



audio-technica

AT-LP70X

Automatic Belt-Drive Turntable

User Manual

English

Introduction

This product can be used only in the countries where the product is sold. Make sure that the operating voltage and the plug of AC adapter of the product are correct for the country you live in.

Safety precautions

Although this product was designed to be used safely, failing to use it correctly may result in an accident. To ensure safety, observe all warnings and cautions while using the product.

Important information

Warning

To prevent fire or shock hazard, do not expose this apparatus to rain or moisture.

Caution

- Do not expose this apparatus to drips or splashes.
- To avoid electric shock, do not open the cabinet.
- Refer servicing to qualified personnel only.
- Do not expose this apparatus to excessive heat such as sunshine, fire or the like.
- Do not subject this apparatus to strong impact.
- This apparatus should be located close enough to the AC outlet so that you can easily grasp the AC adapter at any time.
- In case of emergency, disconnect the AC adapter quickly.
- Do not place any objects filled with liquids, such as vases, on this apparatus.
- To prevent fire, do not place any naked flame sources (such as lighted candles) on this apparatus.
- Do not install this apparatus in a confined space such as a bookcase or similar unit.
- Install this apparatus only in the place where ventilation is good.
- The rating label is put on the bottom of this apparatus.

For customers in the USA

FCC Notice

Warning

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.

Caution

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Safety precautions

Note: 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 or more 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.

Contact

Responsible Company: Audio-Technica U.S., Inc.
Address: 1221 Commerce Drive, Stow, Ohio 44224, USA
Tel: 330-686-2600

For customers in Canada

ISED statement

CAN ICES-003 (B)/NMB-003(B)

Notes on use

Turntable body

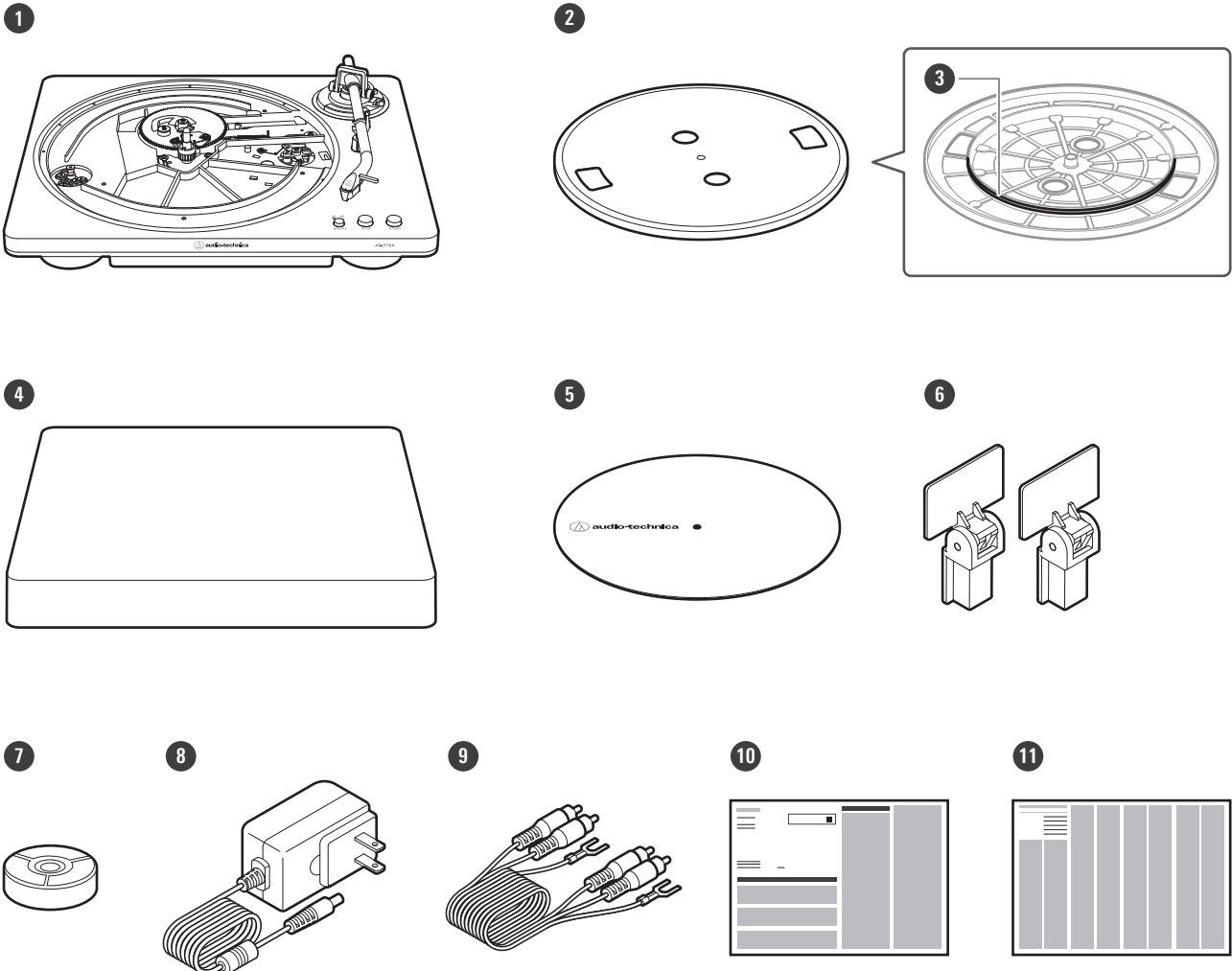
- Do not set and use the product in locations that are considerably hot or humid, dirty, or subject to extreme vibrations.
- The product should be positioned on a flat, level surface.
- When opening or closing the dust cover, do so slowly. When closing the dust cover, close it completely.

Replacement stylus

- The stylus is extremely delicate. Handle with care.
- To protect the stylus, attach the provided protector to the replacement stylus when the product is not in use.
- Do not touch the stylus with your finger.
- Do not hit or drop the stylus against the platter, felt mat, or record edges.
- Be sure to attach the protector before placing the replacement stylus on the floor or a desk. Do not place the stylus against the floor or a desk. Doing so could damage, chip, or break the stylus.
- The replacement stylus for this product is not intended for DJs. Do not operate the product in any way that may damage the stylus, such as scratching (rubbing the record on the turntable by hand to produce sound).
- Do not apply lateral force to the stylus while it is on the record. Doing so could damage, chip, or break the stylus tip. The record could also be damaged.

