~1460, 1460-N12~

Acoustic Thinline Transducers

BARCUS-BERRY®

True Expression

THANK YOU FOR YOUR PURCHASE OF A NEW BARCUS-BERRY 1460 ACOUSTIC THINLINE TRANSDUCER

At Barcus Berry, we value your trust in us to provide your guitar with the most natural amplified sound available today. As the inventor of the Piezo transducer, we have over 30 years of experience in the field of acoustic instrument amplification. Since our first under-saddle transducer over 20 years ago, our experience assures you that your new 1460 transducer will give outstanding performance and dependability.

BEFORE INSTALLATION

The Barcus Berry 1460 is designed for acoustic guitars that have standard 2 1/8” bridge pin hole spacing, which is the measurement between the center of the bridge pin holes of the high and low E strings.

Please remember that accurate installation is critical for optimum performance of the 1460 in your guitar. Please give special attention to the flatness of the inside of the saddle route and the bottom of the saddle itself. This is critical to achieve a balanced string response.

BARCUS BERRY 1460 INSTALLATION INSTRUCTIONS

The 1460 transducer has been engineered and manufactured to exacting tolerances, and designed from the beginning to be the most dependable under saddle transducer. Once your 1460 is correctly installed, it is not directly exposed to physical harm. But please be aware that before and during installation, great care must be taken to avoid bending or twisting the transducer.

For best performance and to avoid instrument damage during installation, Barcus Berry recommends that the 1460 transducer be installed by your dealer, or by a qualified guitar repair specialist. Barcus Berry is not responsible for any damages resulting from improper installation. Please read and carefully follow the installation instructions.

TOOLS NECESSARY FOR INSTALLATION OF 1460 TRANSDUCER

- Variable speed electric drill
- 3/32” drill bit
- 15/32”(11.9mm) drill bit
- Tapered reamer with 1/2” maximum diameter
- Soldering iron (25 watt preferred)
- 60-40 rosin core solder (60-40 alloy multi-flux type is ok)
- Cardboard piece or similar material approx. 1.5’ (45cm) square
- Straight edge (minimum of 4” or 10cm in length)
- Flat type file (fine texture optimum)
- Adjustable crescent wrench or 1/2” open ended wrench

INSTALLATION INSTRUCTIONS:

1) Use a sharp pencil to make temporary positioning marks on the bridge at the high and low E locations. Remove strings and bridge saddle. The saddle slot or route must be a minimum of 1/8”(3.2mm) deep its entire length. If the saddle slot must be made deeper, only an experienced guitar technician should make this adjustment. Improper deepening of the saddle slot or route may severely damage string action of the guitar, as well as uneven string response.

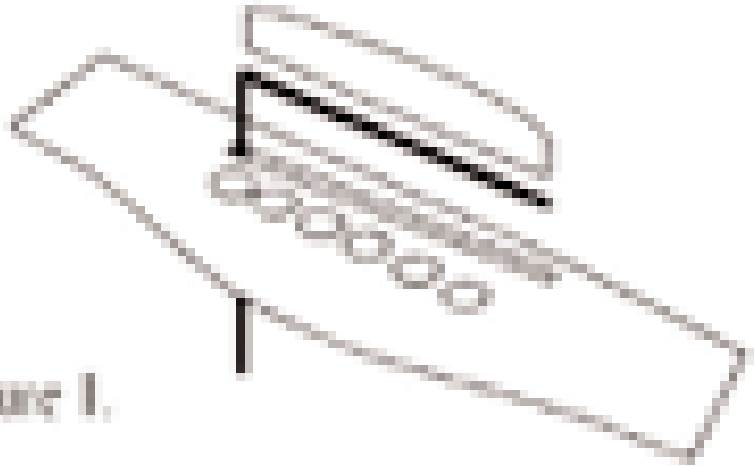


Figure 1.

2) Drill a 3/32”(2.3mm) hole in the saddle slot, centered 17/64”(.266” or 6.7mm) from the high E string to the nearest end of the saddle slot (for 6 string guitars). For 12 string guitars, drill the hole 17/64” (6.7mm) from the

drill the hole 17/64” (6.7mm) from the midpoint between the two high E strings to the nearest end of the saddle slot. Be careful to locate this hole accurately, because hole placement determines positioning of piezo elements relative to the strings.

3) Use a tapered reamer to enlarge the end pin hole to accept a 15/32”(11.9mm) drill bit.

