# Turntable System **SL-1200M3D**

# **Operating Instructions**





# **Technics**<sup>®</sup>

Before connecting, operating or adjusting this product, please read these instructions completely. Please save this manual.

#### Dear customer

Thank you for purchasing this product.

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

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#### User memo:

DATE OF PURCHAS	SE
DEALER NAME	
DEALER ADDRESS	
TELEPHONE NUMB	BER

The model number and serial number of this product can be found on either the back or the bottom of the unit. Please note them in the space provided below and keep for

future reference.

MODEL NUMBER

SERIAL NUMBER

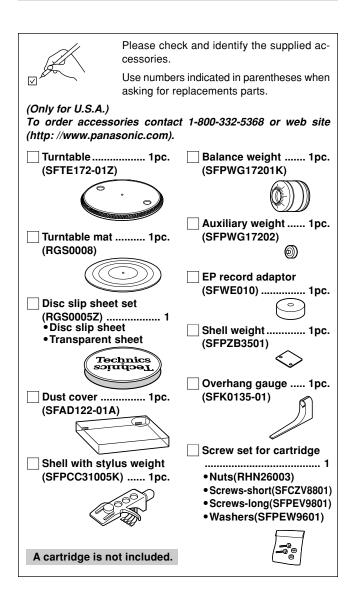
#### WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT **EXPOSE APPLIANCE** THIS TO RAIN, SPLASHING, DRIPPING OR MOISTURE.

#### CAUTION:

TO PREVENT ELECTRIC SHOCK MATCH WIDE BLADE OF PLUG TO WIDE SLOT, **FULLY INSERT.** 

# Supplied accessories



The following mark and symbols are located on bottom of the unit.



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 ap-

# IMPORTANT SAFETY INSTRUCTIONS

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the applicable safety instructions listed below. Keep these operating instructions handy for future reference.

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

- Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

#### THE FOLLOWING APPLIES ONLY IN THE U.S.A.

### **CAUTION:**

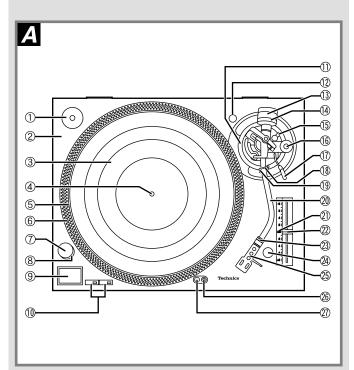
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

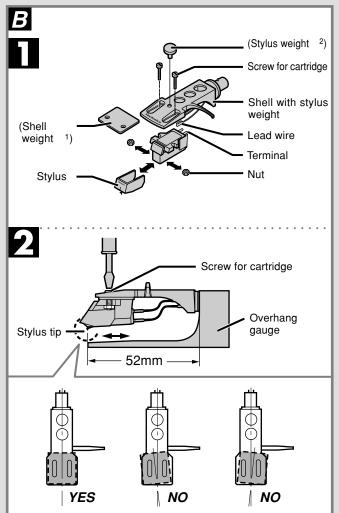
These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.





#### **Features**

A masterpiece amongst turntables with a worldwide reputation.

#### Pitch control reset button

 $\bullet$  Pitch can be instantly reset to the rated speed (33  $^{1}/_{3}$  or 45 rpm). Highly accurate turntable speed maintained continuously with a quartz pitch control

• The pitch can be varied between -8 and +8%, with accuracy maintained throughout the range.

#### The direct drive produces high torque

- Wow and flutter below 0.01%. Starting torque of 1.5 kg/cm enabling the turntable to reach 33 <sup>1</sup>/<sub>3</sub> rpm in 0.7 seconds.
- Fully electric braking system.

#### Tone arm with gimbal suspension

• The tone arm can be finely adjusted in a range of 6 millimeters with the lockable height control.

Anti-vibration design with 3 layer cabinet construction and large insulating legs.

Pop-up stylus light.

# Controls A

No	o. Name	Reference page(s)
(1)	EP record adaptor	9
	Turntable base	
3	Turntable mat (Or disc slip sheet) .	5
4	Center spindle	5
	Turntable	
	Strobe lights	
	Power switch (power)	
	Strobe illuminator/pilot lamp	
	Start/stop button (start - stop )	
	Speed select buttons (33, 45)	
	Arm-height control	
	Shell stand	
	Balance weight	
	Stylus pressure control	
	Arm lock	
	Anti-skating control	
	Cue lever	
	Arm clamp	
_	Arm rest	
	Tone arm	
	Pitch control (Pitch adj.)	
	Locking nut	
	Head shell	
	Stylus light switch	
	Stylus light	
(L)	Otylus light	9

# Preparation of the cartridge B

# Attach a cartridge (not included).

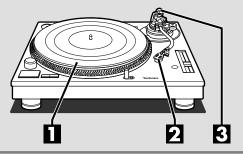
Follow the cartridge's instructions to correctly attach it to the head shell.

