

FR-D3

OPERATING INSTRUCTIONS MODE D'EMPLOI BETRIEBSANLEITUNG



- Read this manual before use.
- Lire cette notice avant l'utilisation.
- Vor der Verwendung diese Anleitung durchlesen.

Sansui

We are grateful for your choice of the Sansui FR-D3 stereo turntable. This precision instrument is designed to give you many years of superb hi-fi performance. We suggest that you read through this manual at least once for instructions on correct assembly procedures, connection with other equipment and correct operation procedures.

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WARNING: To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

- The Model No. and Serial No. of your unit are shown on its back panel.
- Do not lose the Warranty Card that carries your unit's Model No. and Serial No.

For the United Kingdom only

Important

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral

Brown: Live

If the colours of the wires in the mains lead of this equipment should not correspond to the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured **blue** must be connected to the terminal which is marked with the letter 'N' or coloured black.

The wire which is coloured **brown** must be connected to the terminal which is marked with the letter 'L' or coloured red.

Ensure that your equipment is connected correctly. If you are in any doubt, consult a qualified electrician.

For equipment purchased outside the U.K. with a "EUROPEAN" two-pin mains plug, the plug should be removed and connections made in accordance with the above instructions. Ensure also that the equipment is properly adjusted to 240 volts operation. If you are in any doubt, consult a qualified electrician, or our Service Agent in the U.K.

Precautions

Turntable dismantling

Do not extract the unit's platter shaft or dismantle the motor assembly. NEVER try to touch any part inside the turntable unit. Such action may result in deterioration in performance or in mechanical breakdown.

Caution prior to operation

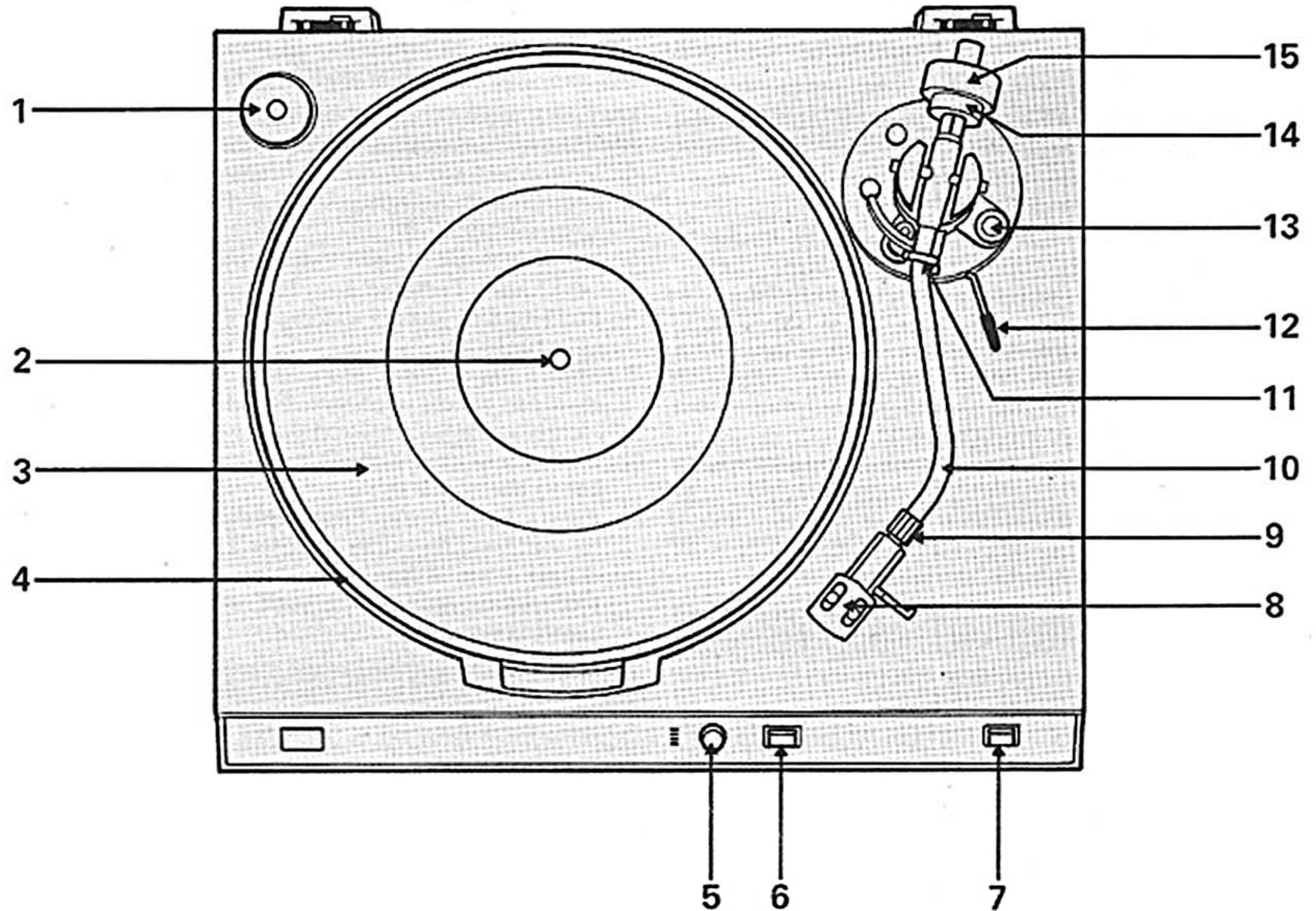
- * Avoid exposing the turntable (as well as your amplifier and other audio equipment) to rain or direct sunlight.
- * Avoid exposing the turntable to dust, excessively warm or cold temperatures.
- * Place your turntable on a solid, vibration-free surface.
- * Avoid placing your turntable on an inclined surface, otherwise incorrect stylus tracking will deteriorate overall performance. See that the surface of a record, when placed upon the platter, is strictly horizontal.
- * When cleaning the turntable base and dust cover, be sure to use a dry, soft cloth. Never use thinner or alcohol. Also take care not to accidentally apply insecticides or other volatile liquids or sprays.

