X-BRIDGE (VINTAGE)

INSTALLATION MANUAL & USER'S GUIDE



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1. PACKAGE CONTENTS

One (1) fully assembled X-Bridge

One (1) tremolo arm

Three (3) springs

Six (6) bridge pivot screws

One (1) spring claw with mounting screws

One (1) prewired stereo output jack with washer and nut

One (1) volume pot (5 Megohm) with pre-soldered capacitor

One (1) hex wrench for tremolo arm and saddle height adjustments

One (1) piece of 10" insulator sleeve

Three (3) neoprene rubber bumper pads

2. OVERVIEW AND CAUTIONS

The Vintage X-Bridge is a drop-in replacement for the Vintage Strat bridge with six pivot screw holes spaced .440" apart from each other (center to center) and 2.2" from the first to the sixth hole (center to center). There are a few other bridges on the market that have the same look as the vintage bridge but with narrower overall string and screw hole spacing, making them non-interchangeable. Please confirm that this bridge will fit your guitar before beginning the installation.

The Passive Stereo kit provides for independent outputs for the magnetic and X-Bridge pickups via the "tip" and "ring" contacts of a stereo jack. A volume pot for the passive X-Bridge takes the place of a middle tone control. The tone functions are summed onto the other tone pot. The wiring is designed for a typical 3-knob Strat. These instructions are written for guitars already set up with a tremolo bridge. There is no physical modification required to the guitar body or pick guard.

We do not provide installation advice or support for home or hobbyist installations. Installers: please read the instructions carefully before proceeding. We will not be responsible for any damage to the guitar or personal injury resulting from installation, use or misuse of the product.

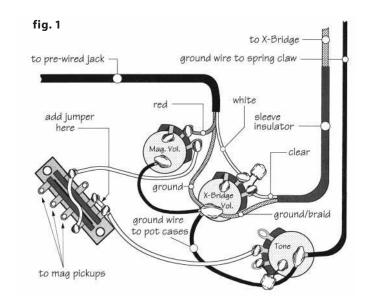
Do not lift the saddles up off the bridge plate to see how high they will go! This tempting investigation has a high probability of damaging the pickup. There is ample pickup wire to allow the full range of saddle movement for height and intonation.

3. INSTALLATION

1. Remove your existing bridge and all of the pick guard screws. Install your new X-Bridge using the original pivot screws and springs from your other bridge.

The Vintage X-Bridge comes with six pivot screws and three springs, but they are intended for new installations, not for replacing the original springs or screws which are slightly different.

- 2. If you do not already have a claw in the spring cavity, install the one provided now.
- 3. Feed the braided coax wire from the bridge into the electronics cavity through the hole for the ground wire. Be sure to leave enough loose wire in the spring cavity to allow full movement of the tremolo arm. Cover the coax wire in the electronics cavity with the 10" insulator sleeve provided. Use the cable tie (provided) to secure the insulator sleeve. Do not insulate the portion of the coax wire within the spring cavity.
- 4. Remove the wire that connects the middle tone pot to the switch and solder a jumper between the two lugs on the switch for the tone controls.
- 5. Solder an insulated ground wire from the spring claw to the volume pot case (if there isn't one already).
- 6. Disconnect and remove the existing jack and middle tone pot from the guitar, replace them with the ones included in the kit, and connect as shown in figure 1.
- 7. Carefully tuck all of the wires into the cavity as you lay the pick guard back on top of the guitar. With everything in place, fasten the pick guard to the body.
- 8. Attach the three springs to the bridge and claw, restring the guitar



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.

ground wire to spring claw to pre-wired jack to X-Bridge insulato to mag pickupe white clear shield shield around wire to pot cases

fig. 2

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.