

O W N E R ' S M A N U A L



PARASOUND

TDQ-150 Stereo Tuner



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Special Features of the Parasound TDQ-150

Ultra Wideband IF Section
Fully Remote Controlled
Thirty Station Presets
AC Line and DC-Trigging Capability
Long-Term Preset Memory
Automatic, Manual, and Preset Tuning
CMOS Solid State Switching
Regulated Power Supply
Rear Panel IR Connection
Audiophile-Grade Components
One Rack Space Panel Height

IMPORTANT SAFETY INSTRUCTIONS



The lightning flash with the arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of “dangerous voltage” inside the product that may constitute a risk of electric shock.

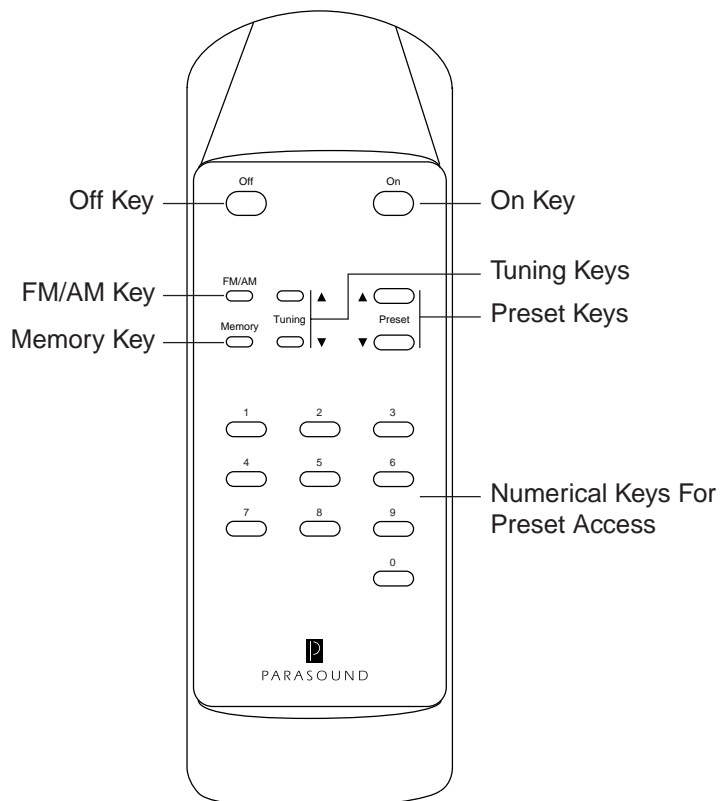
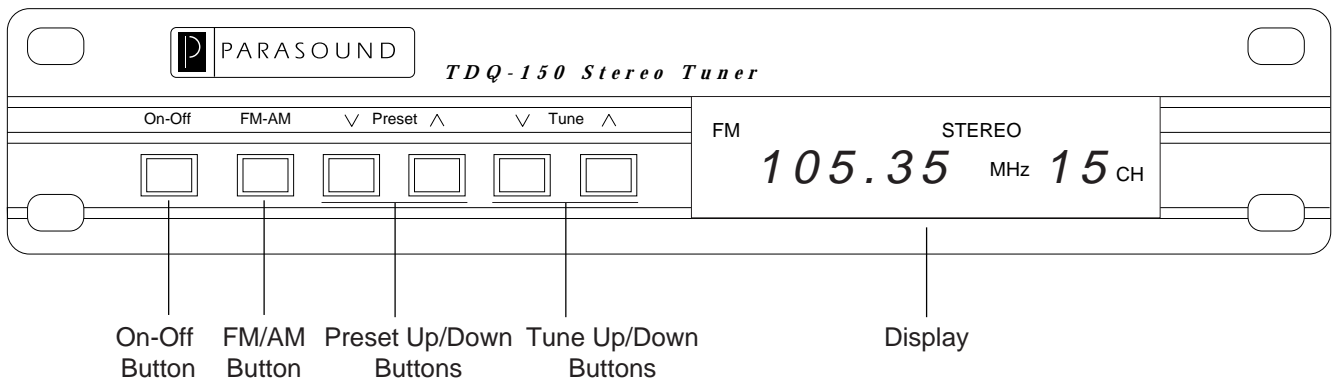
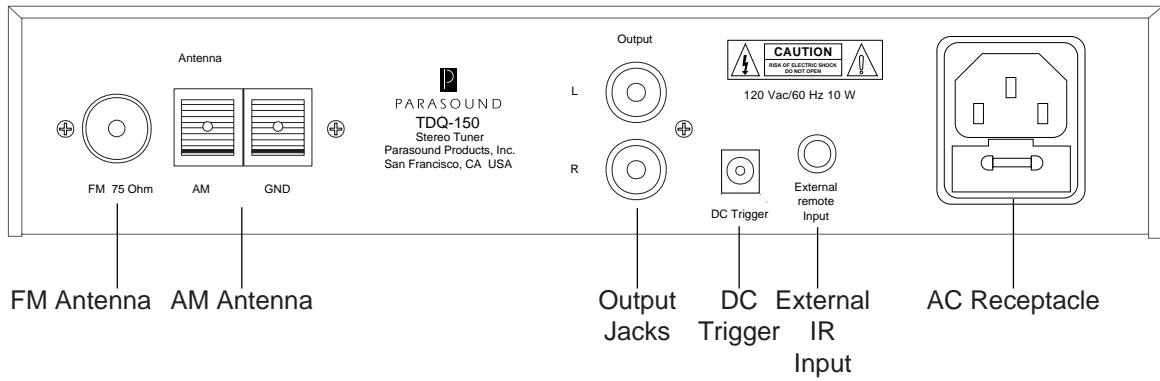


