

# PS-LX310BT

## SERVICE MANUAL

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**Note:**

Make sure that the your PC used for repair is not infected with a computer virus before using it.

# PS-LX310BT

## SERVICE MANUAL

US Model



### SPECIFICATIONS

#### Motor and Platter

Drive system	Belt-drive
Motor	DC motor
Platter	296 mm dia. (aluminum die-cast)
Speeds	33 1/3 and 45 rpm, 2 speed
Wow and flutter	0.1% (WRMS)
S/N ratio	More than 50 dB (DIN-B) with the supplied cartridge

#### Tone Arm

Type	Dynamic balanced J shaped arm
Effective arm length	197 mm

#### USB Connectivity

Output port	USB2.0 Plug-in power Type-B Powered by PC (DC5V 100 mA)
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#### Cartridge

Type	MM
Stylus pressure	3 g
Output level	2.5 mV

#### General

Power supply	DC 12 V 0.8 A (AC adaptor)
Power consumption	1.8 W
Dimensions	430 mm x 108 mm x 367 mm (17 in x 4 3/8 in x 14 1/2 in) (width/height/depth)
Weight	Approx. 3.5 kg (7 lb 11 1/2 oz)

#### AC adaptor\*

Input	AC 100-240 V 0.35 A 50/60 Hz (Former type) AC 100-240 V 50/60 Hz (New type)
Output	DC 12 V 0.8 A (AC adaptor)

\* Use the supplied AC adaptor for your turntable, as other adaptors may cause a malfunction. (New type)

#### BLUETOOTH section

Output	BLUETOOTH Specification Power Class 2
Maximum communication range	Line of sight approx. 10 m (33 feet)*1
Frequency band	2.4 GHz band
Modulation method	FHSS
Compatible BLUETOOTH profiles*2	A2DP 1.3
Supported Codecs*3	SBC*4, Qualcomm® aptX™ audio
Transmission range (A2DP)	20 Hz - 20,000 Hz (Sampling frequency 48 kHz)

\*1 The actual range will vary depending on factors such as obstacles between devices, magnetic fields around a microwave oven, static electricity, cordless phone, reception sensitivity, antenna's performance, operating system, software application, etc.

\*2 BLUETOOTH standard profiles indicate the purpose of BLUETOOTH communication between devices.

\*3 Codec: Audio signal compression and conversion format

\*4 Subband Codec

#### Checking the Supplied Items

- Platter (with drive belt) (1)
- Mat for the platter (1)
- Dust cover (1)
- 45 rpm adaptor (1)\*
- Dust cover hinges (2)\*
- AC adaptor (1)
- Operating Instructions

\* The 45 rpm adaptor and dust cover hinges are attached to a side surface of your turntable's packaging material.

Design and specifications are subject to change without notice.

**Note:** The AC adaptor has been changed in the midway of production. When identifying the type (Former type, New type) of AC adaptor be sure to refer "5. ACCESSORIES" on page 31.

## STEREO TURNTABLE SYSTEM

# PS-LX310BT

## System requirements

### Operating systems:

Windows 7/Windows 8.1/Windows 10/  
Windows 11 (32/64 bit)  
(The latest service pack is required.)

OS X Mavericks (10.9)  
OS X Yosemite (10.10)  
OS X El Capitan (10.11)  
macOS Sierra (10.12)  
macOS High Sierra (10.13)  
macOS Mojave (10.14)  
macOS Catalina (10.15)  
macOS Big Sur (11)  
macOS Monterey (12)

Any operating systems other than the listed ones are not supported.

The standard driver software of Windows and Mac is supported. No installation of the dedicated driver software is needed.

### Note

A recording application is not assured to work successfully:

- on every computer with one of the listed operating systems
- on a homemade computer
- on a computer with a user-upgraded operating system
- on a multi-boot computer
- with the power-saving features of the computer: System Suspend or Sleep (Standby)
- on a computer with an operating system for which support has ended

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### Polarity of DC output of the AC adaptor



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### SAFETY-RELATED COMPONENT WARNING!

COMPONENTS IDENTIFIED BY MARK  $\triangle$  OR DOTTED LINE WITH MARK  $\triangle$  IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION.

REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## SECTION 1 SERVICING NOTES

The **SERVICING NOTES** contains important information for servicing. Be sure to read this section before repairing the unit.

### UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.

**(Caution:** Some printed circuit boards may not come printed with the lead free mark due to their particular size)

### : LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.  
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.  
Soldering irons using a temperature regulator should be set to about 350 °C.  
**Caution:** The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity  
Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder  
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

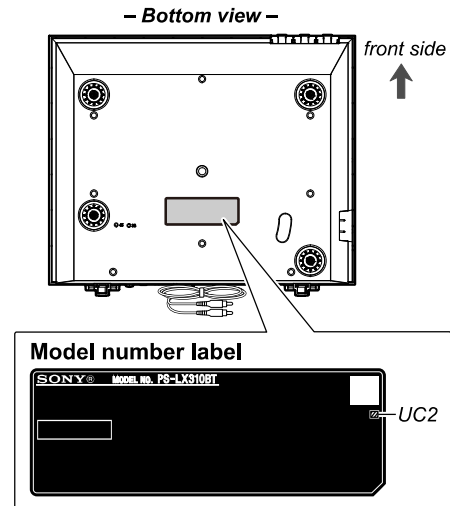
### MODEL IDENTIFICATION

When checking the destination, check that “UC2” is indicated at the right side of the model number label on the bottom side.

When “UC2” is indicated, it is PS-LX310BT for US.

When “UC2” is not indicated, it is PS-LX310BT other than US.

**Note:** The contents of model number label might be changed in the midway of production.



# PS-LX310BT

## NOTE OF REPLACING MOTOR ASSY

Two capacitors (C13E, C14E) have been added to the board of motor assy in the midway of production.

Also, the motor assy has been changed from Type M09S12U13 to Type EG-530SD.

When replacing the motor assy with a new part, be sure to check for the mount or no mount of two capacitors on the failed motor assy, and identify the type of motor assy before working.

**Note 1:** Two capacitors (C13E, C14E) cannot be replaced with new parts.

**Note 2:** When the motor assy is replaced with a new part, be sure to refer to "3. ELECTRICAL ADJUSTMENT" on page 25 and perform the DC motor speed adjustment.

### 1. Check for the Mount or No Mount of Two Capacitors on the Motor Assy

**When two capacitors are not installed on the failed motor assy:**

Simply replace the failed motor assy with a new motor assy. (Refer to "2. Identify the Type of Motor Assy" on the below)

**When two capacitors are installed on the failed motor assy:**

Be sure to remove two capacitors from the failed motor assy, and install them on the new motor assy. (Refer to the figure below) (Refer to "2. Identify the Type of Motor Assy" on the below)

**• Work when two capacitors are installed on the failed motor assy**

**Note 3:** This work is only necessary when capacitors are installed on the failed motor assy.

### 2. Identify the Type of Motor Assy

Refer to the figure below to check the presence or absence of the label, and select the motor assy of type match that before replacing.

Type M09S12U13	Type EG-530SD
<p>With label M09S12U13-3</p>	<p>Without label</p>
<p>Without engraving</p>	<p>With engraving EG-530SD-3F</p>

## ABOUT CHANGING THE BT BOARD

The BT board has been changed from Type BT3673 to Type BT3935 in the midway of production.

When replacing the BT board with a new board, be sure to refer to the "Identification Method" below and identify the type of BT board before replacing.

**Note 1:** Be sure to replace the BT board with the correct type that matches the replacing BT board. It may be a compliance violation to replace it with the BT board of wrong type.

**Note 2:** When the BT board is replaced with a new board, be sure to refer to "BLUETOOTH CONNECTION CHECKING METHOD" on page 6 and check the Bluetooth connection.

### • Identification Method

It can identify the type of BT board with the following method.

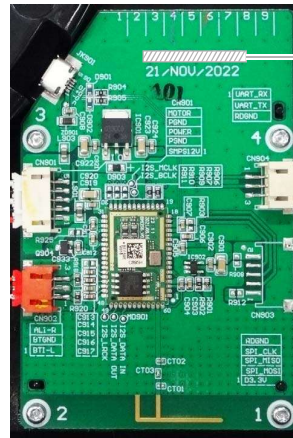
#### Check and identify by serial number

1219293 or smaller : Type BT3673 (Before changing)

1219294 or larger : Type BT3935 (After changing)

#### Check and identify by the print on the BT board

– BT Board (Side B) –



405-PSL-3673: Type BT3673 (Before changing)

405-PSL-3935: Type BT3935 (After changing)

### Check and identify by the mount or no mount of capacitors on the motor assy



capacitors is not mounted : Type BT3673 (Before changing)  
capacitors is mounted : Type BT3935 (After changing)

# PS-LX310BT

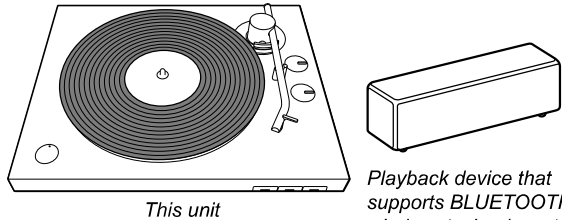
## BLUETOOTH CONNECTION CHECKING METHOD

When the BT board or MAIN board is replaced, refer to following, check the Bluetooth connection.

**Note 1:** Do not connect to headphones for which you cannot adjust the volume. Audio tracks may be played at very loud volumes.

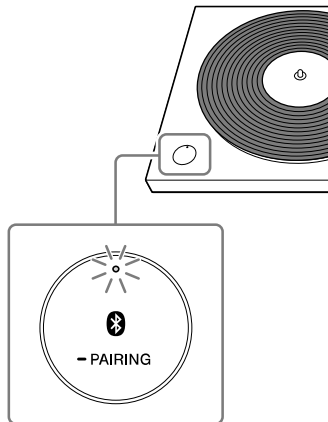
### Procedure:

1. Place the playback device that supports BLUETOOTH wireless technology, to which you want to connect, as close to this unit as possible.

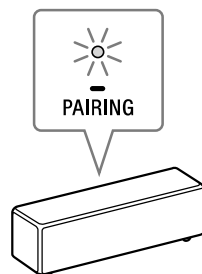


Playback device that supports BLUETOOTH wireless technology, to which you want to connect (Above illustration is reference example)

2. Press and hold this unit's [BT-PAIRING] button for about 2 seconds, then release it, and check that the [BT-PAIRING] indicator rapidly flashes blue.



3. Turn on the pairing mode for the playback device that supports BLUETOOTH wireless technology, to which you want to connect.

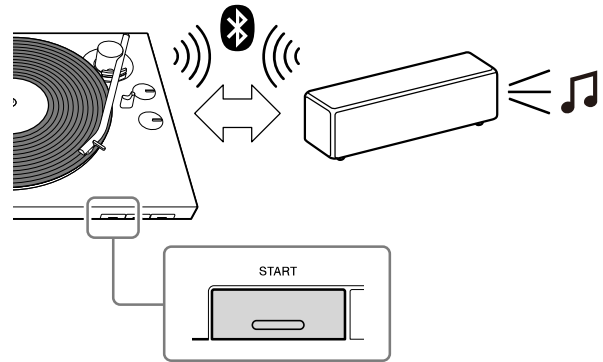


**Note 2:** The above illustration is one example of a device that is connecting. For how to turn on the pairing mode for the device to which you want to connect, refer to the user's instructions supplied with the device.

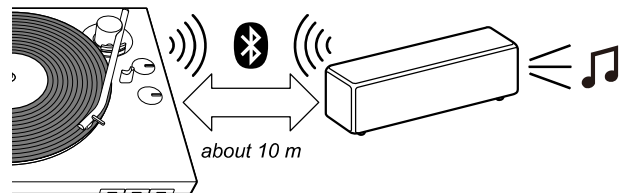
The [BT-PAIRING] indicator stops flashing blue and remains lit when pairing is complete.

**Note 3:** If you are only using the BLUETOOTH connection and not connecting this unit to another device using the audio cable, set the [OUTPUT SELECT] switch on the back of the main unit to "LINE" to use the turntable.

4. Press the [START] button on this unit to start the playback, check that the sound output from the playback device that supports BLUETOOTH wireless technology.



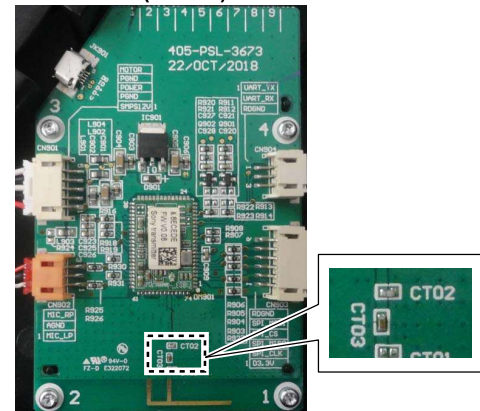
5. Detach the playback device that supports BLUETOOTH wireless technology about 10 m from this unit, check that connection keeps without problems at that position.



**Note 4:** Even if there is no problem with connection at the state that distance between this unit and playback device that supports BLUETOOTH wireless technology is about 1 m, the connection may be lost if distance is about 10 m. In that case, the electrical parts (Ref. No. CT02, CT03) on the BT board may be mounted incorrectly or damaged.

If there is no problem with connection at the distance is about 1 m and connection is lost at the distance is about 10 m, replace the BT board with a new part, check the BLUETOOTH connection again from step 1.

### - BT Board (Side B) -



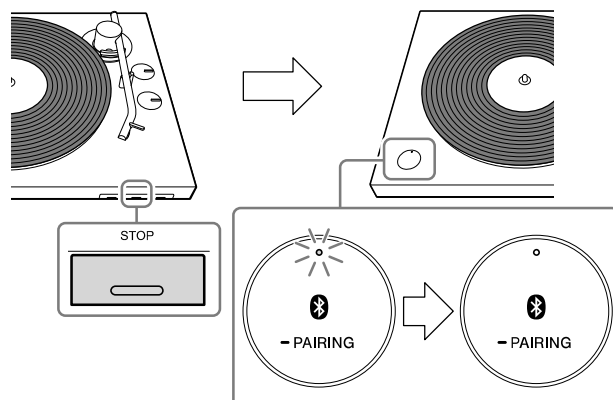
(The above figure is the BT board of Type BT3673. The BT board of Type BT3935 also has CT02 and CT03 mounted in the same position)

- Continued on next page -

- Continued on upper right -

**PS-LX310BT**

6. Press the [STOP] button on this unit to stop the playback. Then press the [BT PAIRING] button, check that [BT PAIRING] indicator lights off.



7. Press and hold down the [BT PAIRING] button on this unit about 10 seconds, delete the device information and complete the checking work.

**Tip**

- Once you have paired your turntable and device, you can connect to the paired device simply by giving a short press to the BLUETOOTH button/ BT PAIRING button to enable your turntable's BLUETOOTH function. You can also connect to the paired device and play vinyl records by pressing the START button on the front of the turntable when the BLUETOOTH indicator is lit orange (in standby).
- Press the BLUETOOTH button/ BT PAIRING button to disengage from the BLUETOOTH connection. The BLUETOOTH indicator turns off.
- You can register information for a maximum of 8 devices paired to your turntable. You can delete all information for paired devices by pressing and holding the BLUETOOTH button/ BT PAIRING button for about 10 seconds, and then releasing it.

