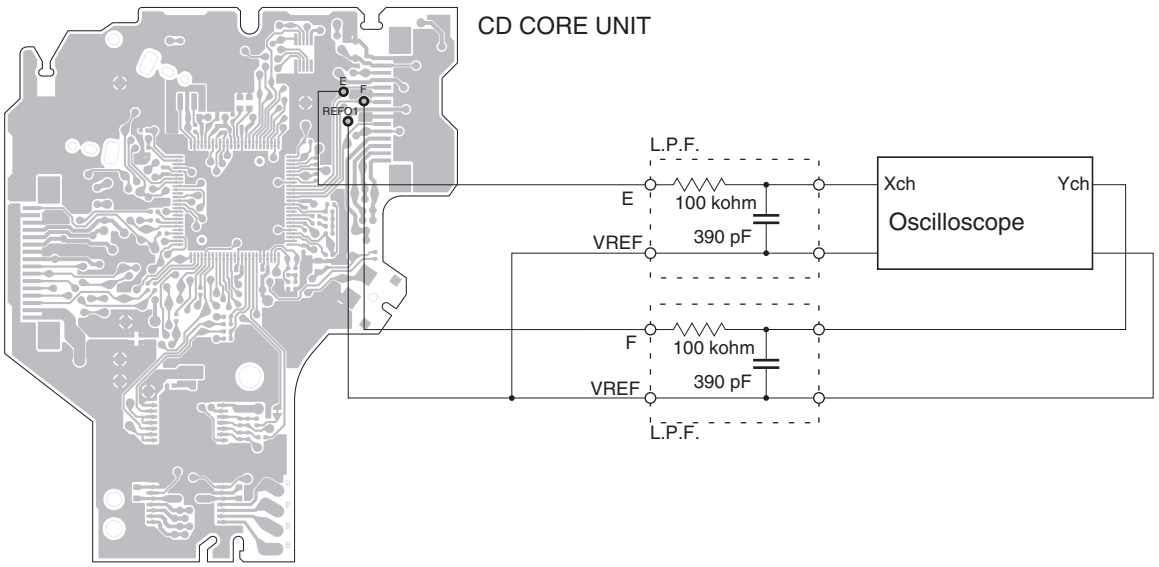
8.2 CHECKING THE GRATING AFTER CHANGING THE PICKUP UNIT

- **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

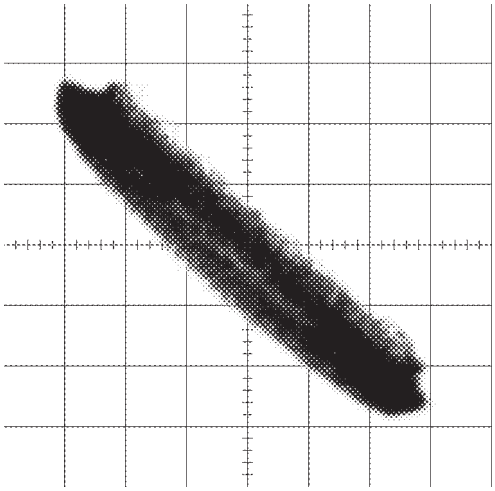


- **Checking Procedure**
  1. In test mode, load the disc and switch the 3 V regulator on.
  2. Using the right and left buttons, move the PU unit to the innermost track.
  3. Press key 3 to close focus, the display should read "91". Press key 2 to implement the tracking balance adjustment the display 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".

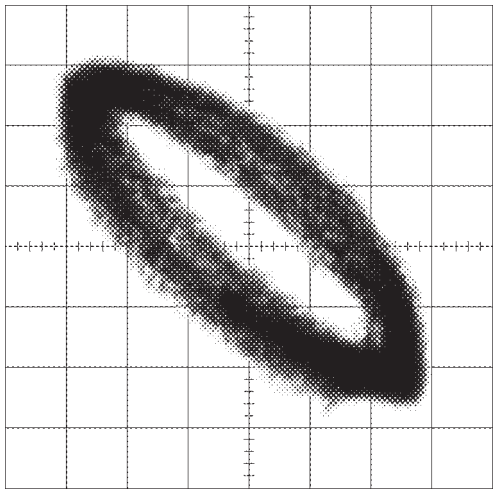
Grating waveform

Ech -> Xch 20 mV/div, AC
Fch -> Ych 20 mV/div, AC

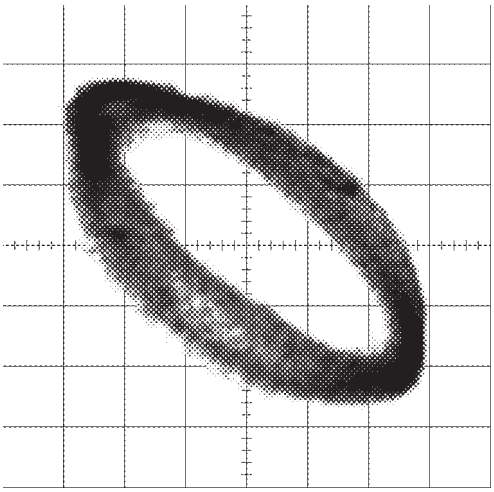
0 degrees



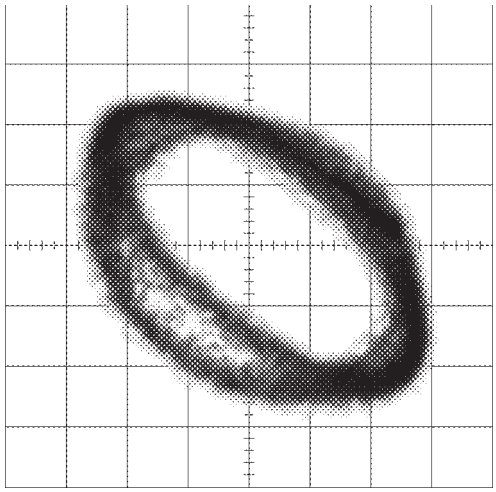
30 degrees



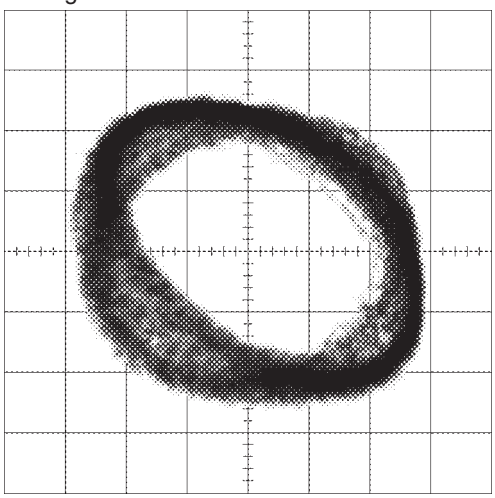
45 degrees



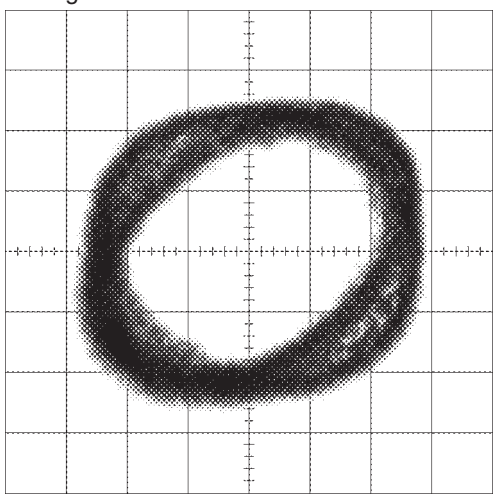
60 degrees



75 degrees



90 degrees



8.3 PCL OUTPUT CONFIRMATION

● 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 to H.
The clock signal is output from the PCL terminal IC601(Pin 37).
The frequency of the clock signal is 625.0 kHz that is one 32th of the fundamental frequency.
The clock signal should be 625.0 kHz(- 10 Hz, + 15 Hz).
If the clock signal is out of the range, the X'tal (X601) should be replaced with new one.

A

B

C

D

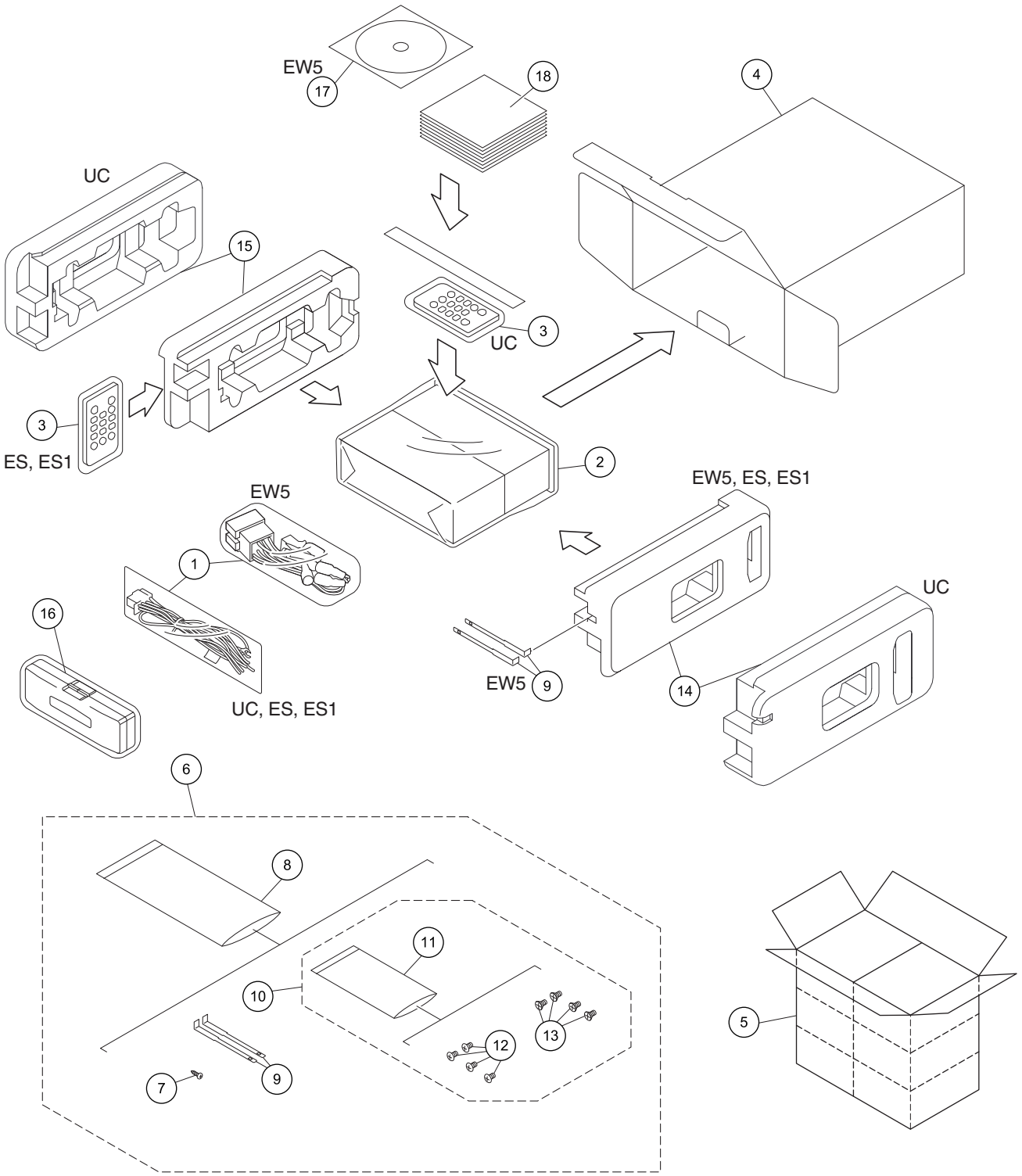
E

F

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

DEH-8300SD/XNEW5, DEH-P8300UB/XNUC, DEH-8350SD/XNES and DEH-8350SD/XNES1 are constructed the same except for the following:

Mark	No.	Description	DEH-8300SD /XNEW5	DEH-P8300UB /XNUC	DEH-8350SD /XNES	DEH-8350SD /XNES1
	1	Cord Assy	CDP1268	CDP1269	CDP1269	CDP1269
	2	Polyethylene Bag	QEG3001	CEG1173	QEG3001	QEG3001
	3	Remote Control Unit	Not used	CXE3669	CXE3669	CXE3669
	4	Unit Box	QHG3088	QHG3094	QHG3089	QHG3090
	5	Contain Box	QHL3088	QHL3094	QHL3089	QHL3090
	6	Accessory Assy	Not used	*YEA5071	YEA5084	YEA5084
	7	Screw	Not used	BPZ20P060FTC	Not used	Not used
	8	Polyethylene Bag	Not used	CEG1160	CEG1160	CEG1160
	9	Handle	CND3707	CND3707	CND3707	CND3707
	10	Screw Assy	Not used	YEA5072	YEA5082	YEA5082
*	11	Polyethylene Bag	Not used	CEG-127	CEG-127	CEG-127
	12	Screw	Not used	CRZ50P090FTC	Not used	Not used
	13	Screw	Not used	TRZ50P080FTC	TRZ50P080FTC	TRZ50P080FTC
	14	Protector	YHP5069	YHP5071	YHP5069	YHP5069
	15	Protector	YHP5070	YHP5072	YHP5070	YHP5070
	16	Case Assy	YXB5009	Not used	YXB5009	YXB5009
	17	IM CD-ROM	QPJ3005	Not used	Not used	Not used
	18-1	Owner's Manual	Not used	QRD3075	QRD3074	QRD3074
	18-2	Installation Manual	QRD3068	Not used	Not used	Not used
	18-3	Quick Start Guide	QRD3078	Not used	Not used	Not used
*	18-4	Warranty Card	CRY1316	CRY1276	Not used	CRY1250
*	18-5	Caution Card	CRP1438	Not used	Not used	Not used
*	18-6	Caution Card	CRP1441	Not used	Not used	Not used
*	18-7	Passport	CRY1268	Not used	Not used	Not used
*	18-8	Service Network	Not used	Not used	Not used	CRY1251

Owner's Manual,Installation Manual

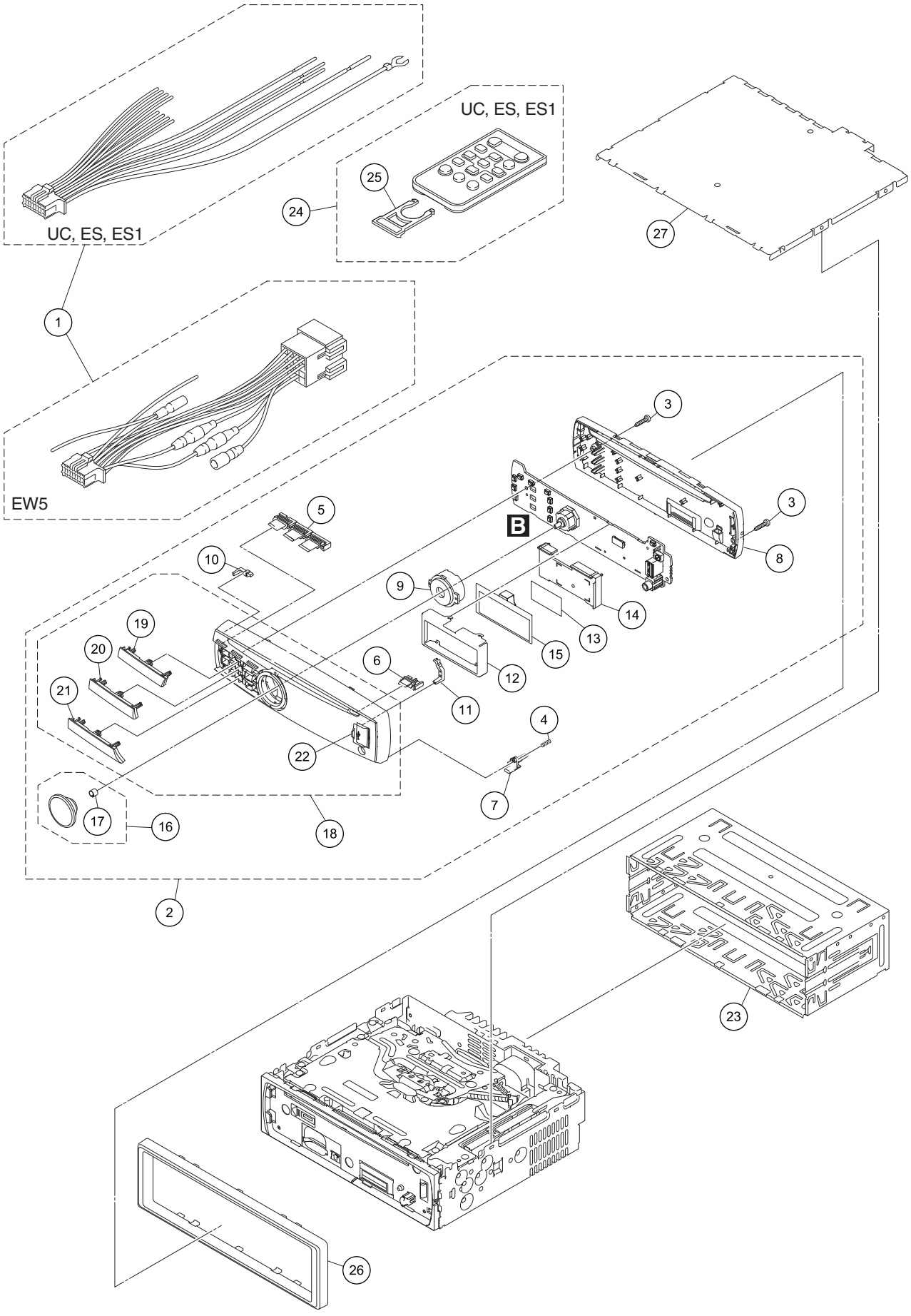
Part No.	Language
QRD3068	English, French, Italian, Spanish(Espanol), German, Dutch, Russian
QRD3078	English, French, Italian, Spanish(Espanol), German, Dutch, Russian
QRD3075	English, French, Spanish(Espanol)
QRD3074	English, Spanish(Espanol), Portuguese(B), Traditional Chinese, Arabic, Persian

CONTENTS OF CD-ROM (Operation Manual), QPJ3005

Part No.	Language
* QRB3081	English
* QRB3082	French
* QRB3083	Italian
* QRB3084	Spanish(Espanol)
* QRB3085	German
* QRB3086	Dutch
* QRB3087	Russian
* QRB3088	Swedish
* QRB3089	Norwegian
* QRB3090	Finnish
* QRB3091	Danish
* QRB3092	Portuguese
* QRB3093	Greek
* QRB3094	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.

9.2 EXTERIOR (1)



(1) EXTERIOR (1) SECTION PARTS LIST

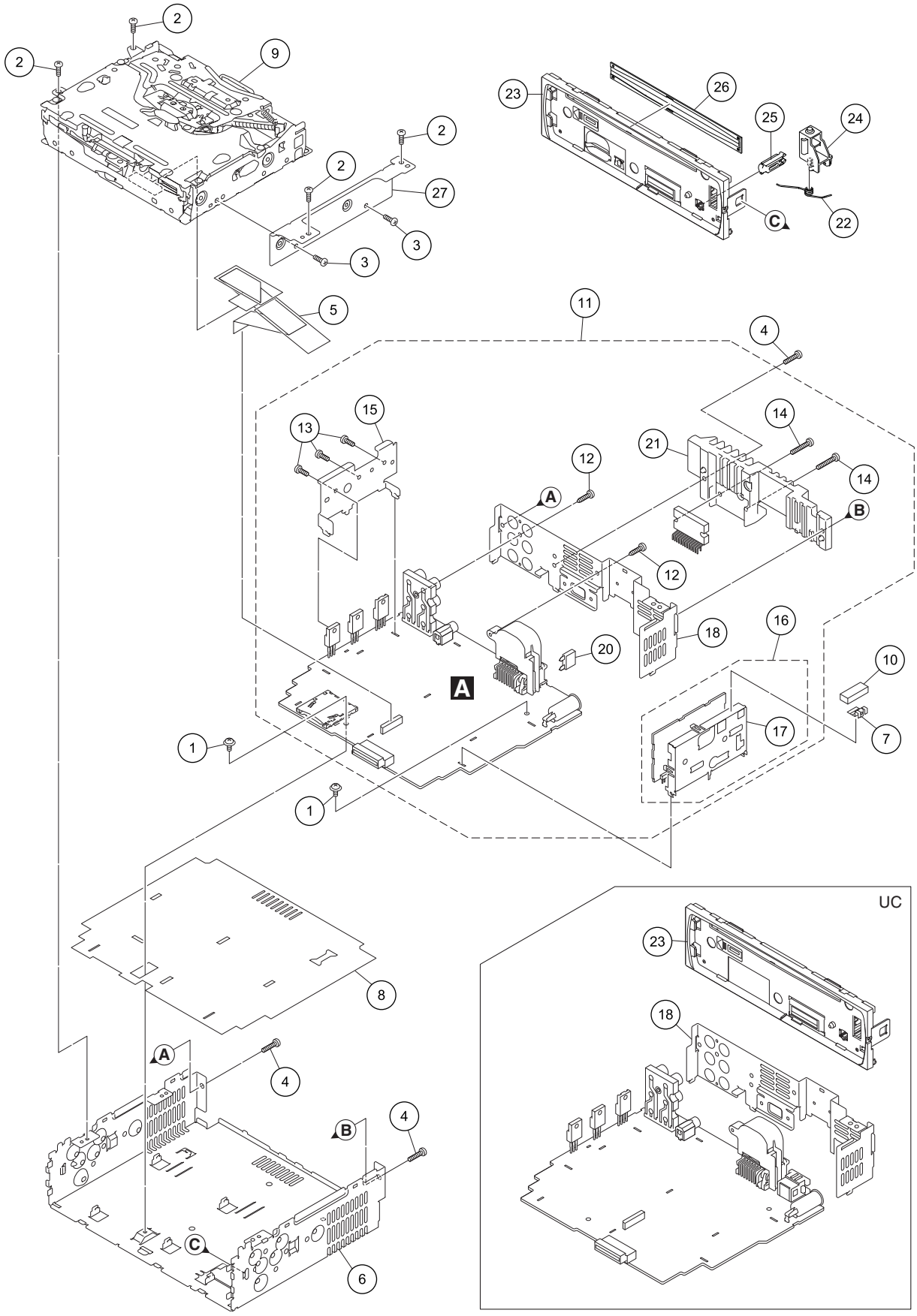
Mark	No.	Description	Part No.
	1	Cord Assy	See Contrast table (2)
	2	Detachable Assy	See Contrast table (2)
	3	Screw	BPZ20P100FTC
	4	Spring	CBH2210
	5	Button	QAC3057
	6	Button(EJECT)	QAC3058
	7	Button(DETACH)	QAC3063
	8	Cover	QNS3168
	9	Lighting Conductor	QNV3029
	10	Lighting Conductor	QNV3031
	11	Lighting Conductor	QNV3032
	12	Holder	CND5436
	13	Double Side Tape	CNM8673
	14	Holder	CNW1758
	15	OEL Module	MXS4011
	16	Knob Unit	QXA3289
	17	Spring	XBL7005
	18	Grille Unit	See Contrast table (2)
	19	Button(SRC, BAND)	QAC3059
	20	Button(RPT, LIST)	QAC3060
	21	Button(RDM, iPod)	QAC3061
	22	Door	QAT3003
	23	Holder	CND3598
	24	Remote Control Unit	See Contrast table (2)
	25	Cover	See Contrast table (2)
	26	Panel	QNS3169
	27	Case	YNB5063

