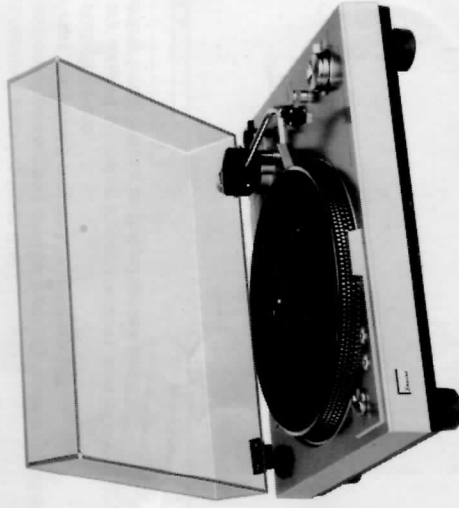


# SR-5090

## OPERATING INSTRUCTIONS



- Read this manual before use.

*Sansui*

# Features

We are grateful for your choice of the Sansui SR-5090 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.

## Contents

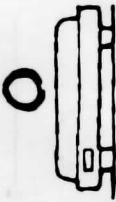
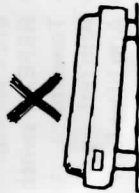
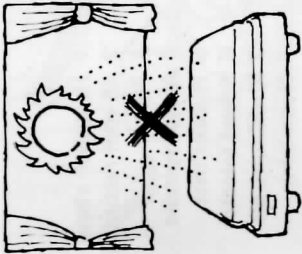
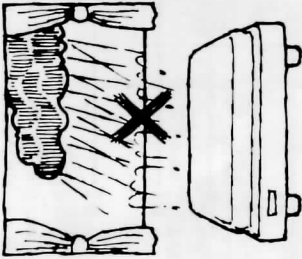
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- \* Automatic mechanism  
The lead-in, return and memory repeat operations are smooth and sure.
- \* Direct-drive system.  
Since the motor spindle directly turns the platter, setting up the turntable and maintaining it in top condition is easy. Fine speed adjustments can be made by observing the strobo markings on the periphery of the platter. The use of a servo-motor mechanism has made frequency changeover unnecessary; you need not change frequencies when you move to a region where the power frequency is different from the one of the area where you have purchased the turntable.
- \* Independent tonearm lift mechanism  
It allows you to descend or ascend the tonearm at any desired portion of a record on the platter and at any time.
- \* Direct-readout tracking-force dial  
Application of correct and precise tracking-force is facilitated by the easily-read, calibrated ring on the main weight.
- \* Anti-skating device  
You are assured of stable stylus tracking, free of damaging, unnatural skating force, thanks to this advanced feature.

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

- Do not lose the Warranty Card that carries your unit's Model No. and Serial No.

