is the standard mark for the "P-mount" plug-inconnector system. Products carrying this mark are interchangeable and compatible with each other.



# Technics

Automatic Turntable System

# SL-QD35 Operating instructions



The model number of this product is found on the back of the unit, and the serial number either on the back or on the bottom.

Please note the model and serial numbers of this unit in the space provided below and retain this booklet as a permanent record of your purchase to aid identification in the event of theft.

MODEL NUMBER SL-QD35

SERIAL NUMBER

Before operating this product, please read these instructions completely.

## Thank you for choosing the SL-QD35

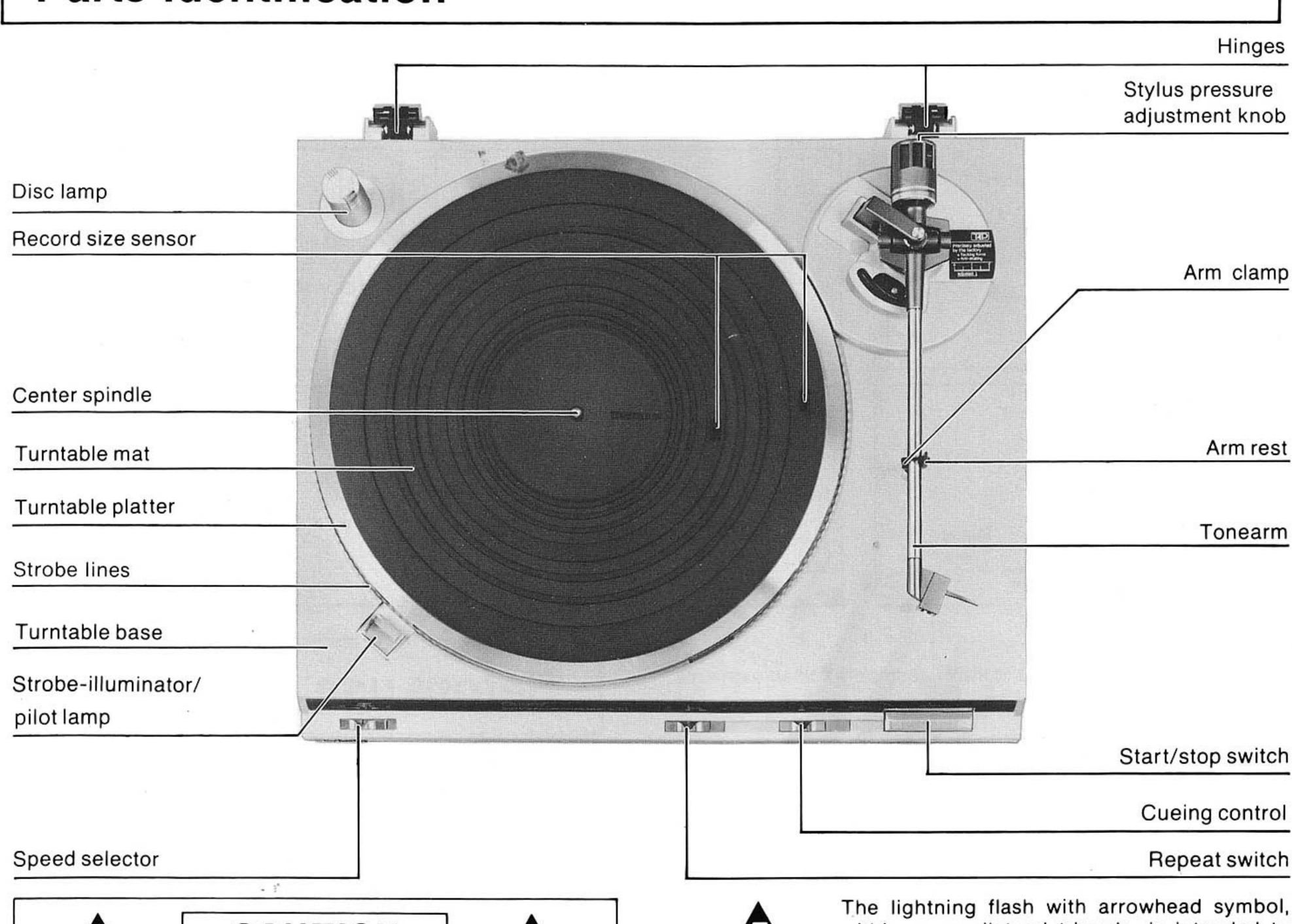
For optimum performance and safety, please read these instructions carefully.