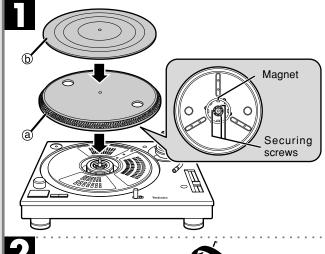
- Use the included shell weight <sup>1</sup> when using a light cartridge (3.5 to 6.5 grams).
- Use the stylus weight <sup>2</sup> to increase stylus pressure ( ⇒ page 7). Leave it off until stylus pressure has been adjusted.

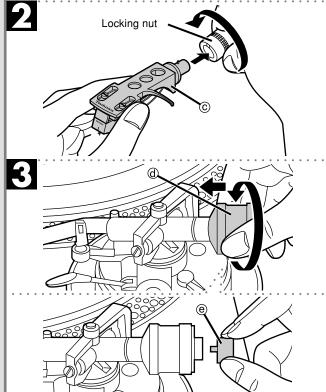
# 2 Adjust the overhang.

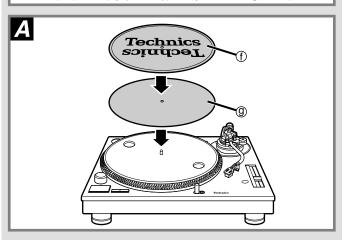
Fit the included overhang gauge to the head shell. Adjust the overhang and facing of the cartridge and tighten the screws.

- Line the point of the stylus up with the end of the gauge.
- •The cartridge should be parallel on the shell head.









# Putting the player together

Put the player together in the following order.

- Do not connect the AC power cord until set up is complete.
- Leave the dust cover off until set up and adjustments are complete.

# Fit the turntable @ and turntable mat **b**.

Put the turntable on the center spindle and then lay the mat on top.

- Be very careful when putting the turntable on the main unit.
   The magnet on the bottom of the turntable is finely adjusted and sharp contact can cause it to move and lead to poor operation. Ensure the magnet remains free from dust and iron particles.
- Do not adjust the screws attaching the magnet to the turntable. The rated performance of the unit cannot be guaranteed if the magnet is moved.

# 2 Attach the head shell ©.

Fit the head shell into the tone arm, keep it horizontal and tighten the locking nut.

# 3 Attach the balance weight @ to the rear of the tone arm.

If the cartridge weighs between 10 and 13 grams, attach the included auxiliary weight (a) to the main balance weight.

#### When the player is to be used for scratch play A

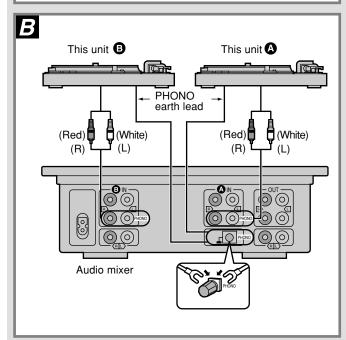
Use the disc slip sheet (f) instead of the turntable mat. This enables the record to be easily moved during play.

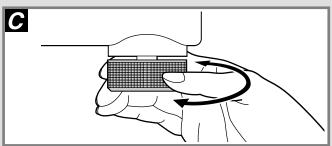
- Top (printed side): Lay the record on this side.
- Bottom: Slippery side.

#### For a different kind of slip

Put the transparent sheet (9) under the disc slip sheet.

# Amplifier(not included) This unit 111. (R) (P) PHONO (R) (L) To household AC outlet (White) PHONO earth lead Stereo cords AC120V,60Hz To phono terminals





#### **Connections and installation**

# Connecting the stereo cords and AC power cord

Connect the stereo cords and earth lead.

If the earth lead isn't connected, a hum will be heard from the AC power source.

A

#### Connect the AC power cord.

- Connect this cord only after all other connections are complete.
- Confirm the wattage of AC outlets on amplifiers and receivers before using them for this unit. This unit consumes 14 W.

# Connection to the Audio Mixer (not included)

- В
- Disconnect all units from the power source before making any con-
- Reconnect the AC power cords after all other connections are com-

#### **Installation**

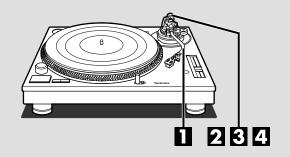
- Install the unit on a horizontal surface protected from vibrations.
- Keep this unit as far as possible from speakers.

