



BARSTOW

Passive - Model 3101
HIGH PERFORMANCE
PIEZO TRANSDUCER PICKUP

INDIVIDUAL SENSORS FOR INDEPENDENT STRING RESPONSE
GOLD-PLATED • EASY INSTALLATION • SOLDERLESS CONNECTIONS



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Dean Markley's Barstow™ Passive™ pickup is an Under-The-Bridge-Saddle™ style transducer with fantastic acoustical reproduction and smooth, flowing string balance. The Barstow™ Passive™ has excellent acoustic tone and reduces unwanted noises commonly found with stick-on type transducers. The Barstow™ Passive™ pickup also requires no maintenance and is unseen when installed in your guitar. Only you will know you have a pickup installed, unless your friends see the guitar cable connected to the Gold-Plated End-Pin Jack™... which is a beautiful addition to any instrument.

OUTSTANDING FEATURES OF BARSTOW™ PASSIVE™

- 24-K Gold-Plated transducer pickup, with mini-plug connector
- 6 Individual string sensors for independent string response
- Sensors mounted in 24-K Gold-Plated steel casing, providing a level surface for balanced string volume
- 24-K Gold-Plated End-Pin Jack™ with mini-plug connector
- Solderless, mini-plug connector for easier installation

PARTS ENCLOSED

- (1) Gold-Plated Barstow™ Under-The-Bridge-Saddle™ transducer - with solderless mini-jack connector
- (1) 24-K Gold-Plated End-Pin Jack™ - with solderless mini-jack connector
- (4) Stick-on flexible metal, cable ties with adhesive backing

TOOLS NEEDED

Variable speed drill
1/8" (3.175 mm) drill bit
3/16" (4.763 mm) tapered step bit
9/16" (14.288 mm) open end wrench
#1 Phillips head screwdriver
3/32" (2.381 mm) Allen wrench
Piece of string – 16" (40.64 cm) length
15/32" (11.906 mm) tapered reamer (optional)
Fine Tooth Metal File
Sandpaper, 120 grit

INSTALLATION INSTRUCTIONS

Most guitar players realize that the investment in their prized guitar deserves a professional installation of the Barstow™ Passive™. Your full investment will be only a fraction more if you have your Barstow™ Passive™ installed by someone who is experienced in pickup installation.

You can install the Barstow™ Passive™ yourself if you have patience, care, and some knowledge of basic guitar mechanics. The Barstow Passive™ has been uniquely designed for simple installation and requires no soldering for ordinary applications.

NOTICE: Installer assumes all responsibility for damage to the Barstow™ or guitar components. Be certain you read and fully understand all instructions. Have a clear, clean workspace to do the installation. Use tools in strict accordance with the manufacturer's recommendations and warnings. When in doubt, seek the advice of a qualified guitar specialist.

Read ALL directions thoroughly BEFORE starting installation!

Part I – Installing the Barstow™ Under-The-Bridge-Saddle™ Transducer

Before you get started, it is imperative that the bottom of your saddle slot is flat and uniform. If it is cut unevenly or warped, this may cause a string volume balance problem. It is recommended that if your slot is uneven, you take it to a professional technician to address the problem.

Start by removing all of the strings, one at a time. **Don't cut your strings off unless you loosen them first.** The resulting jolt that the neck takes if the strings are cut before loosening is not good for the neck.

Before removing the bridge saddle, take a sharp pencil and make a mark on the saddle all along where the saddle meets the bridge. Now remove the bridge saddle.

1. Correctly installed, each string should pass over the center of a string transducer. Keeping that in mind, correctly position the transducer by lining up the transducer with the string peg holes. On the bass side of the bridge saddle slot, a 1/8" hole must be drilled for the transducer wire to go through. Now, mark the spot in the saddle slot for the transducer wire's hole. Drill with 1/8" drill bit using care to maintain a 90-degree angle from the top of the guitar. It is important that you drill straight so as to not widen the existing slot on either side. Remove any wood chips and foreign material from the saddle slot.

2. Insert pickup by pushing the male mini-jack down through the hole in the bridge saddle slot. The pick up should sit comfortably in the slot without binding on the sides or the ends of the pickup.