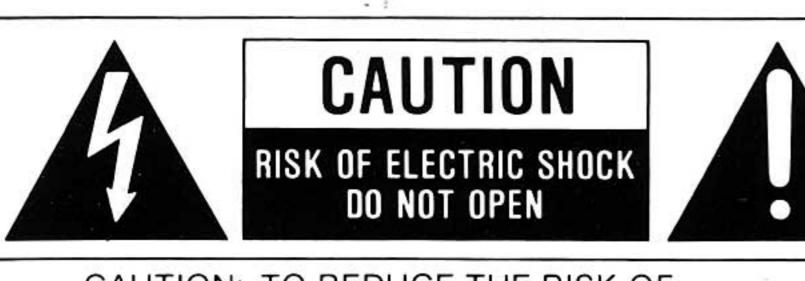
# Dear Stereo Fan

Technics. The science of sound. Our name represents a multitude of high quality audio products, in every price range. From the electronic wizardry of the Ultra-Slim Hi-Fi Component Systems to our revolutionary Honeycomb Disc Speakers, Technics has grown to become legendary among audio enthusiasts. Technics is proud to be an industry innovator in the development of digital equipment. Audio fans can choose from a selection of Digital Compact Disc Players. For those with discriminating taste, Technics offers a hi-tech digital audio cassette recorder. And, our PCM processors can turn your video cassette recorder into a high performance, dynamic stereo digital recorder. Plus, Technics pioneered the Honeycomb Disc Speaker—the ultimate speaker for handling the demands of digital audio. Our linear tracking and compact linear tracking turntables join the widely acclaimed belt drive, direct drive quartz-locked models. To add to the illustrious high performance of the turntables, Technics engineers created the TIP Plug-In Cartridge. Eliminating the tediousness of cartridge mounting, it has become an international cartridge mounting system. Technics engineering is a driving force in the effort to link audio with video. A prime example is the Stereoplex receiver which delivers high quality television sound in simulated stereo. And, Computer Driven New Class A Circuitry, the world's first use of a microcomputer to improve sound quality, in combination with most Technics receivers aids in providing a truly unique and satisfying listening experience. Technics Cassette Decks, including the auto-reverse decks, provide audiophiles with as many as three exceptional noise reduction systems—Dolby B, Dolby C\*, and dbx\*\*. The Technics list of high quality audio products continues. From multi-band equalizers to tuners, pre-amps, microphones, and Honeycomb Disc headphones, Technics is a shining example of audio technology at its best. Technics is proud of the products it develops. At Technics, we are constantly trying to improve the efficiency, handling ease, and performance of all our products to make listening not only a pleasure, but an experience for all our customers.

- \*"Dolby" and the double-D symbol are a trademark of Dolby Laboratories Licensing Corporation.
- \*\*dbx is a registered trademark of dbx, Inc.

## Parts identification





CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED

SERVICE PERSONNEL.

