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Installation Instructions - NR-2 Pro with M2plus Jack For National Style Biscuit Bridge Instruments

Important Notes:

1) It is critical that the fit of the saddle into the biscuit of the instrument be rock solid. If there is any movement or play in the saddle, the pickup may not work properly. Should you need to replace the existing saddle to achieve a proper fit into the biscuit or need to shim and/or glue the saddle in, then it should be done prior to installing this pickup system. The saddle fit to the biscuit must be tight otherwise there can be quite noticeable variations in string to string volume. Address this as required.

2) The primary location for mounting the sensor is on the surface of the biscuit approximately 1/8" behind the saddle (see fig 1). This mounting position works well on most instruments. If the biscuit itself is overly thick (approaching 3/4") there might not be enough vibration transmitted through it to the sensor and it may be necessary to install the sensor on the saddle itself (as shown in fig.2).

3) Remove the tailpiece, strings and cover plate from the instrument.

Sensor Mounting

The sensor will mount with the supplied 3M VHB tape. Take a piece of the narrow VHB tape, cut it to the length of the sensor, remove the backing paper on one side of the tape and apply it to the non-labeled side of the sensor.
Thread the sensor element through the center opening of the cover plate.
The element is to be centered so it spans approximately the distance from the 5th and 1st strings. Remove the backing paper on the VHB and firmly press the sensor into place on the biscuit or the saddle depending upon the installation.

4) Reinstall the cover plate.

Jack Assembly Mounting

The jack assembly is designed to have its mounting plate slide underneath the tailpiece. VHB tape on the bottom of the mounting plate will secure the jack to the instrument. Mounting directly to the surface of the instrument is generally fine for metal bodied reso's and newer wood bodied one's with a heavy or plastic type finish. For older wood bodied instruments trim the VHB so that when the mounting plate is positioned beneath the tailpiece the area being adhered to is hidden beneath the tailpiece (fig.3).

1)Place the tailpiece in its normal position

2)Slide the jack mounting plate under the tailpiece and position it where you want it by dry fitting it. When you are satisfied with the positioning, remove the backing from the VHB and press the jack assembly into place on the instrument.

7) Reinstall the tailpiece.

11) Reinstall strings.

12) There is some room within the jack assembly to store a bit of excess wire. Simply push the wire through the grommet and into the jack body.

A Word About Amplification:

NR-2 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 NR-2 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.

<u>PA systems:</u> If you require the added ability to be able to plug directly into a P.A. or mixer then a preamp designed



fig 1



fig 2



fig 3

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.

<u>Acoustic Amps</u>: 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 that 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.

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