On 6 string guitars drill 2.3mm hole 6.7mm from High E

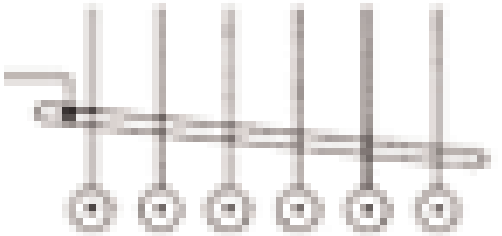


Figure 2 (six string bridge diagram)

On 12 string guitars drill 2.3mm hole 6.7mm from the midpoint of the two High E strings

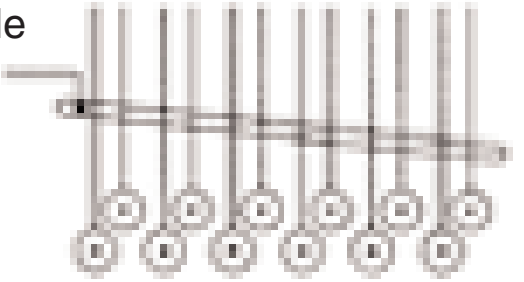


Figure 3 (twelve string bridge diagram)

4) Use variable speed drill with 15/32”(11.9mm) to drill through enlarged end pin hole.
5) Remove all wood debris from saddle slot, then feed transducer cable through hole in saddle slot. Carefully place transducer into saddle slot without bending or twisting. Be sure transducer rests flat in the bridge slot and that the transducer cable is not binding in its hole.
6)Prepare the Barcus Berry Fas-Jac™ endpin jack for installation by placing the lock washer onto the electrical contact end of the jack. Then place the hex nut over the lock washer and screw it on about 5 to 8 turns.
7) Prepare to solder cable elements to Fas-Jac. Place cardboard square or similar material on top of (above) guitar, to protect guitar while soldering connections. Place Fas-Jac on cardboard, then bring transducer cable up through the soundhole. Separate about 1”(26mm) of the braided wire shield at the end of the cable, exposing the center plastic shielded wire.

Remove approximately 1/4”(7mm) or the plastic shield, allowing enough bare wire to solder it to the jack.

8) Solder center wire to one of the short terminals (“tip” terminals) near the center of the jack, then solder ground wire (braided outside shield) to the outside leg of the jack. Leave the least amount of exposed wire possible in order to keep transducer noise to a minimum.

9) Install Fas-Jac following instructions in FAS-JAC INSTALLATION section.

10) Adjust saddle depth to maintain current action (string height) by using a smooth flat file or belt sander with fine grit to remove .085”(2.16mm) from the bottom of the saddle. To be sure the saddle bottom is perfectly straight after modification, place saddle bottom against a straightedge or machinist’s rule. Perfect straightness is critical to balanced output of each string. Re-install saddle into bridge slot, and be sure saddle is resting evenly on the top of the transducer. If necessary, gently tap the saddle down with a

down with a non-marring tool (e.g. a plastic screwdriver handle) to make sure it is well seated. Re-string guitar.

NOTE: Before evaluating the amplified sound of the guitar, allow the instrument to stand (with all strings tuned at a normal pitch) for a minimum of 24 hours. During the first day or two after the installation of any under-saddle transducer, the output level can vary from one string to another until stresses in the saddle and bridge have equalized. Only then will the output of all strings be properly balanced. If one or more of the strings delivers a weaker signal than the rest (after the min. 24 hour waiting period), the problem is most likely an indication that the bottom of the saddle slot is uneven. When replacing strings in the future, remove and replace only one string at a time to assure maintenance of pressure on the bridge saddle.

BARCUS BERRY FAS-JAC ENDPIN JACK INSTALLATION:
TOOLS RECOMMENDED FOR FAS-JAC INSTALLATION

• One 16” to 18” (40cm-46cm) length of 1/4”(6.4mm) diameter rod (e.g. wooden dowel)
• One 5/16”(8mm) screwdriver
• One 9/16” open end wrench or adjustable crescent wrench