Package contents

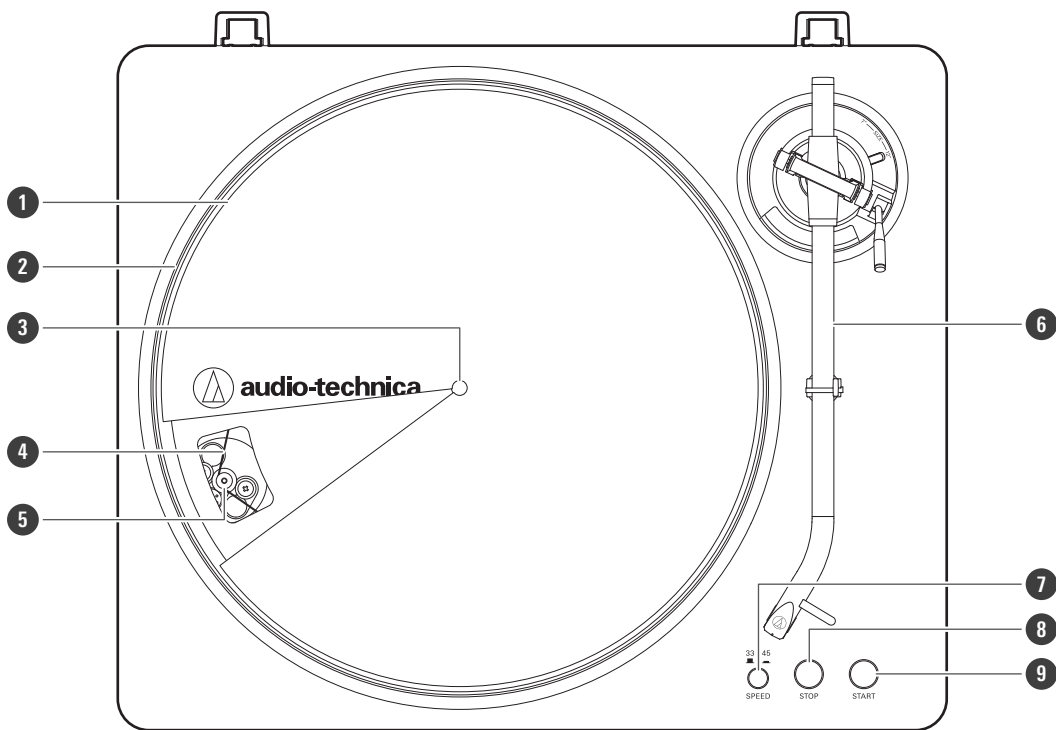
- Make sure that you have all the included items before using this product.
- If some items are missing or damaged, contact your local Audio-Technica dealer.
- After purchase, we suggest that you save all packaging materials for possible future storage, moving, or shipping.



- 1 Turntable body
- 2 Platter
- 3 Drive belt
- 4 Dust cover
- 5 Felt mat
- 6 Dust cover hinges
- 7 45 RPM adapter
- 8 AC Adapter
- 9 RCA audio cable (Approx. 1.0 m (3.3'))
- 10 Quick Start Guide
- 11 Caution Guide

Part names and functions

Top view



1 Felt mat

2 Platter

3 Spindle

4 Drive belt

5 Motor pulley (brass-colored)

6 Tonearm

7 Platter speed button

Select the platter speed (33-1/3 or 45 RPM).

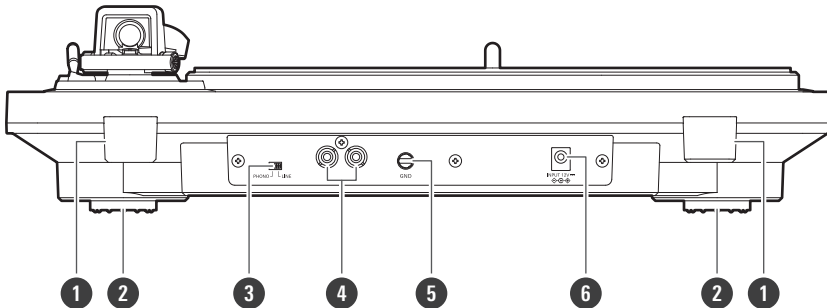
8 STOP button

Returns the tonearm to its original position and stops the platter.

9 START button

Spins the platter and moves the tonearm.

Rear view



1 Dust cover hinge holders

Attachment points for dust cover hinges.

2 Feet

3 Pre-amplifier selector switch

If connecting to an amplifier's PHONO input jack, set this switch to the PHONO position. If connecting to the LINE/AUX jack of an amplifier, set this switch to the LINE position.

4 Stereo output terminals

Connect the RCA audio cable. Connect it to either the amplifier's PHONO input jack or its line input jack. The red terminal is the right channel and the white terminal is the left channel.

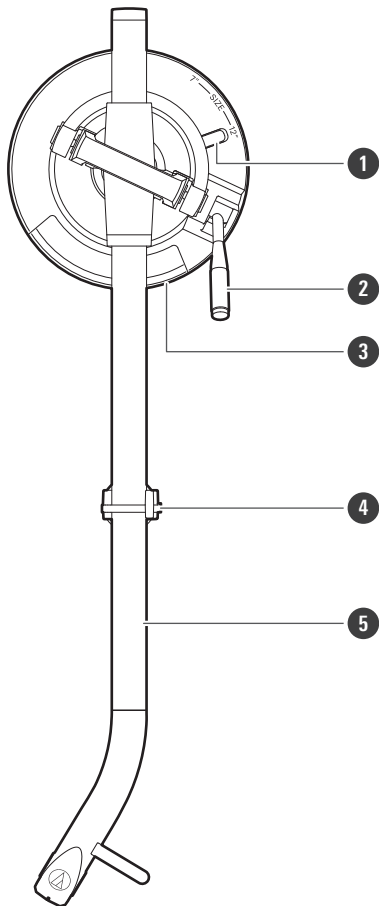
5 Ground (earth) terminal

Connect the amplifier's ground (earth) terminal to this terminal using the RCA audio cable's ground line.

6 Power input jack

Connect the AC adapter.

Tonearm

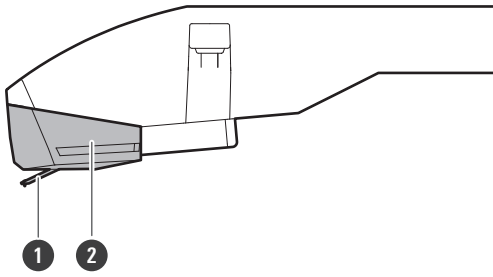


- 1 Size selector**
Switch between 12" and 7", according to the size of the record.
- 2 Tonearm lift control lever**
Operates the tonearm lift.
- 3 Tonearm lift**
Moves the tonearm vertically to and from the face of the record.
- 4 Tonearm rest with clamp**
Use the clamp to secure the tonearm so that it does not move.
- 5 Tonearm**

Cartridge

This product is equipped with an AT-VM95C Dual Moving Magnet Stereo Cartridge. The cartridge cannot be removed.

Part names and functions



1 Stylus

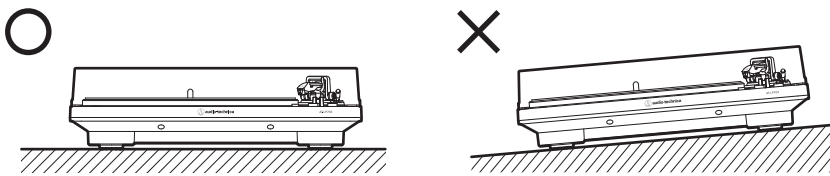
The stylus is extremely delicate. Handle with care.