(2) CONTRAST TABLE

DEH-8300SD/XNEW5, DEH-P8300UB/XNUC, DEH-8350SD/XNES and DEH-8350SD/XNES1 are constructed the same except for the following:

Mark	No.	Description	DEH-8300SD /XNEW5	DEH-P8300UB /XNUC	DEH-8350SD /XNES	DEH-8350SD /XNES1
	1	Cord Assy	CDP1268	CDP1269	CDP1269	CDP1269
	2	Detachable Assy	QXA3317	QXA3323	QXA3319	QXA3319
	18	Grille Unit	QXA3309	QXA3313	QXA3310	QXA3310
	24	Remote Control Unit	Not used	CXE3669	CXE3669	CXE3669
	25	Cover	Not used	CNS7068	CNS7068	CNS7068

9.3 EXTERIOR (2)



(1) EXTERIOR (2) SECTION PARTS LIST

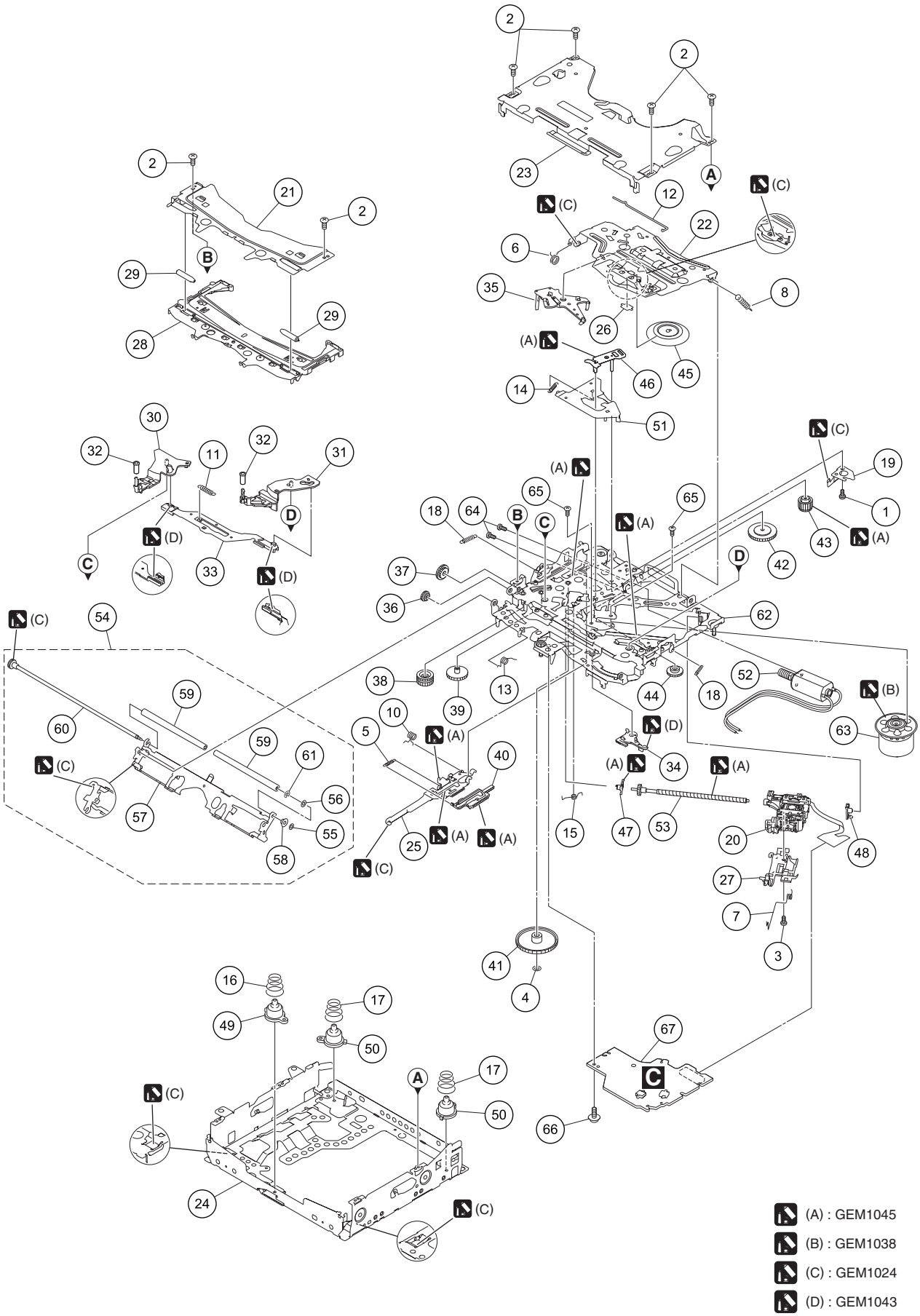
Mark	No.	Description	Part No.
	1	Screw	ASZ26P050FTC
	2	Screw	BSZ26P060FTC
	3	Screw	BSZ26P060FTC
	4	Screw	BSZ26P100FTC
	5	Cable	CDE9106
	6	Chassis	See Contrast table (2)
	7	Earth Plate	CNC8915
	8	Insulator	CNN3145
	9	CD Mechanism Module(S11)	CXK5800
	10	Cushion	QNM3035
	11	Tuner Amp Assy	See Contrast table (2)
	12	Screw	BPZ26P080FTC
	13	Screw	BSZ26P060FTC
	14	Screw	See Contrast table (2)
	15	Holder	CND5423
	16	FM/AM Tuner Unit(U401)	CWE2097
	17	Holder	CND4324
	18	Holder	See Contrast table (2)
	19	•••••	
⚠	20	Fuse(10 A)	YEK5001
	21	Heat Sink	YNR5139
	22	Spring	QBH3001
	23	Panel	See Contrast table (2)
	24	Arm	QNV3025
	25	Button	QNV3026
	26	Cover	YNN5030
	27	Holder	YND5048

(2) CONTRAST TABLE

DEH-8300SD/XNEW5, DEH-P8300UB/XNUC, DEH-8350SD/XNES and DEH-8350SD/XNES1 are constructed the same except for the following:

Mark	No.	Description	DEH-8300SD /XNEW5	DEH-P8300UB /XNUC	DEH-8350SD /XNES	DEH-8350SD /XNES1
	6	Chassis	QNA3018	CNA3152	QNA3018	QNA3018
	11	Tuner Amp Assy	QWM3185	QWM3187	QWM3186	QWM3186
	14	Screw	BMZ26P160FCC	BSZ26P160FTC	BMZ26P160FCC	BMZ26P160FCC
	18	Holder	QNC3029	QNC3016	QNC3029	QNC3029
	23	Panel	QNS3166	QNS3167	QNS3166	QNS3166

9.4 CD MECHANISM MODULE



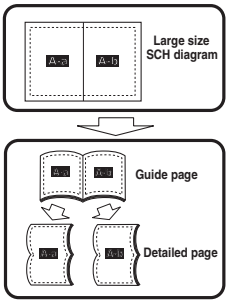
CD MECHANISM MODULE SECTION PARTS LIST

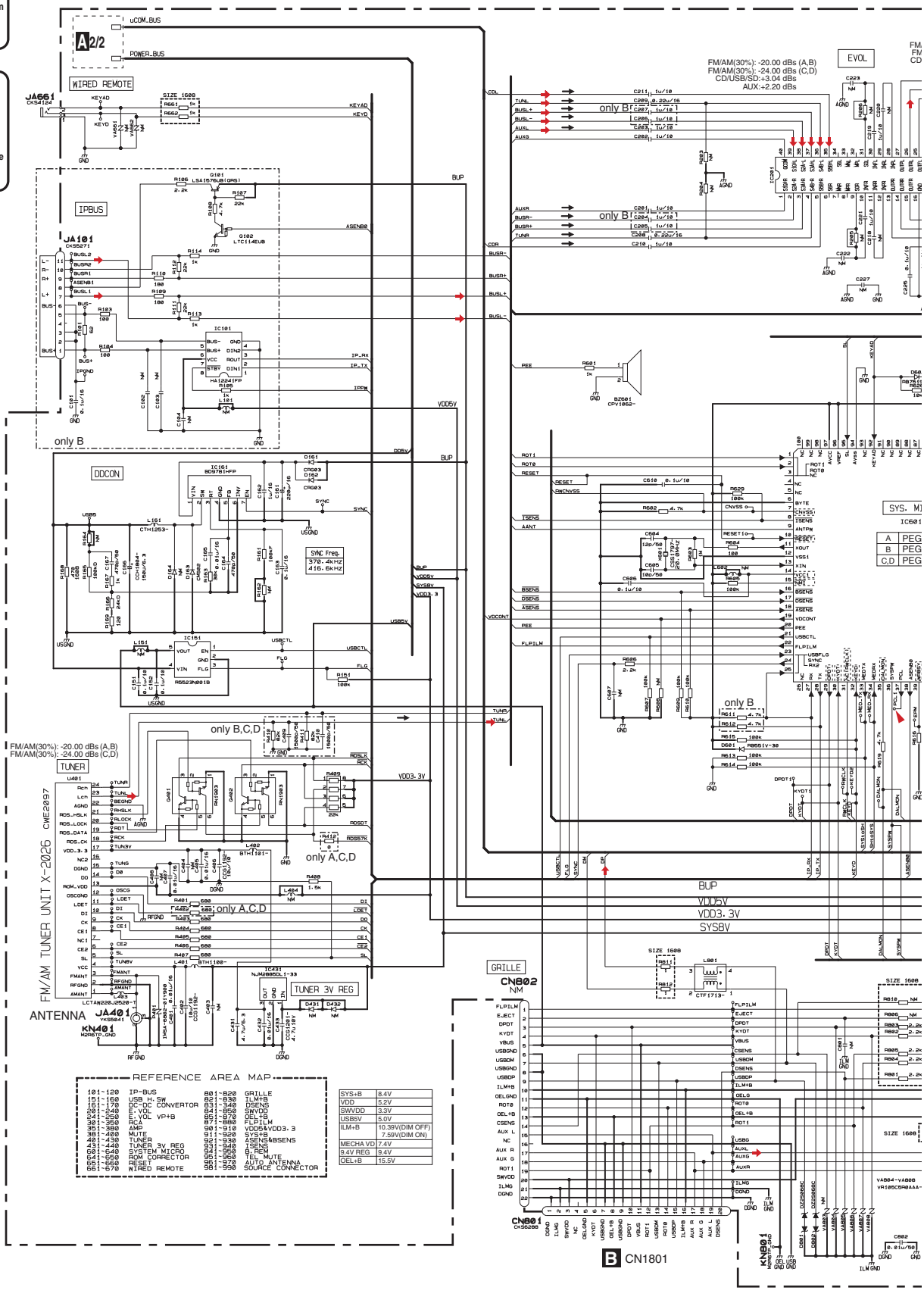
Mark	No.	Description	Part No.
	1	Screw	BMZ20P020FTC
	2	Screw	BSZ20P040FTC
	3	Screw(M2 x 4)	CBA1835
	4	Washer	CBF1038
	5	Spring	CBH3010
	6	Spring	CBH2855
	7	Spring	CBH2856
	8	Spring	CBH2860
	9	•••••	
	10	Spring	CBH3011
	11	Spring	CBH3012
	12	Spring	CBH3014
	13	Spring	CBH3015
	14	Spring	CBH3016
	15	Spring	CBH3017
	16	Spring	CBH3018
	17	Spring	CBH3019
	18	Spring	CBH3020
	19	Spring	CBL1797
	20	Pickup Unit(S10.5)(Service)	CXX1942
	21	Bracket	CND4553
	22	Arm	CND4555
	23	Frame	CND4557
	24	Frame	CND5217
	25	Lever	CND5398
	26	Sheet	CNN2280
	27	Rack	CNV8342
	28	Guide	CNW1171
	29	Roller	CNW1172
	30	Arm	CNW1173
	31	Arm	CNW1174
	32	Roller	CNW1175
	33	Lever	CNW1176
	34	Arm	CNW1177
	35	Arm	CNW1178
	36	Gear	CNW1180
	37	Gear	CNW1181
	38	Gear	CNW1182
	39	Gear	CNW1183
	40	Rack	CNW1184
	41	Gear	CNW1185
	42	Gear	CNW1186
	43	Gear	CNW1187
	44	Gear	CNW1188
	45	Clamper	CNW1190
	46	Arm	CNW1192
	47	Holder	CNW1193
	48	Holder	CNW1194
	49	Damper	CNW1197
	50	Damper	CNW1198
	51	Arm	CNW1726
	52	Motor Unit(M2)(LOAD/CRG)	CXC4026
	53	Screw Unit	CXC8894
	54	Arm Assy	CXC8896
	55	Washer	CBF1037
	56	Washer	CBF1038
	57	Arm	CND4554
	58	Collar	CNV6906
	59	Roller	CNW1196
	60	Gear Unit	CXC8893
	61	Washer	YE15FTC
	62	Chassis Unit	CXE1946
	63	Motor Unit(M1)(SPDL)	CXE2273
	64	Screw	JFZ20P025FTC
	65	Screw	JGZ17P022FTC
	66	Screw	IMS20P030FTC
	67	CD Core Unit (S11STD-DOUT)	CWX3774

10. SCHEMATIC DIAGRAM

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

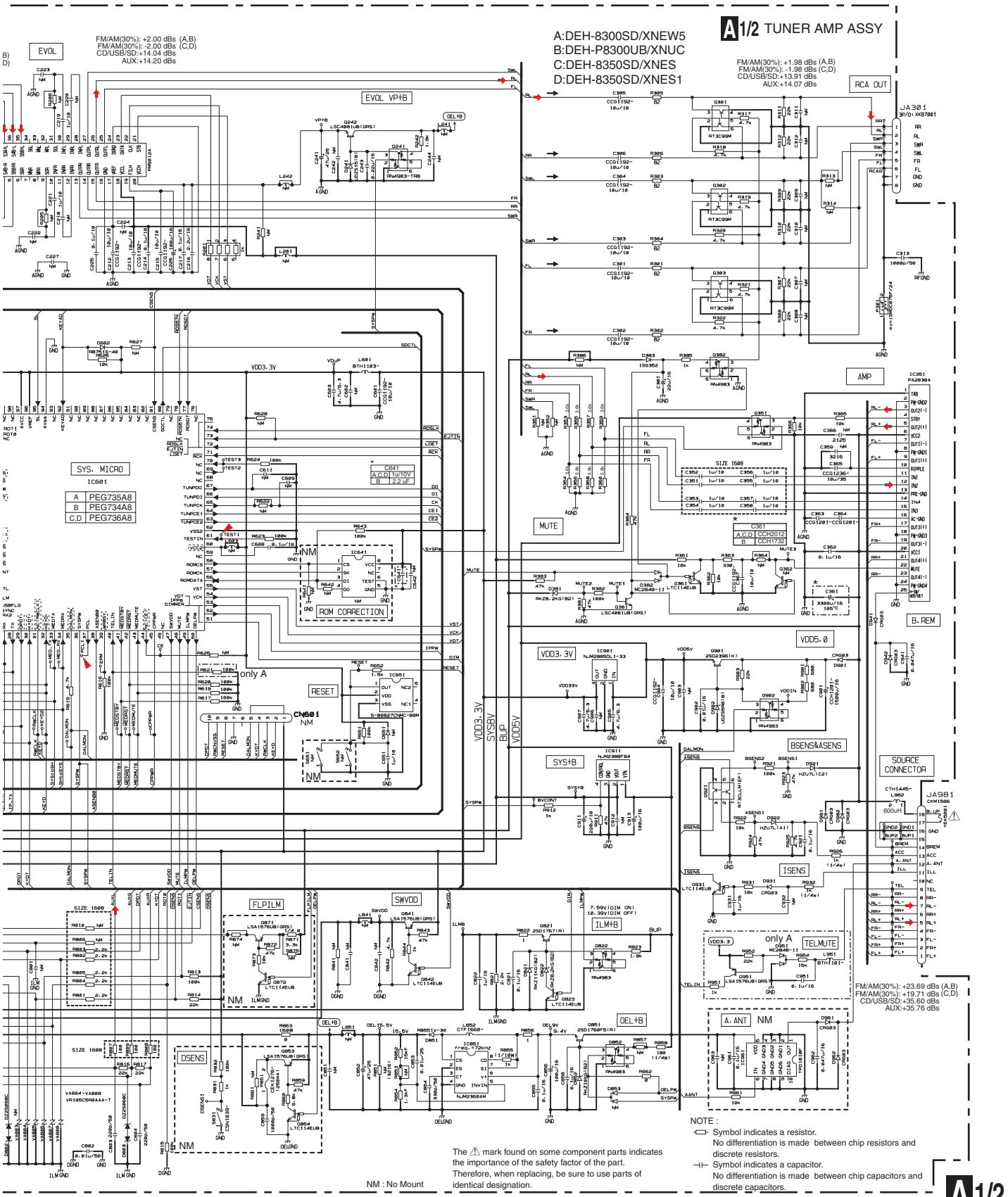
Note: When ordering service parts, be sure to refer to " EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".

