

## Installation Instructions M-05 Std, M-05 Pro Pickups

### **Before You Start, A Word About Amplification:**

M-05 passive pickups have been designed to operate properly and sound good without the use of a preamp when plugged into any normal electric guitar amp. As a non-preamped piezo pickup the M-05 has an impedance of approximately 2 mega ohms which most electric guitar amps will handle. As with any passive pickup, the sound can be further enhanced and EQ'd with an outboard preamp.

**PA systems:** If you require the added ability to be able to plug directly into a P.A. or mixer then a preamp designed for pickups will be necessary. The preamps that are built into PA systems are microphone preamps and generally will not work properly with a passive pickup.

**Acoustic Amps:** If you are plugging into an acoustic amp, a preamp may be required depending upon the design of that acoustic amp. Acoustic amps may or may not require the use of a preamp with a passive pickup, and that will depend upon whether or not there is a special built in preamp section within that amp which specifically allows for the choice of plugging in either a passive (non-preamped) or active (preamped) pickup. This choice is quite often a second channel or a pushbutton on the amp's control panel. Many acoustic amps show a selection that may indicate the choice of 'high impedance' and 'low impedance'. Low impedance in these instances usually indicates that in this range the amp will handle an impedance of 1000 ohms or less - which will allow active pickups with preamps to be used.

High impedance in these instances may indicate an allowable impedance in the 2 or 3 mega ohm range - which will allow passive pickups to be used. Or it may indicate a maximum input impedance allowed of 20,000 ohms or less - which will handle magnetic electric guitar pickups but not passive pickups. You should carefully read the technical specifications of your acoustic amp in order to see what it will do.



### **Installing the M-05**

- 1) The sensing element for the M-05 series of pickups requires a flat area, approximately 1/4" high by 1 1/2" in length, on the face of the saddle part of the bridge of the instrument. Check the fit of the element against the bridge. Re-contour or shape the bridge only if necessary. Most normal compensated bridges (such as the one shown at below) have enough flat surface area without having to do any bridge modification.
- 2) The M-05 comes with a CJA series jack assembly with both long and short barrels for adjusting the clamping distance of the jack assembly. Use the barrel set that allows the jack assembly to clamp to the side of the instrument as shown.
- 3) Install the jack assembly. Fit the barrels to the jack assembly. You will need a small round (such as the blunt end of a drill bit). Insert the round into the holes of the barrel and rotate the barrel to tighten the legs of the jack assembly.
- 4) As supplied the M-05 comes with both putty and VHB foam tape for installing the sensor to the bridge. If one is planning on taking the system on and off of the instrument regularly, then the putty should be used to adhere the sensor to the bridge. If you plan on installing the system and leaving it in place then the VHB tape should be used.

**Putty installation:** take a little bit of the putty (about half the size of a pea) and stretch and spread it on the non-label side of the sensor. The putty should be approximately 1/16" thick on the sensor. Support the bridge so that it doesn't move and press the sensor firmly into position as shown in the photo below. Move the sensor slightly left and right as it is being pressed against the bridge - this will help to seat the sensor properly.

**VHB installation:** take a piece of the VHB tape, trim it to the length of the sensor. Stick it to the non-label side of the sensor. Remove the protective strip on the tape. Support the bridge so that it doesn't move. Press the sensor firmly into position as shown in the photo below. Note that each strip of the VHB tape can only be used one time as it will lose its adhesion if it is reused.



**Note:** It is suggested that you hold the jack assembly when unplugging your cord. This will help to make sure that the jack assembly stays securely in place.