2 Replacement stylus

Preparation for use

Setting up the turntable

- Position the product on a level surface.
- To avoid the effects of vibrations and acoustic pressure, do not mount the product next to such items as speakers.
- The product may pick up radio static if placed next to a radio. Therefore, try to keep the product away from radios.
- If the product is near equipment (cell phone, etc.) that emits strong radio waves, noise may occur.

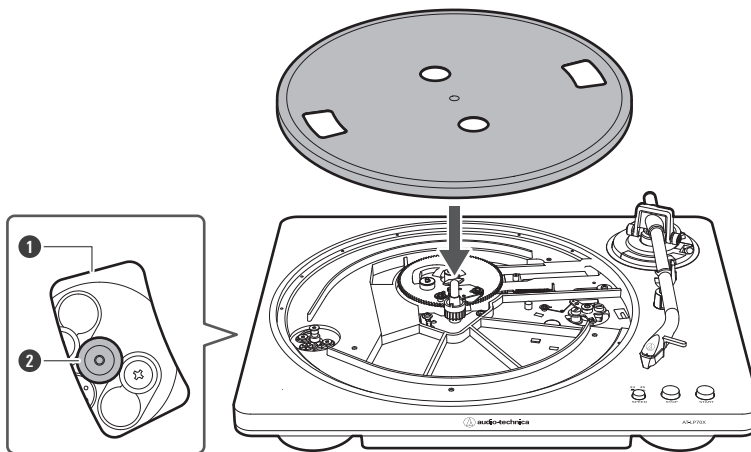


Placing the platter and the felt mat

This product requires some assembly before using it for the first time. Do not connect the AC adapter until assembly is complete.

1 Set the platter on the spindle.

- To avoid damaging the spindle when seating the platter, align the positions of the spindle and the platter's hole, and then slowly seat the platter.
- Align one of the openings with the position of the motor pulley (brass-colored).
- Make certain that the platter is fully seated on the spindle.

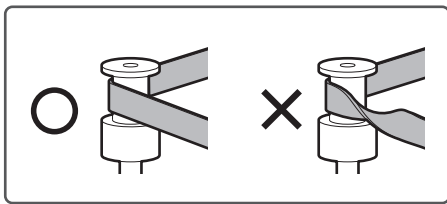
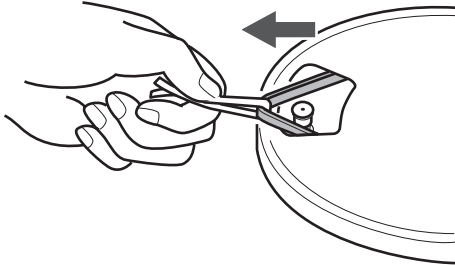


- ① Opening
- ② Motor pulley (brass-colored)

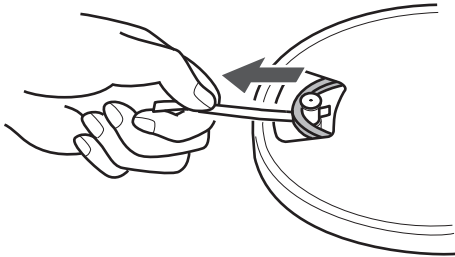
2 Attach the drive belt to the motor pulley (brass-colored).

Preparation for use

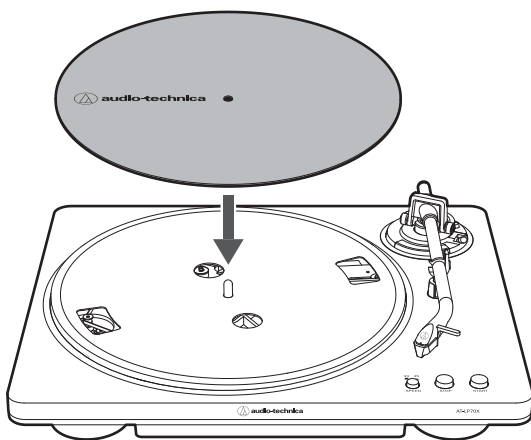
- Align one of the platter openings with the motor pulley (brass-colored), and, while pulling both ends of the red ribbon that comes attached to the drive belt, place the drive belt on the motor pulley (brass-colored), as per the diagram. When doing this, be careful not to twist the drive belt.



3 Remove the red ribbon from the drive belt.



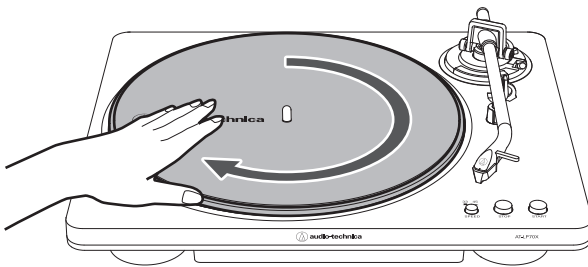
4 Set the felt mat on the platter.



Rotating the platter

- 1 Remove the vinyl tie securing the tonearm. Release the tonearm rest clamp and lift the tonearm with the lift control lever. Slowly rotate the turntable ten times by hand in the direction of the arrow.**

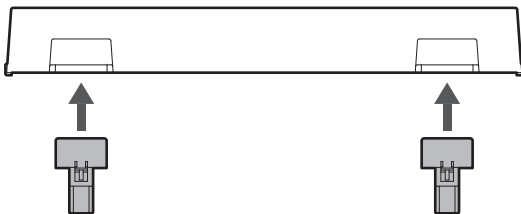
- You may want to hold the tonearm to prevent it from moving. This step is for resetting the auto mechanism, getting rid of any twists in the drive belt, and making sure the drive belt rides smoothly along the drive rim on the underside of the platter.



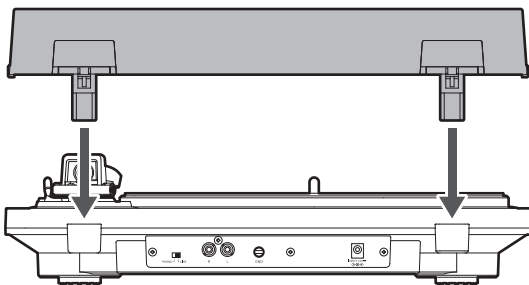
Installing the dust cover

The dust cover is designed to protect the product's sensitive components when the product is not in use.

- 1 Attach the dust cover hinges to the dust cover.**



- 2 Insert the hinges of the dust cover into the two dust cover hinge holders on the back of the body.**



- When removing the dust cover, slowly pull the dust cover out from the dust cover hinge holders on the body.

Using the product

Align the settings for the pre-amplifier selector switch and connect the RCA audio cable to an input jack on the connectable equipment you are using (amplifier, receiver, active speakers, sound card, etc.).

Setting pre-amplifier selector switch

- This product has a built-in phono equalizer function. Even if you do not have a phono amplifier or connectable equipment with a built-in phono amplifier, the product can be used by connecting active speakers, etc.
- Use the pre-amplifier selector switch to set the output, as shown below.

