

LIMITED WARRANTY


This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Precision Power Inc., (PPI) warrants its amplifiers and accessories to be free from defects in materials and workmanship under normal use and service for a period of two years from the date of original purchase. The extent and conditions of PPI's Limited Warranty are as follows:

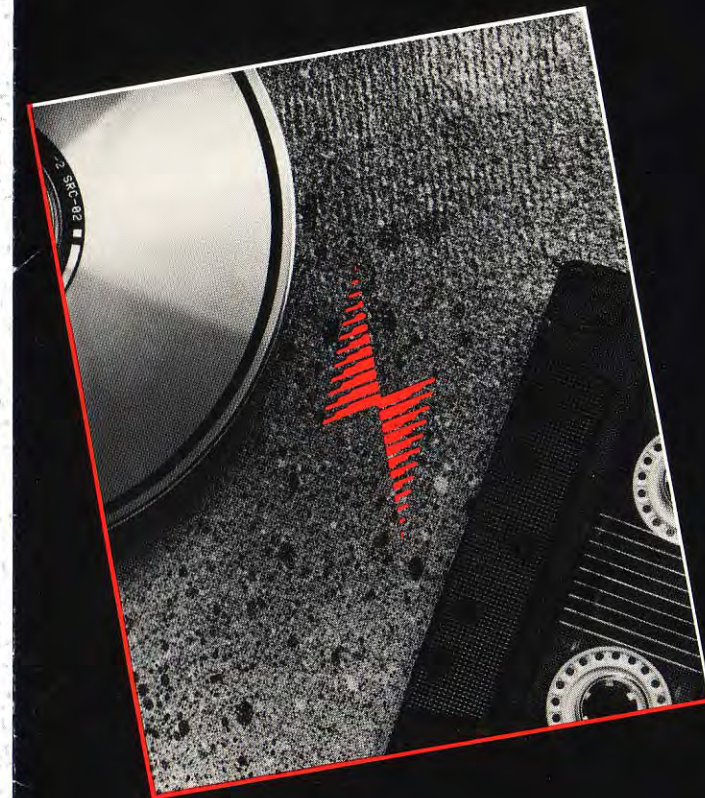
1. PPI warrants that it will either repair or replace at no charge, any unit which PPI's examination discloses to be defective and under warranty, provided the defect occurs within two years from the date of purchase, and the product is returned immediately to PPI.
2. The date of purchase of a PPI Amplifier and/or Accessory must be established by an original sales receipt which must accompany the article being returned for warranty work.
3. The provisions of this warranty shall not apply to any PPI unit used for a purpose for which it is not designed, which has been repaired or altered in any way, or which has been connected, installed, or adjusted other than in accordance with the instructions furnished in PPI's owner's manual. Nor shall this warranty apply to any part which has been subject to misuse, neglect, or accident.
4. PPI does not authorize any other person to assume any other liability in connection with its products. THIS WARRANTY IS THE ONLY EXPRESS WARRANTY MADE BY PPI APPLICABLE TO ITS PRODUCTS. ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE APPLICABLE TO PPI'S AMPLIFIERS AND/OR ACCESSORIES IS LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY. PPI SHALL NOT BE LIABLE FOR THE INCIDENTAL, CONSEQUENTIAL, OR COMMERCIAL DAMAGES RESULTING FROM THE BREACH OF THIS WRITTEN WARRANTY. Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.
5. Your unit will be serviced on an in-warranty basis within the warranty period for the correction of warranted defects. Do not return the article to your dealer. Return the article including your name, telephone number, and return address with the description of the problem to:

Precision Power
Warranty Department
4829 South 38th Street
Phoenix, AZ 85040

TO RETURN ARTICLES OUT OF WARRANTY: Return the article, postage prepaid, in the original protective carton. Include in the package a description of the problem and, if desired, a request for an estimate of repair costs. Unless a request for an estimate is included, the unit will be repaired as necessary. Fifty Dollars (\$50.00) (labor), plus parts will be charged for all product repairs. The repaired unit will be returned to the customer with an itemized statement C.O.D.



 Precision
Power



PPI PEQ▲223



Congratulations on your selection of Precision Power high performance mobile audio products. Because of the unique capabilities of the PEQ-223 and for the best results and the utmost satisfaction, please read the accompanying manual thoroughly before installation and retain it for future reference.

CAUTION—Use of a high power stereo system may cause hearing loss or damage.

CAUTION—Use of a high power stereo system may impair the ability to hear necessary traffic sounds and thus may constitute a traffic hazard. PPI advises use of audio components at low volume levels while driving.