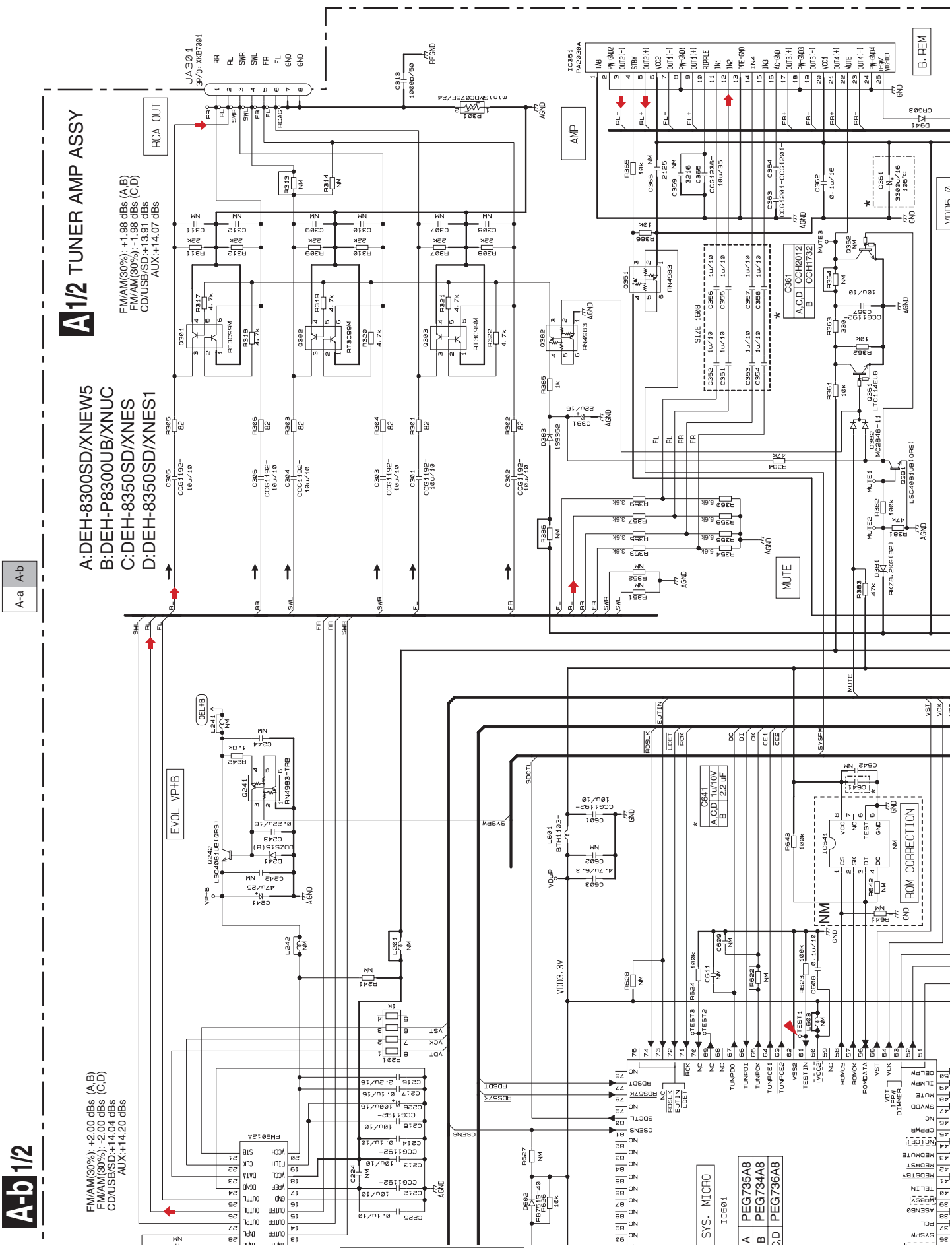


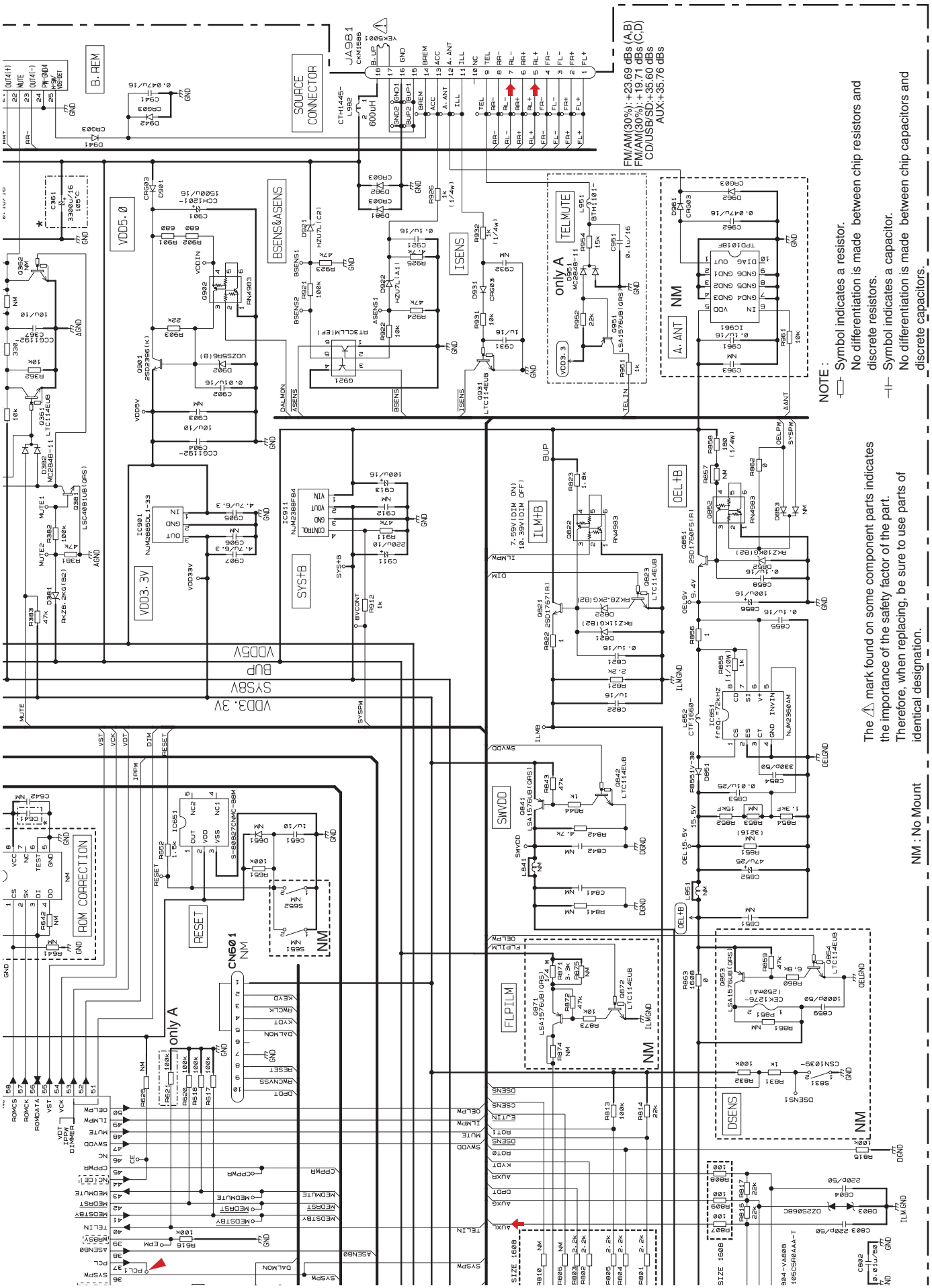


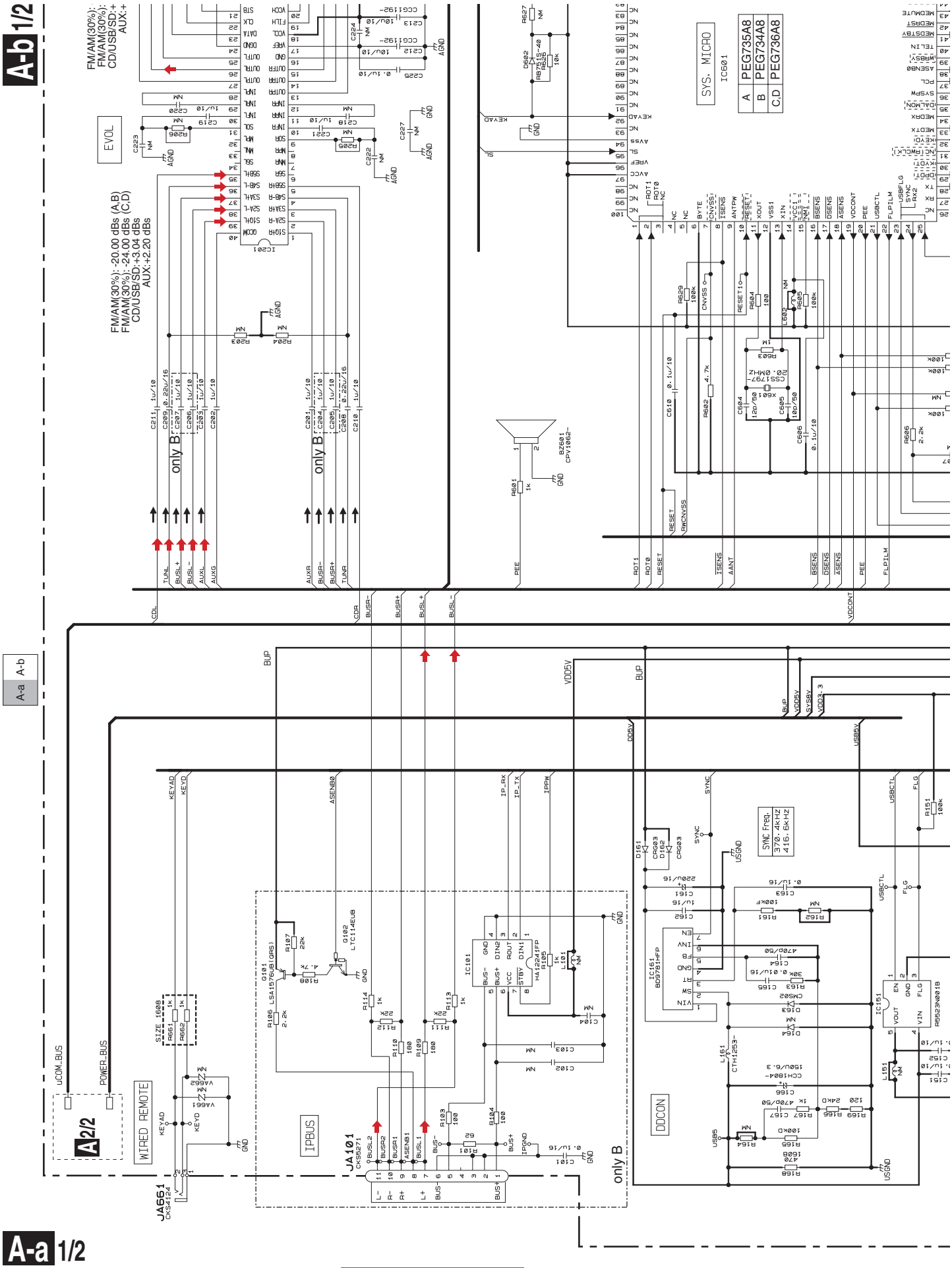
A 1/2

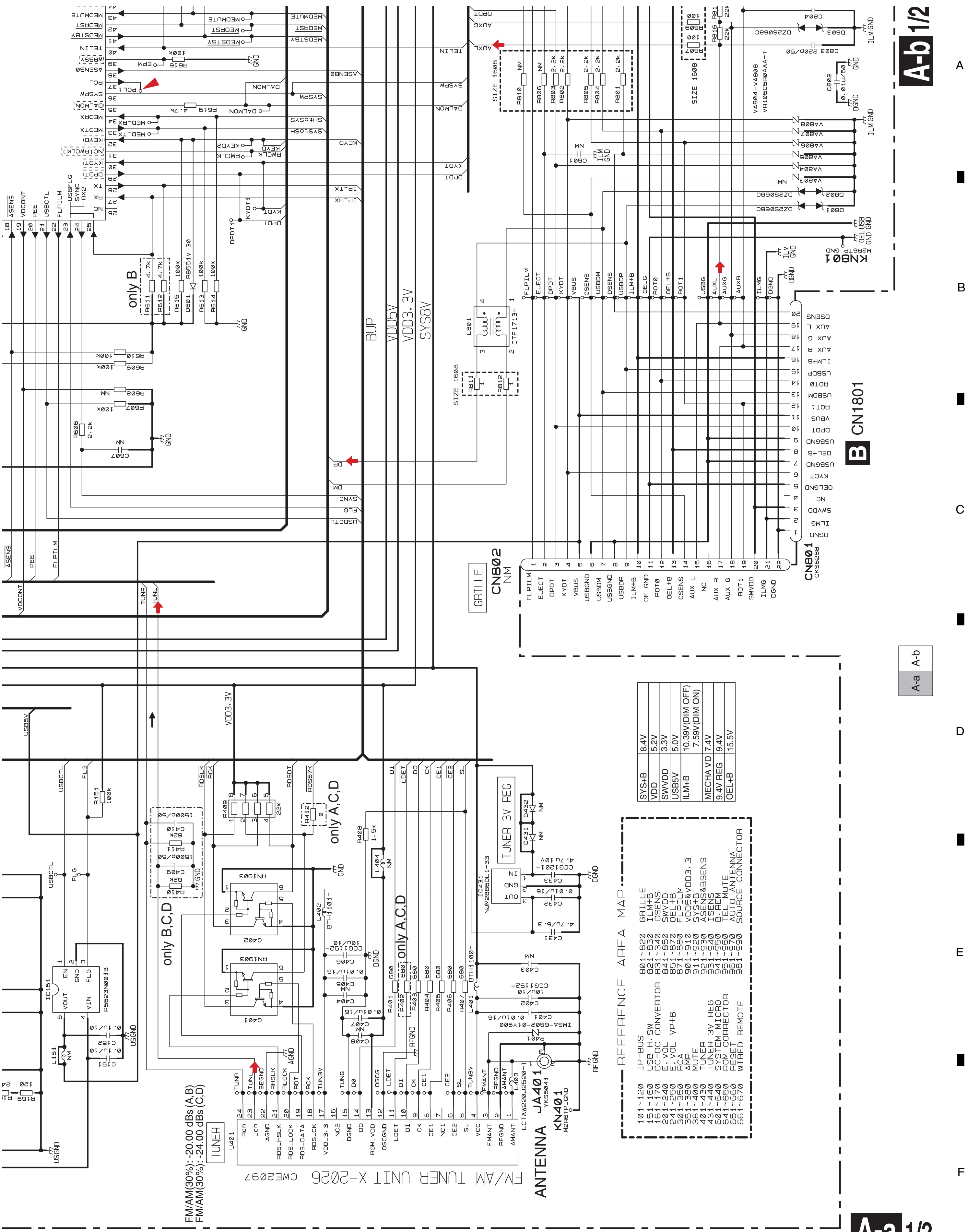
A-b 1/2


A1/2 TUNER AMP ASSY
A:DEH-8300SD/XNEW5
B:DEH-P8300UB/XNUC
C:DEH-8350SD/XNES
D:DEH-8350SD/XNES1
FM/AM(30%): +2.00 dBs (A,B)
FM/AM(30%): -2.00 dBs (C,D)
CD/USB/SD:+14.04 dBs
AUX:+14.20 dBs
FM/AM(30%): +1.98 dBs (A,B)
FM/AM(30%): -1.98 dBs (C,D)
CD/USB/SD:+13.91 dBs
AUX:+14.07 dBs
FM/AM(30%): +23.69 dBs (A,B)
FM/AM(30%): +19.71 dBs (C,D)
CD/USB/SD:+35.60 dBs
AUX:+35.76 dBs
EVOL
EVOL VP+B
RCA OUT
JA301
AMP
MUTE
SYS. MICRO
IC601
A PEG735A8
B PEG734A8
C,D PEG736A8
ROM CORRECTION
RESET
only A
VDD3.3V
VDD5.0
SYS+B
BSENS&ASENS
SOURCE CONNECTOR
JA981
FLPILM
SWVDD
ILM+B
TELMUTE
DSENS
A.ANT
NM
OEL+B
B.REM
ISENS
NOTE :
Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
NM : No Mount
A1/2

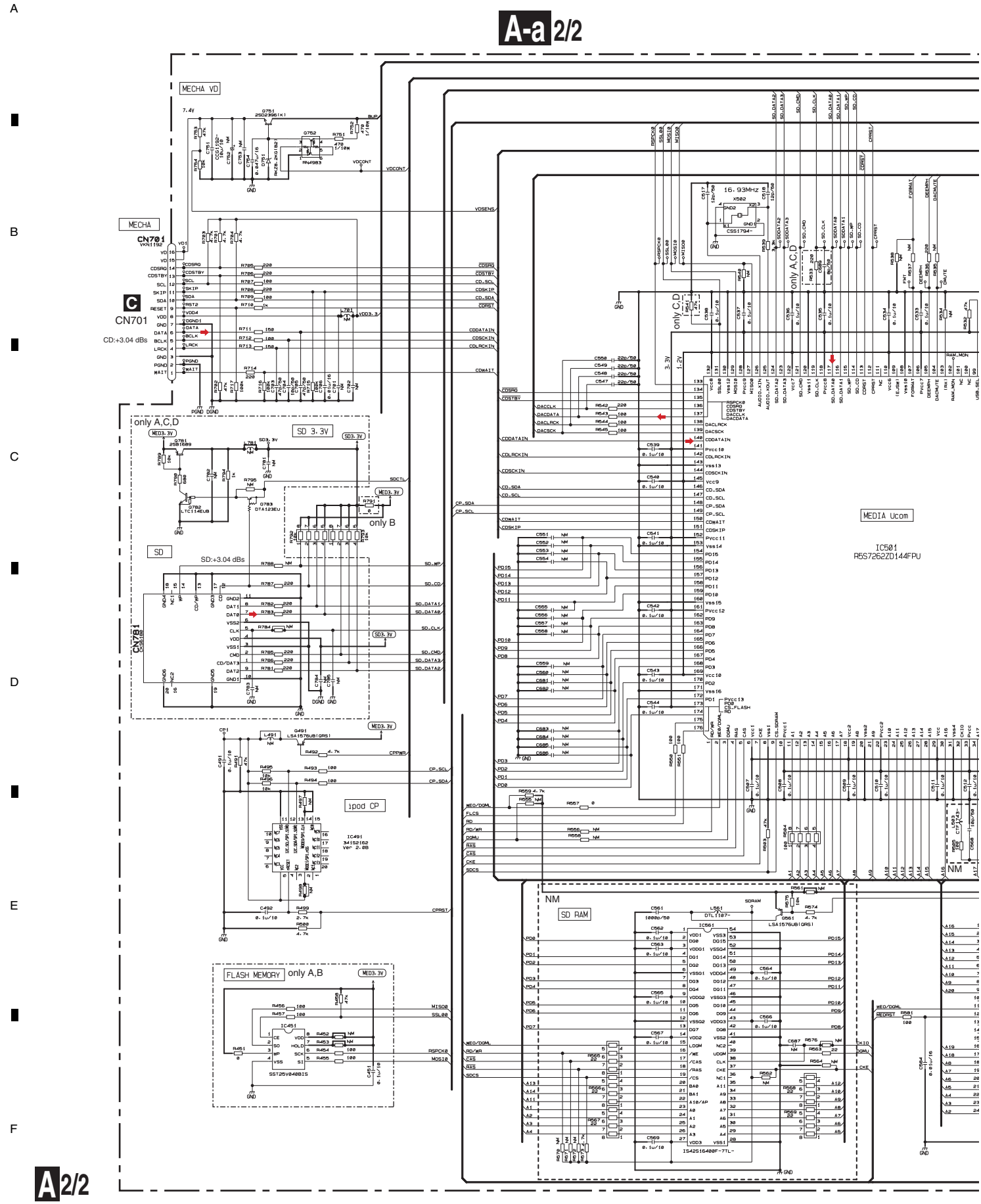

A1/2 TUNER AMP ASSY
A:DEH-8300SD/XNEW5
B:DEH-P8300UB/XNUC
C:DEH-8350SD/XNES
D:DEH-8350SD/XNES1
FM/AM(30%):+1.98 dBs (A,B)
FM/AM(30%):-1.98 dBs (C,D)
CD/USB/SD:+13.91 dBs
AUX:+14.07 dBs
RCA OUT
AMP
B.REM
MUTE
EVOL VP+B
SYS. MICRO
IC601
A PEG735A8
B PEG734A8
C,D PEG736A8
FM/AM(30%):+2.00 dBs (A,B)
FM/AM(30%):-2.00 dBs (C,D)
CD/USB/SD:+14.04 dBs
AUX:+14.20 dBs

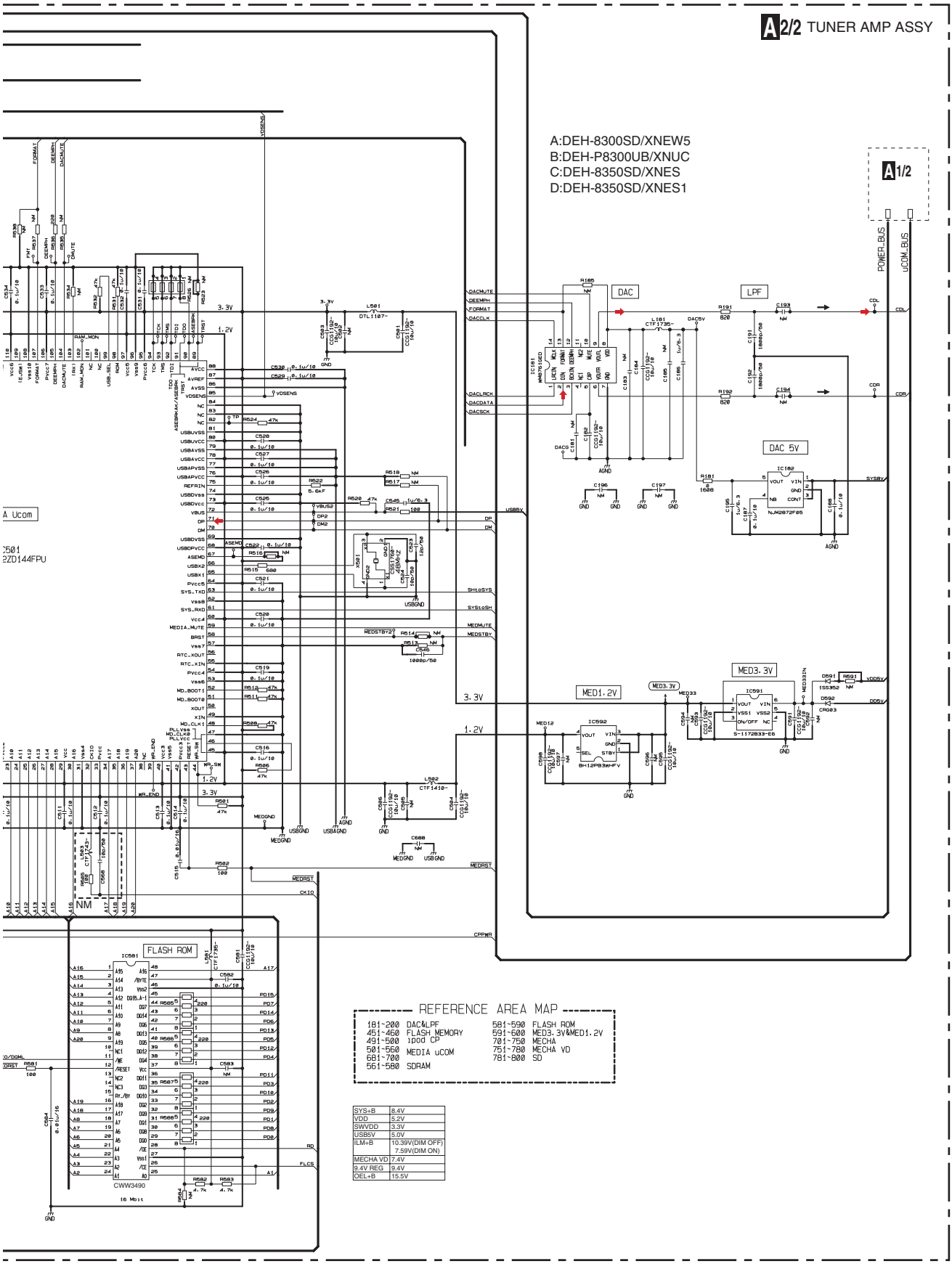

SOURCE CONNECTOR
FM/AM(30%):+23.69 dBs (A,B)
FM/AM(30%):+19.71 dBs (C,D)
CD/USB/SD:+35.60 dBs
AUX:+35.76 dBs
NOTE :
Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part.
Therefore, when replacing, be sure to use parts of identical designation.
NM : No Mount
VDD5.0
VDD3.3V
SYS8V
BUP
VDD5V
SYS+B
OEL+B
ILM+B
SWVDD
FLPILM
DSENS
ISENS
BSENS&ASENS
TELMUTE
A. ANT
ROM CORRECTION
RESET
CN601
only A
NM
A-a
A-b
A-b 1/2


SYS. MICRO
IC601
A PEG735A8
B PEG734A8
C,D PEG736A8
EVOL
FM/AM(30%): -20.00 dBs (A,B)
FM/AM(30%): -24.00 dBs (C,D)
CD/USB/SD: +3.04 dBs
AUX: +2.20 dBs
only B
WIRED REMOTE
IPBUS
DDCON
SYNC Freq.
370.4KHZ
416.6KHZ
JA101
JA661
A2/2
uCOM_BUS
POWER_BUS


A-b 1/2
A-a 1/2
B CN1801
CN801
KN801
GRILLE CN802 NM
FM/AM TUNER UNIT X-2026 CWE2097
TUNER U401
ANTENNA JA401
KN401
TUNER 3V REG
only B
only B,C,D
only A,C,D
BUP
VDD5V
VDD3.3V
SYS8V
FM/AM(30%):-20.00 dBs (A,B)
FM/AM(30%):-24.00 dBs (C,D)
SYS+B 8.4V
VDD 5.2V
SWVDD 3.3V
USB5V 5.0V
ILM+B 10.39V(DIM OFF) 7.59V(DIM ON)
MECHA VD 7.4V
9.4V REG 9.4V
OEL+B 15.5V
REFERENCE AREA MAP
101~120 IP-BUS
151~160 USB H.SW
161~170 DC-DC CONVERTOR
201~240 E.VOL
241~250 E.VOL VP+B
301~350 AMP
351~380 MUTE
381~400 TUNER
401~430 TUNER 3V REG
431~440 SYSTEM MICRO
601~640 ROM CORRECTOR
641~650 RESET
651~660 WIRED REMOTE
661~670
801~820 GRILLE
821~830 ILM+B
831~340 DSENS
841~850 SWVDD
851~870 OEL+B
871~900 FLPILM
901~910 VDD5&VDD3.3
911~920 SYS+B
921~930 ASENS&BSENS
931~940 ISENS
941~950 B.REM
951~960 TEL MUTE
961~970 AUTO ANTENNA
981~990 SOURCE CONNECTOR