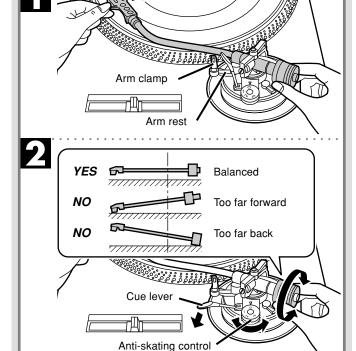
#### Note

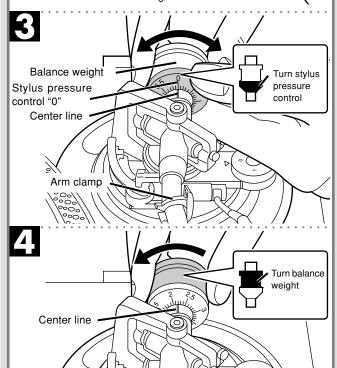
- Ensure the unit is not exposed to direct sunlight, dust, humidity, and heat from a heating appliance.
- This unit may pick up interference from a radio if there is one nearby. Keep radios as far as possible from this unit.

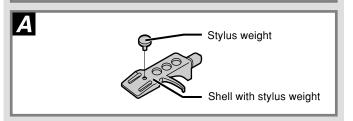
# Adjusting the height of the insulators

Place the unit where it is to be used and adjust the height of the legs to make the unit horizontal.









# **Preparatory adjustments**

#### Horizontal balance and stylus pressure

- Release the tone arm.
  - Take care with the stylus and remove its cover, then release the arm clamp.
  - 2 Free the tone arm from the arm rest.
- 2 Adjust horizontal balance
  - Push the cue lever down.
  - 2 Turn the anti-skating control to "0".
  - 3 Turn the balance weight until the arm is approximately horizontal.

Take care at this time not to allow the stylus to touch the unit.

- Turn the stylus pressure control to "0"
  - Return the tone arm to the arm rest and fix it with the arm clamp.
  - 2 Turn the stylus pressure control to "0".

Hold the balance weight still while doing this.

4 Adjust stylus pressure

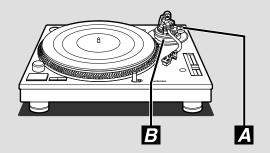
Turn the balance weight to adjust to the appropriate pressure for the cartridge you are using.

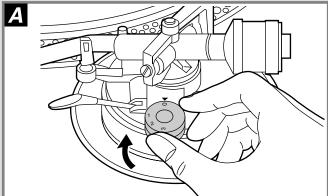
See the cartridge's instructions for recommended stylus pressure.

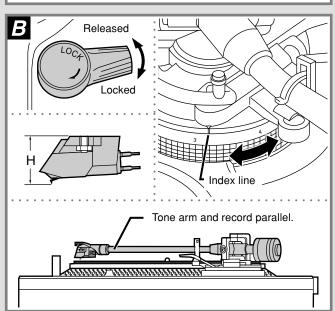
The stylus pressure control will turn at the same time. Stop when the center line points to the required pressure.

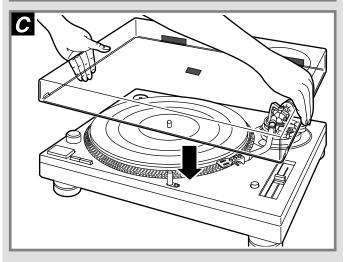
#### To increase stylus pressure for scratch play A

Use the stylus weight (included) to increase stylus pressure by 4 grams.









# **Preparatory adjustments**

# **Anti-skating**

Adjust to the same value as the stylus pressure control. If stylus pressure is over 3 grams, set this control to "3".

# Tone arm height

В

A

Release the arm lock.

Compare the height of your cartridge (H) with the following and set the arm height appropriately.

 Arm height is indicated in millimeters on the arm-height control, with marks indicating 0.5 millimeter intervals. Turn the control to the required height.

Cartridge height (H) in millimeters	Height control position
17	0
18	1
19	2
20	3
21	4
22	5
23	6

• If you do not know the height of your cartridge, rest the stylus on a record and adjust the height control until the tone arm is parallel with the record.