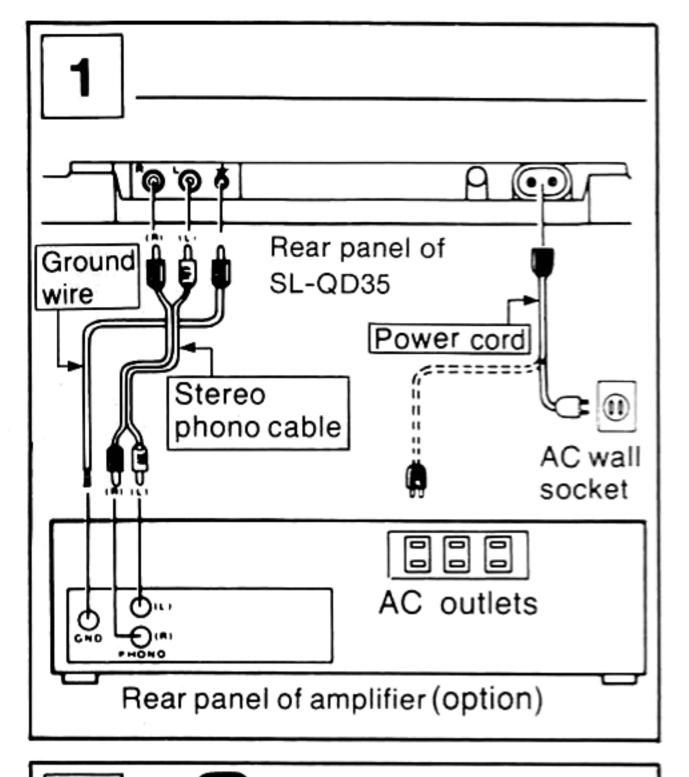


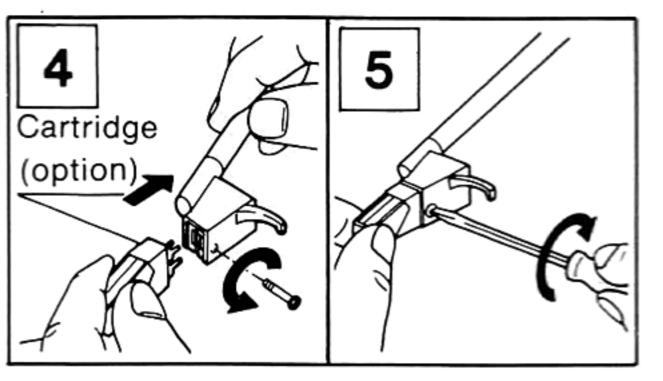
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

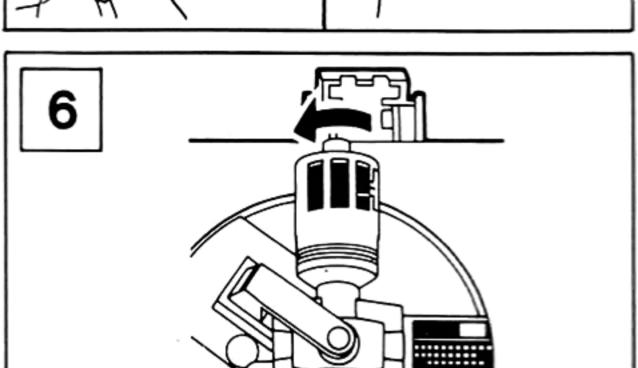


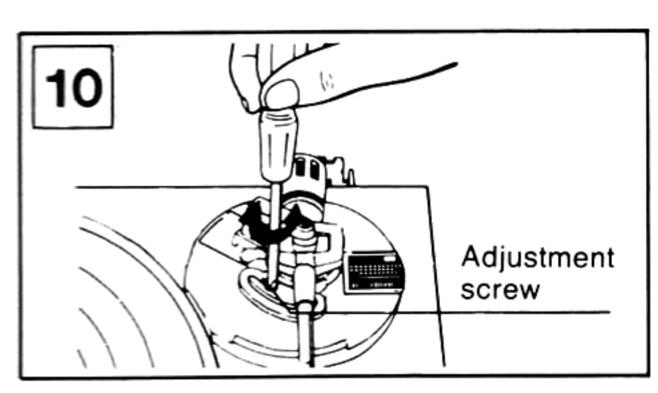
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

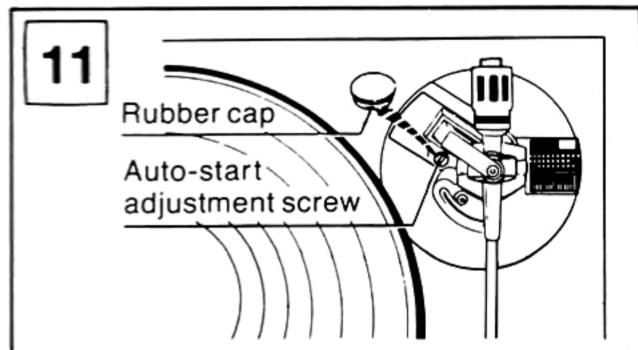
"WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture."