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

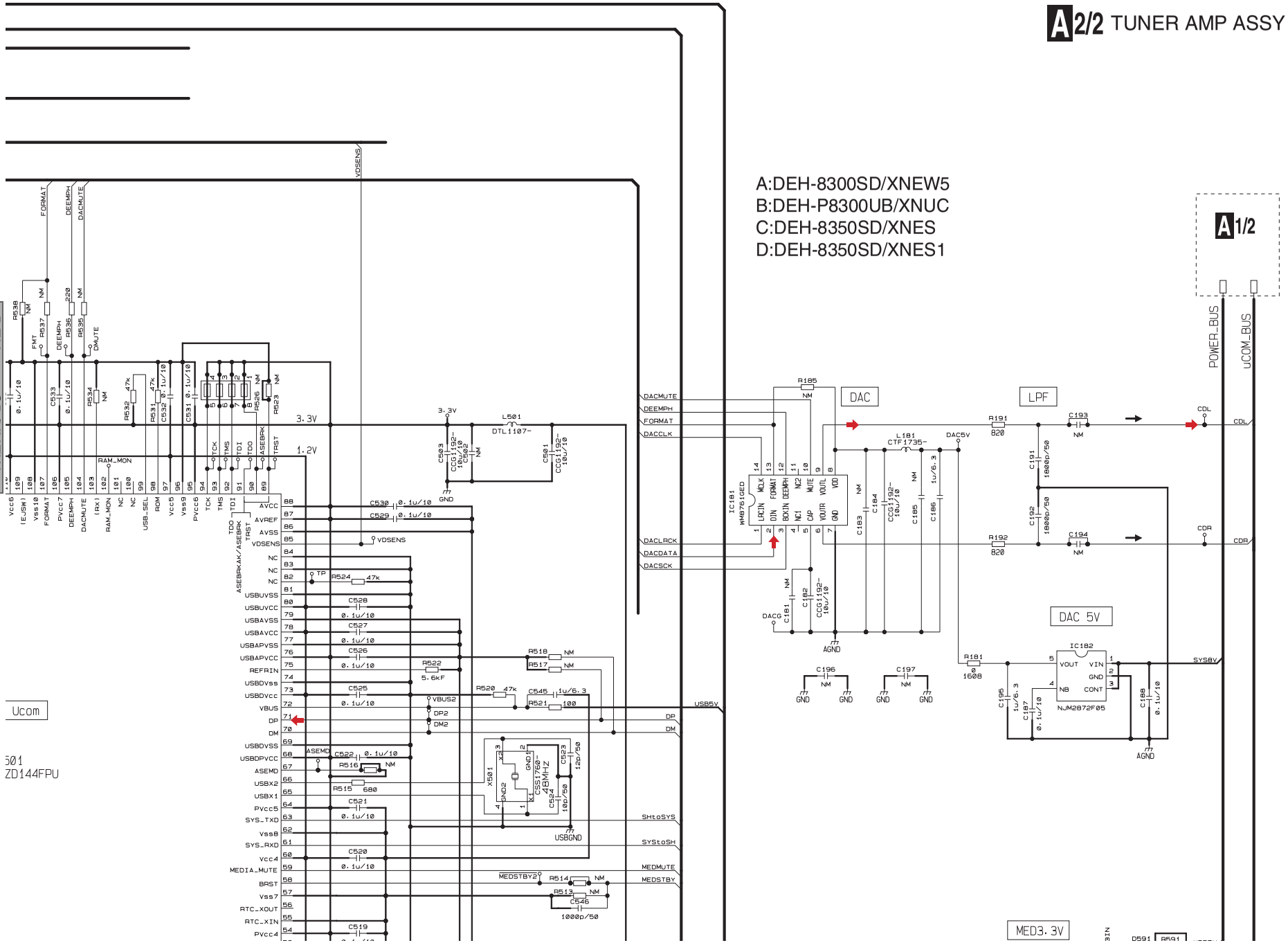


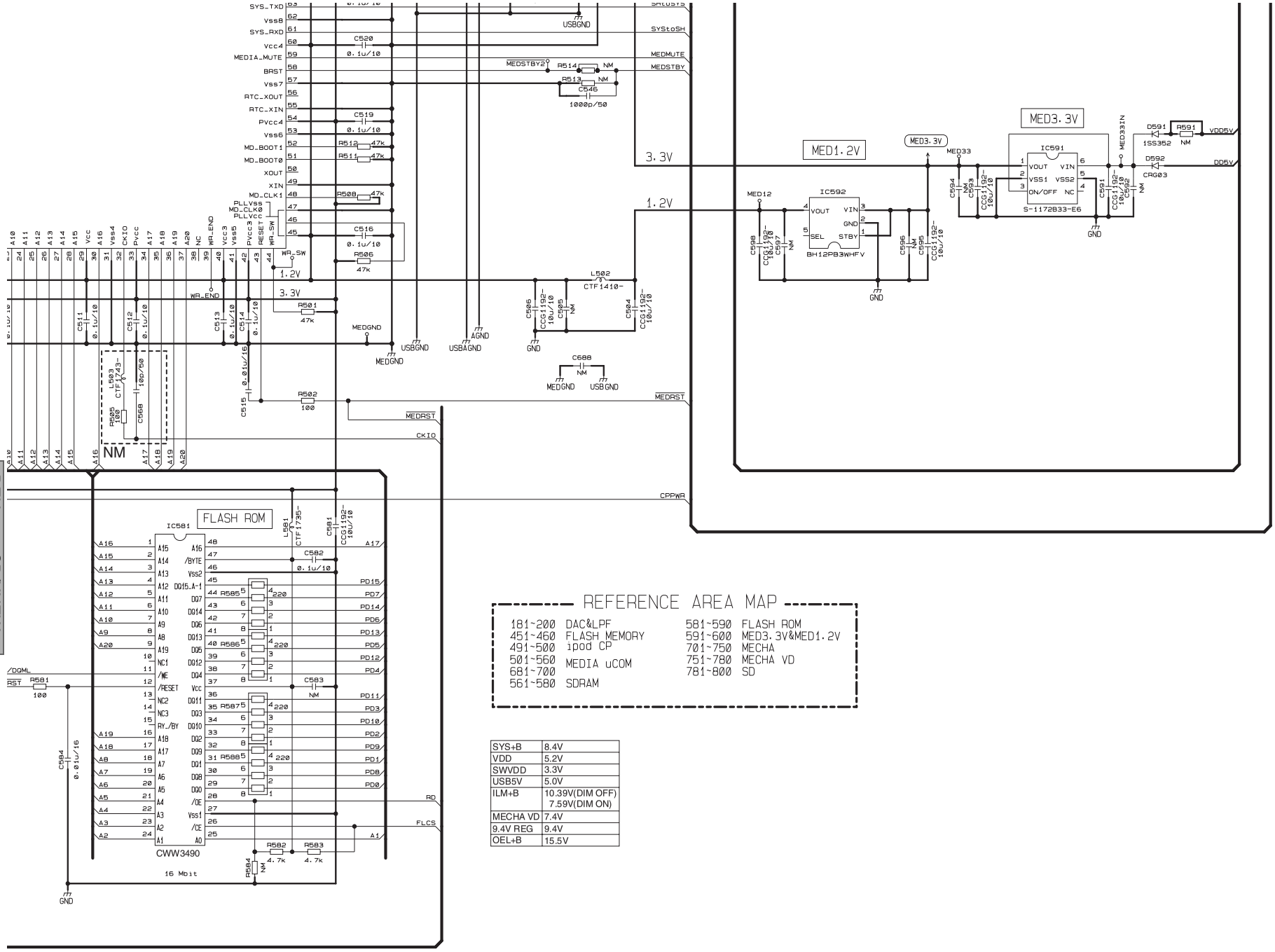

A2/2 TUNER AMP ASSY
A:DEH-8300SD/XNEW5
B:DEH-P8300UB/XNUC
C:DEH-8350SD/XNES
D:DEH-8350SD/XNES1
A1/2
POWER_BUS
UCOM_BUS
DAC
LPF
DAC 5V
MED1.2V
MED3.3V
FLASH ROM
REFERENCE AREA MAP
181~200 DAC&LPF
451~460 FLASH MEMORY
491~500 1POD CP
501~560 MEDIA uCOM
681~700
561~580 SDRAM
581~590 FLASH ROM
591~600 MED3.3V&MED1.2V
701~750 MECHA
751~780 MECHA VD
781~800 SD
SYS+B 8.4V
VDD 5.2V
SWVDD 3.3V
USBBV 5.0V
ILM+B 10.39V(DIM OFF) 7.59V(DIM ON)
MECHA VD 7.4V
9.4V REG 9.4V
OEL+B 15.5V

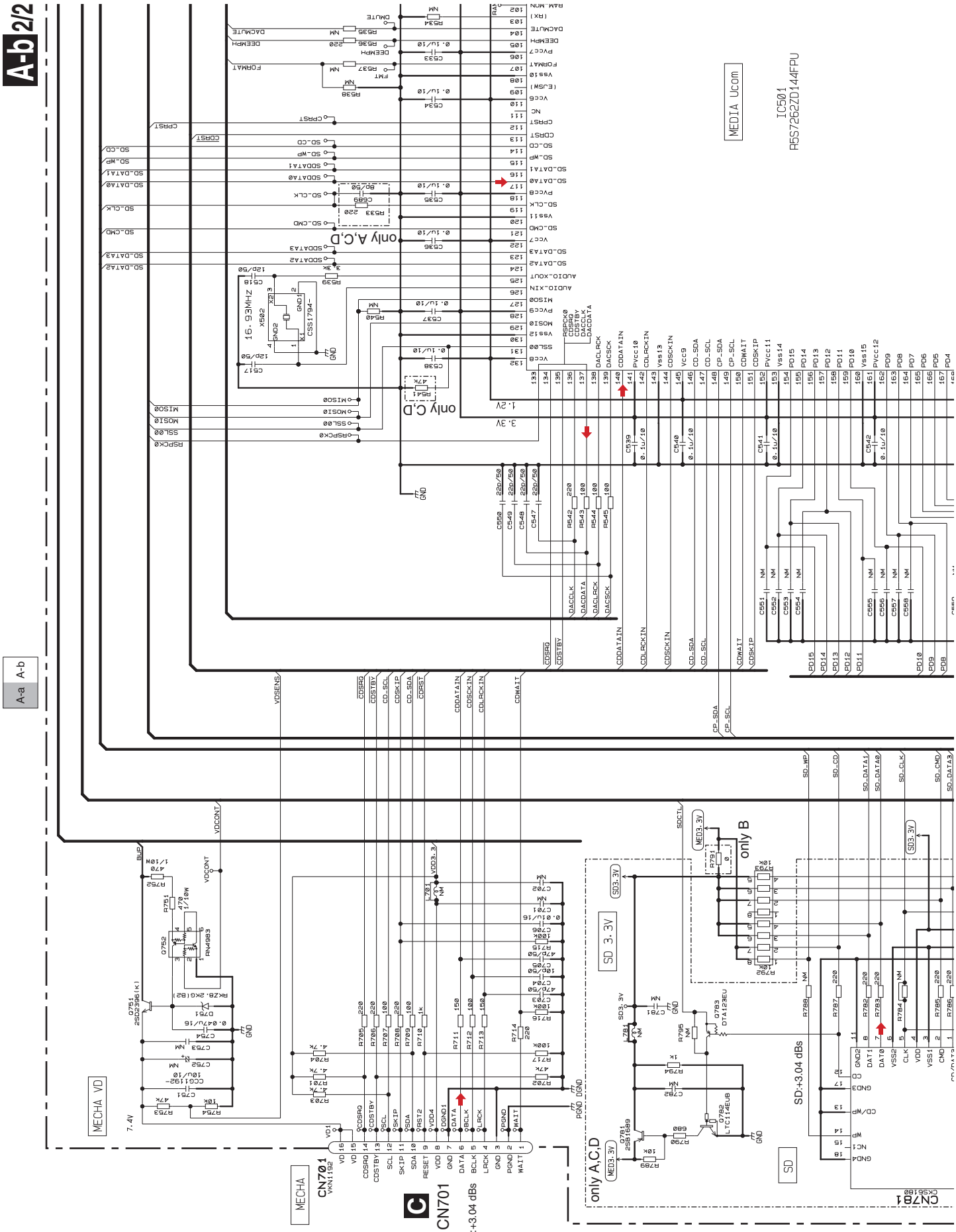
A2/2 TUNER AMP ASSY

A:DEH-8300SD/XNEW5
B:DEH-P8300UB/XNUC
C:DEH-8350SD/XNES
D:DEH-8350SD/XNES1

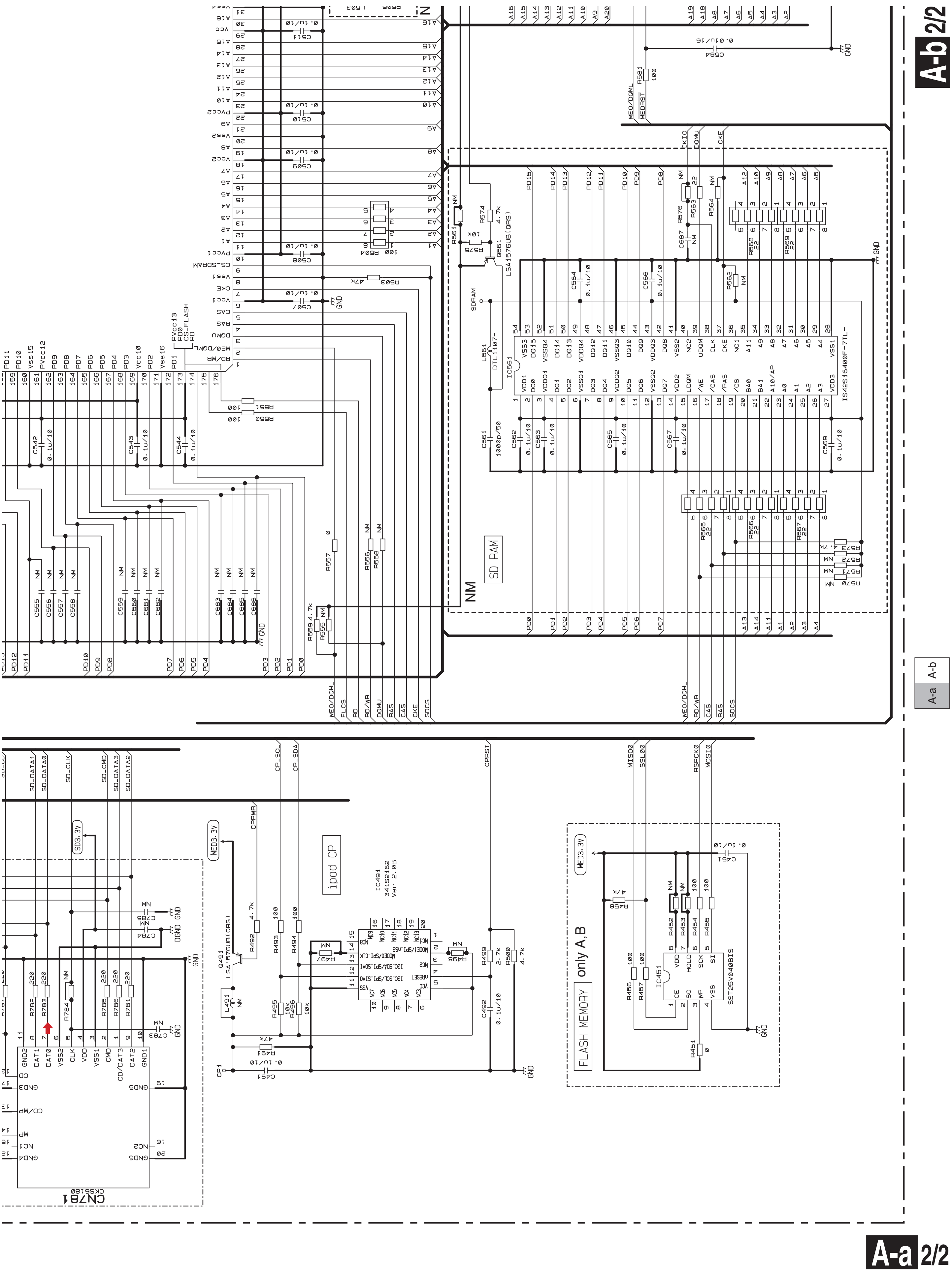
DEH-8300SD/XNEW5




FLASH ROM
IC581
CWW3490
16 Mbit
MED1.2V
MED3.3V
IC592
BH12PB3WHFV
IC591
S-1172B33-E6
3.3V
1.2V
NM
REFERENCE AREA MAP
181~200 DAC&LPF
451~460 FLASH MEMORY
491~500 ipod CP
501~560 MEDIA uCOM
681~700
561~580 SDRAM
581~590 FLASH ROM
591~600 MED3.3V&MED1.2V
701~750 MECHA
751~780 MECHA VD
781~800 SD
SYS+B 8.4V
VDD 5.2V
SWVDD 3.3V
USB5V 5.0V
ILM+B 10.39V(DIM OFF) 7.59V(DIM ON)
MECHA VD 7.4V
9.4V REG 9.4V
OEL+B 15.5V


MEDIA Ucom
IC501
RS5726ZD144FPU
only A,C,D
only C,D
only B
only A,C,D
MECHA VD
MECHA
CN701
CN7801
SD
SD 3. 3V
SD:+3.04 dBs
CD:+3.04 dBs

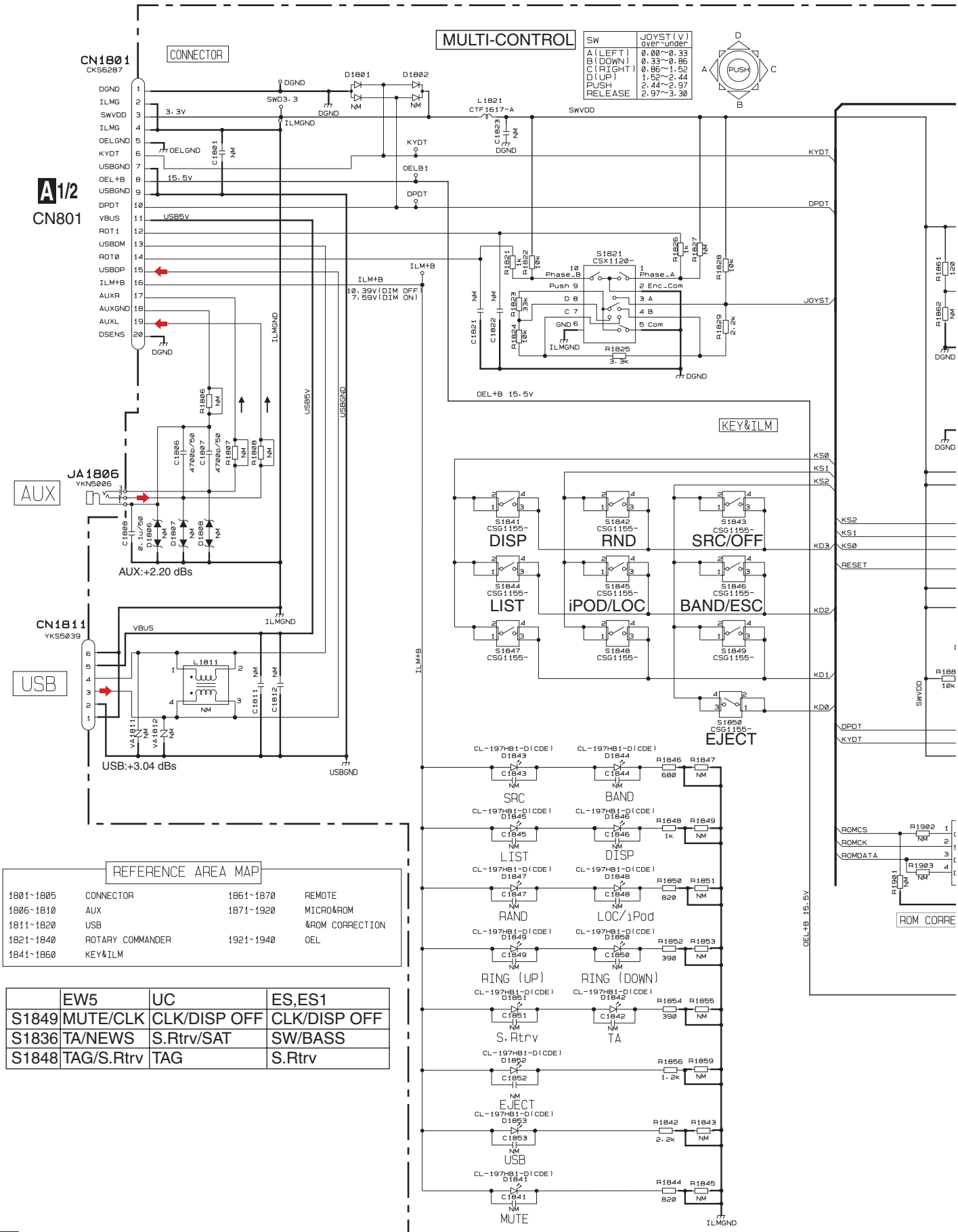
A-a A-b



A-b 2/2
SD RAM
IC561
IS42S16400F-7TL-
NM
ipod CP
IC491
341S2162
Ver 2.0B
FLASH MEMORY
only A,B
IC451
SST25V040BIS
CN781
CKS6180
A-a
A-b
A-a 2/2

A B C D E F

10.3 KEYBOARD UNIT

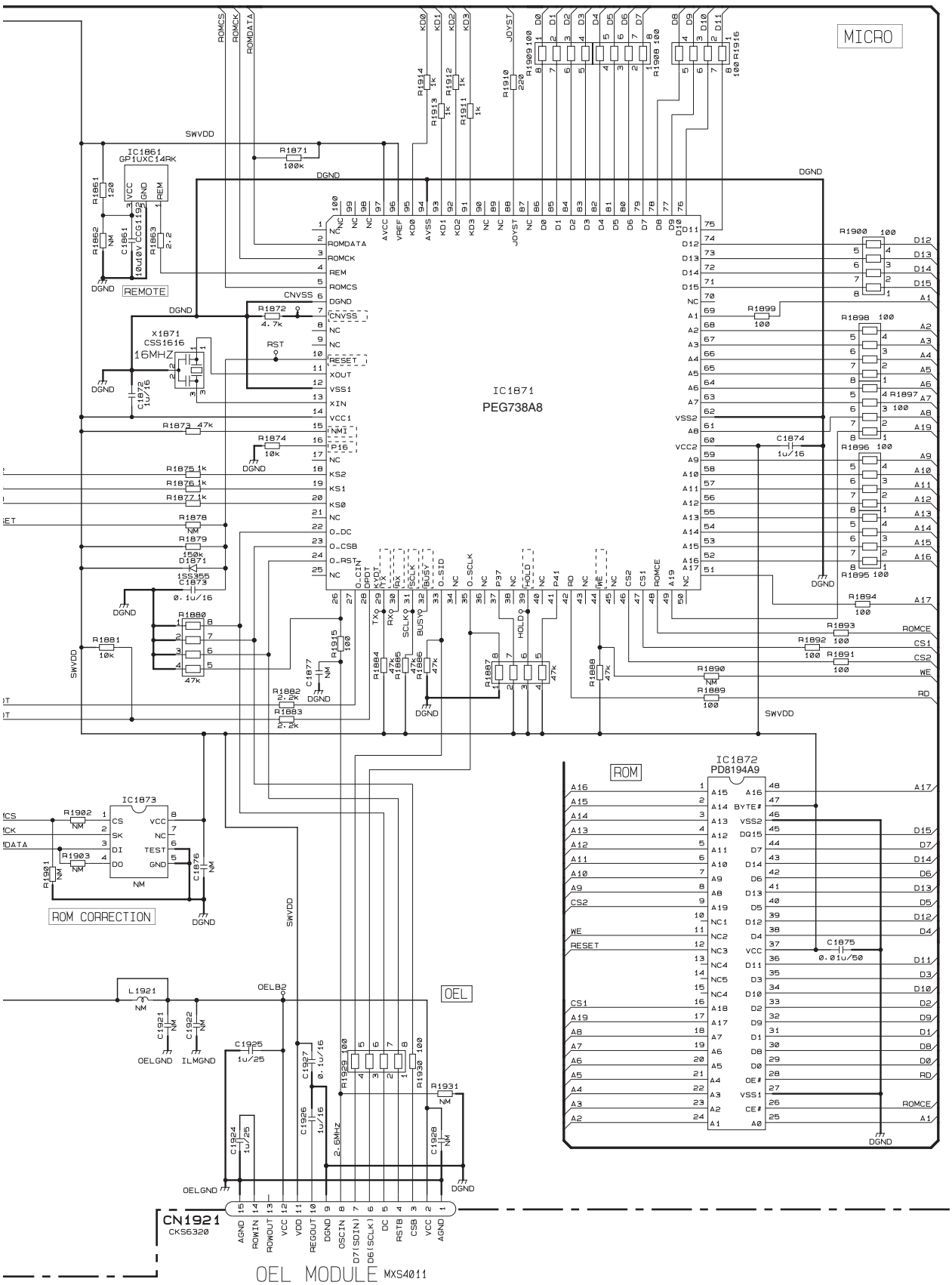


SW	JOYST(V) over-under
A(LEFT)	0.00~0.33
B(DOWN)	0.33~0.86
C(RIGHT)	0.86~1.52
D(UP)	1.52~2.44
PUSH	2.44~2.97
RELEASE	2.97~3.30