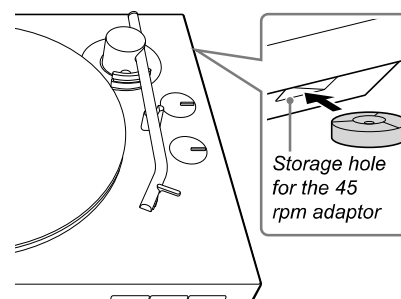
**If you cannot register (pair) devices**

- If there are playback devices, which support BLUETOOTH wireless technology nearby, that have the BLUETOOTH function enabled, but some of them are not the device with which you want to pair, disable their BLUETOOTH function and try pairing again.
- With the pairing operation, the device with which you do not want to pair may be turned on and connected to the turntable automatically. If this occurs, change the device's setting not to turn on by the BLUETOOTH connection, turn off the device, and try pairing again.
- You cannot pair your turntable with smartphones, TVs, or computers. The turntable can use the BLUETOOTH function to send data to playback devices that support BLUETOOTH wireless technology; however, because the turntable cannot receive data from smartphones, TVs, or computers, the turntable cannot pair with them.

**CHECK OF STORAGE HOLE FOR THE 45 RPM ADAPTOR**

There is storage hole for the 45 rpm adaptor on the right side of this unit.

When disassembling this unit, remove the 45 rpm adaptor from the storage hole in advance.



## PS-LX310BT

### ASSEMBLING THE STEREO TURNTABLE SYSTEM

This unit is a product of the specification that the customer self assembled.

When it is necessary to assemble this unit for the operation check, refer to following.

#### Note

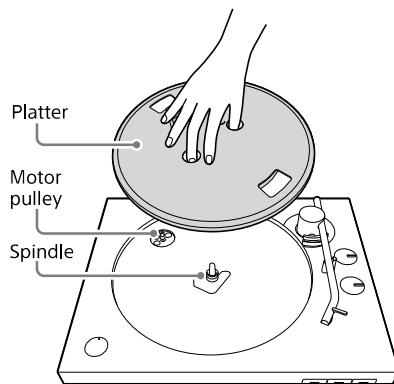
- When you purchased your turntable, a stylus's protective cover was attached to the stylus. Leave on the cover as you assemble your turntable.
- Do not connect your turntable to a power outlet with the AC adaptor until you are finished with assembly.
- The stylus is a high precision component. Do not touch the stylus while handling it. Touching the stylus with your fingers, or banging the stylus into the platter, may cause damage to the stylus.
- To move your turntable after assembling the turntable,
  - attach the stylus's protective cover,
  - remove the platter, and
  - pass a string through the hole in the tone arm rest and fix the tone arm and the tone arm rest.

#### Precautions on placement

- Place the unit on a level surface.
- Avoid placing the unit near electrical appliances (such as a television, hair dryer, or fluorescent lamp) which may cause hum or noise.
- Place the unit where it will not be subject to any vibration, such as from speakers, slamming of doors, etc.
- Keep the unit away from direct sunlight, extremes of temperature, and excessive dust and moisture.
- Keep the unit away from electronic devices that may emit radio waves or electromagnetic noise.

#### Attaching the platter

1. Place the platter on the spindle.  
Keep the platter level while placing it on the spindle.

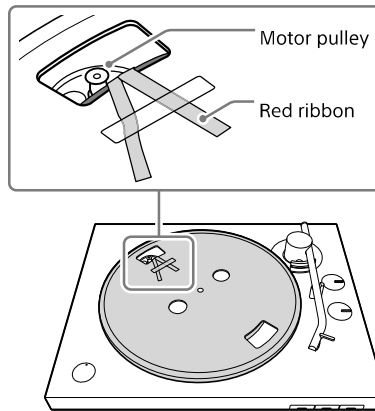


#### Note

Hold the platter firmly so as not to drop the platter as it may cause personal injuries or damage to your turntable.

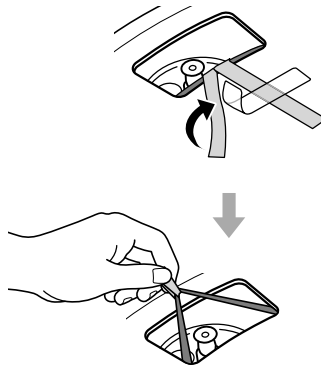
2. Turn the platter to the position where you can see the motor pulley through the rectangular hole with the tips of the red ribbon taped on the platter.

**Note:** When the customer has been assembled this unit once, red ribbon might not be installed.



3. Peel off the adhesive tape, pull and hold the red ribbon, and then hook the drive belt around the motor pulley.

**Note:** When the customer has been assembled this unit once, red ribbon might not be installed.



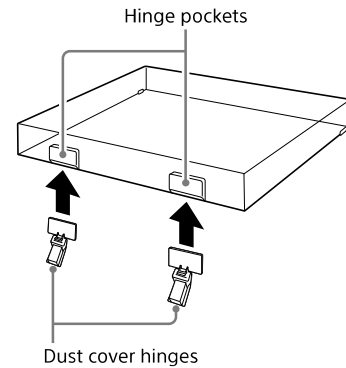
#### Note

- Be careful to not let the drive belt twist. If the drive belt is twisted while placing it around the motor pulley, the speed will become unstable and the platter will stop after it begins rotating. If this happens, place the drive belt around the motor pulley again.
- When placing the drive belt around the platter, do not stretch the drive belt roughly. Doing so degrades the drive belt, which causes the sound's pitch to fluctuate and be too high.
- If the drive belt comes off of the platter's inner circle while you are placing the drive belt around it, temporarily remove the platter. Turn the platter over and wind the drive belt around the circumference of the inner circle. Then, start again from the beginning of the procedure.
- Be sure to remove the red ribbon after you place the drive belt around the motor pulley. The red ribbon is intended to help you with this work. Placing the drive belt around the motor pulley is still possible without the red ribbon. The red ribbon is no longer needed once you have attached the platter.

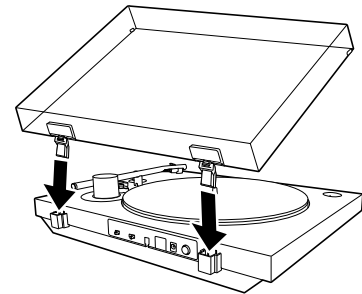
4. Place the mat for the platter onto the platter.

#### Attaching the dust cover

1. Insert the supplied dust cover hinges to the hinge pockets on the dust cover.



2. Align the attached hinges with the hinge pockets on the rear of your turntable and push in the dust cover.



#### Tip

To remove the dust cover from the turntable, fully open the dust cover, grasp both sides near the bottom of the cover, and then gently pull it out in the upward direction.

# PS-LX310BT

## CLEANING THE STYLUS AND REPLACING THE STYLUS

### Cleaning the Stylus

The stylus is a high precision component. Handle it with care to avoid damage. Use a commercial cleaning product for cleaning the stylus.

### Replacing the Stylus

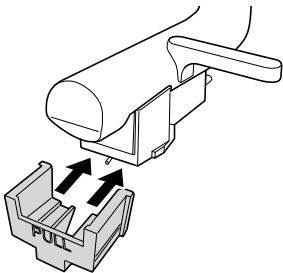
The stylus may become worn out, damaged, or dirty beyond cleaning depending on your use case. In such a case, replace the stylus.

#### Note

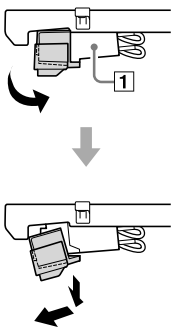
- Do not use a replacement stylus made by another company.
- Be sure to attach the stylus protective cover before you replace the stylus so as not to harm your fingertips or damage the stylus.

#### To remove the stylus

1. Turn off your turntable and the connected audio device and unplug the AC adaptor from the power outlet.
2. Attach the stylus protective cover to the stylus.

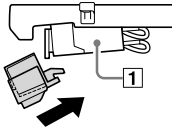


3. Hold the cartridge body (1) with one hand, grasp the stylus with the other, and then pull the stylus in the direction of the arrow to remove it from the cartridge body.

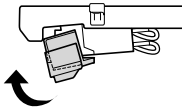


#### To attach the stylus

1. Attach the stylus protective cover to the spare stylus.
2. Hold the cartridge body (1) with one hand and then insert the tab on the spare stylus into the receptacle on the cartridge body.



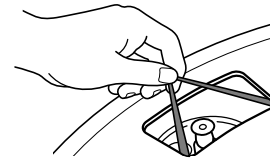
3. Push the stylus in the direction of the arrow until it clicks into place.



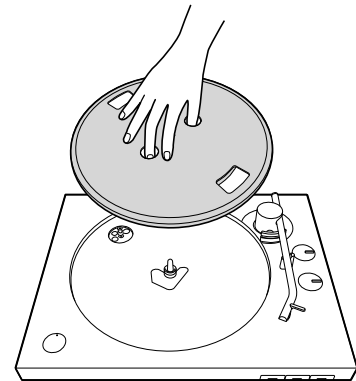
## REPLACING THE DRIVE BELT

The drive belt will wear or may even break over time. In such a case, replace it with a new one.

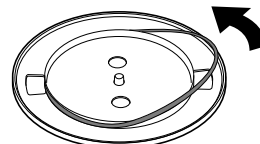
1. Turn off your turntable and the connected audio device and unplug the AC adaptor from the power outlet.
2. Remove the mat for the platter.
3. Unhook the drive belt from the motor pulley.



4. Put your finger and thumb into the platter's round holes to hold the platter and remove the platter.



5. Turn the platter upside down and remove the drive belt.



6. Wind a new drive belt around the platter while keeping it untwisted.

#### Note

Spare drive belts do not have the red indication ribbon attached.

# PS-LX310BT

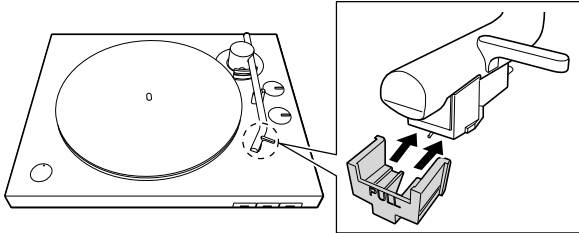
## NOTE BEFORE MOVING OR DISASSEMBLING THIS UNIT

When moving this unit such as carrying it while assembled, or when disassembling it, make sure to take the measures below. Moving or disassembling this unit without taking the measures below might cause parts to fall off and result in malfunction.

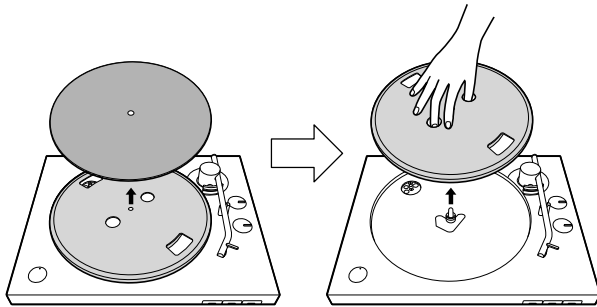
### Procedure:

1. Install the stylus protective cover.

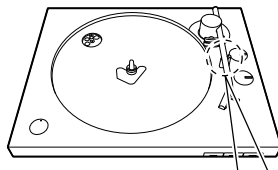
**Note 1:** When there is not stylus protective cover, refer to "CLEANING THE STYLUS AND REPLACING THE STYLUS" on page 9, remove the stylus.



2. Remove the mat for the platter and the turn table (platter).



3. Fix the tone arm.



*tone arm tone arm rest hole of tone arm rest*



*Wrap something such as cloth around the area where the tone arm and tone arm rest touch.*

**Note 2:** Wrapping with something such as cloth is for the purpose of preventing the damage by the string that fixes the tone arm. If the string to be secured is a soft material, it is not necessary to wrap something such as cloth.



*Pass the string through the hole on the tone arm rest.*

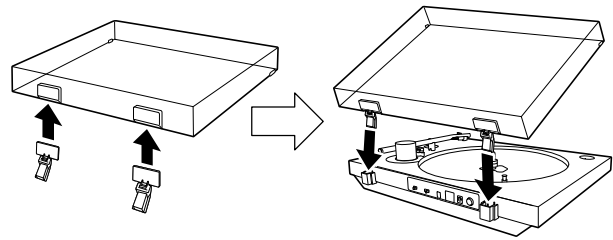


*Completed figure*

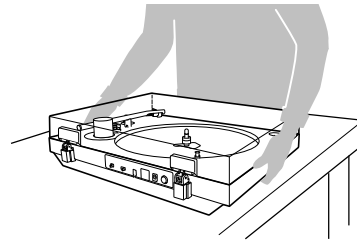


*Tie the string over the tone arm, and secure the tone arm to the tone arm rest so that it does not move.*

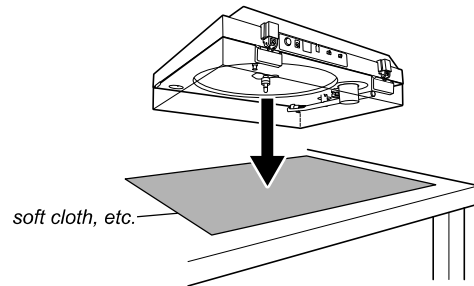
4. Install the duct cover.



When carrying this unit, hold the bottom of this unit firmly with both hands.

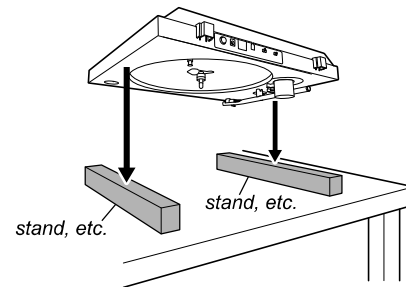


When facing the top side down and disassembling, lay down a soft cloth, etc. and then place this unit on top of it to prevent damage.



When facing the top side down without installing the dust cover for disassembly, place stands, etc., and place this unit on top of them. Arrange the stands to the appropriate positions based on the disassembly work.

**Note 3:** Arrange the stands etc. so that they do not touch the tone arm.



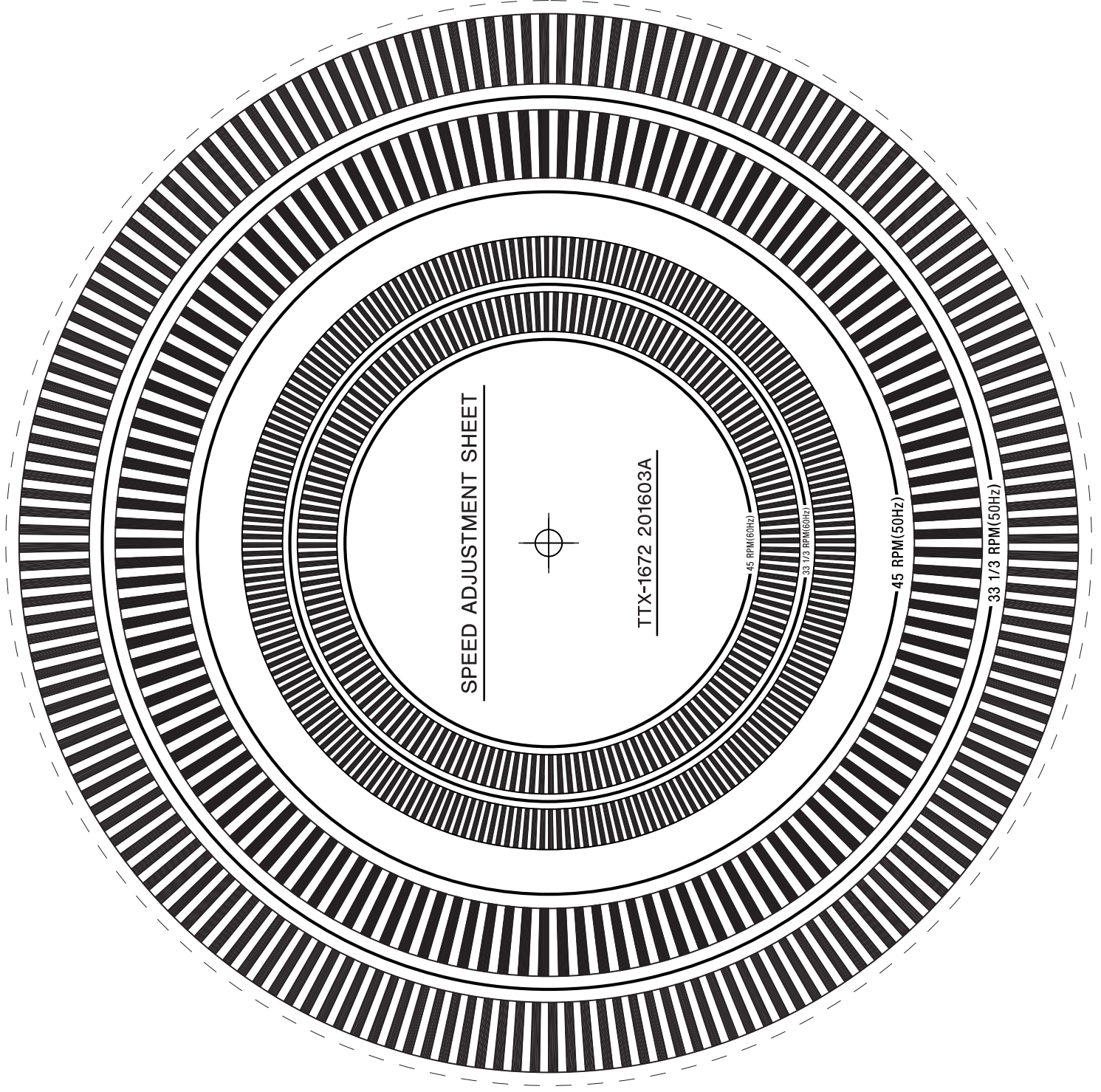
**SPEED ADJUSTMENT SHEET  
(STROBOSCOPE)**

This speed adjustment sheet to be used in the electrical adjustment. (Refer to page 25)

Print the right figure on paper in full-size (Diameter 292 mm of maximum outer circumference (dotted frame)), cut and use it.

