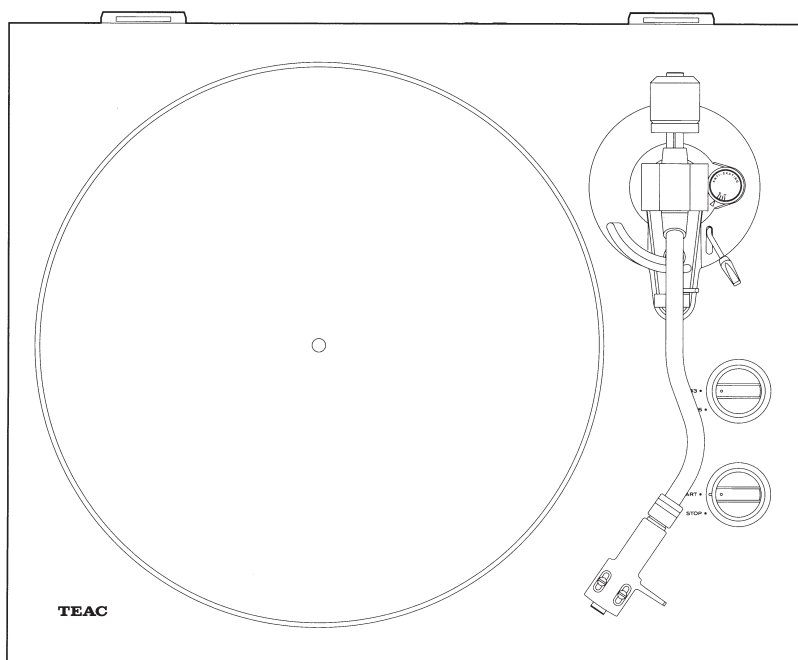


**TEAC**

OPTN420TEA01

# TN-420

## ANALOG TURNTABLE



**OWNER'S MANUAL  
MODE D'EMPLOI  
MANUAL DEL USUARIO  
BEDIENUNGSANLEITUNG  
MANUALE DI ISTRUZIONI  
GEBRUIKSAANWIJZING  
BRUKSANVISNING**

ENGLISH

FRANÇAIS

ESPAÑOL

DEUTSCH

ITALIANO

NEDERLANDS

SVENSKA

## IMPORTANT SAFETY INSTRUCTIONS

**CAUTION**

**RISK OF ELECTRIC SHOCK**

**DO NOT OPEN**

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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



The exclamation point in 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 PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

### CAUTION

- DO NOT REMOVE THE EXTERNAL CASES OR CABINETS TO EXPOSE THE ELECTRONICS. NO USER SERVICEABLE PARTS ARE INSIDE.
- IF YOU ARE EXPERIENCING PROBLEMS WITH THIS PRODUCT, CONTACT THE STORE WHERE YOU PURCHASED THE UNIT FOR A SERVICE REFERRAL. DO NOT USE THE PRODUCT UNTIL IT HAS BEEN REPAIRED.
- USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

- 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.
- 7) 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.
- 11) 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 apparatus draws nominal non-operating power from the AC outlet with its POWER or STANDBY/ON switch not in the ON position.
  - The mains plug is used as the disconnect device, the disconnect device shall remain readily operable.
  - Caution should be taken when using earphones or headphones with the product because excessive sound pressure (volume) from earphones or headphones can cause hearing loss.



### CAUTION

- Do not expose this apparatus to drips or splashes.
- Do not place any objects filled with liquids, such as vases, on the apparatus.
- Do not install this apparatus in a confined space such as a book case or similar unit.
- The apparatus should be located close enough to the AC outlet so that you can easily reach the power cord plug at any time.

IN USA/CANADA, USE ONLY ON 120 V SUPPLY.

### Model for USA

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 equipment and/or 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.

### Declaration of Conformity

Responsible party: TEAC AMERICA, INC.  
Address: 1834 Gage Road, Montebello, California, U.S.A.  
Telephone number: 1-323-726-0303



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.

### Model for Canada

Industry Canada's Compliance Statement:  
This Class B digital apparatus complies with Canadian ICES-003.

### Model for Europe



This product complies with the European Directives request, and the other Commission Regulations.

### CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### For European Customers

#### Disposal of electrical and electronic equipment and batteries and/or accumulators

- a) All electrical/electronic equipment and waste batteries/accumulators should be disposed of separately from the municipal waste stream via collection facilities designated by the government or local authorities.
- b) By disposing of electrical/electronic equipment and waste batteries/accumulators correctly, you will help save valuable resources and prevent any potential negative effects on human health and the environment.
- c) Improper disposal of waste electrical/electronic equipment and batteries/accumulators can have serious effects on the environment and human health because of the presence of hazardous substances in the equipment.
- d) The Waste Electrical and Electronic Equipment (WEEE) symbols, which show wheeled bins that have been crossed out, indicate that electrical/electronic equipment and batteries/accumulators must be collected and disposed of separately from household waste.
  - If a battery or accumulator contains more than the specified values of lead (Pb), mercury (Hg), and/or cadmium (Cd) as defined in the Battery Directive (2006/66/EC), then the chemical symbols for those elements will be indicated beneath the WEEE symbol.
- e) Return and collection systems are available to end users. For more detailed information about the disposal of old electrical/electronic equipment and waste batteries/accumulators, please contact your city office, waste disposal service or the shop where you purchased the equipment.



Apple, Mac, OS X and macOS are trademarks of Apple Inc.

Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Other company names and product names in this document are the trademarks or registered trademarks of their respective owners.

## Table of contents

Thank you for choosing TEAC.  
Read this manual carefully to get the best performance from this unit.  
After reading it, keep it in a safe place for future reference.

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## Using the TEAC Global Site

You can download updates for this unit from the TEAC Global Site: <http://teac-global.com/>

- 1) Open the TEAC Global Site.
- 2) In the TEAC Downloads section, click the desired language to open the Downloads website page for that language.

### NOTE

If the desired language does not appear, click Other Languages.

- 3) Click the "Search by Model Name" section to open the Downloads page for that product. (Users in Europe should click the product name in the "Products" section instead.)
- 4) Select and download the updates that are needed.

## Before use

### Included items

Check to be sure the box includes all the supplied accessories shown below. Please contact the store where you purchased this unit if any of these accessories are missing or have been damaged during transportation.

- Felt mat x 1
- 45 RPM adapter x 1
- Counterweight x 1
- Headshell x 1
  - Audio-Technica VM Type (dual magnet) stereo cartridge (AT95E) preinstalled
- Turntable (platter) x 1
- Dust cover x 1
- Hinges x 2
- RCA audio cable x 1
- AC adapter (GPE053A-V120050-Z) x 1
- Owner's manual (this document, including warranty) x 1
  - The warranty for the United States and Canada is on the back cover. See page 58 for warranty provisions. See page 59 for information about the warranty in Europe and other countries or areas.

### Precautions for use

- Do not place anything on the dust cover. Objects on the cover might cause noise due to vibrations or fall off, especially during playback.
- Avoid placing the unit in direct sunlight, close to a source of heat or in other similar conditions. Do not place the unit on top of an amplifier or other equipment that might generate heat that exceeds the operating temperature range of this unit. Doing so could cause discoloration, deformation or malfunction.
- As the unit could become warm during operation, always leave sufficient space around it for ventilation. When installing this unit, leave a little space (at least 20 cm (8") between it and other devices and walls to allow good heat dissipation.  
When placing it in a rack, for example, leave at least 35 cm (13 3/4") open above it and 10 cm (4") open behind it. Failure to provide these gaps could cause heat to build up inside and result in fire.

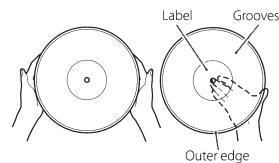
### Product registration

Customers in the USA, please visit the following TEAC website to register your TEAC product online.  
<http://audio.teac.com/support/registration/>

## Handling records

### Holding records

When holding a record or removing it from its sleeve, avoid touching the grooves by holding the record by its label and edge with one hand or by holding it by its edge with both hands.



### Cleaning

- Fingerprints and dust on a record can cause noise and the sound to skip, as well as damage the record itself and the stylus. Use a commercially available record cleaner to clean records. Do not use thinner or anything other than a record cleaner. Such chemicals could harm the surface of the record.
- When using a record cleaner, wipe the surface of the record in a circular motion, following the grooves.



### Precautions for use

- Do not leave records in places that are exposed to direct sunlight or are very hot or very humid. Leaving a record in such a condition for a long time could result in warping, mold growth or other damage.
- Do not stack multiple records or place heavy objects on top of them. Do not leave records at an angle for long amounts of time either. Doing so could result in warping or other damage.
- Do not allow hard objects to directly touch the audio grooves. Doing so could cause scratches.
- After you finish playing a record, always put it back into its sleeve for storage. Leaving a record unprotected could result in warping or scratching.
- Do not use cracked records.

## Preparing the record player

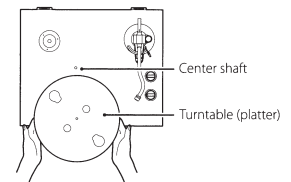
Keep the unit in standby while setting it up (E on page 6).

### 1 Place it on a flat surface.

Place it on a flat surface so that the record can be accurately traced.

### 2 Install the turntable (platter).

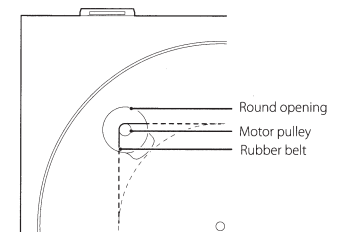
Align the turntable (platter) with the center shaft and install it.



### 3 Loop the belt around the motor pulley.

Use a finger to pull the rubber belt that is wrapped around the sub-platter through the round opening and loop it around the motor pulley.

- Be careful not to let the rubber become twisted.
- Rotate the turntable (platter) several times to make sure that the rubber belt is secure.

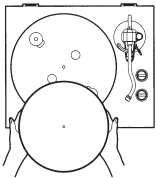


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## Preparing the record player (continued)

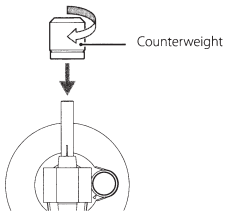
### 4 Place the felt mat on the turntable (platter).

Place the included felt mat on the turntable (platter) before using it.



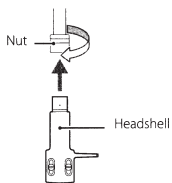
### 5 Install the counterweight.

Place the counterweight over the end of the tone arm, and press it gently as you turn it right to attach it.

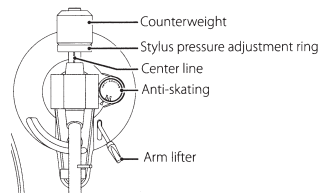


### 6 Install the headshell.

Insert the headshell on the end of the tone arm and turn the nut to secure it in place.