# 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

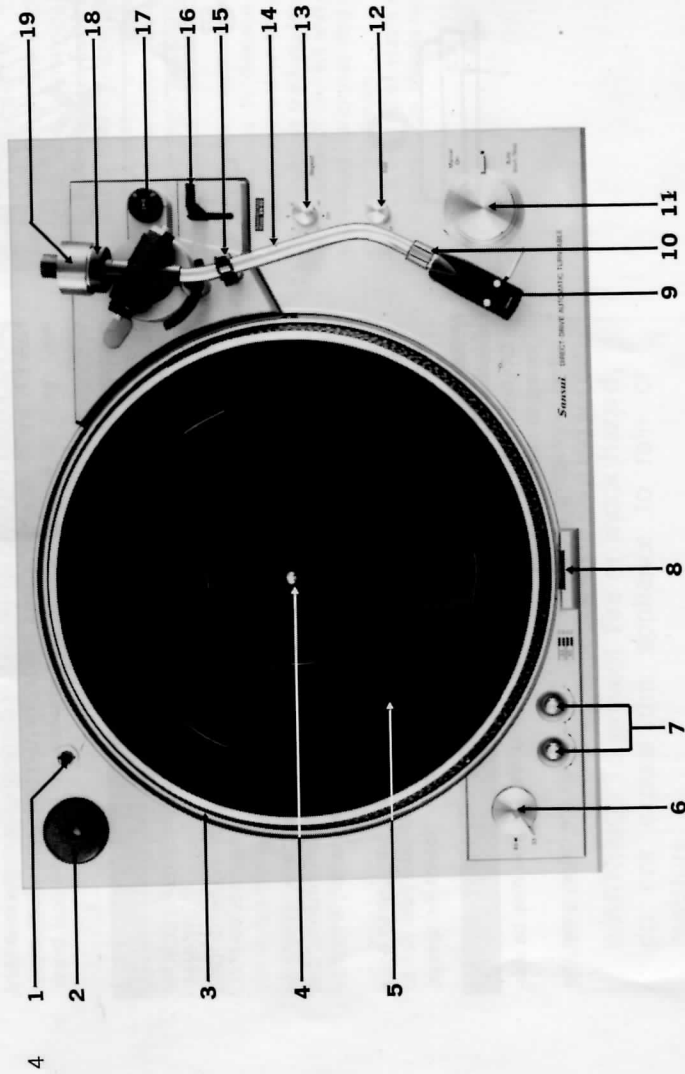
- \* Avoid exposing the turntable (as well as your amplifier and other audio equipment) to rain or direct sunlight.
- \* Avoid exposing the turntable to dust, excessively warm or cold temperatures.
- \* Place your turntable on a solid, vibration-free surface.
- \* Avoid placing your turntable on an inclined 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

- 1 Headshell stand
- 2 45 rpm record adaptor
- 3 Platter
- 4 Motor spindle
- 5 Rubber mat
- 6 Speed selector
- 7 Pitch controls
- 8 Neon lamp
- 9 Headshell
- 10 Lock nut
- 11 Cueing lever
- 12 SIZE selector
- 13 REPEAT switch
- 14 Tonearm
- 15 Arm rest
- 16 Arm lifter lever
- 17 BIAS knob
- 18 Tracking-force dial
- 19 Main weight



## Setting-up and connections

5

This turntable is a precision instrument. To protect the delicate parts inside during shipment they are secured in place by shipping screws, or packaged separately. Remove, set up and connect these parts as follows:

### Removing shipping screws

With a screwdriver, remove the two shipping screws together with the red cardboards. Keep them for possible future use; re-ship the unit only after re-securing the parts as originally shipped.

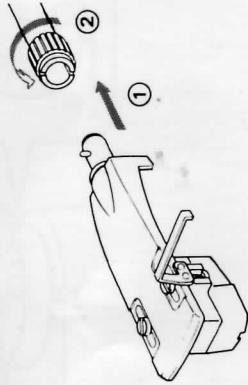
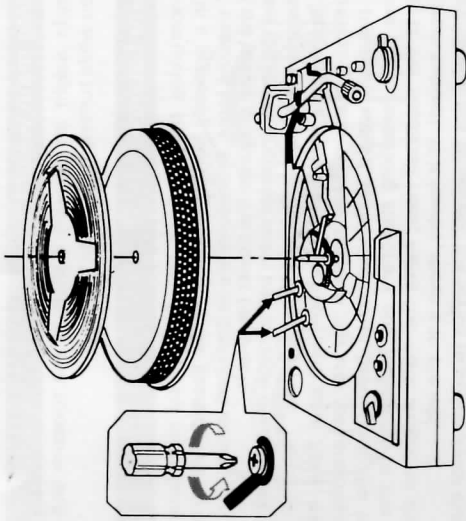
### Setting up turntable

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 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.