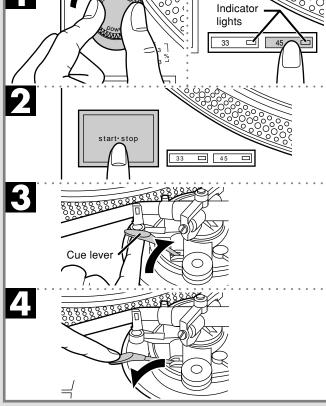
**S**Lock the arm after adjusting the height.

# Fit the dust cover

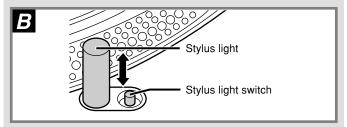
C

Hold the dust cover with both hands and fit it over the player from directly above.









# Playing records

#### Preparation

- **1** Put a record on the turntable.
- 2 Take off the stylus cover and release the arm clamp.

# Turn [power] to turn the unit on.

- •The pilot lamp comes on.
- •33 ½ rpm is automatically selected and the indicator lights.
- Press [45] if you are playing a 45 rpm record.

# Press [start-stop].

The turntable starts revolving.

# Lift the cue lever and move the tone arm over the record.

# 4 Lower the cue lever.

The tone arm moves down and play starts.

#### When play finishes

- Lift the cue lever and move the tone arm back to the arm rest.
- Press [start-stop].

The electronic brake gently stops the turntable.

- 3 Turn [power] to turn the unit off.
- Clamp the tone arm and put the stylus cover back on.

#### To temporarily stop play

Lift the cue lever.

The stylus lifts off the record.

#### When using EP records

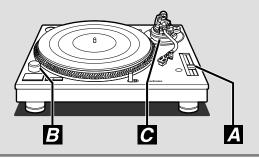
- Take the adaptor out of its holder A and fit it over the center spindle.
- 2 Press [45] to change the speed.

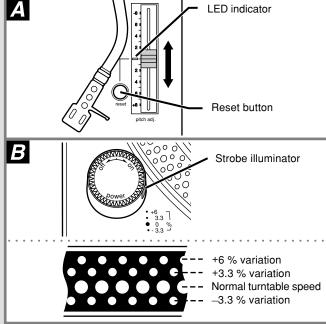
#### To light up the stylus 🖪

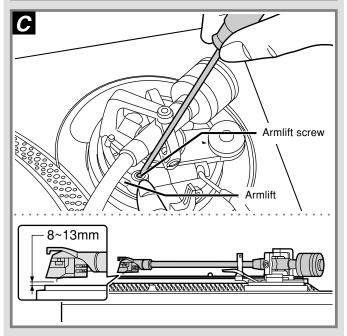
- Press the stylus light switch. The light rises up and illuminates the stylus
- When the light is not required, press it down. The light also goes out.

#### Note

Press the switch firmly. If the switch is lightly pressed, the light may come on but not rise up.







# Adjustments while using the unit

#### Pitch control

Fine adjustment to the number of revolutions per minute.

# Slide [pitch adj.] while the turntable is revolving.

Move the indicator to the required position.

- The numbers represent approximate percentages.
- Pitch can be adjusted between -8% to +8%.

#### To reset pitch to the preset value

Press [reset].

The green lamp lights and the pitch immediately returns to the set value (33  $^{1}$ /<sub>3</sub> or 45 rpm), regardless of any adjustments made with [pitch adj.].

Press [reset] again and pitch returns to the adjusted value.

#### To measure pitch **B**

The four rows of metal circles around the edge of the turntable can assist you in measuring pitch.

They are lit by the strobo light as they pass and each row appears to stand still at a different pitch.

Avoid using fluorescent light while measuring pitch. The timing will be put out and accuracy will be affected.

# **Armlift height**

С

A

#### **Preparation**

1 Put a record on the turntable.

2 Take off the stylus cover and release the arm clamp.

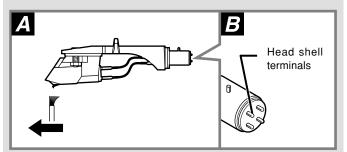
#### Use a screwdriver to turn the armlift screw.

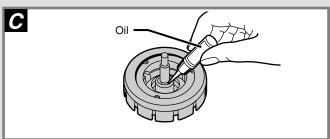
Make this adjustment only if the cartridge you are using makes it necessary.

- Turning the screw clockwise lowers the armlift.
- Turning the screw anti-clockwise raises the armlift.

#### Note

Armlift height (the distance between the record and stylus when the cue lever is raised) is set to between 8 and 13 millimeters at time of shipment.





#### **Maintenance**

#### Care of the parts

#### To clean this unit, wipe with a soft, dry cloth.

If the surfaces are extremely dirty, use a soft cloth dipped in a soapand-water solution or a weak detergent solution.

