

PowerAcoustik
U.S.A.

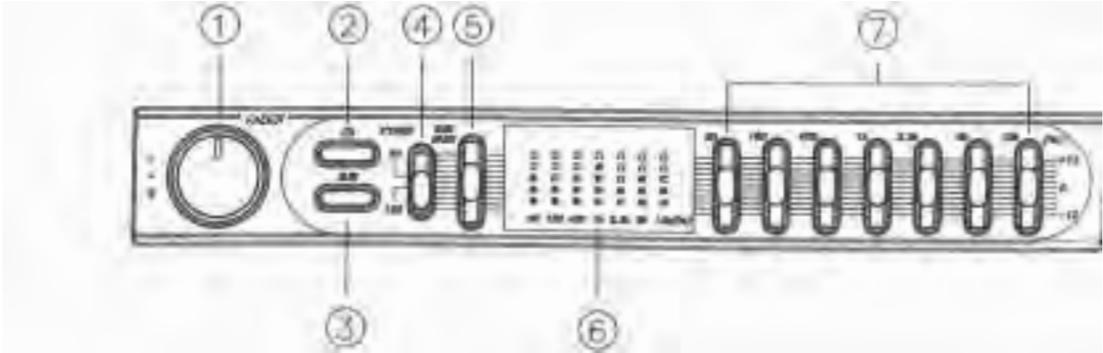
MODEL **PEQ-72**

7 BAND HIGH POWERED GRAPHIC
EQUALIZER/AMPLIFIER

OWNERS MANUAL

INTRODUCTION

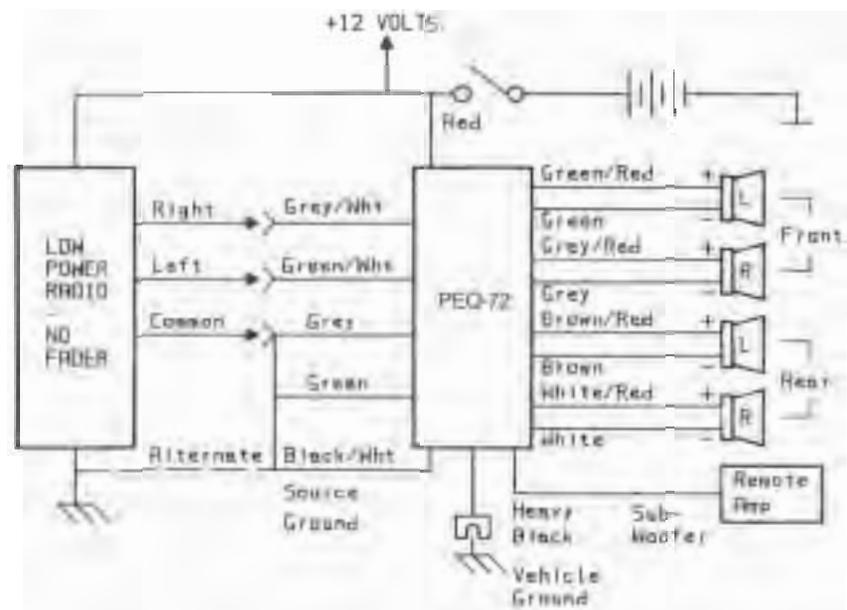
The Power Acoustik Model PEQ-72 is intended for those who value the acoustic benefits of a multi-band Graphic Equalizer but who also desire higher audio power level capabilities than can be obtained in an in-dash unit. It contains stereo power amplifiers to drive speakers directly, and 1 subwoofer pair (with crossovers and sensitivity control). Subwoofer output can be connected to remote high-power amplifiers. The seven center-frequencies are concentrated in the critical 60Hz to 15kHz region where compensation is most needed.

