

# SH-PMS & SH-PM TREM

SH-PMS & SH-PM TREM "Hybrid Guitar Turbochargers" The SH-PMS and SH-PM TREM are internal preamps and equalizers designed for hybrid guitars and basses with both piezo and magnetic pickups. Note: Since the magnetic pickup signal input is at the end of the circuit, EQ and volume adjustments made with the trim pots will only affect the piezo signal.

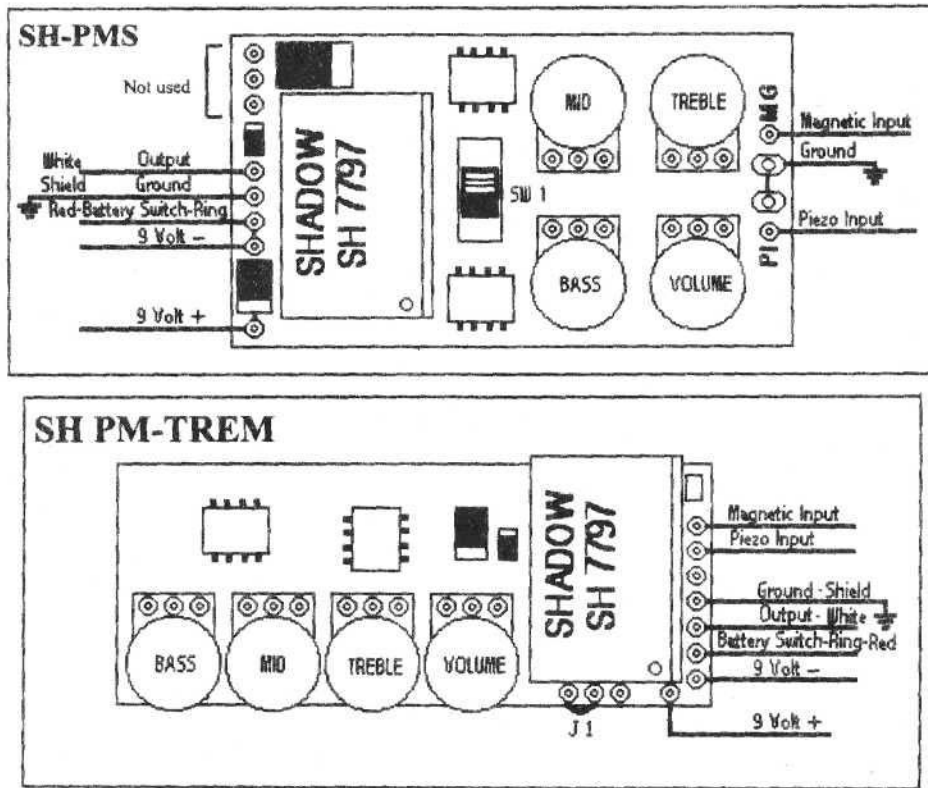
**Installation:**

- Remove the rear cavity cover or pick guard and determine the best location in the control cavity for the circuit board.
- Install the required output socket, a 9 volt battery and any optional controls needed for your application.
- Cut wires to the required lengths and make Connections as required. Refer to the drawings below or appropriate schematic.
- Check the system for wiring mistakes during the installation. All circuit boards are factory tested.
- Make adjustments to the piezo EQ and volume trim pots as desired.
- With both piezo and magnetic pickups on, check the sound to be sure the piezo pickup is in phase with the magnetic pickup.
- If the sound is thin (looses bass) when combining the piezo and magnetic pickups, change the piezo phase as described below.
- Remove the protective foil from the applied Velcro adhesive and place the circuit board in the desired location.
- Reinstall the rear cover or pick guard and retest all functions.

Note: Battery power is switched on by plugging a cable into the output socket. For maximum battery life, always unplug the instrument cable from the output socket when not in use. When the sound becomes weak or distorted, replace the battery.

**EQ Control frequencies and boost/cut ranges**

- Brilliance .....5.9 kHz - 25 kHz (Preset internally on circuit board at +9 dB)
- Treble.....3.8 kHz -18 kHz +/- 12 dB
- Midrange..... 70 Hz - 4.7 kHz +/- 16 dB
- Bass .....30 Hz -80 Hz +/- 24 dB
- Sub bass.....! 2 Hz - 40 Hz (Preset internally on circuit board at +4 dB)



**Piezo Phase Selectors**

With the SH-PMS and SH-PM-TREM, it is possible to change the phase of the piezo pickup in relation to the magnetic pickup. If you experience a thin sound (looses bass) when combining the piezo and magnetic pickups, the piezo phase should be changed. When the magnetic pickups are off, changing the phase of the piezo signal will have no affect on the sound.

To change the phase of the piezo pickup with the SH PMS, change the position of the piezo phase switch (SW 1)

To change the phase of the piezo pickup with the SH-PM-TREM, change the position of the piezo phase jumper wire (J1) from the standard position (center and left terminals connected as shown in the above drawing) to the inverted position (center and right terminals connected) Note: If the piezo phase wire is left out, the preamp will not work.