

FISHMAN RESOPHONIC GUITAR PICKUP INSTALLATION INSTRUCTIONS

This pickup fits single cone instruments with either spider-style or biscuit-style bridge assemblies.

WARNING

Professional installation is recommended. Fishman Transducers, Inc. will not be responsible for damage to instruments due to improper installation.

Thank you for choosing the Fishman Resophonic Guitar Pickup. It is our wish that you are completely satisfied with this product. If you have any questions or comments, we would like to hear from you. You may reach our customer service department at tech@fishman.com or call 978-988-9665.

A message from Resophonic guitar builder Paul Beard ...

The Fishman Resophonic Guitar pickup is specifically designed for the Resophonic guitar and is the culmination of three years collaboration between Larry Fishman and myself.

Due to the unique complex audio waveform generated by the Resophonic guitar, it is one of the most difficult acoustic instruments to reproduce electronically in true fashion.

By utilizing enhanced state-of-the-art technology, along with exclusive innovative design criteria, this pickup delivers true Resophonic guitar sound along with maximum output.

I personally recommend this pickup for all my Resophonic guitars.

Paul E. Beard

PLUGGING IN

Passive Resophonic Pickup

For clean, noiseless sound, use a high quality low capacitance instrument cable with metal plugs. For consistent sound, we recommend an outboard acoustic instrument preamp between the pickup and your amplifier or mixing console.

Active pickup

For great sound, plug directly into any available audio input (instrument amplifier, DI, mixing console, soundcard, etc.) and you're done. How easy is that?

ACTIVE PREAMP SPECIFICATIONS

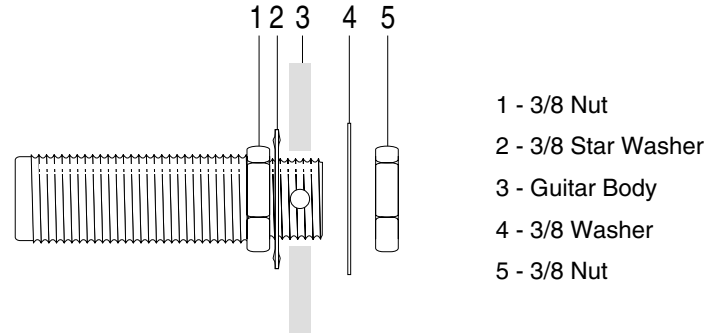
Power	9V Alkaline battery
Battery Life	12,000 hours
Maximum Output Voltage	4 V peak to peak
Input Overload	-.7dBV
Input Impedance	2.5 Meg Ohm
Output Impedance	Less than 5 k Ohm
System Gain	3dB
Signal-to-noise Ratio	94 dB
Discrete Component design	FET low noise class A input stage, bipolar class AB output stage

JACK INSTALLATION

Where to locate the jack?

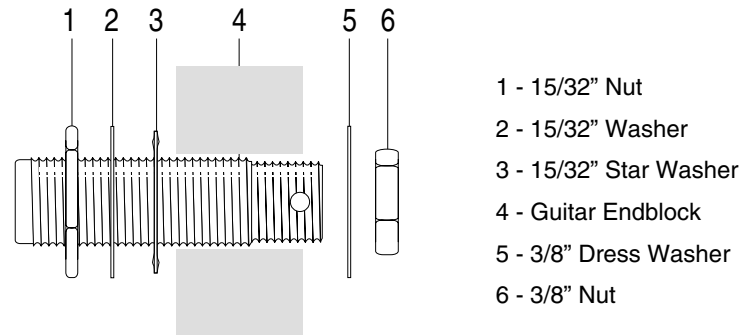
Metal Body Instrument

For a metal instrument with a stick that runs the length of the body into the tail block (ex: Dobro, National) we recommend that you place the jack on the treble side lower bout. Use a center punch at the chosen location and use a sharp 3/8" (9.5mm) brad-point drill. For best results, use a drill press and clamp the instrument securely to prevent the drill from wandering or distorting the shape of the hole.



Wooden Body Instrument

For most wooden instruments, locate the jack at the endblock, centered below the tailpiece. Drill a 3/16" (4.8mm) hole and enlarge it to 15/32" (12mm) with a 15/32" tapered reamer (available from Stewart McDonald part #4323). Note that if the instrument has a ring ("soundwell") inside the sound chamber, you may have to drill through it to accommodate the jack.



Battery mounting for the Active Resophonic Pickup

You may locate the included battery clip on any flat surface inside the instrument. Clean the area where you plan to mount the battery clip with denatured alcohol, remove the release film from the sticky-back adhesive and firmly fasten the battery clip inside the instrument. Battery life is approximately 12,000 hours. Under normal conditions the battery will last several years between changes.

