



MODEL: PWM-70

**7 BAND PARAMETRIC EQUALIZER WITH SUBWOOFER
ELECTRONIC CROSSOVER**

**EQUALIZADOR PARAMETRICO DE 7-BANDAS
CON SUBWOOFER Y CROSSOVER ELECTRICO**

**OWNER'S MANUAL
MANUAL DE INSTRUCCIONES**

ENGLISH

■ SPECIFICATIONS

FREQUENCY RANGES	FRONT CHANNEL: 125Hz, 500Hz, 3.5KHz, 12KHz REAR CHANNEL: 50Hz, 600Hz, 6.3KHz
BOOST/CUT	18dB
S/N RATIO	115dB REF 1V INPUT
FREQUENCY RESPONSE	10Hz - 15KHz, +/- 1dB
MAXIMUM OUTPUT VOLTAGE	8V RMS
THD	0.05%
INPUT SENSITIVITY	150mV
HEADROOM	20dB
INPUT IMPEDANCE	10K OHMS
STEREO SEPARATION	82dB/1KHz
OPERATING VOLTAGE	11-15V NEGATIVE GROUND
OUTPUT IMPEDANCE	50K OHMS
SIZE (HxWxD)	27.5x178x115mm

* DUE TO OUR CONTINUING EFFORTS TOWARDS PRODUCT IMPROVEMENT, THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

■ INTRODUCTION

Congratulation on your purchase of your new preamplifier equalizer. Our sonic excellence is considered our most important objective. Your selection of this component tells us you desire to achieve the same goal. Welcome to the rapidly expanding group of discerning audiophiles who rely upon our products.

This manual has been prepared to help you maximize your enjoyment of the outstanding performance and multiple advanced features of this unit. To realize the exceptional performance this product is capable of, it is necessary that all signal sources, amplifiers, and speakers are of the highest quality.

■ EQUALIZER BACKGROUND

There are basically three types of equalizers: graphic, parametric, and a hybrid of these two, often referred to as paragraphic. Additionally, there are passive equalizers, which have no gain, active gain preamps, which have a gain stage usually with a volume control, and booster equalizers which we won't consider here since they are inferior passive equalizers with inexpensive IC amplifiers built-in.

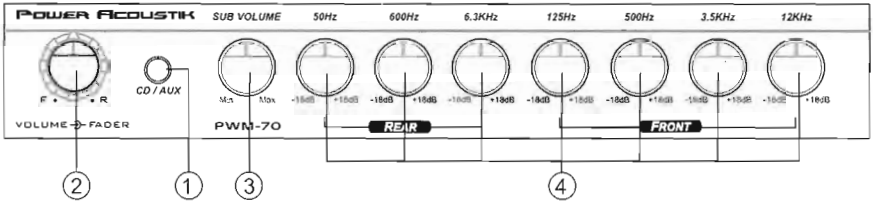
As in state-of-the-art home audio systems the optimum system requires a dedicated preamp with enormous gain to drive the various power amplifiers. Since home audio amplifiers do not have adjustable sensitivity, and require high output preamplifiers to drive them to maximum levels.

This unit is the first production preamplifier to incorporate a specific bandwidth parametric equalizer with adjustable Center Frequency Control on the front panel. With 18db boost or cut on its four bands, it can compensate for acoustic anomalies unique to the automotive environment. This unit easily becomes the "Mission Control Center" of any high end automotive sound system.

■ FEATURES

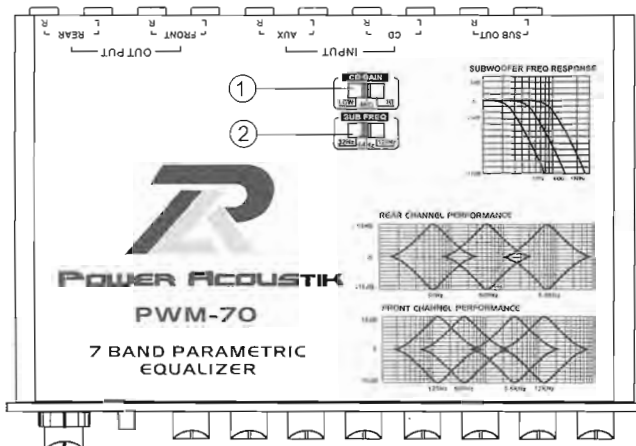
1. Volume control with up to 8 volts RMS of output.
2. Seven bands parametric equalizer with 18db boost Cut.
3. Specific bandwidth for each band.
4. Low noise BI-FET op-amp design yields minimum distortion.
5. On-board 30V bi-polar switching power supply.
6. Subwoofer outputs and level controls.
7. Subwoofer frequency selection switch (32Hz/ 64Hz/ 128Hz).
8. Input selector for Aux or CD.
9. Universal half-DIN chassis for ease of installation.
10. Gold-plated RCA input output connectors.
11. 20dB headroom eliminates signal overload.

