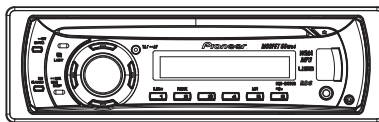


## Service Manual



DEH-2100UB/XS/EW5

ORDER NO.  
**CRT4227**

CD RDS RECEIVER

# DEH-2100UB<sub>/XS/EW5</sub>

## DEH-2120UB<sub>/XS/EW5</sub>

## DEH-2110UB<sub>/XS/UR</sub>

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

| Model No. | Order No. | Mech.Module         | Remarks                                                                 |
|-----------|-----------|---------------------|-------------------------------------------------------------------------|
| CX-3240   | CRT4050   | S10.5COMP2-iPod/USB | CD Mech. Module : Circuit Descriptions, Mech. Descriptions, Disassembly |



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

# SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

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



## ● 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

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  $\mu$ W(Emitting period : unlimited)

### Additional Laser Caution

Transistors Q101 in PCB drive the laser diodes.  
When Q101 is shorted between their terminals, the laser diodes will radiate beam.  
If the top cover is removed with no disc loaded while such short-circuit is continued, the naked eyes may be exposed to the laser beam.

## [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.

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# 1. SERVICE PRECAUTIONS

## 1.1 SERVICE PRECAUTIONS



1. You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.
2. Before disassembling the unit, be sure to turn off the power. Unplugging and plugging the connectors during power-on mode may damage the ICs inside the unit.
3. To protect the pickup unit from electrostatic discharge during servicing, take an appropriate treatment (shorting-solder) by referring to "the DISASSEMBLY".
4. After replacing the pickup unit, be sure to check the grating.
5. Be careful in handling ICs. Some ICs such as MOS type are so fragile that they can be damaged by electrostatic induction.

## 1.2 NOTES ON SOLDERING

- For environmental protection, lead-free solder is used on the printed circuit boards mounted in this unit.  
Be sure to use lead-free solder and a soldering iron that can meet specifications for use with lead-free solders for repairs accompanied by reworking of soldering.
- Compared with conventional eutectic solders, lead-free solders have higher melting points, by approximately 40 °C.  
Therefore, for lead-free soldering, the tip temperature of a soldering iron must be set to around 373 °C in general, although the temperature depends on the heat capacity of the PC board on which reworking is required and the weight of the tip of the soldering iron.

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

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

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

## 2. SPECIFICATIONS

### 2.1 SPECIFICATIONS

DEH-2100UB/XS/EW5, DEH-2120UB/XS/EW5

#### General

Power source.....14.4 V DC (10.8 V to 15.1 V allowable)  
Grounding system.....Negative type  
Max. current consumption .....10.0 A  
Backup current .....2 mA or less

#### Dimensions (W × H × D):

DIN  
Chassis.....178 mm × 50 mm × 165 mm  
Nose .....188 mm × 58 mm × 15 mm  
D  
Chassis.....178 mm × 50 mm × 165 mm  
Nose .....170 mm × 48 mm × 15 mm  
Weight .....1.3 kg

#### Audio

Maximum power output .....50 W × 4  
Continuous power output ..22 W × 4 (50 Hz to 15 000 Hz, 5% THD, 4 Ω load, both channels driven)  
Load impedance .....4 Ω (4 Ω to 8 Ω allowable)  
Preout max output level .....2.0 V  
Tone controls:  
Bass  
Frequency.....100 Hz  
Gain .....±13 dB  
Mid  
Frequency.....1 kHz  
Gain .....±12 dB  
Treble  
Frequency.....10 kHz  
Gain .....±12 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 (2ch audio)  
(Windows Media Player)  
WAV signal format .....Linear PCM & MS ADPCM (Non-compressed)

#### USB

Specification .....USB 2.0 full speed  
Supply current .....500 mA

Maximum amount of memory .....250 GB  
Minimum amount of memory .....256 MB  
USB Class.....MSC (Mass Storage Class)  
File system.....FAT16, FAT32  
MP3 decoding format .....MPEG-1 & 2 Audio Layer 3  
WMA decoding format .....Ver. 7, 7.1, 8, 9, 10, 11 (2ch audio)  
(Windows Media Player)  
WAV signal format .....Linear PCM & MS ADPCM (Non-compressed)

#### FM tuner

Frequency range.....87.5 MHz to 108.0 MHz  
Usable sensitivity.....11 dBf (0.7 μV/75 Ω, mono, S/N: 30 dB)  
Signal-to-noise ratio.....72 dB (IEC-A network)

#### MW tuner

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

#### LW tuner

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

#### Note

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

## DEH-2110UB/XS/UR

### Общие

|                                        |                                                                         |
|----------------------------------------|-------------------------------------------------------------------------|
| Источник питания .....                 | 14,4 В постоянного тока<br>(допустимый диапазон от<br>10,8 В до 15,1 В) |
| Система заземления .....               | Заземление отрицатель-<br>ного полюса                                   |
| Максимальный потребляемый ток<br>..... | 10,0 А                                                                  |
| Backup current .....                   | 2 mA or less                                                            |

### Размеры (Ш × В × Г):

#### DIN

|                          |                         |
|--------------------------|-------------------------|
| Шасси .....              | 178 мм × 50 мм × 165 мм |
| Передняя панель<br>..... | 188 мм × 58 мм × 15 мм  |

#### D

|                          |                         |
|--------------------------|-------------------------|
| Шасси .....              | 178 мм × 50 мм × 165 мм |
| Передняя панель<br>..... | 170 мм × 48 мм × 15 мм  |

|             |        |
|-------------|--------|
| Масса ..... | 1,3 кг |
|-------------|--------|

### Аудио

|                                         |                                                                                                                                            |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Максимальная выходная мощность<br>..... | 50 Вт × 4                                                                                                                                  |
| Номинальная выходная мощность<br>.....  | 22 Вт × 4 (50 Гц до 15 000<br>Гц, суммарное значение<br>коэффициента нелиней-<br>ных искажений 5%, на-<br>грузка 4 Ω для обоих<br>каналов) |
| Сопротивление нагрузки<br>.....         | 4 Ω (допустимо — от 4 Ω<br>до 8 Ω)                                                                                                         |
| Максимальная выходная мощность<br>..... | 2,0 В                                                                                                                                      |
| Регуляторы тембра:                      |                                                                                                                                            |
| Низкие частоты                          |                                                                                                                                            |
| Частота .....                           | 100 Гц                                                                                                                                     |
| Усиление .....                          | ±13 дБ                                                                                                                                     |
| Средние частоты                         |                                                                                                                                            |
| Частота .....                           | 1 кГц                                                                                                                                      |
| Усиление .....                          | ±12 дБ                                                                                                                                     |
| Высокие частоты                         |                                                                                                                                            |
| Частота .....                           | 10 кГц                                                                                                                                     |
| Усиление .....                          | ±12 дБ                                                                                                                                     |

### Проигрыватель компакт-дисков

|                           |                                   |
|---------------------------|-----------------------------------|
| Система .....             | Аудиосистема с компакт-<br>диском |
| Используемые диски .....  | Компакт-диск                      |
| Отношение сигнал/шум .... | 94 дБ (1 кГц) (сеть IEC-A)        |
| Число каналов .....       | 2 (стерео)                        |

### Формат декодирования файлов MP3

|       |                          |
|-------|--------------------------|
| ..... | MPEG-1 и 2 Audio Layer 3 |
|-------|--------------------------|

### Формат декодирования файлов WMA

|       |                                                                               |
|-------|-------------------------------------------------------------------------------|
| ..... | Версии 7, 7.1, 8, 9, 10, 11<br>(двухканальный звук)<br>(Windows Media Player) |
|-------|-------------------------------------------------------------------------------|

|                          |                                           |
|--------------------------|-------------------------------------------|
| Формат сигнала WAV ..... | Linear PCM и MS ADPCM<br>(без компрессии) |
|--------------------------|-------------------------------------------|

### USB

|                                      |                         |
|--------------------------------------|-------------------------|
| Тип .....                            | USB 2.0 полноскоростной |
| Ток питания .....                    | 500 мА                  |
| Максимальная емкость памяти<br>..... | 250 Гб                  |

### Минимальная емкость памяти

|       |        |
|-------|--------|
| ..... | 256 Мб |
|-------|--------|

|                           |                          |
|---------------------------|--------------------------|
| Класс USB-устройств ..... | MSC (Mass Storage Class) |
|---------------------------|--------------------------|

|                        |              |
|------------------------|--------------|
| Файловая система ..... | FAT16, FAT32 |
|------------------------|--------------|

### Формат декодирования файлов MP3

|       |                          |
|-------|--------------------------|
| ..... | MPEG-1 и 2 Audio Layer 3 |
|-------|--------------------------|

### Формат декодирования файлов WMA

|       |                                                                               |
|-------|-------------------------------------------------------------------------------|
| ..... | Версии 7, 7.1, 8, 9, 10, 11<br>(двухканальный звук)<br>(Windows Media Player) |
|-------|-------------------------------------------------------------------------------|

|                          |                                           |
|--------------------------|-------------------------------------------|
| Формат сигнала WAV ..... | Linear PCM и MS ADPCM<br>(без компрессии) |
|--------------------------|-------------------------------------------|

### FM-тюнер

|                       |                                                 |
|-----------------------|-------------------------------------------------|
| Диапазон частот ..... | от 65 МГц до 74 МГц<br>от 87,5 МГц до 108,0 МГц |
|-----------------------|-------------------------------------------------|

### Полезная чувствительность

|       |                                                                 |
|-------|-----------------------------------------------------------------|
| ..... | 11 дБф (0,7 мкВ/75 Ω,<br>моно, отношение сигнал/<br>шум: 30 дБ) |
|-------|-----------------------------------------------------------------|

|                           |                    |
|---------------------------|--------------------|
| Отношение сигнал/шум .... | 72 дБ (сеть IEC-A) |
|---------------------------|--------------------|

### MW-тюнер

|                       |                         |
|-----------------------|-------------------------|
| Диапазон частот ..... | от 531 кГц до 1 602 кГц |
|-----------------------|-------------------------|

### Полезная чувствительность

|       |                                           |
|-------|-------------------------------------------|
| ..... | 25 мкВ (отношение сиг-<br>нал/шум: 20 дБ) |
|-------|-------------------------------------------|

|                           |                    |
|---------------------------|--------------------|
| Отношение сигнал/шум .... | 62 дБ (сеть IEC-A) |
|---------------------------|--------------------|

### LW-тюнер

|                       |                   |
|-----------------------|-------------------|
| Диапазон частот ..... | от 153 до 281 кГц |
|-----------------------|-------------------|

### Полезная чувствительность

|       |                                           |
|-------|-------------------------------------------|
| ..... | 28 мкВ (отношение сиг-<br>нал/шум: 20 дБ) |
|-------|-------------------------------------------|

|                           |                    |
|---------------------------|--------------------|
| Отношение сигнал/шум .... | 62 дБ (сеть IEC-A) |
|---------------------------|--------------------|

**Примечание:**

В соответствии со статьей 5 закона Российской Федерации “О защите прав потребителей” и постановлением правительства Российской Федерации № 720 от 16.06.97 компания Pioneer Europe NV оговаривает следующий срок службы изделий, официально поставляемых на российский рынок.

Автомобильная электроника: 6 лет

Другие изделия (наушники, микрофоны и т.п.): 5 лет

**Примечания**

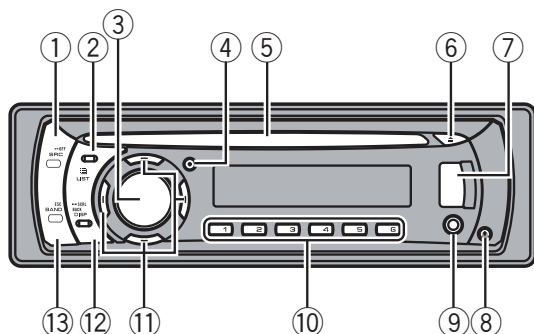
- Характеристики и конструкция могут быть изменены с целью их улучшения без предварительного уведомления.
- Данное устройство произведено в Китае. ■

## 2.2 DISC/CONTENT FORMAT



## What's what

### Head unit



① **SRC/OFF button**

This unit is turned on by selecting a source. Press to cycle through all the available sources.

② **≡/LIST button**

Press to display the disc title list, track title list, folder list or file list.

③ **MULTI-CONTROL**

Turn to increase or decrease the volume. Also used for controlling functions.

④ **TA/AF button**

Press to turn TA function on or off. Press and hold to turn AF function on or off.

⑤ **Disc loading slot**

Insert a disc to play.

⑥ **▲ (eject) button**

Press to eject a disc.

⑦ **USB port**

Use to connect a USB audio player/USB memory.

- When connecting, open up the USB connector lid.
- Use a USB cable to connect the USB audio player/USB memory to the USB port. Since the USB audio player/USB memory is projected forward from the unit, it is dangerous to connect directly. Pioneer CD-U50E USB cable is also available. For details, consult your dealer.

⑧ **🏠 (detach) button**

Press to remove the front panel from the head unit.

⑨ **AUX input jack (3.5 mm stereo jack)**

Use to connect an auxiliary device.

⑩ **1 to 6 buttons**

Press for preset tuning. Also used for controlling functions.

- **1/S.Rtrv** can be used to control **S.RTRV** (sound retriever).
- **2/PAUSE** can be used to control **PAUSE** (pause).
- **5/⌘** can be used to control **RANDOM** (random).
- **6/↺** can be used to control **REPEAT** (repeat).

⑪ **▲/▼/◀/▶ buttons**

Press to perform manual seek tuning, fast forward, reverse and track search controls. Also used for controlling functions.

- When operating menus
  - Pressing **▲** is the same function as turning **MULTI-CONTROL** right.
  - Pressing **▼** is the same function as turning **MULTI-CONTROL** left.
  - Pressing **◀** is the same function as pressing **DISP/BACK/SCRL**.
  - Pressing and holding **◀** is the same function as pressing and holding **DISP/BACK/SCRL**.
  - Pressing **▶** is the same function as pressing **MULTI-CONTROL**.
  - Pressing and holding **▶** is the same function as pressing and holding **MULTI-CONTROL**.
- When operating lists
  - Pressing **▲** is the same function as turning **MULTI-CONTROL** left.
  - Pressing **▼** is the same function as turning **MULTI-CONTROL** right.
  - Pressing **◀** is the same function as pressing **DISP/BACK/SCRL**.

- Pressing and holding ◀ is the same function as pressing and holding **DISP/BACK/SCRL**.
- Pressing ▶ is the same function as pressing **MULTI-CONTROL**.
- Pressing and holding ▶ is the same function as pressing and holding **MULTI-CONTROL**.

## ⑫ **DISP/BACK/SCRL button**

Press to select different displays.

Press and hold to scroll through the text information.

Press to return to the previous display when operating the menu.

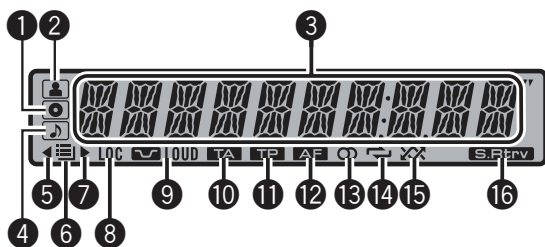
Press and hold to return to the main menu when operating the menu.

## ⑬ **BAND/ESC button**

Press to select among three FM bands and MW/LW bands.

Press to return to the ordinary display when operating the menu.

## Display indication



### ① **(disc) indicator**

Appears when the disc (album) name is displayed on the main display section.

### ② **(artist) indicator**

Appears when the disc (track) artist name is displayed on the main display section.

### ③ **Main display section**

Displays band, frequency, elapsed playback time and other settings.

- Tuner  
Band and frequency are displayed.
- RDS

Program service name, PTY information and other literal information are displayed.

- Built-in CD player and USB  
Elapsed playback time and literal information are displayed.

### ④ **(song) indicator**

Appears when the track (song) name is displayed on the main display section.

Also, appears when a playable audio file is selected while operating the list.

### ⑤ **◀ indicator**

Appears when an upper tier of folder or menu exists.

### ⑥ **(folder) indicator**

Appears when operating list function.

### ⑦ **▶ indicator**

Appears when a lower tier of folder or menu exists.

### ⑧ **LOC indicator**

Appears when local seek tuning is on.

### ⑨ **LOUD (loudness) indicator**

Appears when loudness is on.

### ⑩ **TA (TA) indicator**

Appears when TA (traffic announcement standby) function is on.

### ⑪ **TP (TP) indicator**

Appears when a TP station is tuned in.

### ⑫ **AF (AF) indicator**

Appears when AF (alternative frequencies search) function is on.

### ⑬ **(stereo) indicator**

Appears when the selected frequency is being broadcast in stereo.

### ⑭ **(repeat) indicator**

Shows when track repeat is turned on. Also, shows when folder repeat is on.

15  (random) indicator

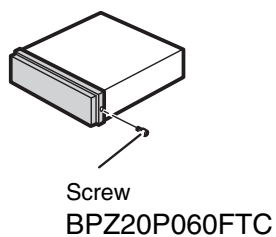
Shows when random play is on.

16  (Sound Retriever) indicator

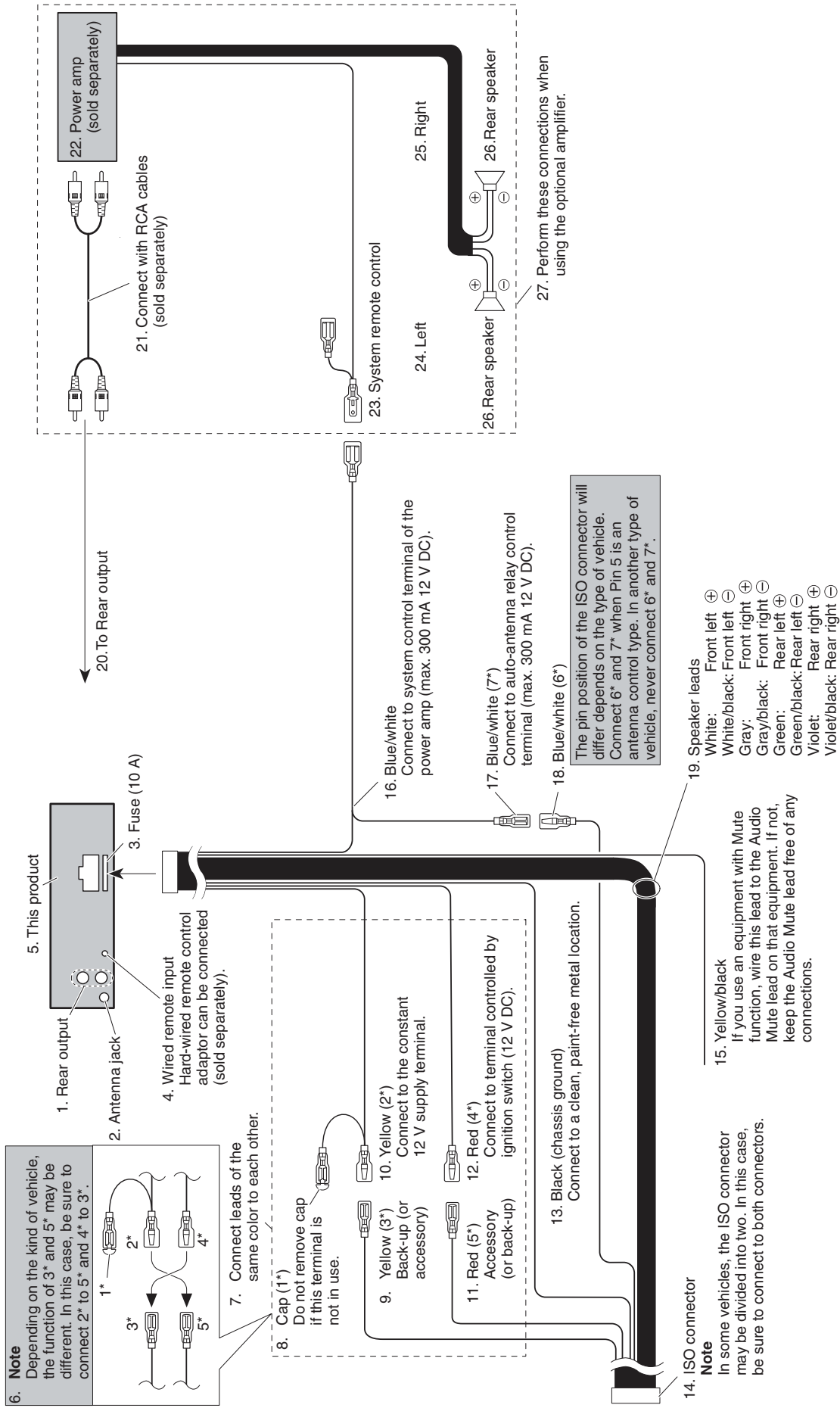
Appears when Sound Retriever function is on. 