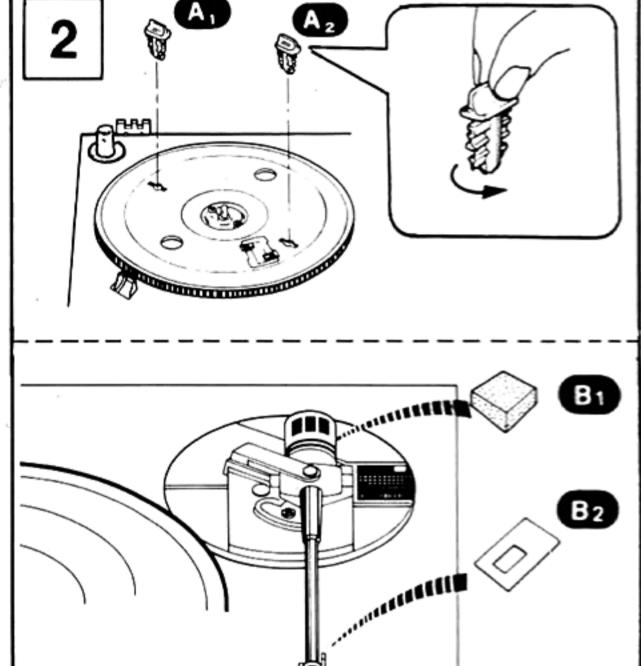


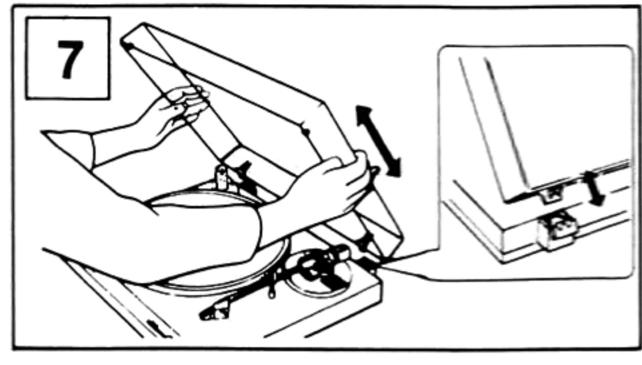


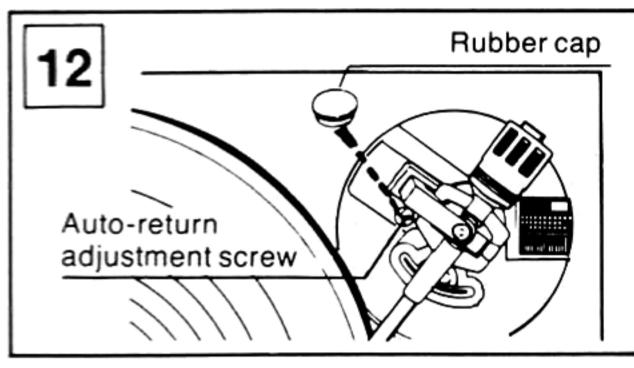


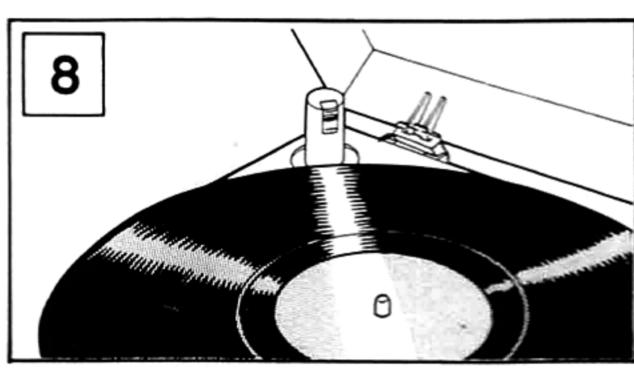


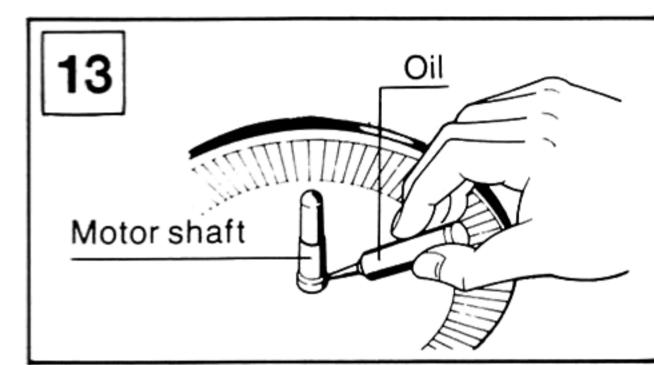


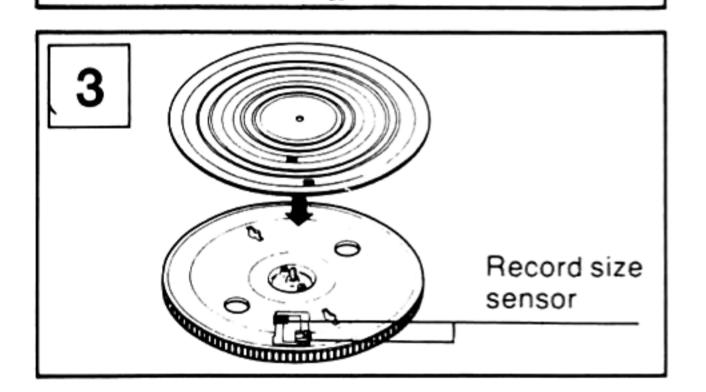


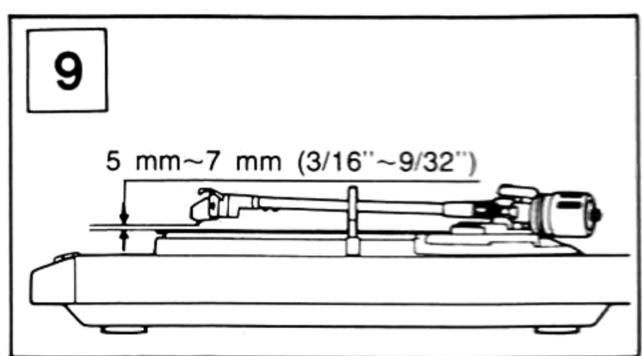


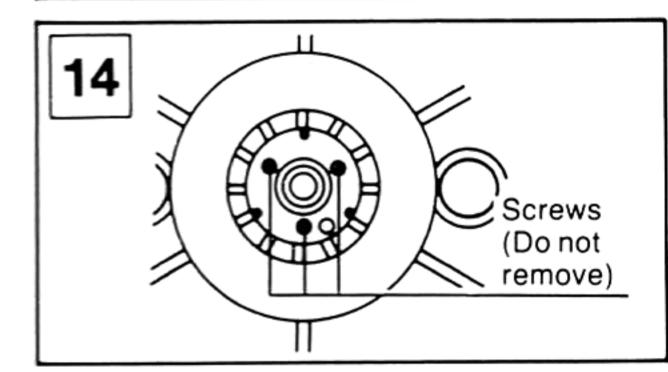












#### Caution:

 Attach the dust cover last to make assembly and adjustments easier.

#### Accessories

45-rpm adaptor				 				 							 ٠.	1
Stereo phono cable				 				 			 					1
Ground wire (GND)								 			 					1
Power cord						 			 			 				1

# **Before use**

To avoid damage due to vibration or shock incurred during shipment, this unit is packed with protective materials (A), (B). Be sure to remove these before use. Keep these materials for reuse should it become necessary to transport the turntable again.

• Remove turntable spacers A1, A2 and tonearm spacers B1, B2. (Fig. 2)

# Connections

- Use the stereo connection cable to connect the turntable to your amplifier or receiver. Be sure that the white plugs are connected to the left channel jacks and the red plugs are connected to the right channel jacks.
- Plug the ground wire into the turntable's ground jack and connect the end of the wire to the amplifier or receiver's ground (GND) screw.
  - Note that hum may occur if you neglect to connect the ground wire.
- 3. Plug the female end of the power cord into the turntable's AC IN jack and plug the other end into a wall socket. (Fig. 1)

# **Product service**

#### ■ Warning concerning removal of covers

This unit should be serviced by qualified technicians only. No service information is provided for customers.

Should your "Technics" product ever require servicing, refer to the Directory of MESCO Authorized Servicenters or your franchised "Technics" dealer for detailed instructions.

#### ■ Location of serial number

You will find the serial number located on the back or the bottom of the unit.

# **Assembly**

Place the turntable mat on the platter.

Be sure the slot in the mat is over the protrusion (record size sensor) on the platter. (Fig. 3)

#### Note:

After placing the mat on the platter, turn the platter clockwise about ten full rotations by hand.

