

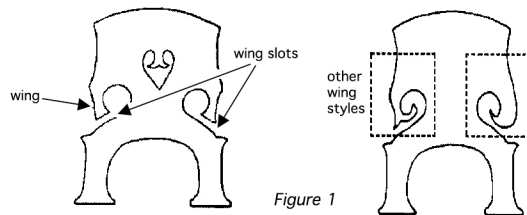
# UNDERWOOD PICKUPS

## INSTALLATION INSTRUCTIONS FOR BASS VIOL PICKUP

PLEASE FOLLOW THESE INSTRUCTIONS CAREFULLY. DO NOT BEGIN INSTALLATION UNTIL ALL INSTRUCTIONS HAVE BEEN READ AND CLEARLY UNDERSTOOD.

**PREPARING THE BRIDGE:** In most cases, the Underwood Pickup can be installed in the bridge of your instrument with little modification. However, all bridges do not have the same style bridge wings, or “arms”, and the cut may not be even in all cases. The pickup should be checked for correct fit and a decision made as to which of the following approaches needs to be used.

Please do not install the pickup until it can be easily inserted into the wing slot. Pressure should be very light. The pickup or the bridge may be damaged if the pickup transducers are forced in. The pickup should be just tight enough to stay in place when the instrument is played or transported.



**WING SLOT TOO NARROW:** Use medium grit sandpaper, an ordinary 10” flat file, an emery board or other abrasive device to remove small amounts of wood from the wing. (See Figure 1)

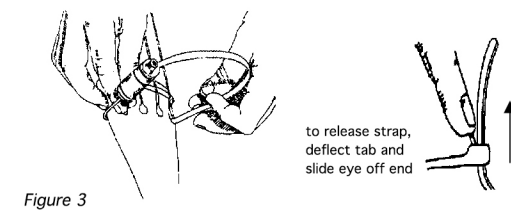
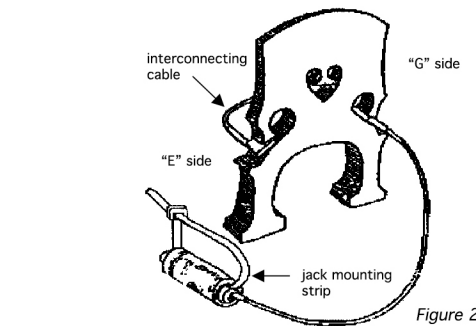
DO NOT REMOVE WOOD FROM THE LEG OF THE BRIDGE UNLESS IT IS UNEVEN.

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Exercise caution when trimming the wing as it may be fragile due to cross graining of such a narrow section. Be certain that the walls of the slot remain square or parallel as you work. It may be necessary to align the walls if the bridge was originally cut poorly. Do the work with the bridge in place and under string pressure. Work slowly and check the fit often.

**WING SLOT TOO WIDE:** Use the shim stock provided or make additional ones from manila or firm index card. It is best not to build up too many layers of card as the tone might be damped somewhat. If more than three or four layers of card material are needed, it may be better to use hardwood veneer or similar material to fill the gap. Hobby shops are a source for thin plywood or veneer.

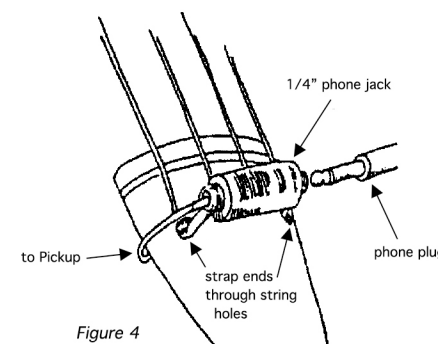
PLACE THE SHIMS BETWEEN THE PICKUP AND THE LEG OF THE BRIDGE. DO NOT GLUE THE SHIMS TO THE PICKUP. DO NOT GLUE THE PICKUP TO THE BRIDGE.



**INSERTING PICKUP:** Refer to Figure 2 for correct position of pickup. Remember that the interconnecting wire should pass over the top or finger board side of the bridge. Keep wires away from contact with the soundboard, bridge or strings to prevent buzzes or rattles. Avoid flexing the wire near the pickup cases to prevent internal damage.

**MOUNTING THE OUTPUT JACK:** Refer to Figures 3 and 4. Route the output wire under the strings behind the tailpiece. Insert the nylon strap ends into the string holes. You may place the pickup on the back of the tailpiece if you wish to avoid conflict with other accessories such as a bow quiver. Insert the small end of the nylon strap into the eye of the buckle end. The tab should be against the ribbed side of the small end of the strap so that it ratchets when the strap is pulled tight. Do not trim the end of the strap if you expect to remove and re-install the pickup. **VERY IMPORTANT!** The strap is releaseable, just deflect the tab and slide the eye off the end of the strap.

**PATCH CORDS:** Be sure to choose a patch cord that has low capacitance and low noise characteristics. Some standard guitar cables, especially the coiled or spiral types, may not perform well due to high capacitance. Ball tip phone plugs such as the Switchcraft 470 are recommended as they fit the Switchcraft jack of the Underwood. Some plugs may be too loose and cause static or buzzes due to intermittent contact.



**AMPLIFIER AND PICKUP ADJUSTMENTS:** Plug the patch cord into the pickup output jack and the amp input. Set amp controls as follows: Set volume to its lowest point and set all tone controls to their flat or mid-range positions. Turn on the amp and start advancing the volume control. No feedback should occur, if the pickup is properly installed, until the volume control is near distortion level. Try to avoid playing situations in which the amp is facing the soundboard of the bass or is directly adjacent to the instrument as this may lead to feedback at lower than needed volume levels. When the desired volume level is obtained, check for balanced output by playing a range of notes on each string. Most players find the flat settings to be the most natural sounding. However, the input impedance and overall frequency response of amps of various manufacture tend to vary, so it may be necessary to adjust the tone controls. Start with the controls in the flat position to obtain optimal results, keeping in mind that the natural tone of the bass viol includes “woody” sounding highs as well as lows. The Underwood Pickup will enhance the true sound of your instrument.

### TWO-YEAR SERVICE AND WARRANTY

If you experience any problems with your pickup within a two-year period after the date of purchase, please contact us. We will gladly replace or repair any unit found defective due to manufacturer's fault provided that a description of the problem is enclosed with the pickup and it is returned to us intact and untampered with. The warranty applies only to the original purchaser and is limited to units that have been properly installed and used for purposes intended by the manufacturer. Defects in materials and workmanship are fully covered.

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