

Manuals+

[Q & A](#) | [Deep Search](#) | [Upload](#)

manuals.plus /

› [TEC](#) /

› [TEC TC-450 Mobile Phono Preamp User Manual](#)

TEC TC-450

TEC TC-450 Mobile Phono Preamp User Manual

Model: TC-450 | Brand: TEC

INTRODUCTION

The TEC TC-450 is a versatile mobile phono preamplifier designed to enhance your audio experience with turntables. It features a 70dB signal-to-noise ratio and a maximum distortion of 0.05%, ensuring clear and accurate sound reproduction. This unit offers flexible power options, operating on a single 9-volt battery for portability or via the included AC power adapter for continuous use. Its compact size and durable metal construction provide excellent shielding against noise, making it ideal for both home and on-the-go listening or recording.



Image: The TEC TC-450 Mobile Phono Preamp unit shown alongside its included AC power adapter. The preamp is a compact, dark gray rectangular box with a power switch on the front panel.

SAFETY INFORMATION

- Read all instructions before operating the unit.
- Do not expose this appliance to rain or moisture.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Only use attachments/accessories specified by the manufacturer.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been

damaged in any way.

PACKAGE CONTENTS

Please check the package for the following items:

- TEC TC-450 Mobile Phono Preamp Unit
- AC Power Adaptor (universal)
- RCA Cable
- Miniplug Adaptor

PRODUCT OVERVIEW

Front Panel

The front panel of the TC-450 features a simple power switch to turn the unit ON or OFF.

Rear Panel

The rear panel provides all necessary audio input and output connections, as well as the power input.



Image: Rear view of the TEC TC-450 Phono Preamp, showing the input and output RCA jacks, ground terminal, and DC12V power input. The inputs are labeled "PHONO (MM)" and outputs "Amp/Receiver".

- **PHONO (MM) Input:** RCA jacks for connecting your turntable.
- **OUTPUT (Amp/Receiver):** RCA jacks for connecting to your amplifier or receiver's auxiliary input.
- **Ground Terminal:** For connecting the ground wire from your turntable to reduce hum.
- **DC12V Power Input:** For connecting the included AC power adapter.

SETUP

1. Powering the Unit

The TC-450 can be powered by either a 9-volt battery or the included AC power adapter.

- **Battery Operation:**

1. Locate the battery compartment on the bottom of the unit.
2. Unscrew the two screws to open the compartment.
3. Insert one 9-volt battery (not included), ensuring correct polarity.
4. Close the compartment and secure with the screws.

- **AC Power Operation:**

1. Connect the included AC power adapter to the DC12V input on the rear panel of the TC-450.
2. Plug the AC power adapter into a standard wall outlet.



Image: The included AC power adapter, featuring a standard two-prong plug and a barrel connector for the preamp.

2. Audio Connections

Follow these steps to connect your turntable to your amplifier or receiver:

1. Connect the RCA output cables from your turntable to the **PHONO (MM) Input** jacks on the rear panel of the TC-450. Ensure left and right channels are correctly matched (red for right, white/black for left).
2. Connect the included RCA cable from the **OUTPUT (Amp/Receiver)** jacks on the rear panel of the TC-450 to an available auxiliary (AUX) input on your amplifier or receiver. Do not connect to a "Phono" input on your receiver, as this will result in over-amplification and distortion.
3. If your turntable has a ground wire, connect it to the **Ground Terminal** on the rear panel of the TC-450. This helps to minimize hum and noise.

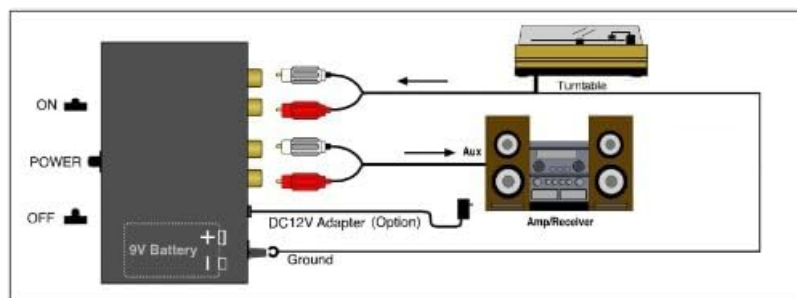


Image: A diagram illustrating the connection of a turntable to the TEC TC-450 Phono Preamp, and then from the preamp to an amplifier/receiver's auxiliary input. It also shows the optional DC12V adapter and 9V battery power options, and the ground wire connection.

OPERATING INSTRUCTIONS

1. Ensure all connections are secure as described in the "Setup" section.
2. Turn on your amplifier or receiver and select the input source to which the TC-450 is connected (e.g., AUX, CD, LINE IN).
3. Flip the power switch on the front panel of the TC-450 to the **ON** position.
4. Start playing your record on the turntable. Adjust the volume on your amplifier or receiver to your desired

listening level.

5. When finished, flip the power switch on the TC-450 to the **OFF** position and turn off your other audio equipment.

The TC-450 applies RIAA equalization, which is essential for accurate playback of vinyl records, ensuring a flat frequency response from 20Hz to 20,000Hz with a tolerance of +/- 0.5dB.

MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Do not use liquid cleaners or aerosols.
- **Battery Replacement:** If using battery power and the sound becomes weak or distorted, replace the 9-volt battery as described in the "Setup" section.
- **Storage:** If the unit will not be used for an extended period, remove the 9-volt battery to prevent leakage. Store in a cool, dry place.

TROUBLESHOOTING

Problem	Possible Cause	Solution
No sound or very low sound.	<ul style="list-style-type: none">◦ Unit not powered on.◦ Incorrect input selected on amplifier/receiver.◦ Cables not connected properly.◦ Weak or dead 9V battery (if applicable).◦ Connected to "Phono" input on receiver instead of "AUX".	<ul style="list-style-type: none">◦ Ensure power switch is ON.◦ Select the correct input (e.g., AUX, CD, LINE IN) on your amplifier/receiver.◦ Check all RCA cable connections.◦ Replace 9V battery or use AC adapter.◦ Connect to a non-phono input (e.g., AUX).
Humming or buzzing noise.	<ul style="list-style-type: none">◦ Ground wire not connected.◦ Loose cable connections.◦ Interference from other electronic devices.	<ul style="list-style-type: none">◦ Connect the turntable's ground wire to the TC-450's ground terminal.◦ Ensure all RCA cables are securely connected.◦ Move the unit away from other electronic devices or power cables.
Distorted sound.	<ul style="list-style-type: none">◦ Weak 9V battery.◦ Connected to "Phono" input on receiver.	<ul style="list-style-type: none">◦ Replace 9V battery or use AC adapter.◦ Connect to a non-phono input (e.g., AUX).

SPECIFICATIONS

- **Model:** TC-450
- **Signal-to-Noise Ratio (S/N):** >70dB
- **Maximum Distortion:** 0.05%
- **RIAA Frequency Response:** 20Hz-20,000Hz +/- 0.5dB

- **Power Supply:** 9V battery (not included) or DC12V AC adapter (included)
- **Jacks:** Gold-plated RCA
- **Casing:** Black anodized metal
- **Dimensions (Package):** 6 x 4 x 3 inches (approx.)
- **Item Weight:** 1.45 pounds (approx.)
- **Certifications:** CE certified

WARRANTY AND SUPPORT

This product comes with a standard manufacturer's warranty. For specific warranty details, please refer to the documentation included with your purchase or contact your retailer. For technical support or service inquiries, please contact the manufacturer or your point of purchase.