SPECIFICATIONS

THD:	< 0.005% (1 kHz, 1 Vrms)
Signal-to-Noise Ratio:	> 102 dBV
Input Gain:	0 to +16 dB
Frequency Response: (± 1 dB, EQ set flat)	10 Hz – 100 kHz
Input Impedance:	10 k Ohms
Maximum Output: (10 K Ohm load)	8.0 Vrms
Equalization Bands: (± 12 dB Max)	50, 180, 12k Hz
Power Requirements: (via DIN connector)	± 15 volts, 20 mA
Dimensions:	1.2"H x 4.2"W x 3.2"D

FEATURES

- Ultra-Wide Bandwidth Circuitry
- Three Bands of Equalization
- Adjustable Input Sensitivity
- Sealed Modular Potentiometers
- Gold RCA Input Connectors
- Phantom Powered
- 100% Solid State
- LED Power Indicator
- Two Year Warranty
- Manufactured in the USA

INSTALLATION INSTRUCTIONS

To best take advantage of the PEQ-223's unique capabilities, please read the following instructions before beginning. If you encounter difficulties during or after installation and are unable to resolve the problem, contact your dealer or call Precision Power for further assistance.

INTRODUCTION

The PEQ-223 is an advanced preamplifier/equalizer for mobile (12V) sound reinforcement when increased performance, dynamic range, and custom equalization are desired.

Shelving equalization for sub-bass (50 Hz) and treble (12 kHz) frequencies restores the octaves often lost due to source and speaker roll-off, while a mid-bass control (180 Hz) allows attenuation to compensate for acoustic standing waves often encountered in automobile interiors.

A variable input gain preamplifier section allows the PEQ-223 to interface with virtually any source unit. In addition, an internal buffer gain-stage boosts signal output to drive PPI amplifiers with increased dynamic range and maximum noise rejection.

MOUNTING

The mounting bracket is provided with the PEQ-223 which allows adjustment of the preamp into the desired operating position. The PEQ-223 may also be mounted in a dashboard, console, or other panel; a rectangular hole should be cut to clear the chassis (a job best left to skilled installers with the proper tools). A minimum depth of 5" is required behind the panel to allow space for the connecting cables.

CONNECTIONS

Inputs—The PEQ-223's RCA inputs accept line-level (preamp) signals from the source unit (tuner/deck or CD player).

Outputs—The DIN output connects directly to a PPI amplifier, or to other PPI preamp accessories via shielded 5-pin DIN cable.

Power—The PEQ-223 is *Phantom* powered; it receives ± 15 VDC from an external source through any of its DIN connectors. Any Precision Power amplifier will automatically provide phantom power to the PEQ-223 if it is connected by a DIN cable. Since the PEQ-223 is powered by the amplifier, it will turn on and off simultaneously with the amplifier. If the PEQ-223 is used in a system without a Precision Power amp, a Phantom Power Supply Module (Precision Power PSM-100) must be used. The PSM-100 supplies ± 15 volts to the PEQ-223 and also adapts the DIN output connector to standard RCA phono jacks.

ADJUSTING THE CONTROLS

Volume—The PEQ-223 volume control is a "master" level control for the system. Line-output level and volume controls on the radio or other source unit will also affect system loudness. These controls should be set to a center position (½ to ¾ of maximum) and the system volume adjusted with the PEQ-223's control.

Sub-bass, Mid-bass, Treble—These equalization level controls operate in a conventional manner; they determine how much the frequencies in a selected band are boosted or cut (± 12 dB maximum). The 12 o'clock position produces no equalization (flat response).

Input Sensitivity—In order to achieve maximum signal-to-noise performance from a high quality auto stereo system, it is desirable to use high signal levels wherever possible in the inter-connecting cables. High signal levels will reduce the effect of noise induced into these cables. The peak level of audio signal is usually determined by the clipping level of electronic components. The following procedure should be followed after system installation is completed and ready for final adjustment:

To adjust input level, set the PPI amplifiers' gain to midway level. Turn PEQ-223 input sensitivity to minimum counterclockwise (the input gain control extends from the rear of the PEQ-223) and volume control to maximum. Now turn system on and raise source unit volume control to midway. Finally, increase sensitivity on PEQ-223 until the maximum desired volume is achieved. Reduce the volume with your PEQ-223 volume control as desired.

Leave your source unit volume control at the level set in the paragraph above and continue to use the PEQ-223 as the volume control for your system.

NOTE: On Kenwood tuner/decks, set input sensitivity switch for 1 Volt output. This will maximize your system's performance.