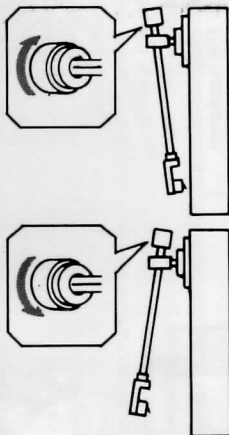
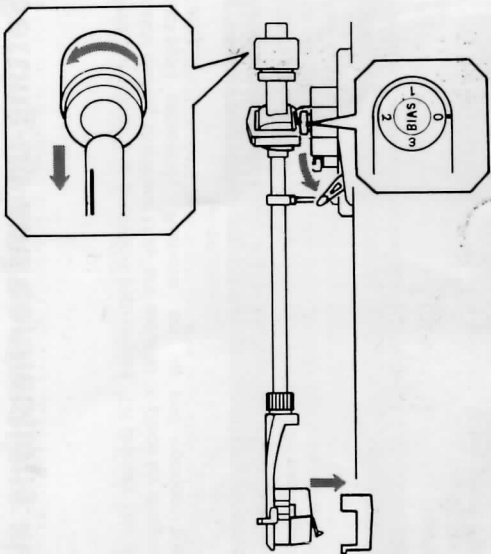
### Mounting main weight

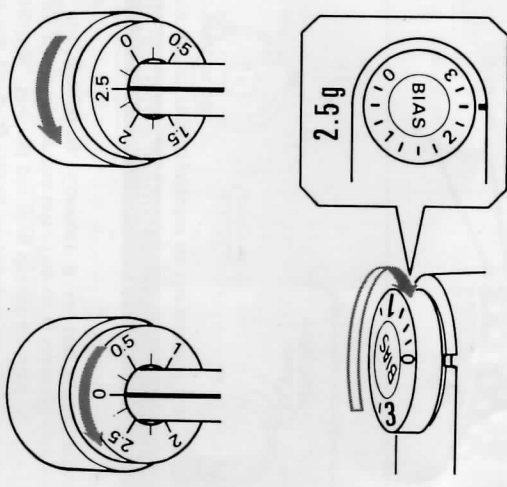
Fit the main weight on the weight shaft of the tonearm and pull it toward you while turning it gently to the right.

### Tonearm 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. Insert the power plug into the power receptacle.
  2. Remove the stylus protector cover and unhook the arm lock.
  3. Pull the arm lifter lever to the  $\blacktriangledown$  side toward you.
  4. While holding the headshell by its hook with your hand, move the tonearm to a place midway between the arm rest and the platter.
  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, move the main weight to the right (seen from behind). If it lowers, move it to the left.
- Be very careful not to subject the stylus to undue shock during the tonearm horizontal balancing.
6. When the tonearm horizontal balance is achieved, return the tonearm to the arm rest and push the arm lifter lever to the  $\blacktriangledown$  side.





### 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 or 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.

### Mounting dust cover

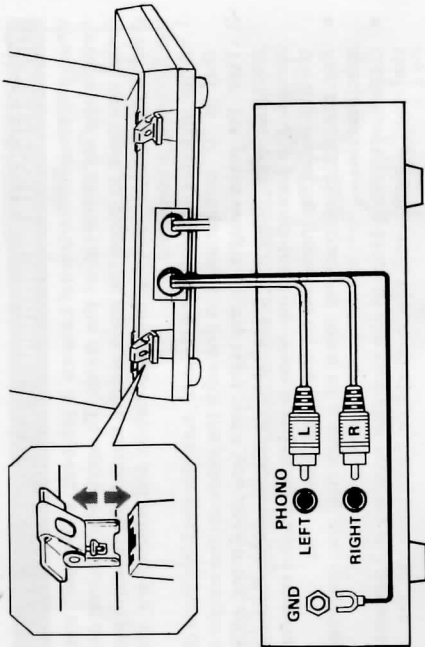
Dust cover is mounted by inserting dust cover fittings into openings on the rear wall surface of the cabinet. When the dust cover is to be dismounted, it should be fully opened and pulled directly upwards.

### Connections to amplifier

Connect the pin-plug cables of the unit to the PHONO terminals on your amplifier. The red pin plug should be used for the right channel, the white pin plug for the left. The vinyl covered cable without a pin plug is for grounding. Connect it to the GND terminal on your amplifier.