- Never use alcohol, paint thinner, or benzine to clean this unit.
- Before using chemically impregnated cloth, read the instructions that came with the cloth carefully.

#### Note

Do not wipe the dust cover while playing a record.

This can cause static electricity. This static can cause the tone arm to be attracted towards the cover.

#### Thoroughly clean dust off the stylus and record.

- Use a soft brush to clean the stylus. Brush from the base to the tip.
- •Use a good quality record cleaner to keep your records clean.

#### Wipe the head shell terminals occasionally E

Use a soft cloth. Turn the amplifier off before fitting or removing the head shell.

- Damage to your speakers can occur if the head shell is moved while the volume is turned up.
- Leave the stylus cover on while handling the head shell to prevent damaging the stylus.

#### Oiling the center spindle.

Apply 2 or 3 drops every 2000 hours of operation. Use SFW0010 oil (not included).

#### Moving the unit

#### Repackage the unit in the packaging it came in.

If you no longer have the packaging, do the following:

- Return the tone arm to the arm rest and tape it in place.
- Remove the balance weight and head shell from the tone arm and carefully wrap them.
- Take off the turntable and turntable mat and carefully wrap them.
- Carefully wrap the main unit in a blanket or paper.

#### **Product service**

Do not attempt to remove the cover(s) or repair the unit yourself. Refer servicing to qualified personnel only.

#### **Product information**

For product service, product information or assistance with product operation, refer to the servicenter directory.

# Troubleshooting guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the directory of Authorized Service Centers (enclosed with this unit) to locate a convenient service center, or consult your dealer for instructions.

For detailed instructions, contact an authorized servicenter in the U.S.A. and Panasonic Canada Inc. Customer Care Centre in Canada.

In the U.S.A.1-800-211-7262 or web site (http://www.panasonic.com)
In Canada 905-624-5505 or web site (www.panasonic.ca)

Problem	Probable cause(s)	Suggested remedy	Reference page(s)
No power.	Is the AC power cord plugged in?	Plug the cord in firmly.	6
There is power but no sound.	Are connections to the amplifier or receiver correct?	Double check all connections.	6
Left and right sounds are reversed.	Are the stereo cord connections to the amplifier or receiver reversed?	Double check all connections.	6
Humming heard during play.	Are there other appliances or their power cords from this unit.  Separate the appliances and their power cords from this unit.		
	Is the earth lead connected?	Make sure the earth lead is correctly connected.	6

# **Technical specifications**

Turntahi	le section

**Turntable speeds** 

Type Quartz direct drive
Manual turntable
Drive method Direct drive
Motor Brushless DC motor
Turntable platter Aluminum diecast

Diameter 33.2 cm (13-5/64")

Weight 1.7 kg (3.74 lb.) 33-1/3 rpm 45 rpm

Starting torque 1.5 kg·cm (1.3 lb·in)

Build-up characteristics 0.7 s. from standstill to 33-1/3 rpm

Braking system Electronic brake

Wow and flutter 0.01 % WRMS 0.025 % WRMS (JIS C5521)

±0.035 % peak (IEC 98A Weighted)

Rumble —56 dB (IEC 98A Unweighted)

-78 dB (IEC 98A Weighted)
This rating refers to turntable assembly alone, excluding effects

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.

#### General

Power supply AC 120 V, 60 Hz
Power consumption 14 W
Dimensions (W×H×D) 45.3 × 16.2 × 35.3 cm
(17-27/32" × 6-12/32" × 13-29/32")

Weight 12 kg (26.4 lb)

#### **Tonearm section**

Type Universal

Effective length 230 mm (9-1/16")

Arm height adjustment range 0 - 6 mm

Overhang 15 mm (19/32")

Effective mass 12 g (without cartridge)

Offset angle 22°

Friction Less than 7 mg (lateral, vertical)

Tracking error angle

 $\label{eq:within 2° 32'} \mbox{ (at the outer groove of 30 cm (12") record} \\ \mbox{Within 0° 32' (at the inner groove of 30 cm (12") record} \\ \mbox{Stylus pressure adjustment range} \mbox{ 0 - 4 g}$ 

Applicable cartridge weight range 3.5-13 g11-20.5 g (including headshell)

(with auxiliary weight) 9.5 – 13 g 17 – 20.5 g (including headshell)

(with shell weight) 3.5 – 6.5 g

#### Note

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



This manual was printed with soy based ink.

Panasonic Consumer Electronics Company, Division of Panasonic Corporation of North America

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