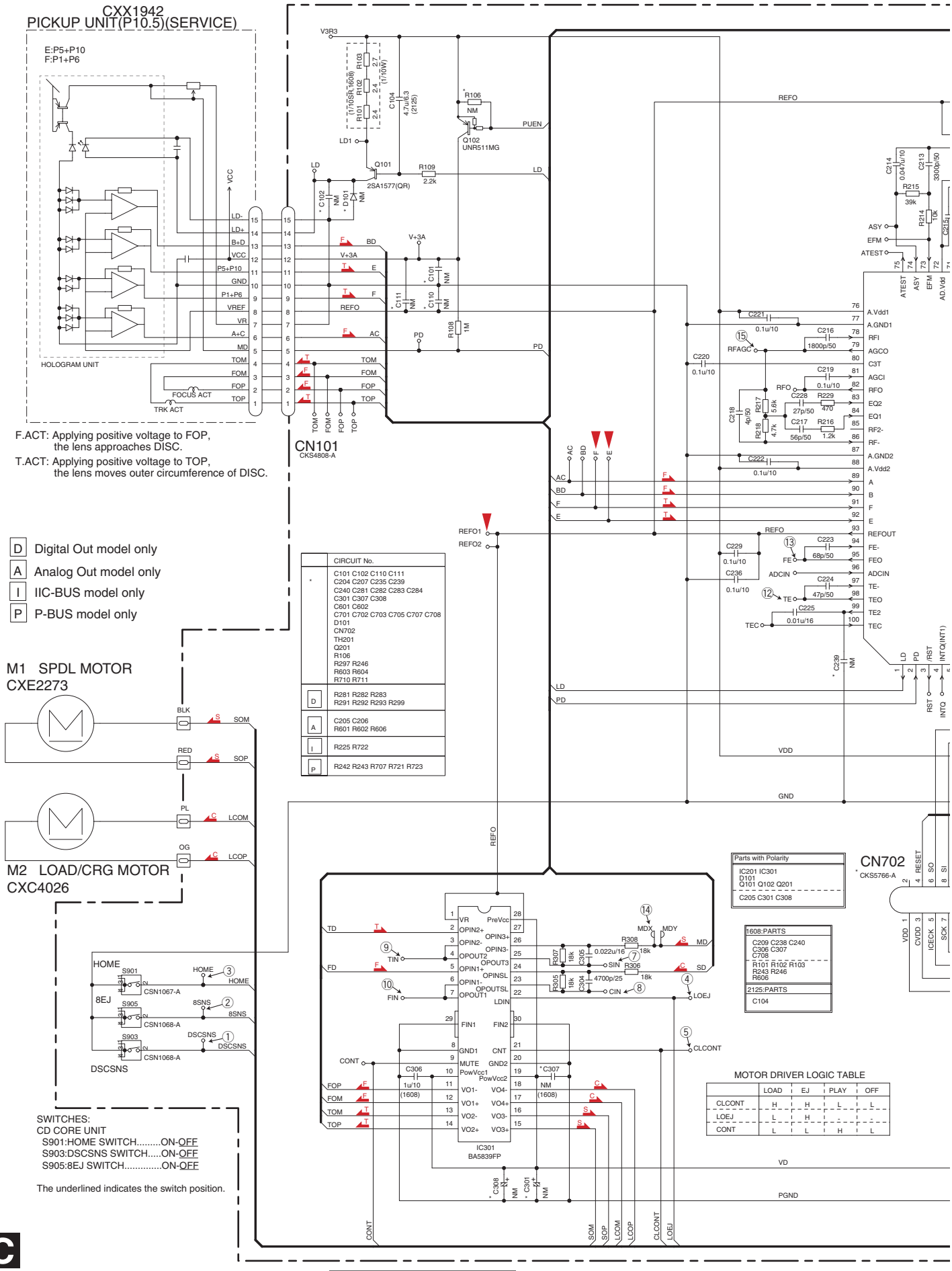
REFERENCE AREA MAP

1801~1805	CONNECTOR	1861~1870	REMOTE
1806~1810	AUX	1871~1920	MICRO&ROM
1811~1820	USB		&ROM CORRECTION
1821~1840	ROTARY COMMANDER	1921~1940	OEL
1841~1860	KEY&ILM		

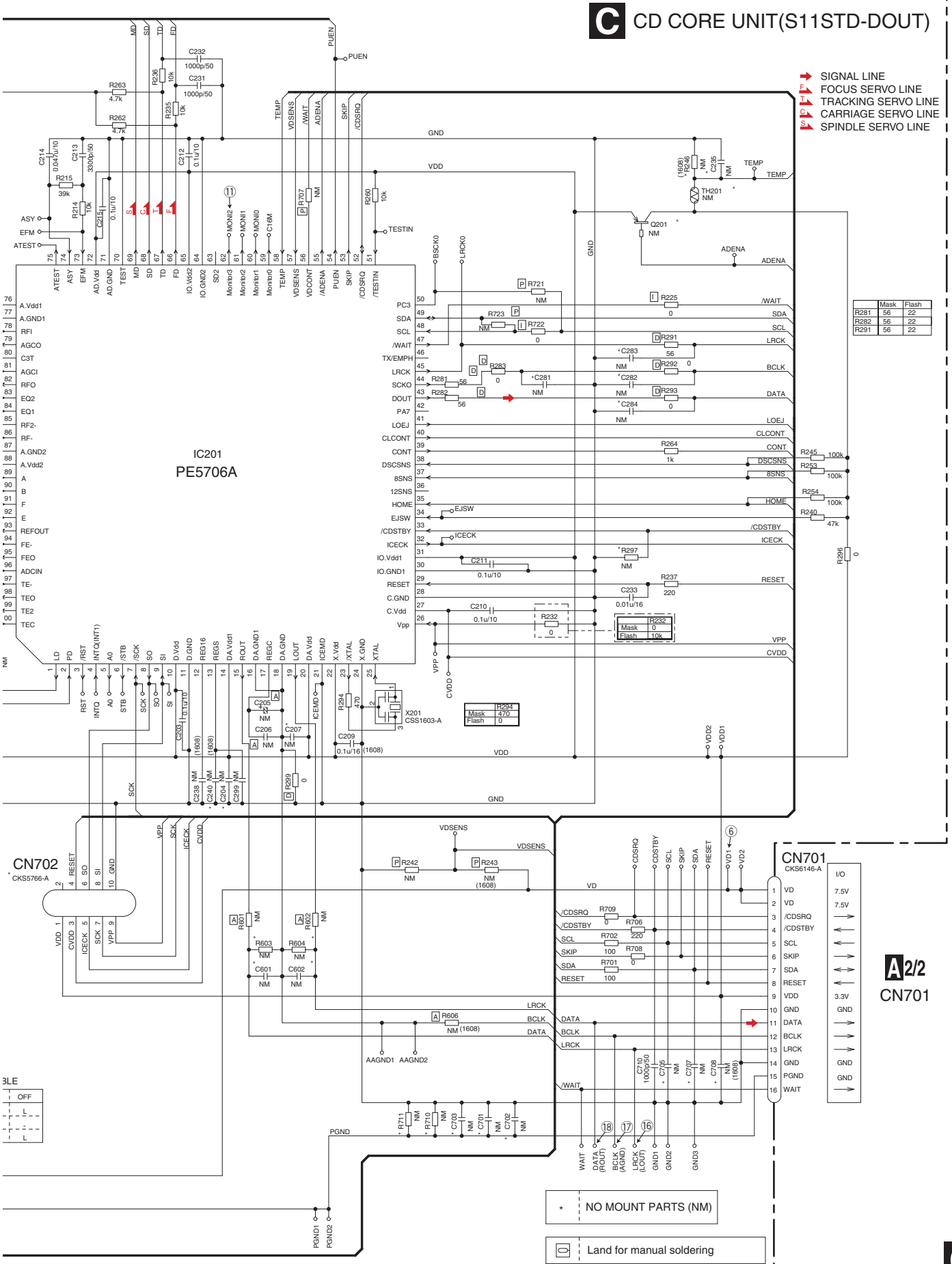
	EW5	UC	ES,ES1
S1849	MUTE/CLK	CLK/DISP OFF	CLK/DISP OFF
S1836	TA/NEWS	S.Rtrv/SAT	SW/BASS
S1848	TAG/S.Rtrv	TAG	S.Rtrv


MICRO
IC1871
PEG738A8
REMOTE
ROM CORRECTION
ROM
IC1872
PD8194A9
OEL
OEL MODULE MXS4011
CN1921
CKS6320
SWVDD
DGND

10.4 CD CORE UNIT (S11STD-DOUT)



C CD CORE UNIT(S11STD-DOUT)



	Mask	Flash
R281	56	22
R282	56	22
R291	56	22

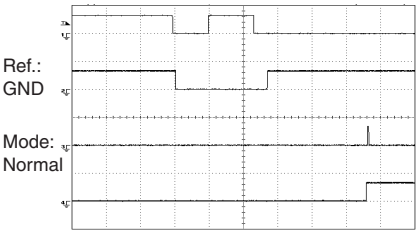
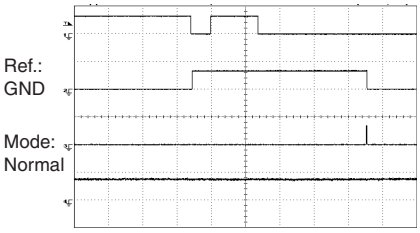
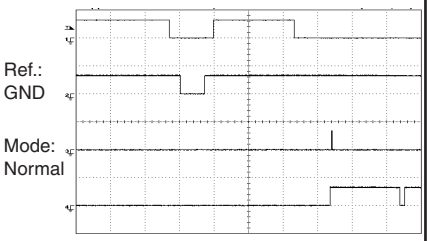
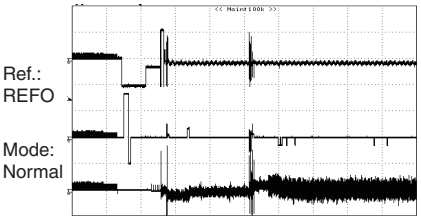
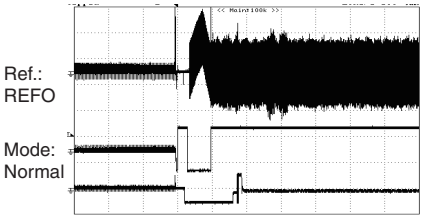
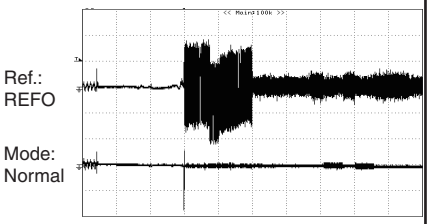
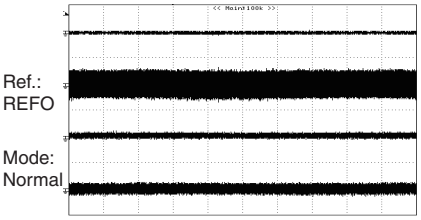
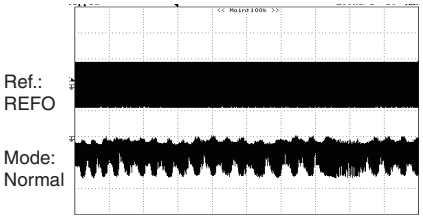
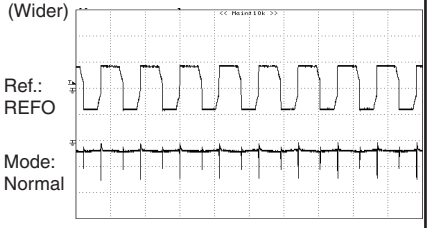
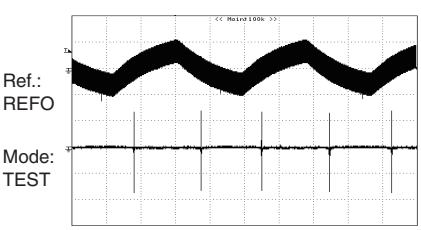
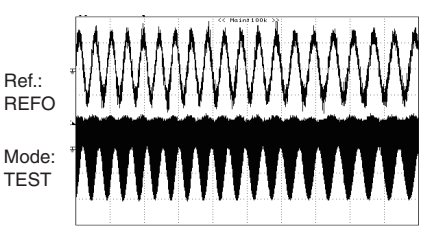
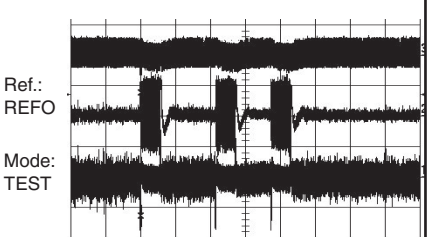
	R294
Mask	470
Flash	0

	R232
Mask	0
Flash	10k

10.5 WAVEFORMS

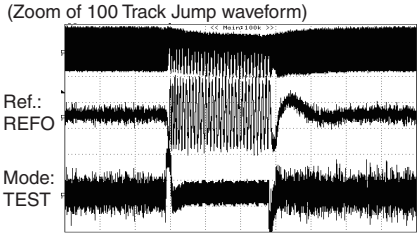
● **Waveforms**

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

①DSCSNS 5 V/div 500 ms/div ②8SNS 5 V/div ④LOEJ 5 V/div ③HOME 5 V/div 12 cm CD Loading operation  	①DSCSNS 5 V/div 500 ms/div ⑤CLCONT 5 V/div ④LOEJ 5 V/div ⑥VD 10 V/div 12 cm CD Loading operation  	①DSCSNS 5 V/div 500 ms/div ②8SNS 5 V/div ④LOEJ 5 V/div ③HOME 5 V/div 8 cm CD Loading operation 
⑦SIN 1 V/div 2 s/div ⑧CIN 500 mV/div ⑨TIN 500 mV/div 12 cm CD-DA setup operation after loading  	⑩FIN 200 mV/div 500 ms/div ⑪RFOK(MONI_3) 2 V/div ⑦SIN 2 V/div 12 cm CD-DA Source On setup operation  	⑫TE 500 mV/div 200 ms/div ⑬FE 500 mV/div Source On setup operation 
⑬FE 500 mV/div 20 ms/div ⑩FIN 500 mV/div ⑫TE 500 mV/div ⑨TIN 500 mV/div CD-DA Play operation  	⑭MDX 2 V/div 50 ms/div ⑦SIN 500 mV/div Spindle waveform during play operation  	⑭MDX 2 V/div 5 µs/div ⑦SIN 500 mV/div Spindle waveform during play operation (Wider) 
⑩FIN 500 mV/div 200 ms/div ⑬FE 500 mV/div Focus Search waveform  	⑫TE 500 mV/div 2 ms/div ⑮RFAGC 500 mV/div Track Open waveform  	⑮RFAGC 1 V/div 500 µs/div ⑫TE 500 mV/div ⑨TIN 500 mV/div 100 Track Jump waveform (32 Track Jump x 3) 

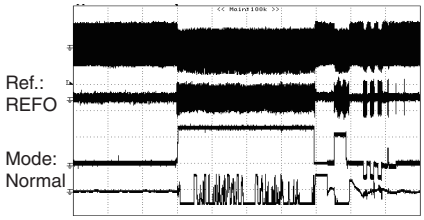
⑮RFAGC	1 V/div	2 ms/div
⑫TE	500 mV/div	
⑨TIN	500 mV/div	

32 Tracks Jump waveform
(Zoom of 100 Track Jump waveform)



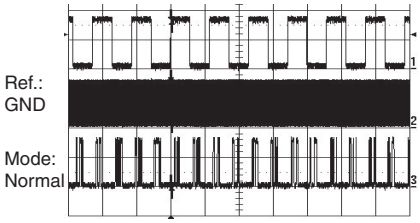
⑮RFAGC	1 V/div	200 ms/div
⑫TE	1 V/div	
⑧CIN	500 mV/div	
⑦SIN	2 V/div	

Search operation(Outter to Inner)



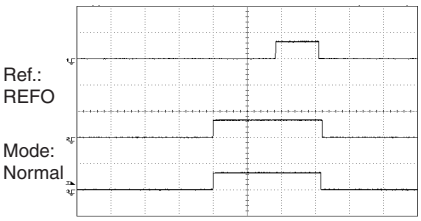
⑯LRCK	2 V/div	10 μs/div
⑰BCLK	2 V/div	
⑱DATA	2 V/div	

Digital Out waveform



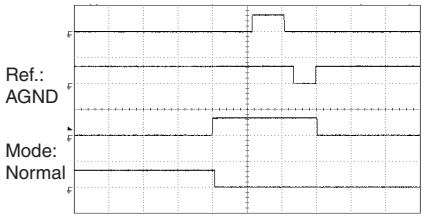
①DSCSNS	5 V/div	500 ms/div
⑤CLCONT	5 V/div	
④LOEJ	5 V/div	

12 cm CD Eject operation



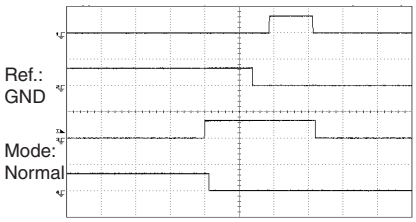
①DSCSNS	5 V/div	500 ms/div
②8SNS	5 V/div	
④LOEJ	5 V/div	
③HOME	5 V/div	

8 cm CD Eject operation



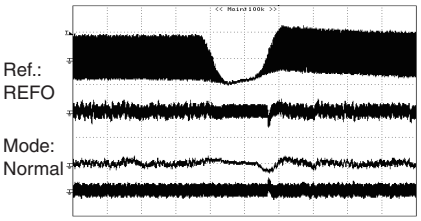
①DSCSNS	5 V/div	500 ms/div
②8SNS	5 V/div	
④LOEJ	5 V/div	
③HOME	5 V/div	

12 cm CD Eject operation



⑮RFAGC	1 V/div	500 μs/div
⑨TIN	1 V/div	
⑫TE	1 V/div	
⑩FIN	1 V/div	

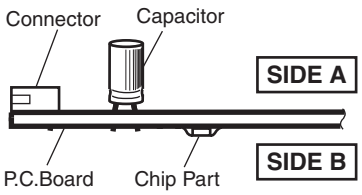
Black Dot (800 μm) during play



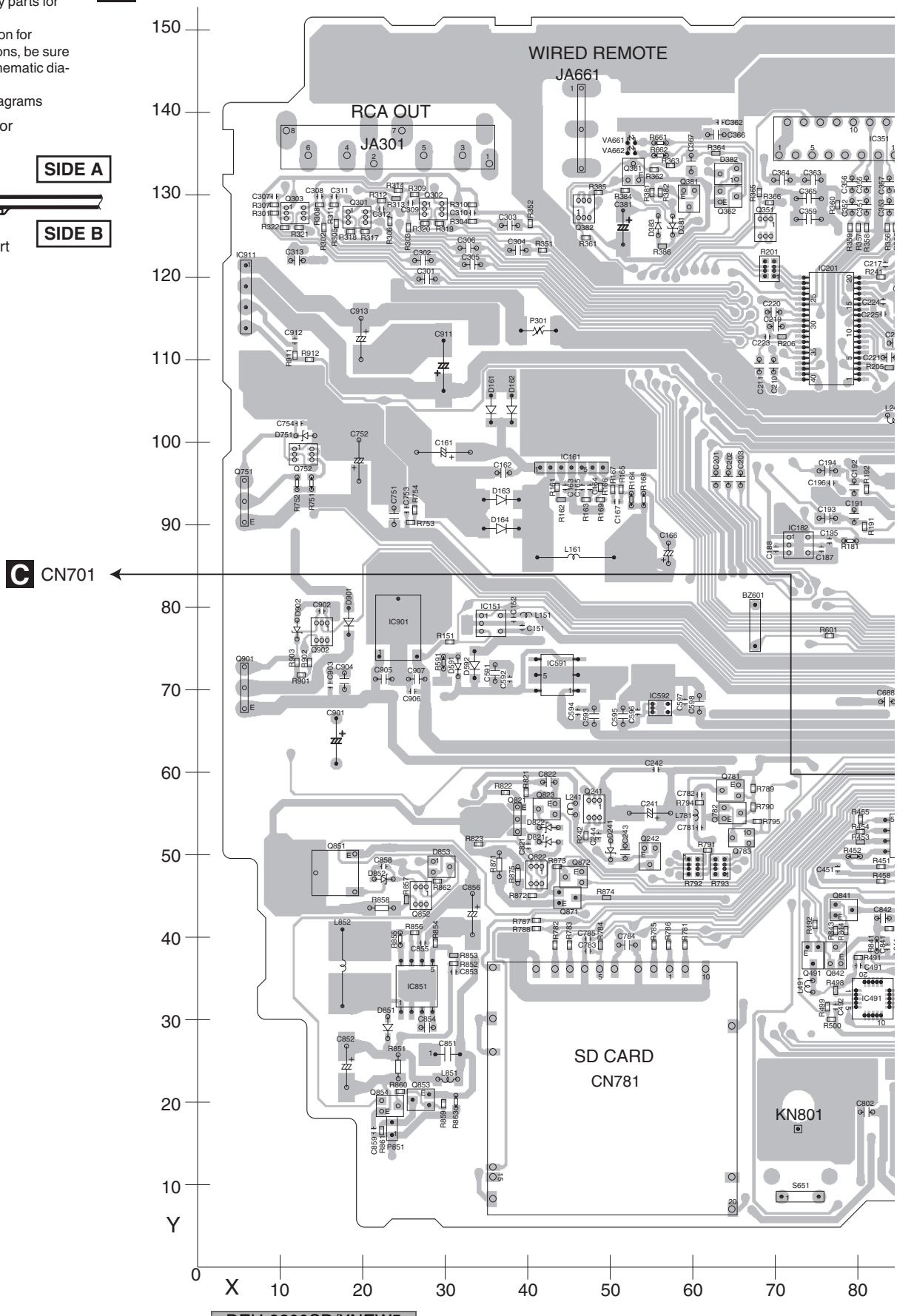
11. PCB CONNECTION DIAGRAM
11.1 TUNER AMP ASSY