An optional flush-mounted battery box with external access is also available. (Fishman part #ACC-BAT-001)

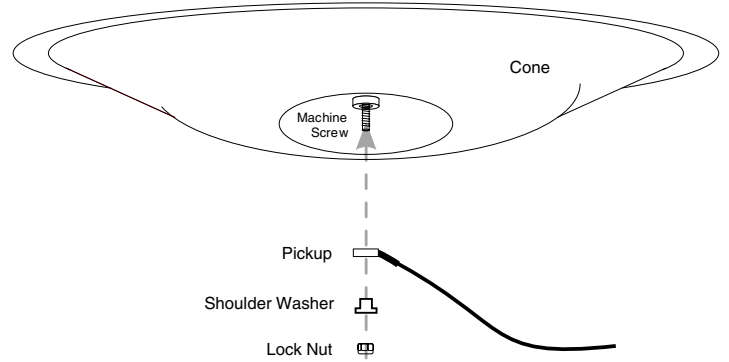
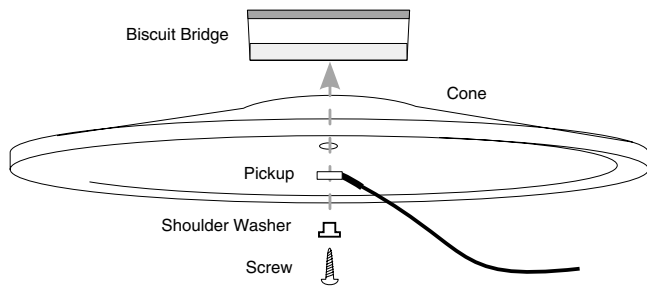
A set of adhesive backed clips has been provided to secure the pickup wire and battery leads inside the guitar. Remove the plastic film from the back of each clip to expose the adhesive and fasten to the sides or back of the instrument.

PICKUP INSTALLATION

Installation for Biscuit style instruments:

The pickup is held against the center of the cone with the wood screw that normally holds the biscuit to the cone.

1. Remove the original screw from the biscuit and swap it with the longer wood screw that is supplied with the kit.
2. Notice that the heat-shrink tubing on the end of the pickup is bent to one side. Do not attempt to unbend it! If you do so you may damage the pickup. Position the pickup so the bend in the heat shrink tubing faces away from the cone.
3. Place the shoulder washer into the pickup. Then place the the screw into the shoulder washer and fasten the entire assembly to the cone/biscuit. Tighten the screw until snug, and then another 1/8 turn tighter.
4. Re-assemble the instrument.

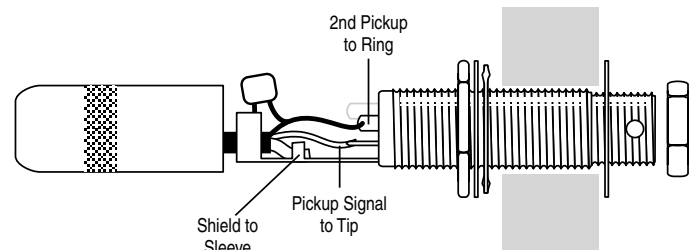


WIRING OPTIONS

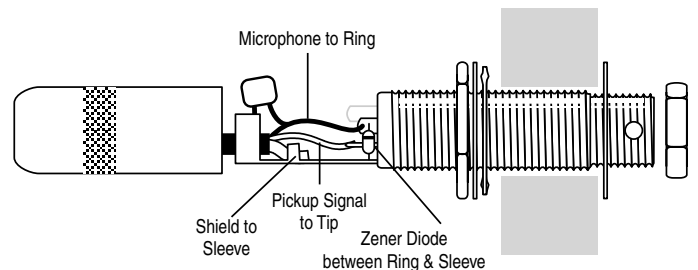
Passive Pickup

NOTE: There is a network of electronic components hard-wired to the jack on the passive Resophonic pickup. Do not remove these components; they help to balance the pickup's bass response.

Stereo Wiring a Second Pickup to the Passive Resophonic Pickup (Fishman Blender System)



Stereo Wiring a Microphone to the Passive Resophonic Pickup (Fishman Blender System)



Installation for Spider style instruments:

This installation is a little trickier than the biscuit installation. For the pickup to operate properly it is critical that the spider and cone are pre-loaded with the correct pressure.