### 45 rpm record adaptor

Keep the 45rpm record adaptor on the adaptor stay on the motorboard when it's not in use.



45 rpm record adaptor

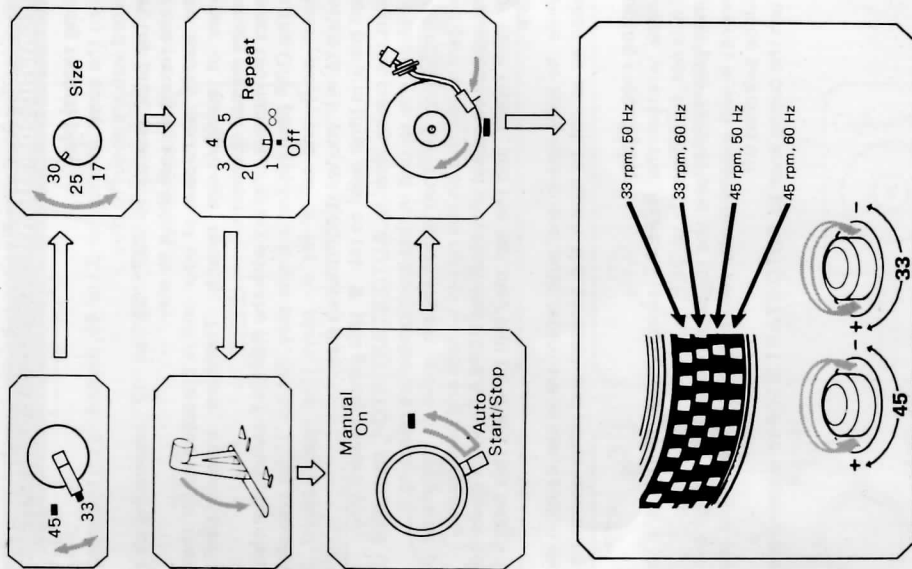
# Operation

- \* Check that tracking-force, skating-force and other adjustment have been properly made.
- \* Upon assembling the unit, the movement of the auto lead-in and auto return should be first tested.

## Speed fine adjustments

Place the record of your choice on the platter first and then undertake the following operations.

1. Turn the speed selector for 33 or 45, depending on the speed of the record you are about to play.
2. Set the SIZE selector to "30", "25" or "17" depending on the size of the record you are about to play.
3. Set the REPEAT switch to OFF.
4. Pull the arm lifter lever to the  $\nabla$  side gently toward you.
5. Turn the cueing lever to the AUTO START/STOP position; then hold the lever for about one second in that position before releasing it. The tonearm will then automatically move to the pre-set position, and gently descend on the record surface and play begins.
6. 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 (50Hz or 60Hz) of your area, and turn the pitch control (33 or 45 rpm) until the related strobo marking pattern appears to be stationary.
7. Turn the cueing lever to AUTO START/STOP. The tonearm will automatically return to its rest and the power will be switched off.