## Fastening the front panel

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



2.4 CONNECTION DIAGRAM



### 3. BASIC ITEMS FOR SERVICE

#### 3.1 CHECK POINTS AFTER SERVICING

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

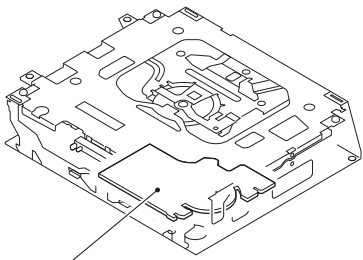
| No. |             | Procedures                                                                                                                                         | Item to be confirmed                                                                           |
|-----|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 1   |             | Confirm whether the customer complain has been solved.<br>If the customer complain occurs with the specific media, use it for the operation check. | The customer complain must not be reappeared.<br>Display, audio and operations must be normal. |
| 2   | CD          | Play back a CD.<br>(Track search)                                                                                                                  | No malfunction on display, audio and operation.                                                |
| 3   | FM/AM tuner | Check FM/AM tuner action.<br>(Seek, Preset)<br>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:

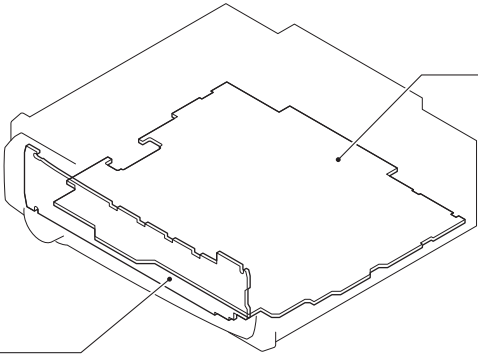
| Item to be checked regarding audio |
|------------------------------------|
| Distortion                         |
| Noise                              |
| Volume too low                     |
| Volume too high                    |
| Volume fluctuating                 |
| Sound interrupted        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

1 2 3 4

# 3.2 PCB LOCATIONS



**C** CD Core Unit (S10.5COMP2-USB-C3)



**B** Keyboard Unit

**A** Tuner Amp Unit

C

|                     |   |                                 |
|---------------------|---|---------------------------------|
| A:DEH-2100UB/XS/EW5 |   |                                 |
| B:DEH-2120UB/XS/EW5 |   |                                 |
| C:DEH-2110UB/XS/UR  |   |                                 |
| Unit Number         | : | YWM5292(A)                      |
| Unit Number         | : | YWM5317(B)                      |
| Unit Number         | : | YWM5316(C)                      |
| Unit Name           | : | Tuner Amp Unit                  |
| Unit Number         | : |                                 |
| Unit Name           | : | Keyboard Unit                   |
| Unit Number         | : | CWX3679                         |
| Unit Name           | : | CD Core Unit(S10.5COMP2-USB-C3) |

D

### 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 | GEM1045    | CD Mechanism Module |

### 3.4 CLEANING



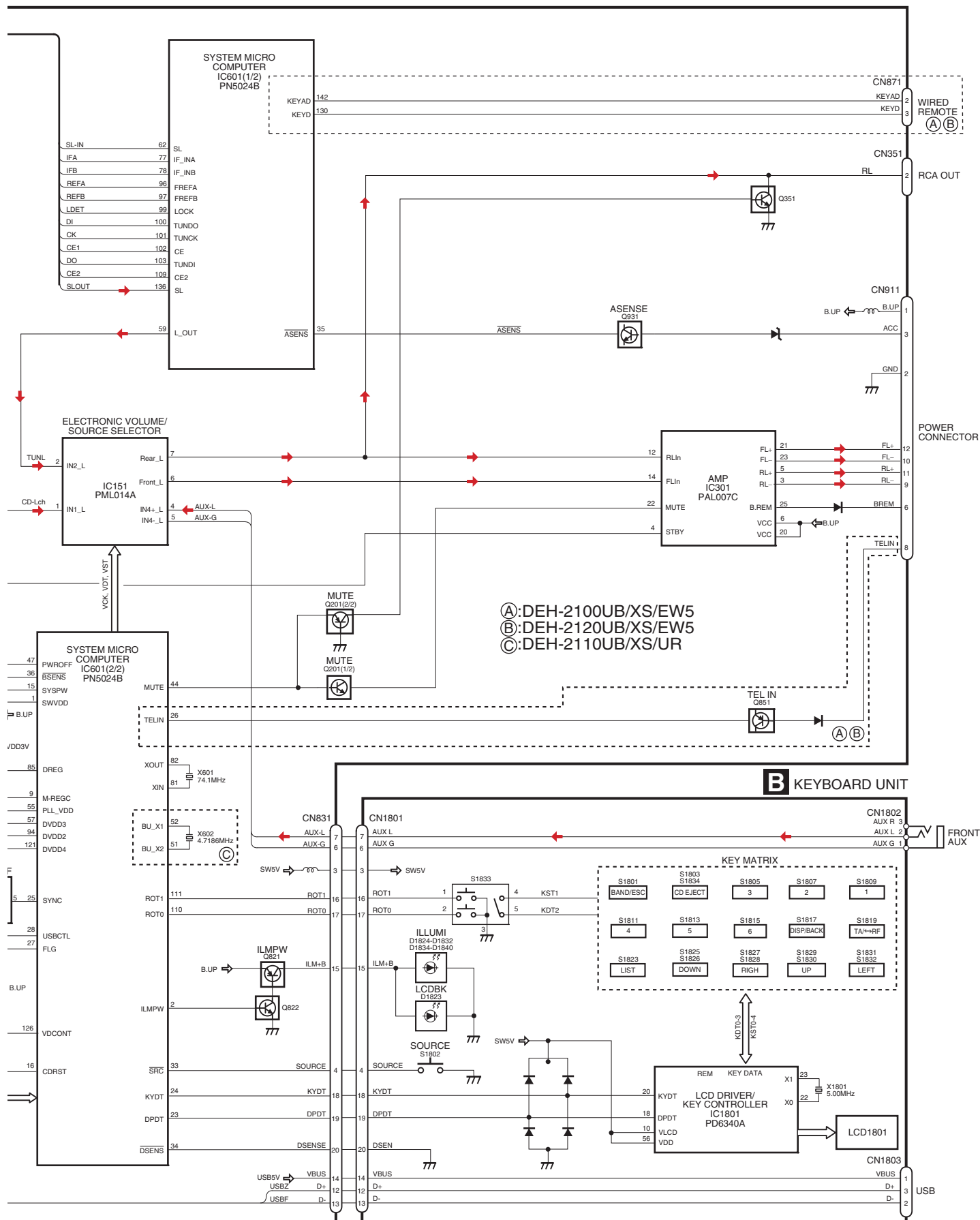
Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

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

## 4

## A

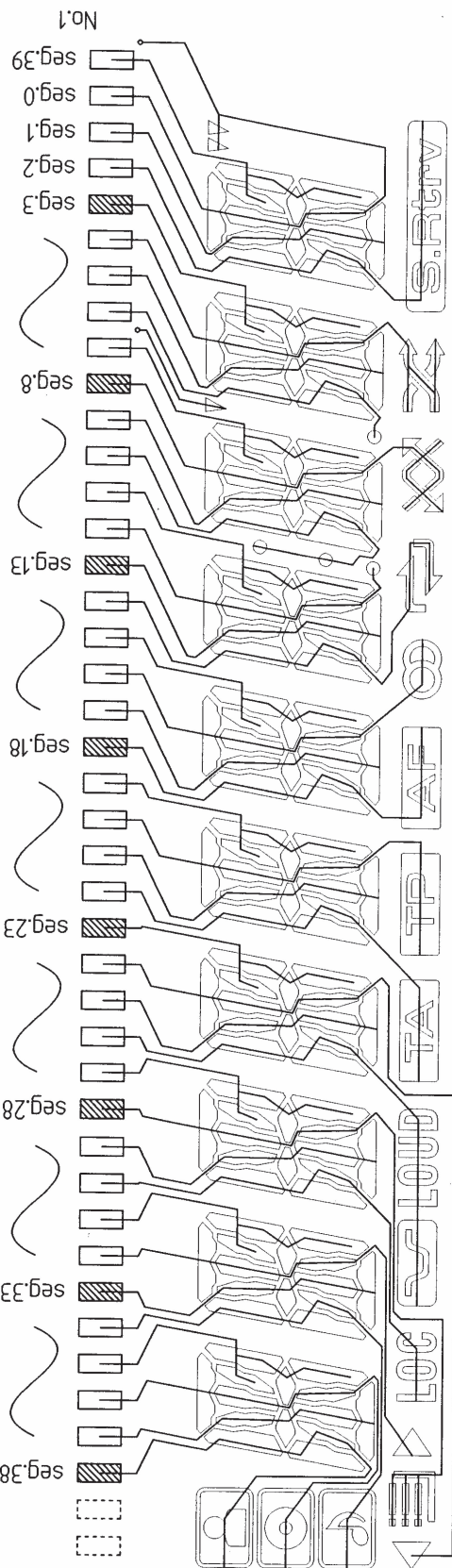




A: DEH-2100UB/XS/EW5  
 B: DEH-2120UB/XS/EW5  
 C: DEH-2110UB/XS/UR

## LCD (CAW1970)

A



B

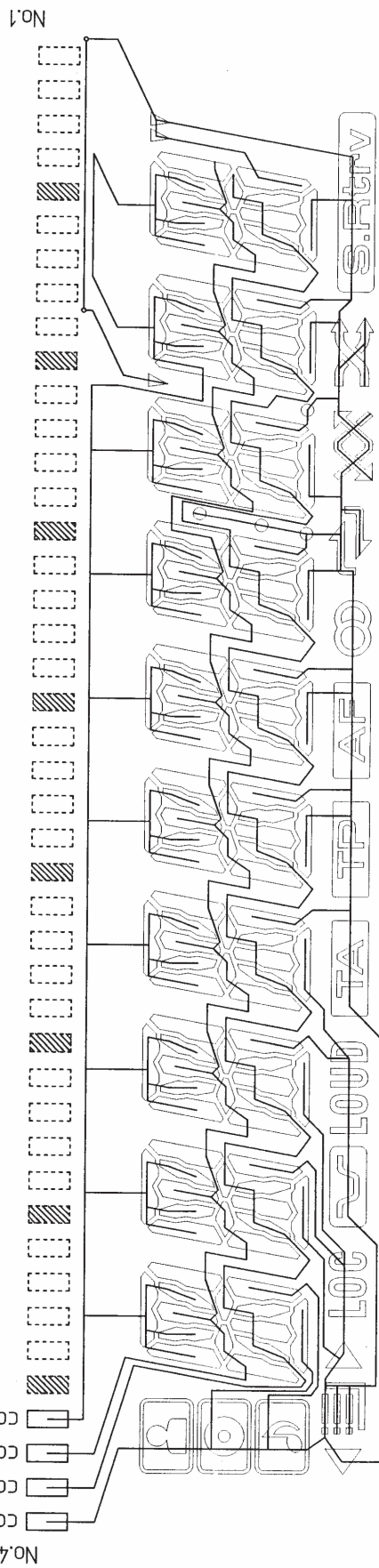
C

D

E

F

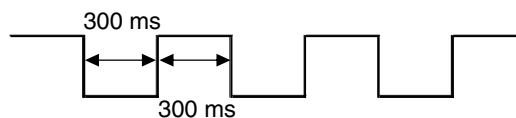
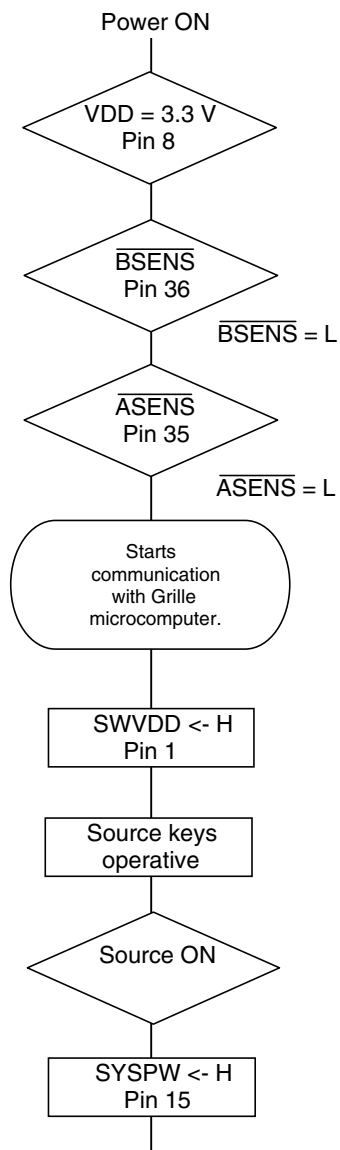
SEGMENT



COMMON

# 5. DIAGNOSIS

## 5.1 OPERATIONAL FLOWCHART



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

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

## 5.2 ERROR CODE LIST

### ● Error Messages

If a CD is not operative or stopped during operation due to an error, the error mode is turned on and cause(s) of the error is indicated with a corresponding number. This arrangement is intended at reducing nonsense calls from the users and also for facilitating trouble analysis and repair work in servicing.

#### (1) Basic Indication Method

1) When SERRORM is selected for the CSMOD (CD mode area for the system), error codes are written to DMIN (minutes display area) and DSEC (seconds display area). The same data is written to DMIN and DSEC. DTNO remains in blank as before.

#### 2) Head unit display examples

Depending on display capability of LCD used, display will vary as shown below. xx contains the error number.

8-digit display

ERROR-xx

6-digit display

ERR-xx

4-digit display

E-xx

#### (2) Error Code List

| Code | Class       | Displayed error code                                   | Description of the code and potential cause(s)                                                                                                                                                                                                       |
|------|-------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10   | Electricity | Carriage Home NG<br>SERVO LSI Com-<br>munication Error | CRG can't be moved to inner diameter.<br>CRG can't be moved from inner diameter.<br>-> Failure on home switch or CRG move mechanism.<br>Communication error between microcomputer and SERVO LSI.                                                     |
| 11   | Electricity | Focus Servo NG                                         | Focusing not available.<br>-> Stains on rear side of disc or excessive vibrations on REWRITABLE.                                                                                                                                                     |
| 12   | Electricity | Spindle Lock NG<br>Subcode NG                          | Spindle not locked. Sub-code is strange (not readable).<br>-> Failure on spindle, stains or damages on disc, or excessive vibrations.<br>A disc not containing CD-R data is found.<br>Turned over disc are found, though rarely.<br>CD signal error. |
| 17   | Electricity | Setup NG                                               | AGC protection doesn't work. Focus can be easily lost.<br>-> Damages or stains on disc, or excessive vibrations on REWRITABLE.                                                                                                                       |
| 30   | Electricity | Search Time Out                                        | Failed to reach target address.<br>-> CRG tracking error or damages on disc.                                                                                                                                                                         |
| 44   | Electricity | ALL Skip                                               | Skip setting for all track.<br>(CD-R/RW)                                                                                                                                                                                                             |
| 50   | Mechanism   | CD On Mech Error                                       | Mechanical error during CD ON.<br>-> Defective loading motor, mechanical lock and mechanical sensor.                                                                                                                                                 |
| A0   | System      | Power Supply NG                                        | Power (VD) is ground faulted.<br>-> Failure on SW transistor or power supply (failure on connector).                                                                                                                                                 |

Remarks: Mechanical errors are not displayed (because a CD is turned off in these errors).

Unreadable TOC does not constitute an error. An intended operation continues in this case.

Upper digits of an error code are subdivided as shown below:

1x: Setup relevant errors, 3x: Search relevant errors, Ax: Other errors.

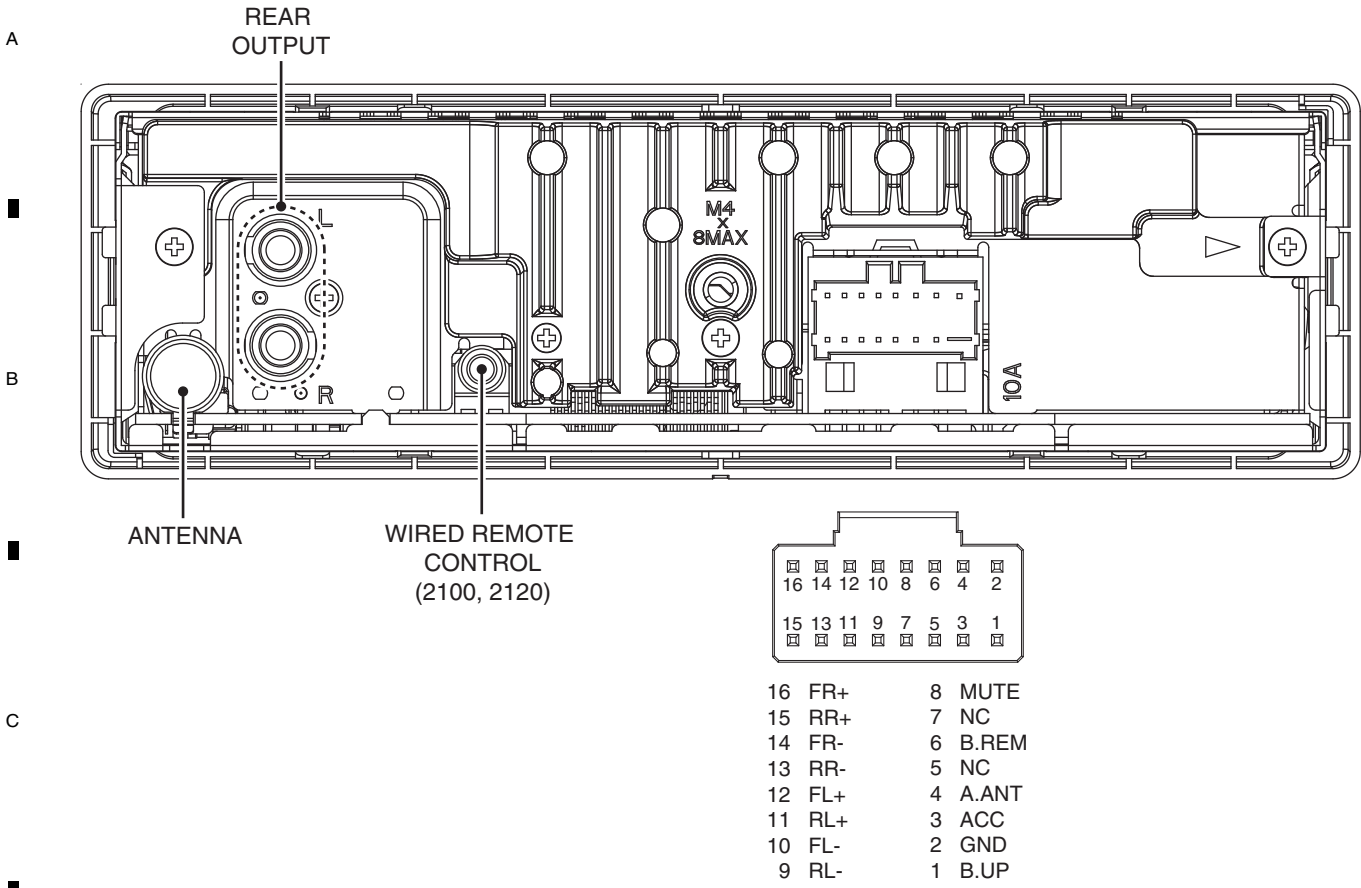
### USB audio player/USB memory

| Message          | Cause                                                                                                               | Action                                                                                                                                                                                         |
|------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NO AUDIO</b>  | No songs                                                                                                            | Transfer the audio files to the USB portable audio player/USB memory and connect.                                                                                                              |
|                  | USB memory with security enabled is connected                                                                       | Follow the USB memory instructions to disable the security.                                                                                                                                    |
| <b>SKIPPED</b>   | The connected USB portable audio player/USB memory contains WMA files that are protected by Windows Media™ DRM 9/10 | Play an audio file not protected by Windows Media DRM 9/10.                                                                                                                                    |
| <b>PROTECT</b>   | All the files on the connected USB portable audio player/USB memory are protected by Windows Media DRM 9/10         | Transfer audio files not protected by Windows Media DRM 9/10 to the USB portable audio player/USB memory and connect.                                                                          |
| <b>N/A USB</b>   | The USB device connected to is not supported by this unit.                                                          | Connect a USB portable audio player or USB memory that is USB Mass Storage Class compliant.                                                                                                    |
| <b>CHECK USB</b> | The USB connector or USB cable is short-circuited.                                                                  | Confirm that the USB connector or USB cable is not caught in something or damaged.                                                                                                             |
|                  | The connected USB portable audio player/USB memory consumes more than 500 mA (maximum allowable current).           | Disconnect the USB portable audio player/USB memory and do not use it. Turn the ignition switch to OFF, then to ACC or ON and then connect the compliant USB portable audio player/USB memory. |

- When the USB portable audio player/USB memory is disconnected from this unit during playback, **NO DEVICE** is displayed.

1 2 3 4

# 5.3 CONNECTOR FUNCTION DESCRIPTION



## 6. SERVICE MODE

### 6.1 DISPLAY TEST MODE

#### 1. To enter the test mode

Turn on ACC and Backup while pressing the 1 and the 3 buttons together.

#### 2. To exit from the test mode

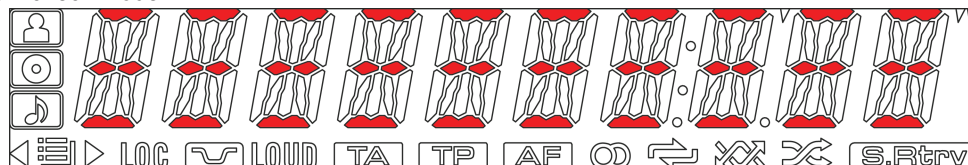
Turn off the ACC and Backup.

#### 3. Operation method

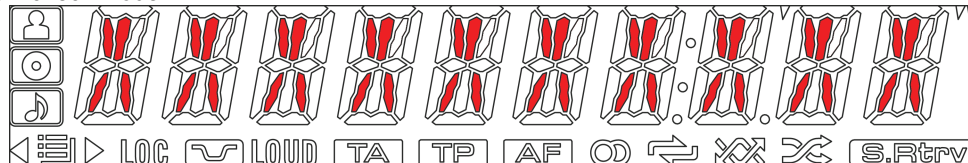
Change display as follows by pressing the 1 and the 3 buttons together.

System version display  
↓  
ROM Correction version display  
↓  
Normal display  
↓  
Display stop  
↓  
All lighting of display  
↓  
All lights out of display  
↓  
LCD check mode 1  
↓  
LCD check mode 2  
↓  
LCD check mode 3

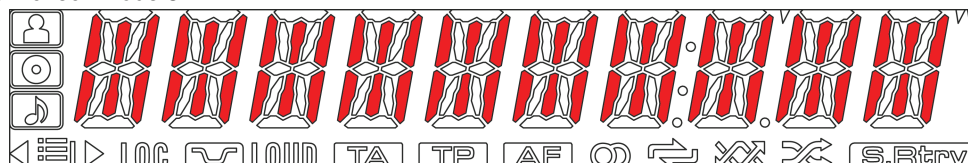
##### LCD check mode 1



##### LCD check mode 2



##### LCD check mode 3



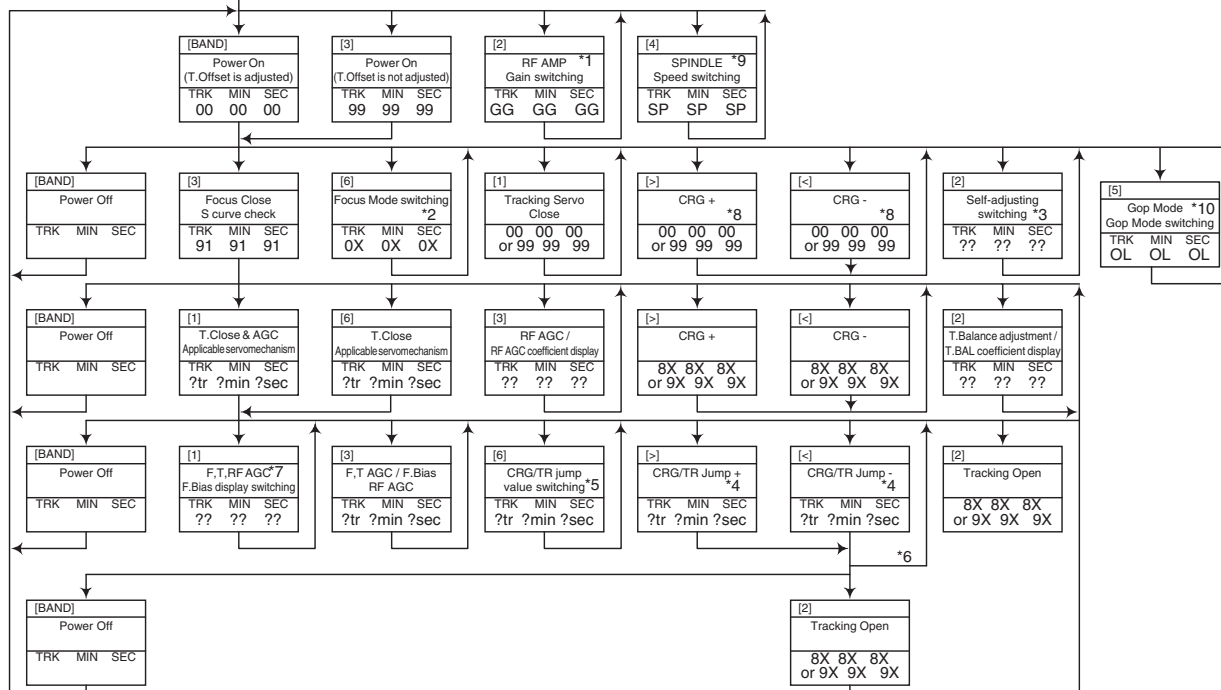
## 6.2 CD TEST MODE

### Flow Chart

| [Key]    |
|----------|
| Contents |
| Display  |

|                                                              |
|--------------------------------------------------------------|
| [4] + [6] + Reset or<br>[4] + [6] + BU + ACC<br>Test Mode In |
|--------------------------------------------------------------|

|                               |
|-------------------------------|
| [CD] or [SOURCE]<br>Source On |
| TRK MIN SEC                   |



\*1) TYP -> + 6 dB -> + 12 dB  
TRK MIN SEC TRK06MIN06SEC06 TRK12MIN12SEC12

\*2) Focus Close -> S.Curve -> F EQ measurement setting  
TRK00MIN00SEC00 TRK01MIN01SEC01 TRK02MIN02SEC02  
(TRK99MIN99SEC99)

\*3) F.Offset Display -> RF.Offset -> T.Offset Display -> Switch to the order of the original display

\*4) 1TR/4TR/10TR/32TR/100TR

\*5) Single -> 4TR -> 10TR -> 32TR -> 100TR -> CRG Move  
9x(8x):91(81) 92(82) 93(83) 94(84) 95(85) 96(86)

\*6) Only at the time of CRG move, 100TR jump

\*7) TRK/MIN/SEC -> F.AGC -> T.AGC Gain -> F Bias -> RF AGC

\*8) CRG motor voltage = 2 [V]

\*9) TYP (1X) -> 2X -> 1X  
TRK MIN SEC TRK22MIN22SEC22 TRK11MIN11SEC11

\*10) OFF(TYP) -> FORCUS -> TRACKING  
TRK MIN SEC TRK70MIN70SEC70 TRK71MIN71SEC71

| [Key]  | Operation                                                                                     |
|--------|-----------------------------------------------------------------------------------------------|
| [BAND] | Power On/Off                                                                                  |
| [>]    | CRG + / TR Jump +<br>(Direction of the external surface)                                      |
| [<]    | CRG - / TR Jump -<br>(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                                        |
| [4]    | SPDL 1X/2X switching<br>As for the double speed(2x), audio output <u>cannot</u> be supported. |
| [5]    | Error Rate measurement<br>ON : ERR 30 Counts Start<br>BER display data[%]                     |
| [6]    | F. Mode switching / Tracking Close / CRG*TR Jump Switching                                    |

- As for the double speed (2x), audio output cannot be supported
- 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).
- In the case of TR jump other than to 100TR, the function shall continue to be processed even if the TR jump key is released. As for the CRG Move and 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 jump mode is reset to the Single TR (91) while 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.