The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the product.

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

- 1. Read Instructions** — Read all the safety and operating instructions before operating this product.
- 2. Retain Instructions** — Retain safety and operating instructions for future reference.
- 3. Heed Warnings** — Adhere to all warnings on the product and in the operating instructions.
- 4. Follow Instructions** — Follow all operating and use instructions.
- 5. Cleaning** — Unplug this product from the wall outlet before cleaning. Use a damp cloth for cleaning. Clean the outside of the product only.
- 6. Attachments** — Do not use attachments that are not recommended by the product manufacturer; they may be hazardous.
- 7. Water and Moisture** — Do not use this product near water.
- 8. Accessories** — Do not place this product on an unstable cart or stand. The product may fall causing bodily injury and damage to the product. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart to overturn.
- 9. Ventilation** — Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. *This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided.*
- 10. Power Sources** — Operate this product only from the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult your dealer or local power company. This product is equipped with a three-prong grounding plug. This plug will only fit into a grounding power outlet. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding plug.
- 11. Power Cord Protection** — Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them.
- 12. Lightning** — Unplug the unit from the wall outlet for added protection during a lightning storm and when it is left unattended and unused for long periods of time. This will prevent damage to the product due to lightning and power line surges.
- 13. Overloading** — Do not overload wall outlets or extension cords. This can result in a fire or electric shock.
- 14. Inserting Objects into Unit** - Never push objects of any kind into this product through any openings; they may touch dangerous voltage points or short out parts that could result in fire or electric shock.
- 15. Servicing** — Do not attempt to repair or service this product yourself. Opening or removing covers may expose you to dangerous voltage and other hazards. Refer all servicing to qualified service personnel.
- 16. Damage Requiring Service** — Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions: a) If the power-supply cord or plug is damaged. b) If liquid has been spilled into the product. c) If the product has been exposed to rain or water. d) If the product does not operate normally by following the operating instructions. e) If the product has been dropped or damaged in any way. f) If the product exhibits a distinct change in performance.
- 17. Replacement Parts** — When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer. Unauthorized substitutions may result in fire, electric shock, and other hazards.
- 19. Safety Check** — Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
- 20. Wall or Ceiling Mounting** — Mount the product to a wall or ceiling only as recommended.
- 21. Heat** — The product should be situated away from heat sources such as radiators, heat registers, stoves, and other products (including amplifiers) that produce heat.