Power plug

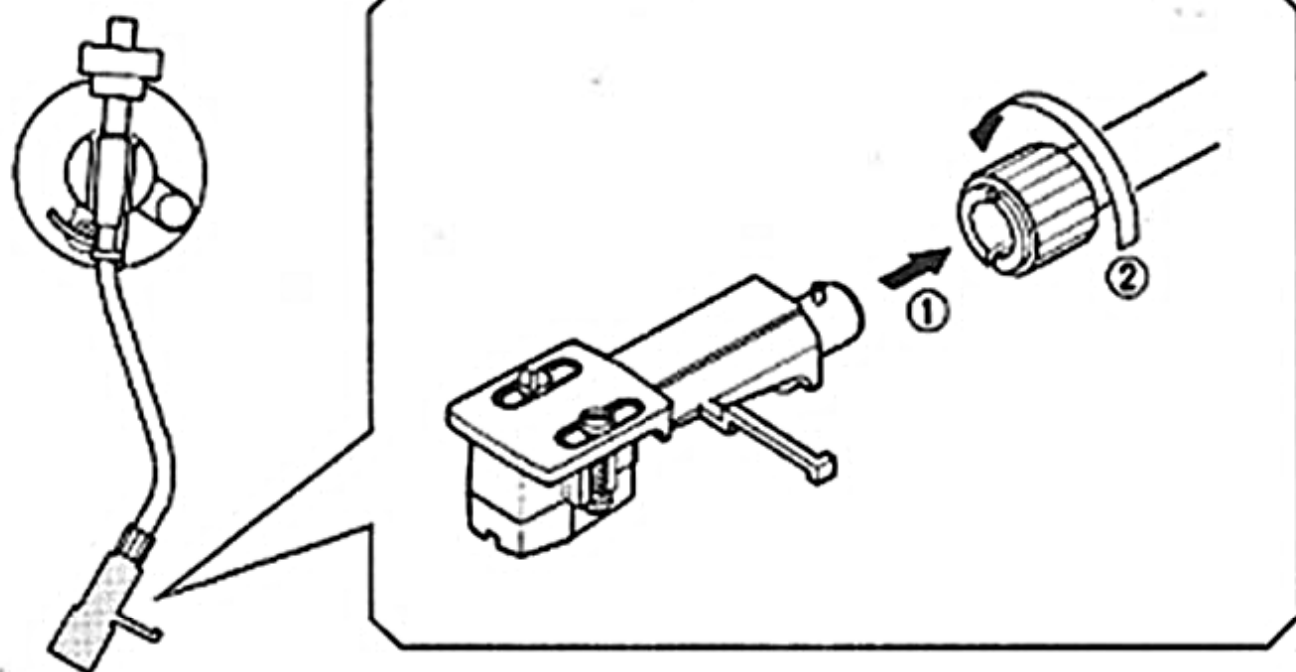
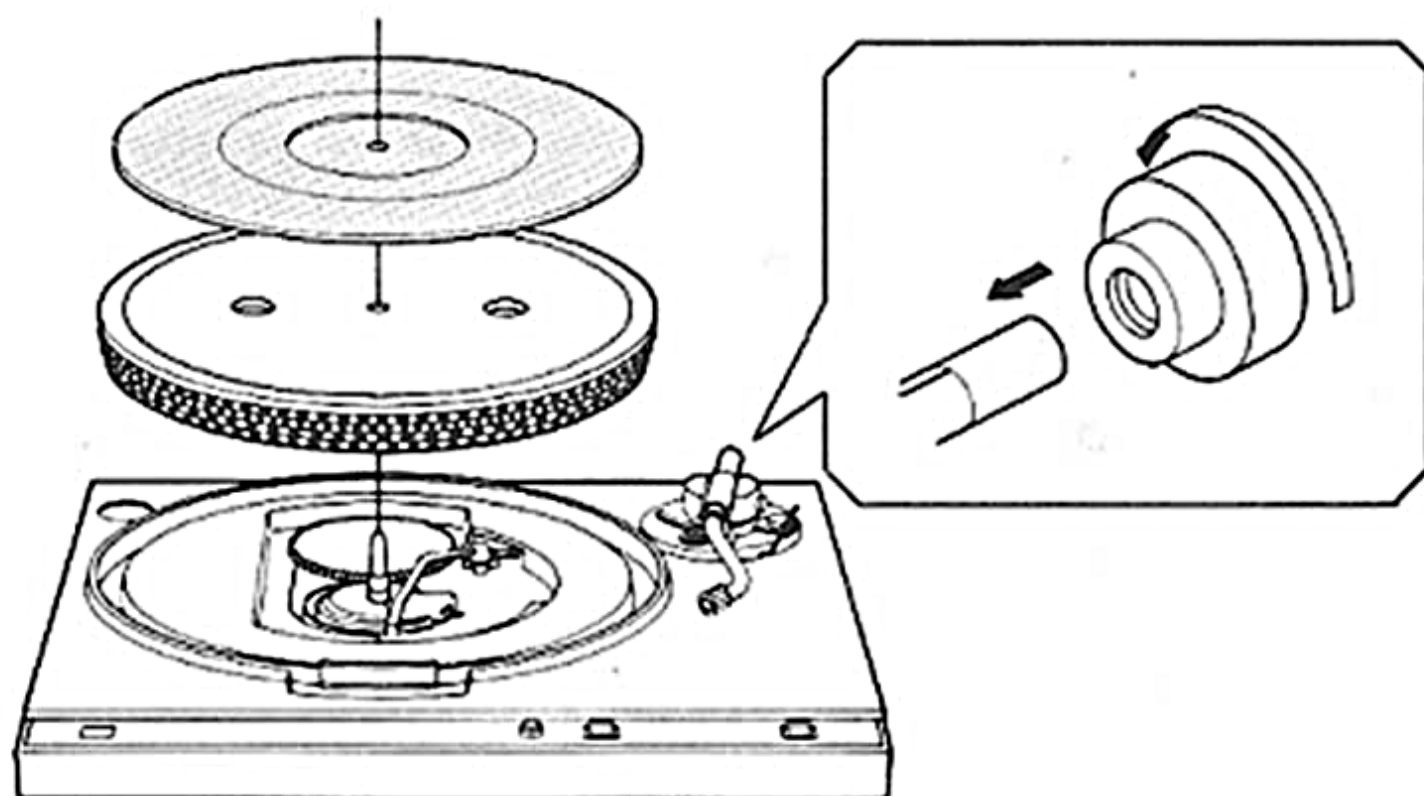
- * Do not touch the power plug with wet hands, for you may be subjected to electrical shock.
- * When unplugging the power plug, do not pull the cable; grasp the plug and pull it out of the wall outlet.