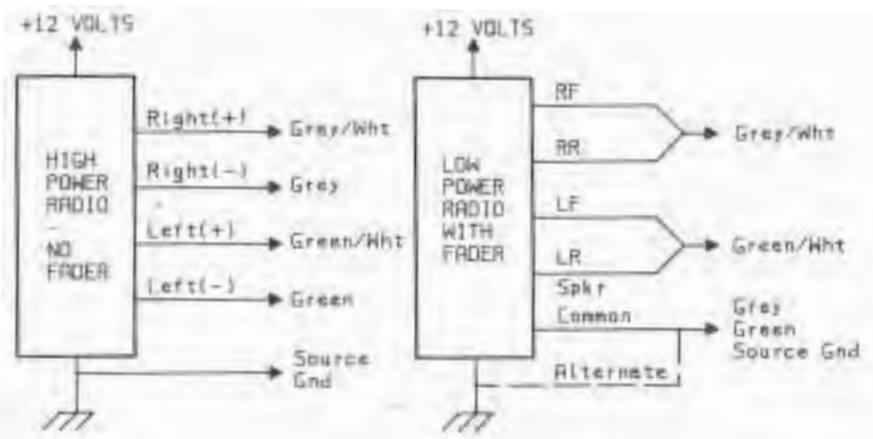


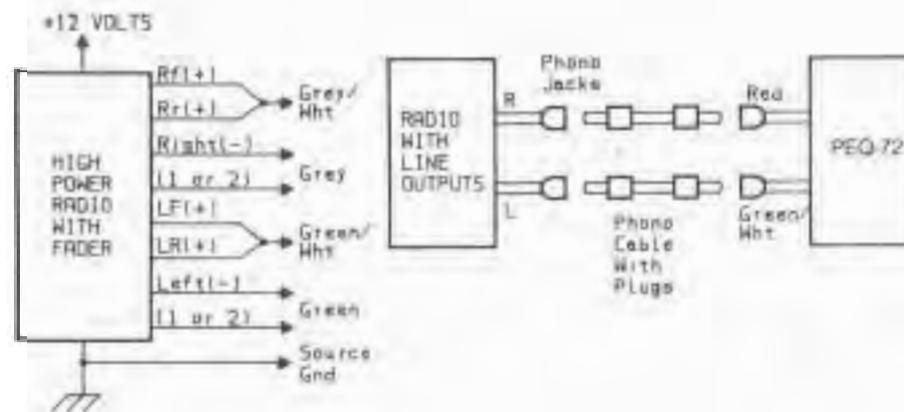
FEATURES AND OPERATING CONTROLS

1. **FADER.** Allows front to rear balancing in four speaker systems for best directional imaging.
2. **EQ.** Press in to engage the equalizer circuitry. Press it (outer position) the result is the same as setting all slide controls to center position. It is useful in judging the result of your EQ Settings.
3. **SUBWOOFER SWITCH**
When the subwoofer is connected, use this switch to activate/deactivate the subwoofer.
4. **SUBWOOFER Crossover POINTS.** Two operating modes. The SUBWOOFER MODE activates an internal low-pass filter so only the deepest bass notes are passed to the woofer system. Two position 80Hz or 150Hz.
5. **ADJUSTABLE SUBWOOFER GAIN CONTROL.** Allows user to adjust subwoofer output to match overall system output.
6. **SPECTRUM ANALYZER DISPLAY.** A 5 column, Red-color LED Display shows the instantaneous, peak level for the frequency content of the source music adding yet another dimension to your visual enjoyment.
7. **EQ SLIDE CONTROLS.** Each slide controls the amount of boost or cut in one small part of the total audio frequency range. With all slides in the center position, the overall frequency response is flat. By moving any slide up or down, the output within the band is increased or decreased by up to 12 db.

INSTALLATION







The PEQ-72 is designed for in-dash installation directly above or below a standard DIN size radio/tape player. Installation Kits for the purpose are available from a variety of suppliers. Consult with a professional Auto-sound installer for assistance.

Each wire is individually labeled to reduce any chance of error. Phono cable pairs with plugs on both ends are required to connect the PEQ-72 outputs to the remote amplifiers and also for the phono inputs if used. See Figure 5. These can be purchased from a local audio dealer in the correct lengths for your particular installation.

The Black wire labeled Power Ground is connected directly to the vehicle chassis. A second Black wire with White stripe labeled Source Ground is connected to the chassis of the in-dash radio. This dual-ground system is helpful in reducing common sources of noise generated by your vehicle.

The Red wire with in-line fuse is the main power input to the PEQ-72. It should be connected to a source of Switched + 12 volts (Cut off by the Ignition switch). This is normally the same fuse-panel terminal that powers your radio.

The Orange wire is used to turn the PEQ-72 On. It should be connected to the in-dash radio's Power Antenna Output Lead.

The final step in the electrical installation is to connect the Left & Right Output signals from your radio to the PEQ-72. Inputs in one of two ways, depending on how your radio is equipped. If it has Phono-style Line Outputs, then they are connected to the matching Line Inputs using a purchased cable pair as discussed above and shown in Figure 5.