■ FRONT PANEL CONTROLS



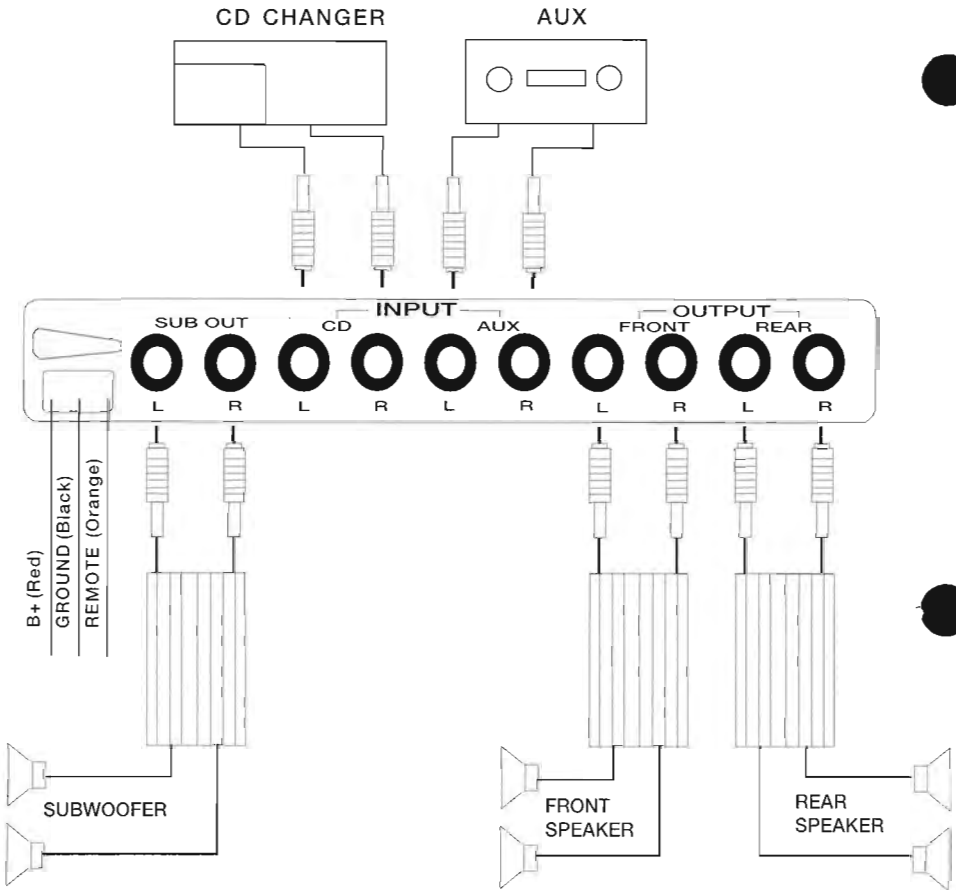
1. **INPUT SELECTOR SWITCH :** This switch selects the AUX or CD input.
2. **MASTER VOLUME CONTROL:** Turning the outer bigger knob to adjust the volume between the front and rear speakers in a 4 speakers system. Turning the smaller knob to adjust the output level.
3. **SUB WOOFER CONTROL:** Turning the knob to adjust the output level of sub woofer.
4. **PARAMETRIC EQUALIZER CONTROLS:** Controls the frequency response of the boost or cut, in the seven frequency bands.

■ TOP COVER CONTROLS



1. **CD INPUT GAIN SELECTOR:** Low / Mid/ High
2. **SUBWOOFER FREQUENCY SELECTOR:** 32Hz / 64Hz/ 128Hz

■ ELECTRICAL INSTALLATION



NOTES:

Set your source volume at one-half to three-quarter up and leave it.

Always use the volume control as a master(main) volume control. It has better electronics, higher S/N ratio and is more linear than any source unit volume control available.

If engine noise is audible , check the ground connection on all units in the audio system.