Controls and parts callouts
Liste des pièces et des commandes
Bezeichnung der Bedienungselemente

6



1	45 rpm record adaptor	1	Adaptateur de disque à 45 t/mn	1	Adapter für 45 er Schallplatten
2	Motor spindle	2	Axe moteur	2	Motorspindel
3	Rubber mat	3	Tapis en caoutchouc	3	Gummimatte
4	Platter	4	Plateau	4	Plattenteller
5	Pitch control	5	Bouton du réglage fin de la vitesse	5	Drehzahl-Feinabstimmknopf
6	Speed selector button	6	Bouton sélecteur de vitesse	6	Drehzahlwahlknopf
7	STOP button	7	Bouton STOP	7	STOP Knopf
8	Headshell	8	Tête de pick-up	8	Tonarmkopf
9	Lock nut	9	Ecrou de blocage	9	Kontermutter
10	Tonearm	10	Bras acoustique	10	Tonarm
11	Arm rest	11	Support de bras acoustique	11	Armablage
12	Arm lifter lever	12	Levier élévateur de bras	12	Armheberhebel
13	BIAS knob	13	Poignée BIAS	13	BIAS Knopf
14	Tracking-force dial	14	Cadran de pression sur le sillon	14	Auflagekraftskala
15	Main weight	15	Contrepoids principal	15	Hauptgewicht



Setting-up and connections

This turntable is composed of high-precision parts and to prevent damage during transportation, they are packed separately. Before using your turntable, assemble and connect as indicated by the following procedure.

Setting up turntable

To mount the platter on the turntable, fit the platter slowly and gently onto the motor spindle, taking care not to apply any unreasonable force to the spindle. When the platter is securely fitted, place the rubber mat on it.

Mounting main weight

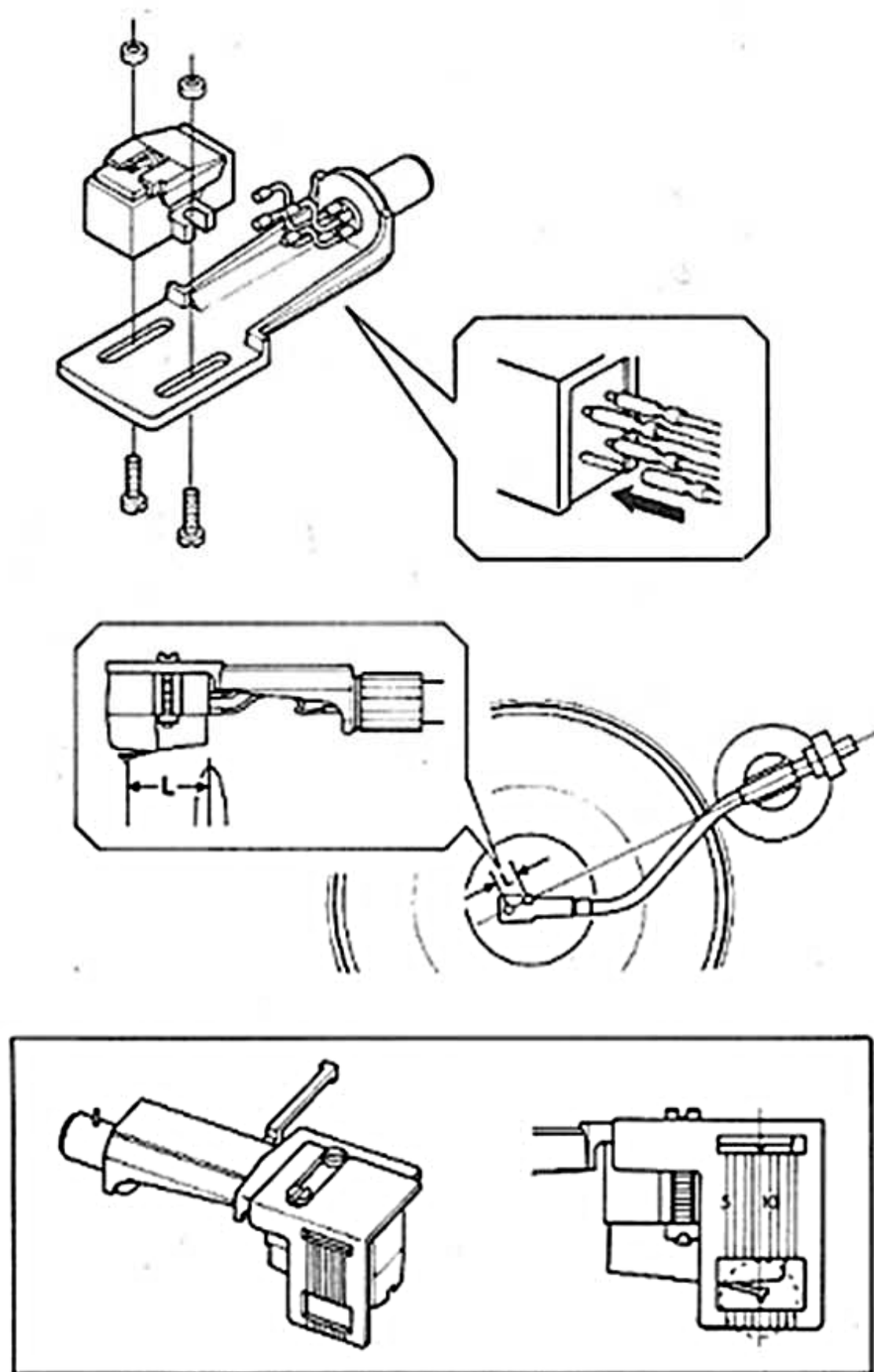
Fit the main weight on the weight shaft of the tonearm and pull it toward you while turning it gently to the light.