Device with PHONO input

Position of pre-amplifier selector switch	Where to connect the RCA audio cable
PHONO	Phono input jack and ground (earth) terminal of connectable equipment

Device without PHONO input

Position of pre-amplifier selector switch	Where to connect the RCA audio cable
LINE	AUX or line input jack of connectable equipment

PC sound card

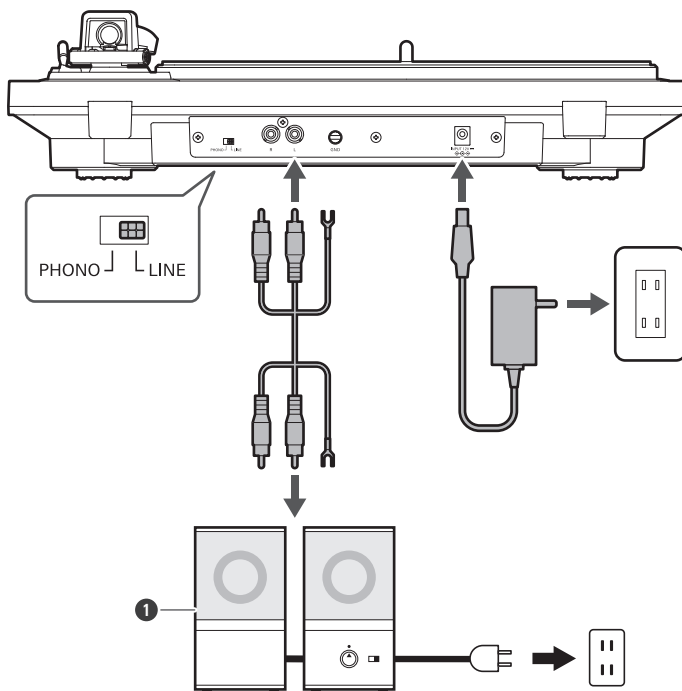
Position of pre-amplifier selector switch	Where to connect the RCA audio cable
LINE	Sound card's LINE input jack ^[1]

[1] An audio adapter (sold separately) may be required to connect the RCA audio cable to the PC sound card's line input jack.

Connecting to active (built-in amplifier) speakers

- Use active speakers when directly connecting this product to speakers.
- Some active speakers may need to be connected using conversion cables, etc.

Using the product



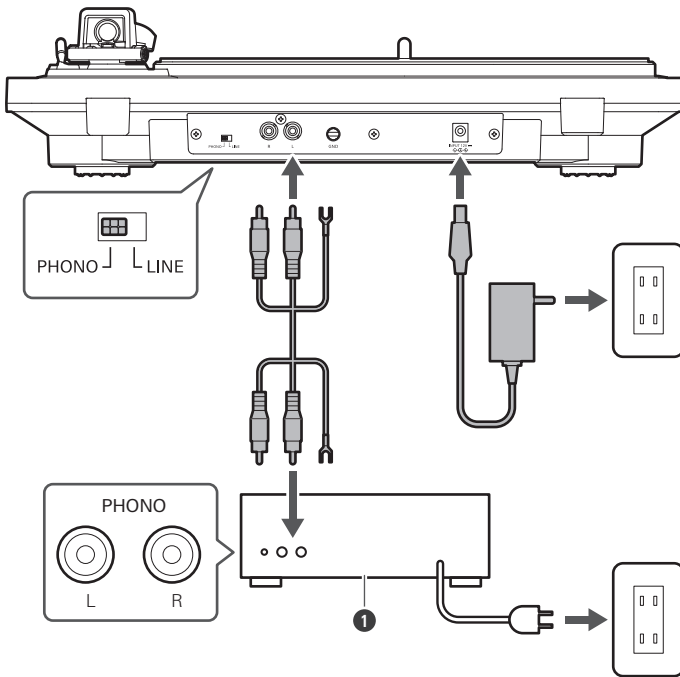
① Active speakers

Connecting to connectable equipment (amplifiers, etc.)

The RCA audio cable's red jack is for the right (R) channel, and the white jack is for the left (L) channel.

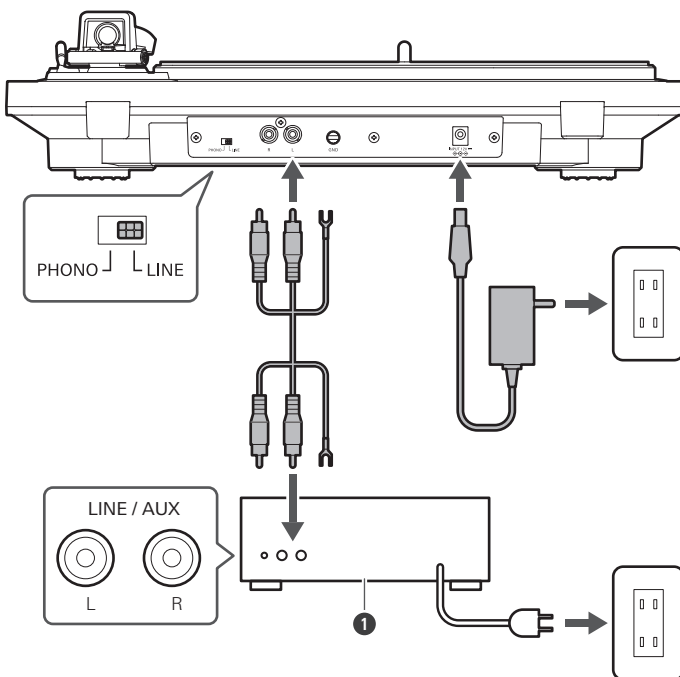
Using the product

With PHONO input



1 Connectable equipment (amplifier, etc.)

Without PHONO input



1 Connectable equipment (amplifier, etc.)

Using the product



- Depending on the equipment you are connecting, a ground (earth) terminal may exist near the PHONO input jack. If this is the case, connect to it using the ground line from the RCA audio cable. This will help prevent a low humming noise that might otherwise be heard during playback.

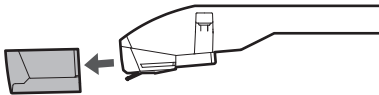
Before playing a record

1 Plug the AC adapter into an outlet.

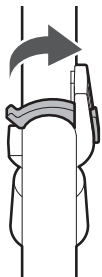
- This product does not have a power switch. A standby current is always running through the product, even when it is not being used; disconnect the AC adapter from the outlet when not using the product for a long period of time.
- Plug the AC adapter into an outlet without removing the replacement stylus protector. If the platter has rotated, press the STOP button without touching the tonearm, and then wait until the tonearm returns to its original position.
- If you play a record immediately after plugging the AC adapter into an outlet, the sound that is played may be garbled. Wait a short time (about 30 seconds) after plugging the AC adapter into the outlet before playing a record.