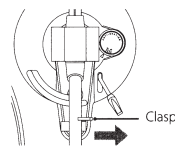


### Balancing the tone arm and adjusting the stylus pressure



#### 1 Set the anti-skating dial to zero.

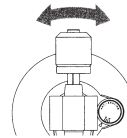
#### 2 Move the tone arm clasp to the right to release the tone arm.



#### 3 Raise the arm lifter and shift the tone arm to the left slightly.

#### 4 Lower the arm lifter.

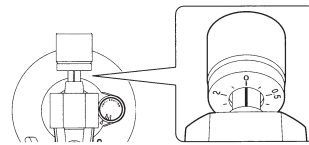
### 5 Turn the counterweight and adjust so that the tone arm is level.



- Remove the protective cap from the cartridge stylus before adjusting.
- Be careful not to let the cartridge stylus touch the unit.

### 6 Return the tone arm to its original position, and use the clasp to lock it.

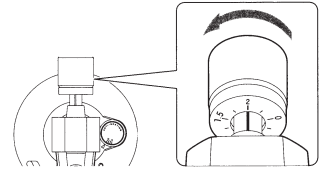
### 7 Turn the stylus pressure adjustment ring so that the center line aligns with 0 on the scale.



- Only turn the ring. Be careful not to let the counterweight turn.

### 8 Turn the counterweight so that the stylus pressure adjustment ring scale matches the stylus pressure specified for the cartridge.

- The stylus pressure of the included cartridge is 2.0 g. So, turn it to 2.0 on the counterweight scale when using the included cartridge.



- Turn it right from 0 in the direction of 0.5 and 1.0.

### 9 Adjust the anti-skating dial.

Start with it set at 2.0 and adjust it during record playback (page 7) to the position where the left and right volumes are balanced.



#### ATTENTION

Depending on the condition of a record, the left-right volume balance could become uneven and skipping could occur.

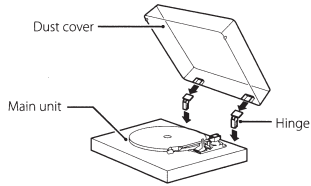
In such cases, try making the following adjustments.

**If the sound jumps backward (stylus skips backward)**  
Slightly lower the anti-skating dial setting.

**If the sound jumps forward (stylus skips forward)**  
Slightly increase the anti-skating dial setting.

## Dust cover

### Attaching the dust cover



**1** Insert the hinges completely into the hinge holders at the left and right ends of the back of the main unit.

**2** Align the tops of the hinges with the dust cover hinge holders and insert them.

- Close the dust cover during playback. Doing so prevents stylus skipping caused by unintended contact and protects the stylus tip from outside sound pressure.
- Do not open or close it when a record is playing. Doing so could, for example, cause the stylus to skip.
- Keep it closed whenever possible to keep dust out.

### Removing the dust cover

Hold both edges of the dust cover and lift it slowly to remove it along with the hinges from the unit. Then, remove the hinges from the dust cover.

### Opening and closing the dust cover

#### Opening

Hold the front edge of the dust cover and gently lift it open completely until it stops. The dust cover will stay open in this position.

#### Closing

Gently lower the dust cover until it is closed.

**⚠ Be careful not to pinch your fingers, for example, when opening and closing the dust cover.**

## Changing the cartridge

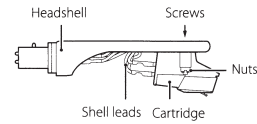
To change the cartridge, first remove the headshell from the tone arm.

- An Audio-Technica AT95E VM Type cartridge is installed in this unit.

#### NOTE

VM type cartridges have the same characteristics as MM type cartridges.

- We recommend that you attach the protective cap to the cartridge stylus before doing this task.

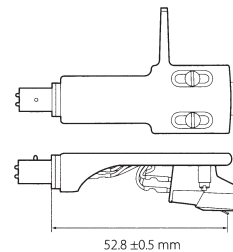


**1** Disconnect the shell lead terminals from the cartridge.

**2** Loosen the screws and remove the cartridge.

**3** Attach the new cartridge and tighten the screws.

See the illustration below for the position of the screws when attached.



**4** Connect the shell lead terminals to the cartridge.

- The signals and colors of the shell leads are shown below.

Signal	Color
Left channel +	White
Left channel -	Blue
Right channel +	Red
Right channel -	Green

**5** Balance the tone arm and adjust the stylus pressure.

Follow the procedures in "Balancing the tone arm and adjusting the stylus pressure" on page 4.

## Notes about record styluses

- If a stylus becomes bent or damaged, it might not be able to follow the audio groove. Since a bent stylus could also damage records and cause malfunction, handle styluses carefully.
- Always use a commercially-available stylus cleaner to clean a stylus. Use of anything other than a stylus cleaner could damage the stylus.

## Replacing the stylus

If the tip of the stylus becomes worn, not only will it worsen the sound quality, it could also damage records. After about 300 hours of playback time, replace the stylus with one that we specify.

Please use an Audio-Technica ATN95E replacement stylus.

- An Audio-Technica AT95E VM Type cartridge is installed in this unit.

### NOTE

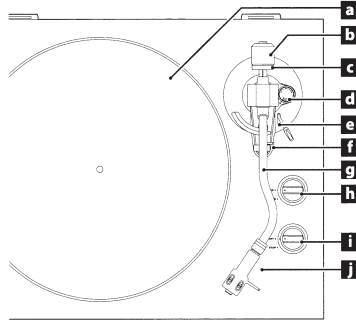
VM type cartridges have the same characteristics as MM type cartridges.