Mounting headshell

Insert the cartridge-equipped headshell into the lock nut at the end of the tonearm. Then push it lightly in the direction of arrow ① and tighten the lock nut securely by turning it in the direction of arrow ② as shown in the illustration.

- In the event that devices other than cartridges or headshell attachments are used, it is imperative that adjustments are made to the "Mounting cartridge" and "Overhang adjustments". Thereafter, it is similar as the procedures for assembly, as explained for the installation of the headshell.

With units sold in U.S.A., Canada and certain European countries no cartridge is provided.



Mounting cartridge

Mount a suitable cartridge on the headshell supplied with loosely tightened screws and nuts. Then connect leads on the headshell to terminals of the cartridge. Be sure to make correct connections referring to instructions for the cartridge; leads are color-coded in the following manner:

Blue left-channel “-” ground
 White left-channel “+” hot
 Green right-channel “-” ground
 Red right-channel “+” hot

- The loosely tightened screws should be firmly and equally secured after you have adjusted overhang.

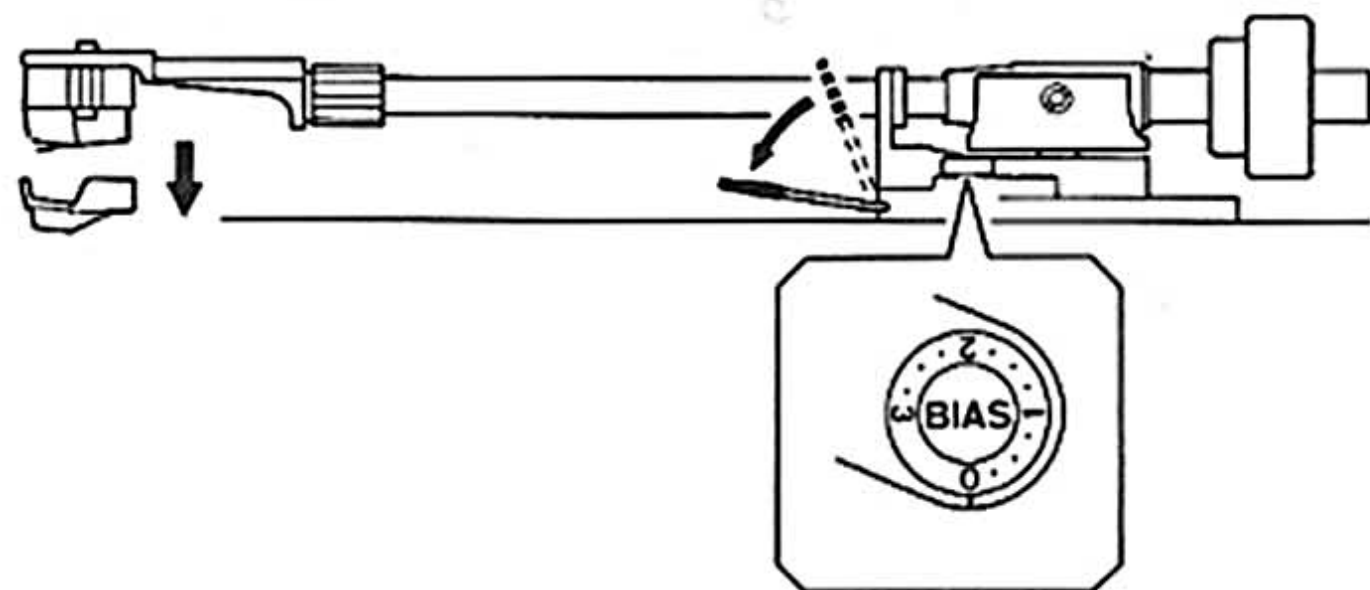
Overhang adjustments

Overhang is the distance from the center spindle to the stylus when the tonearm is closet to the center spindle, and is indicated by L in the illustration. The overhang of the tonearm of your turntable should be 17.5 mm. Loosen the screws holding the cartridge to the headshell and slide the cartridge backwards or forwards for optimum overhang adjustment. Once the overhang is set, retighten the cartridge-securing screws.

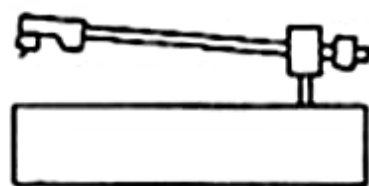
How to use the cartridge mounting gauge:

This unit is fitted with a gauge on the cartridge for overhang adjustments. When using the headshell supplied, determine the cartridge mounting position as shown in the illustration.

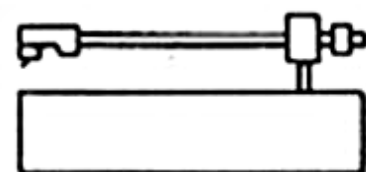
1. Loosen screws.
2. Fit the cartridge mounting gauge to the headshell.
3. Align vertically the mark indicated on the headshell with the stylus tip: find the stripe printed on the gauge that runs above the stylus tip and then align that line with the mark on the headshell by sliding the cartridge with the gauge horizontally.



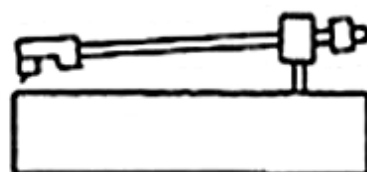
Tonearm horizontal balance
Equilibrage horizontal du bras acoustique
Horizontale Tonarmbalance



Turn main weight to right.
 Tourner le contrepoids principal à droite.
 Drehen Sie das Hauptgewicht nach rechts.