2 Remove the replacement stylus protector.

- Pull the protector straight forward to remove it.
- Applying a downward force may cause the replacement stylus to come off the body. If the replacement stylus has come off or is about to come off, refer to "Replacing the stylus" (p. 23) to reattach the stylus correctly.



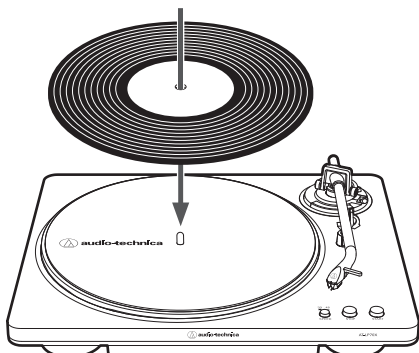
3 Release the tonearm rest clamp.



4 Place the record on the felt mat so that the center hole aligns with the spindle.

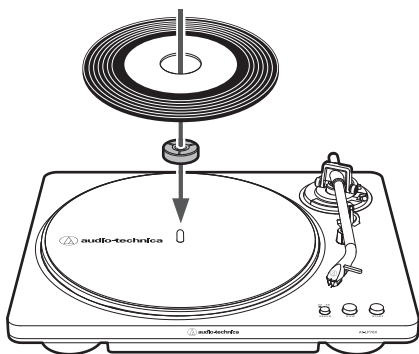
Using the product

At 33-1/3 RPM



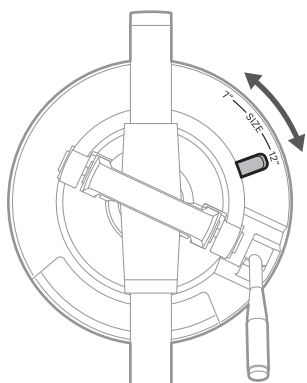
At 45 RPM

To play a 45 RPM record, attach the 45 RPM adapter.



5 Select the record size with the size selector.

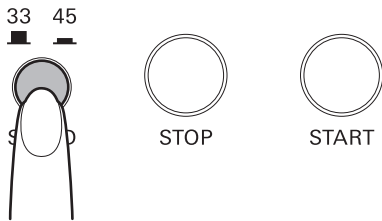
- Select "12"" for an LP record with a 12" diameter, and "7"" for a 45 RPM record with a 7" diameter.
- Make sure the platter is stopped before switching the size selector for a different record size.



6 Select the speed by pressing the platter speed button.

Using the product

- Select “33” to play 33-1/3 RPM records or “45” to play 45 RPM records.

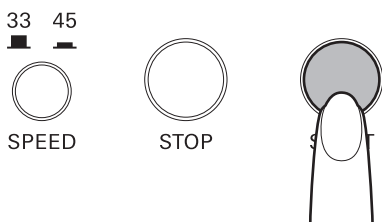


Automatic operation

Lower the volume of the amplifier, active speakers, etc. sufficiently.

1 Press the **START** button.

- Do not subject the product to strong impact during playback.
- Do not switch the record size selection while the record is playing. Doing so can cause the product to malfunction.



» **Play begins.**



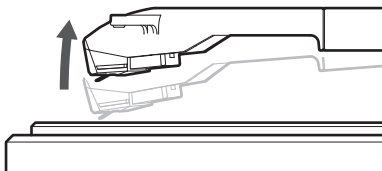
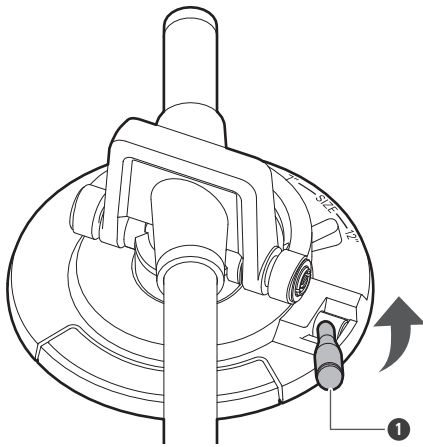
- Automatic operation may not work with the start or end of songs on some records.

Manual operation

Lower the volume of the amplifier, active speakers, etc. sufficiently.

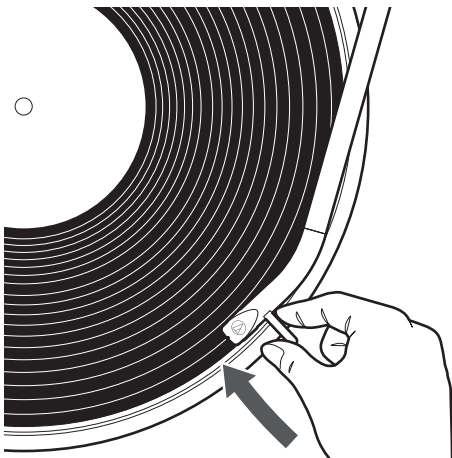
1 Raise the tonearm by lifting the tonearm lift control lever to the **UP** position.

Using the product



1 Tonearm lift control lever

2 Position the tonearm over the desired location (groove) on the record.



3 Slowly lower the tonearm by moving the tonearm lift control lever to the DOWN position.

- Alternatively, you can skip steps 1 and 2, and use your fingers to lift the tonearm and move it over the desired location on the record, and then slowly place the tonearm down to begin playing the record.
- Lower the tonearm slowly so that it does not drop. Doing so could damage the stylus tip.
- Do not subject the product to strong impact during playback.

Using the product

- Do not switch the record size selection while the record is playing. Doing so can cause the product to malfunction.

» **The tonearm descends slowly onto the record and play begins.**

Pausing the record

- 1 Lower the volume of the amplifier, active speakers, etc. sufficiently.**
- 2 Raise the tonearm lift control lever to lift the tonearm.**

Stopping the record

Once the record has played through to the end, the tonearm will automatically return to the tonearm rest. To stop a record that is currently playing, perform the following.

- The tonearm may not automatically return to the tonearm rest with some records.

- 1 Lower the volume of the amplifier, active speakers, etc. sufficiently.**
- 2 Press the STOP button.**
 - Once the record stops playing, the tonearm will automatically return to the tonearm rest.
- 3 Remove the record after the platter has come to a complete stop.**
- 4 Close the tonearm rest clamp.**
 - Make sure the tonearm lift control lever is lowered before closing the tonearm rest clamp.
- 5 Attach the protector.**

Using the product



- When the tonearm reaches the end (center) of the record, it will automatically lift and return to the tonearm rest. Do not interfere with its motion. Doing so can cause the product to malfunction. If the tonearm does not lift and return to the tonearm rest, press the STOP button to complete this operation.
- If the felt mat gets dirty, it can easily scratch the record, so remove the felt mat periodically and wipe off any dust.
- To prevent the record from becoming scratched or warped, remove it after use.
- Do not use a disk stabilizer.
- Do not use a platter other than the one provided.
- This product is not intended for DJs. Do not touch the record or the platter while the record is playing. Do not operate the product in any way that may damage the stylus, such as scratching (rubbing the record on the turntable by hand to produce sound).
- Do not apply lateral force to the stylus while it is on the record. Doing so could damage, chip, or break the stylus tip. The record could also be damaged.