- Follow the replacement instructions in the manual of the replacement stylus.

### CAUTION

- Since loud noises could suddenly occur, put the unit into standby before changing the stylus.
- Be careful not to hurt your hand or the equipment.
- Be careful not to allow small children to accidentally swallow styluses.
- Be aware that bent styluses, for example, that result from insufficient customer caution or an outside cause are not covered by the warranty.

## Names and functions of parts



### a Turntable (platter)

Place records centered on the turntable (platter).

### b Counterweight

### c Stylus pressure adjustment ring

### d Anti-skating dial

### e Arm lifter lever

Use this to raise and lower the tip of the stylus. We recommend using the arm lifter to avoid damaging records and styluses, because it is safer and more certain than using a finger to do so.

### f Tone arm holder

This is a rest for the tone arm. Gently push the clasp to the right to release the tone arm before playing a record.

### g Tone arm

### h Rotation speed setting knob

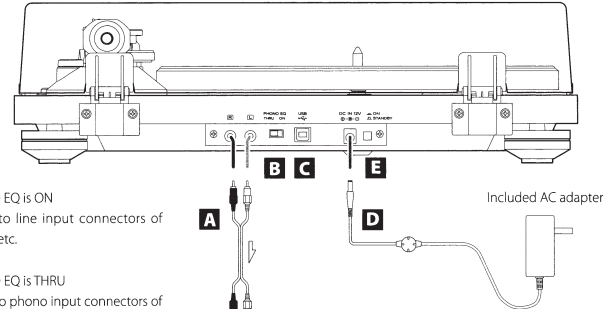
Select the rotation speed indicated on the record to be played.

### i START/STOP rotation knob

### j Headshell

This is a universal type that allows the cartridge to be changed easily.

## Connections



When PHONO EQ is ON  
Connect to line input connectors of amplifier, etc.

When PHONO EQ is THRU  
Connect to phono input connectors of amplifier, etc.



### ⚠ Precautions when making connections

- Do not plug the unit in until after making all connections.
- Carefully read the manuals of the devices that you are connecting and follow their instructions when making connections.

### A Analog audio output connectors (L/R)

These output analog audio signals. The PHONO EQ switch setting changes the type of output signal. Use the included audio cable (or commercially-available ones) to connect other equipment to the output connectors of this unit.

### B PHONO EQ (audio output setting) switch

**ON**  
Signals that have been amplified by the built-in equalizer amp are output from the analog audio output connectors (L/R).

**THRU**  
The MC or MM cartridge signal is output directly through the analog audio output connectors (L/R). Connect to a device with phono inputs, such as a phono equalization preamplifier or an amplifier with phono input connectors.

- When shipped new from the factory, this is set to ON.
- Set this to ON if a device is connected to the USB port.

### CAUTION

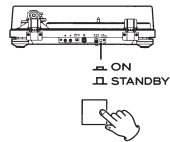
When set to ON, if connected to the PHONO inputs of an amplifier, for example, the output from speakers and headphones will be very loud, which could damage equipment or harm hearing.

## Basic operation

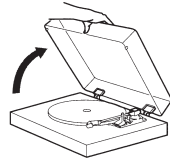
### Playing records

- Remove the protective cap from the cartridge stylus before using the turntable.

- Press the **STANDBY/ON** button on the back of the unit to turn it on.



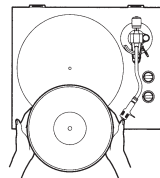
- Open the dust cover slowly.



- Be careful not to pinch your hand, for example, when opening and closing the dust cover.

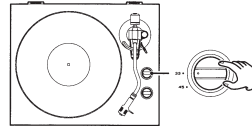
- Place a record on the turntable (platter).

When playing a 45 RPM large-hole single record, use the included adapter.

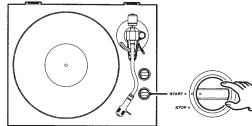


- Select the rotation speed indicated on the record.

The rotation speed can be set to 33 1/3 or 45 RPM.

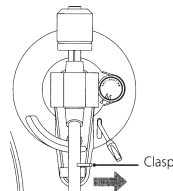


- Turn the **START/STOP** rotation knob to **START** to start the turntable (platter).

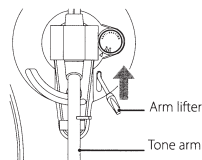


- When the **START/STOP** rotation knob is set to **START**, the turntable (platter) will start rotating and the blue **START** LED will light.

- Move the tone arm clasp to the right to release the tone arm.

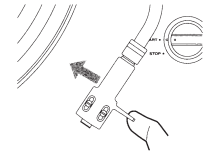


- Use the arm lifter to raise the tone arm.



- You can also move the tone arm to above the record without raising the arm lifter and then slowly lower the tone arm to start playback.

- Move the tone arm to the track where you want to start playback.



- Use the arm lifter to lower the tone arm.

The tone arm lowers slowly until the stylus touches the record and playback begins.

- Close the dust cover during record playback to avoid dust. Since doing this prevents skipping caused by unintended contact and blocks external sound pressure, it makes noise less likely to occur.

- Do not place anything on top of the dust cover.