TDQ-150 Front, Rear Panel and Remote Drawings



Introduction

Congratulations on your purchase of this precision audio component and thank you for your selection of Parasound. The broadcast reference quality of the Parasound TDQ-150 makes it an excellent choice for your main system and its unique size and features make it particularly useful in custom and multi-zone installations. Please take a few moments now to read these instructions thoroughly so you may fully understand the capabilities of your new tuner.

Unpacking and Installation

Carefully unpack your TDQ-150 and remove all the enclosed accessories:

- Remote control with batteries
- Detachable AC cord
- FM Folded Dipole 300 Ω Antenna
- FM 300 ohm to 75 Ω balun matching transformer
- AM loop antenna with self-adhesive bracket

Be sure to inspect the unit for any possible shipping damage. If you see any, contact your Parasound Dealer immediately. Save the carton all of the packing materials in case you need to ship the unit for repair. Before you proceed, find the serial number located on the rear panel and record it here for future reference:

Serial # _____ Date of Purchase _____

Installation and Rack Mounting

Your TDQ-150 should be placed on a sturdy surface, out of direct sunlight that may interfere with its remote control sensor. It should be in a well-ventilated area, away from heating ducts or radiators. Do not place your TDQ-150 near digital equipment such as computers or digital processors that could cause interference with broadcast reception.

The TDQ-150 is a one rack space height (1.75") x half rack width (9.5") unit. It can be mounted in a standard 19-inch wide equipment rack side-by-side with a second TDQ-150 or with other Parasound half-width components. An optional metal plate and bolts are available to fasten two half-width units together.

Making Connections to your TDQ-150

Before making any connections, turn off the power to your preamplifier and power amplifier. Make certain that all your connections are secure and that there is no tension on the cables which could cause them to pull loose later.

Audio Connections

Connect a pair of high-quality interconnect cables from the Output jacks of your TDQ-150 to any line level input jacks on your preamplifier or system controller preferably marked Tuner.

FM Antenna Connections

Adequate FM reception and subsequent sound quality is largely dependent upon your choice and location of the antenna. There are several options to consider when selecting an antenna and connecting it to your TDQ-150

Dipole Antenna

A standard FM “folded dipole” wire antenna is included with your TDQ-150. This antenna is adequate for most urban and suburban locations and is very easy to install. Simply connect its spade connectors to the screws marked 300 Ω on the supplied small balun 300 Ω to 75 Ω adapter and push the adapter carefully on to the round “F” 75 Ω coaxial antenna connector.

You should be prepared to adjust the position of the dipole antenna to optimize reception. Clear reception of certain stations may require a different antenna orientation.

Outdoor Antenna

For best reception and maximum noise rejection, we recommend the use of a high-quality outdoor FM antenna. Although this requires a little extra effort, the additional stations you can receive and the superior sound quality will be well worthwhile. For best noise rejection, use 75 Ω cable with an “F” connector and connect it directly to the 75 Ω coaxial antenna connector on your TDQ-150. If you use 300 Ω twin lead cable, use the balun adapter as described above.

Cable Transmission

Many cable companies transmit FM stations and cable TV audio signals along with the cable TV channels. With some cable operators, the quality of the FM radio signal can be very good, depending on the quality of their equipment. Check with your local cable company about the availability of FM stations and possible additional charges for this service. Connection to your TDQ-150 is the same as connecting a second television: Connect a signal splitter to the incoming cable connection and use a 75 Ω F-type connector to connect your television to one output of the splitter and the tuner to the other output.

Powered Antennas

A small powered indoor antenna is sometimes useful when it's impractical to install an outdoor antenna or where FM transmission is not available via cable or a community TV/FM antenna. However, powered antennas sometimes add noise and distortion to the RF signal. In most cases, you can receive signals better with the supplied dipole antenna.

