

and you're done. See the setup and adjustment section for final adjustment of the bridge.

4. SETUP AND ADJUSTMENT

1. First, set the spring tension so the bridge plate is pulled just flush onto the body when it is at rest. This greatly minimizes tuning inconsistencies and eliminates the "warble" sound the full-floating bridges are noted for. This is the setup we recommend.

Set the six pivot screws so the lower surface of each head is almost touching the top of the bridge plate when the bridge is at rest. The saddles should then sit a little up off the bridge plate on the hex adjusting screws, when the action is right.

2. The X-Bridge pickups are pressure sensitive and depend on the pressure from string tension to make sound. There will be a limit to the amount of usable downward pitch bend that is available before the pickups start to cut out from the slackening of the strings. The average limit of downward pitch bend is approximately 2.5 whole tones when the bridge is set up parallel to the body.

3. You may want to set your bridge up in full-floating mode to enable an upward pitch bend. This is usually accomplished by loosening the tension of the springs and jacking the rear end of the bridge up off of the body a small distance. If this is the case, please note that the amount of upward pitch bend desired will be subtracted from the total downward pitch bend available. For example: if you jack the end of the bridge up enough to get one whole tone of upward pitch bend, then you will be left with 1.5 tones of usable downward bend.

We have included a selection of self-stick neoprene rubber bumper pads for use as a shock absorber to cushion the rebound of the bridge when the tremolo arm is accidentally struck or released. Once you have arrived at the desired setup, turn the guitar around and see how much distance is between the front (spring side) of the bridge block and the cavity wall adjacent to it. Use one or more of the bumper pads to fill this gap so that the pad is slightly compressed between the bridge block and the cavity wall when the bridge is at rest. You may adhere the pads to the front of the bridge block, cavity wall or to both surfaces to achieve the proper spacing. The use of these pads is optional but we feel that the bumper pads improve the manners of the bridge.

5. ALTERNATE INSTALLATIONS

1. If you wish to retain all of the stock controls, drill another hole in the pick guard to add the X-Bridge volume pot. Connect everything to the new jack as shown in fig. 2. To add the second volume pot it may be necessary to enlarge the control cavity on the guitar.

2. If you do not want a volume control, you may bypass the volume control and hook the X-Bridge up directly to the jack. Just solder the braided wire to the ground, and the hot wire to the ring (the white wire on the jack). The X-Bridge signal will then be available on the "ring" of a stereo 'Y' cable. The guitar will function as normal with a mono cord.

Note: Do not combine the X-Bridge and the magnetic pickups onto the same volume pot.

6. USER'S GUIDE

A guitar equipped with an X-Bridge requires the use of a stereo 'Y' cable to access both the X-Bridge and magnetic pickups. This is a cable that has a stereo plug on one end and splits off into two mono plugs at the other end, one for each signal. The magnetic pickups will be on the 'tip' and the X-Bridge will be on the 'ring.' Each signal will require its own individual channel, even in a combo amp. Do not plug them into the same channel.

For best low end response, the X-Bridge should be plugged into amplifiers, effects or D.I.s that have a one megohm or higher input impedance. This is standard, but if the X-Bridge's low end sounds wimpy, look into this. Do not plug the X-Bridge into passive D.I.s,

For optimum results, the X-Bridge and the magnetic pickups should be in phase with each other when they are mixed together. If they are in phase, the mixed sound will have a full, rich tone quality. If they are out of phase, the mixed sound may be thin through the low mids and bass range. Since there is no phase standard for magnetic pickups, there is a significant chance that the magnetics will be out of phase with the X-Bridge. To further complicate matters, there is no phase standard even between the adjacent channels in dual-channel amps. The two channels of dual-channel amps are sometimes out of phase with each other. Since it is likely that the most common usage for the X-Bridge will be into these amps, we encourage you to experiment with phase to achieve the best results.

To change the pickup phase relationship with the passive kit, you must invert the phase of one of the signals outboard of the guitar. Our Para Acoustic D.I. box works wonderfully with the X-Bridge and provides instant phase control and E.Q., and acts as a direct input to the P.A. for it. If you do not have a Para Acoustic D.I., the simplest solution is to try another amp.

Another option is to run the two signals through separate amplifiers that are spaced as far apart from each other as the 'Y' cable will allow. The phase relationship is not important when the X-Bridge is routed to the P.A. amp. If you plan to only use the X-Bridge alone (for its acoustic sound), then phase in relation to the magnetics does not matter at all.