Horizontal balance is achieved.
 L'équilibrage horizontal est réalisé.
 Horizontale Balance ist hergestellt.

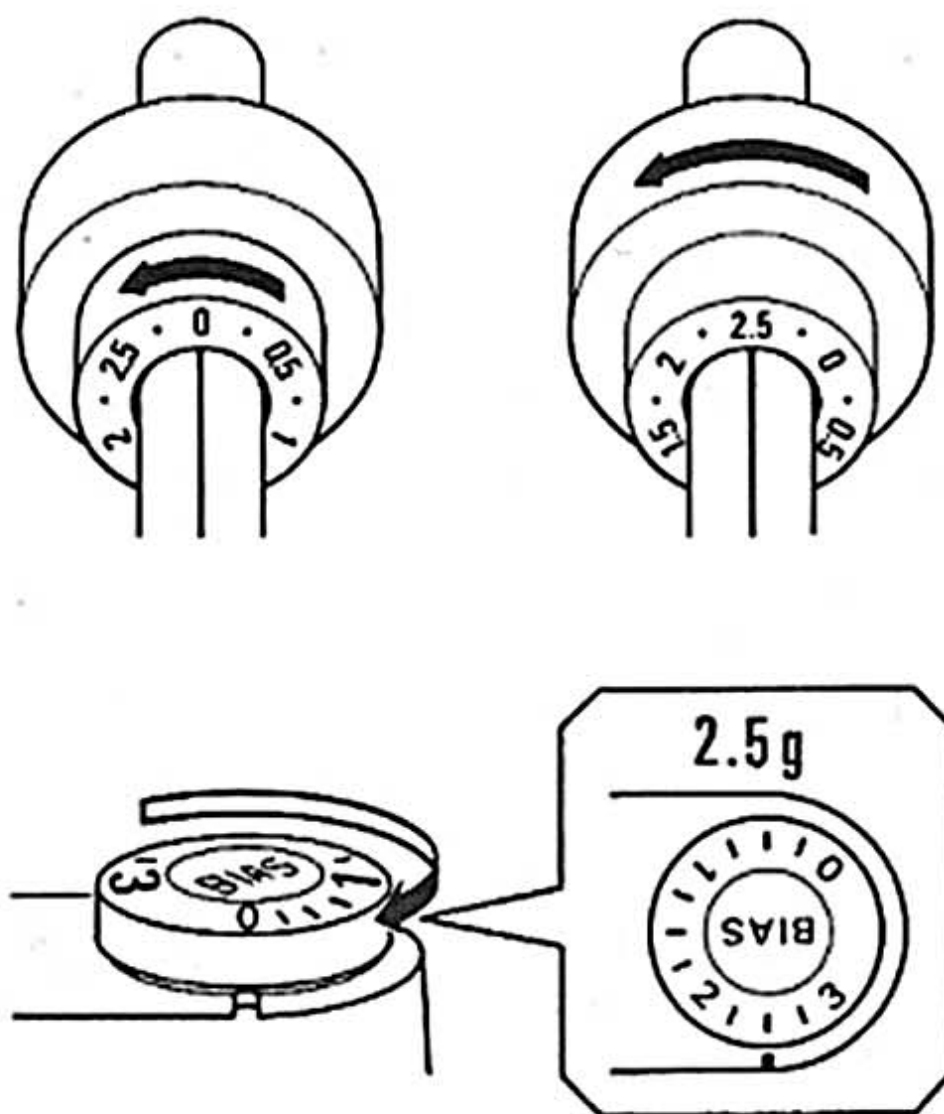


Turn main weight to left.
 Tourner le contrepoids principal à gauche.
 Drehen Sie das Hauptgewicht nach links.

Tonearm horizontal balance

Before undertaking tracking-force adjustment, you must balance the tonearm in a perfectly horizontal plane to the motorboard to obtain a "0-gram" tracking force. Procedures are as described below:

1. Remove the stylus protector cover.
 2. Pull down the arm lifter lever.
 3. Turn the BIAS knob, so that the "O" mark aligns with the index dot on the ring.
 4. While holding the headshell by its hook with your hand, move the tonearm to a place midway between the arm rest and the motor spindle.
 5. Turn the main weight with your other hand until the tonearm balances itself, remaining stationary and horizontal to the motorboard; if the headshell rises, turn the main weight to the right (seen from behind). If it lowers, turn it to the left.
 6. When the tonearm horizontal balance is achieved, return the tonearm to the arm rest and pull the arm lifter lever upward.
- Be very careful not to subject the stylus to undue shock during the tonearm horizontal balancing.



With units sold in U.S.A., Canada and certain European countries no cartridge is provided.

Avec les appareils vendus aux Etats-Unis, au Canada et dans certains pays d'Europe aucune cartouche n'est prvue.

Fr in USA, Kanada und in manchen europischen Lndern verkaufte Gerte wird kein Tonabnehmer mitgeliefert.

Tracking-force adjustment

When the tonearm horizontal balance is achieved, a "0-gram" tracking-force is applied at the tip of the stylus. To apply the required positive force, you have to move the main weight toward the tonearm support pivot. For detailed tracking-force application and adjustment, observe the following procedures:

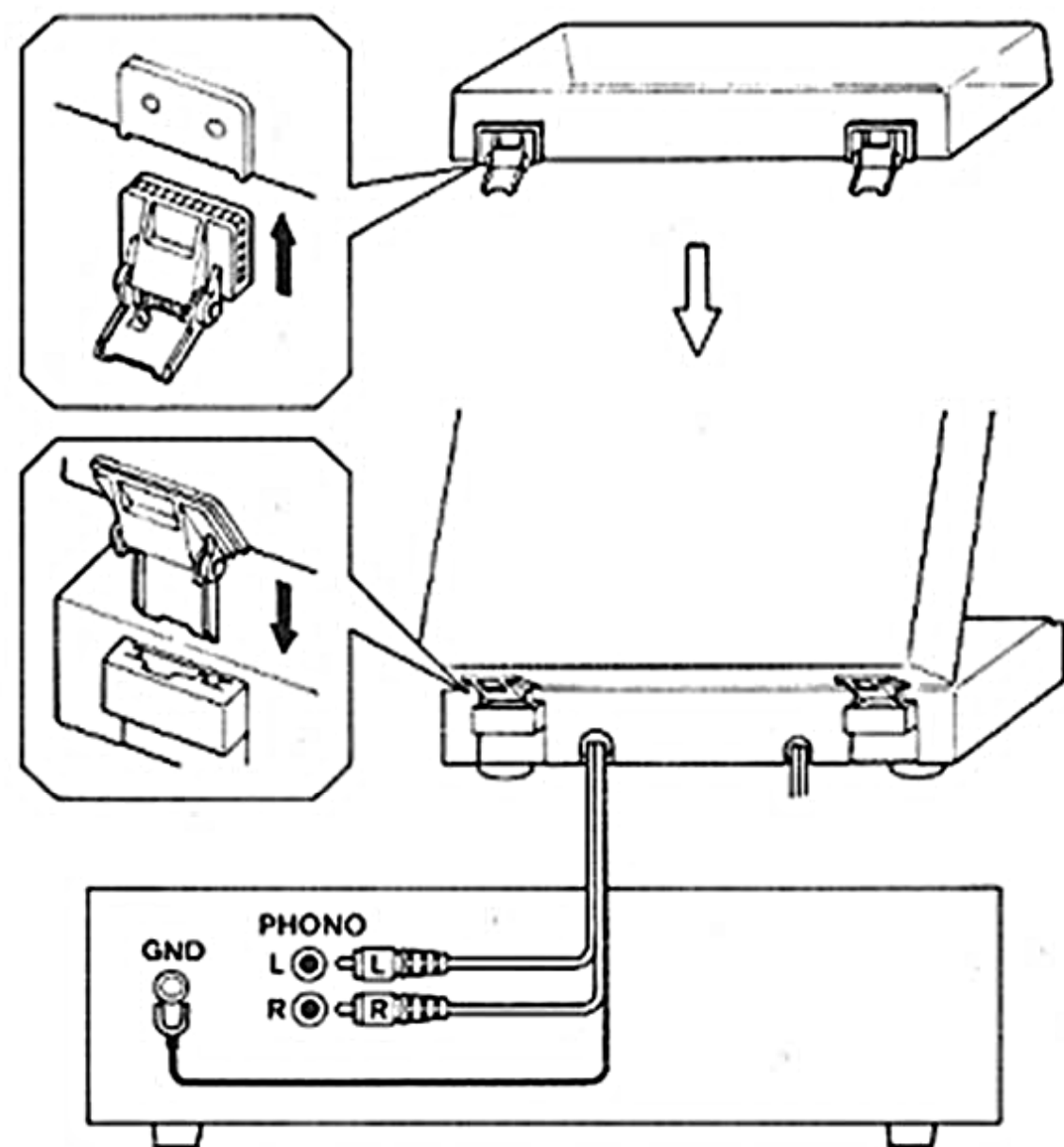
1. After undertaking horizontal balance, turn the tracking-force dial so that its "0" calibration is in line with the index on the weight shaft.
 2. Turn the main weight to the right until you obtain the necessary tracking force. Since the tracking-force dial turns as the weight is turned, the applied tracking force is indicated by the numerals on the dial above the index line on the weight shaft.
- For the optimum tracking-force of a cartridge you use, check its specifications.
 - Optimum tracking-force of the cartridge supplied is 2.5 grams; turn the main weight until the numeral of calibration on the dial is "2.5".

Anti-skating device adjustment

Skating force is the natural force, caused by rotation of a record or the platter, which pulls the tonearm toward the center spindle. The anti-skating device is the mechanism to balance this force to prevent excess wear and to assure proper disc reproduction.

To achieve anti-skating device adjustment, simply set the bias knob, so that the figure corresponding to the applied tracking force is in line with the index dot.

- The procedure described above is sufficient for normal uses, though more critical adjustments may be necessary, depending on the condition of record surface. Should you notice significant difference in level and/or tone quality between the left and right channels, play once of the middle bands of a record and adjust the bias knob until the difference is minimized.



45 rpm record adaptor
 Adaptateur de disque à 45 t/mn
 Adapter für 45 er Schallplatten

Mounting dust cover

First, mount the accessory hinges the right way up on the dust cover. Then slide the dust cover into the receptacles provided at the rear of the cabinet.

When the dust cover is to be dismantled, it should be fully opened and pulled directly upwards.

Connections with amplifier

The output cables connected to your turntable are of the low-capacitance type, suitable especially for CD-4† record playback. These cables should be used to connect the turntable with the "PHONO" terminals on your amplifier; cable for the right channel is red-colored and the other for the left is not, to permit correct-connection.

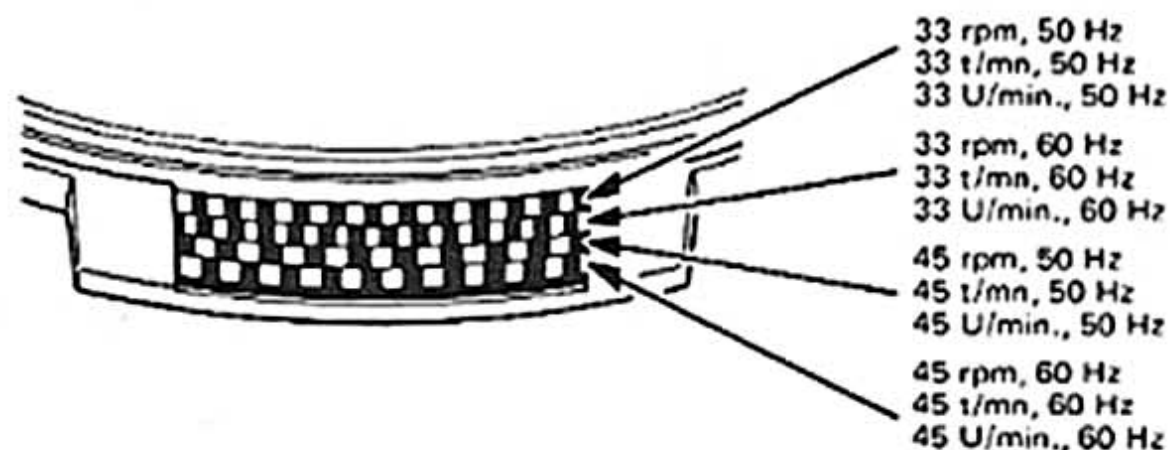
Grounding

A third vinyl-coated cable runs along the output cables. This is the grounding cable to be connected between the turntable's "GND" terminal and the grounding terminal on your amplifier to prevent low-frequency hum.