**Note 1:** Depending on the printer used, it may be printed in a smaller size than full-size. Be sure to set the print settings to 100% output settings before printing.

**Note 2:** When printing in the full-size, the top and bottom of the dotted frame may be broken off, but there is no problem in use.

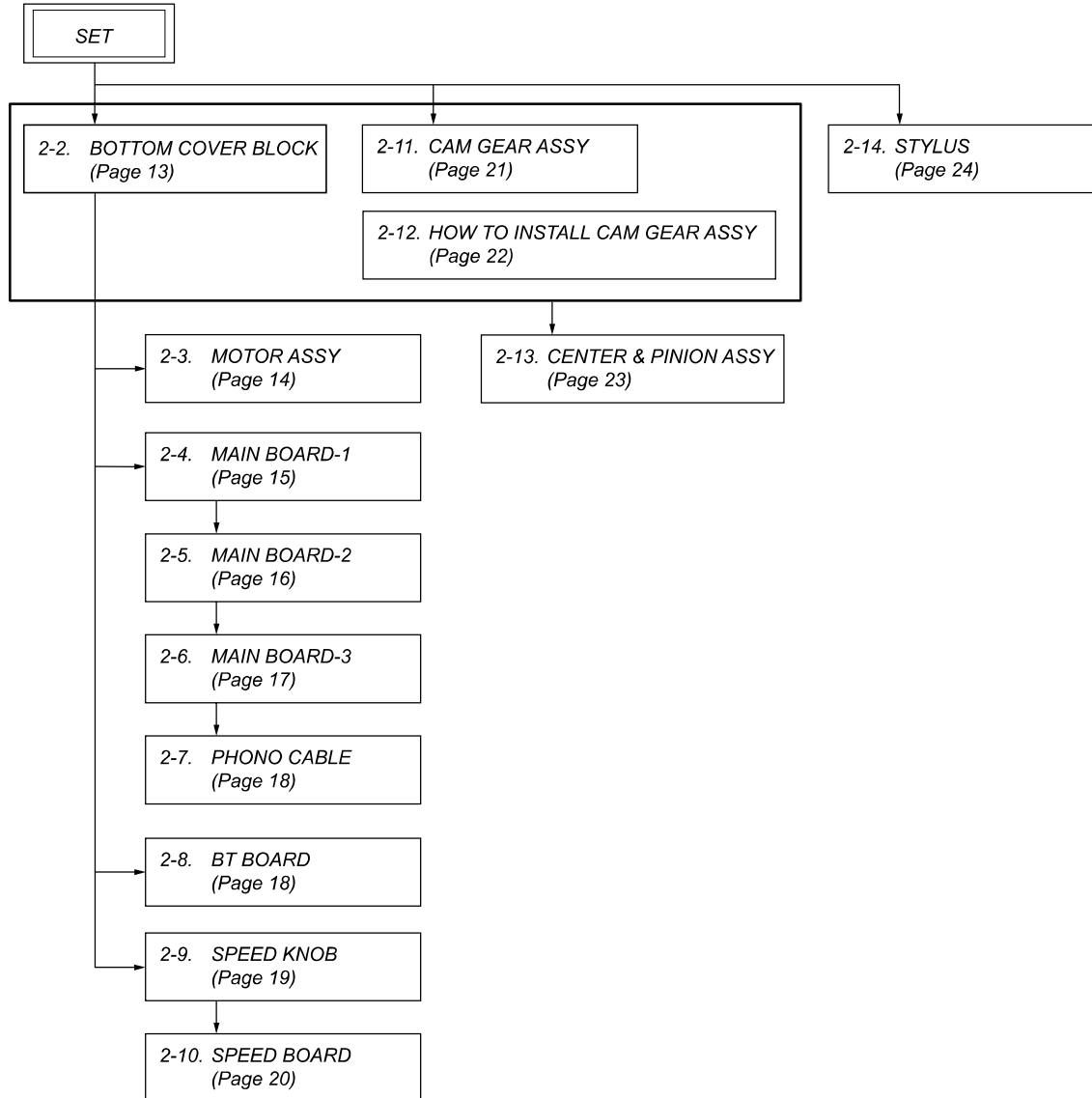


## SECTION 2 DISASSEMBLY

- This set can be disassembled in the order shown below.

### 2-1. DISASSEMBLY FLOW

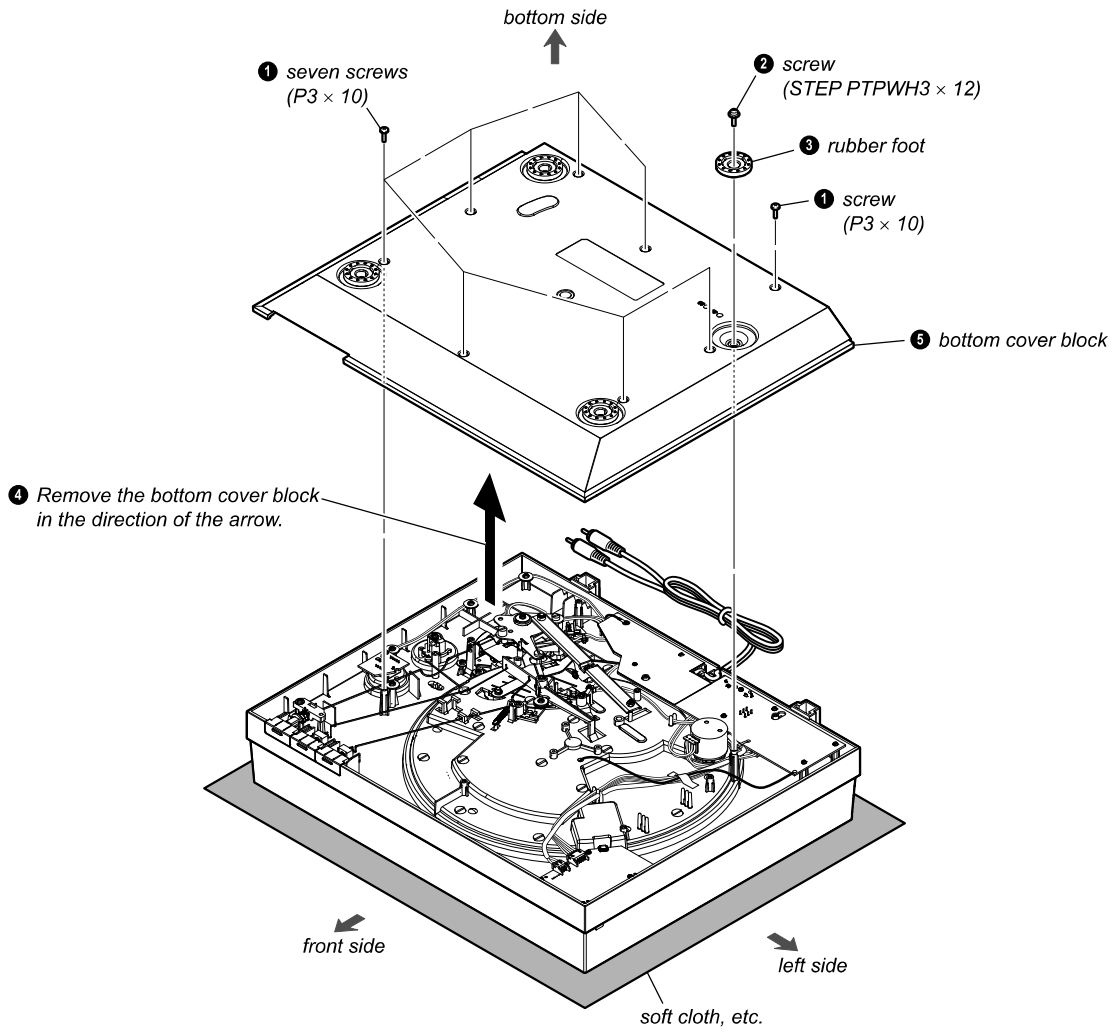
**Note:** Before disassembly working, make sure to refer to "NOTE BEFORE MOVING OR DISASSEMBLING THIS UNIT" on page 10.



# PS-LX310BT

**Note:** Follow the disassembly procedure in the numerical order given.

## 2-2. BOTTOM COVER BLOCK

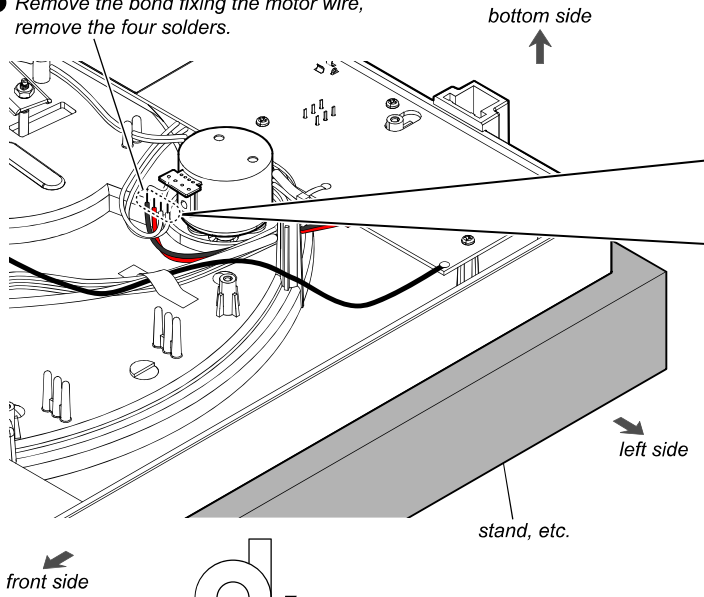


# PS-LX310BT

## 2-3. MOTOR ASSY

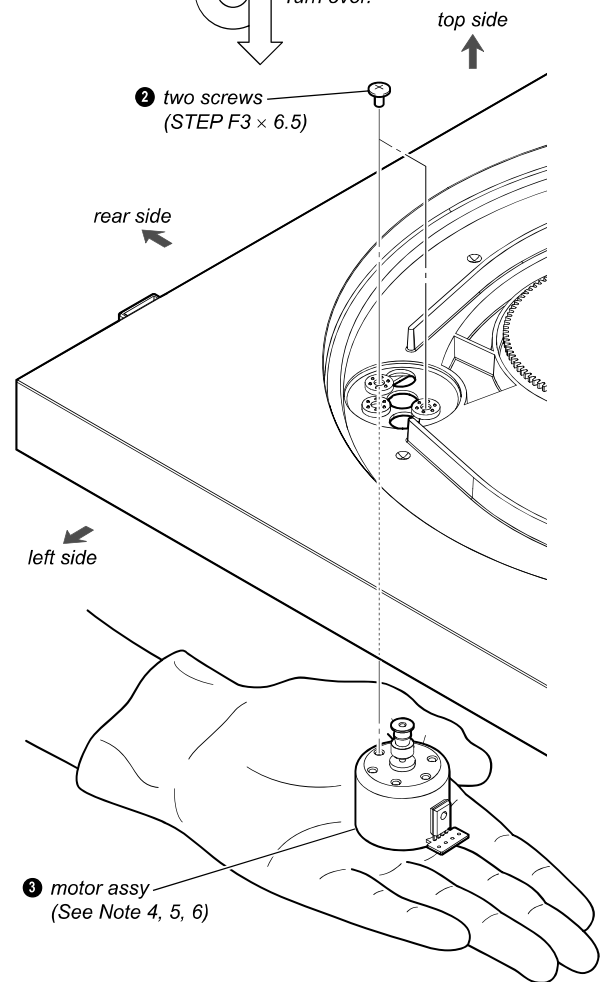
**Note 1:** When the motor assy is replaced, make sure to refer to "SECTION 3. ELECTRICAL ADJUSTMENT" on page 25 and perform the DC motor speed adjustment.

**1** Remove the bond fixing the motor wire, remove the four solders.



Turn over.

**2** two screws (STEP F3 x 6.5)

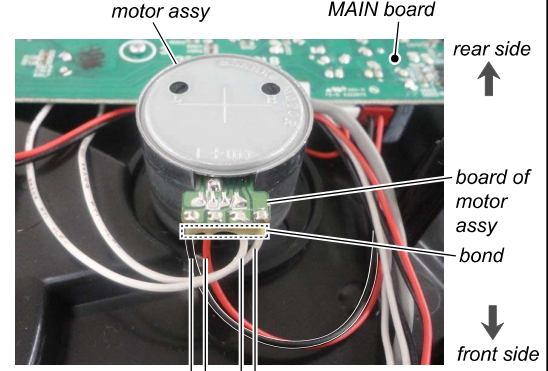


**3** motor assy (See Note 4, 5, 6)

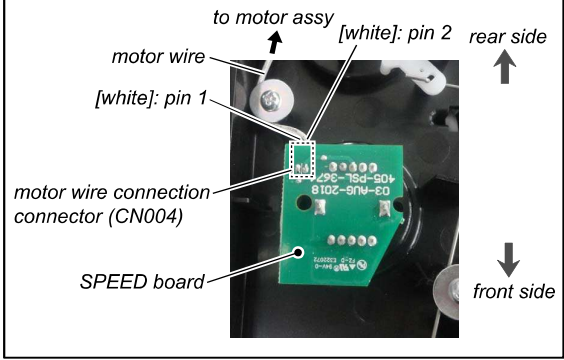
### • Installation position of motor wire

**Note 2:** After fixing the motor wire to the board of motor assy with solder, fix the motor wire to the board with using the bond of commercial products.

**Note 3:** Two capacitors have been added to the board of motor assy in the midway of production. The figure below is the motor assy before adding the capacitor.