#### ATTENTION

- During playback, do not touch the tone arm or the record. Doing so could damage the stylus tip and cause scratches on the record.
- Do not forcibly stop turntable (platter) rotation during playback. Since this product is not a turntable designed for DJs (direct drive), doing something like this could cause malfunction.

During record playback, feedback could occur if the volume is too loud. If this happens, lower the volume of the amplifier.

### C USB port (USB B type)

The sound of the record is converted to digital (resolution up to 48 kHz/16-bit) and output. Recording on a computer is possible by connecting this to a USB port on the computer using a USB cable (page 8).

### D DC input connector

After completing all other connections, connect the included AC adapter to this connector. Confirm that the power plug of the AC adapter is plugged into a power outlet.

- Do not use any AC adapter other than the one included.

Be sure to connect the power cord to an AC outlet that supplies the correct voltage. Connection to an outlet that supplies incorrect voltage could cause fire or electric shock.

Hold the power plug when plugging it into an outlet or unplugging it. Never pull or yank on the power cord.

Unplug the power cord from the outlet when you are not planning to use the unit for an extended period of time.

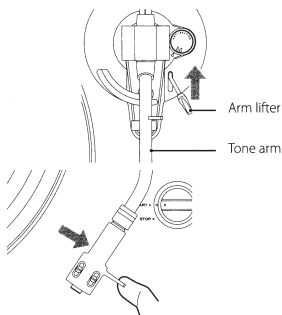
### E STANDBY/ON button

Press the **STANDBY/ON** button to turn the unit on or put it in standby.

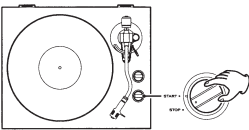
## Basic operation (cont'd)

### When playback finishes

- 1 Raise the arm lifter to separate the stylus from the record, and return the tone arm to its original position.



- 2 Turn the START/STOP rotation knob to STOP to stop the turntable (platter).



- The blue START lamp will become unlit and the turntable (platter) will stop.

The sound of a record can be digitally recorded on a computer by using a commercially-available USB cable to connect this unit to a USB port on the computer.

### Supported operating systems

Computers running the following operating systems can be connected by USB to this unit. Use with operating systems other than these is not guaranteed (as of August 2017).

#### Windows

Windows 7 (32-bit, 64-bit)  
Windows 8 (32-bit, 64-bit)  
Windows 8.1 (32-bit, 64-bit)  
Windows 10 (32-bit, 64-bit)

#### Mac

OS X Lion (10.7)  
OS X Mountain Lion (10.8)  
OS X Mavericks (10.9)  
OS X Yosemite (10.10)  
OS X El Capitan (10.11)  
macOS Sierra (10.12)

- This unit will run with the standard OS driver, so there is no need to install a special driver.

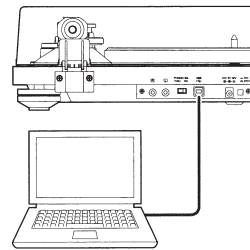
## Recording with a computer

### Connecting with a computer

- 1 Turn the computer on.

Confirm that the operating system is working correctly.

- 2 Use the USB cable to connect the computer and this unit.



- Use a commercially-available USB cable with a ferrite core.

- 3 Press this unit's STANDBY/ON button to turn it on.

The computer will automatically detect this unit's USB port and identify the unit as "USB Audio CODEC".

- To record audio from this record player using a computer, you must first install software that can be used for audio recording on the computer. You may purchase the audio recording software that you prefer separately or download free software, such as Audacity (<http://www.audacityteam.org/>), from the Internet. As free software, Audacity is not supported by TEAC.
- When recording with a computer, do not do any of the following. Doing so could cause the computer to malfunction. Always quit the computer recording software before doing the following.
  - Disconnect the USB cable
  - Put the unit into standby

### Computer settings

The following example explains the settings to make using Windows 7.

- 1 From the Start menu, select Control Panel.
- 2 Click "Sound".
- 3 Click the "Recording" tab, and confirm that "USB Audio CODEC" is set as the "Default Device".
- 4 Select "Microphone USB Audio CODEC", and click the Properties button.
- 5 Click the "Advanced" tab.
- 6 From the "Default Format" pull-down menu list, select the desired recording quality (format).

#### TIP

To record at the highest audio quality that this unit can output, select "2 channel, 16 bit, 48 kHz". Lowering the sampling frequency setting value will relatively reduce the size of files but also decrease the audio quality.

- 7 Click "OK".



## Troubleshooting

If you experience a problem with this unit, please check the following items before requesting service. Something other than this unit could also be the cause of the problem. Please also check that the connected devices are also being used properly. If it still does not operate correctly, contact the retailer where you purchased the unit.

### No power.

- ➔ Confirm that the AC adapter is plugged into an outlet. Then, press the STANDBY/ON button to turn the unit on (pages 6 and 7).

### There is no sound.

- ➔ When connecting this unit's analog audio output connectors to the audio input connectors of an amplifier or other equipment, set the PHONO EQ (audio output setting) switch to ON (page 6).

### Playback is not possible; there is noise.

- ➔ Remove the protective cap.
- ➔ Clean the stylus (page 6).
- ➔ If the stylus is worn-out, replace it (page 6). The lifespan of a stylus depends on the use conditions but is usually about 300 hours.
- ➔ Place the unit as far away as possible from TVs, microwave ovens and other devices that emit electromagnetic waves.

### Noise occurs when a record is playing

- ➔ Noise could occur if the stylus pressure is higher than cartridge's specified value. Readjust the stylus pressure so that it is the specified value (page 4).