## 7. DISASSEMBLY

### ● 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.

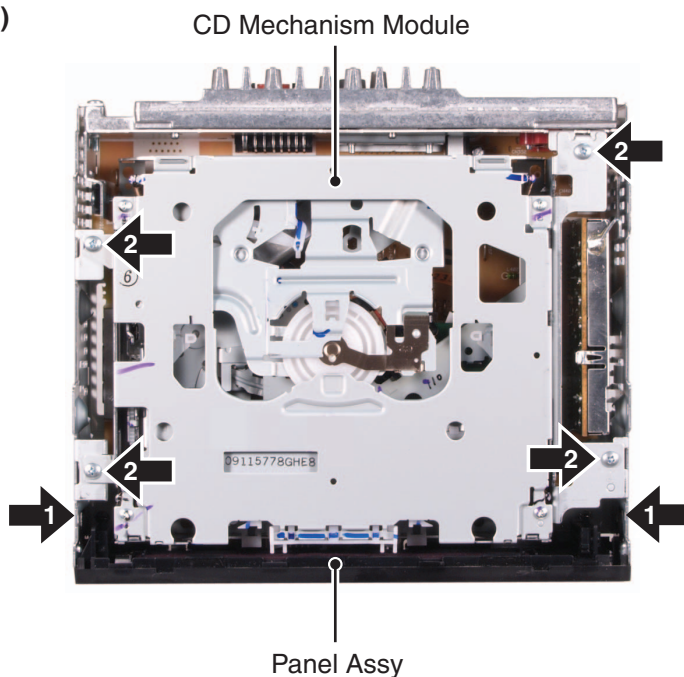


Fig.1

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

- 1 Remove the two screws.

- 2 Remove the three screws.

- 3 Remove the two screws.

- 4 Straighten the tabs at two locations indicated and then remove the Tuner Amp Unit.

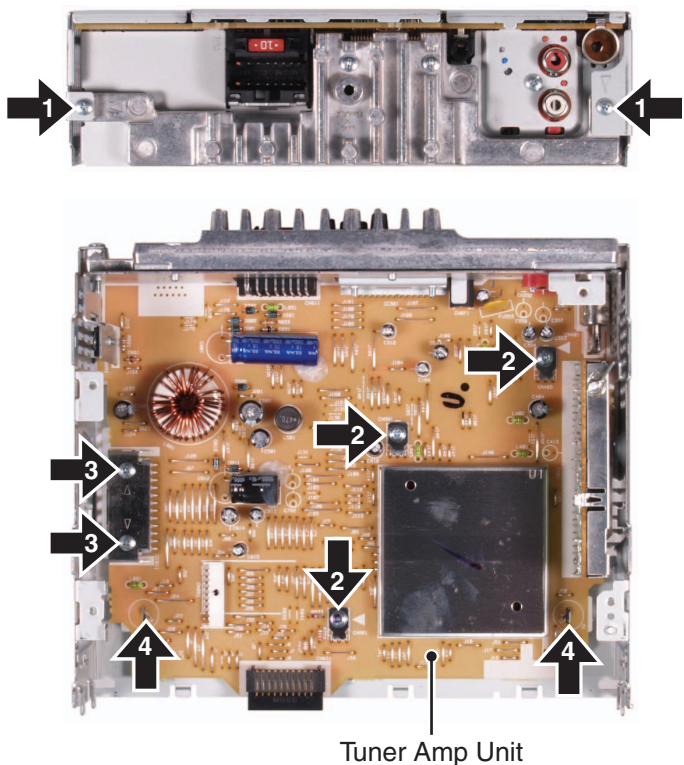
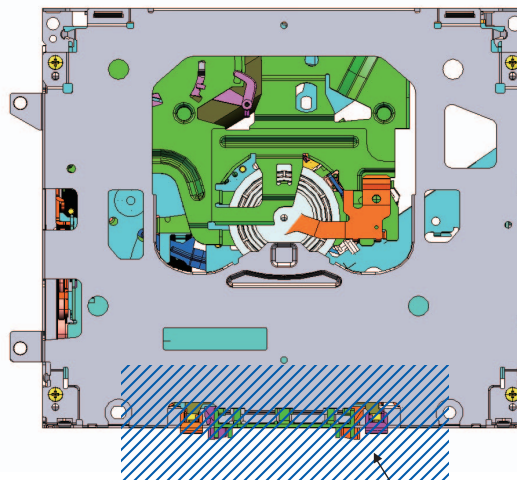


Fig.2

### ● How to hold the Mechanism Unit

1. Hold the Upper and Lower Frames.
2. Do not hold the front portion of the Upper Frame, because it is not very solid.

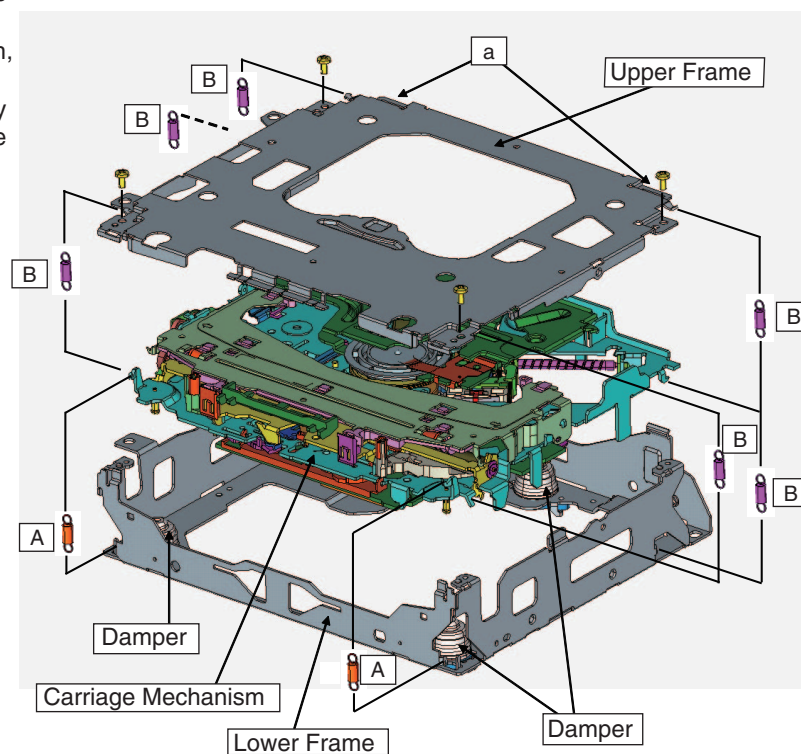


Do not squeeze this area.

### ● Removing the Upper and Lower Frames

1. With a disc inserted and clamped in the mechanism, remove the two Springs (A), the six Springs (B), and the four Screws.
2. Turn the Upper Frame using the part "a" as a pivot, and remove the Upper Frame.
3. While lifting the Carriage Mechanism, remove it from the three Dampers.

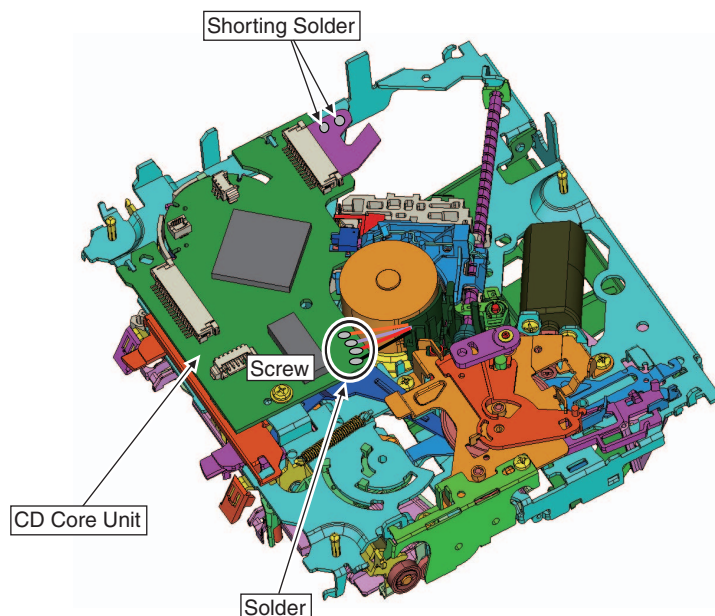
Caution: When assembling, be sure to apply some alcohol to the Dampers and assemble the mechanism in a clamped state.



### ● How to remove the CD Core Unit

1. Apply Shorting Solder to the flexible cable of the Pickup, and disconnect it from the connector.
2. Unsolder the four leads, and loosen the Screw.
3. Remove the CD Core Unit.

Caution: When assembling the CD Core Unit, assemble it with the SW in a clamped state so as not to damage it.

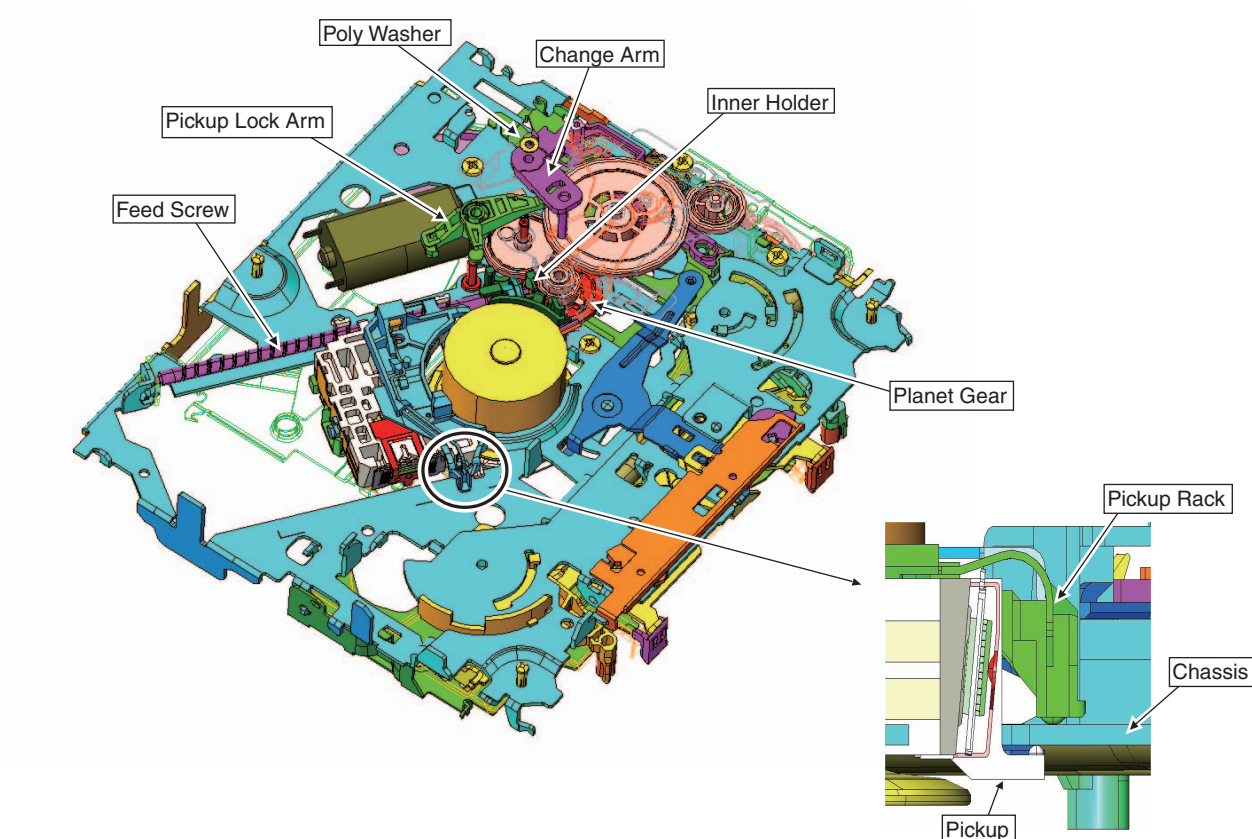


### ● How to remove the Pickup Unit

1. Make the system in the carriage mechanism mode, and have it clamped.
2. Remove the CD Core Unit and remove the leads from the Inner Holder.
3. Remove the Poly Washer, Change Arm, and Pickup Lock Arm.
4. While releasing from the hook of the Inner Holder, lift the end of the Feed Screw.

Caution: When assembling, move the Planet Gear to the load/eject position before setting the Feed Screw in the Inner Holder.

Assemble the sub unit side of the Pickup, taking the plate (Chassis) in-between. When treating the leads of the Load Carriage Motor Assy, do not make them loose over the Feed Screw.



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

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

#### 2) Test mode

This mode is used to adjust the CD mechanism module.

- To enter the test mode.

While pressing the 4 and 6 keys at the same time, reset.

- To exit from the test mode.

Turn off the ACC and back up.

#### Notes:

- a. During ejection, do not press any other keys than the EJECT key until the loaded disc is ejected.
- b. If you have pressed the (->) 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.

## 8.2 CHECKING THE GRATING AFTER CHANGING THE PICKUP UNIT

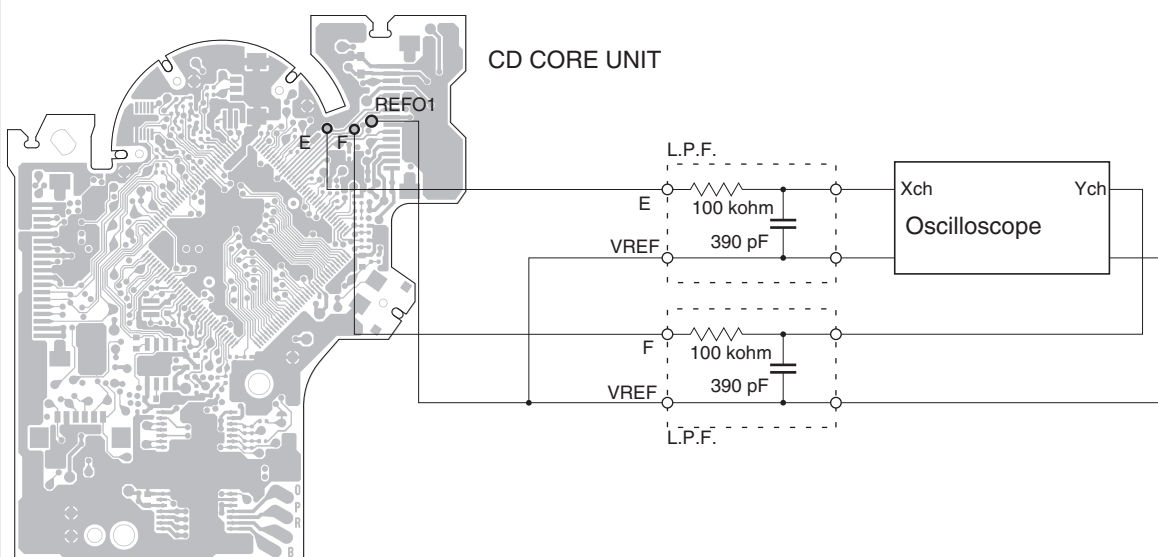


- **Note :**  
The grating angle of the PU unit cannot be adjusted after the PU unit is changed. The PU unit in the CD mechanism module is adjusted on the production line to match the CD mechanism module and is thus the best adjusted PU unit for the CD mechanism module. Changing the PU unit is thus best 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 -> and <- 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 degrees. Refer to the photographs supplied to determine the phase angle.
  5. If the phase difference is determined to be greater than 75 degrees 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 degrees 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".

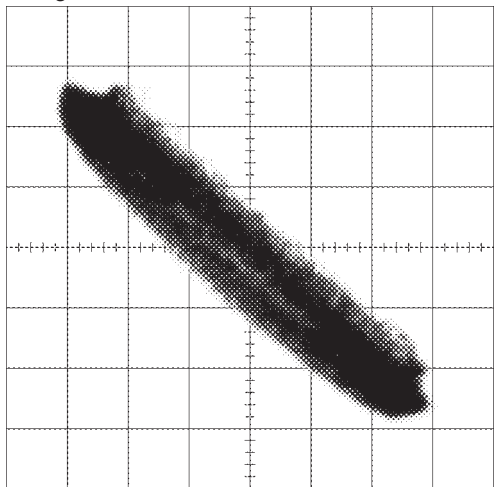
## Grating waveform

Ech -&gt; Xch 20 mV/div, AC

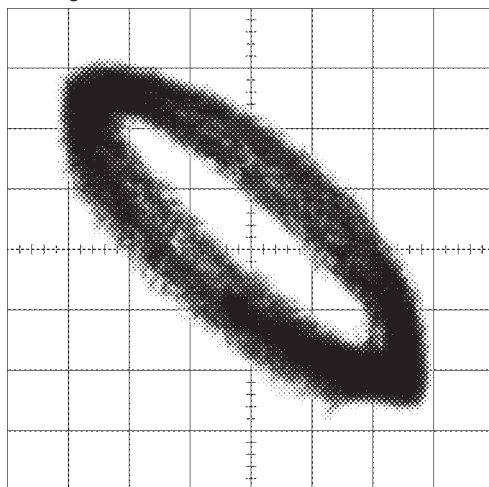
Fch -&gt; Ych 20 mV/div, AC

A

0 degrees

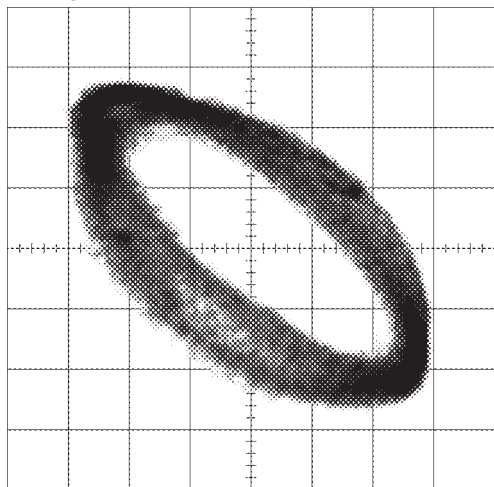


30 degrees

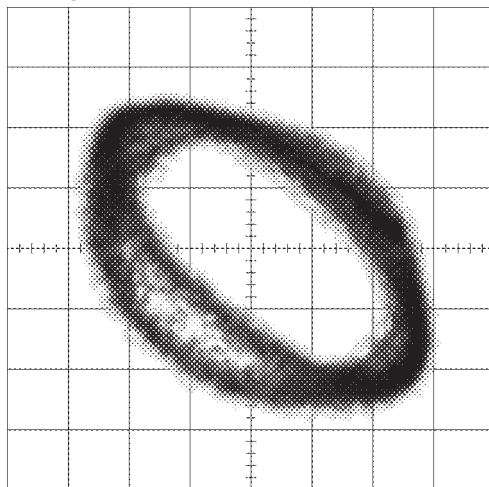


B

45 degrees



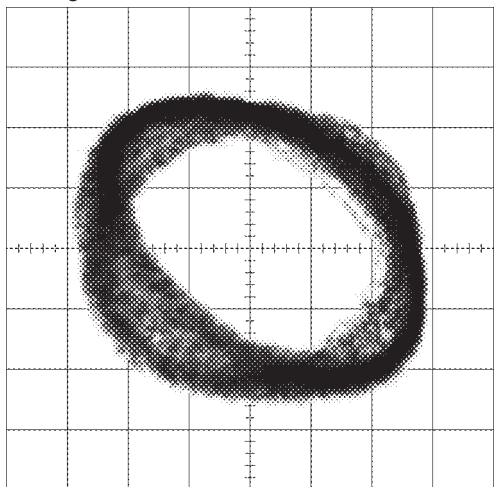
60 degrees



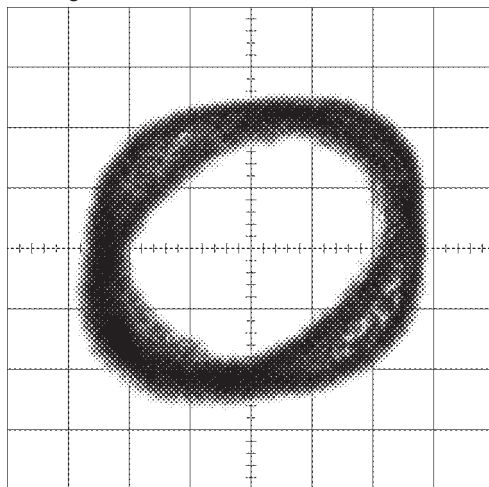
C

D

75 degrees



90 degrees



E

F

■

5

■

6

■

7

■

8

■

A

■

B

■

C

■

D

■

E

■

F

■

5

■

6

■

7

■

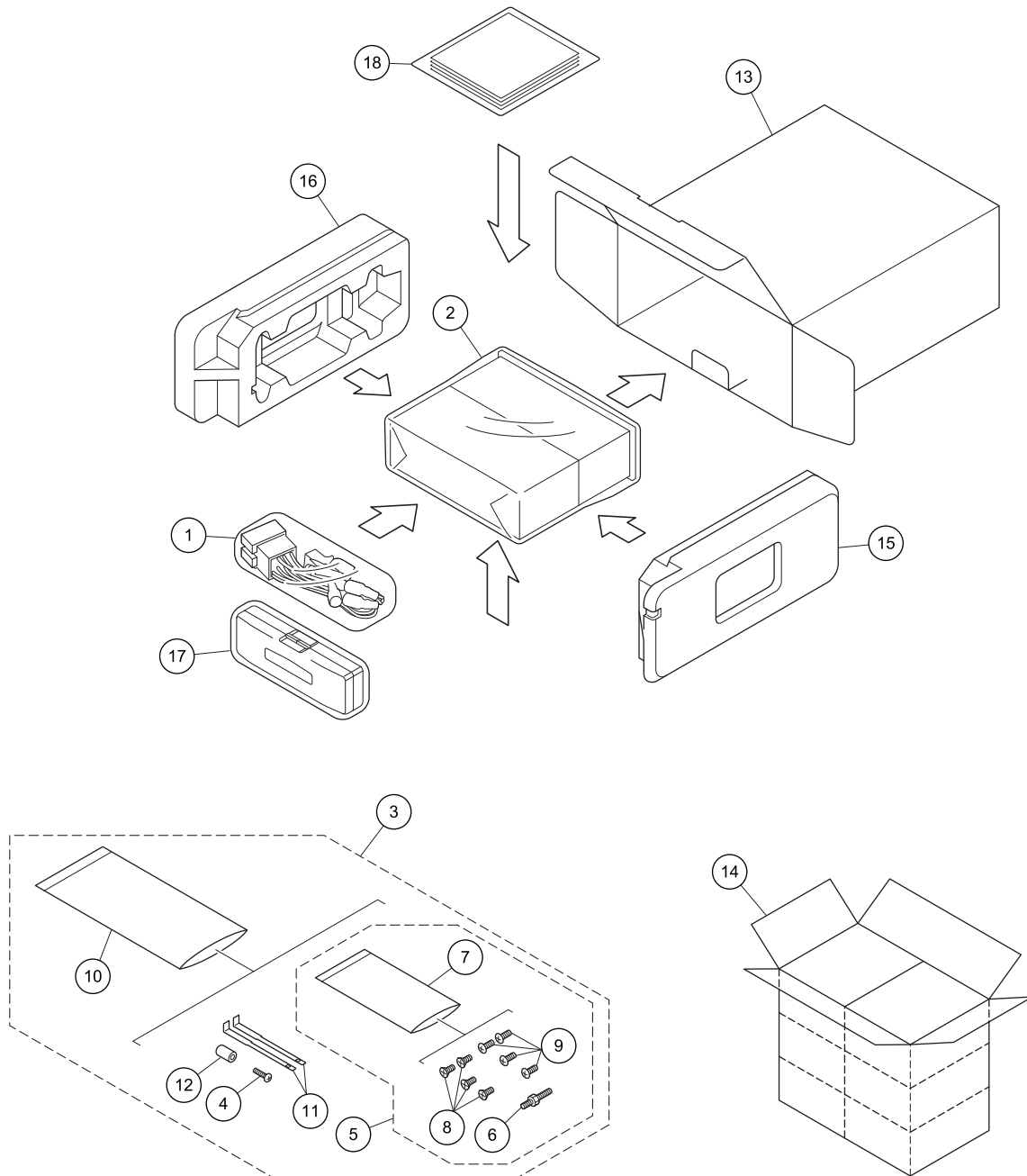
8

■

## 9. EXPLODED VIEWS AND PARTS LIST

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

### 9.1 PACKING



|                                       |            |                    |                        |             |                     |                        |                 |   |
|---------------------------------------|------------|--------------------|------------------------|-------------|---------------------|------------------------|-----------------|---|
|                                       | 5          |                    | 6                      |             | 7                   |                        | 8               |   |
| <b>(1) PACKING SECTION PARTS LIST</b> |            |                    |                        |             |                     |                        |                 |   |
| <b>Mark</b>                           | <b>No.</b> | <b>Description</b> | <b>Part No.</b>        | <b>Mark</b> | <b>No.</b>          | <b>Description</b>     | <b>Part No.</b> |   |
|                                       | 1          | Cord Assy          | See Contrast table (2) | 12          | Bush                | CNV3930                |                 |   |
|                                       | 2          | Polyethylene Bag   | CEG-162                | 13          | Unit Box            | See Contrast table (2) |                 | A |
| *                                     | 3          | Accessory Assy     | YEA5070                | 14          | Contain Box         | See Contrast table (2) |                 |   |
|                                       | 4          | Screw              | BPZ20P060FTC           | 15          | Protector           | YHP5050                |                 |   |
|                                       | 5          | Screw Assy         | CEA3849                |             |                     |                        |                 |   |
|                                       | 6          | Screw              | CBA1650                | 16          | Protector           | YHP5051                |                 |   |
| *                                     | 7          | Polyethylene Bag   | CEG-127                | 17          | Case Assy           | YXB5009                |                 |   |
|                                       | 8          | Screw              | CRZ50P090FTC           | 18-1        | Owner's Manual      | See Contrast table (2) |                 |   |
|                                       | 9          | Screw              | TRZ50P080FTC           | 18-2        | Owner's Manual      | See Contrast table (2) |                 |   |
|                                       | 10         | Polyethylene Bag   | CEG1160                | * 18-3      | Warranty Card       | See Contrast table (2) |                 |   |
|                                       | 11         | Handle             | CND3707                | 18-4        | Installation Manual | See Contrast table (2) |                 | B |