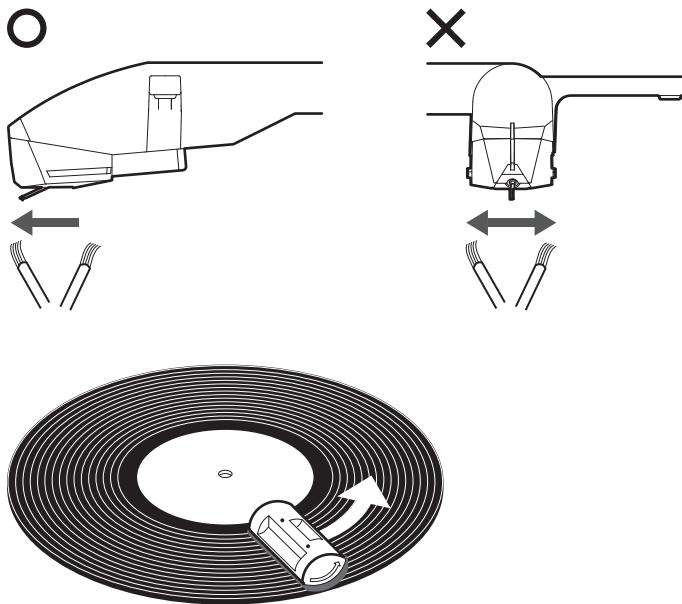
Care

Turntable body

- When the turntable body is dirty or dusty, disconnect the AC adapter, and then wipe off the dirt and dust with a soft, dry cloth.
- Do not use benzenes, thinners, etc.
- If the felt mat gets dirty, it can easily scratch the record, so remove the felt mat periodically and wipe off any dust.
- When storing the product for a long time, disconnect the AC adapter from the outlet and wrap the equipment in plastic; do not allow it to become damp.

Cleaning the stylus tip / record

- If dirt and grime are stuck to the stylus tip, clean it as needed. To clean the stylus, disconnect the AC adapter from the outlet.
- We recommend using a stylus cleaner (sold separately by Audio-Technica) if the stylus tip is considerably dirty. Clean the stylus tip by moving the brush from the rear to the front of the stylus tip.
- For more details on record and stylus cleaners (sold separately by Audio-Technica), please visit the Audio-Technica website (<https://www.audio-technica.com/>).

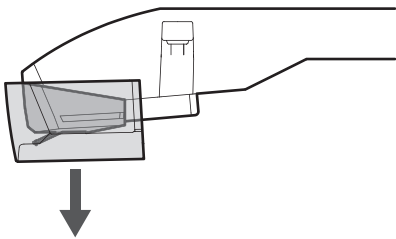


Replacing the stylus

Removing the stylus

- In addition to the deterioration of sound quality, records may also be damaged as the stylus tip wears down.
- As a rule of thumb, replace the stylus after 300 hours of use.
- Be sure to disconnect the product's AC adapter from the outlet.
- When replacing the stylus, hold the tonearm and replacement stylus firmly.

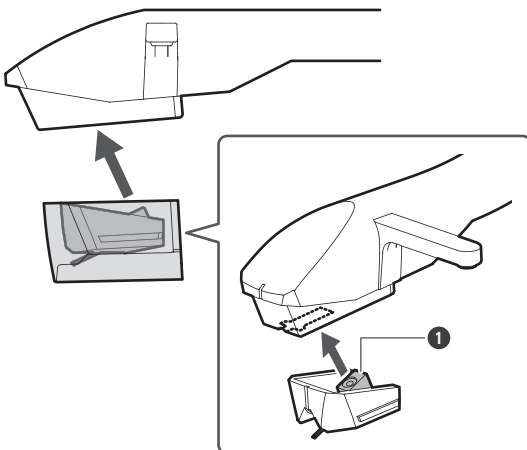
1 Remove the stylus by pulling it in the direction of the arrow with the protector attached.



- Do not touch the replacement stylus cantilever or stylus tip to a magnet.
- Be careful not to hit the replacement stylus on the turntable body, platter, or other object.

Installing a new replacement stylus

1 Align the protruding part of the replacement stylus and push it into place in the direction of the arrow.



1 Protruding part

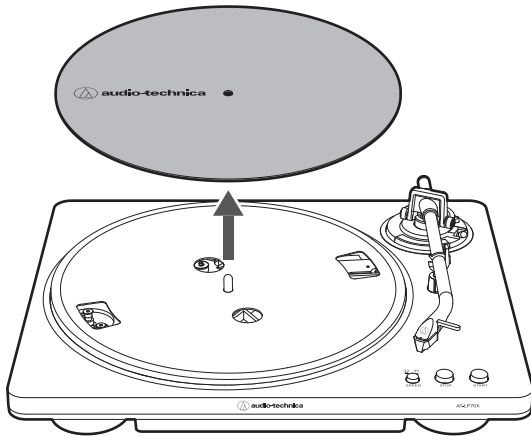


- Do not touch the replacement stylus cantilever or stylus tip to a magnet.
- Be careful not to hit the replacement stylus on the turntable body, platter, or other object.

Replacing the drive belt

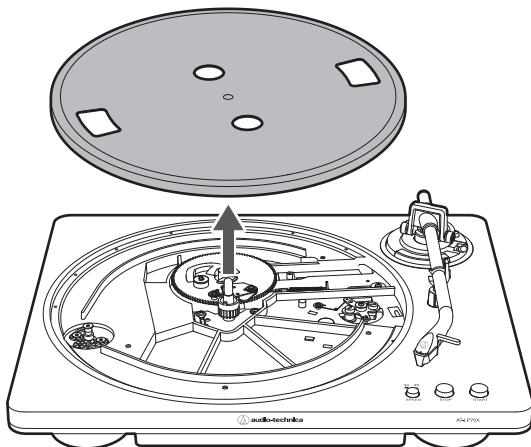
- The drive belt is a consumable part. Replace the drive belt if the speed of playback slows down or irregular rotation occurs. As a rule of thumb, we suggest replacing the belt once a year.
- Before replacing the drive belt, first disconnect the product's AC adapter from the outlet.

1 Remove the felt mat.



2 Remove the drive belt from the motor pulley (brass-colored), remove the platter, and then turn the platter over and remove the old drive belt.

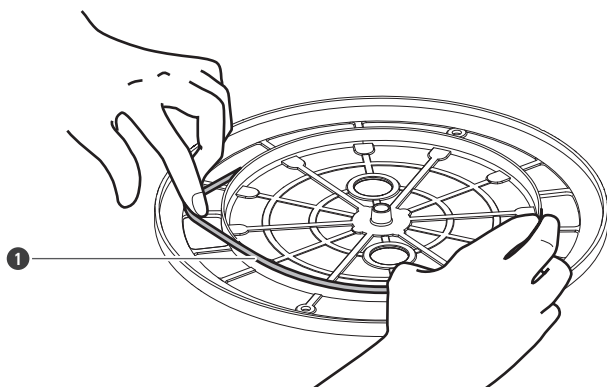
- Place your thumbs in the openings and pull up strongly.