### The pitch is wrong.

- ➔ Select the rotation speed indicated on the record (page 7).

### The sound is skipping.

- ➔ Vibrations will cause skipping. Place this unit in a stable location.
- ➔ Clean the record.
- ➔ Do not use scratched records.
- ➔ Balance the tone arm and readjust the stylus pressure (page 4).  
The stylus and sound might skip if the stylus pressure is lower than the cartridge's specified value.

## Specifications

### Turntable (platter)

Drive system	Belt drive
Motor	DC motor
Rotation speed	33 1/3 rpm, 45 rpm
Rotation speed variation	±2%
Wow and flutter	0.2%
SN ratio	67 dB or higher (A-weighted, 20 kHz LPF)
Turntable (platter)	Aluminum die-cast 30cm (12") diameter

### Tone arm

Arm type	Static-balanced S-shaped tone arm
Effective arm length	223 mm
Stylus pressure variation range	0–5 g
Acceptable cartridge weight	4.0–8.0 g

### Cartridge

Type	VM (equivalent to MM)
Output voltage	3.5 mV (1 kHz, 5 cm/s)
Stylus pressure	2.0±0.5 g
Cartridge weight	5.7±0.5 g
Included headshell weight	10 g (including screws, nuts and wires)

- The lifespan of a stylus depends on the use conditions but is usually about 300 hours.
- An Audio-Technica AT95E VM Type cartridge is installed in this unit.  
Note: VM type cartridges have the same characteristics as MM type cartridges.
- Replacement stylus model: ATN95E

### Output voltage

PHONO EQ THRU	3.5 mV (1 kHz, 5 cm/s) ±3 dB
PHONO EQ ON	155 mV (–16 dBV)
Output connectors	RCA

### USB port

USB port that can receive power from computer USB buses (Full Speed) ..... USB connector type B  
USB bus power support ..... 5 V, 500 mA

- Use a commercially-available USB cable to connect the unit to a computer to receive power from it.

Sampling frequency	8 kHz, 11.025 kHz, 16 kHz, 22.05 kHz, 32 kHz, 44.1 kHz, 48 kHz
Quantization bit depth	16-bit

### General

AC adapter power	
Input	AC 100–240 V, 50–60 Hz
Output	DC 12 V, 500 mA
Power consumption	
Standby	0.2 W or less
On (START)	1.5 W or less
Weight	4.9 kg (10 7/8 lb)
Operating temperature range	5°C to 35°C
Dimensions (W × H × D) (including protrusions)	420 × 117 × 356 mm (16 5/8" × 4 5/8" × 14 1/8")

- Performance data is specified at 20°C.

### Included accessories

- Felt mat × 1
- 45 RPM adapter × 1
- Counterweight × 1
- Headshell × 1  
Audio-Technica VM Type (dual magnet) stereo cartridge (AT95E) preinstalled
- Turntable (platter) × 1
- Dust cover × 1
- Hinges × 2
- RCA audio cable × 1
- AC adapter (GPE053A-V120050-Z) × 1
- Owner's manual (this document, including warranty) × 1
- The warranty for the United States and Canada is on the back cover. See page 58 for warranty provisions. See page 59 for information about the warranty in Europe and other countries or areas.

- Specifications and appearance are subject to change without notice.
- Weight and dimensions are approximate.
- Illustrations in this owner's manual might differ slightly from production models.

## WARRANTY/GARANTIE/GARANTÍA/GARANTIE/GARANZIA/GARANTIE/GARANTI

### Warranty provisions (United States and Canada only)

#### Length of Warranty

The parts and labor warranty will be effective for one (1) year from the date of the original purchase for products not used for commercial purposes. For products used commercially, the warranty is ninety (90) days for magnetic heads and optical pickups, one (1) year for all other parts and ninety (90) days for labor.

#### Who Is Covered Under This Warranty

This warranty is valid only in the United States or Canada, dependent upon the country in which original purchase was made, and enforceable only by the original purchaser within the country in which the purchase was made. This warranty is not valid if the product was purchased through an unauthorized dealer.

#### What Is Not Covered Under This Warranty

- Damage to or deterioration of the external cabinet.
- Damage resulting from accident, misuse, abuse, or neglect.
- Damage resulting from failure to follow instructions contained in the products owners' manual or otherwise provided with the product.
- Damage occurring during shipment of the product (Claims must be presented to the carrier).
- Damage resulting from the repair or attempted repair by anyone other than TEAC or an authorized TEAC.
- Damage resulting from modification or attempted modification of product not authorized by TEAC.
- Damage resulting from causes other than product defects, including lack of technical skills, competence, or experience of the user.
- Damage to any unit that has been altered or which the serial number has been defaced, modified or removed.

#### What TEAC Will Pay For

TEAC will pay all labor and material expenses for items covered by the warranty. Payment of shipping charges is covered in the next section.

#### How To Obtain Warranty Service

Your unit must be serviced by an authorized TEAC service station within the country in which the product was purchased. If you are unable to locate an authorized service station in your area, please contact TEAC at the applicable address shown at the end of this warranty statement. PLEASE DO NOT RETURN YOUR UNIT TO TEAC WITHOUT OUR PRIOR AUTHORIZATION. You must pay shipping charges if it is necessary to ship the product for service. However, if the necessary repairs are covered by warranty, we will pay the return shipping charges to any destination within the country in which the product was purchased. Whenever warranty service is required, you must present the original dated sales receipt, or other proof indicating the purchase place and date, as proof of warranty coverage.