This is necessary to assure correct operation of the automatic mechanism.

#### ■ Installation of cartridge

(An example of cartridge installation, is shown in Figs. 4 and 5.)

Plug-in cartridges are now available from Technics and many other of the world's top cartridge manufacturers. All compatible cartridges are identified by the TAP mark. These cartridges are designed for perfect matching with this turntable in all areas including weight, tracking force, stylus tip position, and center of gravity. The plug-in cartridge design eliminates the trouble of lead wire connections and tracking force adjustments.

When installing a cartridge, follow the instructions supplied with the cartridge.

- Remove the cartridge securing screw from the tonearm with a screwdriver.
- 2. Align the pins on the cartridge with the tonearm connector and push it firmly into the tonearm. (Fig. 4)
- 3. Insert and tighten the cartridge securing screw. (Fig. 5)

# About stylus pressure (tracking force)

The tracking force is already set to 1.25 g so no adjustment is necessary.

When records with a high modulation level are played or when the turntable is used where the temperature is low or in a location subject to vibrations, sound may be distorted and the stylus may skip. If this occurs, rotate the stylus-pressure adjustment knob at the rear to the "1.5" setting. (Fig. 6) If the knob is set to "1.0" the tracking force will be lighter.

#### ■ Attaching the dust cover (Fig. 7)

Hold both sides of the cover and lower it into the hinge slots. To remove the cover, open it fully and pull upward.

#### Note:

Opening or closing the cover during play may cause vibrations and groove skipping.

If you must open the cover during play, do so very gently.

# **Placement**

Place the unit in a stable and horizontal position where there is little or no vibration.

This unit features a double-isolated suspension system. To take maximum advantage of this feature, place the unit on a stable, level surface. Do not put anything between the turntable base and the surface on which it is placed.

Place the unit away from the speakers so that it will be subject to as little direct sound radiation as possible.

- Do not place the unit where it will be exposed to direct sunlight, dust, moisture or heat.
- Place it in a well ventilated location.
- If you try to listen to a radio near the turntable while it is turning, you may hear some interference.

# Operation

#### Automatic play

- 1. Place a record on the turntable mat.
- 2. Remove detachable stylus protector if fitted.
- 3. Release the arm clamp.
- 4. Set the speed selector to the correct speed.
- 5. Push the start/stop switch.

The tonearm automatically selects the record size [for 30 cm (12'') and 17 cm (7'') records only] and begins record play.

The strobe-illuminator/pilot lamp and the disc lamp will light up. (Fig. 8)

At the end of the record, the tonearm will automatically return to the arm rest and the turntable will stop.

#### Note:

The record size sensor does not operate for 25 cm (10'') records or other records of non-standard sizes.

Operate the turntable manually in such cases.

When there is no record on the turntable mat, the platter will rotate once or twice but tonearm will not move toward the center spindle.

#### ■ Repeat play

Set the repeat switch to the "on" position.

To stop repeat play, set the repeat switch to the "off" position.

#### Note:

Do not touch the repeat switch during auto-start or autoreturn operation as the repeat function will not operate properly. The setting of the repeat switch should be changed only when the tonearm is in the arm rest.

#### ■ Stopping the turntable

Push the start/stop switch.

The tonearm will return to the arm rest and the turntable will stop.

### ■ Temporarily interrupting play

Set the cueing control to the "∑" position.

This will make the tonearm rise from the record.

# ■ Playing 45-rpm records having large center holes

Place the 45-rpm adaptor over the center spindle. Set the speed selector to the "45" position.

#### ■ Manual play

- 1. Perform steps 1-4 of automatic play.
- 2. Set the cueing control to the "∑" position.
- Move the tonearm over the desired groove.
   The strobe-illuminator/pilot lamp and the disc lamp will light up and the platter will rotate.
- 4. Set the cueing control to the "∑" position. The tonearm will descend and play will begin. At the end of the record, the tonearm will automatically return to the arm rest and the turntable will stop.

#### ■ If the unit is not to be used for some time

Secure the tonearm with the arm clamp.

If the cartridge has a detachable stylus protector, replace after use.

Close the dust cover.