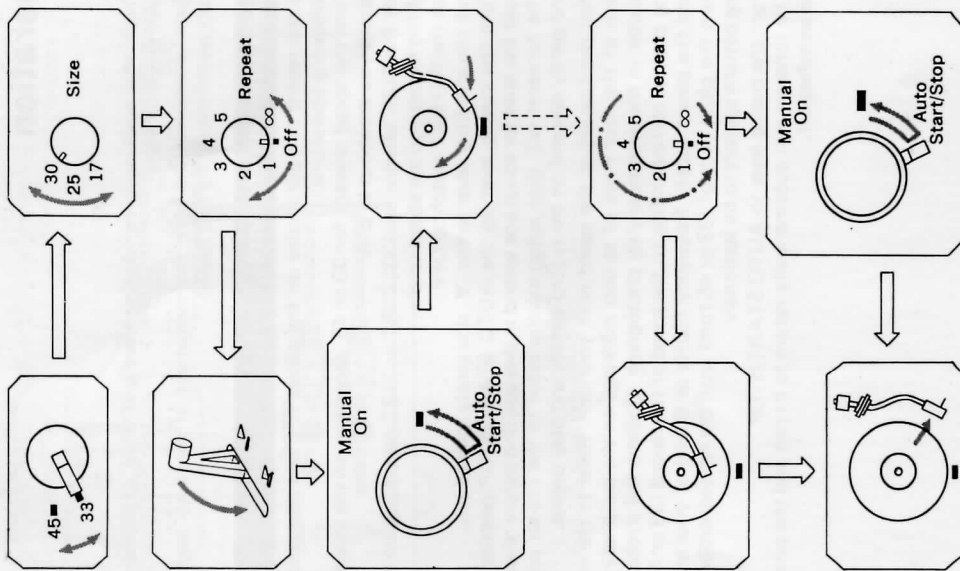
## Automatic operation

### Starting record play

1. Turn the speed selector for 33 or 45, depending on the speed of the record you are about to play.
2. Set the SIZE selector to "30", "25" or "17" depending on the size of the record you are about to play.
- The lead-in mechanism of your unit is pre-adjusted for these three types of standard-size records. Therefore, irregular-size records require manual operation.
3. Select the number of plays with the REPEAT switch. Set this switch to the OFF position for a single play. Set to '1' for two plays (one repeat play), and to '5' for six plays (five repeat plays). Set the switch to ∞ if you want continuous play.
4. Pull the arm lifter lever to the ▼ side gently toward you.
5. Turn the cueing lever to AUTO START/STOP; then hold the lever for about one second in that position before releasing it. The tonearm will then automatically move to the pre-set position, and gently descend on the record surface and play begins.
- For up to five repeat plays, set the REPEAT switch down one notch for each repeat, and the last play will be when this switch is set to OFF.
- While the auto lead-in and auto return are in use, caution should be taken so as not to touch the tonearm and other operating knobs.

### Stopping record play

1. Check whether the REPEAT switch is set to the OFF position. If it is not, turn it gently to OFF.
  2. When play finishes and the tonearm reaches the last groove on the record, it will automatically return to the arm rest and the power will be switched off.
- Turn the cueing lever to AUTO START/STOP to suspend play.



## Manual operation

### Starting record play

1. Turn the speed selector for 33 or 45, depending on the speed of the record you are about to play.
2. Push the arm lifter lever to the  $\nabla$  side.
3. Remove the tonearm from its rest and move it so that the stylus is directly above the selection on the record you wish to hear.
4. Turn the cueing lever to MANUAL ON.
5. The power is then turned on, setting the platter in motion. Pull the arm lifter lever to the  $\nabla$  side gently toward you. Then the tonearm will gently descend to the record and play begins.
6. Adjust controls on your amplifier to the desired volume and tone quality.