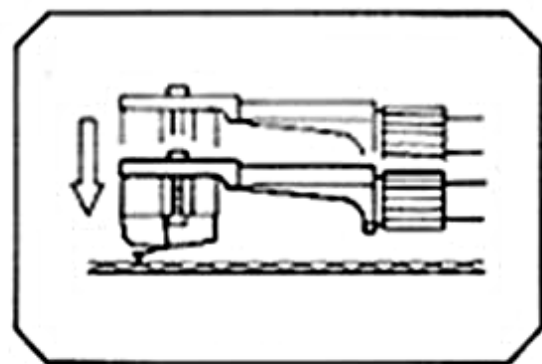
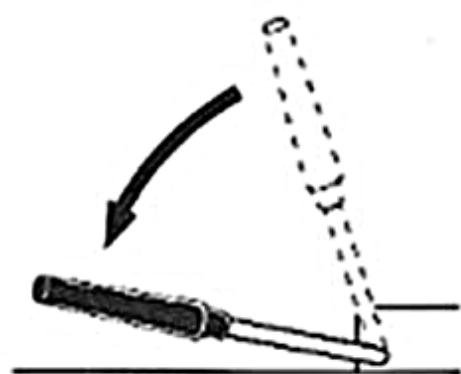
The GND terminal on the turntable is connected with the motorboard and is separated electrically from the signal grounding. Therefore, note that, when you use a cartridge other than the one supplied, there may be cases when you hear less hum with the grounding cable unconnected.

45 rpm record adaptor

Take care not to lose the supplied 45 rpm (EP) record adaptor when not in use.



Pitch Control



Operation

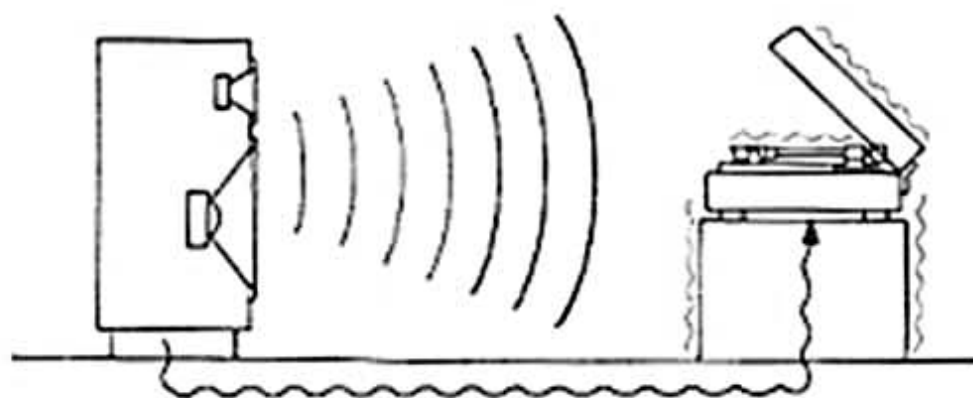
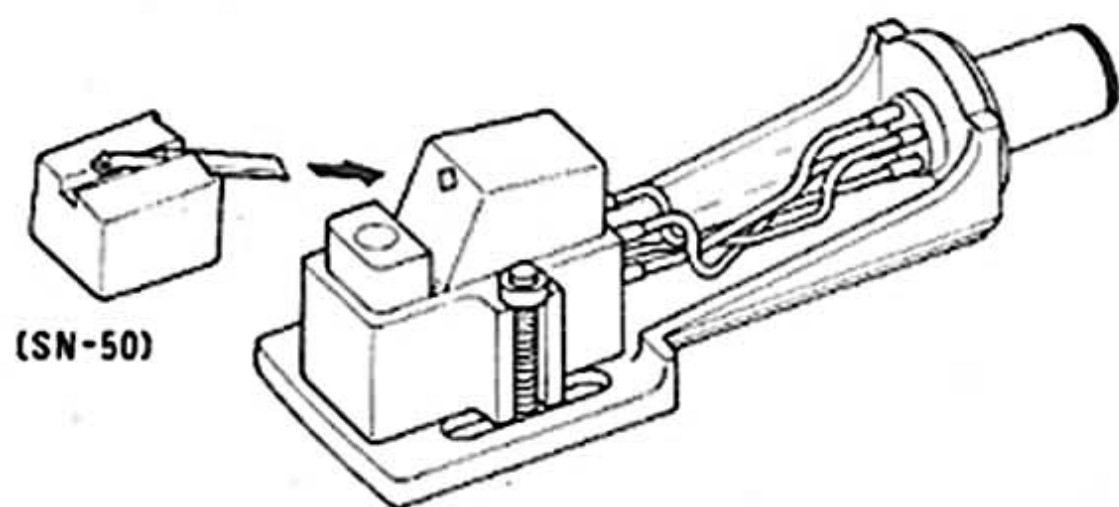
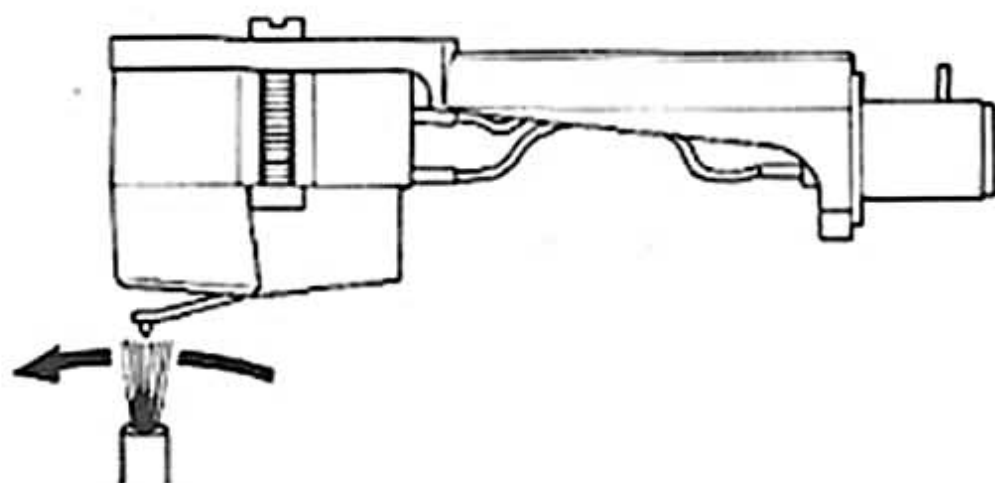
- * Check that tracking-force, anti-skating force and other adjustments have been properly made.
- * Pay special attention when handling the turntable and your record. Rough handling may result not only in shortened life of the turntable but also in severe record damage.