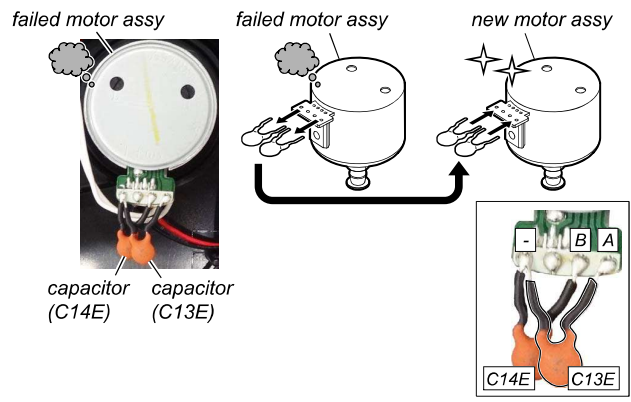


motor wire [black] connected to the MAIN board  
 motor wire [red] connected to the MAIN board  
 motor wire [white] connected to the CN004 pin 1 on the SPEED board  
 motor wire [white] connected to the CN004 pin 2 on the SPEED board



### Note 4:

Two capacitors (C13E, C14E) have been added to the board of motor assy in the midway of production. When replacing the motor assy with a new part, be sure to check the presence or absence of the two capacitors. If there are capacitors, be sure to remove two capacitors from the failed motor assy and install them on the new motor assy. If there is no capacitor, no need to perform this work.



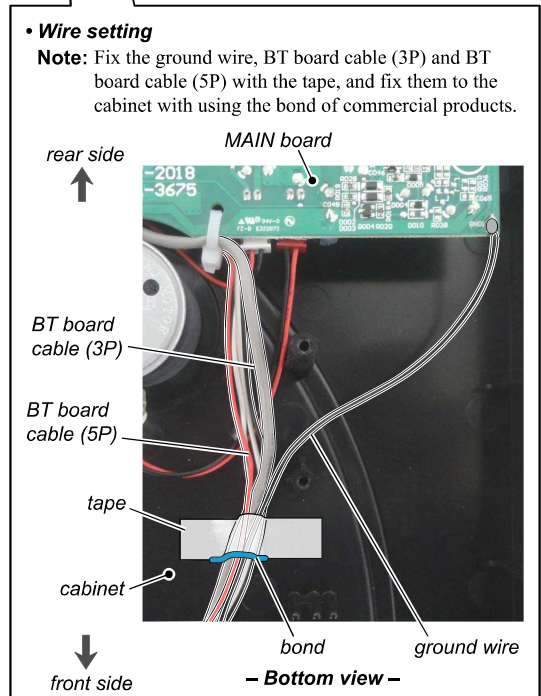
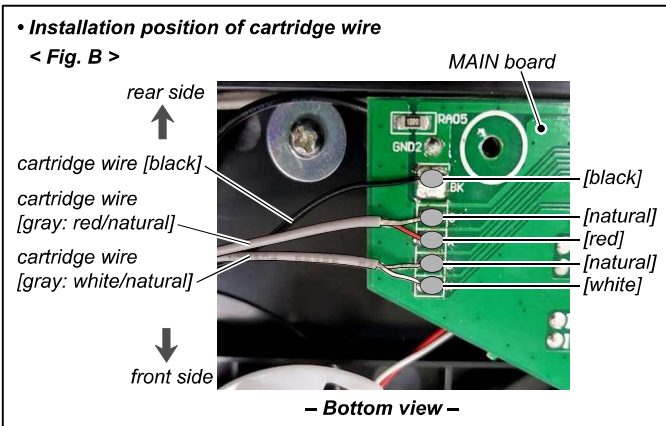
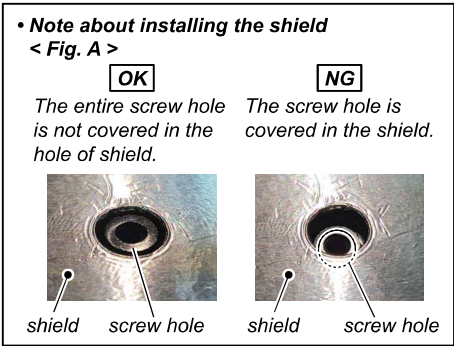
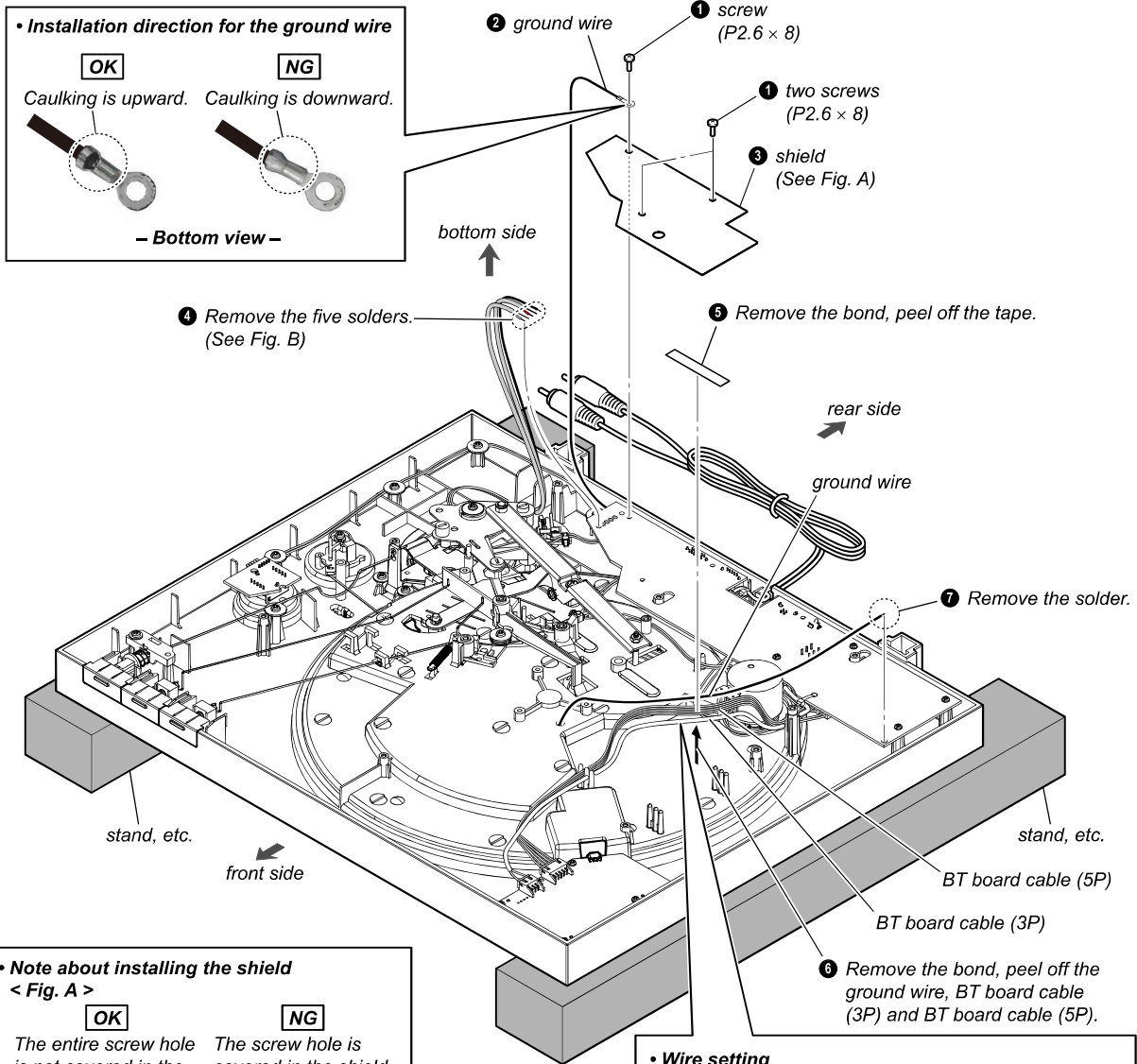
**Note 5:** If you remove the two screws (step 2), the motor assy will fall. When removing the screws, make sure to remove the screws while holding the motor assy so that motor assy does not fall.

**Note 6:** The motor assy has been changed in the midway of production. When replacing the motor assy with a new part, refer to "NOTE OF REPLACING MOTOR ASSY" on page 5 and identify the type of motor assy before replacing.

# PS-LX310BT

## 2-4. MAIN BOARD-1

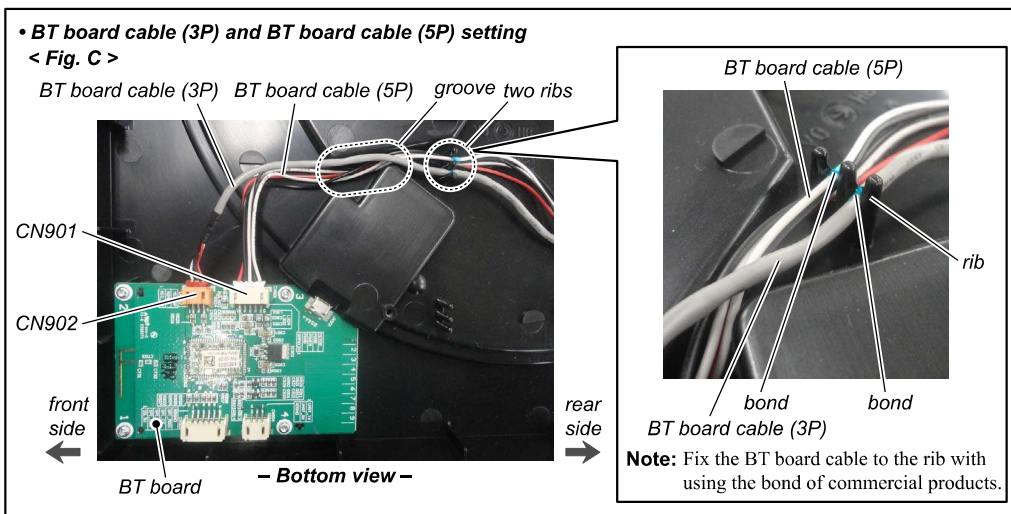
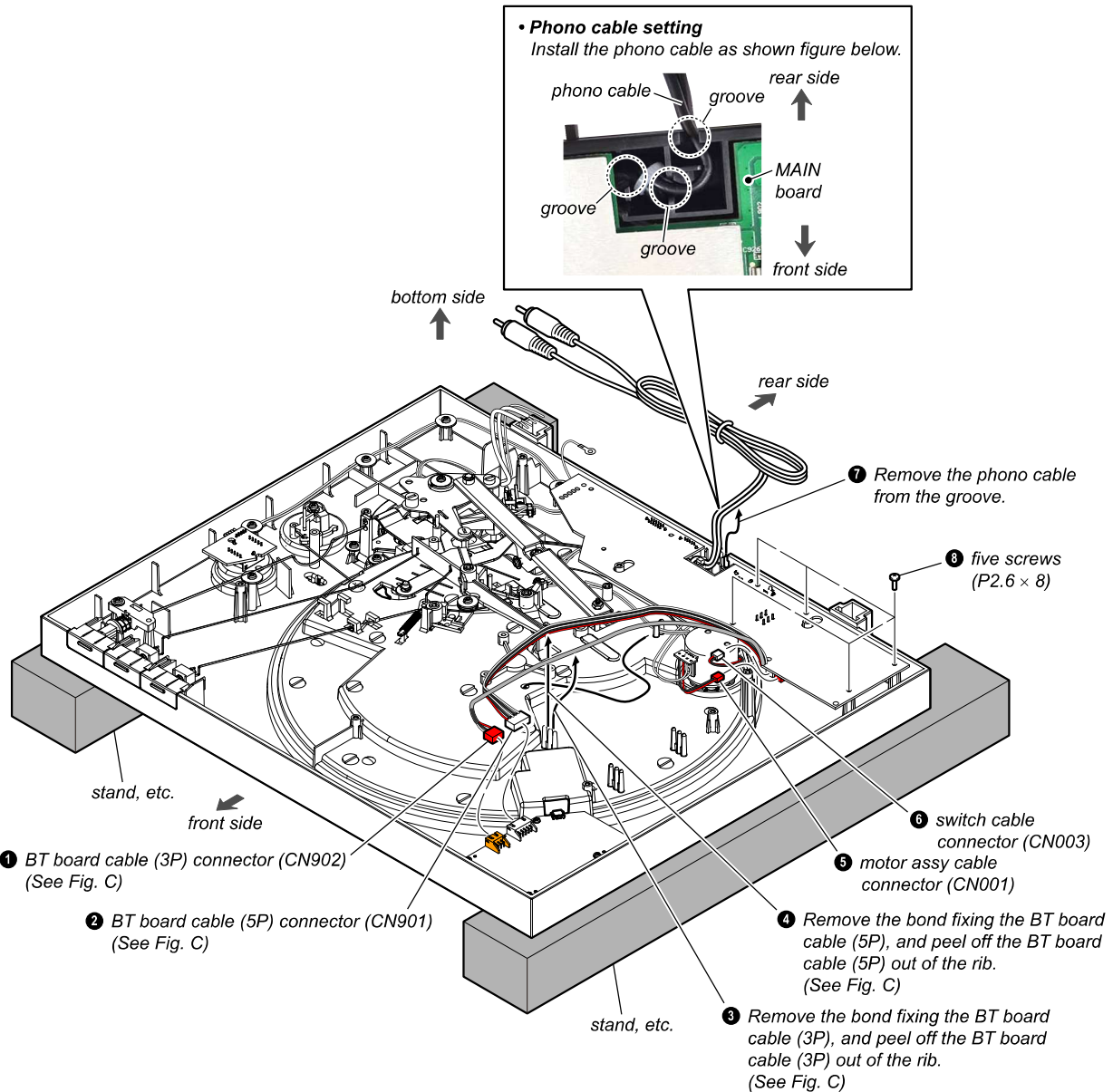
• Continued on 2-5 (page 16).



# PS-LX310BT

## 2-5. MAIN BOARD-2

• Continued on 2-6 (page 17).