#### LIMITATION OF IMPLIED WARRANTIES

ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY.

#### EXCLUSION OF DAMAGES

TEAC'S LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCT, AT TEAC'S OPTION. TEAC SHALL NOT BE LIABLE FOR DAMAGE BASED UPON INCONVENIENCE, LOSS OF USE OF THE PRODUCT, INTERRUPTED OPERATION, COMMERCIAL LOSS OR LOST PROFITS, OR ANY OTHER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR OTHERWISE.

SOME STATES OR PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC RIGHTS, AND MAY VARY FROM SOME OF THE RIGHTS PROVIDED BY LAW. THESE RIGHTS MAY VARY FROM STATE TO STATE OR PROVINCE TO PROVINCE.

### Conditions de garantie (États-Unis et Canada uniquement)

#### Durée de la garantie

La garantie pièces et main d'œuvre sera valable un (1) an à compter de la date d'achat initial des produits non utilisés dans un but commercial. Pour les produits à utilisation commerciale, la garantie des têtes magnétiques et capteurs optiques est de quatre-vingt dix (90) jours, elle est d'un (1) an pour les autres pièces et quatre-vingt dix (90) jours pour la main d'œuvre.

#### Bénéficiaire de la garantie

Cette garantie n'est valable qu'aux États-Unis et au Canada, selon le pays d'achat initial, et ne s'applique qu'à l'acquéreur initial dans le pays d'achat.

Cette garantie n'est pas valable si le produit a été acheté auprès d'un revendeur non autorisé.

#### Ce qui n'est pas couvert par cette garantie

- Les dommages ou détériorations du boîtier externe.
- Les dommages résultant d'un accident, d'une mauvaise utilisation, d'un abus ou d'une négligence.
- Les dommages résultant du non-respect des instructions contenues dans le mode d'emploi du produit ou fournies avec le produit.
- Les dommages survenus durant le transport du produit (les réclamations doivent être adressées au transporteur).
- Les dommages résultant d'une réparation ou tentative de réparation effectuée par toute personne extérieure au service après-vente TEAC ou agréé par TEAC.
- Les dommages résultant d'une modification ou tentative de modification de produit non autorisée par TEAC.
- Les dommages résultant de causes autres que des défauts de produit, y compris le manque d'aptitude technique, de compétence ou d'expérience de l'utilisateur.
- Les dommages de toute unité ayant été modifiée ou dont le numéro de série a été effacé, modifié ou retiré.

#### Frais pris en charge par TEAC

TEAC prendra en charge tous les frais de pièces et main d'œuvre pour les articles couverts par la garantie. Les frais d'expédition sont évoqués dans la section suivante.

#### Comment obtenir une intervention sous garantie

Votre unité doit être réparée par un service après-vente agréé par TEAC dans le pays d'achat du produit. Si vous ne trouvez pas de service après-vente agréé dans votre région, veuillez contacter TEAC à l'adresse appropriée donnée à la fin de cette garantie. VEUILLEZ NE PAS RENVoyer VOTRE UNITÉ CHEZ TEAC SANS NOTRE AUTORISATION PRÉALABLE. Si le produit doit être renvoyé pour réparation, les frais d'expédition sont à votre charge. Toutefois, si les réparations nécessaires sont couvertes par la garantie, nous prendrons à notre charge les frais de retour vers toute destination dans le pays d'achat du produit. Lorsqu'une réparation sous garantie est requise, vous devez présenter comme preuve de couverture par la garantie la facture d'achat originale datée ou une autre preuve d'achat mentionnant le lieu et la date d'achat.

#### LIMITATION DES GARANTIES IMPLICITES

TOUTES LES GARANTIES IMPLICITES, Y COMPRIS LES GARANTIES DE QUALITÉ MARCHANDE ET D'ADÉQUATION À UN USAGE PARTICULIER, SONT LIMITÉES À LA DURÉE DE CETTE GARANTIE.

#### EXCLUSION DE DOMMAGES

LA RESPONSABILITÉ DE TEAC VIS-À-VIS DE TOUT PRODUIT DÉFECTUEUX EST LIMITÉE À LA RÉPARATION OU AU REMPLACEMENT DU PRODUIT, AU GRÉ DE TEAC. TEAC NE POURRA ÊTRE TENU POUR RESPONSABLE DE QUELCONQUES DOMMAGES SE RAPPORTANT AU DÉRANGEMENT, À LA PERTE D'USAGE DU PRODUIT, À L'INTERRUPTION DE L'UTILISATION, AUX PERTES COMMERCIALES OU DE PROFITS, NI D'AUCUN AUTRE DOMMAGE, QU'IL SOIT ACCESSOIRE, INDIRECT, PUNITIF OU AUTRE.

CERTAINS ÉTATS OU PROVINCES N'AUTORISENT PAS DE LIMITATIONS DE DURÉE D'UNE GARANTIE IMPLICITE ET/OU N'AUTORISENT PAS L'EXCLUSION OU LA LIMITATION DES DOMMAGES ACCESSOIRES OU INDIRECTS, AUQUEL CAS LES LIMITATIONS ET EXCLUSIONS CI-DESSUS PEUVENT NE PAS VOUS ÊTRE APPLICABLES.

CETTE GARANTIE VOUS DONNE DES DROITS SPÉCIFIQUES QUI PEUVENT ÊTRE DIFFÉRENTS DE CERTAINS DROITS OCTROYÉS PAR LA LOI. CES DROITS PEUVENT VARIER D'UN ÉTAT À L'AUTRE OU D'UNE PROVINCE À L'AUTRE.