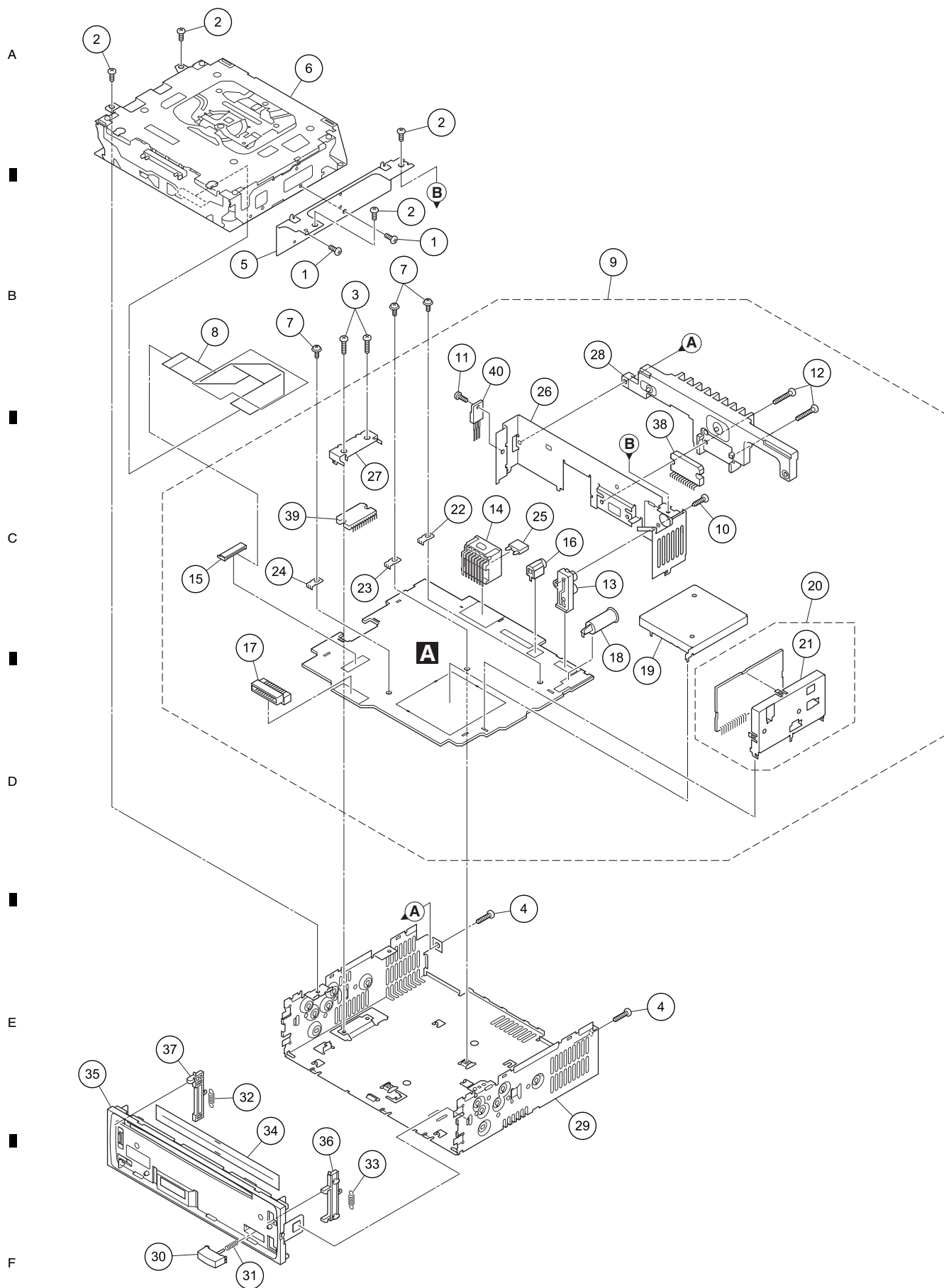
**(2) CONTRAST TABLE**  
 DEH-2100UB/XS/EW5, DEH-2120UB/XS/EW5 and DEH-2110UB/XS/UR are constructed the same except for the following:

| Mark | No.  | Description         | DEH-2100UB/XS/EW5 | DEH-2120UB/XS/EW5 | DEH-2110UB/XS/UR |
|------|------|---------------------|-------------------|-------------------|------------------|
|      | 1    | Cord Assy           | CDP1015           | CDP1015           | CDP1016          |
|      | 13   | Unit Box            | YHG5449           | YHG5450           | YHG5452          |
|      | 14   | Contain Box         | YHL5449           | YHL5450           | YHL5452          |
|      | 18-1 | Owner's Manual      | YRD5217           | YRD5217           | YRB5097          |
|      | 18-2 | Owner's Manual      | YRD5218           | YRD5218           | Not used         |
| *    | 18-3 | Warranty Card       | CRY1279           | CRY1279           | YRY5003          |
|      | 18-4 | Installation Manual | YRD5219           | YRD5219           | Not used         |

**Owner's Manual,Installation Manual**

| Part No. | Language                                                           |
|----------|--------------------------------------------------------------------|
| YRD5217  | English, Spanish(Espanol), German, French                          |
| YRD5218  | Italian, Dutch, Russian                                            |
| YRD5219  | English, Spanish(Espanol), German, French, Italian, Dutch, Russian |
| YRB5097  | Russian                                                            |

## 9.2 EXTERIOR (1)



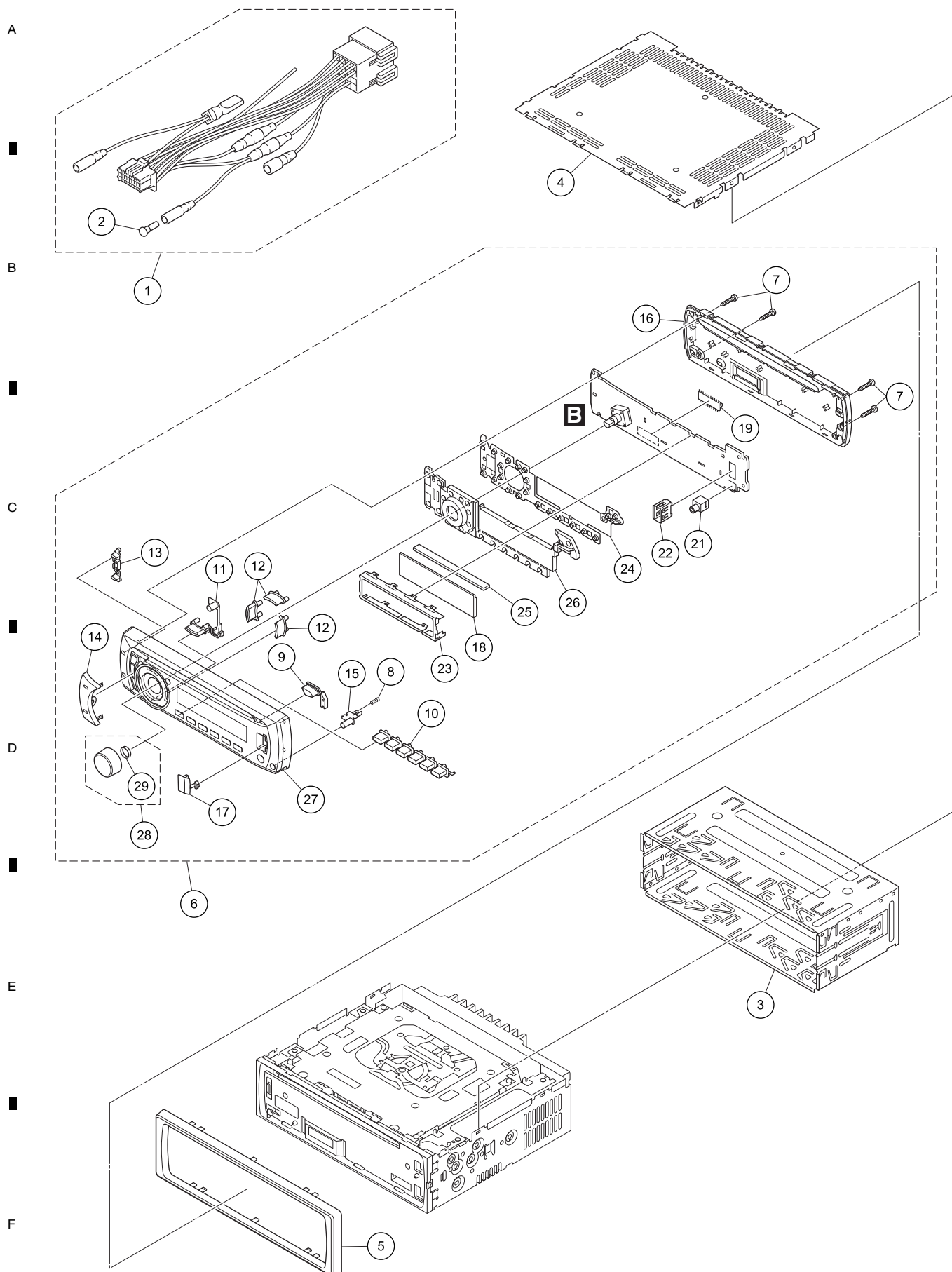
| Mark No. | Description                | Part No.               | Mark No. | Description      | Part No.               |
|----------|----------------------------|------------------------|----------|------------------|------------------------|
| 1        | Screw                      | BSZ25P060FTB           | 21       | Holder           | CND3466                |
| 2        | Screw                      | BSZ26P060FTC           | 22       | Terminal(CN402)  | VNF1084                |
| 3        | Screw                      | BSZ26P100FTC           | 23       | Terminal(CN601)  | VNF1084                |
| 4        | Screw                      | BSZ26P160FTC           | 24       | Terminal(CN801)  | VNF1084                |
| 5        | Holder                     | CND4748                | ⚠ 25     | Fuse(10 A)       | YEK5001                |
| 6        | CD Mechanism Module(S10.5) | CXK5778                | 26       | Holder           | See Contrast table (2) |
| 7        | Screw                      | ISS26P055FTC           | 27       | Holder           | YND5034                |
| 8        | Cable                      | YDE5043                | 28       | Heat Sink        | YNR5123                |
| 9        | Tuner Amp Unit             | See Contrast table (2) | 29       | Chassis Unit     | See Contrast table (2) |
| 10       | Screw                      | BPZ26P080FTC           | 30       | Button           | CAC4836                |
| 11       | Screw                      | BSZ26P060FTC           | 31       | Spring           | CBH2367                |
| 12       | Screw                      | BSZ26P200FTC           | 32       | Spring(Black)    | CBH2962                |
| 13       | Pin Jack(CN351)            | CKB1056                | 33       | Spring(Silver)   | CBH2961                |
| 14       | Plug(CN911)                | CKM1376                | 34       | Cover            | CNN1665                |
| 15       | Connector(CN651)           | CKS3833                | 35       | Panel            | CNS9662                |
| 16       | Connector(CN871)           | See Contrast table (2) | 36       | Arm              | CNW1439                |
| 17       | Connector(CN831)           | CKS6050                | 37       | Arm              | CNV9312                |
| 18       | Antenna Jack(CN401)        | CKX1070                | 38       | IC(IC301)        | PAL007C                |
| 19       | Holder                     | CND3706                | 39       | IC(IC911)        | BA49181-V12            |
| 20       | FM/AM Tuner Unit           | See Contrast table (2) | 40       | Transistor(Q991) | 2SD2396                |

(2) CONTRAST TABLE

DEH-2100UB/XS/EW5, DEH-2120UB/XS/EW5 and DEH-2110UB/XS/UR are constructed the same except for the following:

| Mark | No. | Description      | DEH-2100UB/XS/EW5 | DEH-2120UB/XS/EW5 | DEH-2110UB/XS/UR |
|------|-----|------------------|-------------------|-------------------|------------------|
|      | 9   | Tuner Amp Unit   | YWM5292           | YWM5317           | YWM5316          |
|      | 16  | Connector(CN871) | CKS4124           | CKS4124           | Not used         |
|      | 20  | FM/AM Tuner Unit | CWE2106           | CWE2106           | CWE2123          |
|      | 26  | Holder           | YND5025           | YND5025           | YND5026          |
|      | 29  | Chassis Unit     | YXA5539           | YXA5540           | YXA5541          |

## 9.3 EXTERIOR (2)



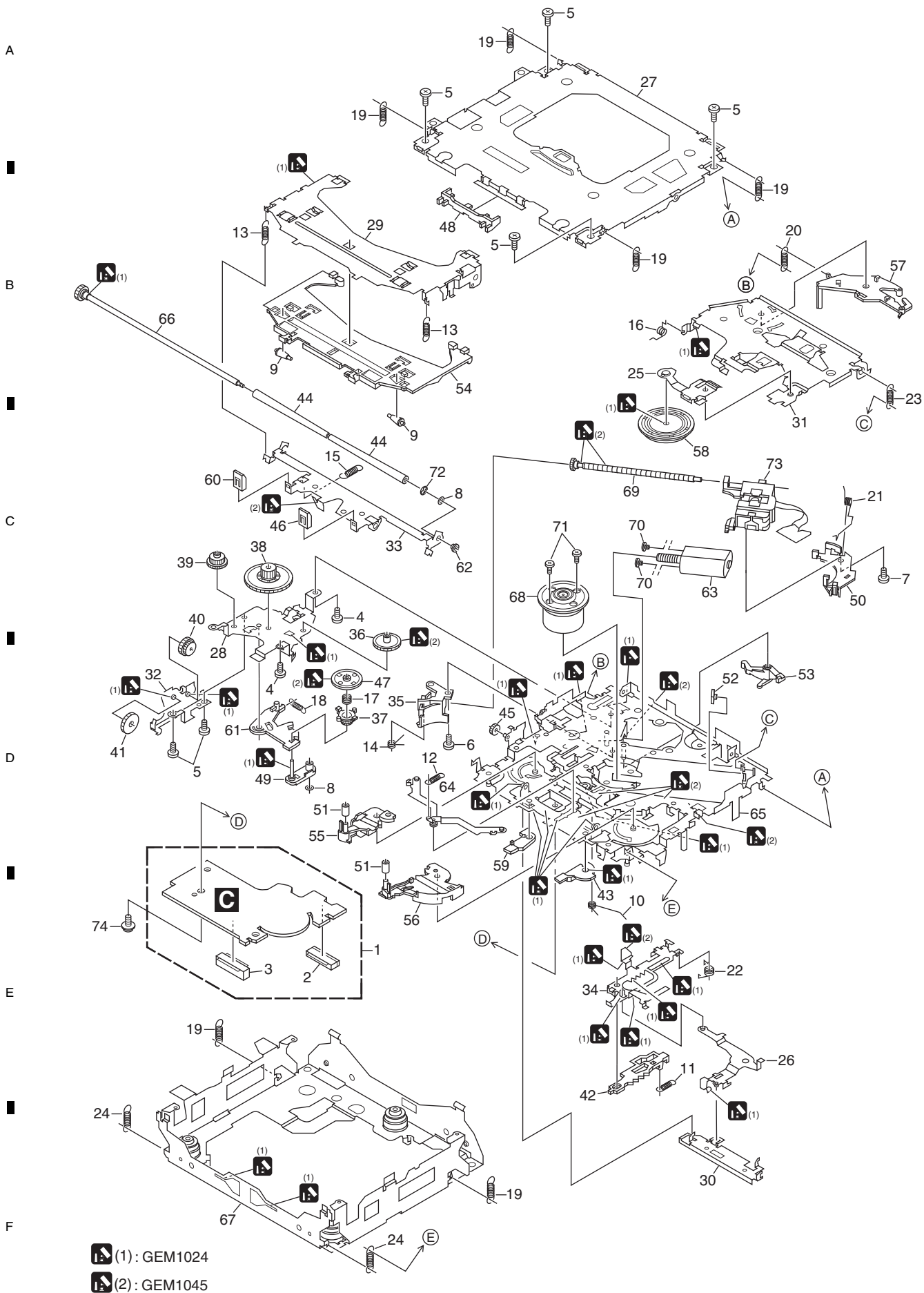
| <u>Mark No.</u> | <u>Description</u>      | <u>Part No.</u>        | <u>Mark No.</u> | <u>Description</u> | <u>Part No.</u>        |
|-----------------|-------------------------|------------------------|-----------------|--------------------|------------------------|
| 1               | Cord Assy               | See Contrast table (2) | 16              | Cover              | YNS5405                |
| 2               | Terminal Cover          | CKX-003                | 17              | Grip(USB)          | YNV5176                |
| 3               | Holder                  | CND3598                | 18              | LCD(LCD1801)       | CAW1970                |
| 4               | Case                    | YNB5046                | 19              | Connector(CN1801)  | CKS6049                |
| 5               | Panel                   | YNS5406                | 20              | .....              |                        |
| 6               | Detachable Assy         | See Contrast table (2) | 21              | Jack(CN1802)       | YKN5001                |
| 7               | Screw                   | BPZ20P100FTC           | 22              | Connector(CN1803)  | YKS5032                |
| 8               | Spring                  | CBH2210                | 23              | Holder             | YNC5061                |
| 9               | Button(EJECT)           | YAC5341                | 24              | Rubber             | YNV5169                |
| 10              | Button(1-6)             | YAC5342                | 25              | Connector          | YNV5170                |
| 11              | Button(TA/AF, DOWN)     | YAC5343                | 26              | Lighting Conductor | YNV5171                |
| 12              | Button(LEFT, UP, RIGHT) | YAC5344                | 27              | Grille Unit        | See Contrast table (2) |
| 13              | Button(SRC/BAND)        | YAC5345                | 28              | Knob Unit          | YXC5102                |
| 14              | Button(LIST/DISP)       | YAC5346                | 29              | Spring             | YBL5010                |
| 15              | Button(DETACH)          | YAC5347                | 30              | .....              |                        |

(2) CONTRAST TABLE

DEH-2100UB/XS/EW5, DEH-2120UB/XS/EW5 and DEH-2110UB/XS/UR are constructed the same except for the following:

| Mark | No. | Description     | DEH-2100UB/XS/EW5 | DEH-2120UB/XS/EW5 | DEH-2110UB/XS/UR |
|------|-----|-----------------|-------------------|-------------------|------------------|
|      | 1   | Cord Assy       | CDP1015           | CDP1015           | CDP1016          |
|      | 6   | Detachable Assy | YXA5546           | YXA5551           | YXA5547          |
|      | 27  | Grille Unit     | YXA5498           | YXA5499           | YXA5501          |

## 9.4 CD MECHANISM MODULE



| <u>Mark No.</u> | <u>Description</u>              | <u>Part No.</u> | <u>Mark No.</u> | <u>Description</u>          | <u>Part No.</u> |   |
|-----------------|---------------------------------|-----------------|-----------------|-----------------------------|-----------------|---|
| 1               | CD Core Unit(S10.5COMP2-USB-C2) | CWX3679         | 50              | Rack                        | CNV8342         |   |
| 2               | Connector(CN101)                | CKS4808         | 51              | Roller                      | CNV8343         | A |
| 3               | Connector(CN701)                | CKS5854         | 52              | Holder                      | CNV8344         |   |
| 4               | Screw                           | BMZ20P025FTC    | 53              | Arm                         | CNV8345         |   |
| 5               | Screw                           | BSZ20P040FTC    | 54              | Guide                       | CNV9498         |   |
| 6               | Screw(M2 x 3)                   | CBA1511         | 55              | Arm                         | CNV8348         |   |
| 7               | Screw(M2 x 4)                   | CBA1835         |                 |                             |                 |   |
| 8               | Washer                          | CBF1038         | 56              | Arm                         | CNV8349         |   |
| 9               | Roller                          | CNV9499         | 57              | Arm                         | CNV8350         |   |
| 10              | Spring                          | CBH2609         | 58              | Clamper                     | CNV8365         |   |
|                 |                                 |                 | 59              | Arm                         | CNV8386         |   |
| 11              | Spring                          | CBH2612         | 60              | Guide                       | CNV8396         | B |
| 12              | Spring                          | CBH2614         |                 |                             |                 |   |
| 13              | Spring                          | CBH2616         | 61              | Arm                         | CNV9521         |   |
| 14              | Spring                          | CBH2617         | 62              | Collar                      | CNV8447         |   |
| 15              | Spring                          | CBH2620         | 63              | Motor Unit(M2)              | CXC4026         |   |
|                 |                                 |                 | 64              | Arm Unit                    | CXC4027         |   |
| 16              | Spring                          | CBH2855         | 65              | Chassis Unit                | CXC4028         |   |
| 17              | Spring                          | CBH2937         |                 |                             |                 |   |
| 18              | Spring                          | CBH2735         | 66              | Gear Unit                   | CXC4029         |   |
| 19              | Spring                          | CBH2854         | 67              | Frame Unit                  | CXC4031         |   |
| 20              | Spring                          | CBH2642         | 68              | Motor Unit(M1)              | CXC7134         |   |
|                 |                                 |                 | 69              | Screw Unit                  | CXC6359         | C |
| 21              | Spring                          | CBH2856         | 70              | Screw                       | JFZ20P025FTC    |   |
| 22              | Spring                          | CBH2857         |                 |                             |                 |   |
| 23              | Spring                          | CBH2860         | 71              | Screw                       | JGZ17P022FTC    |   |
| 24              | Spring                          | CBH2861         | 72              | Washer                      | YE20FTC         |   |
| 25              | Spring                          | CBL1686         | 73              | Pickup Unit(P10.5)(Service) | CXX1942         |   |
|                 |                                 |                 | 74              | Screw                       | IMS26P030FTC    |   |
| 26              | Arm                             | CND1909         |                 |                             |                 |   |
| 27              | Frame                           | CND2582         |                 |                             |                 |   |
| 28              | Bracket                         | CND2583         |                 |                             |                 |   |
| 29              | Arm                             | CND3831         |                 |                             |                 |   |
| 30              | Lever                           | CND2585         |                 |                             |                 | D |
|                 |                                 |                 |                 |                             |                 |   |
| 31              | Arm                             | CND2586         |                 |                             |                 |   |
| 32              | Bracket                         | CND2587         |                 |                             |                 |   |
| 33              | Arm                             | CND2588         |                 |                             |                 |   |
| 34              | Lever                           | CND2589         |                 |                             |                 |   |
| 35              | Holder                          | CNV9522         |                 |                             |                 |   |
|                 |                                 |                 |                 |                             |                 |   |
| 36              | Gear                            | CNV7207         |                 |                             |                 |   |
| 37              | Gear                            | CNV9513         |                 |                             |                 |   |
| 38              | Gear                            | CNV7209         |                 |                             |                 | E |
| 39              | Gear                            | CNV9514         |                 |                             |                 |   |
| 40              | Gear                            | CNV9515         |                 |                             |                 |   |
|                 |                                 |                 |                 |                             |                 |   |
| 41              | Gear                            | CNV9516         |                 |                             |                 |   |
| 42              | Rack                            | CNV9517         |                 |                             |                 |   |
| 43              | Arm                             | CNV7216         |                 |                             |                 |   |
| 44              | Roller                          | CNV8189         |                 |                             |                 |   |
| 45              | Gear                            | CNV9518         |                 |                             |                 |   |
|                 |                                 |                 |                 |                             |                 |   |
| 46              | Guide                           | CNV9519         |                 |                             |                 |   |
| 47              | Gear                            | CNV7595         |                 |                             |                 | F |
| 48              | Guide                           | CNV9520         |                 |                             |                 |   |
| 49              | Arm                             | CNV7805         |                 |                             |                 |   |