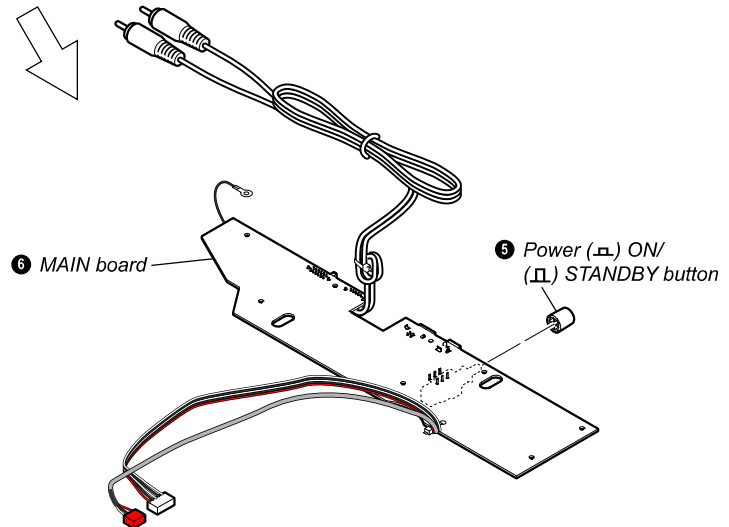
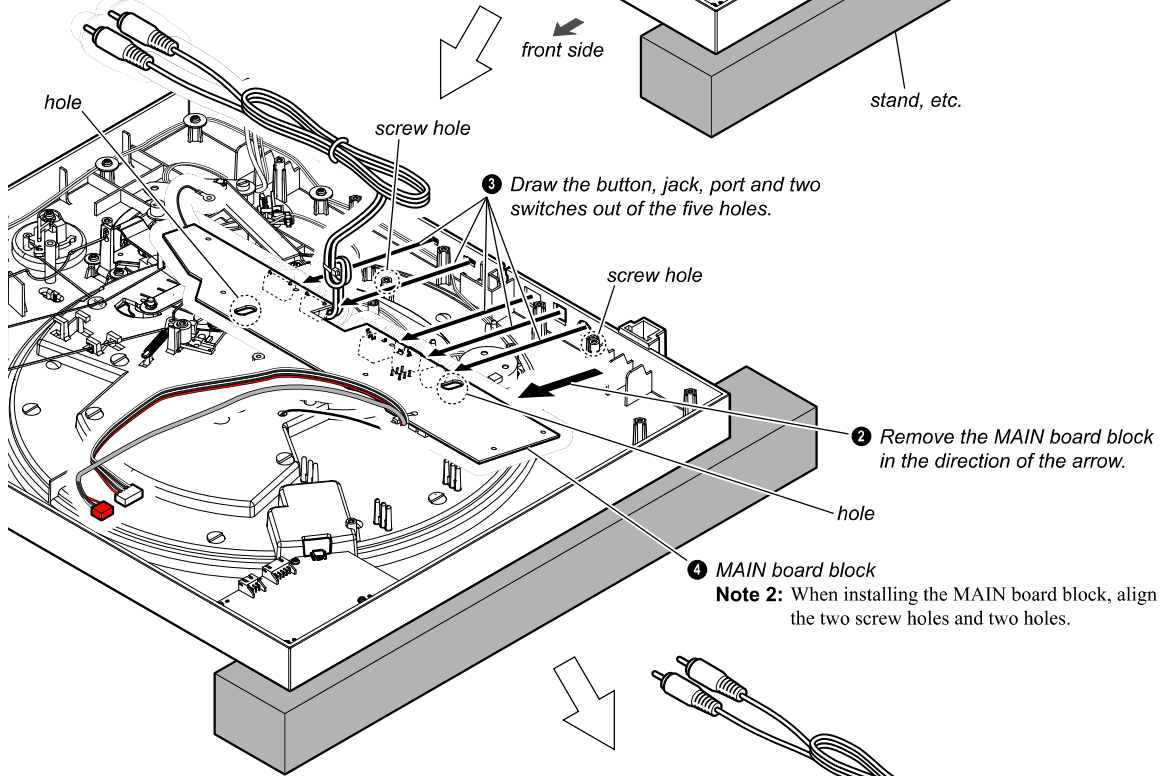
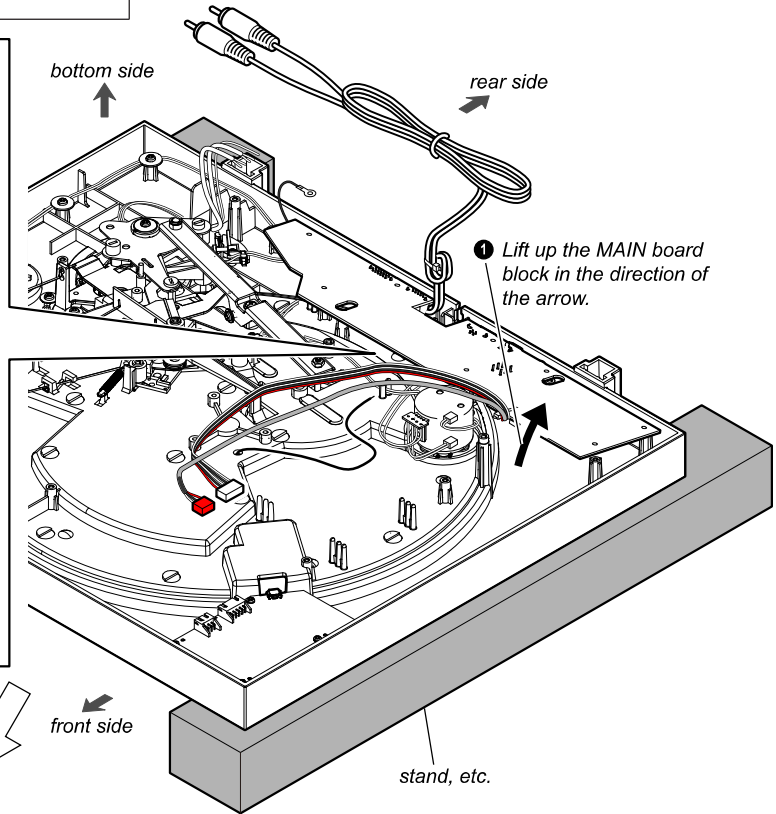
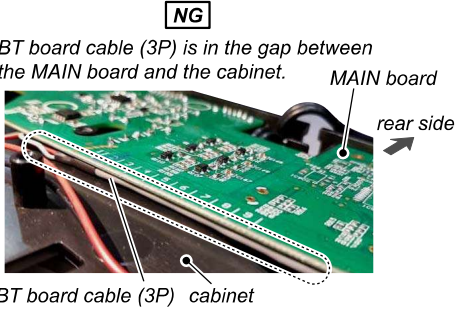
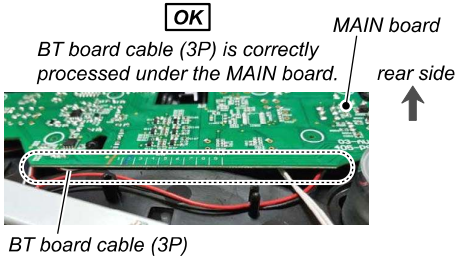


# PS-LX310BT

## 2-6. MAIN BOARD-3

**Note 1:** When the MAIN board is replaced, make sure to refer to "BLUETOOTH CONNECTION CHECKING METHOD" on page 6 and check the Bluetooth connection.

**• Note about installing the MAIN board**



# PS-LX310BT

## 2-7. PHONO CABLE

**• Installation position of phone cable wire**

**Note:** After fixing the phono cable wire to the MAIN board with solder, fix the solder portion with using the bond of commercial products.

1 Remove the bond fixing the phono cable wire, remove the four solders.

## 2-8. BT BOARD

**Note 1:** When the BT board is replaced, make sure to refer to “BLUE-TOOTH CONNECTION CHECKING METHOD” on page 6 and check the Bluetooth connection.

**Note 2:** The BT board has been changed in the midway of production. When replacing the BT board with a new board, be sure to refer to “ABOUT CHANGING THE BT BOARD” on page 5 and identify the type of BT board before replacing.

1 BT board cable (3P) connector (CN902)

2 BT board cable (5P) connector (CN901)

3 four screws (P2.6 × 8)

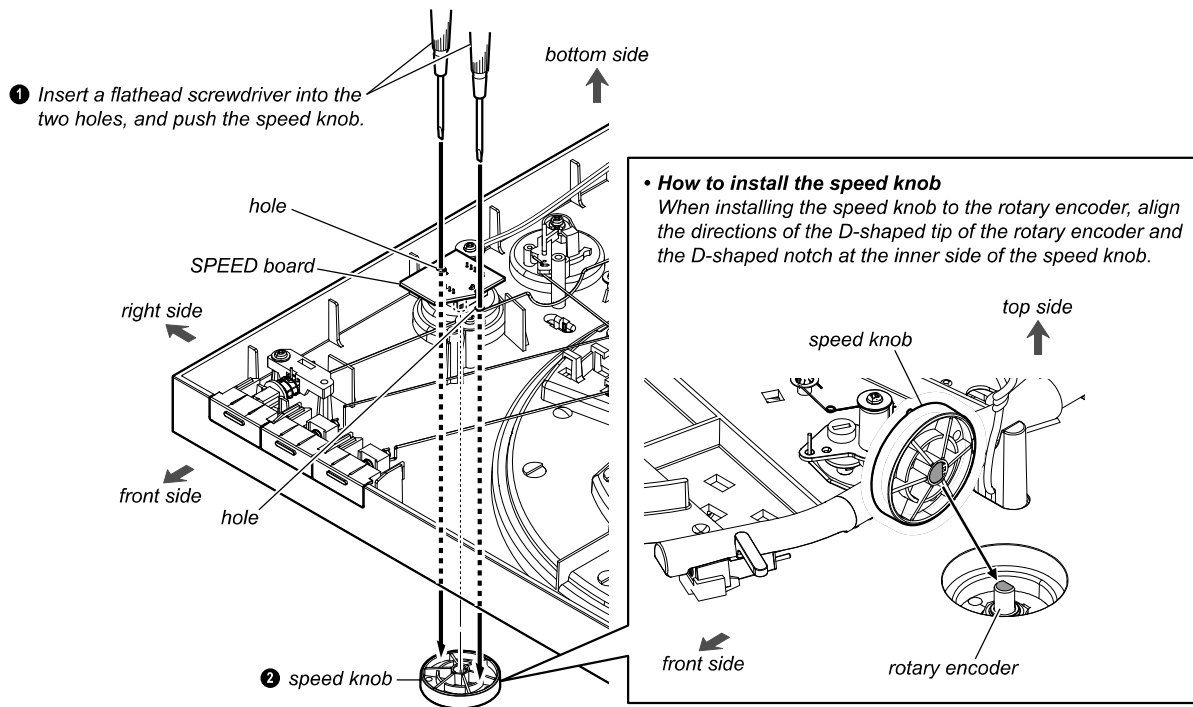
4 Remove the BT board in the direction of the arrow.

5 BT board (See Note 1, 2)

**Note 3:** When installing the BT board, align the three bosses and three holes.

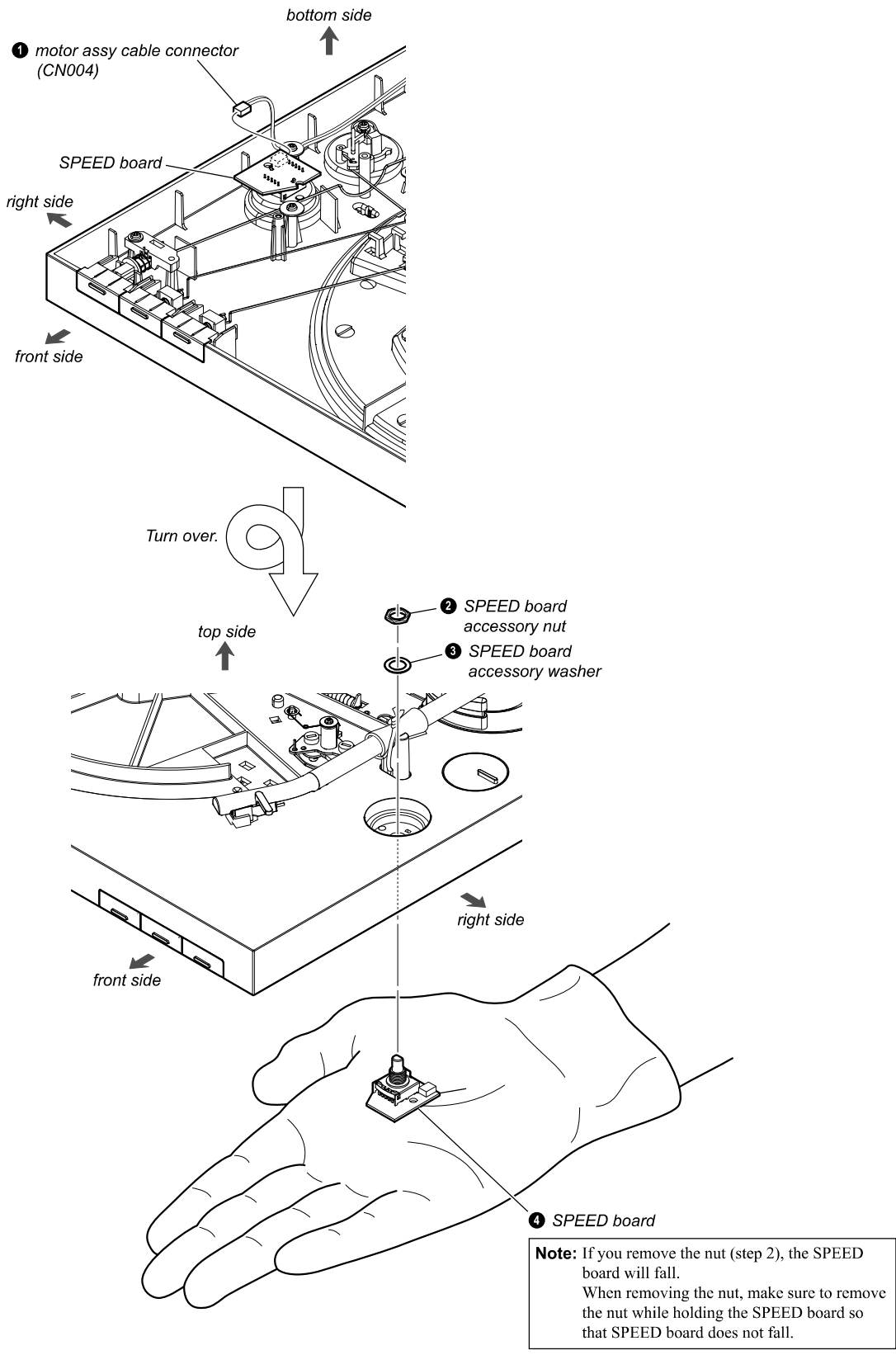
## PS-LX310BT

## 2-9. SPEED KNOB



# PS-LX310BT

## 2-10. SPEED BOARD

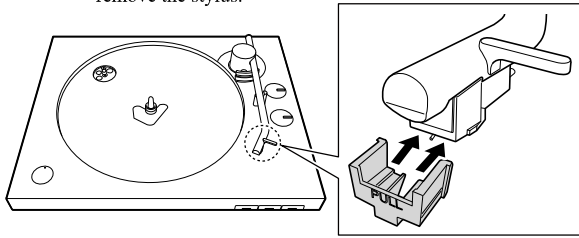


## PS-LX310BT

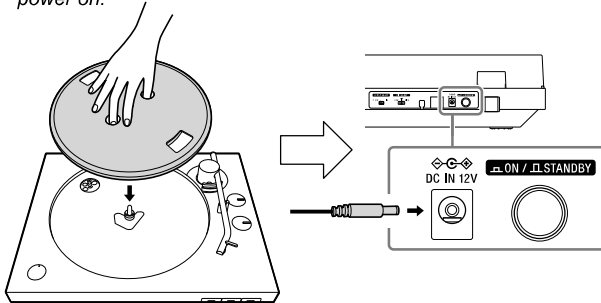
## 2-11. CAM GEAR ASSY

- ❶ Install the stylus protective cover.

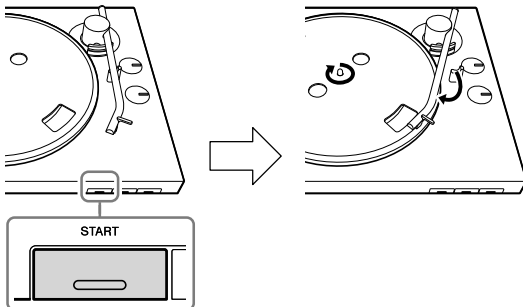
**Note 1:** When there is not stylus protective cover, refer to “CLEANING THE STYLUS AND REPLACING THE STYLUS” on page 9, remove the stylus.



- ❷ Install the turn table (platter) and drive belt, connect the AC adaptor and press the [Power (ON/STANDBY)] button to turn the power on.

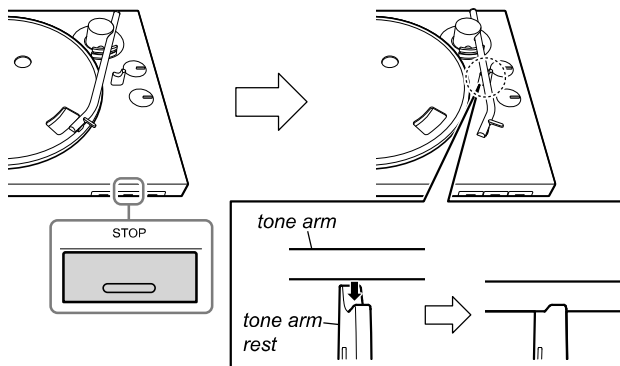


- ❸ Press the [START] button to rotate the turn table (platter).