## Europe/Europa

This product is subject to the legal warranty regulations of the country of purchase. In case of a defect or a problem, please contact the dealer where you bought the product.

Ce produit est sujet aux réglementations concernant la garantie légale dans le pays d'achat. En cas de défaut ou de problème, veuillez contacter le revendeur chez qui vous avez acheté le produit.

Las condiciones de garantía de este aparato están sujetas a las disposiciones legales sobre garantía del país en el que ha sido adquirido. En caso de garantía, debe dirigirse al establecimiento donde adquirió el aparato.

Dieses Gerät unterliegt den gesetzlichen Gewährleistungsbestimmungen des Landes, in dem es erworben wurde. Bitte wenden Sie sich im Gewährleistungsfall an den Händler, bei dem sie das Gerät erworben haben.

Questo apparecchio è conforme alle norme sulla garanzia vigenti nel rispettivo Paese in cui esso è stato acquistato. Si prega di rivolgersi al proprio commerciante, presso il quale è stato acquistato l'apparecchio, nel caso in cui si voglia richiedere una prestazione in garanzia.

Dit product valt onder de wettelijke garantievoorschriften van het land waar het is aangeschaft. Neem bij een defect of probleem contact op met de leverancier waar u het product heeft gekocht.

För denna produkt gäller det lagliga garantireglerna av landet där köpet gjordes. Vid fel eller problem kontakta vänligen återförsäljaren, där du köpte produkten.

## In countries/regions other than the USA, Canada and Europe

This warranty gives you specific legal rights, and you may also have other rights that vary by country, state or province. If you have a warranty claim or request, please contact the dealer where you bought the product.

该保证书赋予了顾客特定的合法权利，并且因国家，州或省等地域的不同，顾客可能拥有其他权利。如需申请或要求保修，请与购买本产品的销售店进行联系。

**WARRANTY/GARANTIE (United States and Canada only/États-Unis et Canada uniquement)**

Model/Modèle: **TN-420**

Serial No./N° de série

Owner's address/Adresse du propriétaire

Date of purchase/Date de l'achat

Dealer's name/Nom du détaillant

Owner's name/Nom du propriétaire

Dealer's address/Adresse du détaillant

# TEAC

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TEAC CORPORATION 1-47 Ochiai, Tama-shi, Tokyo 206-8530, Japan Phone: +81-42-356-9156

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TEAC AMERICA, INC. 1834 Gage Road, Montebello, California 90640 U.S.A. Phone: +1-323-726-0303

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TEAC AUDIO EUROPE Gutenbergstr. 3, 82178 Puchheim, Germany Phone: +49-8142-4208-141

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This product has a serial number located on the rear panel. Please write it here and retain this for your records.

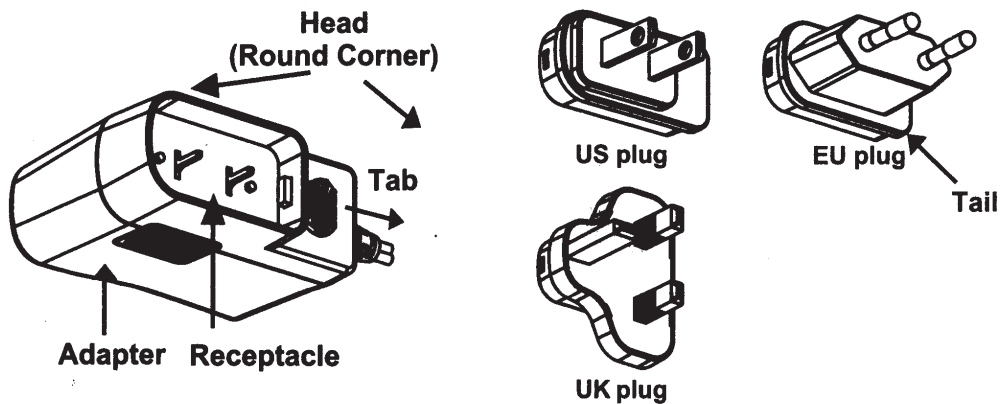
Model name: TN-420

Serial number

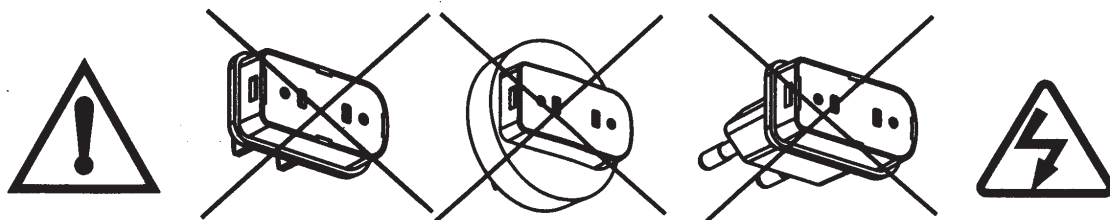
0917 MA-2409A

## Gpe Microsystems Instruction Manual G Series Interchangeable AC Plug Models

1. Pull back tab and hold.
2. Mate round corner of plug to round corner of receptacle.
3. Insert plug into adapter receptacle head-first until it sits completely inside, then release tab to lock in place.



**CAUTION: ELECTRIC SHOCK**  
**DO NOT INSERT PLUG ALONE TO ELECTRICAL OUTLET.**



All plugs may not be included.

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