NOTE FOR PCB DIAGRAMS

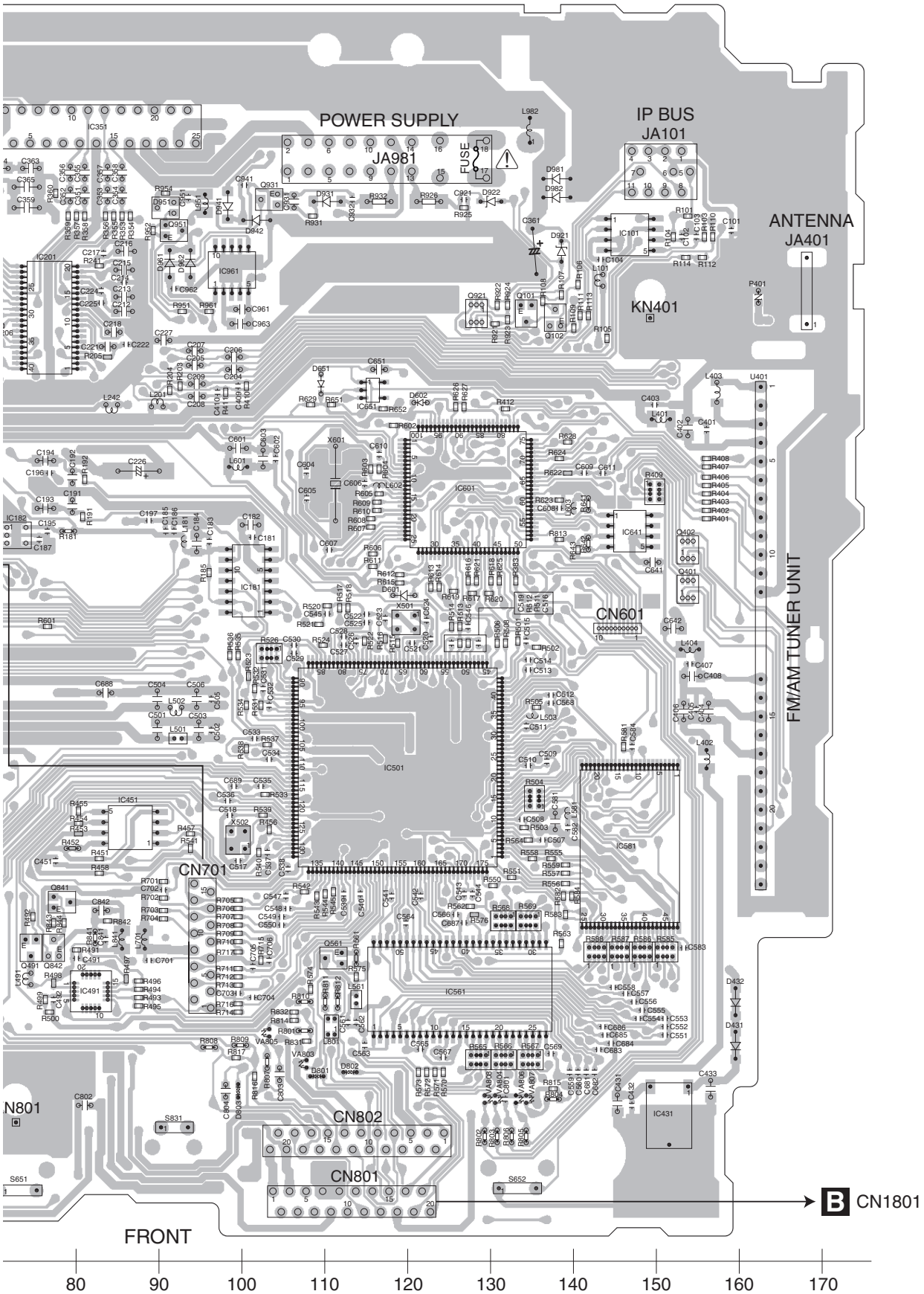
1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams



A TUNER AMP ASSY

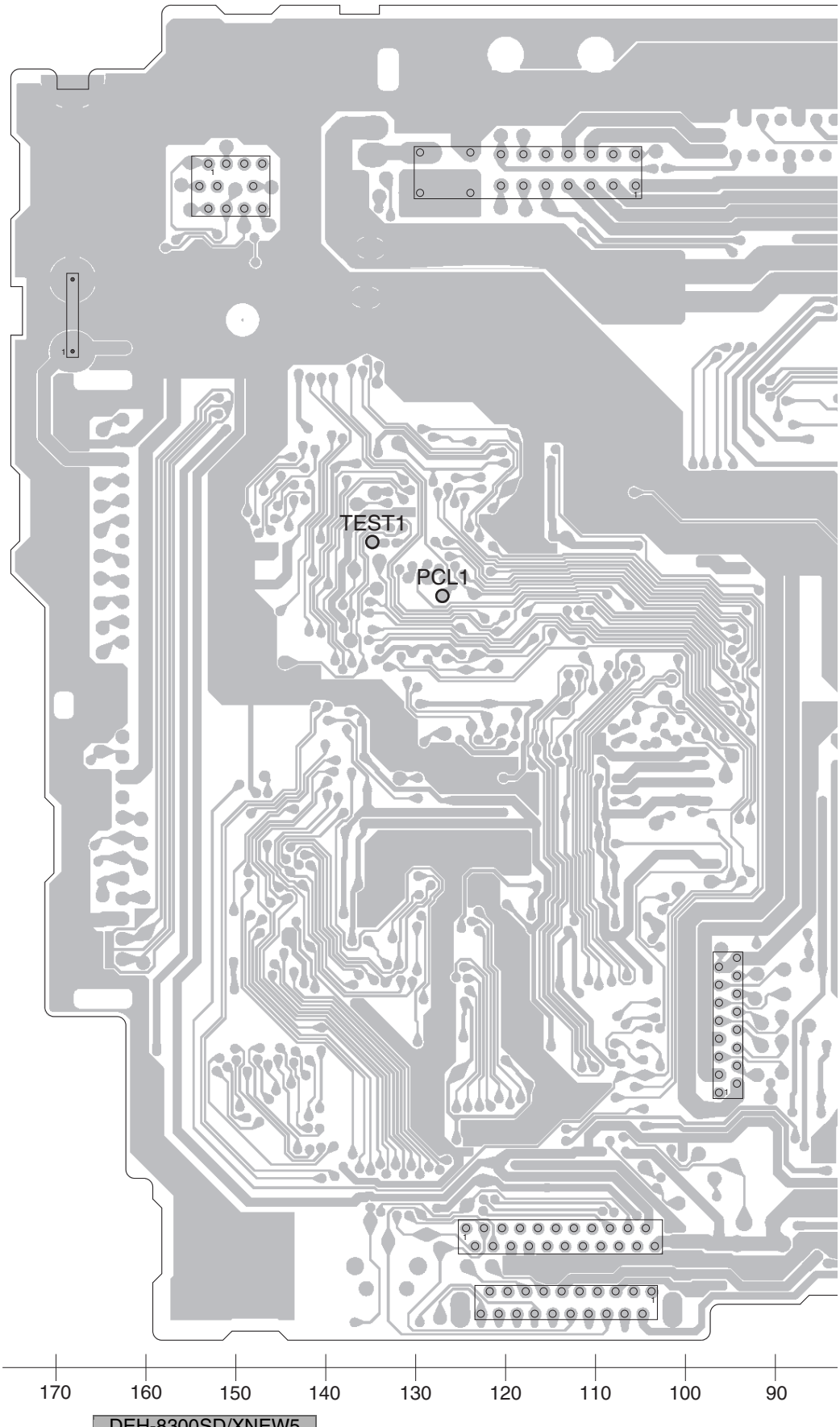


SIDE A

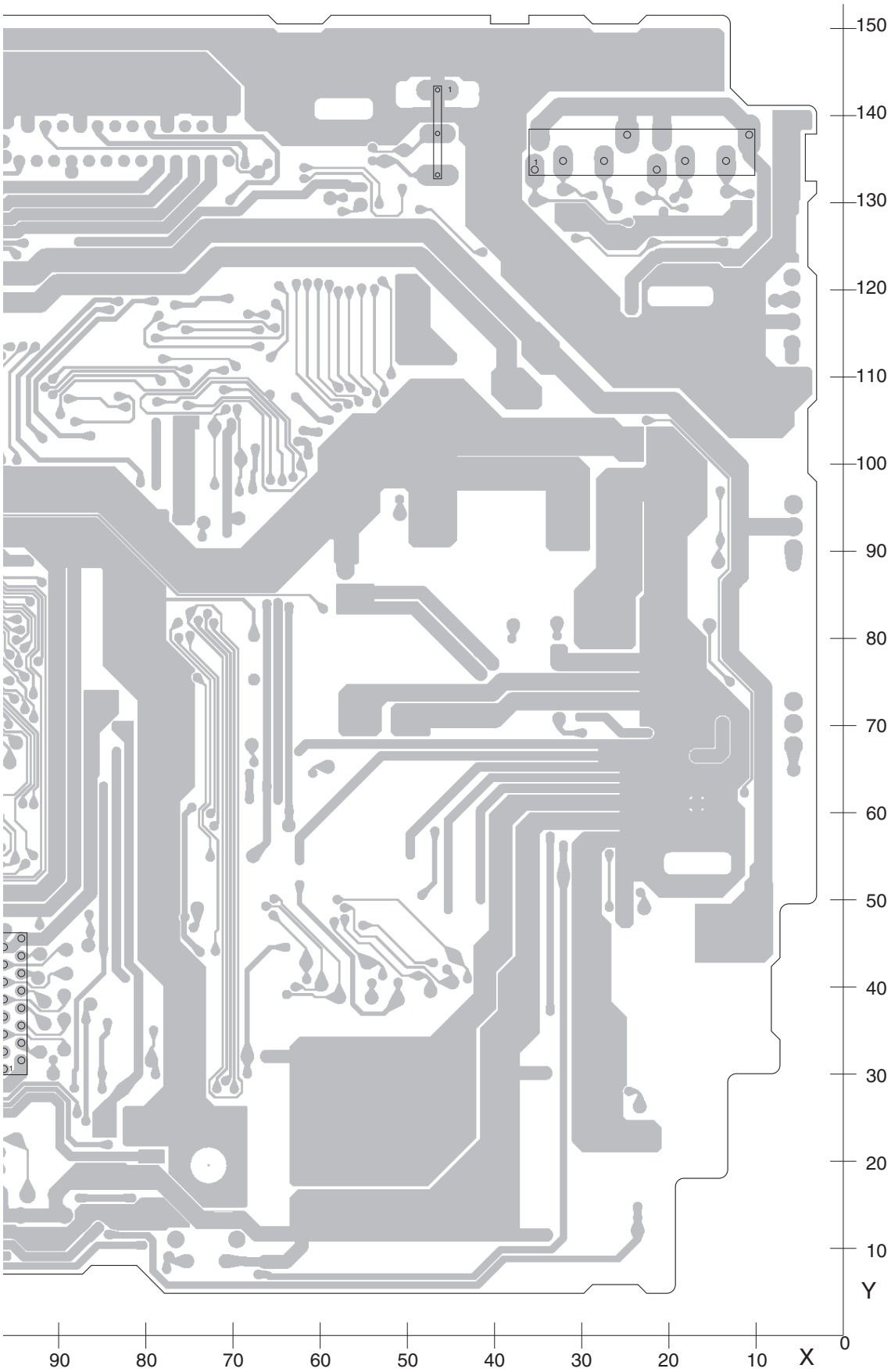


DEH-8300SD/XNEW5

A TUNER AMP ASSY



SIDE B

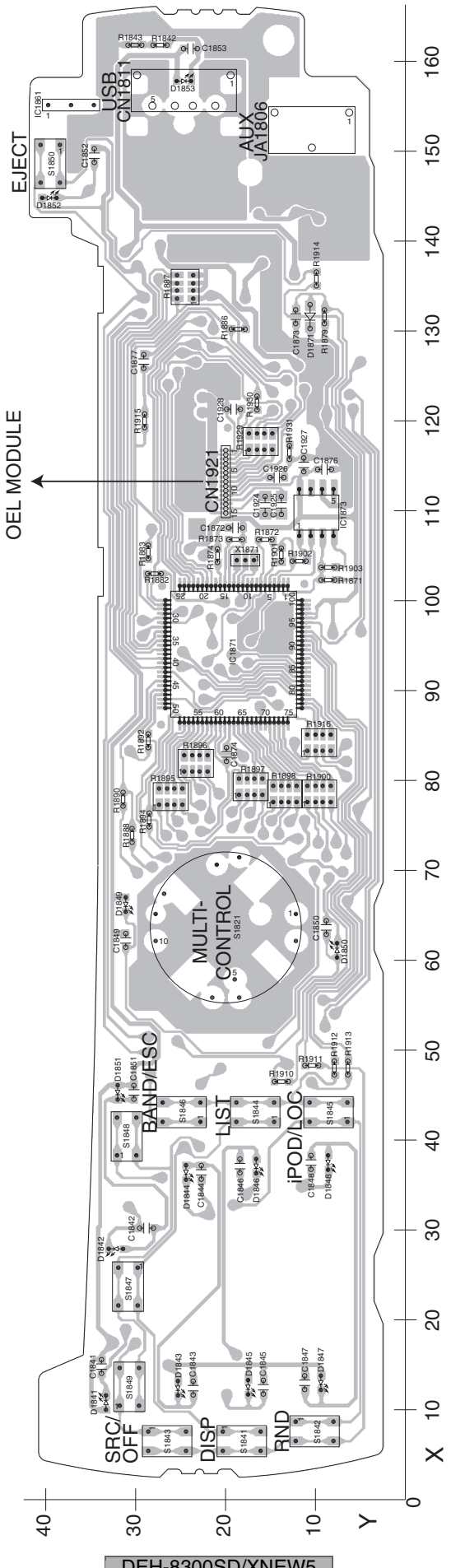


DEH-8300SD/XNEW5

11.2 KEYBOARD UNIT

B KEYBOARD UNIT

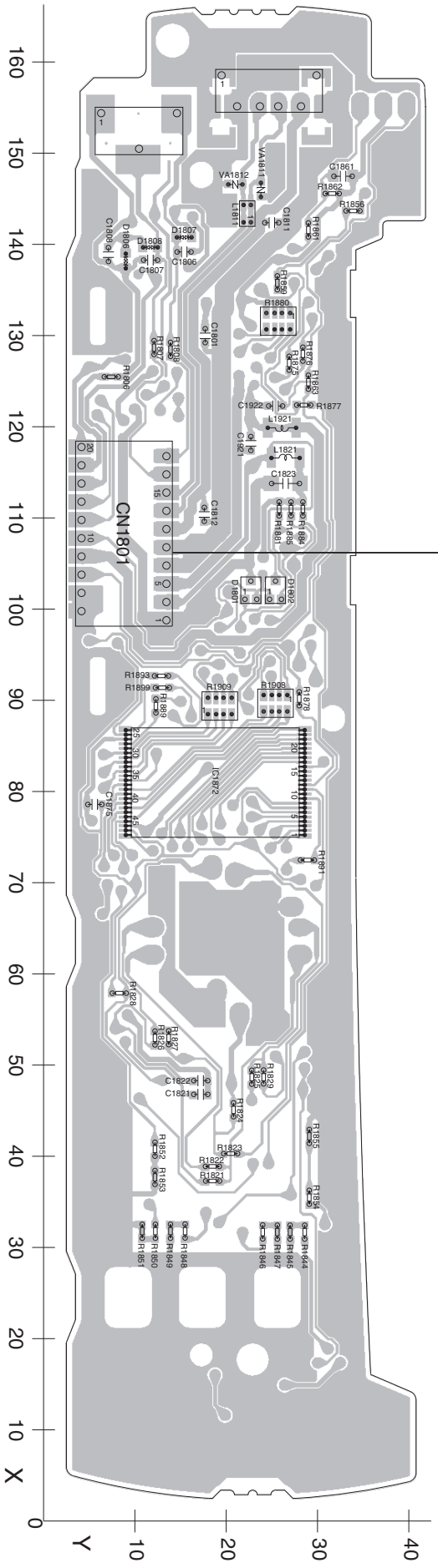
SIDE A



	EW5	UC	ES,ES1
S1849	MUTE/CLK	CLK/DISP OFF	CLK/DISP OFF
S1836	TA/NEWS	S.Rtrv/SAT	SW/BASS
S1848	TAG/S.Rtrv	TAG	S.Rtrv

B KEYBOARD UNIT

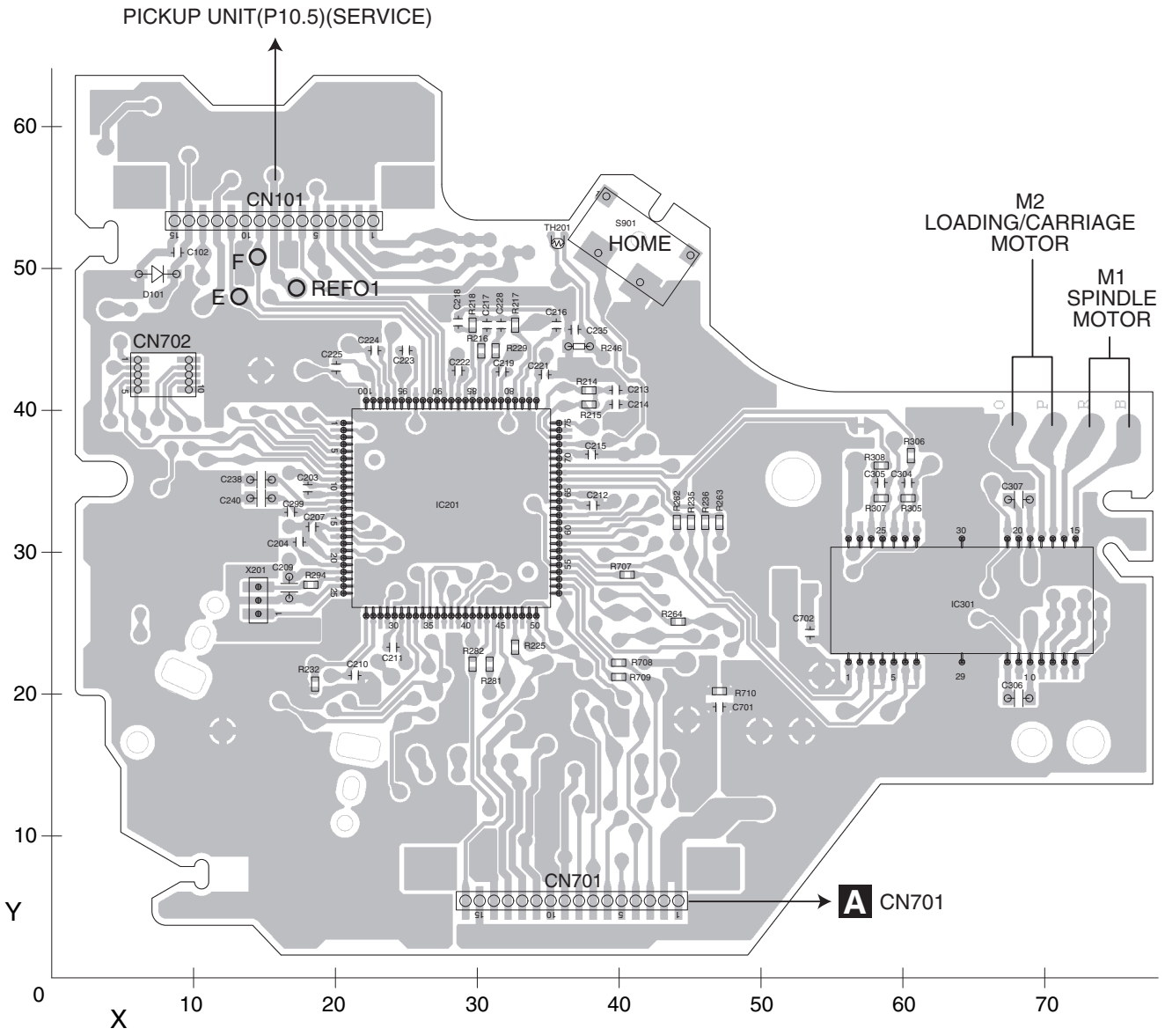
SIDE B



11.3 CD CORE UNIT (S11STD-DOUT)

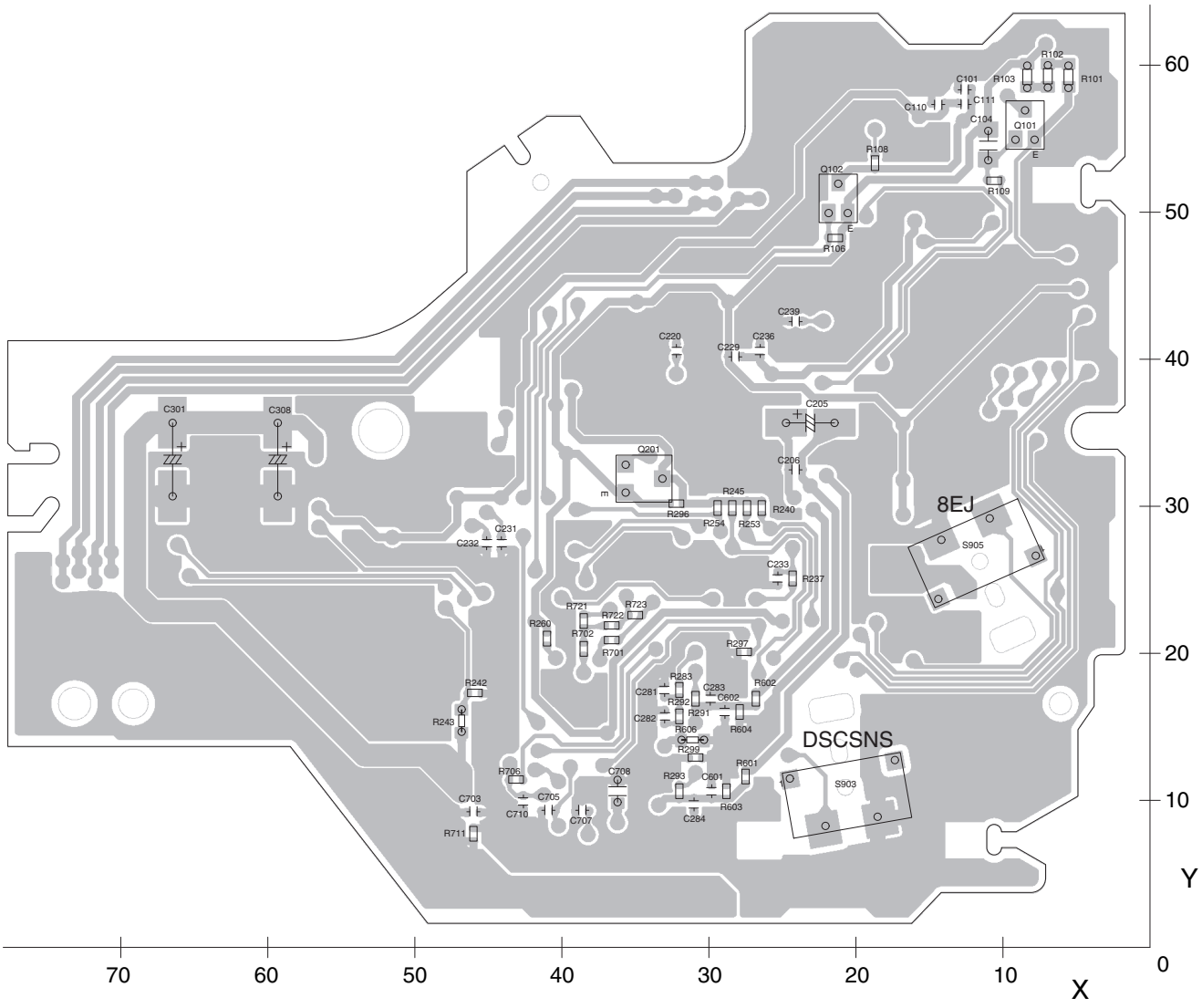
C CD CORE UNIT (S11STD-DOUT)