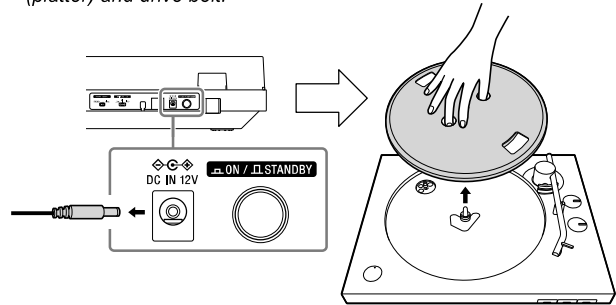


- ❹ Press the [STOP] button, check that the turn table (platter) stop rotating completely, and tone arm returns to the tone arm rest completely.

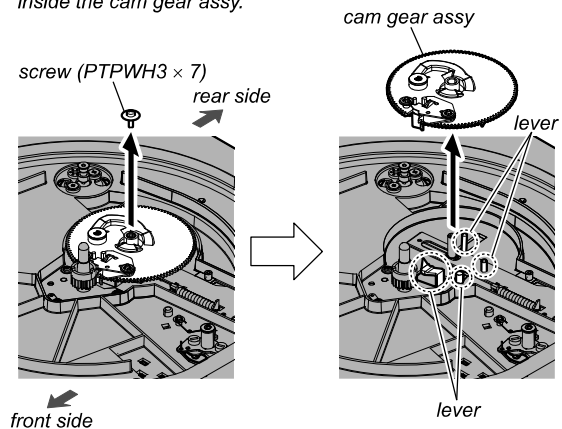
**Note 2:** Don't do the next work until the lift of the tone arm come down and tone arm get on top of the tone arm rest completely.



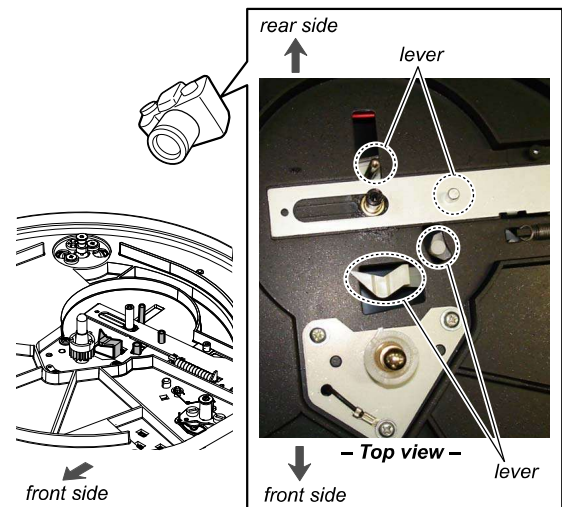
- ❺ Press the [Power (ON/STANDBY)] button to turn the power off, disconnect the AC adaptor and remove the turn table (platter) and drive belt.



- ❻ Remove the screw (PTPWH3 × 7), and remove the cam gear assy vertically while being careful not to move the lever of inside the cam gear assy.



- ❼ In the state that cam gear assy is removed, take a photo of lever position and recorded them while being careful not to move the lever.



**Note 3:** Refer to next page for how to install cam gear assy.

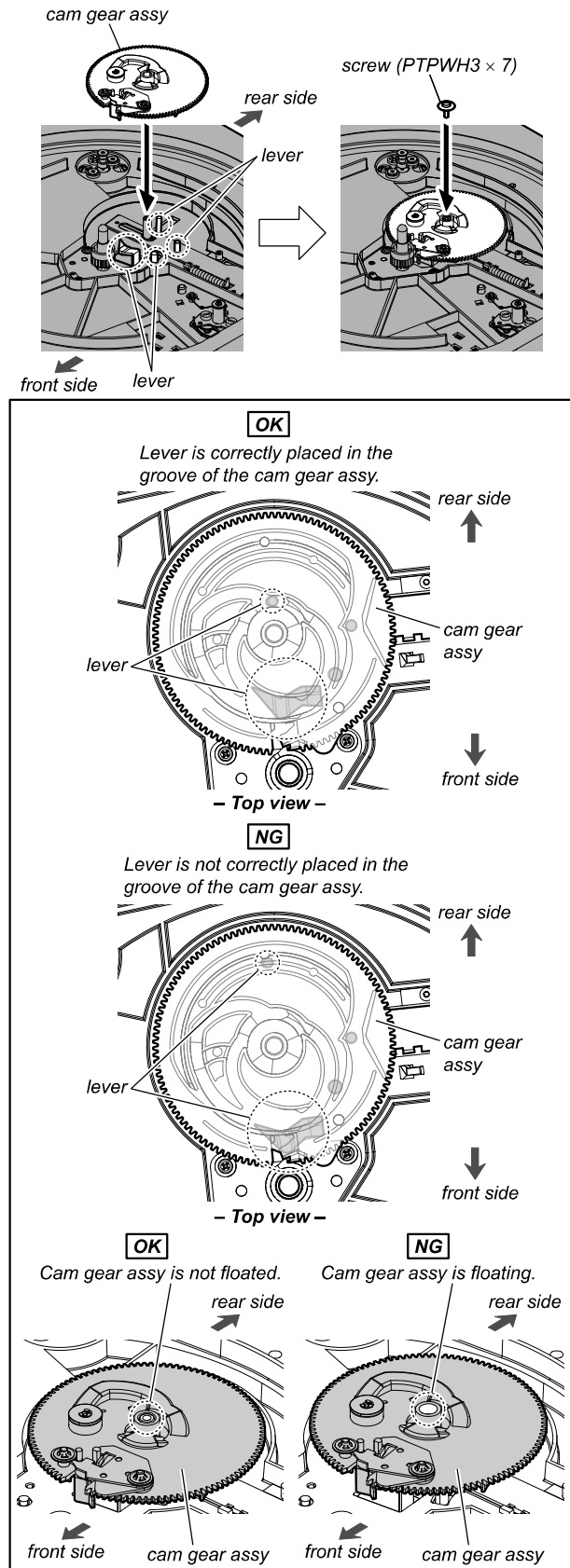
# PS-LX310BT

## 2-12. HOW TO INSTALL CAM GEAR ASSY

Attach in order from ① to ⑥.

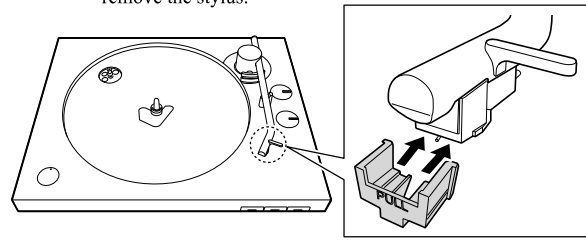
- ① Install the cam gear assy while being careful not to move the lever.

**Note 1:** If the lever has moved, refer to the photo taken in step 7 of “2-11. CAM GEAR ASSY” on page 21, and adjust the lever position.

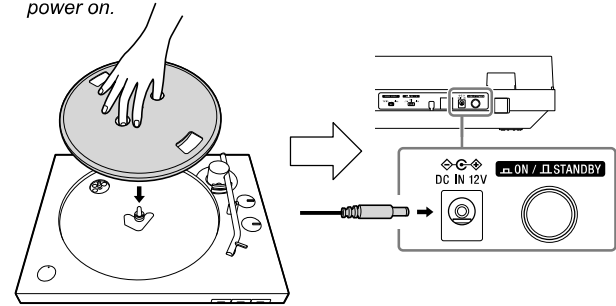


- ② Install the stylus protective cover.

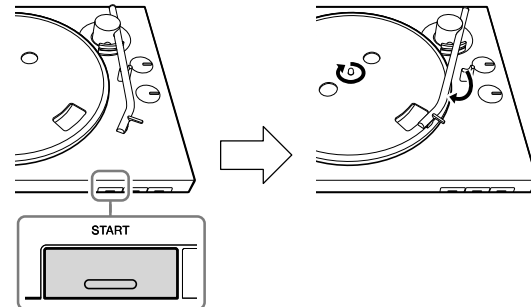
**Note 2:** When there is not stylus protective cover, refer to “CLEANING THE STYLUS AND REPLACING THE STYLUS” on page 9, remove the stylus.



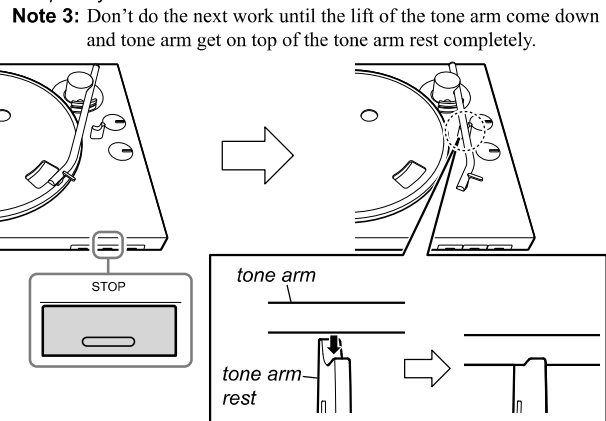
- ③ Install the turn table (platter) and drive belt, connect the AC adaptor and press the [Power (ON/STANDBY)] button to turn the power on.



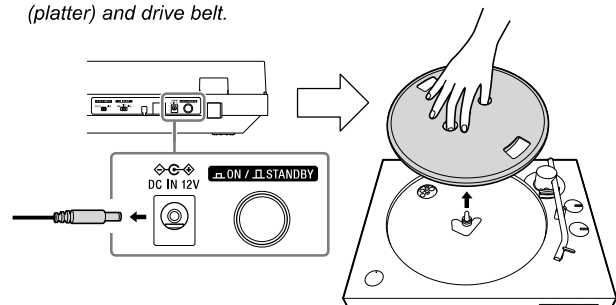
- ④ Press the [START] button to rotate the turn table (platter).



- ⑤ Press the [STOP] button, check that the turn table (platter) stop rotating completely, and tone arm returns to the tone arm rest completely.



- ⑥ Press the [Power (ON/STANDBY)] button to turn the power off, disconnect the AC adaptor and remove the turn table (platter) and drive belt.



# PS-LX310BT

## 2-13. CENTER & PINION ASSY

**• Wire setting**  
**Note 1:** Fix the ground wire, BT board cable (3P) and BT board cable (5P) with the tape, and fix them to the cabinet with using the bond of commercial products.

**- Bottom view -**

**1** Remove the bond, peel off the tape.

**2** Remove the bond, peel off the ground wire.

**3** Remove the solder.

**• Installation direction for the ground wire**

<b>OK</b>	<b>NG</b>
Caulking is upward.	Caulking is downward.

**- Top view -**

**4** screw (PTPWH3 × 8)

**5** Draw the ground wire out of the hole.

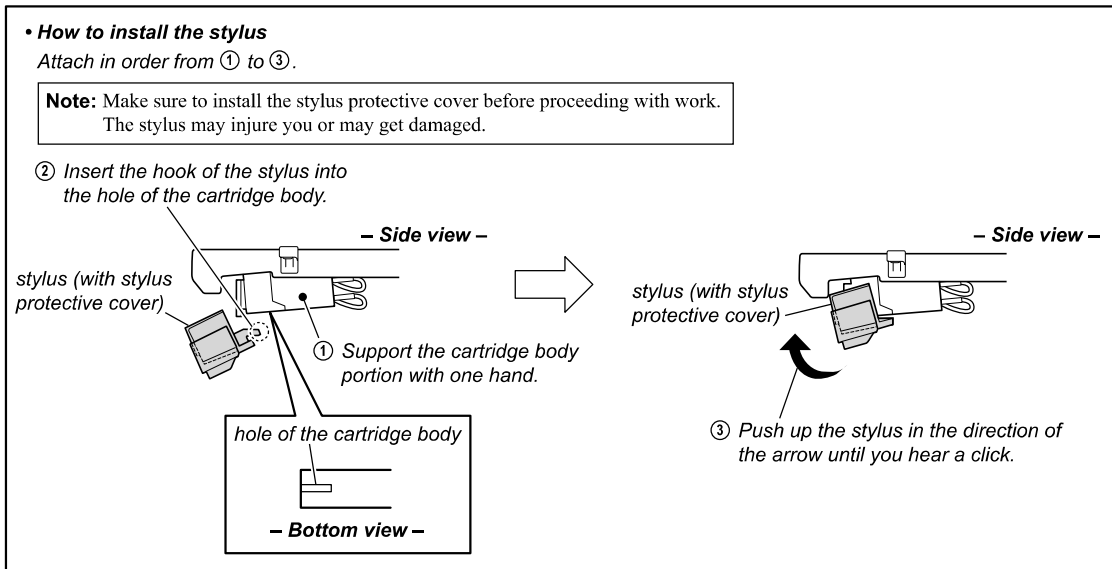
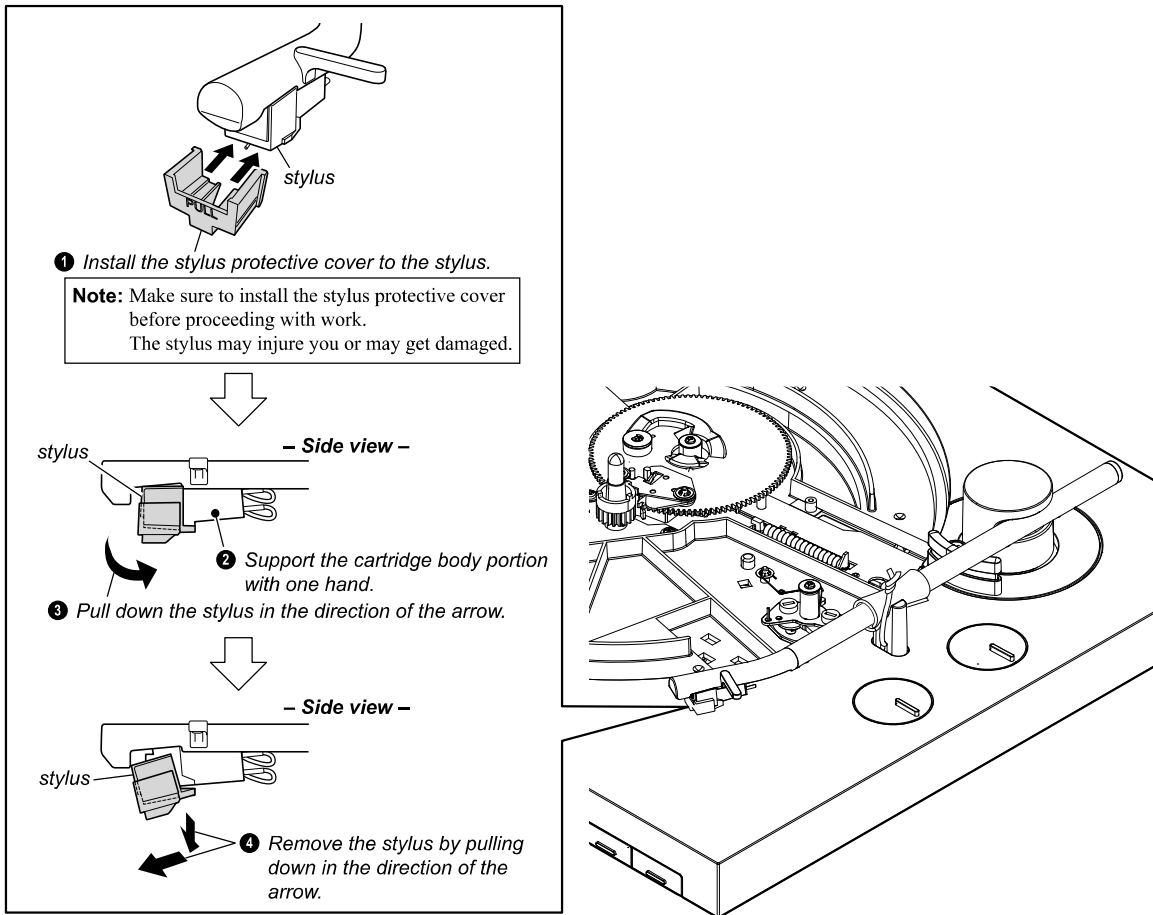
**6** ground wire