3 Place the new drive belt around the inner circle.

- Be careful not to twist the drive belt while doing this.

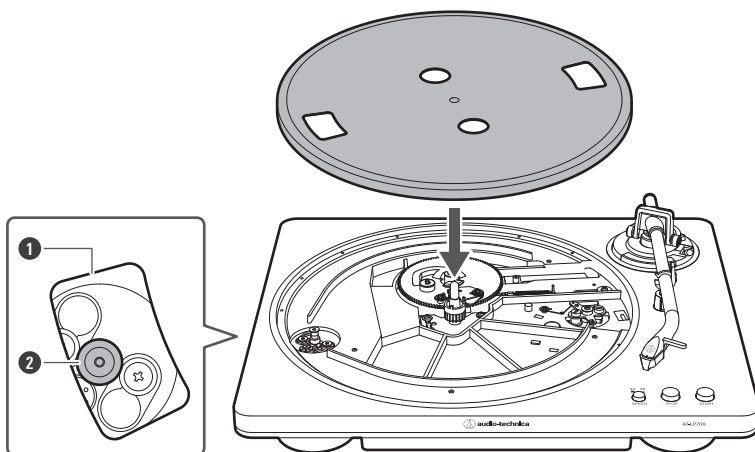
Replacing the drive belt



① Drive belt

4 Attach the platter.

- Align one of the openings with the position of the motor pulley (brass-colored).



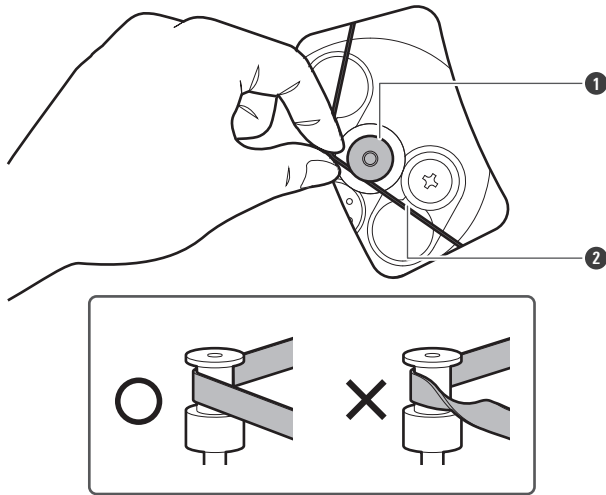
① Opening

② Motor pulley (brass-colored)

5 Place the drive belt on the motor pulley (brass-colored).

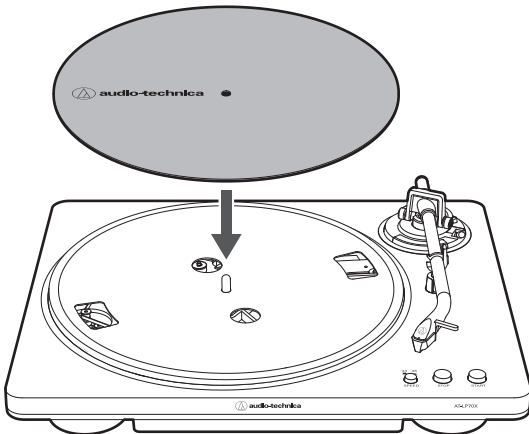
- Grasp the drive belt that was attached in step 3 and, while pulling it, place it on the motor pulley (brass-colored).

Replacing the drive belt



- ① Motor pulley (brass-colored)
- ② Drive belt

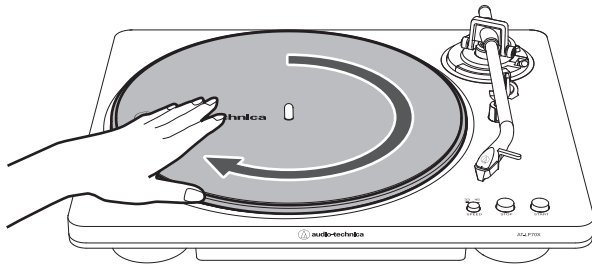
6 Set the felt mat on the platter.



7 Release the tonearm rest clamp and lift the tonearm with the lift control lever. Slowly rotate the turntable ten times by hand in the direction of the arrow.

- You may want to hold the tonearm to prevent it from moving. This step is for resetting the auto mechanism, getting rid of any twists in the drive belt, and making sure the drive belt rides smoothly along the drive rim on the underside of the platter.

Replacing the drive belt



When the turntable is moved

Using the product's original packaging materials, pack the turntable in the reverse order of unpacking it. If you do not have the original packaging materials, take the following measures:

- After unplugging the AC adapter from the outlet, remove the felt mat and platter, and then wrap them so they do not get damaged. If the product is moved while the platter is still seated, it may damage the spindle.
- Make sure that the protector is attached to the replacement stylus.
- Make sure the tonearm lift control lever is lowered.
- Close the tonearm rest clamp so that the tonearm does not move.
- Wrap the turntable body with paper or a soft cloth so that it does not get damaged.

Troubleshooting

? The platter does not spin.

- Is the AC adapter connected to the outlet? Connect AC adapter to the outlet.
- Has the drive belt slipped from the platter? Correctly place the drive belt on the platter.
- Is the drive belt placed on the motor pulley (brass-colored)? Check that the drive belt is placed on the motor pulley (brass-colored) correctly.
- Has the drive belt been damaged? Replace it with a new drive belt.

? The platter spins, but there is no sound or the volume is not loud enough.

- Is the protector still attached to the replacement stylus? Remove the replacement stylus protector.
- Is the tonearm lifted? Lower the tonearm.
- Are the function settings and input for connected equipment (amplifier, etc.) selected correctly? Check whether the settings for the connected equipment are correct.
- Is the stylus damaged? Check the stylus and replace it, if necessary.
- Is the replacement stylus placed correctly on the tonearm? Check the replacement stylus and adjust it, if necessary.
- Are the setting positions for the pre-amplifier selector switch correct? Make sure the settings are configured correctly for your amplifier inputs.
- If there is no sound, or if the volume is not loud enough, the product may be set to the "PHONO" position and connected to the amplifier's AUX/LINE input.
- If the volume is too loud or is distorted, the product may be set to the "LINE" position and connected to the amplifier's PHONO input.

? The stylus skips.

- Is the record warped? Check the record.
- Is the record scratched? Check the record.
- Is the stylus tip dirty? Excessive accumulation of dirt and dust on the stylus affects the record's playback quality.

? There is howling.

- Is the product picking up excessive vibrations from the floor, surfaces of the walls, or nearby speakers? Decrease the vibrations or mount the product on a surface that is not subject to the effects of vibrations.
- Is the product mounted on an unstable surface? Check whether the surface on which the product is mounted is suitable.

① There is noise when the record is playing.