SIDE A



C CD CORE UNIT (S11STD-DOUT)

SIDE B



12. ELECTRICAL PARTS LIST

NOTE:

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

  Chip Resistor

  RS1/◯S◯◯◯J,RS1/◯◯S◯◯◯J

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

  CKS....., CCS....., CSZS.....
- *The ⚠ 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

A:DEH-8300SD/XNEW5
B:DEH-P8300UB/XNUC
C:DEH-8350SD/XNES
D:DEH-8350SD/XNES1

Unit Number : QWM3185(A)
: QWM3187(B)
: QWM3186(C,D)

Unit Name : Tuner Amp Assy

Unit Number :

Unit Name : Keyboard Unit

Unit Number : CWX3774

Unit Name : CD Core Unit(S11STD-DOUT)

A

Unit Number : QWM3185(A)
: QWM3187(B)
: QWM3186(C,D)

Unit Name : Tuner Amp Assy

MISCELLANEOUS

Circuit Symbol and No.		Part No.
IC 101	(A,147,124) IC(B)	HA12241FP
IC 151	(A,36,78) IC	R5523N001B
IC 161	(A,45,102) Regulator IC	BD9781HFP
IC 181	(A,101,82) IC	WM8761GED
IC 182	(A,73,88) IC	NJM2872F05
IC 201	(A,77,114) IC	PM9012A
IC 351	(A,82,141) IC	PA2030A
IC 431	(A,152,16) IC	NJM2885DL1-33
IC 451	(A,87,52) IC(A,B)	SST25V040BIS
IC 491	(A,82,33) IC	341S2162
IC 501	(A,119,60) IC	R5S7262ZD144FPU
IC 581	(A,147,50) Software Unit	CWW3490
IC 591	(A,44,72) Regulator IC	S-1172B33-E6
IC 592	(A,56,68) IC	BH12PB3WHFV
IC 601	(A,127,93) IC(A)	PEG735A8
	(A,127,93) IC(B)	PEG734A8
	(A,127,93) IC(C,D)	PEG736A8
IC 651	(A,116,105) IC	S-80827CNMC-B8M
IC 851	(A,27,34) IC	NJM2360AM
IC 901	(A,24,79) IC	NJM2885DL1-33
IC 911	(A,6,121) IC	NJM2388F84
Q 101	(A,134,114) Transistor(B)	LSA1576UB
Q 102	(A,138,114) Transistor(B)	LTC114EUB
Q 241	(A,48,56) Chip Transistor	RN4983
Q 242	(A,55,50) Transistor	LSC4081UB
Q 301	(A,19,127) Transistor	RT3C99M
Q 302	(A,29,128) Transistor	RT3C99M
Q 303	(A,12,128) Transistor	RT3C99M
Q 351	(A,69,126) Chip Transistor	RN4983
Q 361	(A,53,133) Transistor	LTC114EUB
Q 381	(A,60,130) Transistor	LSC4081UB
Q 382	(A,47,128) Chip Transistor	RN4983
Q 401	(A,154,81) Chip Transistor	RN1903
Q 402	(A,154,86) Chip Transistor	RN1903
Q 491	(A,75,38) Transistor	LSA1576UB
Q 751	(A,6,93) Transistor	2SD2396
Q 752	(A,13,99) Chip Transistor	RN4983
Q 781	(A,65,58) Chip Transistor(A,C,D)	2SB1689
Q 782	(A,65,55) Transistor(A,C,D)	LTC114EUB
Q 783	(A,66,52) Transistor(A,C,D)	DTA123EU
Q 821	(A,37,54) Transistor	2SD1767
Q 822	(A,41,48) Chip Transistor	RN4983
Q 823	(A,42,56) Transistor	LTC114EUB
Q 841	(A,78,43) Transistor	LSA1576UB
Q 842	(A,77,38) Transistor	LTC114EUB
Q 851	(A,14,48) Transistor	2SD1760F5
Q 852	(A,27,45) Chip Transistor	RN4983
Q 901	(A,6,70) Transistor	2SD2396
Q 902	(A,15,77) Chip Transistor	RN4983
Q 921	(A,128,114) Transistor	RT3CLLM
Q 931	(A,103,128) Transistor	LTC114EUB
Q 951	(A,92,124) Transistor(A)	LSA1576UB
D 161	(A,36,104) Diode	CRG03
D 162	(A,38,104) Diode	CRG03

Circuit Symbol and No.		Part No.
D 163	(A,37,93) Diode	CMS02
D 241	(A,50,51) Diode	UDZS15(B)
D 381	(A,58,126) Diode	RKZ8.2KG(B2)
D 382	(A,64,133) Diode	MC2848-11
D 383	(A,56,126) Diode	1SS352
D 591	(A,32,73) Diode	1SS352
D 592	(A,34,73) Diode	CRG03
D 601	(A,120,80) Diode	RB551V-30
D 602	(A,122,104) Diode	RB751S-40
D 751	(A,13,101) Diode	RKZ8.2KG(B2)
D 801	(A,109,22) Diode	DZ2S068C
D 802	(A,113,23) Diode	DZ2S068C
D 803	(A,100,21) Diode	DZ2S068C
D 821	(A,43,52) Diode	RKZ11KG(B2)
D 822	(A,43,53) Diode	RKZ8.2KG(B2)
D 851	(A,23,29) Diode	RB551V-30
D 852	(A,23,47) Diode	RKZ10KG(B2)
D 901	(A,18,78) Diode	CRG03
D 902	(A,12,77) Diode	UDZS5R6(B)
D 921	(A,139,122) Diode	HZU7L(C2)
D 922	(A,130,128) Diode	HZU7L(A1)
D 931	(A,110,128) Diode	CRG03
D 941	(A,98,127) Diode	CRG03
D 942	(A,102,126) Diode	CRG03
D 951	(A,91,127) Diode(A)	MC2848-11
D 981	(A,138,131) Diode	CRG03
D 982	(A,138,128) Diode	CRG03
L 161	(A,46,86) Inductor	CTH1253
L 181	(A,93,87) Inductor	CTF1735
L 401	(A,151,102) Chip Coil	BTH1100
L 402	(A,156,61) Chip Coil	BTH1101
L 403	(A,157,105) Inductor	LCTAW220J2520
L 501	(A,92,63) Chip Ferrite Bead	DTL1107
L 502	(A,92,67) Inductor	CTF1410
L 581	(A,139,54) Inductor	CTF1735
L 601	(A,100,96) Chip Coil	BTH1103
L 801	(A,111,28) Inductor	CTF1713
L 852	(A,18,36) Inductor	CTF1660
L 951	(A,96,128) Chip Coil(A)	BTH1101
L 982	(A,115,140) Choke Coil 600 uH	CTH1445
X 501	(A,120,77) Oscillator 48.000 MHz	CSS1760
X 502	(A,100,51) Oscillator 16.93 MHz	CSS1794
X 601	(A,111,94) Oscillator 20.0 MHz	CSS1797
P 301	(A,41,114) Poly Switch	MINISMDC075F/24
P 401	(A,162,116) Surge Protector	IMSA-6802-01Y900
BZ601	(A,68,78) Buzzer	CPV1062
VA804	(A,131,20) Varistor	VR105C5R0AAA
VA805	(A,103,28) Varistor	VR105C5R0AAA
VA806	(A,133,20) Varistor	VR105C5R0AAA
VA807	(A,134,20) Varistor	VR105C5R0AAA
VA808	(A,129,20) Varistor	VR105C5R0AAA
U 401	(A,163,105) FM/AM Tuner Unit	CWE2097
CN701	(A,95,38) Connector	VKN1192
CN781	(A,50,22) Connector(A,C,D)	CKS6180
CN801	(A,113,3) Connector	CKS6288
JA101	(A,150,136) Connector(B)	CKS5271
JA301	(A,24,137) Pin Jack	XKB7001
JA401	(A,168,128) Antenna Jack	YKS5041
JA661	(A,47,138) Connector	CKS4124
JA981	(A,118,140) Plug	CKM1586

Circuit Symbol and No.		Part No.
⚠	Fuse(10 A)	YEK5001

RESISTORS

R 101	(A,154,126) (B)	RS1/16SS620J
R 103	(A,156,124) (B)	RS1/16SS101J
R 104	(A,152,124) (B)	RS1/16SS101J
R 105	(A,144,111) (B)	RS1/16SS102J
R 106	(A,141,118) (B)	RS1/16SS222J
R 107	(A,139,117) (B)	RS1/16SS223J
R 108	(A,136,116) (B)	RS1/16SS472J
R 109	(A,140,113) (B)	RS1/16SS181J
R 110	(A,157,124) (B)	RS1/16SS181J
R 111	(A,141,114) (B)	RS1/16SS223J
R 112	(A,156,121) (B)	RS1/16SS223J
R 113	(A,142,114) (B)	RS1/16SS102J
R 114	(A,154,121) (B)	RS1/16SS102J
R 151	(A,31,76)	RS1/16SS104J
R 161	(A,44,95)	RS1/16SS1003F
R 163	(A,47,93)	RS1/16SS303J
R 165	(A,51,94)	RS1/16SS1003D
R 166	(A,49,95)	RS1/16SS2402D
R 167	(A,50,94)	RS1/16SS102J
R 168	(A,54,93)	RS1/10SR471J
R 169	(A,49,93)	RS1/16SS121J
R 181	(A,79,88)	RS1/10SR0R0J
R 191	(A,81,90) (A,C,D)	RN1/16SSE8200D
	(A,81,90) (B)	RS1/16SS821J
R 192	(A,81,94) (A,C,D)	RN1/16SSE8200D
	(A,81,94) (B)	RS1/16SS821J
R 201	(A,69,121)	RAB4CQ102J
R 242	(A,47,52)	RS1/16SS182J
R 301	(A,9,128) (A,C,D)	RN1/16SSK82R0D
	(A,9,128) (B)	RS1/16SS820J
R 302	(A,15,126) (A,C,D)	RN1/16SSK82R0D
	(A,15,126) (B)	RS1/16SS820J
R 303	(A,26,126) (A,C,D)	RN1/16SSK82R0D
	(A,26,126) (B)	RS1/16SS820J
R 304	(A,33,127) (A,C,D)	RN1/16SSK82R0D
	(A,33,127) (B)	RS1/16SS820J
R 305	(A,17,127) (A,C,D)	RN1/16SSK82R0D
	(A,17,127) (B)	RS1/16SS820J
R 306	(A,23,127) (A,C,D)	RN1/16SSK82R0D
	(A,23,127) (B)	RS1/16SS820J
R 307	(A,9,129) (A,C,D)	RN1/16SSE2202D
	(A,9,129) (B)	RS1/16SS223J
R 308	(A,15,129) (A,C,D)	RN1/16SSE2202D
	(A,15,129) (B)	RS1/16SS223J
R 309	(A,26,130) (A,C,D)	RN1/16SSE2202D
	(A,26,130) (B)	RS1/16SS223J
R 310	(A,33,129) (A,C,D)	RN1/16SSE2202D
	(A,33,129) (B)	RS1/16SS223J
R 311	(A,17,129) (A,C,D)	RN1/16SSE2202D
	(A,17,129) (B)	RS1/16SS223J
R 312	(A,22,129) (A,C,D)	RN1/16SSE2202D
	(A,22,129) (B)	RS1/16SS223J
R 317	(A,20,126)	RS1/16SS472J
R 318	(A,19,126)	RS1/16SS472J
R 319	(A,29,127)	RS1/16SS472J
R 320	(A,28,127)	RS1/16SS472J

Circuit Symbol and No.		Part No.
R 321	(A,12,126)	RS1/16SS472J
R 322	(A,11,126)	RS1/16SS472J
R 353	(A,86,126) (A,C,D)	RN1/16SSE3601D
	(A,86,126) (B)	RS1/16SS362J
R 354	(A,87,126) (A,C,D)	RN1/16SSE5601D
	(A,87,126) (B)	RS1/16SS562J
R 355	(A,85,126) (A,C,D)	RN1/16SSE3601D
	(A,85,126) (B)	RS1/16SS362J
R 356	(A,84,126) (A,C,D)	RN1/16SSE5601D
	(A,84,126) (B)	RS1/16SS562J
R 357	(A,80,126) (A,C,D)	RN1/16SSE3601D
	(A,80,126) (B)	RS1/16SS362J
R 358	(A,81,126) (A,C,D)	RN1/16SSE5601D
	(A,81,126) (B)	RS1/16SS562J
R 359	(A,79,126) (A,C,D)	RN1/16SSE3601D
	(A,79,126) (B)	RS1/16SS362J
R 360	(A,78,129) (A,C,D)	RN1/16SSE5601D
	(A,78,129) (B)	RS1/16SS562J
R 361	(A,47,125)	RS1/16SS103J
R 362	(A,55,133)	RS1/16SS103J
R 363	(A,57,134)	RS1/16SS331J
R 365	(A,68,130)	RS1/16SS103J
R 366	(A,69,129)	RS1/16SS103J
R 381	(A,55,130)	RS1/16SS473J
R 382	(A,56,130)	RS1/16SS104J
R 383	(A,133,82)	RS1/16SS473J
R 384	(A,52,131)	RS1/16SS473J
R 385	(A,49,130)	RS1/16SS102J
R 401	(A,156,90)	RS1/16SS681J
R 402	(A,156,91) (A,C,D)	RS1/16SS681J
R 403	(A,156,92)	RS1/16SS681J
R 404	(A,156,93)	RS1/16SS681J
R 405	(A,156,94)	RS1/16SS681J
R 406	(A,156,95)	RS1/16SS681J
R 407	(A,156,96)	RS1/16SS681J
R 408	(A,156,97)	RS1/16SS152J
R 409	(A,150,93)	RAB4CQ223J
R 410	(A,101,106) (B,C,D)	RS1/16SS823J
R 411	(A,98,105) (B,C,D)	RS1/16SS823J
R 412	(A,132,103) (A,C,D)	RS1/16SS0R0J
R 451	(A,83,49) (A,B)	RS1/16SS0R0J
R 454	(A,80,53) (A,B)	RS1/16SS101J
R 455	(A,80,54) (A,B)	RS1/16SS101J
R 456	(A,103,52) (A,B)	RS1/16SS101J
R 457	(A,94,52) (A,B)	RS1/16SS101J
R 458	(A,83,47) (A,B)	RS1/16SS473J
R 491	(A,80,38)	RS1/16SS473J
R 492	(A,75,42)	RS1/16SS472J
R 493	(A,88,32)	RS1/16SS101J
R 494	(A,88,33)	RS1/16SS101J
R 495	(A,88,31)	RS1/16SS103J
R 496	(A,88,34)	RS1/16SS103J
R 499	(A,76,32)	RS1/16SS272J
R 500	(A,77,30)	RS1/16SS472J
R 501	(A,133,75)	RS1/16SS473J
R 502	(A,136,74)	RS1/16SS101J
R 503	(A,134,52)	RS1/16SS473J
R 504	(A,135,56)	RAB4CQ101J
R 506	(A,131,75)	RS1/16SS473J
R 508	(A,132,75)	RS1/16SS473J

Circuit Symbol and No.		Part No.
R 511	(A,127,75)	RS1/16SS473J
R 512	(A,126,75)	RS1/16SS473J
R 515	(A,119,75)	RS1/16SS681J
R 520	(A,110,79)	RS1/16SS473J
R 521	(A,109,77)	RS1/16SS101J
R 522	(A,115,75)	RS1/16SS5601F
R 524	(A,110,74)	RS1/16SS473J
R 531	(A,102,67)	RS1/16SS473J
R 532	(A,102,69)	RS1/16SS473J
R 533	(A,103,56) (A,C,D)	RS1/16SS221J
R 536	(A,99,73)	RS1/16SS221J
R 539	(A,103,54)	RS1/16SS332J
R 541	(A,94,50) (C,D)	RS1/16SS473J
R 542	(A,108,45)	RS1/16SS221J
R 543	(A,109,44)	RS1/16SS101J
R 544	(A,110,44)	RS1/16SS101J
R 545	(A,111,45)	RS1/16SS101J
R 550	(A,130,45)	RS1/16SS101J
R 551	(A,133,46)	RS1/16SS101J
R 557	(A,139,47)	RS1/16SS0R0J
R 559	(A,139,48)	RS1/16SS472J
R 581	(A,146,62)	RS1/16SS101J
R 582	(A,139,44)	RS1/16SS472J
R 583	(A,139,42)	RS1/16SS472J
R 585	(A,151,37)	RAB4CQ221J
R 586	(A,148,37)	RAB4CQ221J
R 587	(A,146,37)	RAB4CQ221J
R 588	(A,143,37)	RAB4CQ221J
R 601	(A,77,77)	RS1/16SS102J
R 602	(A,118,101)	RS1/16SS472J
R 603	(A,116,96)	RS1/16SS105J
R 604	(A,117,96)	RS1/16SS101J
R 605	(A,117,93)	RS1/16SS104J
R 606	(A,116,85)	RS1/16SS222J
R 607	(A,116,89)	RS1/16SS104J
R 609	(A,116,92)	RS1/16SS104J
R 610	(A,116,91)	RS1/16SS104J
R 611	(A,116,84) (B)	RS1/16SS472J
R 612	(A,119,83) (B)	RS1/16SS472J
R 613	(A,123,81)	RS1/16SS104J
R 614	(A,124,81)	RS1/16SS104J
R 615	(A,119,82)	RS1/16SS104J
R 616	(A,127,82)	RS1/16SS104J
R 617	(A,128,81)	RS1/16SS104J
R 618	(A,130,82)	RS1/16SS104J
R 619	(A,126,81)	RS1/16SS472J
R 620	(A,130,81)	RS1/16SS104J
R 621	(A,128,82) (A)	RS1/16SS104J
R 623	(A,138,92)	RS1/16SS104J
R 624	(A,138,97)	RS1/16SS104J
R 626	(A,126,103)	RS1/16SS103J
R 629	(A,108,103)	RS1/16SS104J
R 643	(A,141,86)	RS1/16SS104J
R 651	(A,111,103)	RS1/16SS104J
R 652	(A,117,103)	RS1/16SS152J
R 661	(A,56,136)	RS1/10SR102J
R 662	(A,56,135)	RS1/10SR102J
R 701	(A,91,46)	RS1/16SS472J
R 702	(A,91,44)	RS1/16SS473J
R 703	(A,91,42)	RS1/16SS472J

Circuit Symbol and No.		Part No.
R 704	(A,91,41)	RS1/16SS472J
R 705	(A,100,44)	RS1/16SS221J
R 706	(A,100,43)	RS1/16SS221J
R 707	(A,100,42)	RS1/16SS101J
R 708	(A,100,41)	RS1/16SS221J
R 709	(A,100,40)	RS1/16SS101J
R 710	(A,100,39)	RS1/16SS102J
R 711	(A,100,35)	RS1/16SS151J
R 712	(A,100,34)	RS1/16SS101J
R 713	(A,100,33)	RS1/16SS151J
R 714	(A,100,30)	RS1/16SS221J
R 715	(A,102,36)	RS1/16SS104J
R 716	(A,100,31)	RS1/16SS104J
R 717	(A,100,37)	RS1/16SS104J
R 751	(A,14,95)	RS1/10SR471J
R 752	(A,12,95)	RS1/10SR471J
R 753	(A,26,90)	RS1/16SS473J
R 754	(A,26,92)	RS1/16SS103J
R 781	(A,59,39) (A,C,D)	RS1/16SS221J
R 782	(A,43,39) (A,C,D)	RS1/16SS221J
R 783	(A,45,39) (A,C,D)	RS1/16SS221J
R 785	(A,55,39) (A,C,D)	RS1/16SS221J
R 786	(A,57,39) (A,C,D)	RS1/16SS221J
R 787	(A,41,42) (A,C,D)	RS1/16SS221J
R 789	(A,67,58) (A,C,D)	RS1/16SS103J
R 790	(A,67,56) (A,C,D)	RS1/16SS681J
R 791	(A,62,51) (B)	RS1/16SS0R0J
R 792	(A,60,49)	RAB4CQ103J
R 793	(A,63,49)	RAB4CQ103J
R 794	(A,61,56) (A,C,D)	RS1/16SS102J
R 801	(A,108,28)	RS1/10SR222J
R 802	(A,129,15)	RS1/10SR222J
R 803	(A,131,15)	RS1/10SR222J
R 804	(A,138,20)	RS1/10SR222J
R 805	(A,134,15)	RS1/10SR222J
R 807	(A,103,24)	RS1/10SR101J
R 808	(A,96,26)	RS1/10SR101J
R 809	(A,100,26)	RS1/10SR101J
R 811	(A,110,31)	RS1/10SR1R0J
R 812	(A,112,31)	RS1/10SR1R0J
R 813	(A,138,87)	RS1/16SS104J
R 814	(A,106,29)	RS1/16SS223J
R 815	(A,138,21)	RS1/16SS104J
R 816	(A,102,22)	RS1/16SS223J
R 817	(A,99,25)	RS1/16SS223J
R 821	(A,40,58)	RS1/16SS222J
R 822	(A,37,58)	RS1/16SS1R0J
R 823	(A,34,51)	RS1/16SS182J
R 842	(A,84,41)	RS1/16SS472J
R 843	(A,77,41)	RS1/16SS473J
R 844	(A,79,41)	RS1/16SS102J
R 852	(A,31,37)	RS1/16SS1502F
R 854	(A,29,39)	RS1/16SS1301F
R 855	(A,25,40)	RS1/10SR102J
R 856	(A,26,41)	RS1/16SS1R0J
R 858	(A,22,44)	RS1/4SA181J
R 862	(A,29,47)	RS1/16SS0R0J
R 863	(A,31,20)	RS1/10SR0R0J
R 901	(A,13,72)	RS1/16SS681J
R 902	(A,14,73)	RS1/16SS681J
R 903	(A,12,73)	RS1/16SS223J
R 911	(A,12,111)	RS1/16SS473J
R 912	(A,14,110)	RS1/16SS102J
R 921	(A,131,113)	RS1/16SS104J
R 922	(A,131,115)	RS1/16SS103J
R 923	(A,132,114)	RS1/16SS473J
R 924	(A,132,115)	RS1/16SS473J
R 925	(A,127,127)	RS1/16SS472J
R 926	(A,123,128)	RS1/4SA102J
R 931	(A,109,126)	RS1/16SS103J
R 932	(A,117,128)	RS1/4SA102J
R 951	(A,93,115) (A)	RS1/16SS102J
R 952	(A,89,124) (A)	RS1/16SS223J
R 954	(A,91,129) (A)	RS1/16SS153J