# 10. SCHEMATIC DIAGRAM

## 10.1 TUNER AMP UNIT(GUIDE PAGE)

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

**A-a**

NM: No Mount

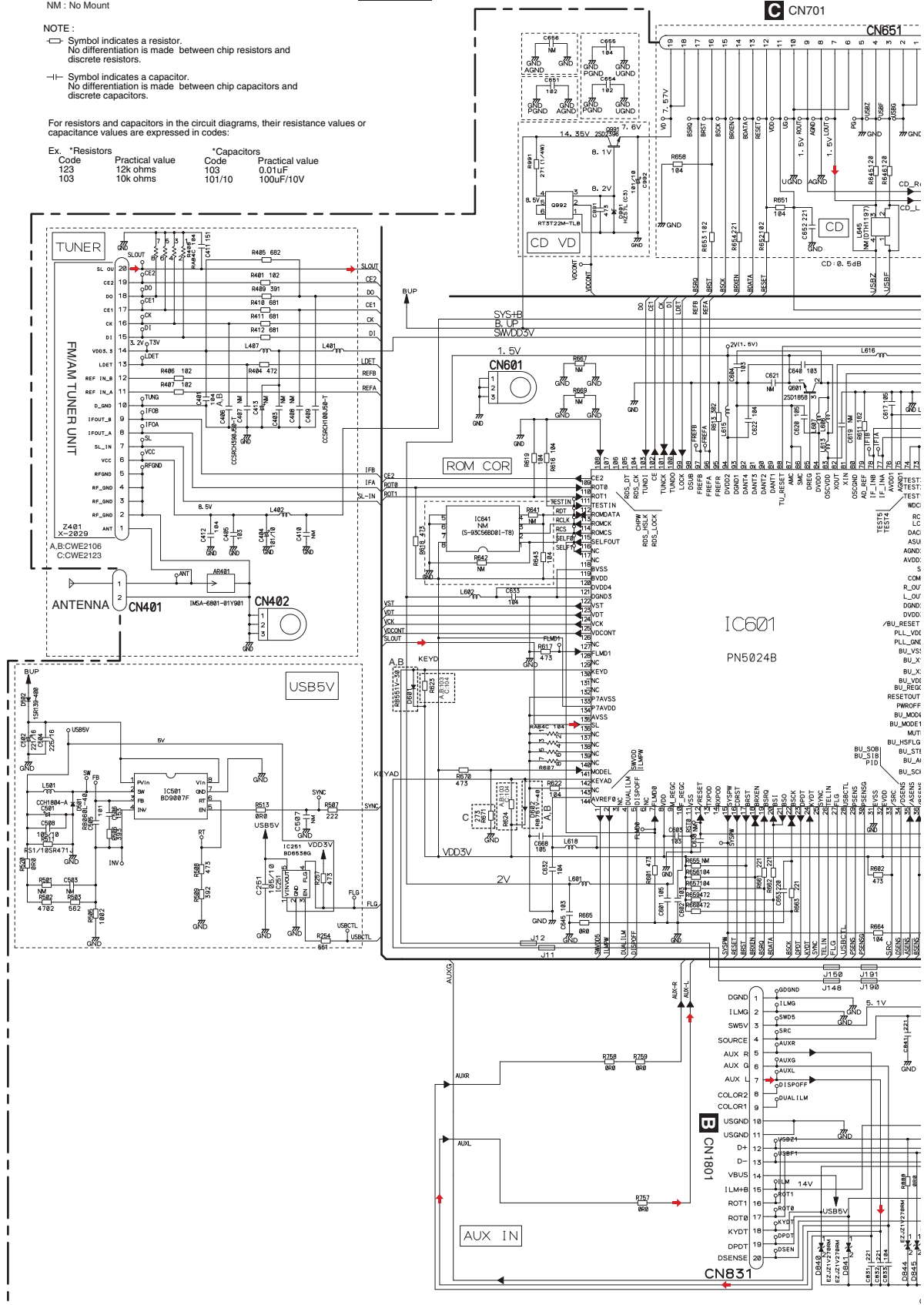
**NOTE:**

□ 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.

For resistors and capacitors in the circuit diagrams, their resistance values or capacitance values are expressed in codes:

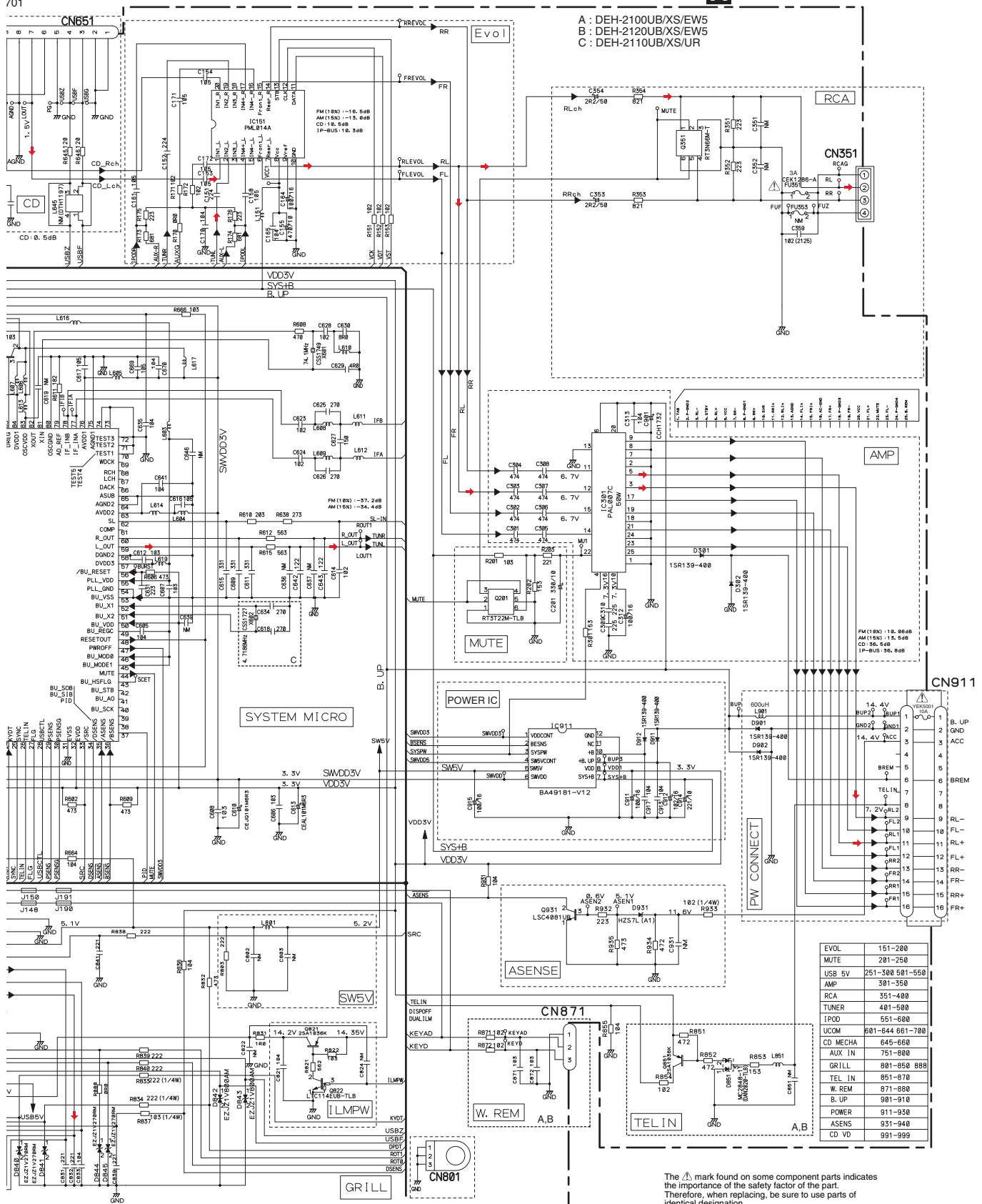
| Ex. *Resistors |                 | *Capacitors |                 |
|----------------|-----------------|-------------|-----------------|
| Code           | Practical value | Code        | Practical value |
| 123            | 12k ohms        | 103         | 0.01uF          |
| 103            | 10k ohms        | 101/10      | 100uF/10V       |



A-b

A TUNER AMP UNIT

701



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.

A

A

B

C

D

E

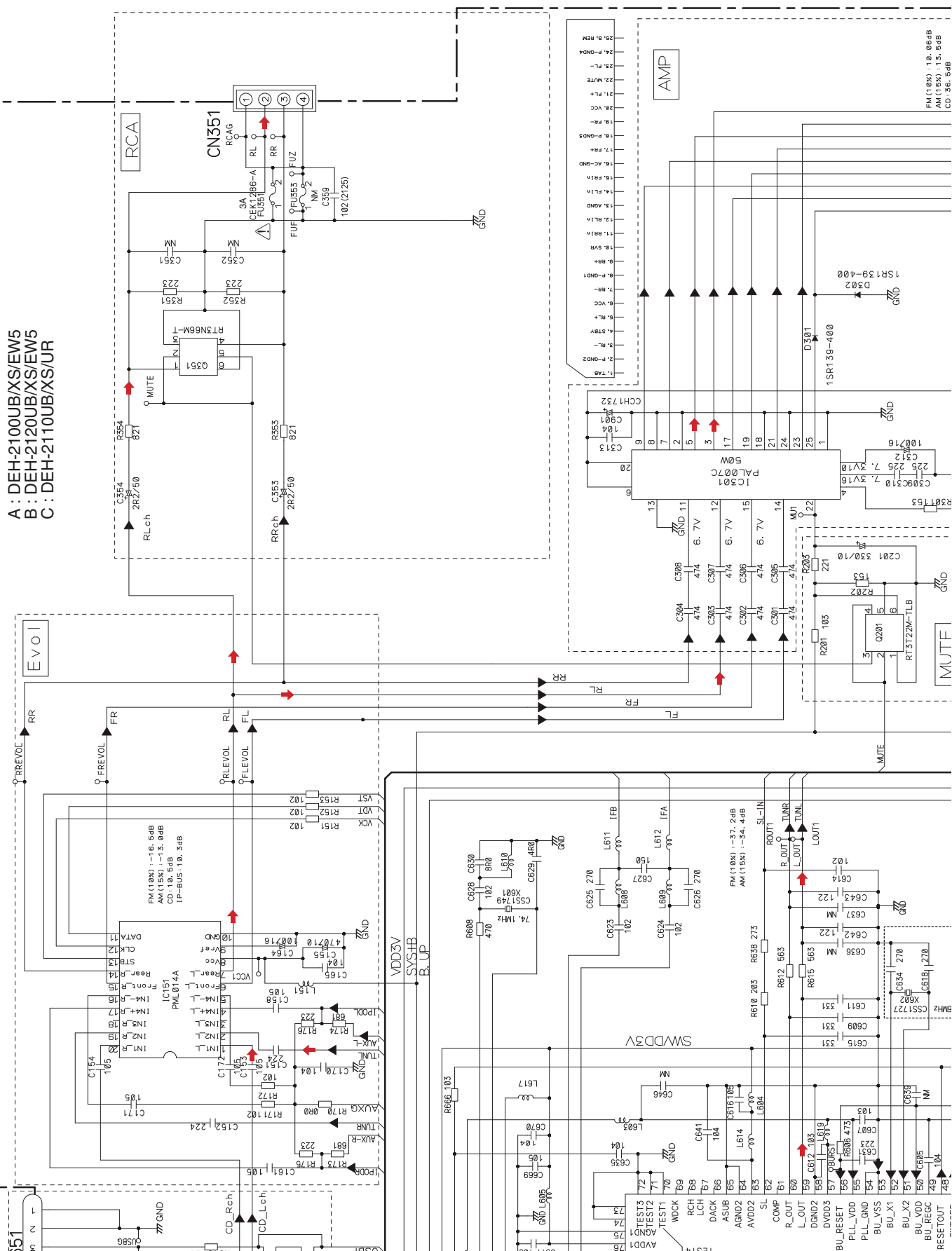
F

# A TUNER AMP UNIT

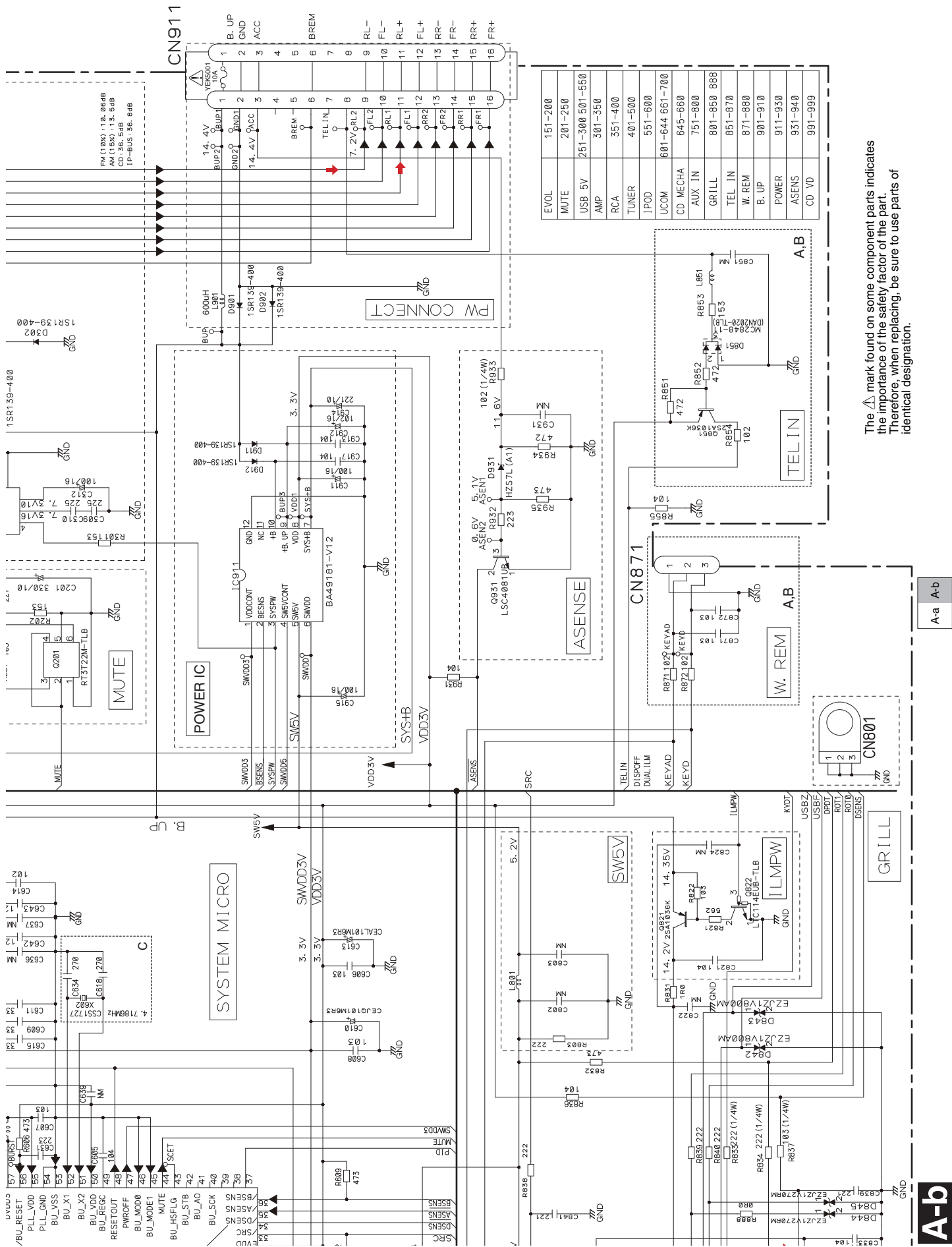
A : DEH-2100UB/XS/EW5  
 B : DEH-2120UB/XS/EW5  
 C : DEH-2110UB/XS/UR

A-a A-b

## A-b



DEH-2100UB/XS/EW5



The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

|          |                 |
|----------|-----------------|
| EVOL     | 151-200         |
| MUTE     | 201-250         |
| USB 5V   | 251-300 501-550 |
| AMP      | 301-350         |
| RCA      | 351-400         |
| TUNER    | 401-500         |
| IPOD     | 501-600         |
| UCOM     | 601-644 661-700 |
| CD MECHA | 645-660         |
| AUX IN   | 751-800         |
| GRILL    | 801-850 888     |
| TEL IN   | 851-870         |
| W. REM   | 871-880         |
| B. UP    | 901-910         |
| POWER    | 911-930         |
| ASENS    | 931-940         |
| CD VD    | 991-999         |

NM : No Mount

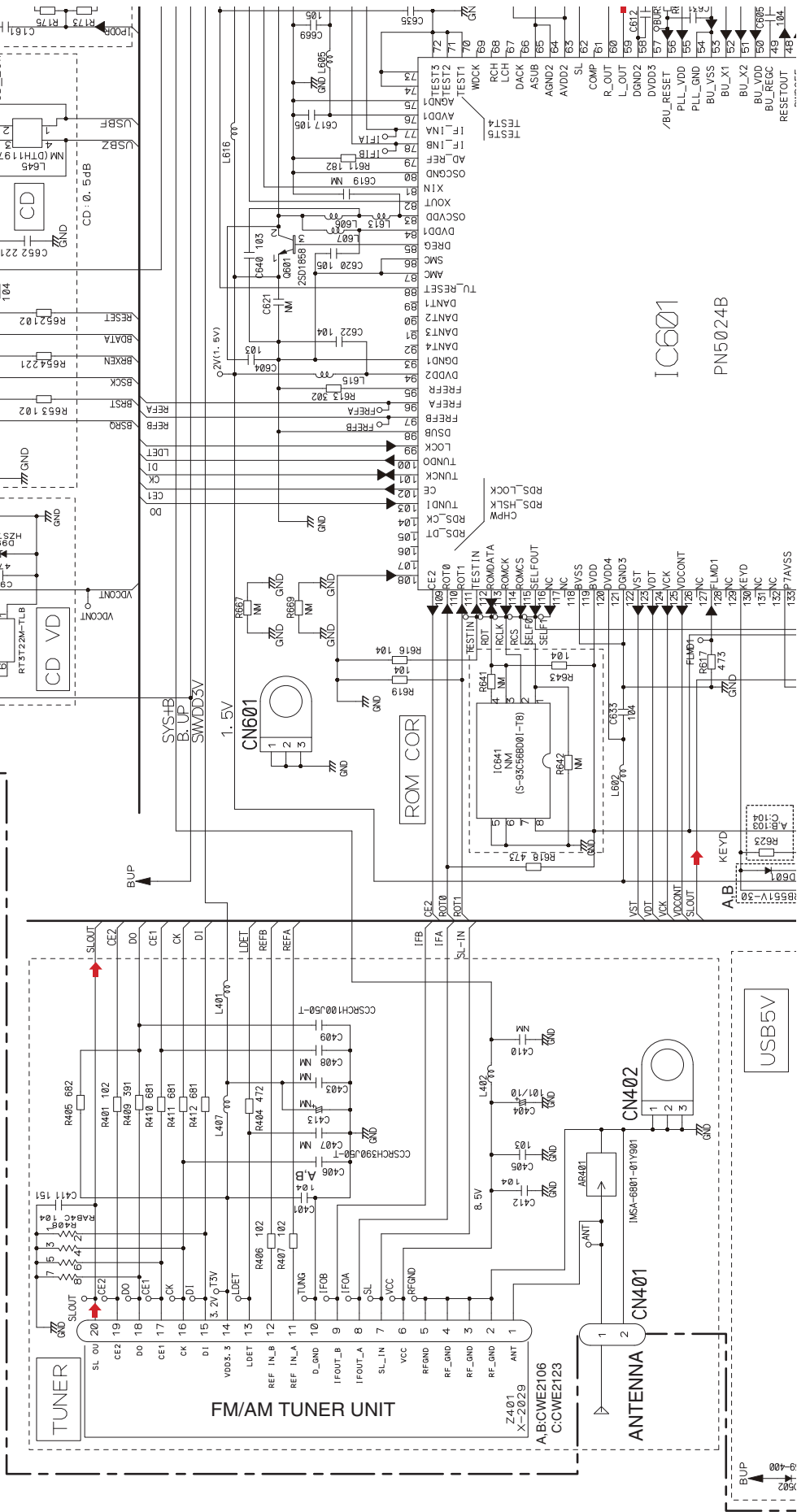
NOTE :

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.