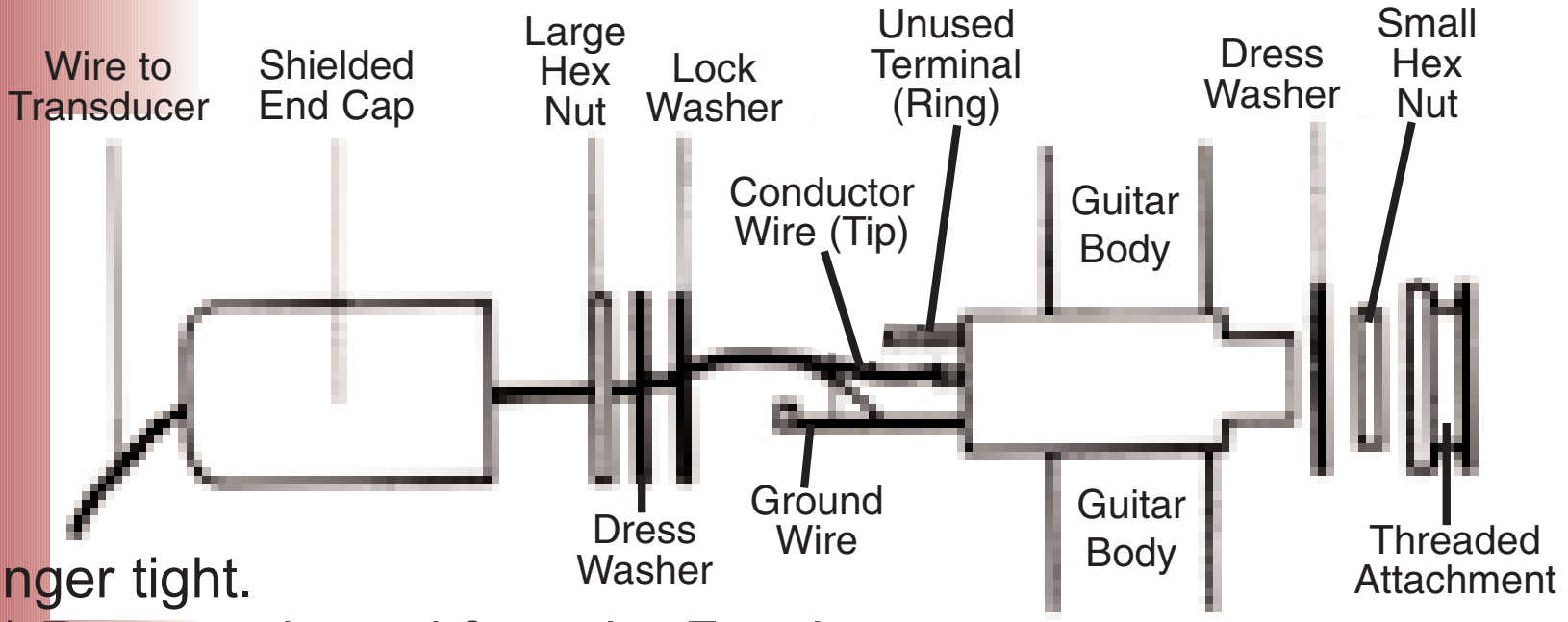
PROCEDURE

1) Remove label, if any, from body of Fas-Jac
2) Unscrew and remove end cap from Fas-Jac
3) Remove end pin from guitar and drill 1/2”(12.7mm) through end block where Fas-Jac is to be installed
4) Insert the 1/4”(6.4mm) diameter rod into the guitar through the hole in the end block until visible through the soundhole
5) Push the rod into the Fas-Jac and gently pull

the Fas-Jac through the end block until it is stopped by the nut threaded onto the body of the Fas-Jac.

6) Measure the length of the exposed Fas-Jac threads visible on the outside of the guitar; length of exposed threads must measure at least 1/8”(3.2mm) but not more than 5/32”(4mm). If the length isn’t correct, push the Fas-Jac back into the guitar until it’s accessible through the soundhole and adjust the position of the hex nut on the body of the Fas-Jac. Pull the Fas-Jac back through the end block and re-measure the length of the exposed threads. If necessary, repeat this procedure until the proper length of the threads is exposed through the hole in the end of the block.

7) Slip the end cap over the rod and screw onto the Fas-Jac until



finger tight.

8) Remove the rod from the Fas-Jac

9) Place a 1/2” open end wrench or adjustable crescent wrench over the end cap and tighten the cap while holding the body of the Fas-Jac with a screw driver inserted into the slot end of the Fas-Jac.

Limited Warranty

This Barcus-Berry product is warranted for a period of one (1) year from the date of purchase against defects in workmanship and parts.

For complete warranty information or more information on Barcus-Berry, visit **www.barcusberry.com**.