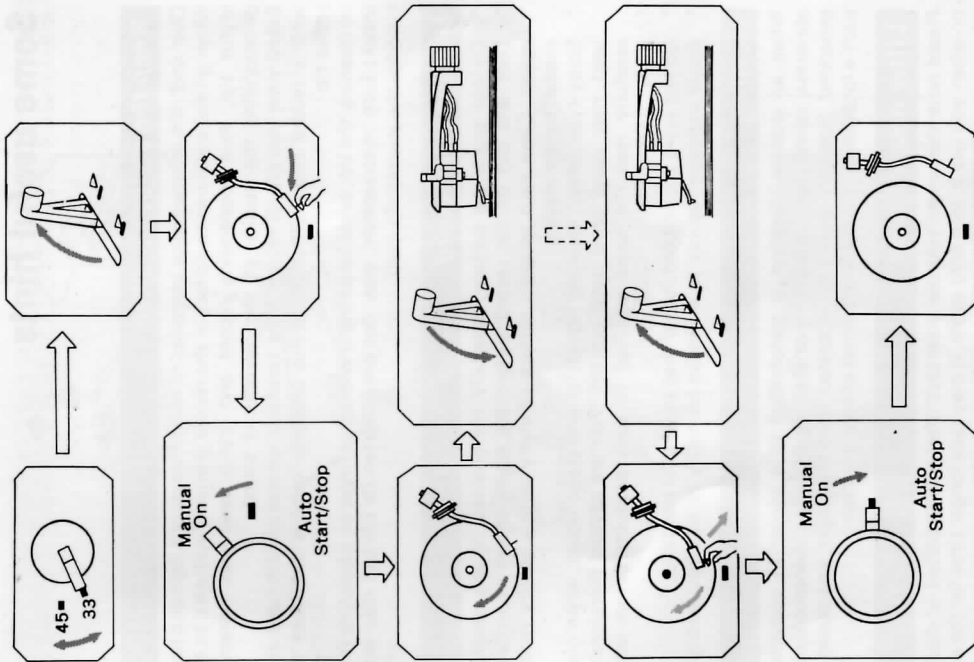
### Stopping record play

1. Push the arm lifter lever to the  $\nabla$  side.
2. Return the tonearm to the arm rest.
3. Turn the cueing lever gently to its central position. Then the power is turned off.

**When the tonearm reaches the lead-out groove:** It automatically returns to its rest. Turn the cueing lever gently to its central position.

## Use of arm lifter lever

You can lift or lower the tonearm at any time during the play of a record. Use the lever if you want to stop play temporarily or skip any portion of the record in play.



## 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.

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.

### Handling the record

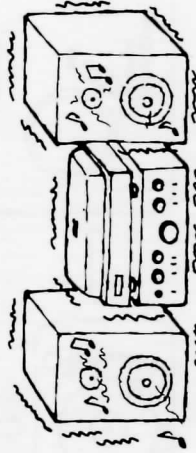
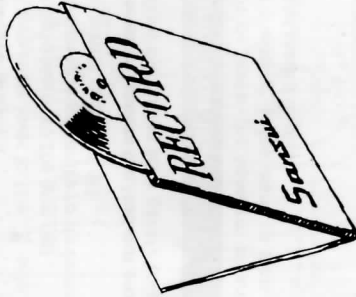
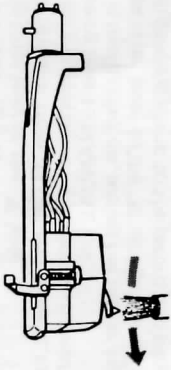
- \* Do not touch the surface, especially the grooves, of any records.
- \* Dust and dirt on the record surface are major causes of irritating noises. Clean each record's surface carefully with a quality record cleaner before playing.
- \* Spray-type record cleaning liquids or anti-static liquid, when over-used, may cause tonal deterioration. You are advised therefore to carefully read the notes attached to such products before using them.
- \* Do not store your records other than in vertical positions.
- \* Avoid exposing records to excessive humidity or to direct sunlight.

### 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.

### Lifter descent time

Please note that when you use your unit after a long period of disuse, or when you use it in a cold room, it may take longer time for the arm lifter to descend to the record for the first few plays.



