
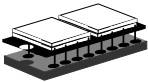


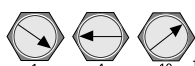
PQM OPERATION

The PQM is a one band, parametric equalizer. Adjustments are made using the three, circuit board mounted, potentiometers. These controls are simple to operate and provide a wide range of adjustment.

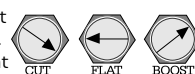
 **FREQUENCY CONTROL** is used to select the center frequency for equalization. A clockwise rotation increases frequency while a counterclockwise rotation decreases frequency.

FREQUENCY MODULE: The supplied frequency modules divide the audible frequency range into three bands. The range of the modules are: 20 Hz to 200 Hz, 200 Hz to 2 kHz, and 2 kHz to 20 kHz. Simply install one of the modules and its frequencies are selectable via the **FREQUENCY CONTROL**.



 **"Q" ADJUSTMENT:** "Q" is the property of an equalizer that determines the range of frequencies affected on either side of the center frequency. "Q" is equal to the center frequency divided by the bandwidth. As "Q" goes up, bandwidth decreases. The PQM's "Q" adjustment ranges from a narrow bandwidth of 10 to a very broad bandwidth of 1. A clockwise rotation increases "Q" while a counterclockwise rotation decreases "Q".

BOOST/CUT: This control is used to boost or cut the level of the center frequency. Its adjustment ranges from **18 dB of cut** at full counterclockwise rotation to **18 dB of boost** at full clockwise rotation. Flat response (0 dB – no cut or boost) occurs at mid rotation when the slot on the control is in the horizontal position.



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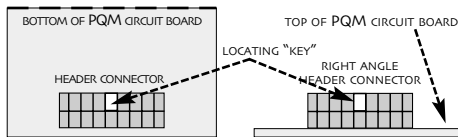
Owner's Manual – PQM 1 Band Parametric Equalizer

NDM132

INSTALLING THE PQM STEP 1: Locating the Connectors

- Remove the PQM from the packaging and inspect the circuit board.
- Locate the header connectors soldered onto the top and bottom of the circuit board. See illustration 1.
- Notice that one of the openings on both header connectors is blocked by white filler material. The PQM's mounting system utilizes this blocked receptacle as the "key" to insure proper positioning when installing the PQM onto the amplifier's mounting port. See illustration 2 and 3.
- During the "tuning process", the PQM may be installed "vertically" using the right angle header connector. See illustration 2. However, the final mounting position must be in a "horizontal" position (using the header connector on the bottom of the circuit board) to allow the cover to be re-attached. See illustration 3

illustration 1



INSTALLING THE PQM STEP 2: Adjusting the PQM

The PQM is designed to be adjusted with the aid of a Real Time Spectrum Analyzer. The analyzer will provide visual feedback when following this simple procedure.

A. Plug-in one of the supplied frequency modules into the PQM's module socket. It is from this module's range of frequencies that you will select your center frequency.

B. Turn-off amplifier. Remove amplifier cover and locate the Accessory Port.

C. Remove the two header jumpers and locate the missing pin ("key") on the port.

D. Align the blocked receptacle on the right angle header connector with the missing pin and press the PQM onto the mounting port. Note: after adjusting, you must follow Step 3 for final installation.

E. Set system to a moderate volume level and play pink noise.

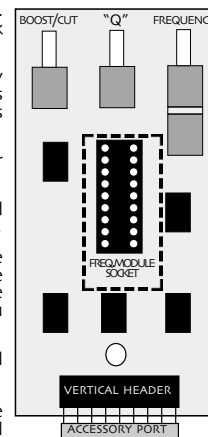
F. Rotate the boost/cut control clockwise (fully) to +18 dB. The RTA's display will now show you the position of the center frequency and "Q" settings of the PQM.

G. Rotate the frequency control to the frequency you wish to adjust.

H. Next, rotate the "Q" control to the width of the dip or peak in response that you are equalizing

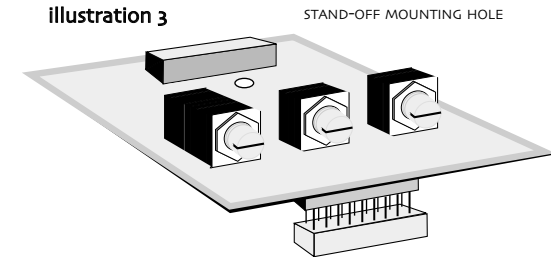
I. Finally, adjust the gain control to achieve the desired response curve.

illustration 2



INSTALLING THE PQM STEP 3: Final Installation of the PQM

illustration 3



- Turn-off amplifier. Remove PQM from its "vertical" mounting position. See Step 2
- Align the white stand-off with the hole on the rear of the PQM circuit board. Next, align the blocked receptacle with the missing pin on the mounting port. Press the PQM onto the port and secure it to the stand-off by applying downward pressure.
- Turn amp on and audition the system. If further adjustment is necessary, the PQM may be adjusted when mounted in this final mounting position.