**7** center & pinion assy

**8** two screws (PTPWH3 × 8)

# PS-LX310BT

## 2-14. STYLUS



## PS-LX310BT

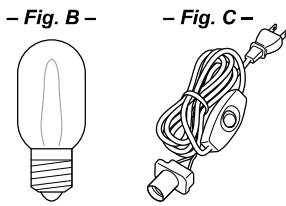
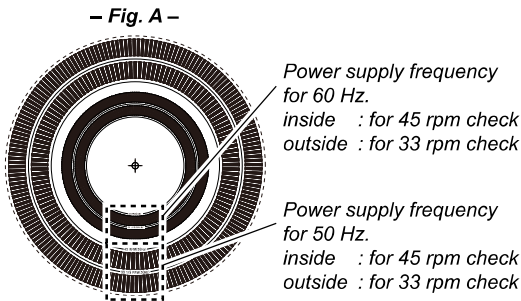
## SECTION 3 ELECTRICAL ADJUSTMENT

### DC MOTOR SPEED ADJUSTMENT

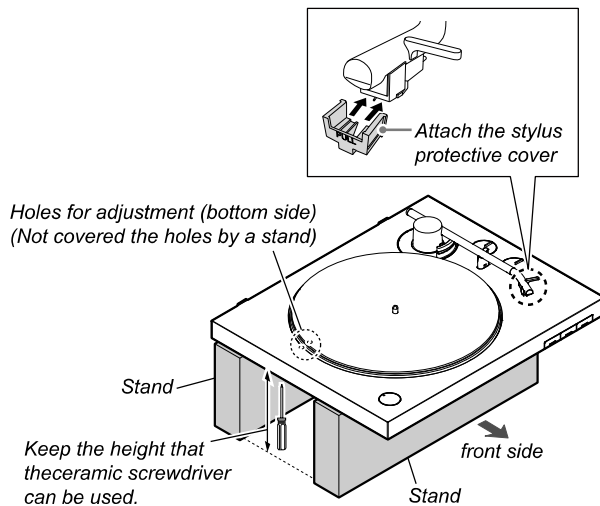
When replace the motor, perform this adjustment.

#### Necessary equipment:

- Speed adjustment sheet (stroboscope) (Fig. A)
- Note:** Print the "SPEED ADJUSTMENT SHEET (STROBOSCOPE)" on page 11 and use it.
- LED light bulb without the inverter (Fig. B)
- LED light bulb socket (Fig. C)
- Ceramic screwdriver for resistor adjustment (Recommended screwdriver size 0.4 × 1.3 mm)
- Stand for putting the main unit

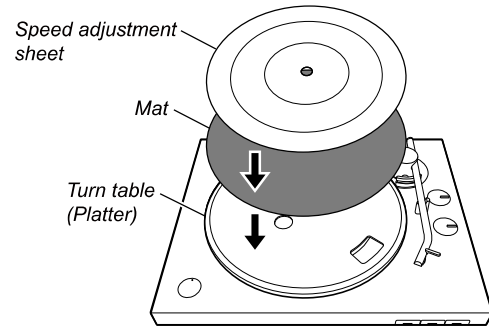


#### Installation method:

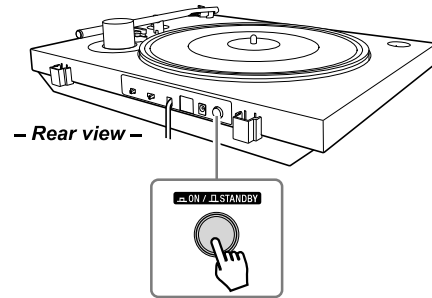


#### Procedure:

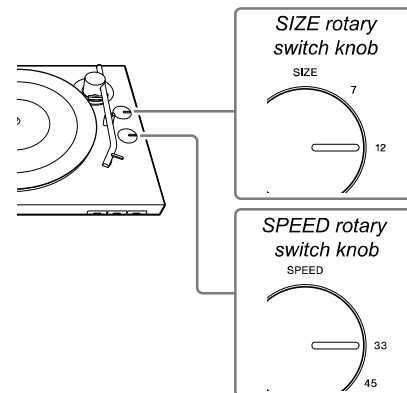
- Installing the main unit by referring to "Installation method".
- Place the mat onto the turn table (platter), and place the speed adjustment sheet (stroboscope) onto it.



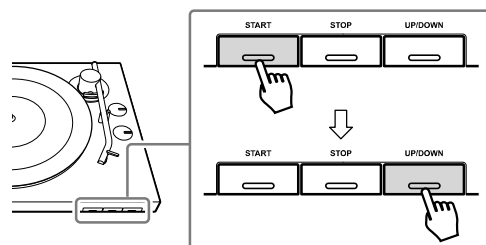
- Press the [Power (ON) / (OFF) STANDBY] button to turn the power on.



- Set the SIZE rotary switch knob to "12" and the SPEED rotary switch knob to "33".



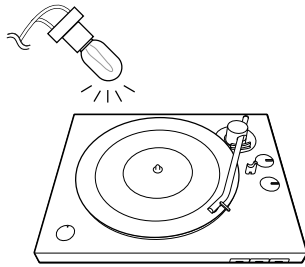
- Press the [START] button, and the tone arm automatically lifts up and move for the turn table (platter) side. Immediately press the [UP/DOWN] button to pause before the stylus descends on the turn table (platter) (the turn table (platter) keeps rotating).



- Continued on next page -

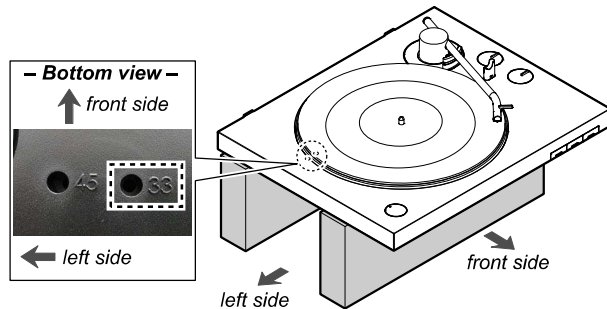
## PS-LX310BT

6. Connect the socket fitted with a LED light bulb into an electrical outlet.
7. The LED light bulb is lit near to the turn table (platter).

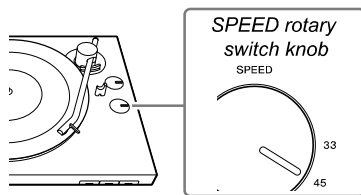


8. Insert the ceramic screwdriver for resistor adjustment into screw hole "33" at the bottom of the main unit. Adjust the turn table (platter) speed by rotating the ceramic screwdriver to the left or right so that the speed adjustment sheet pattern looks like it has stopped moving.

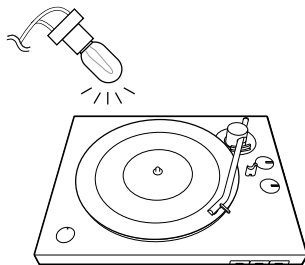
**Note 1:** Check the applicable place of the speed adjustment sheet to match the power supply frequency (50 Hz/60 Hz) that is used in the LED light bulb.



9. After completing the adjustment of 33 rpm, then perform the adjustment of 45 rpm. Set the SPEED rotary switch knob to "45".

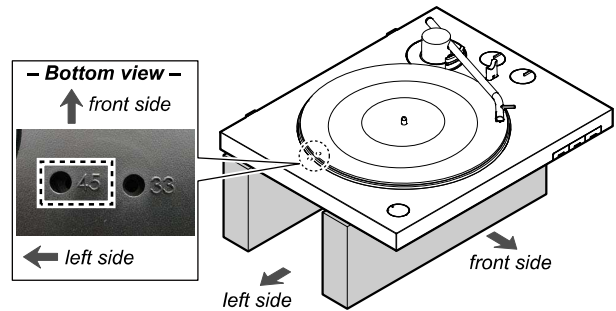


10. The LED light bulb is lit near to the turn table (platter).

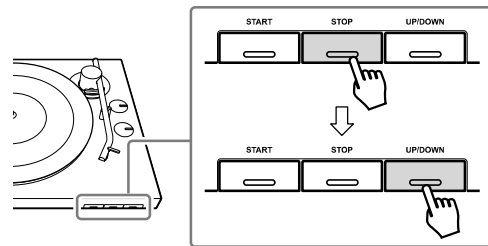


11. Insert the ceramic screwdriver for resistor adjustment into screw hole "45" at the bottom of the main unit. Adjust the turn table (platter) speed by rotating the ceramic screwdriver to the left or right so that the speed adjustment sheet pattern looks like it has stopped moving.

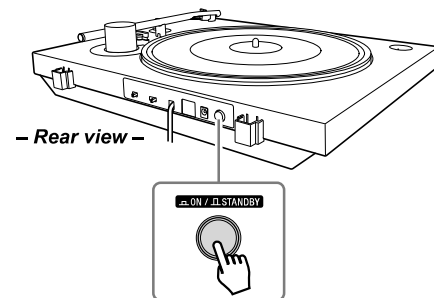
**Note 2:** Check the applicable place of the speed adjustment sheet to match the power supply frequency (50 Hz/60 Hz) that is used in the LED light bulb.



12. After completing the adjustment of 45 rpm, press the [STOP] button, then press the [UP/DOWN] button to check that the turn table (platter) stops rotating (the tone arm automatically returns to the tone arm rest).



13. Press the [Power (ON/OFF) STANDBY] button to turn the power off, and the adjustment is completed.



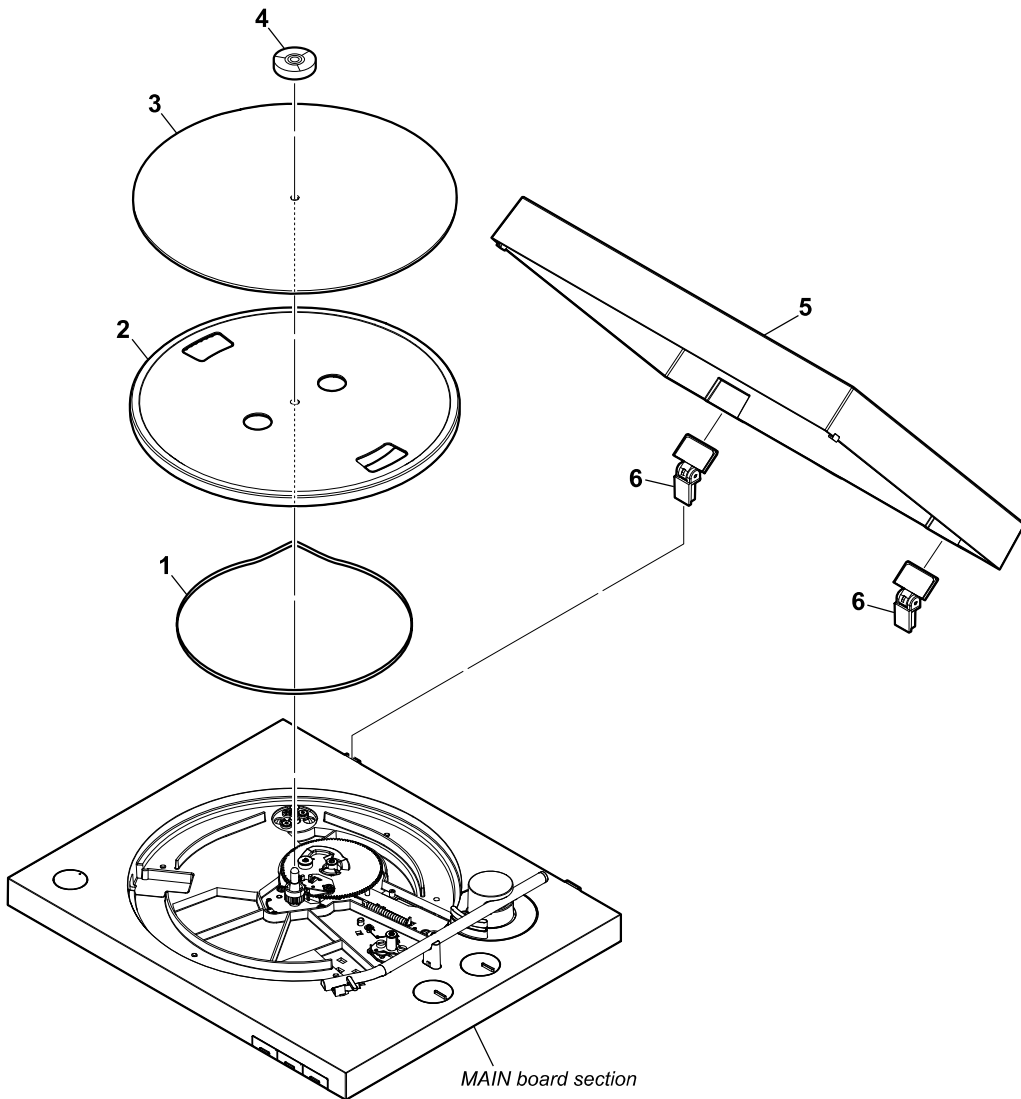
PS-LX310BT

SECTION 4  
EXPLODED VIEWS

Note:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Color Indication of Appearance Parts Example:  
KNOB, BALANCE (WHITE) . . . (RED)  
↑                    ↑  
Parts Color    Cabinet's Color