- Is there dust on the stylus tip? If dust is stuck to the stylus tip, clean it with a commercially sold brush.

① The sound when the record is playing is either too fast or too slow.

- Are the speed settings for the product correct? Use the platter speed button to select the correct speed for the type of record being played.

① Playing speed slows down or there is irregular rotation.

- Is the drive belt stretched out? Replace it with a new drive belt.

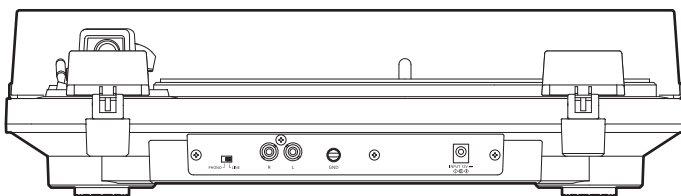
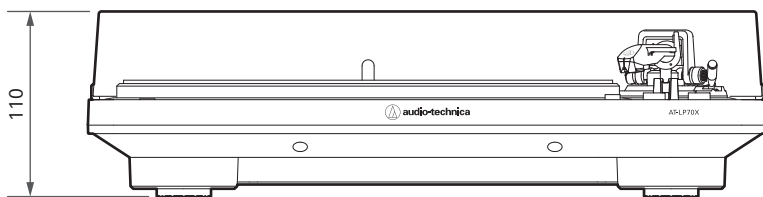
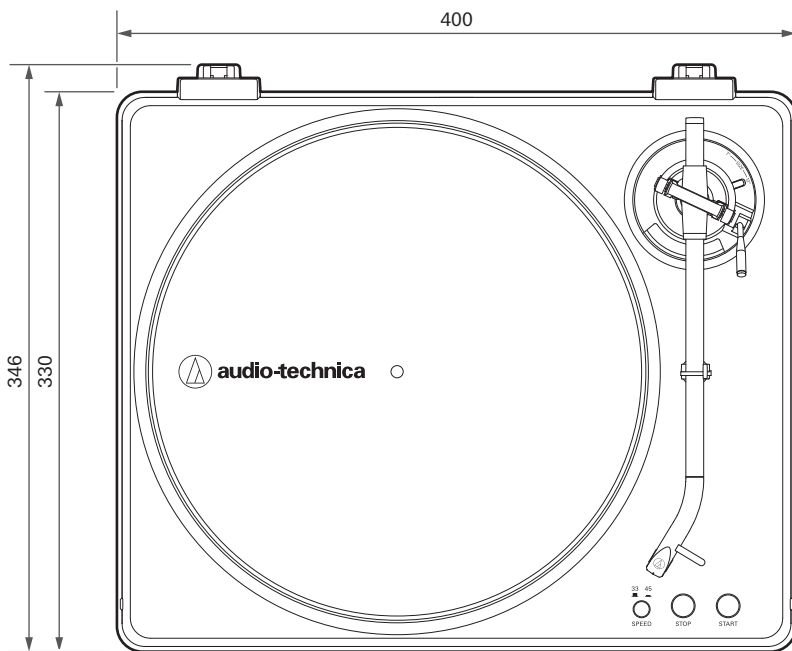
① Humming noise is heard during playback.

- Is the ground line connected correctly? Make sure the ground line is properly connected.
- If the noise continues, remove the ground line. This may reduce the noise.

① Automatic operation is not working correctly.

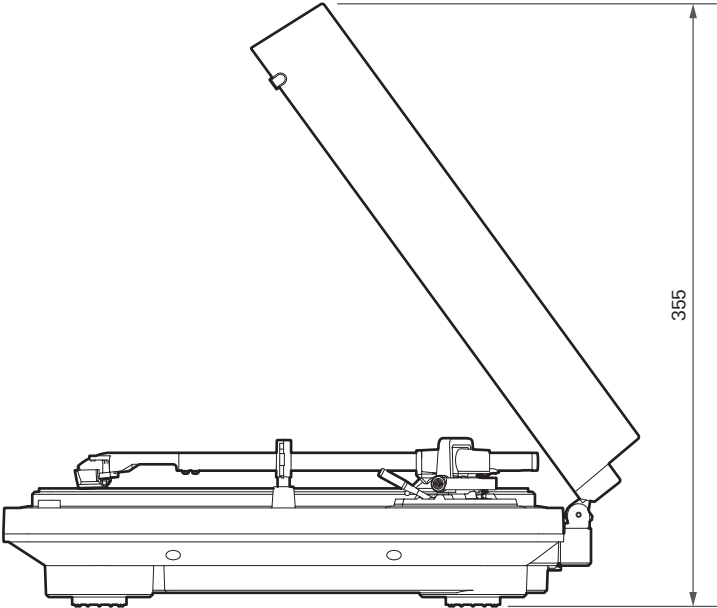
- Make sure the product is placed on a level surface.
- Automatic operation may not work well with start or end of some records.

Dimensions



(Unit: mm)

Dimensions



(Unit: mm)

Specifications

Turntable specifications

Motor	DC motor
Drive method	Belt drive
Speeds	33-1/3 RPM, 45 RPM
Turntable platter	Die-cast aluminum
Wow and flutter	< 0.25% (WTD)
Signal-to-noise ratio	> 55 dB
Output levels	PHONO: 4.0 mV nominal at 1 kHz, 5 cm/sec LINE: 252 mV nominal at 1 kHz, 5 cm/sec
Phono Pre-amp gain	36 dB nominal, RIAA equalized

Tonearm specifications

Effective length	220 mm (8.7")
Overhang	18 mm (0.71")
Maximum tracking error angle	Less than 2.0°

Cartridge specifications

This product is equipped with an AT-VM95C Dual Moving Magnet Stereo Cartridge. The cartridge cannot be removed.

Cartridge model	AT-VM95C
Cartridge type	VM
Recommended load impedance	47,000 ohms
Output voltage	4.0 mV (mV at 1 kHz, 5 cm/sec)
Stylus	0.6 mil bonded conical
Cantilever	Aluminum pipe

Specifications

AC Adapter

Type	FJ-SW1261200500DN
Rated input voltage	100 to 240 V AC
Rated input current	0.4 A max.
Rated frequency	50 Hz / 60 Hz
Rated output voltage	12 V DC
Rated secondary current	0.5 A
Cable length	Approx. 1.5 m (4.9')

- The included AC adapter may differ depending on the country of sale. Check the rating label on the AC adapter. For details, contact your local Audio-Technica dealer.

General specifications

Dimensions	400 mm (16") × 330 mm (13") × 110 mm (4.3") (W × D × H)
Weight	Approx. 2.9 kg (6.4 lbs)
Power consumption	1.5 W
Accessories	Dust cover, Felt mat, Platter (with drive belt), Dust cover hinges, 45 RPM adapter, RCA audio cable (Approx. 1.0 m (3.3')), AC adapter (Approx. 1.5 m (4.9'))
Replacement stylus (sold separately)	AT-VMN95C
Replacement belt (sold separately)	AT-LP70X exclusive belt

- For product improvement, the product is subject to modification without notice.

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