CAPACITORS

C 101	(A,159,124) (B)	CKSSYB104K16
C 151	(A,39,78)	CKSSYB104K10
C 152	(A,38,79)	CKSSYB104K10
C 161	(A,30,99) Capacitor	CEVW221M16
C 162	(A,37,96)	CKSRYB105K16
C 163	(A,45,95)	CKSSYB104K16
C 164	(A,48,95)	CKSSYB471K50
C 165	(A,47,95)	CKSSYB103K16
C 166	(A,57,87) 150 uF/6.3 V	CCH1804(P25)
C 167	(A,51,93)	CKSSYB471K50
C 182	(A,101,89) 10 uF	CCG1192
C 184	(A,95,87) 10 uF	CCG1192
C 186	(A,92,88)	CKSSYB105K6R3
C 187	(A,76,87)	CKSSYB104K10
C 188	(A,70,87)	CKSSYB104K10
C 191	(A,80,91)	CCSRCH182J50
C 192	(A,80,95)	CCSRCH182J50
C 195	(A,77,88)	CKSSYB105K6R3
C 201	(A,63,96)	CKSRYB105K10
C 202	(A,64,96)	CKSRYB105K10
C 203	(A,66,96)	CKSRYB105K10
C 204	(A,99,108) (B)	CKSRYB105K10
C 205	(A,94,108) (B)	CKSRYB105K10
C 206	(A,99,109) (B)	CKSRYB105K10
C 207	(A,94,110) (B)	CKSRYB105K10
C 208	(A,95,104)	CKSRYB224K16
C 209	(A,95,106)	CKSRYB224K16
C 210	(A,70,109)	CKSRYB105K10
C 211	(A,68,109)	CKSRYB105K10
C 212	(A,86,115) 10 uF	CCG1192
C 213	(A,86,116) 10 uF	CCG1192
C 214	(A,86,118)	CKSSYB104K10
C 215	(A,86,120) 10 uF	CCG1192
C 216	(A,86,122)	CKSQYB225K16
C 217	(A,83,122)	CKSSYB104K16
C 219	(A,70,114)	CKSRYB105K10
C 221	(A,84,110)	CKSRYB105K10
C 225	(A,83,116)	CKSSYB104K10
C 226	(A,88,95)	CEVW101M16
C 241	(A,55,55) Capacitor	CEVW470M25
C 243	(A,52,50)	CKSRYB224K16
C 301	(A,28,120) 10 uF	CCG1192
C 302	(A,27,122) 10 uF	CCG1192
C 303	(A,38,126) 10 uF	CCG1192

Circuit Symbol and No.		Part No.
C 304	(A,39,123) 10 uF	CCG1192
C 305	(A,33,122) 10 uF	CCG1192
C 306	(A,33,124) 10 uF	CCG1192
C 313	(A,12,122)	CKSRYB102K50
C 351	(A,81,129)	CKSRYB105K10
C 352	(A,79,129)	CKSRYB105K10
C 353	(A,84,129)	CKSRYB105K10
C 354	(A,86,129)	CKSRYB105K10
C 355	(A,81,131)	CKSRYB105K10
C 356	(A,79,131)	CKSRYB105K10
C 357	(A,84,131)	CKSRYB105K10
C 358	(A,86,131)	CKSRYB105K10
C 361	(A,135,122) 3 300 uF/16 V(A,C,D)	CCH2012
	(A,135,122) 3 300 uF/16 V(B)	CCH1732
C 362	(A,63,139)	CKSSYB104K16
C 363	(A,75,132) 4.7 uF	CCG1201
C 364	(A,71,132) 4.7 uF	CCG1201
C 365	(A,74,130) 10 uF	CCG1236
C 367	(A,60,134) 10 uF	CCG1192
C 381	(A,52,126) Capacitor	CEVW220M16
C 401	(A,156,100)	CKSSYB103K16
C 402	(A,154,101) 10 uF	CCG1192
C 405	(A,155,67)	CKSSYB103K16
C 406	(A,153,66) 10 uF	CCG1192
C 407	(A,154,72)	CKSSYB103K16
C 409	(A,100,106) (B,C,D)	CKSSYB152K50
C 410	(A,97,105) (B,C,D)	CKSSYB152K50
C 431	(A,145,19)	CKSQYB475K6R3
C 432	(A,147,19)	CKSSYB103K16
C 433	(A,157,21) 4.7 uF	CCG1201
C 451	(A,78,48) (A,B)	CKSSYB104K10
C 491	(A,80,37)	CKSSYB104K10
C 492	(A,77,32)	CKSSYB104K10
C 501	(A,90,64) 10 uF	CCG1192
C 503	(A,95,64) 10 uF	CCG1192
C 504	(A,90,68) 10 uF	CCG1192
C 506	(A,95,68) 10 uF	CCG1192
C 507	(A,136,51)	CKSSYB104K10
C 508	(A,134,53)	CKSSYB104K10
C 509	(A,137,60)	CKSSYB104K10
C 510	(A,135,60)	CKSSYB104K10
C 511	(A,134,65)	CKSSYB104K10
C 512	(A,137,68)	CKSSYB104K10
C 513	(A,135,71)	CKSSYB104K10
C 514	(A,135,73)	CKSSYB104K10
C 515	(A,134,75)	CKSSYB103K16
C 516	(A,129,75)	CKSSYB104K10
C 517	(A,100,48)	CCSSCH120J50
C 518	(A,99,54)	CCSSCH120J50
C 519	(A,125,75)	CKSSYB104K10
C 520	(A,123,75)	CKSSYB104K10
C 521	(A,121,75)	CKSSYB104K10
C 522	(A,115,78)	CKSSYB104K10
C 523	(A,117,78)	CCSSCH120J50
C 524	(A,122,77)	CCSSCH100D50
C 525	(A,115,77)	CKSSYB104K10
C 526	(A,114,75)	CKSSYB104K10
C 527	(A,112,74)	CKSSYB104K10
C 528	(A,112,75)	CKSSYB104K10
C 529	(A,106,73)	CKSSYB104K10

Circuit Symbol and No.		Part No.
C 530	(A,106,74)	CKSSYB104K10
C 531	(A,103,69)	CKSSYB104K10
C 532	(A,103,67)	CKSSYB104K10
C 533	(A,102,63)	CKSSYB104K10
C 534	(A,103,61)	CKSSYB104K10
C 535	(A,102,57)	CKSSYB104K10
C 536	(A,98,56)	CKSSYB104K10
C 537	(A,103,49)	CKSSYB104K10
C 538	(A,106,47)	CKSSYB104K10
C 539	(A,112,44)	CKSSYB104K10
C 540	(A,114,44)	CKSSYB104K10
C 541	(A,118,44)	CKSSYB104K10
C 542	(A,122,44)	CKSSYB104K10
C 543	(A,127,44)	CKSSYB104K10
C 544	(A,128,44)	CKSSYB104K10
C 545	(A,110,78)	CKSSYB105K6R3
C 546	(A,127,77)	CKSSYB102K50
C 547	(A,105,44)	CCSSCH220J50
C 548	(A,106,43)	CCSSCH220J50
C 549	(A,105,42)	CCSSCH220J50
C 550	(A,105,41)	CCSSCH220J50
C 581	(A,138,53) 10 uF	CCG1192
C 582	(A,139,52)	CKSSYB104K10
C 584	(A,147,62)	CKSSYB103K16
C 591	(A,36,72) 10 uF	CCG1192
C 593	(A,48,67) 10 uF	CCG1192
C 595	(A,52,67) 10 uF	CCG1192
C 598	(A,61,68) 10 uF	CCG1192
C 601	(A,100,98) 10 uF	CCG1192
C 603	(A,103,97)	CKSQYB475K6R3
C 604	(A,108,95)	CCSSCH120J50
C 605	(A,108,92)	CCSSCH100D50
C 606	(A,115,94)	CKSSYB104K10
C 608	(A,138,91)	CKSSYB104K10
C 610	(A,117,97)	CKSSYB104K10
C 641	(A,150,84) (A,C,D)	CKSRYB105K10
	(A,150,84) 2.2 uF(B)	CCG1205
C 651	(A,117,108)	CKSRYB105K10
C 689	(A,99,57) (A,C,D)	CCSSCH8R0D50
C 703	(A,100,32)	CCSSCH470J50
C 704	(A,101,32)	CCSSCH100D50
C 705	(A,101,36)	CCSSCH470J50
C 706	(A,103,36)	CKSSYB103K16
C 751	(A,24,91) 10 uF	CCG1192
C 754	(A,12,102)	CKSSYB473K16
C 802	(A,81,19)	CKSRYB103K50
C 803	(A,105,23)	CKSRYB221K50
C 804	(A,98,21)	CKSRYB221K50
C 821	(A,40,51)	CKSSYB104K16
C 822	(A,43,59)	CKSRYB105K16
C 852	(A,18,24) Capacitor	CEVW470M25
C 853	(A,31,36)	CKSSYB103K25
C 854	(A,28,29)	CCSRCH331J50
C 855	(A,27,39)	CKSSYB104K16
C 856	(A,33,43)	CEVW101M16
C 858	(A,23,49)	CKSSYB104K16
C 901	(A,17,64) 1 500 uF/16 V	CCH1201
C 902	(A,15,80)	CKSSYB103K16
C 904	(A,18,71) 10 uF	CCG1192
C 905	(A,23,71)	CKSQYB475K6R3

Circuit Symbol and No.		Part No.
C 907	(A,27,71)	CKSQYB475K6R3
C 911	(A,30,109) Capacitor	CEVW221M10
C 913	(A,20,113)	CEVW101M16
C 921	(A,127,128)	CKSSYB104K16
C 931	(A,106,128)	CKSRYB105K16
C 941	(A,100,130)	CKSSYB473K16
C 951	(A,94,128) (A)	CKSSYB104K16

B

Unit Number :
Unit Name : Keyboard Unit

MISCELLANEOUS

IC 1861	(A,160,37) Remote IC	GP1UXC14RK
IC 1871	(A,94,19) IC	PEG738A8
IC 1872	(B,81,19) IC	PD8194A9
D 1841	(A,11,33) LED	CL-197HB1-D(CDE)
D 1842	(A,28,32) LED	CL-197HB1-D(CDE)
D 1843	(A,12,25) LED	CL-197HB1-D(CDE)
D 1844	(A,36,24) LED	CL-197HB1-D(CDE)
D 1845	(A,13,18) LED	CL-197HB1-D(CDE)
D 1846	(A,37,17) LED	CL-197HB1-D(CDE)
D 1847	(A,13,9) LED	CL-197HB1-D(CDE)
D 1848	(A,38,9) LED	CL-197HB1-D(CDE)
D 1849	(A,66,31) LED	CL-197HB1-D(CDE)
D 1850	(A,61,8) LED	CL-197HB1-D(CDE)
D 1851	(A,45,32) LED	CL-197HB1-D(CDE)
D 1852	(A,145,40) LED	CL-197HB1-D(CDE)
D 1853	(A,158,25) LED	CL-197HB1-D(CDE)
D 1871	(A,132,11) Diode	1SS355
L 1821	(B,117,27) Inductor	CTF1617
X 1871	(A,105,18) Ceramic Resonator 16.000 MHz	CSS1616
S 1821	(A,64,20) Switch(MULTI-CONTROL)	CSX1120
S 1841	(A,7,18) Push Switch	CSG1155
S 1842	(A,8,10) Push Switch	CSG1155
S 1843	(A,7,27) Push Switch	CSG1155
S 1844	(A,43,17) Push Switch	CSG1155
S 1845	(A,43,9) Push Switch	CSG1155
S 1846	(A,43,25) Push Switch	CSG1155
S 1847	(A,24,31) Push Switch	CSG1155
S 1848	(A,40,31) Push Switch	CSG1155
S 1849	(A,13,31) Push Switch	CSG1155
S 1850	(A,149,40) Push Switch	CSG1155
CN1801	(B,108,9) Connector	CKS6287
CN1811	(A,155,25) Connector	YKS5039
CN1921	(A,113,23) Connector	CKS6320
JA1806	(A,154,10) Jack	YKN5006
	OEL Module	MXS4011

RESISTORS

R 1821	(B,37,19)	RS1/10SR102J
R 1822	(B,39,19)	RS1/10SR103J
R 1823	(B,40,21)	RS1/10SR333J
R 1824	(B,45,21)	RS1/10SR103J
R 1825	(B,49,23)	RS1/10SR332J
R 1826	(B,53,12)	RS1/10SR102J
R 1828	(B,58,8)	RS1/10SR103J
R 1829	(B,49,24)	RS1/10SR222J
R 1842	(A,162,27)	RS1/10SR222J
R 1844	(B,32,29)	RS1/10SR821J
R 1846	(B,32,24)	RS1/10SR681J
R 1848	(B,32,16)	RS1/10SR102J
R 1850	(B,32,12)	RS1/10SR821J
R 1852	(B,41,12)	RS1/10SR391J
R 1854	(B,36,29)	RS1/10SR391J
R 1856	(B,144,34)	RS1/10SR122J
R 1861	(B,142,29)	RS1/10SR121J
R 1863	(B,125,29)	RS1/10SR2R2J
R 1871	(A,102,9)	RS1/10SR104J
R 1872	(A,107,16)	RS1/10SR472J
R 1873	(A,107,19)	RS1/10SR473J
R 1874	(A,105,21)	RS1/10SR103J
R 1875	(B,127,27)	RS1/10SR102J
R 1876	(B,128,28)	RS1/10SR102J
R 1877	(B,122,29)	RS1/10SR102J
R 1879	(A,132,9)	RS1/10SR154J
R 1880	(B,132,26)	RAB4C473J
R 1881	(B,111,26)	RS1/10SR103J
R 1882	(A,103,28)	RS1/10SR222J
R 1883	(A,105,29)	RS1/10SR222J
R 1884	(B,111,28)	RS1/10SR473J
R 1885	(B,111,27)	RS1/10SR473J
R 1886	(A,130,19)	RS1/10SR473J
R 1887	(A,135,25)	RAB4C473J
R 1888	(A,74,30)	RS1/10SR473J
R 1889	(B,89,12)	RS1/10SR101J
R 1891	(B,73,29)	RS1/10SR101J
R 1892	(A,84,29)	RS1/10SR101J
R 1893	(B,93,13)	RS1/10SR101J
R 1894	(A,76,29)	RS1/10SR101J
R 1895	(A,78,26)	RAB4C101J
R 1896	(A,82,23)	RAB4C101J
R 1897	(A,79,17)	RAB4C101J
R 1898	(A,79,13)	RAB4C101J
R 1899	(B,91,13)	RS1/10SR101J
R 1900	(A,79,10)	RAB4C101J
R 1908	(B,90,25)	RAB4C101J
R 1909	(B,89,19)	RAB4C101J
R 1910	(A,47,14)	RS1/10SR221J
R 1911	(A,48,10)	RS1/10SR102J
R 1912	(A,48,8)	RS1/10SR102J
R 1913	(A,48,6)	RS1/10SR102J
R 1914	(A,136,10)	RS1/10SR102J
R 1915	(A,120,29)	RS1/10SR101J
R 1916	(A,84,10)	RAB4C101J
R 1929	(A,118,16)	RAB4C101J
R 1930	(A,122,17)	RS1/10SR101J

CAPACITORS

C 1806	(B,139,15)	CKSRYB472K50
C 1807	(B,138,12)	CKSRYB472K50
C 1808	(B,139,7)	CKSRYB104K50
C 1861	(B,148,33) 10 uF	CCG1192
C 1872	(A,108,19)	CKSRYB105K16
C 1873	(A,132,12)	CKSRYB104K16
C 1874	(A,83,20)	CKSRYB105K16
C 1875	(B,79,6)	CKSRYB103K50
C 1924	(A,111,16)	CKSQYB105K25

Circuit Symbol and No.		Part No.
C 1925	(A,111,14)	CKSQYB105K25
C 1926	(A,114,14)	CKSRYB105K16
C 1927	(A,115,11)	CKSRYB104K16

C

Unit Number : CWX3774
Unit Name : CD Core Unit(S11STD-DOUT)

MISCELLANEOUS

IC 201	(A,28,33)	IC	PE5706A
IC 301	(A,64,27)	IC	BA5839FP
Q 101	(B,8,56)	Transistor	2SA1577
Q 102	(B,21,51)	Digital TR(PNP)	UNR511MG
X 201	(A,15,27)	Ceramic Resonator 16.934 MHz	CSS1603
S 901	(A,42,53)	Switch(HOME)	CSN1067
S 903	(B,21,12)	Switch(DSCSNS)	CSN1068
S 905	(B,11,25)	Switch(8EJ)	CSN1068
CN101	(A,16,58)	Connector	CKS4808
CN701	(A,37,10)	Connector	CKS6146

RESISTORS

R 101	(B,6,59)	RS1/10SR2R4J
R 102	(B,7,59)	RS1/10SR2R4J
R 103	(B,8,59)	RS1/10SR2R7J
R 108	(B,19,53)	RS1/16SS105J
R 109	(B,11,52)	RS1/16SS222J
R 214	(A,38,41)	RS1/16SS103J
R 215	(A,38,40)	RS1/16SS393J
R 216	(A,30,44)	RS1/16SS122J
R 217	(A,33,46)	RS1/16SS562J
R 218	(A,30,46)	RS1/16SS472J
R 225	(A,33,23)	RS1/16SS0R0J
R 229	(A,31,44)	RS1/16SS471J
R 232	(A,19,21)	RS1/16SS0R0J
R 235	(A,45,32)	RS1/16SS103J
R 236	(A,46,32)	RS1/16SS103J
R 237	(B,24,25)	RS1/16SS221J
R 240	(B,26,30)	RS1/16SS473J
R 245	(B,28,30)	RS1/16SS104J
R 253	(B,27,30)	RS1/16SS104J
R 254	(B,29,30)	RS1/16SS104J
R 260	(B,41,21)	RS1/16SS103J
R 262	(A,44,32)	RS1/16SS472J
R 263	(A,47,32)	RS1/16SS472J
R 264	(A,44,25)	RS1/16SS102J
R 281	(A,31,22)	RS1/16SS560J
R 282	(A,30,22)	RS1/16SS560J
R 283	(B,32,18)	RS1/16SS0R0J
R 291	(B,31,17)	RS1/16SS560J
R 292	(B,32,16)	RS1/16SS0R0J
R 293	(B,32,11)	RS1/16SS0R0J
R 294	(A,18,28)	RS1/16SS471J
R 296	(B,32,30)	RS1/16SS0R0J
R 299	(B,31,13)	RS1/16SS0R0J
R 305	(A,60,34)	RS1/16SS183J
R 306	(A,61,37)	RS1/16SS183J
R 307	(A,58,34)	RS1/16SS183J
R 308	(A,58,36)	RS1/16SS183J

Circuit Symbol and No.		Part No.
R 701	(B,37,21)	RS1/16SS101J
R 702	(B,38,20)	RS1/16SS101J
R 706	(B,43,11)	RS1/16SS221J
R 708	(A,40,22)	RS1/16SS0R0J
R 709	(A,40,21)	RS1/16SS0R0J
R 722	(B,37,22)	RS1/16SS0R0J

CAPACITORS

C 104	(B,11,55)	CKSQYB475K6R3
C 203	(A,18,35)	CKSSYB104K10
C 209	(A,17,28)	CKSRYB104K16
C 210	(A,21,21)	CKSSYB104K10
C 211	(A,24,23)	CKSSYB104K10
C 212	(A,38,33)	CKSSYB104K10
C 213	(A,40,41)	CKSSYB332K50
C 214	(A,40,40)	CKSSYB473K10
C 215	(A,38,37)	CKSSYB104K10
C 216	(A,36,46)	CKSSYB182K50
C 217	(A,31,46)	CCSSCH560J50
C 218	(A,29,46)	CCSSCH4R0C50
C 219	(A,32,43)	CKSSYB104K10
C 220	(B,32,41)	CKSSYB104K10
C 221	(A,35,43)	CKSSYB104K10
C 222	(A,29,43)	CKSSYB104K10
C 223	(A,25,44)	CCSSCH680J50
C 224	(A,23,44)	CCSSCH470J50
C 225	(A,20,43)	CKSSYB103K16
C 228	(A,32,46)	CCSSCH270J50
C 229	(B,28,40)	CKSSYB104K10
C 231	(B,44,28)	CKSSYB102K50
C 232	(B,45,28)	CKSSYB102K50
C 233	(B,25,25)	CKSSYB103K16
C 236	(B,26,41)	CKSSYB104K10
C 238	(A,15,35)	CKSRYB104K16
C 299	(A,17,33)	CKSSYB104K10
C 304	(A,60,35)	CKSSYB472K25
C 305	(A,58,35)	CKSSYB223K16
C 306	(A,68,20)	CKSRYB105K10
C 710	(B,43,10)	CKSSYB102K50

Miscellaneous Parts List

M 1	Motor Unit(SPDL)	CXE2273
M 2	Motor Unit(LOAD/CRG)	CXC4026
	Pickup Unit(S10.5)(Service)	CXX1942