AM Antenna Connections

A molded plastic loop antenna is supplied with your TDQ-150. To install the antenna, attach the self-adhesive receptacle to a convenient position on the TDQ-150 rear panel and connect the two wires to the antenna terminals labeled AM and GND. Swivel the antenna away from the rear panel for better AM reception. Never try to use the AM antenna to lift your TDQ-150, it will not support the weight of the chassis.

External Remote Control Connection

Your TDQ-150 accepts the infrared signal of any popular infrared repeater system to facilitate remote control operation from another room or when your tuner is installed within a closed cabinet. This connector is a 1/8" (3.5 mm) two conductor mini jack; its center conductor is +, its outer conductor is -. For further details contact your Parasound dealer or custom installer.

DC Trigger Connection

The TDQ-150 can be turned on automatically with voltage from any external DC source such as one of the triggers on the Parasound AVC-2500 Audio Video Controller. The barrel-type DC trigger connector requires an external DC voltage source ranging from +9 Vdc to + 12 Vdc and requires only 0.2 mA of current to turn on the tuner. When the DC trigger is connected, the On and Off commands on the front panel and remote control are defeated. We have supplied a barrel-type connector for use with the DC trigger. The center conductor should be wired positive and the sleeve should be wired negative.

AC Line Cord

The high-quality IEC standard AC cord supplied with your TDQ-150 should preferably be connected directly to an AC wall outlet or to an unswitched outlet on your preamplifier that is always "live." This will insure that your preset station memory will remain programmed even when your system is turned off for an extended time. Once you have connected your audio cables and antennas, plug the female end of the AC cord firmly into the rear mounted AC receptacle and make sure that it is properly seated, then connect the male end to the AC power source.

Operating your TDQ-150

Front Panel Operation

On-Off Button

Press this button once to turn on and press it again to turn off. The front panel display lights when the TDQ-150 is powered on.

AM/FM Button

Press this button to toggle between the FM and AM frequency bands.

Preset t s Buttons

These buttons select one of the 30 previous or next preset stations that you stored into memory.

Tuning t s Buttons

Press these buttons momentarily to manually tune frequencies in 200 kHz steps (50 kHz steps for export units), whether a station is broadcasting or not. Manual tuning is useful to deliberately "de-tune" a station whose reception is compromised by very strong adjacent stations. By pressing and holding the buttons a few seconds longer, the tuning mode becomes automatic and they will select the previous or next available station. "AUTO" appears in the front panel display while in the automatic tuning mode.

Remote Control Operation

The remote control has a range of approximately 20 feet. Use only AA alkaline batteries in the handset and observe the correct polarity marked in the case. The remote control duplicates every function on the front panel of your TDQ-150 with the following exceptions:

Separate On and Off Buttons

Separate on and off buttons facilitate programming individual on and off commands into a system controller or a macro sequence on a learning remote control.

Preset Buttons 1-0

There are separate preset buttons for direct access to each preset station on the remote control. Press the desired button for stored preset stations. To select stations above preset 9, first press the tens place button. For example, to select preset 23, first press 2, then 3.

Memory Button

The TDQ-150 has the capability of storing up to 30 stations into memory. The first preset is number is 00 and the last preset number is 29.

To store preset stations into memory:

1. Tune to the radio frequency you want to store into memory.
2. Press the Memory button on the remote control, the Memory indicator lights up in the front panel display.
3. Press the number button on the remote to select the desired preset number such as 3 for preset number 3, or 1 and 5 for Preset 15. After you have selected the preset number, the Memory indicator goes out.

Front Panel Display

The front panel display of your TDQ-150 shows the following information:

- The selected broadcast frequency such as 102.1 MHz for FM or 810 kHz for AM.
- The selected FM or AM band selected frequency range, MHz for FM, kHz for AM
- The selected station preset between 00 and 29. If the frequency selected was not already entered as a preset station, this indicator will not light.
- The Memory indicator to let you know that one of 30 preset stations are ready to store into memory.
- A Stereo and Mono indicator. When the RF signal drops below 15 μ V, the Stereo indicator will go off and the Mono indicator lights up.