# Adjustments

#### ■ Arm-lift height adjustment

The arm-lift height (distance between the stylus tip and the record surface when the cueing control is at the " $\Sigma$ " position) has been adjusted at the factory to approximately 5 to 7 mm (3/16"~9/32"). (Fig. 9)

If the clearance is too narrow or too wide, turn the adjustment screw clockwise or counterclockwise. (Fig. 10)

#### Clockwise rotation

-distance between the record and stylus tip is decreased.

#### Counterclockwise rotation

-distance between the record and stylus tip is increased.

#### Adjustment of automatic start position

(Fig. 11)

#### Note:

The auto-start and auto-return adjustment screws are located together.

When the tonearm is in or near the arm rest the auto-start adjustment screw is visible (Fig. 11); when the tonearm is near the center of a record, the auto-return adjustment screw is visible. (Fig. 12)

If the stylus does not land in the lead-in groove, adjust as follows.

- 1. Clamp the tonearm to the arm rest.
- 2. Remove the rubber cap. (Fig. 11)
- 3. Turn the screw with a screwdriver, clockwise or counterclockwise as necessary.

If the stylus tip sets down too far in the recorded groove,

#### -turn counterclockwise.

If the stylus tip sets down outside of the record,

#### -turn clockwise.

Adjust so the stylus tip lands  $1 \sim 2$  mm in from the edge of the record.

#### Adjustment of automatic return position

(Fig. 12)

(Remove the rubber cap.)

- 1. Place the stylus protector on the cartridge.
- Move the tonearm toward the center of the record. The auto-return adjustment screw will appear.

If the tonearm tends to return to the arm rest before the play has finished.

#### -turn counterclockwise.

If the tonearm fails to return after the final groove,

-turn clockwise.

# Notes and maintenance

- Do not touch or hold the tonearm during automatic operation.
- Carefully remove dust and dirt from records and stylus. Dust and dirt degrade sound quality and cause excessive wear of the stylus and grooves.
- Wipe the dust cover and turntable base with a soft, dry cloth.

Never use volatile cleaners such as alcohol, benzine or thinner.

Do not use chemically treated dust cloths. Do not expose the cover to insecticide spray.

To remove stubborn spots, first pull out the AC plug and detach the cover.

Then wipe the cover with a soft cloth slightly moistened with a mild soap and water solution.

Do not wipe the cover during play, or the tonearm may be attracted toward the cover due to the generation of static electricity.

#### ■ Transporting and shipping the turntable

Pack the unit in the reverse order from unpacking. Use the original packing material if possible. Otherwise, take these steps:

- Remove the platter and mat and wrap them.
- Tape or tie the tonearm to the arm rest so it cannot shake free.
- Wrap the turntable base with a blanket or soft paper to avoid scratches or damage.

#### ■ Playing special records

Follow "Manual play" for playing the following types of records. (Special records may interfere with correct automatic operation.)

This is not a malfunction of the turntable.

 Non-standard size records [standard sizes (EIA, IEC, DIN, JIS) and 17 (7''), 25 (10'') and 30 cm (12'')].

(However, 25 cm (10'') records can not be selected automatically by the record size sensor.)

- •Sono-sheets, or light and thin records.
- Badly warped records.

#### About the strobe

This unit's strobe illuminator LED is synchronized with the quartz crystal oscillator frequency.

Use the strobe as a reference for precise speed rotation.

#### Note:

Unlike conventional units, the strobe illuminator is not synchronized with fluorescent lamps.

#### ■ Lubricating the motor shaft (Fig. 13)

Apply 2 or 3 drops of oil after every 2000 hours of operation. Note that the interval between lubrication is much longer than for conventional motors (200–500 hours).

Be sure to use only special oil (part number SFWO 010) available from your audio dealer.

#### Note:

Handle the platter carefully during assembly and be sure the rotor-magnet does not get dusty or attract iron filings. Do not remove or loosen the rotor-magnet screws.

(**Fig. 14**)
Tampering with the rotor-magnet may interfere with motor performance.

# Suggestions for safety

Before using this unit, be sure to read applicable items of the operating instructions and these safety suggestions carefully; and afterwards keep them handy for future reference Take special care to follow the warnings indicated on the unit itself as well as in the operating instructions.

- 1. Avoid places where there is water or humidity.
  - Do not use this unit near a bathtub, washbasin, swimming pool, or the like. Damp basements should also be avoided.
- 2. Do not allow water or any foreign object to get inside this unit.