OPERATIONAL CHECKS

Start with the radio off. Set the FADER and all seven EQ SLIDES to their center positions.

Switch to ignition or accessory on and turn on the radio but at low volume. The light in the PEQ-72 should now be lit. If nothing happens, check the black, red, or orange connections and the in-line fuses if necessary.

If all OK so far, then by raising the radio volume should produce speaker output. Next rotate the radio balance control to verify sound moves from full right to full left. If it is reversed then the inputs to the PEQ-72 are reversed. If you are using four speakers then rotate the FADER control to verify the PEQ-72 outputs are going to correct speakers.

SUBWOOFER OUTPUT: If you are using the subwoofer output, try the two different settings. Each position allows a different range of bass frequency thru. Because deep bass stands out more we've provided a subwoofer gain control. This will allow you to adjust the amount of bass output needed to match the rest of your system.

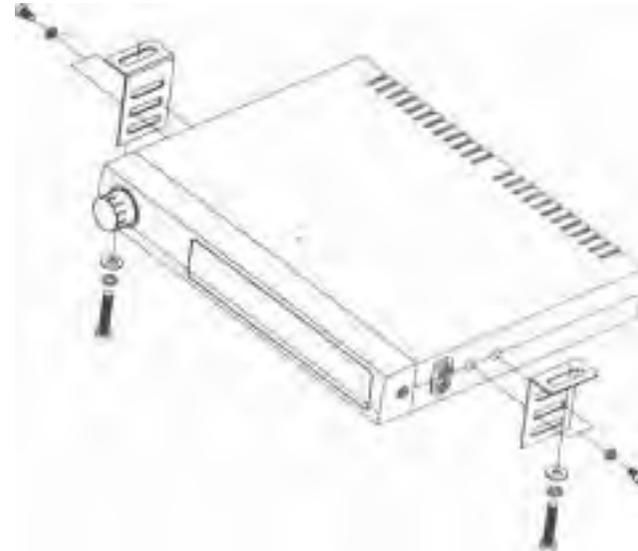
Normal Operation:

The purpose of a MULTI-BAND equalizer is to compensate for the fact that no speaker is perfect and, more importantly, that even a perfect speaker will produce imperfect soundpressure levels versus frequency when placed in a real motor vehicle. It is possible to correct these problems by boosting or cutting the speaker input power at the proper frequencies. This is the basic purpose of the power acoustik PEQ-72.

The task of finding the best combination of EQ settings to produce the desired result equal sound-pressure levels at your ears for equal recorded signal level at any frequency depends mainly on your ears. However, there are several starting points to guide you.

INSTALLATION

1. Most speaker systems require rather heavy boost at the lowest frequencies due to the large amount of air that must be moved. However, speaker woofer cones resonate between 45-60Hz where output is higher so do not boost too much at 60Hz. Use heavy boost at 150Hz, Less boost at 400Hz.
2. Due to sound-wave reflections between the front and rear windshields of a typical vehicle, there may be heavy loss between 700Hz to 1.3kHz so moderate boost here is very effective and will create more "presence" for vocalists.
3. The mid-range from 3 to 6kHz should not require much change from flat (center) Most speakers work well here. Adjust per your taste.
4. Due to limitations in human hearing, sound above 8kHz is not heard very well. Moderate boost at 1kHz adds a crisp character when percussion instruments are present.



SPECIFICATIONS

EQUALIZER

Center Frequencies:	60,150,400,1K,2.5K,6K,15KHz.
Equalization Range:	+/- 12dB nom, at each center freq.
High level Inputs:	Impedance: 100 ohms Max. Sensitivity: 3 volts nom. for full output.
Low level Inputs:	Impedance: 12K ohms Max. Sensitivity: 500mv. nom. for full output
Crossover Rolloff:	12 dB/octave

POWER AMPLIFIER

Output Power:	50 watts maximum per channel into 4 ohms. 18 watts per channel at less than 1% THD. (14.0 volts D.C. Supply)
Frequency Response:	20Hz to 20KHz, +/- 3 dB at 1 watt.
Residual Output Noise:	Less than 1.0mV UNWEIGHTED with slide controls at center position.
Power Requirement:	11-16 volts D.C. negative ground. 5 amps maximum.
Accessories Included:	Mounting Brackets, Hardware, Installation instructions.
Dimensions (W x H x D):	7" x 1" x 5-1/2" 178 x 25 x 141mm

Due to our continuing efforts towards product improvement, the above specifications are subject to change without notice.