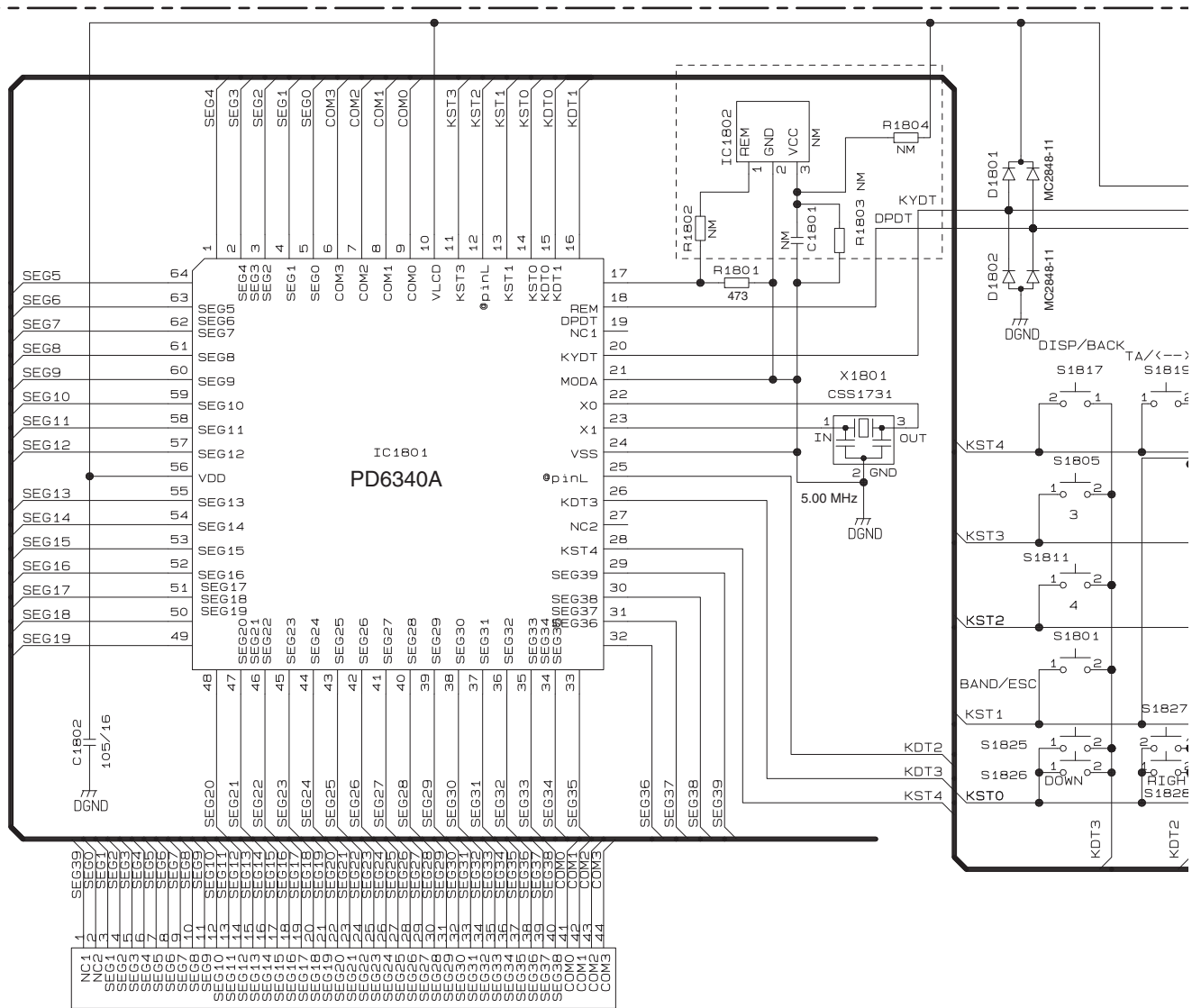
For resistors and capacitors in the circuit diagrams, their resistance values or capacitance values are expressed in codes:

| Ex. *Resistors  | *Capacitors     |
|-----------------|-----------------|
| Code            | Code            |
| Practical value | Practical value |
| 12k ohms        | 0.01uF          |
| 103             | 100uF/10V       |
| 10k ohms        | 101/10          |





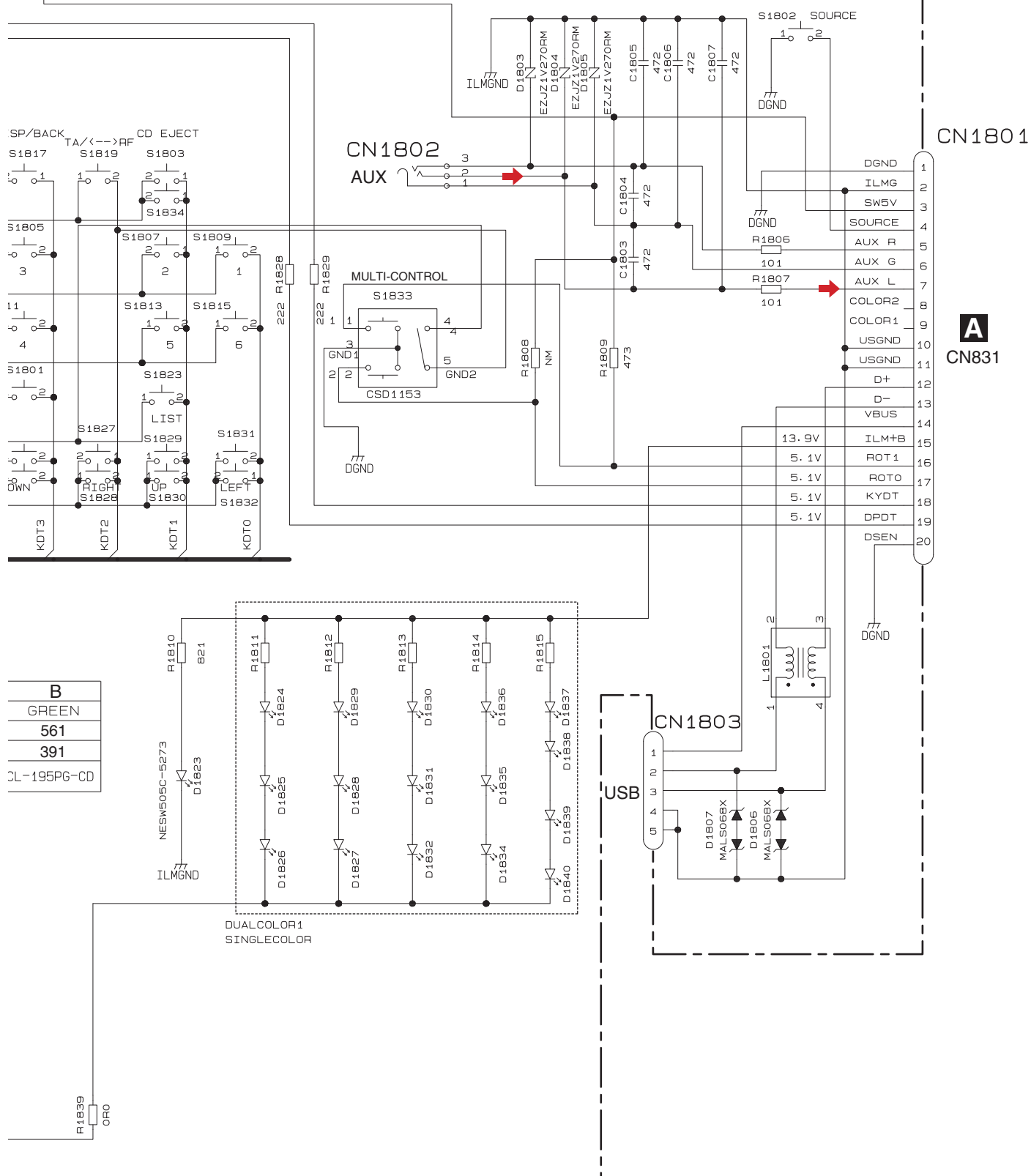
## 10.2 KEYBOARD UNIT



| MODEL       | A,C         | B           |
|-------------|-------------|-------------|
| LED         | RED         | GREEN       |
| R1811-R1814 | 821         | 561         |
| R1815       | 681         | 391         |
| D1824-D1833 | CL-195SR-CD | CL-195PG-CD |
| D1834-D1840 |             |             |

A : DEH-2100UB/XS/EW5  
 B : DEH-2120UB/XS/EW5  
 C : DEH-2110UB/XS/UR

# B KEYBOARD UNIT



**C-a**

## A



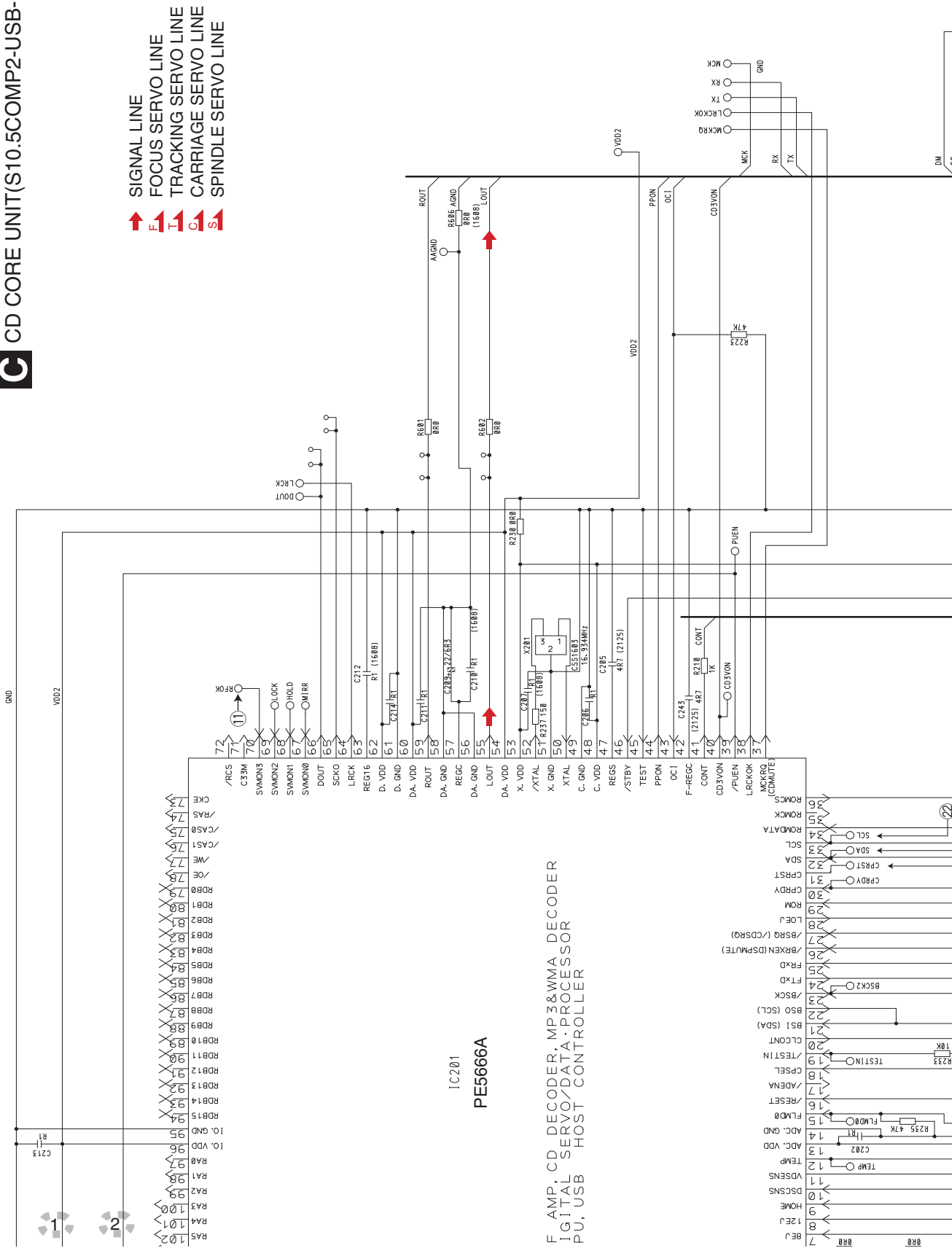
C

C

E

F

C CD CORE UNIT(S10.5COMP2-USB-C3)



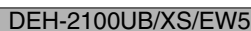


**C-b**

F

| C-a | C-b |
|-----|-----|
|-----|-----|

# C-a



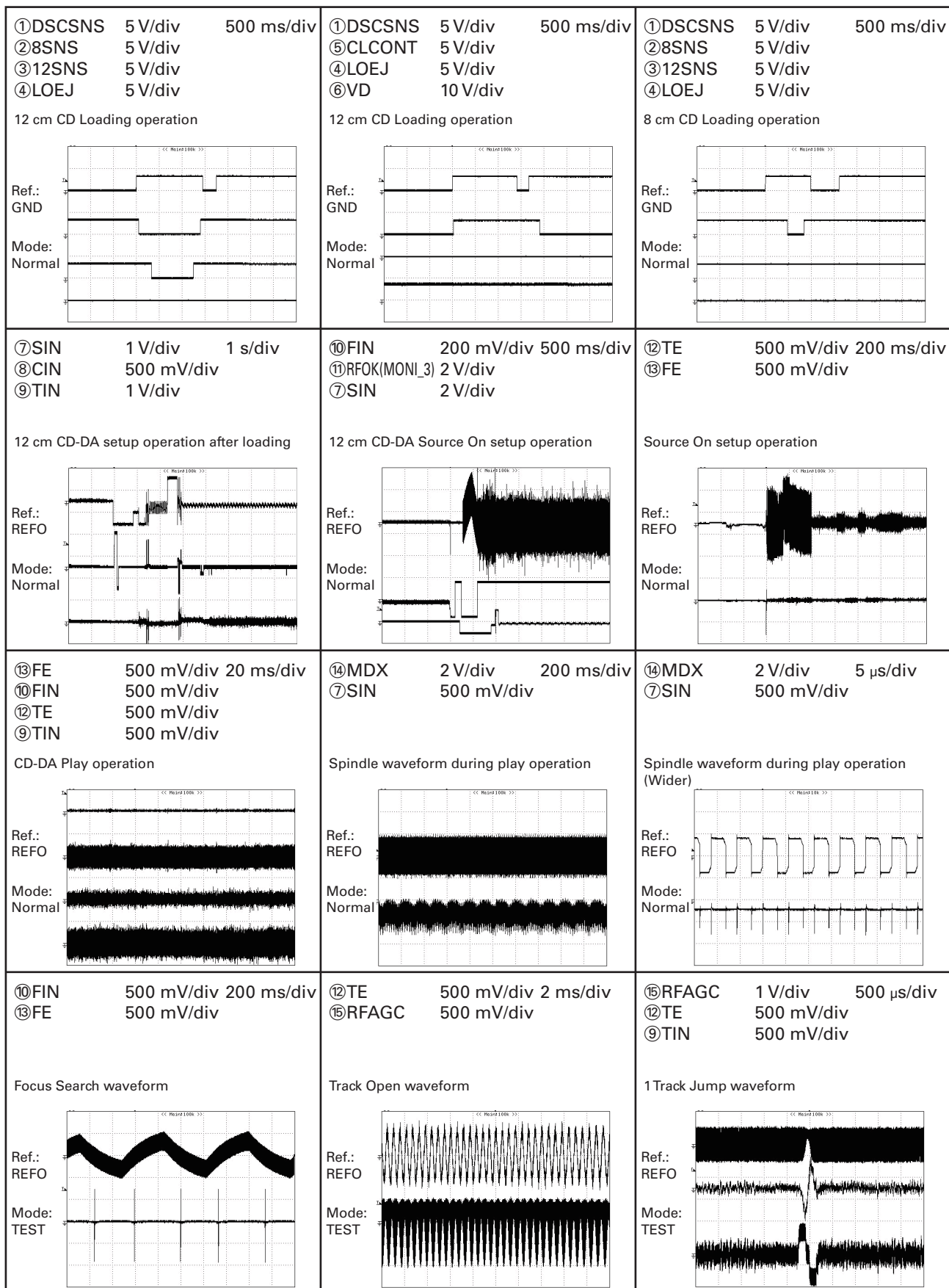
**SWITCHES:**  
 CCD CORE UNIT(S10.5COMP2-iPod-C2)  
 S901:HOME SWITCH.....ON-OFF  
 S903:DSCSNS SWITCH.....ON-OFF  
 S904:12EJ SWITCH.....ON-OFF  
 S905:8EJ SWITCH.....ON-OFF

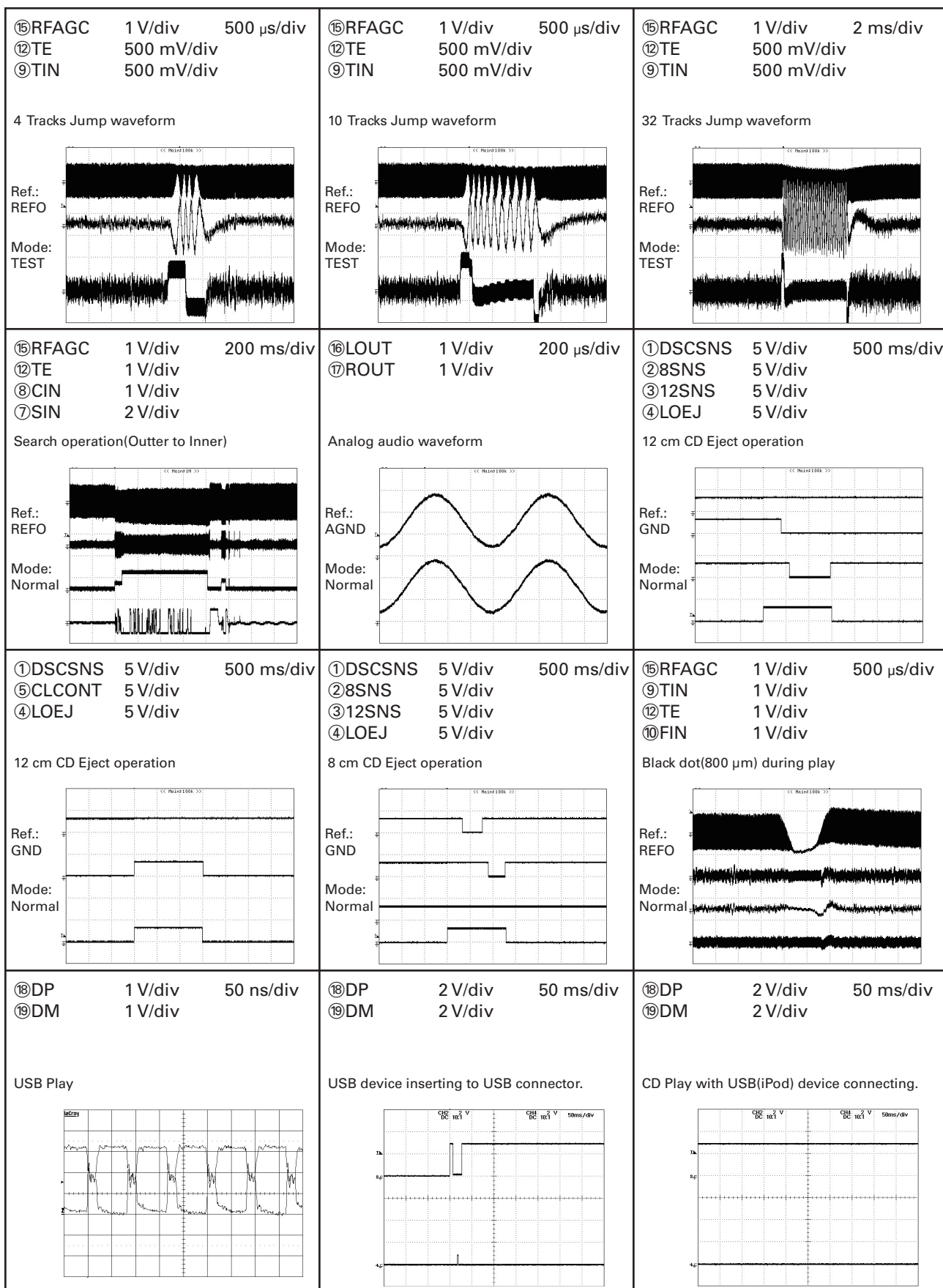


# 10.4 WAVEFORMS

## CD CORE UNIT

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



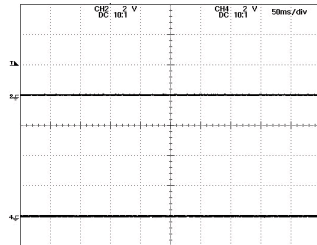


A

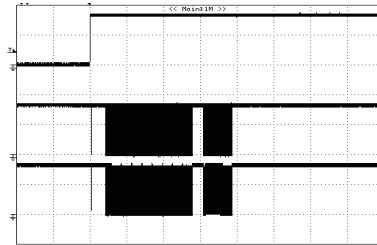
⑮DP      2 V/div      50 ms/div  
⑮DM      2 V/div

⑳CPRST      2 V/div      500 ms/div  
㉑SDA      2 V/div  
㉒SCL      2 V/div

ACC OFF with USB(iPod) device connecting.