## 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.

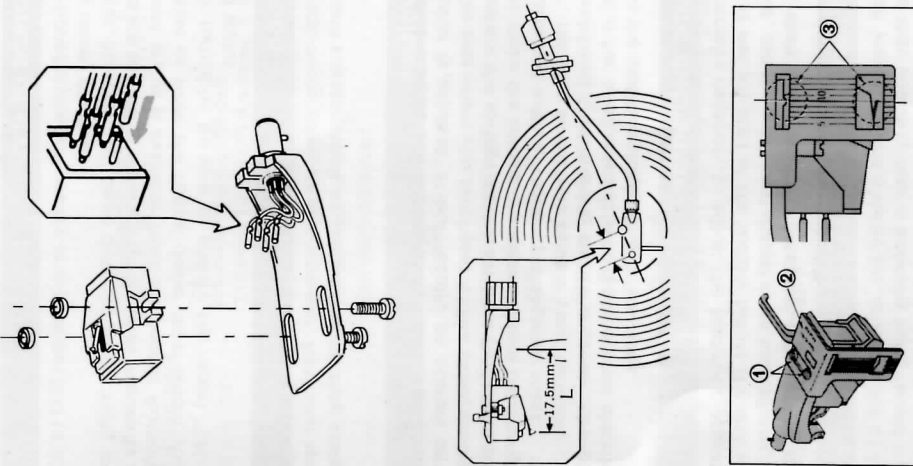
## Overhang adjustments

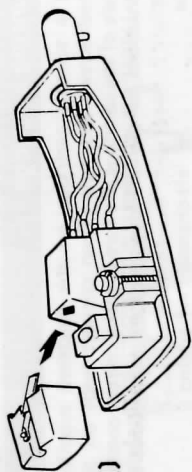
Overhang is the distance from the center spindle to the stylus when the tonearm is closest to the center spindle, and is indicated by L in the illustration. The overhang of the tonearm of your turntable should be 17.5 mm. Loosen the screws holding the cartridge to the headshell and slide the cartridge 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.





(SN-50)

### 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.

A replacement stylus is available from the nearest Authorized Sansui Service Station or from the Sansui dealer from whom you have purchased your turntable. Be sure to specify the model "SN-50" Sansui replacement stylus.

### 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.

### 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 adjuster you need.

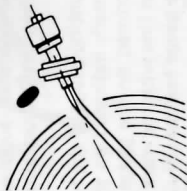
### Automatic mechanism

It is not normally necessary to adjust the automatic operation mechanism since it was adjusted at the factory before the unit was shipped.

- To adjust, use the small oval-shaped cover located near the tonearm support shaft. Only servicing personnel should remove this cover.

### Induced hum

If you install your turntable directly on, or to the left of an amplifier, chances are that you may hear a booming hum, caused by the power transformer of the amplifier. If you notice such a hum, move the turntable away from the amplifier or relocate it on the right side of the amplifier (i.e. the side away from the amp's transformer).



# Specifications

Type	Two-speed direct-driven
Speeds	33-1/3, 45 rpm
Fine speed adjustment range	±3.5%
Platter	Aluminum alloy die-cast 318mm (12-9/16") diameter, 1.4 kg (3.1 lbs.)
Motor	20-pole brushless DC servo-type
Wow and flutter	less than 0.038% (W.R.M.S.)
S/N	better than 57 dB (IEC-B)
Rumble	better than 67 dB (DIN-B)
Tonearm	Statically-balanced
	S-shaped tubular type
Tonearm length	220mm (8-11/16")
Overhang	17.5mm (3/4")
Optimum cartridge weight	When the headshell supplied is employed
	4 ~ 10g
Dimensions	460mm (18-1/8") W 166mm (6-3/16") H 370mm (14-9/16") D
Weight	9.2kg (20.3 lbs) net 10.7kg (23.6 lbs) packed
Power Consumption	9W (rated)

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

## When requesting repairs

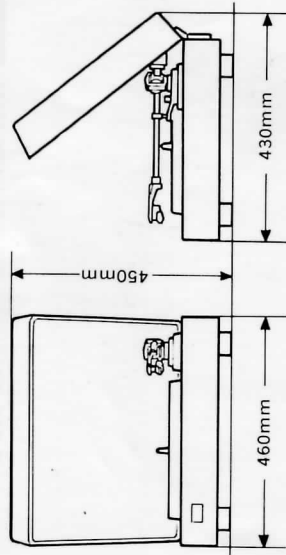
Disconnect the power plug from the wall AC outlet and call your dealer or the nearest Sansui Authorized Service Station.

## 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	3mV per channel (1,000 Hz, 3.54 cm/sec)
Load impedance	47 kΩ
Tracking force	2.5g
Stylus	diamond (SN-50)

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



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