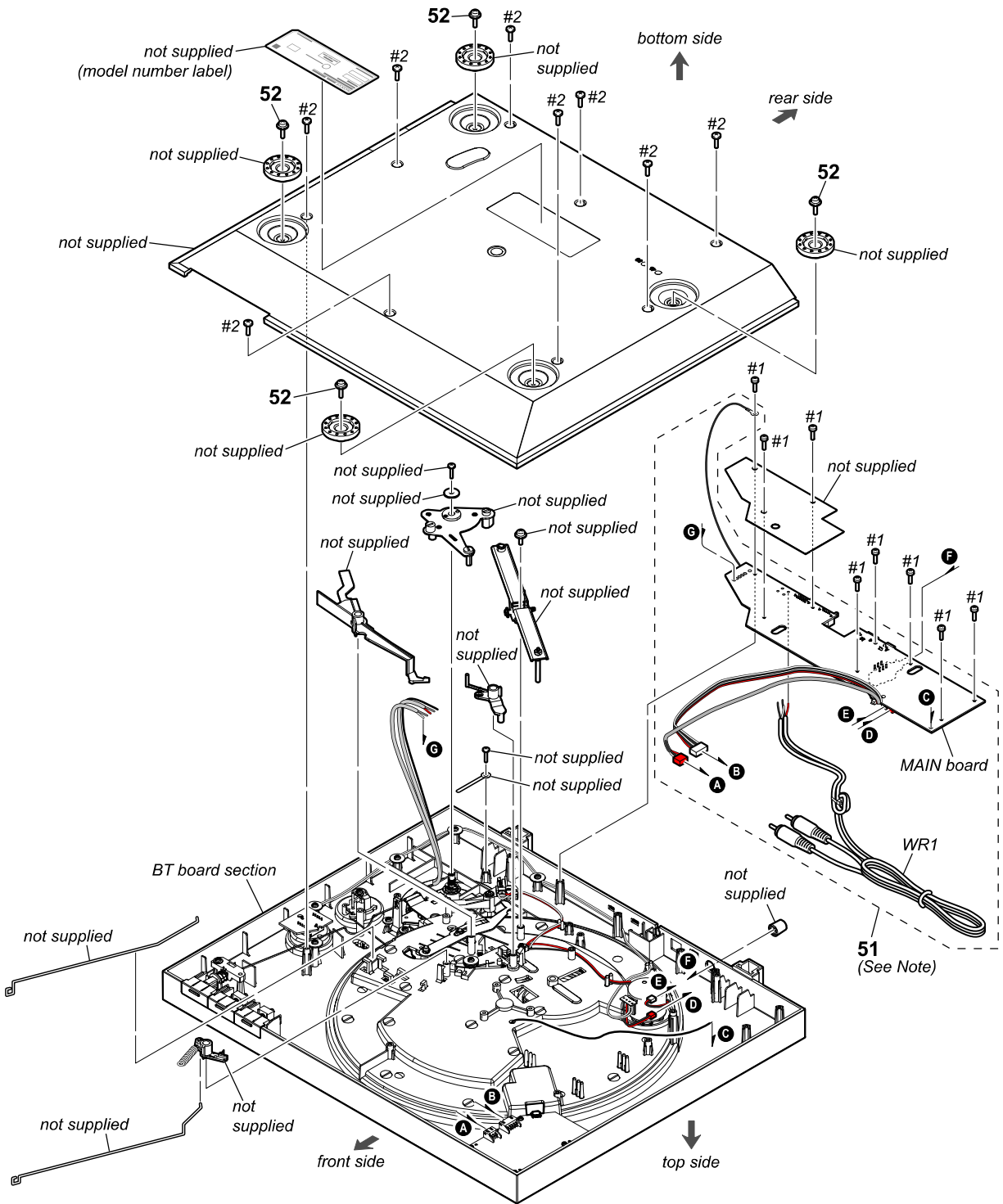
4-1. OVERALL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	988511787	BELT (Drive belt)		5	988520998	DUST COVER ASSY (Dust cover) (with Foot rubber)	
2	988511785	TURN TABLE (without drive belt)		6	988520999	HINGE ASSY (Dust cover hinge) (1 piece)	
3	930100079	MAT PACKING ASSY (Mat for the platter)					
4	988511784	45 RPM ADAPTER					

# PS-LX310BT

## 4-2. MAIN BOARD SECTION

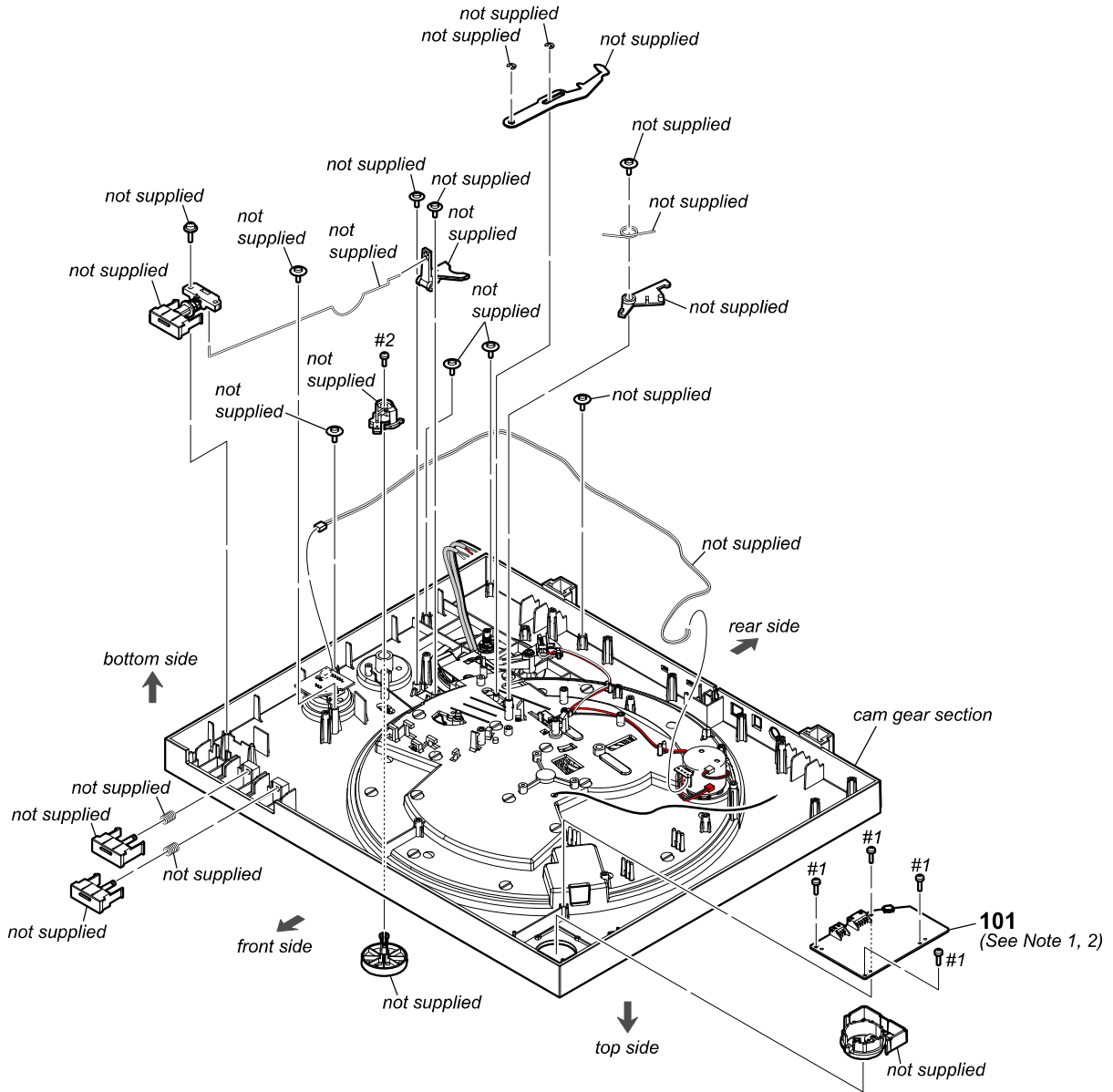


**Note:** When the complete MAIN board (Ref. No. 51) is replaced, make sure to refer to "BLUETOOTH CONNECTION CHECKING METHOD" on page 6 and check the Bluetooth connection.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	930100083	MAIN BOARD, COMPLETE (with USB terminal)	(See Note)	WR1	930100080	PHONO CABLE	
52	421553601	SCREW = PTPWH 3X12 W10 STEP		#1	768513411	SCREW +P 2.6X8 TYPE2 NON-SLIT	
				#2	768514711	SCREW +P 3X10 TYPE2 NON-SLIT	

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## 4-3. BT BOARD SECTION



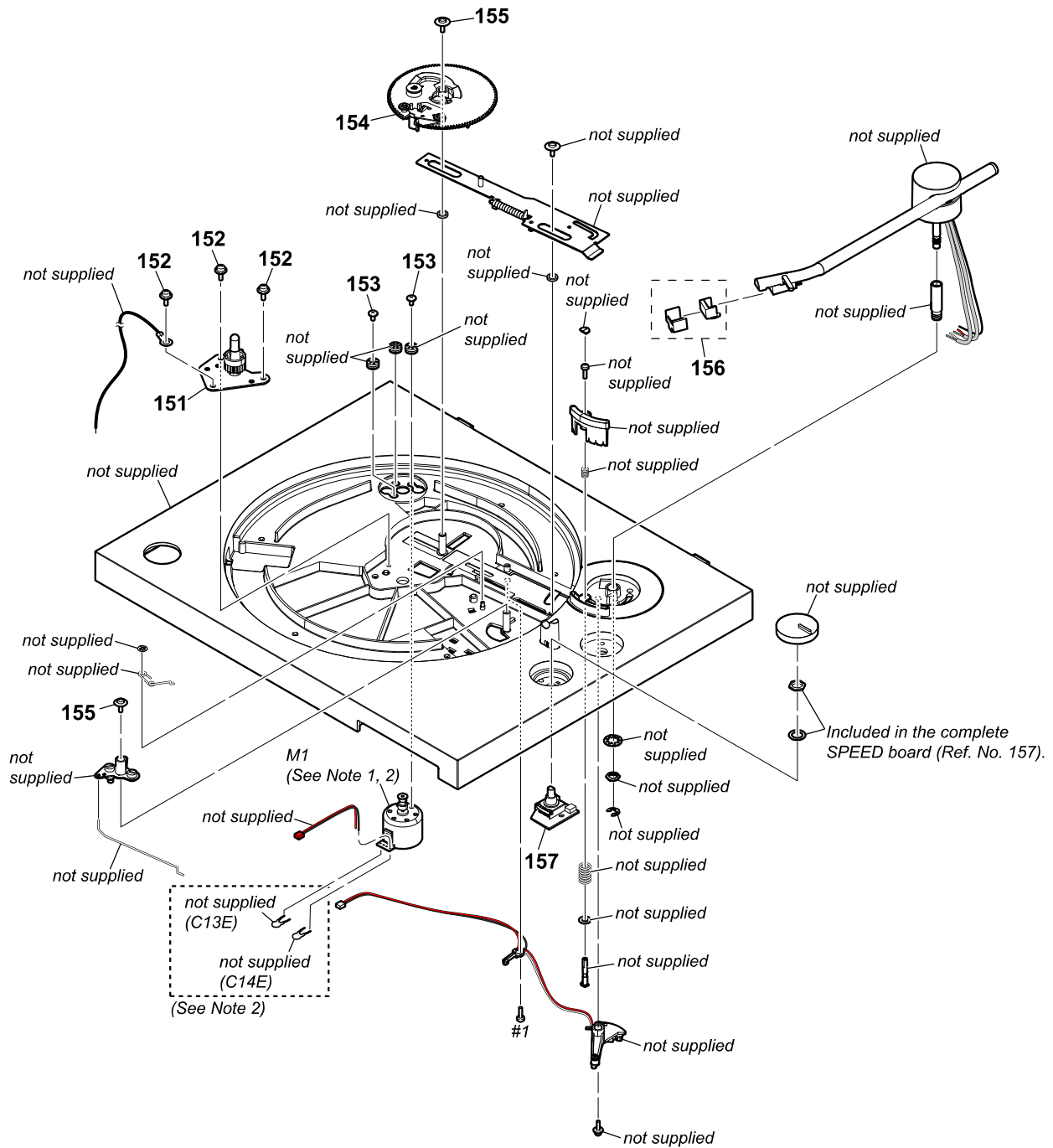
**Note 1:** When the complete BT board (Ref. No. 101) is replaced, make sure to refer to "BLUETOOTH CONNECTION CHECKING METHOD" on page 6 and check the Bluetooth connection.

**Note 2:** The complete BT board (Ref. No. 101) has been changed in the midway of production. When replacing the complete BT board with a new board, be sure to refer to "ABOUT CHANGING THE BT BOARD" on page 5 and identify the type of BT board before replacing.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	930100085	BT BOARD, COMPLETE (Type BT3673)	(See Note 1, 2)	#1	768513411	SCREW +P 2.6X8 TYPE2 NON-SLIT	
101	930102241	BT BOARD, COMPLETE (Type BT3935)	(See Note 1, 2)	#2	768514711	SCREW +P 3X10 TYPE2 NON-SLIT	

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## 4-4. CAM GEAR SECTION



**Note 1:** When the motor assy (Ref. No. M1) is replaced, make sure to refer to "SECTION 3. ELECTRICAL ADJUSTMENT" on page 25 and perform the DC motor speed adjustment.

**Note 2:** Two capacitors (C13E, C14E) have been added to the board of motor assy in the midway of production. Also, the motor assy (Ref. No. M1) has been changed from Type M09S12U13 to Type EG-530SD. When replacing the motor assy with a new part, be sure to refer to "NOTE OF REPLACING MOTOR ASSY" on page 5. Two capacitors (C13E, C14E) cannot be replaced with new parts.

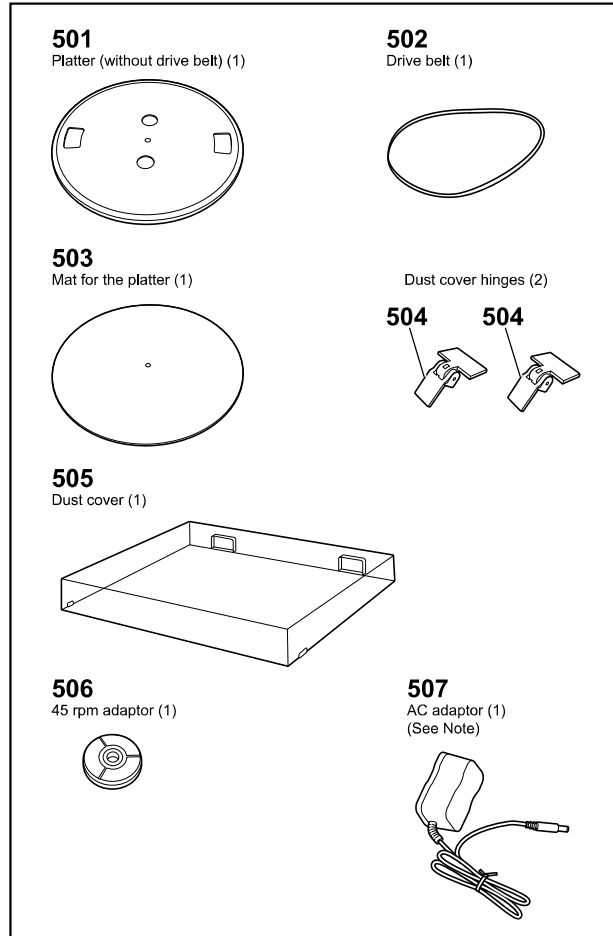
Ref. No.	Part No.	Description	Remark
151	988511769	CENTER & PINION ASSY	
152	421553101	SCREW = PTPWH 3X8 W8	
153	421554101	SCREW (F 3X6.5) STEP	
154	988511768	GEAR ASSY, CAM	
155	421553901	SCREW = PTPWH 3X7 W10	
156	930100082	STYLUS WITH COVER (with Protective cover)	

Ref. No.	Part No.	Description	Remark
157	930100086	SPEED BOARD, COMPLETE (with Nut and Washer)	
M1	988511773	MOTOR ASSY (with Pulley) (Type M09S12U13)	(See Note 1, 2)
M1	930102404	MOTOR ASSY (with Pulley) (Type EG-530SD)	(See Note 1, 2)
#1	768513411	SCREW +P 2.6X8 TYPE2 NON-SLIT	

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**SECTION 5  
ACCESSORIES**


Ref. No.	Part No.	Description	Remark
	474875514	MANUAL, INSTRUCTION (ENGLISH)	
	474875523	MANUAL, INSTRUCTION (FRENCH, SPANISH)	
501	988511785	TURN TABLE (without drive belt)	
502	988511787	BELT (Drive belt)	
503	930100079	MAT PACKING ASSY (Mat for the platter)	
504	988520999	HINGE ASSY (Dust cover hinge) (1 piece)	
505	988520998	DUST COVER ASSY (Dust cover)	
506	988511784	45 RPM ADAPTER	
△ 507	930100087	AC ADAPTOR FOR UC2 (HK-AR-120A080-US) (AC adaptor: Former type) (See Note)	
△ 507	930101579	AC ADAPTOR (FJ) FOR UC (FJ-SW7261200800DU) (AC adaptor: New type) (See Note)	



The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.


**Note:** The AC adaptor has been changed in the midway of production. When replacing the AC adaptor with a new one, refer to the figure below and check the shape of model number label or the model number of AC adaptor before replacing.

Former type  
(HK-AR-120A080 series)



HK-AR-120A080-US

New type  
(FJ-SW7261200800 series)



FJ-SW7261200800DU