TDQ-150 Power Activation Options

The TDQ-150 can be turned on with either the On-Off button on its front panel, or the On and Off buttons on the remote control. The TDQ-150 can also be turned on by applying a +12V DC voltage to the DC trigger jack on the rear panel. When the DC trigger jack is connected, the On and Off commands from the buttons on the front panel and remote control are defeated. The tuner automatically turns on whenever AC voltage is applied. This makes it convenient to connect the TDQ-150 to a switched outlet. The TDQ-150 depends on a continuously live AC line to power its preset memory, however it can maintain memory for over a month if its AC source is inactive. Each time the tuner is operated, the energy storage for its memory function is recharged.

Maintaining your TDQ-150

Your TDQ-150 requires no periodic maintenance and has no user serviceable parts inside. To keep it clean use only a soft cloth and never use any solvents or abrasives. Fingerprints may be removed with a soft cloth moistened only with a few drops of clear water. The remote control handset batteries should be removed whenever it will be unused for an extended period. Remove the battery cover annually to inspect and remove leaking batteries.

Power Fuse

If this fuse blows, it is an indication of internal parts failure. Do not replace it with any larger value to avoid damage to internal parts. Substitution of a larger fuse will void your warranty.

In Case of Trouble

If you are experiencing problems with your TDQ-150, please refer to the troubleshooting chart below.

Problem	Possible Remedy
One channel out	Bad connection at preamplifier or power amplifier. Check all audio interconnect cables and speaker connections.
Noisy reception	Bad connection at antenna. Check antenna connections. Poorly located antenna, try repositioning antenna or installing an outdoor antenna.
Loses preset memory	Power loss to the tuner for extended period of time. Make sure it is plugged into an unswitched power outlet.
Remote does not operate	Weak or dead batteries in remote. Replace batteries. IR Interference. Insure that the front panel IR receiver is not covered or exposed to direct sunlight, etc.

If All Else Fails...

Call your Parasound dealer or Parasound Technical Service Department. We can suggest other diagnostic tests you can easily perform. If we determine that your tuner should be returned to Parasound or an Authorized Parasound Warranty Center for inspection and possible servicing, we will provide the location of a warranty center near you or shipping instructions for return to Parasound.

Returning Products to Parasound for Service

Before you send your TDQ-150 to Parasound, you will need to obtain a Return Authorization (RA) number. The RA number must be clearly marked on the outer carton only. Ship the unit with adequate insurance and a copy of your purchase receipt inside to validate your warranty. Warranty repairs will only be performed by Parasound or authorized warranty centers on units where your purchase receipt is from an Authorized Parasound Dealer or Parasound Reseller. Units purchased from unauthorized dealers are not eligible for warranty repair. Units that arrive without an RA number, without a suitable shipping carton or with evidence of improper internal packing materials may be refused. We do not accept collect shipments. After repair under warranty, the unit will be returned to you via prepaid UPS within the Continental United States. In the case of a non-warranty repair, contact us and we will advise you of the repair charges before you ship the unit to us. The same packing and RA number requirements apply.

TDQ-150 Specifications

Tuning Range

FM: 87.5 MHz to 108 MHz

AM: 520 kHz to 1610 kHz

FM Sensitivity

Mono IHF 11 dBf

Stereo IHF 37.2 dBf for 50 dB of quieting

AM Sensitivity

IHF 10 uV/m

Signal to Noise Ratio

>74 dB Stereo 65 dBf IHF Weighted

FM Stereo Separation

50 dB @ 1 kHz

40 dB @ 10 kHz

FM Selectivity

80 dB

AM Selectivity

30 dB

FM Frequency Response

30 Hz to 15 kHz +/- 1 dB

AM Frequency Response

20 Hz to 4.5 kHz +/- 2 dB

Total Harmonic Distortion

FM Mono < 0.08 %

FM Stereo < 0.2 %

Total Harmonic Distortion

AM < 0.5 %

Capture Ratio

< 1.5 dB

AM Suppression

60 dB

Dimensions

9 1/2" W x 1 3/4" H x 7" D

Power Requirements

110 V - 120 V AC, 8 W

Weight 4 lb.



PARASOUND

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