Do not place small metal objects or anything containing liquid on or near the unit.

 Avoid placement of the unit where it will be exposed to the direct rays of the sun, or where ventilation is inadequate.

Do not place this unit in a bookcase or between cabinets, or where curtains or furniture may obstruct the ventilation holes.

#### 4. Place this unit away from heat-emitting appliances.

Never place this unit near a radiator, heat register, stove, or any other heat-emitting equipment (including amplifiers).

#### 5. Placement

Place the unit on a stable, vibration-free, level shelf or stand.

#### 6. Use of a cart or stand.

When deciding on a cart or stand, be sure to use only a cart or stand recommended by the manufacturer.

#### 7. Wall or ceiling installation.

If the unit is to be mounted on a wall or ceiling, be sure to do so only as recommended by the manufacturer.

#### Check the voltage rating of this unit before connecting the unit to a power supply.

Be sure to connect the unit only to the type of power supply indicated in the operating instructions, or as indicated on the unit itself.

#### 9. Care of the power cord and plug.

Take care that the cord is not bent sharply (especially near its connection to the unit or near the plug), that nothing is placed on it, and that it is not pinched or crushed. Never take hold of the plug or cord if your hand is wet, and always be sure to grasp the plug body when connecting or disconnecting it.

#### 10. If the unit will not be used for a long period of time:

Be sure to disconnect the power cord.

#### 11. Maintenance

Refer to the operating instructions for details.

#### 12. Never attempt repairs yourself:

- (a) If the power cord or plug is damaged.
- (b) If a foreign object or liquid falls into the unit.
- (c) If the unit is exposed to rain.
- (d) If the unit does not function normally, or if operation shows an unusual change.
- (e) If the unit has been dropped and the cabinet or chassis is damaged, etc.

Unplug the power cord and consult with a qualified technician (or the dealer from whom the unit was purchased or the nearest servicenter).

#### 13. Repairs

Except for adjustments explained in the operating instructions, do not attempt any repairs yourself. Be sure to request service from a qualified technician (or your dealer or nearest servicenter).

# **Specifications**

#### ■ General

Power supply:

120 V AC, 60 Hz

Power consumption:

11W

Dimensions:

 $43 \times 10 \times 37.5$  cm

(W×H×D) (16-15/16''×3-15/16''×14-3/4'') Maximum height when

dust cover is open. 43×37×41 cm

(16-15/16''×14-9/16''×16-1/8'')丿

Weight:

4.6 kg (10.1 lb)

#### ■ Turntable section

Type: Features: Quartz direct drive Automatic turntable

Auto start Auto return

Auto stop Repeat play Manual play

Drive method:

Direct drive

Motor:

Brushless DC motor

**Drive control method:** 

Quartz-phase-locked control

Turntable platter:

Aluminum die-cast

Diameter 31.2 cm (12-9/32") 33-1/3 rpm and 45 rpm

Wow and flutter:

**Turntable speeds:** 

0.012% WRMS\*

0.012 % WHMS 0.025% WRMS (JIS C5521)

±0.035% peak

(IEC 98A Weighted)

\*This rating refers to turntable assembly alone, excluding effects of record, cartridge or tonearm, but including platter.

Measured by obtaining signal from built-in frequency generator of motor assembly.

Rumble:

-56 dB (IEC 98A Unweighted)

-78 dB (IEC 98A Weighted)

■ Tonearm section

Type:

Statically balanced straight

tonearm

Plug-in connector cartridge

system

Effective length:

230 mm (9-1/16'') 15 mm (19/32'')

Overhang: Tracking error angle:

Within 2°32' at the outer groove

of 30 cm (12") record

Within 0°32' at the inner groove

of 30 cm (12") record

Effective mass:

7.5 g (without cartridge)
13.5 g (including cartridge)

Stylus pressure

adjustment range:

1.25±0.25 g

Applicable cartridge

weight:

Phono cable

6 g

capacitance: 90 pF

Specifications are subject to change without notice. Weight and dimensions are approximate.

#### **CAUTION**

This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications set forth in Subpart J of Part 15 of the FCC Rules. If this equipment does cause interference to radio or television reception which can be determined by turning the equipment on and off, use the equipment in another location and/or utilize an electrical outlet different from that used by the receiver.

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