iPod Authentication Operation



B

C

D

E

F

■

5

■

6

■

7

■

8

■

A

■

B

■

C

■

D

■

E

■

F

■

5

■

6

■

7

■

8

■

# 11. PCB CONNECTION DIAGRAM

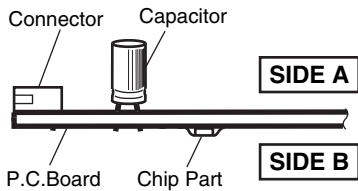
## 11.1 TUNER AMP UNIT

A

### NOTE FOR PCB DIAGRAMS

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

2. Viewpoint of PCB diagrams



B

C

D

E

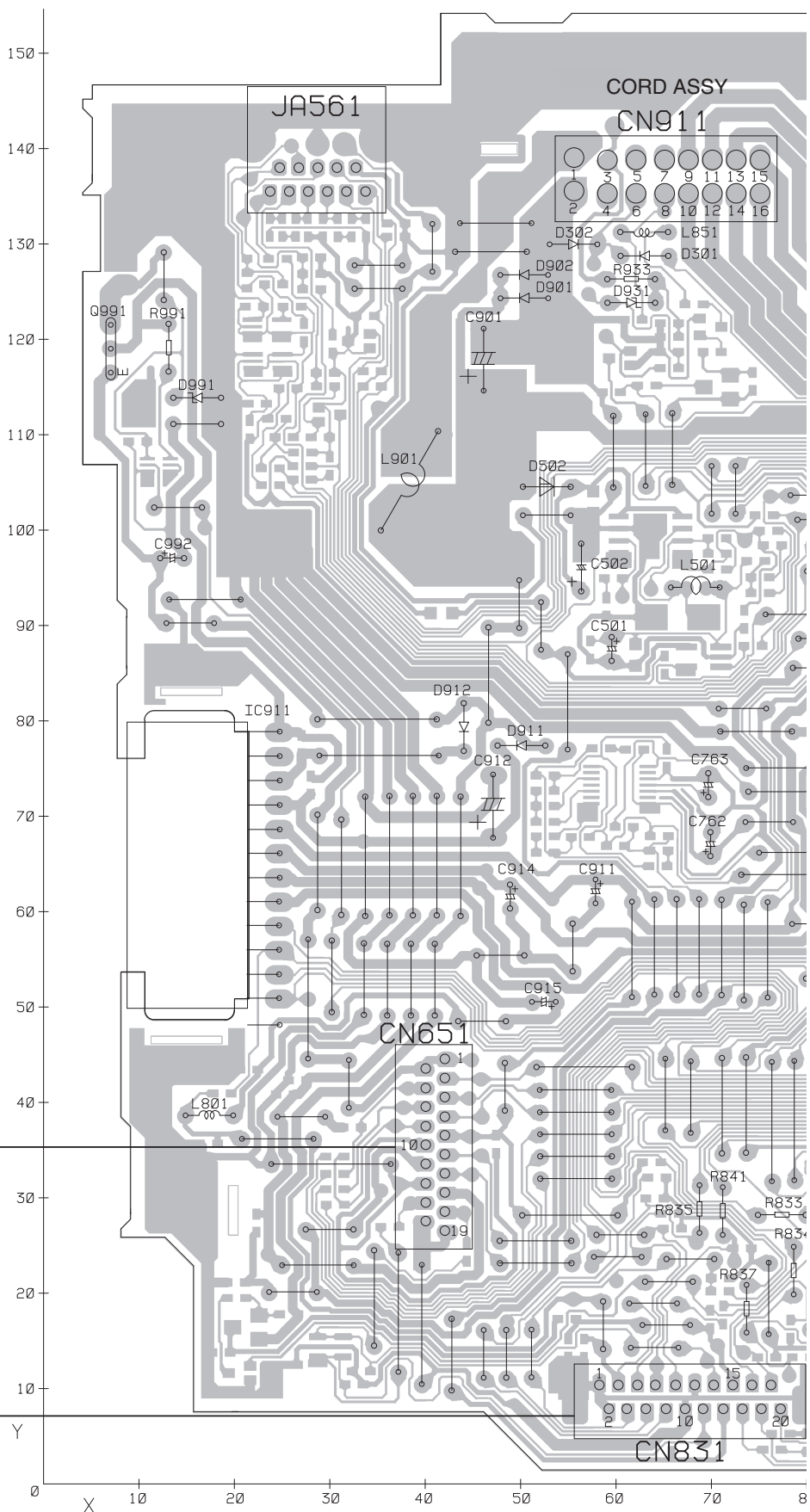
F

### A TUNER AMP UNIT

C CN701

B CN1801

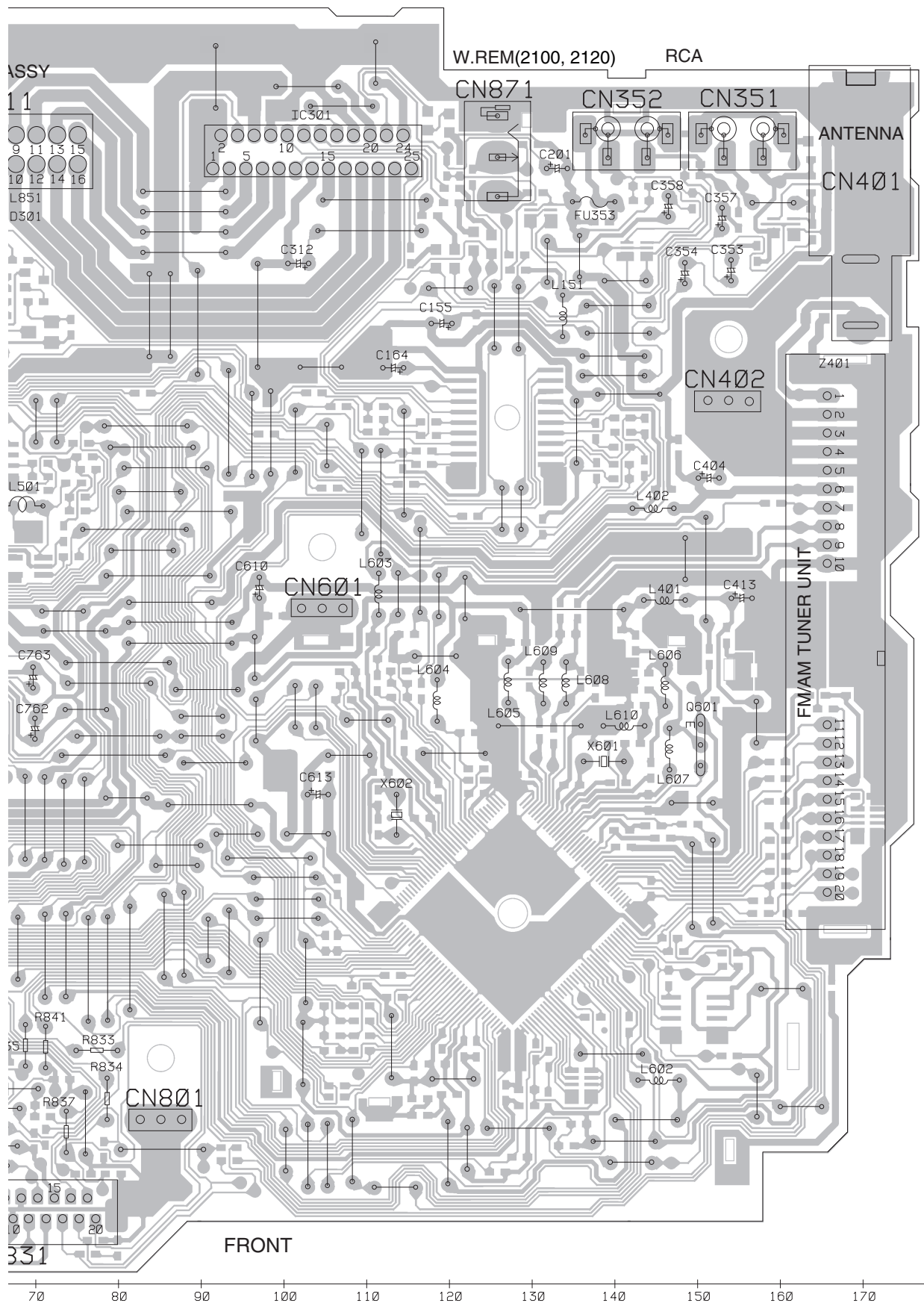
A



DEH-2100UB/XS/EW5

SIDE A

A



B

C

D

E

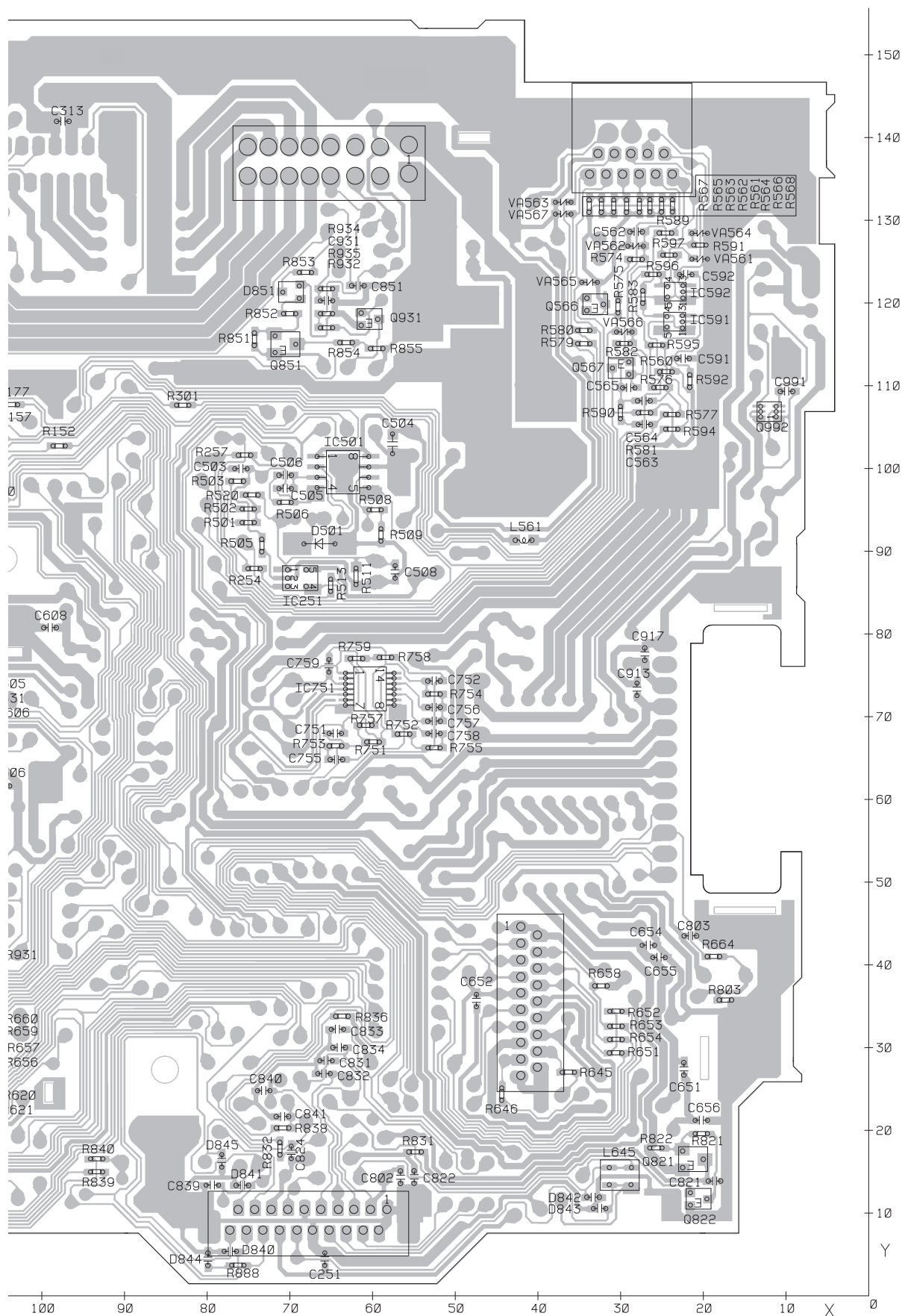
F

A

## F



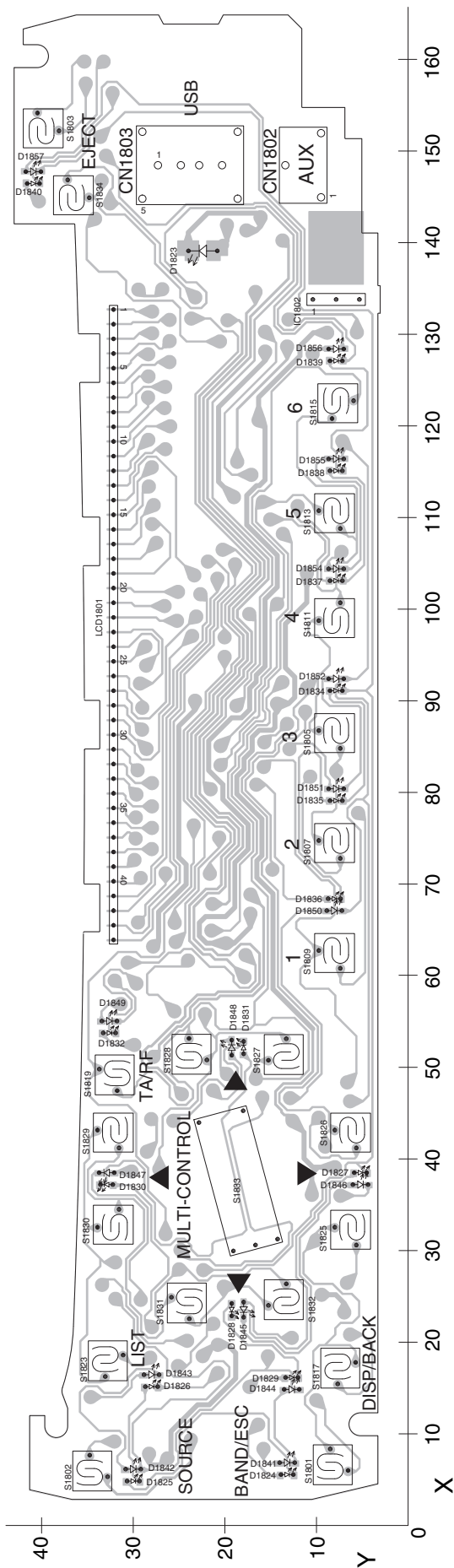
SIDE B



11.2 KEYBOARD UNIT

B KEYBOARD UNIT

SIDE A



DEH-2100UB/XS/EW5

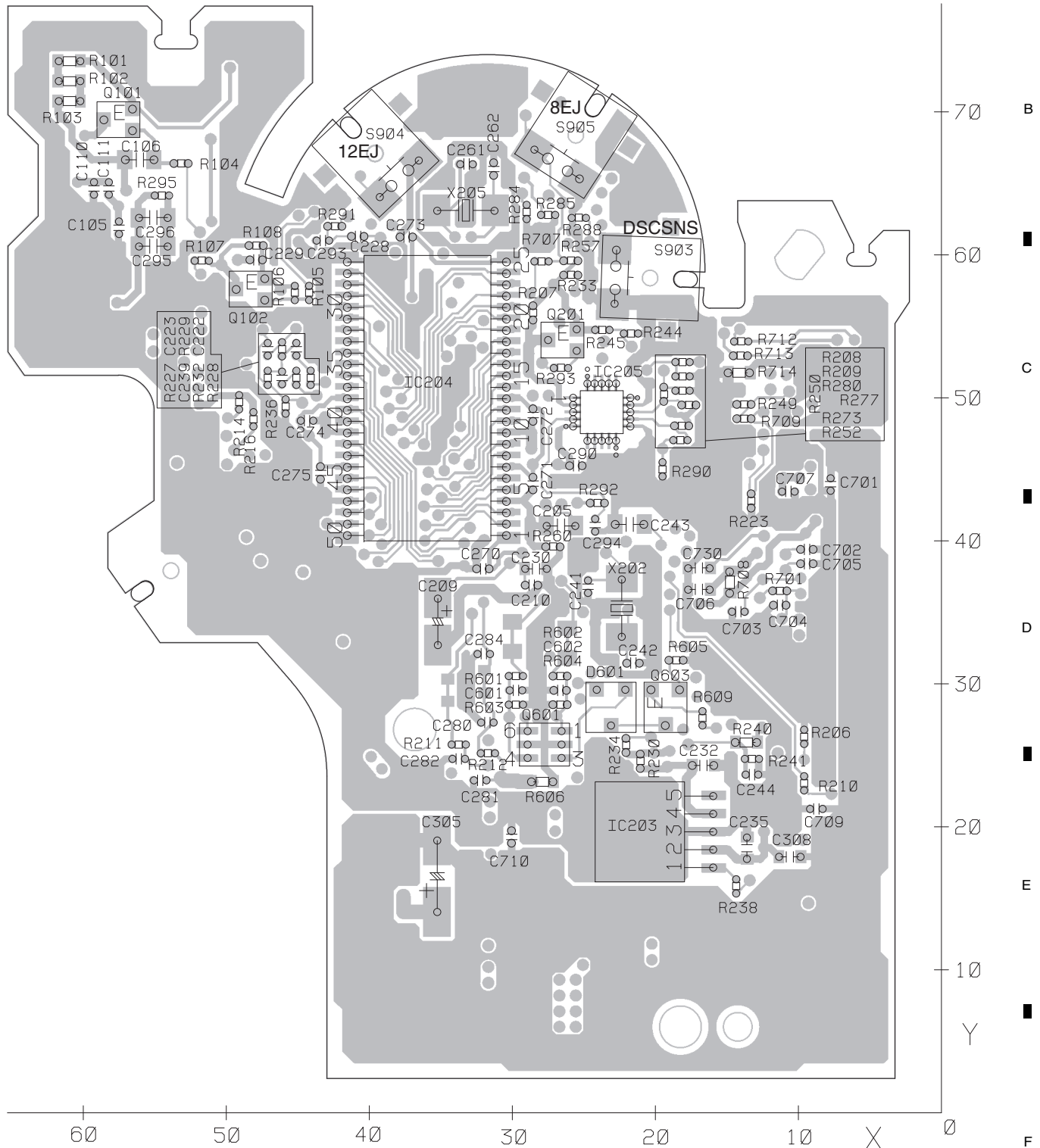




**C** CD CORE UNIT(S10.5COMP2-USB-C3)

**SIDE B**

A



## 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/○○○○○J,RS1/○○○○○J

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

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

- The  $\triangle$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Meaning of the figures and others in the parentheses in the parts list.

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

IC 301 (A, 91, 111) IC NJM2068V

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

|   | <u>Circuit Symbol and No.</u>     | <u>Part No.</u> | <u>Circuit Symbol and No.</u> | <u>Part No.</u>                     |
|---|-----------------------------------|-----------------|-------------------------------|-------------------------------------|
| A | <b>A:DEH-2100UB/XS/EW5</b>        |                 | Q 201                         | (B,131,130) Transistor RT3T22M      |
|   | <b>B:DEH-2120UB/XS/EW5</b>        |                 | Q 351                         | (B,160,128) Transistor RT3N66M      |
|   | <b>C:DEH-2110UB/XS/UR</b>         |                 | Q 601                         | (A,150,68) Transistor 2SD1858       |
|   |                                   |                 | Q 821                         | (B,21,17) Transistor 2SA1036K       |
| C | <b>Unit Number : YWM5292(A)</b>   |                 | Q 822                         | (B,21,12) Transistor LTC114EUB      |
|   | <b>Unit Number : YWM5317(B)</b>   |                 | Q 851                         | (B,71,115) Transistor(A,B) 2SA1036K |
|   | <b>Unit Number : YWM5316(C)</b>   |                 | Q 931                         | (B,60,118) Transistor LSC4081UB     |
|   |                                   |                 | Q 991                         | (A,7,117) Transistor 2SD2396        |
| D | <b>Unit Name : Tuner Amp Unit</b> |                 | Q 992                         | (B,12,107) Transistor RT3T22M       |
|   | <b>Unit Number :</b>              |                 | D 301                         | (A,65,129) Diode 1SR139-400         |
|   | <b>Unit Name : Keyboard Unit</b>  |                 | D 302                         | (A,53,130) Diode 1SR139-400         |
|   | <b>Unit Number : CWX3679</b>      |                 | D 501                         | (B,66,91) Diode RB060L-40           |
| E | <b>Unit Name : CD Core</b>        |                 | D 502                         | (A,50,105) Diode 1SR139-400         |
|   | <b>Unit(S10.5COMP2-USB-C3)</b>    |                 | D 601                         | (B,136,19) Diode(A,B) RB551V-30     |
|   |                                   |                 | D 602                         | (B,128,15) Diode(A,B) RB751V-40     |
|   |                                   |                 | D 840                         | (B,77,5) Varistor EZJZ1V270RM       |
| F | <b>model</b>                      |                 | D 841                         | (B,76,13) Varistor EZJZ1V270RM      |
|   | <b>A:DEH-2100UB/XS/EW5</b>        |                 | D 842                         | (B,33,12) Varistor EZJZ1V800AM      |
|   | <b>B:DEH-2120UB/XS/EW5</b>        |                 | D 843                         | (B,33,11) Varistor EZJZ1V800AM      |
|   | <b>C:DEH-2110UB/XS/UR</b>         |                 | D 844                         | (B,80,4) Varistor EZJZ1V270RM       |
| G | <b>A</b>                          |                 | D 845                         | (B,78,16) Varistor EZJZ1V270RM      |
|   | <b>Unit Number : YWM5292(A)</b>   |                 | D 851                         | (B,70,121) Diode(A,B) MC2848-11     |
|   | <b>Unit Number : YWM5317(B)</b>   |                 | D 901                         | (A,53,124) Diode 1SR139-400         |
|   | <b>Unit Number : YWM5316(C)</b>   |                 | D 902                         | (A,53,127) Diode 1SR139-400         |
| H | <b>Unit Name : Tuner Amp Unit</b> |                 | D 911                         | (A,53,77) Diode 1SR139-400          |
|   |                                   |                 | D 912                         | (A,44,82) Diode 1SR139-400          |
|   |                                   |                 | D 931                         | (A,59,124) Diode HZS7L(A1)          |
|   |                                   |                 | D 991                         | (A,19,114) Diode HZS7L(C3)          |
| I | <b>MISCELLANEOUS</b>              |                 | L 151                         | (A,134,119) Inductor LAU2R2K        |
|   | IC 151 (B,127,105) IC PML014A     |                 | L 401                         | (A,149,83) Inductor LAU2R2K         |
|   | IC 251 (B,69,87) IC BD6538G       |                 | L 402                         | (A,147,94) Inductor LAU2R2K         |
|   | IC 301 (A,91,135) IC PAL007C      |                 | L 407                         | (B,164,71) Inductor CTF1473         |
| J | IC 501 (B,64,100) IC BD9007F      |                 | L 501                         | (A,68,94) Inductor VTL1118          |
|   | IC 601 (B,128,45) IC PN5024B      |                 | L 561                         | (B,42,91) Resistor RS1/10S0R0J      |
|   |                                   |                 | L 601                         | (B,120,23) Inductor CTF1389         |
|   | IC 911 (A,16,65) IC BA49181-V12   |                 | L 602                         | (A,148,25) Inductor LAUR47K         |
| K |                                   |                 | L 603                         | (A,111,81) Inductor LAU2R2K         |
|   |                                   |                 | L 604                         | (A,119,68) Inductor LAUR47K         |
|   |                                   |                 | L 605                         | (A,127,70) Inductor LAUR47K         |
|   |                                   |                 | L 606                         | (A,146,70) Inductor LAU1R0K         |

| 5                             |             |                                  |  | 6               |  |  |  | 7                             |                  |  |  | 8               |  |  |   |
|-------------------------------|-------------|----------------------------------|--|-----------------|--|--|--|-------------------------------|------------------|--|--|-----------------|--|--|---|
| <u>Circuit Symbol and No.</u> |             |                                  |  | <u>Part No.</u> |  |  |  | <u>Circuit Symbol and No.</u> |                  |  |  | <u>Part No.</u> |  |  |   |
| L 607                         | (A,147,62)  | Inductor                         |  | LAU1R0K         |  |  |  | R 513                         | (B,65,86)        |  |  | RS1/16S0R0J     |  |  |   |
| L 608                         | (A,134,70)  | Inductor                         |  | LAU1R5K         |  |  |  | R 520                         | (B,75,97)        |  |  | RS1/16S0R0J     |  |  |   |
| L 609                         | (A,131,70)  | Inductor                         |  | LAU1R5K         |  |  |  |                               |                  |  |  |                 |  |  |   |
| L 610                         | (A,144,67)  | Inductor                         |  | LAU1R2J         |  |  |  | R 601                         | (B,123,28)       |  |  | RS1/16S473J     |  |  | A |
| L 611                         | (B,135,81)  | Inductor                         |  | CTF1379         |  |  |  | R 602                         | (B,106,41)       |  |  | RS1/16S473J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 606                         | (B,107,71)       |  |  | RS1/16S473J     |  |  |   |
| L 612                         | (B,133,81)  | Inductor                         |  | CTF1379         |  |  |  | R 607                         | (B,136,25)       |  |  | RAB4C104J       |  |  |   |
| L 613                         | (B,144,62)  | Inductor                         |  | CTF1379         |  |  |  | R 608                         | (B,140,61)       |  |  | RS1/16S470J     |  |  |   |
| L 614                         | (B,123,62)  | Inductor                         |  | CTF1379         |  |  |  |                               |                  |  |  |                 |  |  |   |
| L 615                         | (B,146,54)  | Inductor                         |  | CTF1389         |  |  |  | R 609                         | (B,106,48)       |  |  | RS1/16S473J     |  |  |   |
| L 616                         | (B,151,76)  | Inductor                         |  | CTF1379         |  |  |  | R 610                         | (B,117,72)       |  |  | RS1/16S203J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 611                         | (B,138,72)       |  |  | RS1/16S182J     |  |  |   |
| L 617                         | (B,142,78)  | Inductor                         |  | CTF1379         |  |  |  | R 612                         | (B,114,74)       |  |  | RS1/16S563J     |  |  |   |
| L 618                         | (B,127,23)  | Inductor                         |  | CTF1379         |  |  |  | R 613                         | (B,141,53)       |  |  | RS1/16S302J     |  |  |   |
| L 619                         | (B,115,65)  | Inductor                         |  | CTF1379         |  |  |  |                               |                  |  |  |                 |  |  |   |
| L 801                         | (A,15,39)   | Inductor                         |  | LAU2R2K         |  |  |  | R 615                         | (B,111,73)       |  |  | RS1/16S563J     |  |  |   |
| L 851                         | (A,65,131)  | Inductor(A,B)                    |  | LAU2R2K         |  |  |  | R 616                         | (B,154,40)       |  |  | RS1/16S104J     |  |  | B |
|                               |             |                                  |  |                 |  |  |  | R 617                         | (B,137,32)       |  |  | RS1/16S473J     |  |  |   |
| L 901                         | (A,35,99)   | Choke Coil 600 uHCTH1280         |  |                 |  |  |  | R 618                         | (B,147,42)       |  |  | RS1/16S473J     |  |  |   |
| X 601                         | (A,141,63)  | Oscillator 74.100 MHzCSS1749     |  |                 |  |  |  | R 619                         | (B,147,40)       |  |  | RS1/16S104J     |  |  |   |
| X 602                         | (A,114,59)  | Oscillator 4.7186 MHz(C)CSS1727  |  |                 |  |  |  |                               |                  |  |  |                 |  |  |   |
| FU351                         | (B,138,128) | Fuse 3 A CEK1286                 |  |                 |  |  |  | R 622                         | (B,130,28)       |  |  | RS1/16S104J     |  |  |   |
| AR401                         | (B,164,117) | Surge ProtectorIMS-A-6801-01Y901 |  |                 |  |  |  | R 623                         | (B,134,17) (A,B) |  |  | RS1/16S103J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  |                               | (B,134,17) (C)   |  |  | RS1/16S104J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 624                         | (B,126,14) (A,B) |  |  | RS1/16S103J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  |                               | (B,126,14) (C)   |  |  | RS1/16S104J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 638                         | (B,159,94)       |  |  | RS1/16S273J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 643                         | (B,154,38)       |  |  | RS1/16S104J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  |                               |                  |  |  |                 |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 645                         | (B,36,27)        |  |  | RS1/16S120J     |  |  | C |
|                               |             |                                  |  |                 |  |  |  | R 646                         | (B,44,24)        |  |  | RS1/16S120J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 651                         | (B,31,29)        |  |  | RS1/16S104J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 652                         | (B,31,34)        |  |  | RS1/16S102J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 653                         | (B,31,33)        |  |  | RS1/16S102J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  |                               |                  |  |  |                 |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 654                         | (B,31,31)        |  |  | RS1/16S221J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 656                         | (B,106,28)       |  |  | RS1/16S104J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 657                         | (B,106,30)       |  |  | RS1/16S104J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 658                         | (B,32,37)        |  |  | RS1/16S104J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 659                         | (B,106,32)       |  |  | RS1/16S472J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  |                               |                  |  |  |                 |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 660                         | (B,106,34)       |  |  | RS1/16S472J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 661                         | (B,109,30)       |  |  | RS1/16S221J     |  |  | D |
|                               |             |                                  |  |                 |  |  |  | R 662                         | (B,109,32)       |  |  | RS1/16S221J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 663                         | (B,109,34)       |  |  | RS1/16S221J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 664                         | (B,19,41)        |  |  | RS1/16S104J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  |                               |                  |  |  |                 |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 665                         | (B,116,22)       |  |  | RS1/16S0R0J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 666                         | (B,149,56)       |  |  | RS1/16S103J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 670                         | (B,132,22)       |  |  | RS1/16S473J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 671                         | (B,132,27) (C)   |  |  | RS1/16S273J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 757                         | (B,61,69)        |  |  | RS1/16S0R0J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 758                         | (B,58,77)        |  |  | RS1/16S0R0J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  |                               |                  |  |  |                 |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 759                         | (B,62,77)        |  |  | RS1/16S0R0J     |  |  | E |
|                               |             |                                  |  |                 |  |  |  | R 803                         | (B,17,36)        |  |  | RS1/16S222J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 821                         | (B,20,20)        |  |  | RS1/16S562J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 822                         | (B,26,18)        |  |  | RS1/16S103J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 831                         | (B,55,17)        |  |  | RS1/16S1R0J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  |                               |                  |  |  |                 |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 832                         | (B,71,18)        |  |  | RS1/16S473J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 833                         | (A,75,28)        |  |  | RD1/4PU222J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 834                         | (A,79,25)        |  |  | RD1/4PU222J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 836                         | (B,64,34)        |  |  | RS1/16S104J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 837                         | (A,74,21)        |  |  | RD1/4PU103J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  |                               |                  |  |  |                 |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 838                         | (B,71,20)        |  |  | RS1/16S222J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 839                         | (B,93,15)        |  |  | RS1/16S222J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 840                         | (B,93,17)        |  |  | RS1/16S222J     |  |  | F |
|                               |             |                                  |  |                 |  |  |  | R 851                         | (B,74,116) (A,B) |  |  | RS1/16S472J     |  |  |   |
|                               |             |                                  |  |                 |  |  |  | R 852                         | (B,70,119) (A,B) |  |  | RS1/16S472J     |  |  |   |