3. It will be necessary to “shave down” your saddle to compensate for the height of your new transducer pickup (approximately 1/16”). (Make sure the bottom of your saddle is completely flat to ensure maximum contact between saddle and pickup for even string volume.) A good method for shaving the bottom of the bridge saddle is to tape #120 grit sandpaper to a piece of glass. Lay the glass flat on the table, sandpaper side up. Place the base of the saddle straight up and down on the sandpaper and with side to side motion, lightly sand off the excess material that needs to be removed. Remove only a small amount. Then place the saddle into the bridge saddle slot, on top of the pickup. Push down and see how much material still needs to be removed from the bottom of the bridge saddle. Repeat this procedure a little at a time until the line you marked on the saddle evenly touches all along the bridge as it was before you installed the pickup. Take your time. Don't rush this.

4. Tape the bridge saddle to the bridge to hold the saddle and pickup in place.

Part II – Installing the Gold-Plated Stereo End-Pin Jack™

Important Note: If your guitar presently has a typical electrical End-Pin Jack™ in the end block, you may remove it and proceed to step 4 in Method Two.

Method One: [Preferred method] Done by hand; accurate but time consuming.

1. Remove the currently installed strap End-Pin.
2. With a 15/32" (11.906 mm) reamer, widen the hole size to 15/32" (11.906 mm). (Available from Stewart McDonald, 1-800-848-2273, part #4323.)
3. Proceed with Step 4 in Method Two.

Method Two: This method is much quicker and also works acceptably, but is not recommended for instruments with abalone or decorative veneers at the end block.

1. Remove the currently installed strap End-Pin.
2. Apply masking tape around exposed hole to protect the instrument's finish.
3. Using a sharp 3/16" (4.763 mm) tapered step bit, line up the End-Pin hole and begin drilling, keeping the step bit at a 90-degree angle to the guitar bottom. Use steady, even pressure. Allow the step bit to go all the way through the End-Pin block of the instrument, **ensuring the drill's chuck does not come in contact with the outside of the body of the guitar** so that the diameter of the hole is a continuous 15/32"—all the way through. **Allow the drill bit to come to a complete stop before removing from guitar.** Remove any particles of wood that may be left over.

4. Now the Gold-Plated Stereo End-Pin Jack™ is ready to be installed:

4A. Remove the strap holder, smaller hex nut, and small inner-diameter, flat, silver washer from the end of the jack.

4B. Insert the male mini-jack on the end of the Barstow™ transducer into the female connector on the End-Pin Jack™.

4C. Move the larger (9/16" / 14.288 mm) hex nut, lock washer, and flat silver washer on the End-Pin Jack™ assembly as far as it will go towards the wired end of the jack.

4D. Place the End-Pin Jack™ assembly inside the guitar and push through the end-pin hole. If this hole is difficult to reach, use a string threaded from the outside of the guitar and tie it to the End-Pin Jack™. Pull the string and jack through the hole.

4E. Screw the small inner-diameter, flat, silver washer and smaller hex-nut onto the smaller (in diameter) threads of the jack and tighten it firmly.

4F. Now is the time to tighten the nut on the inside of the guitar so the jack sets firmly in the end-pin hole. Hold the jack in place with the Allen wrench in the small hole at the outside end of the input jack. Tighten the nut with the (9/16" / 14.288 mm) open-end wrench (a little more than hand-tight - so it holds in place).

4G. Place strap holder over End-Pin Jack™ and tighten hand-tight.

5. Check to see if the wiring is loose inside the guitar. Determine if you need to install any of the flexible metal clips to keep wires from rattling around in your guitar. If you find that the wire is rattling, put a clip on the wire. Then position a clip inside the guitar on the top or top corners where the wire will not rattle. Remove the protective adhesive backing from the clip and press into place.

6. Replace your strings with a new set and tune up.

You're ready to go!!

USING YOUR BARSTOW™ PASSIVE™ PICKUP

The Barstow™ Passive™ pickup does not require a pre-amp for normal amplification. Simply plug in and go!!! If you find the tone to be a bit too “trebly,” simply roll off the highs and increase the bass and mid-range on your amplifier/PA. You'll find just the right combination to produce a very nice, well-balanced tone.

Your Barstow™ Passive™ will give you many years of enjoyable playing. If at sometime you decide you would like to “supe up” your Barstow™ Passive™, you can always add a Gold River™ Accelerator Jack™. A very simple and easy install... a fantastic sound! Because of its discrete Class A pre-amp and superior circuitry design, using the Gold River™ Accelerator Jack™ will greatly increase headroom, tone, and output to your amplifier.

See the complete line of pickups and accessories of the Dean Markley West Coast Series™ Acoustic Gear™ at your local Authorized Dealer, or on the www.DeanMarkley.com web site.

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All specifications are subject to change without notice.

The Barstow™ Passive™ was designed and engineered by Dean Markley.