Operation

1. Pull the arm lifter lever upward.
2. Move the tonearm above the portion of the record you are about to play. The power is then turned on, setting the platter in motion.
3. Set the speed selector button to 33 or 45, depending on the speed of the record you're about to play.
 - You can fine-adjust the speed with your unit. Refer to the explanation of the four rows of strobo markings on the periphery of the platter in the accompanying photograph. Observe the strobo marking pattern corresponding to the speed of the record (33 or 45 rpm) and the power supply frequency (50 Hz or 60 Hz) of your area, and turn the pitch control until the related strobo marking pattern appears to be stationary.
4. Pull the arm lifter lever gently toward you. Then the tonearm will descend on the platter surface and start play.
5. **When the tonearm reaches the lead-out groove:** It automatically returns to its rest, turning the power off.

When stopping record play: Push the STOP button. The tonearm will automatically returns to its rest, turning the power off.

 - Never attempt to halt platter rotation by hand.



Some useful hints

Keep the stylus tip clean

Dust and dirt are the major obstacles to noise-free record reproduction. When grime is allowed to collect in the record groove it will stick to the stylus tip, thus accelerating record and stylus wear and moreover deteriorating the quality of the reproduced sound. CD-4 records in particular require extra care.

Every time you play a record, first carefully remove all dirt and dust with a record cleaner; use the stylus brush to remove dirt from the stylus tip.

In cleaning the tip, avoid touching it with your finger or subjecting it to shock; such mistreatment may not only shorten its life but may even dislodge the jeweled tip itself.

Replacement of styli

A diamond-tipped stylus will usually provide about 500 to 800 hours of high fidelity record playback.

A worn stylus, however, will cause distorted or crackling sound reproduction. You are advised to replace your stylus as frequently as possible.

To avoid Howling

When an outside vibration is transmitted to a player in operation, abnormal sounds such as buzzing or shrilling (Howling phenomenon) is generated. Speakers should be separated from the player, and placed in such a location as to avoid transmittal of any vibration.

Lubrication

Your unit requires no lubrication whatsoever. Note that application of oil to the unit's platter shaft or platter bearing may cause turntable breakdown.

Arm lifter descent time

When you use your unit after a long period of disuse, the arm lifter mechanism may tend to lower the tonearm more slowly than usual. This may also occur in periods of temperature change, such as in the changes of seasons. It will correct itself in time, and you may wish to aid the descent of the tonearm with a light touch of your finger unit it does.

Induced hum

Any nearby motor-equipped apparatus such as an electric sewing machine or fan, or a large power transformer may influence your turntable and cause booming hum. If you experience this, move the apparatus in question as far away as possible from the turntable. When placing the turntable next to your amplifier, hum will be reduced if you place it on the side of the amplifier opposite to the side where its transformer is located.

Power voltage

Your turntable is adjusted in our factory to operate on the power voltage of the area where you purchased it. Therefore, should you move to an area where the voltage is different from the factory-adjusted one, you have to make the voltage changeover. Make the changeover referring to the attached voltage/frequency changeover sheet.

If, however, the area where you bought your turntable is one where users are prohibited from making such changeover, changeover is not possible. In other areas, consult with your nearest electric appliance dealer about the specific voltage adjustor you need.

Specifications

Type	Two-speed direct-driven
Speeds	33-1/3, 45 rpm
Fine speed adjustment range	±3 %
Platter	Aluminum alloy die-cast 300 mm (11-13/16") diameter, 1.1 kg (2.42 lbs)
Motor	Brushless DC servo-type
Wow and flutter	Less than 0.028 % (WRMS)
S/N	Better than 60 dB (IEC-B)
Rumble	Better than 72 dB (DIN-B)
Tonearm	Statically-balanced S-shaped tubular type
Tonearm length	220 mm (8-11/16")
Overhang	17.5 mm (3/4")
Optimum cartridge weight When the headshell supplied is employed	2 ~ 10 g
Dimensions	440 mm (17-11/32") W 130 mm (5-1/8") H 385 mm (15-5/32") D
Weight	6 kg (13.2 lbs) net 7 kg (15.4 lbs) packed
Power consumption	5 W (rated)

- The power voltage is adjusted to the one of the area where you bought the unit.

Specifications of the cartridge (applicable only to the units with cartridge)

Model SC-50

Type	Induced magnet
Frequency response	10 ~ 20,000 Hz
Output voltage	3 mV per channel (1,000 Hz, 35.4 mm/sec)
Load impedance	47 k Ω
Tracking force	2.5 g
Stylus	0.6 mil, diamond spherical (SN-50)

- * Design and specifications subject to change without notice for improvements.
- * In order to simplify the explanation illustrations may sometimes differ from the originals.



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