## RESISTORS

|       |             |              |
|-------|-------------|--------------|
| R 151 | (B,115,97)  | RS1/16S102J  |
| R 152 | (B,98,103)  | RS1/16S102J  |
| R 153 | (B,123,93)  | RS1/16S102J  |
| R 170 | (B,106,96)  | RS1/16S0R0J  |
| R 171 | (B,141,101) | RS1/16S102J  |
|       |             |              |
| R 172 | (B,111,106) | RS1/16S102J  |
| R 173 | (B,144,104) | RS1/16S681J  |
| R 174 | (B,111,103) | RS1/16S681J  |
| R 175 | (B,144,99)  | RS1/16S223J  |
| R 176 | (B,111,104) | RS1/16S223J  |
|       |             |              |
| R 201 | (B,128,123) | RS1/16S103J  |
| R 202 | (B,121,135) | RS1/16S153J  |
| R 203 | (B,120,135) | RS1/16S221J  |
| R 254 | (B,74,88)   | RS1/16S561J  |
| R 257 | (B,75,102)  | RS1/16S473J  |
|       |             |              |
| R 301 | (B,83,108)  | RS1/16S153J  |
| R 351 | (B,165,132) | RS1/16S223J  |
| R 352 | (B,165,136) | RS1/16S223J  |
| R 353 | (B,157,125) | RS1/16S821J  |
| R 354 | (B,164,127) | RS1/16S821J  |
|       |             |              |
| R 401 | (B,158,45)  | RS1/16S102J  |
| R 404 | (B,160,58)  | RS1/16S472J  |
| R 405 | (B,160,55)  | RS1/16S682J  |
| R 406 | (B,160,61)  | RS1/16S102J  |
| R 407 | (B,160,63)  | RS1/16S102J  |
|       |             |              |
| R 408 | (B,170,56)  | RAB4C104J    |
| R 409 | (B,160,48)  | RS1/16S391J  |
| R 410 | (B,160,50)  | RS1/16S681J  |
| R 411 | (B,160,52)  | RS1/16S681J  |
| R 412 | (B,160,54)  | RS1/16S681J  |
|       |             |              |
| R 502 | (B,75,95)   | RS1/16S4702F |
| R 503 | (B,76,98)   | RS1/16S562J  |
| R 505 | (B,73,91)   | RS1/16S1002F |
| R 506 | (B,71,96)   | RS1/16S393J  |
| R 507 | (B,113,37)  | RS1/16S222J  |
|       |             |              |
| R 508 | (B,60,95)   | RS1/16S513J  |
| R 509 | (B,59,92)   | RS1/16S392J  |
| R 511 | (B,62,87)   | RS1/10SR471J |

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

R 853 (B,68,124) (A,B)  
 R 854 (B,63,115) (A,B)  
 R 855 (B,59,115)  
 R 871 (B,123,134) (A,B)  
 R 872 (B,128,124) (A,B)

RS1/16S153J  
 RS1/16S102J  
 RS1/16S104J  
 RS1/16S102J  
 RS1/16S102J

C 604 (B,143,74)  
 C 605 (B,108,74)  
 C 606 (B,105,62)  
 C 607 (B,117,56)  
 C 608 (B,99,81)

CKSRYB103K50  
 CKSRYB104K16  
 CKSRYB103K50  
 CKSRYB103K50  
 CKSRYB103K50

R 888 (B,76,4)  
 R 931 (B,105,41)  
 R 932 (B,66,117)  
 R 933 (A,59,126)  
 R 934 (B,66,122)

RS1/16S0R0J  
 RS1/16S104J  
 RS1/16S223J  
 RD1/4PU102J  
 RS1/16S472J

C 609 (B,114,73)  
 C 610 (A,97,83)  
 C 611 (B,114,71)  
 C 612 (B,119,60)  
 C 613 (A,103,59)

CKSRYB331K50  
 CEJQ101M6R3  
 CKSRYB331K50  
 CKSRYB103K50  
 CEAL101M6R3

R 935 (B,66,119)  
 R 991 (A,13,122)

RS1/16S473J  
 RD1/4PU271J

C 614 (B,169,94)  
 C 615 (B,123,61)  
 C 616 (B,122,67)  
 C 617 (B,129,62)  
 C 618 (B,111,55) (C)  
 C 620 (B,144,58)

CKSRYB102K50  
 CKSRYB331K50  
 CKSRYB105K10  
 CKSRYB105K10  
 CCSRCH270J50  
 CKSRYB105K10

**CAPACITORS**

C 151 (B,117,101)  
 C 152 (B,141,99)  
 C 153 (B,117,99)  
 C 154 (B,138,98)  
 C 155 (A,120,116)

CKSRYB224K10  
 CKSRYB224K10  
 CKSRYB105K10  
 CKSRYB105K10  
 CEJQ470M10

C 622 (B,141,55)  
 C 623 (B,133,66)  
 C 624 (B,131,67)  
 C 625 (B,136,73)  
 C 626 (B,130,73)

CKSRYB104K16  
 CKSRYB102K50  
 CKSRYB102K50  
 CCSRCH270J50  
 CCSRCH270J50

C 158 (B,117,103)  
 C 161 (B,141,105)  
 C 164 (A,114,111)  
 C 165 (B,123,116)  
 C 170 (B,131,92)

CKSRYB105K10  
 CKSRYB105K10  
 CEJQ100M16  
 CKSRYB104K16  
 CKSRYB104K16

C 627 (B,134,79)  
 C 628 (B,142,65)  
 C 629 (B,135,60)  
 C 630 (B,143,70)  
 C 631 (B,108,72)

CCSRCH150J50  
 CKSRYB102K50  
 CCSRCH4R0C50  
 CCSRCH8R0D50  
 CKSRYB223K50

C 171 (B,138,103)  
 C 172 (B,117,104)  
 C 201 (A,132,135)  
 C 251 (B,66,4)  
 C 301 (B,125,126)

CKSRYB105K10  
 CKSRYB105K10  
 CEJQ330M10  
 CKSRYB105K10  
 CKSQYB474K25

C 632 (B,129,24)  
 C 633 (B,142,31)  
 C 634 (B,111,59) (C)  
 C 635 (B,145,55)  
 C 640 (B,143,72)  
 C 641 (B,123,59)

CKSRYB104K16  
 CKSRYB104K16  
 CCSRCH270J50  
 CKSRYB104K16  
 CKSRYB103K50  
 CKSRYB104K16

C 302 (B,121,124)  
 C 303 (B,123,126)  
 C 304 (B,118,124)  
 C 305 (B,120,132)  
 C 306 (B,118,129)

CKSQYB474K25  
 CKSQYB474K25  
 CKSQYB474K25  
 CKSRYB474K16  
 CKSRYB474K16

C 642 (B,114,99)  
 C 643 (B,141,97)  
 C 645 (B,116,20)  
 C 651 (B,22,27)  
 C 652 (B,47,36)

CKSRYB122K50  
 CKSRYB122K50  
 CKSRYB103K50  
 CKSRYB102K50  
 CKSRYB221K50

C 307 (B,120,131)  
 C 308 (B,115,124)  
 C 309 (B,120,140)  
 C 310 (B,117,141)  
 C 312 (A,103,123)

CKSRYB474K16  
 CKSRYB474K16  
 CKSQYB225K10  
 CKSQYB225K10  
 CEJQ100M16

C 653 (B,113,35)  
 C 654 (B,27,42)  
 C 655 (B,25,41)  
 C 668 (B,128,78)  
 C 669 (B,129,22)

CCSRCH220J50  
 CKSRYB102K50  
 CKSRYB104K16  
 CKSRYB105K10  
 CKSRYB105K10

C 313 (B,97,142)  
 C 353 (A,154,121)  
 C 354 (A,148,121)  
 C 359 (B,164,138)  
 C 401 (B,169,71) (A,B)

CKSRYB104K16  
 CEJQ2R2M50  
 CEJQ2R2M50  
 CCSQCH102J50  
 CKSRYB104K16

C 670 (B,140,79)  
 C 821 (B,19,14)  
 C 831 (B,66,28)  
 C 832 (B,66,27)  
 C 833 (B,64,32)

CKSRYB104K16  
 CKSRYB104K16  
 CCSRCH221J50  
 CCSRCH221J50  
 CKSRYB104K16

C 404 (A,150,97)  
 C 405 (B,148,101)  
 C 406 (B,170,59)  
 C 409 (B,158,46)  
 C 411 (B,162,45)

CEJQ101M10  
 CKSRYB103K50  
 CCSRCH390J50  
 CCSRCH100D50  
 CCSRCH151J50

C 834 (B,64,30)  
 C 839 (B,79,13)  
 C 840 (B,73,25)  
 C 841 (B,71,22)  
 C 871 (B,130,138) (A,B)

CCSRCH221J50  
 CCSRCH221J50  
 CCSRCH221J50  
 CCSRCH221J50  
 CKSRYB103K50

C 412 (B,169,96)  
 C 501 (A,60,89) 150 uF/6.3 V  
 C 502 (A,56,94)  
 C 504 (B,58,103)  
 C 505 (B,71,98)

CKSRYB104K16  
 CCH1804  
 CEJQ221M16  
 CKSQYB225K16  
 CCSRCH101J50

C 872 (B,130,132) (A,B)  
 C 901 (A,46,115) 3 300 uF/16 V  
 C 911 (A,58,63)  
 C 912 (A,47,69)  
 C 913 (B,28,73)

CKSRYB103K50  
 CCH1732  
 CEJQ100M16  
 CEAT102M16  
 CKSRYB104K16

C 506 (B,71,99)  
 C 508 (B,57,88)  
 C 601 (B,119,27)  
 C 602 (B,119,29)  
 C 603 (B,122,28)

CKSRYB153K50  
 CKSRYB105K10  
 CKSRYB105K10  
 CKSRYB103K50  
 CKSRYB103K50

C 914 (A,49,63)  
 C 915 (A,54,51)  
 C 917 (B,27,78)  
 C 991 (B,10,109)

CEAT221M10  
 CEJQ100M16  
 CKSRYB104K16  
 CKSRYB473K25

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**Unit Number : (A)(C)**  
**Unit Name : Keyboard Unit**

**MISCELLANEOUS**

|         |                            |                 |
|---------|----------------------------|-----------------|
| IC 1801 | (B,100,20) IC              | PD6340A         |
| D 1801  | (B,103,6) Diode            | MC2848-11       |
| D 1802  | (B,100,6) Diode            | MC2846-11       |
| D 1803  | (B,135,20) Varistor        | EZJZ1V270RM     |
| D 1804  | (B,128,18) Varistor        | EZJZ1V270RM     |
| D 1805  | (B,138,20) Varistor        | EZJZ1V270RM     |
| D 1806  | (B,139,26) Diode           | MALS068X        |
| D 1807  | (B,141,27) Diode           | MALS068X        |
| D 1823  | (A,139,22) White LED       | NESW505C-5273   |
| D 1824  | (A,6,13) LED               | CL-195SR-CD     |
| D 1825  | (A,5,30) LED               | CL-195SR-CD     |
| D 1826  | (A,15,28) LED              | CL-195SR-CD     |
| D 1827  | (A,39,5) LED               | CL-195SR-CD     |
| D 1828  | (A,24,19) LED              | CL-195SR-CD     |
| D 1829  | (A,16,13) LED              | CL-195SR-CD     |
| D 1830  | (A,37,33) LED              | CL-195SR-CD     |
| D 1831  | (A,52,18) LED              | CL-195SR-CD     |
| D 1832  | (A,54,33) LED              | CL-195SR-CD     |
| D 1834  | (A,91,8) LED               | CL-195SR-CD     |
| D 1835  | (A,79,8) LED               | CL-195SR-CD     |
| D 1836  | (A,68,8) LED               | CL-195SR-CD     |
| D 1837  | (A,103,8) LED              | CL-195SR-CD     |
| D 1838  | (A,115,8) LED              | CL-195SR-CD     |
| D 1839  | (A,127,8) LED              | CL-195SR-CD     |
| D 1840  | (A,146,41) LED             | CL-195SR-CD     |
| L 1801  | (B,137,26) Inductor        | CTF1713         |
| X 1801  | (B,92,8) Ceramic Resonator | 5.00 MHzCSS1731 |
| S 1833  | (A,38,19) Rotary Switch    | CSD1153         |
| LCD1801 | (A,133,32) LCD             | CAW1970         |

**RESISTORS**

|        |            |             |
|--------|------------|-------------|
| R 1801 | (B,102,10) | RS1/16S473J |
| R 1806 | (B,133,19) | RS1/16S101J |
| R 1807 | (B,134,14) | RS1/16S101J |
| R 1809 | (B,57,28)  | RS1/16S473J |
| R 1810 | (B,138,23) | RS1/4SA821J |
| R 1811 | (B,13,20)  | RS1/4SA821J |
| R 1812 | (B,13,14)  | RS1/4SA821J |
| R 1813 | (B,16,30)  | RS1/4SA821J |
| R 1814 | (B,73,18)  | RS1/4SA821J |
| R 1815 | (B,123,8)  | RS1/4SA681J |
| R 1828 | (B,87,6)   | RS1/16S222J |
| R 1829 | (B,87,9)   | RS1/16S222J |
| R 1839 | (B,21,16)  | RS1/16S0R0J |

**CAPACITORS**

|        |            |              |
|--------|------------|--------------|
| C 1802 | (B,119,19) | CKSRYB105K10 |
| C 1803 | (B,130,18) | CKSRYB472K50 |
| C 1804 | (B,133,17) | CKSRYB472K50 |
| C 1805 | (B,136,20) | CKSRYB472K50 |
| C 1806 | (B,139,20) | CKSRYB472K50 |



**Unit Number : (B)**  
**Unit Name : Keyboard Unit**

**MISCELLANEOUS**

|         |                            |                 |
|---------|----------------------------|-----------------|
| IC 1801 | (B,100,20) IC              | PD6340A         |
| D 1801  | (B,103,6) Diode            | MC2848-11       |
| D 1802  | (B,100,6) Diode            | MC2846-11       |
| D 1803  | (B,135,20) Varistor        | EZJZ1V270RM     |
| D 1804  | (B,128,18) Varistor        | EZJZ1V270RM     |
| D 1805  | (B,138,20) Varistor        | EZJZ1V270RM     |
| D 1806  | (B,139,26) Diode           | MALS068X        |
| D 1807  | (B,141,27) Diode           | MALS068X        |
| D 1823  | (A,139,22) White LED       | NESW505C-5273   |
| D 1824  | (A,6,13) LED               | CL-195PG-CD     |
| D 1825  | (A,5,30) LED               | CL-195PG-CD     |
| D 1826  | (A,15,28) LED              | CL-195PG-CD     |
| D 1827  | (A,39,5) LED               | CL-195PG-CD     |
| D 1828  | (A,24,19) LED              | CL-195PG-CD     |
| D 1829  | (A,16,13) LED              | CL-195PG-CD     |
| D 1830  | (A,37,33) LED              | CL-195PG-CD     |
| D 1831  | (A,52,18) LED              | CL-195PG-CD     |
| D 1832  | (A,54,33) LED              | CL-195PG-CD     |
| D 1834  | (A,91,8) LED               | CL-195PG-CD     |
| D 1835  | (A,79,8) LED               | CL-195PG-CD     |
| D 1836  | (A,68,8) LED               | CL-195PG-CD     |
| D 1837  | (A,103,8) LED              | CL-195PG-CD     |
| D 1838  | (A,115,8) LED              | CL-195PG-CD     |
| D 1839  | (A,127,8) LED              | CL-195PG-CD     |
| D 1840  | (A,146,41) LED             | CL-195PG-CD     |
| L 1801  | (B,137,26) Inductor        | CTF1713         |
| X 1801  | (B,92,8) Ceramic Resonator | 5.00 MHzCSS1731 |
| S 1833  | (A,38,19) Rotary Switch    | CSD1153         |
| LCD1801 | (A,133,32) LCD             | CAW1970         |

**RESISTORS**

|        |            |             |
|--------|------------|-------------|
| R 1801 | (B,102,10) | RS1/16S473J |
| R 1806 | (B,133,19) | RS1/16S101J |
| R 1807 | (B,134,14) | RS1/16S101J |
| R 1809 | (B,57,28)  | RS1/16S473J |
| R 1810 | (B,138,23) | RS1/4SA821J |
| R 1811 | (B,13,20)  | RS1/4SA561J |
| R 1812 | (B,13,14)  | RS1/4SA561J |
| R 1813 | (B,16,30)  | RS1/4SA561J |
| R 1814 | (B,73,18)  | RS1/4SA561J |
| R 1815 | (B,123,8)  | RS1/4SA391J |
| R 1828 | (B,87,6)   | RS1/16S222J |
| R 1829 | (B,87,9)   | RS1/16S222J |
| R 1839 | (B,21,16)  | RS1/16S0R0J |

**CAPACITORS**

|        |            |              |
|--------|------------|--------------|
| C 1802 | (B,119,19) | CKSRYB105K10 |
| C 1803 | (B,130,18) | CKSRYB472K50 |
| C 1804 | (B,133,17) | CKSRYB472K50 |
| C 1805 | (B,136,20) | CKSRYB472K50 |
| C 1806 | (B,139,20) | CKSRYB472K50 |

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

C 1807 (B,126,19)

CKSRYB472K50

R 282 (A,30,61)

RS1/16SS120J

R 283 (A,29,61)

RS1/16SS120J

R 284 (B,29,63)

RS1/16SS153J

R 285 (B,28,63)

RS1/16SS153J

R 290 (B,24,43)

RS1/16SS103J

R 291 (B,42,62)

RS1/16SS272J

R 294 (A,31,62)

RS1/16SS471J

R 307 (A,35,19)

RS1/16SS183J

R 308 (A,37,19)

RS1/16SS183J

R 309 (A,35,21)

RS1/16SS183J

R 310 (A,37,22)

RS1/16SS183J

R 601 (B,30,31)

RS1/16SS0R0J

R 602 (B,27,31)

RS1/16SS0R0J

R 606 (B,28,23)

RS1/16S0R0J

R 701 (B,11,37)

RS1/16SS221J

R 702 (A,23,56)

RS1/16SS221J

R 708 (B,15,37)

RS1/16S0R0J

R 712 (B,14,54)

RS1/16SS0R0J

R 713 (B,14,53)

RS1/16SS0R0J

**MISCELLANEOUS**

IC 201 (A,35,46) IC PE5666A  
 IC 301 (A,28,15) IC BA5839FP  
 Q 101 (B,58,69) Transistor 2SA1577  
 Q 102 (B,48,58) Chip Transistor 2SB1689  
 X 201 (A,22,37) Ceramic Resonator 16.934 MHz CSS1603

X 205 (B,33,63) Oscillator 48.000 MHz CSS1753  
 S 901 (A,55,37) Switch(HOME) CSN1067  
 S 903 (B,19,58) Switch(DSCSNS) CSN1067  
 S 904 (B,40,68) Switch(12EJ) CSN1068  
 S 905 (B,25,69) Switch(8EJ) CSN1068

**RESISTORS**

R 101 (B,61,74) RS1/10SR2R4J  
 R 102 (B,61,72) RS1/10SR2R4J  
 R 103 (B,61,71) RS1/10SR2R7J  
 R 104 (B,53,66) RS1/16SS222J  
 R 105 (B,44,57) RS1/16SS102J

R 107 (B,52,60) RS1/16SS105J  
 R 202 (A,27,32) RS1/16SS473J  
 R 203 (A,51,44) RS1/16S473J  
 R 204 (A,23,58) RS1/16SS221J  
 R 206 (B,10,26) RS1/16SS104J

R 209 (B,18,52) RS1/16SS103J  
 R 210 (B,10,23) RS1/16SS102J  
 R 214 (B,49,50) RS1/16SS472J  
 R 216 (B,48,49) RS1/16SS472J  
 R 221 (A,51,48) RS1/16SS103J

R 222 (A,51,46) RS1/16SS103J  
 R 223 (B,13,43) RS1/16SS473J  
 R 225 (A,50,50) RS1/16SS103J  
 R 226 (A,50,51) RS1/16SS393J  
 R 227 (B,47,51) RS1/16SS562J

R 228 (B,44,51) RS1/16SS122J  
 R 229 (B,46,53) RS1/16SS472J  
 R 230 (B,21,25) RS1/16SS0R0J  
 R 232 (B,45,51) RS1/16SS122J  
 R 233 (B,26,59) RS1/16SS103J

R 234 (B,22,26) RS1/16SS473J  
 R 235 (A,26,59) RS1/16SS473J  
 R 237 (A,24,35) RS1/16SS151J  
 R 240 (B,14,26) RS1/16S473J  
 R 241 (B,13,25) RS1/16SS103J

R 244 (B,22,55) RS1/16SS473J  
 R 249 (B,14,50) RS1/16SS103J  
 R 254 (A,25,64) RS1/16SS104J  
 R 255 (A,26,63) RS1/16SS104J  
 R 256 (A,25,62) RS1/16SS104J

R 259 (A,27,66) RS1/16SS0R0J  
 R 261 (A,26,65) RS1/16SS104J  
 R 262 (A,29,59) RS1/16SS0R0J  
 R 263 (A,27,63) RS1/16SS0R0J  
 R 280 (B,20,45) RS1/16SS103J

**CAPACITORS**

C 106 (B,56,67) CKSQYB475K10  
 C 202 (A,28,57) CKSSYB104K10  
 C 204 (A,23,59) CKSSYB103K16  
 C 205 (B,27,41) CKSQYB475K10  
 C 206 (A,23,40) CKSSYB104K10

C 207 (A,24,37) CKSRYB104K16  
 C 209 (B,35,34) CEVW220M6R3  
 C 210 (B,29,37) CKSSYB104K10  
 C 211 (A,28,35) CKSSYB104K10  
 C 212 (A,28,30) CKSRYB104K16

C 213 (A,46,39) CKSSYB104K10  
 C 214 (A,29,33) CKSSYB104K10  
 C 216 (A,51,52) CKSSYB332K50  
 C 217 (A,48,51) CKSSYB104K10  
 C 218 (A,50,52) CKSSYB473K10

C 219 (A,47,53) CKSSYB104K10  
 C 220 (A,48,53) CKSSYB182K50  
 C 221 (A,46,54) CKSSYB104K10  
 C 222 (B,45,53) CCSSCH560J50  
 C 223 (B,47,53) CCSSCH4R0C50

C 224 (A,44,55) CKSSYB104K10  
 C 226 (A,42,59) CCSSCH680J50  
 C 227 (A,42,61) CCSSCH470J50  
 C 228 (B,41,61) CKSSYB103K16  
 C 229 (B,48,60) CKSSYB104K10

C 236 (A,49,58) CKSSYB104K10  
 C 239 (B,46,51) CCSSCH220J50  
 C 240 (A,38,61) CKSSYB104K10  
 C 243 (B,22,41) CKSQYB475K103  
 C 250 (A,52,48) CKSSYB102K50

C 251 (A,52,46) CKSSYB102K50  
 C 260 (A,28,61) CKSSYB104K10  
 C 261 (B,33,66) CCSSCH8R0D50  
 C 262 (B,31,66) CCSSCH8R0D50  
 C 293 (B,43,61) CKSSYB102K50

C 303 (A,36,19) CKSSYB472K25  
 C 304 (A,36,21) CKSSYB223K16  
 C 307 (A,22,11) CKSRYB104K16  
 C 308 (B,11,18) CKSRYB105K10

| <u>Circuit Symbol and No.</u> |           | <u>Part No.</u> |
|-------------------------------|-----------|-----------------|
| C 703                         | (B,14,35) | CCSSCH101J50    |
| C 704                         | (B,11,36) | CKSSYB102K50    |
| C 711                         | (A,31,25) | CKSSYB104K10    |

### Miscellaneous Parts List

|     |                              |         |
|-----|------------------------------|---------|
|     | Pickup Unit(P10.5)(Service)  | CXX1942 |
| M 1 | Motor Unit(SPINDLE)          | CXC7134 |
| M 2 | Motor Unit(LOADING/CARRIAGE) | CXC4026 |