1. With the instrument tuned to pitch, calibrate the spider/cone pressure by loosening the screw that holds the cone to the spider until the screw head no longer touches the spider frame. Tighten the screw until the head just touches the spider, and then tighten one full turn more. The spider/cone is now pre-loaded for optimum bass response without buzzes or rattles.
2. Remove the strings and the cone/spider assembly.
3. If the end of the screw is long enough to accept the pickup and locknut, go on to the next step. If it is not long enough you will need to replace it with a longer screw and go back to step #1. We include replacements for both SAE 4-40 and 3mm screws, plus matching locknuts in the hardware kit. Choose the screw that matches the threaded slug in the center of the cone assembly.
4. Notice that the heat-shrink tubing on the end of the pickup is bent to one side. Do not attempt to unbend it! If you do so you may damage the pickup. Position the pickup so the bend in the heat shrink tubing faces away from the cone.
5. Place the pickup, then the shoulder washer on the screw and start to thread the lock nut. You must hold the head of the screw stationary (with the screwdriver) as you tighten the locknut or you will change the crucial pre-loaded pressure on the spider and cone. If the screw accidentally turns as you tighten the locknut, then you must go back to step #1 and re-calibrate the cone and spider.
6. Tighten the nut until it is snug against the pickup, and then 1/8 turn tighter.
7. Re-assemble the instrument and tune to pitch. Plug the instrument into an amplifier and slowly turn the screw counter-clockwise until you hear a strong signal from the pickup.

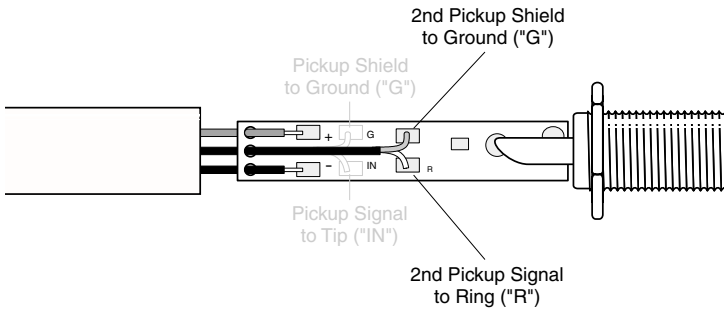
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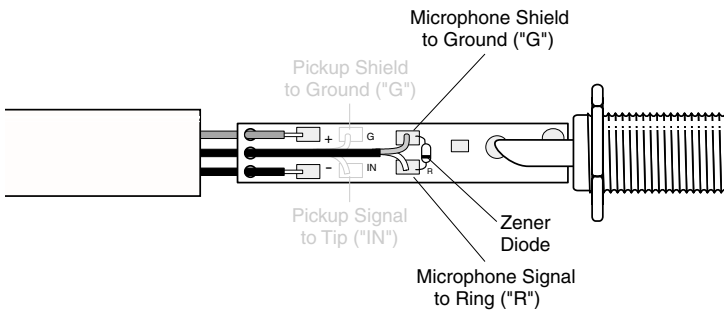
FISHMAN RESOPHONIC GUITAR PICKUP INSTALLATION INSTRUCTIONS - CONTINUED

Active Pickup

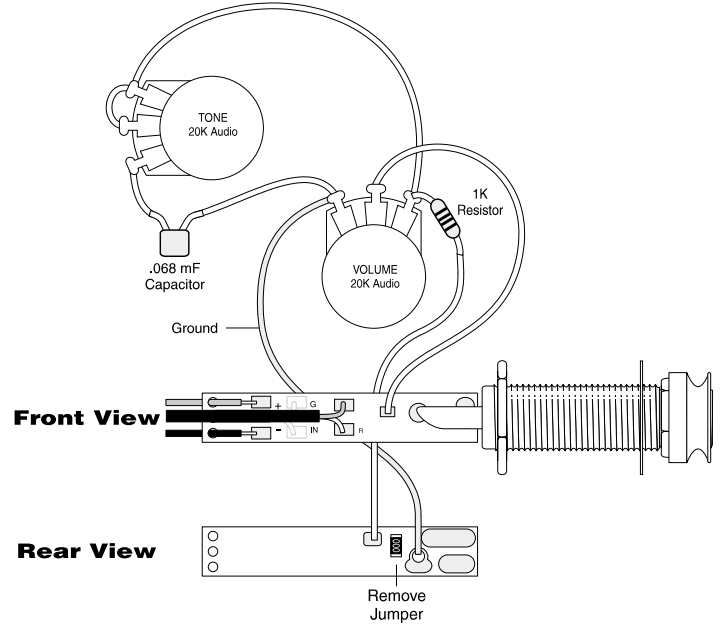
Adding a Second Pickup to the Active Resophonic Pickup (Fishman Blender System)



Adding a Microphone to the Active Resophonic Pickup (Fishman Blender System)



Volume and Tone



ACTIVE PREAMP SPECIFICATIONS

Power	9V Alkaline battery
Battery Life	12,000 hours
Maximum Output Voltage	4 V peak to peak
Input Overload	-.7dBV
Input Impedance	2.5 Meg Ohm
Output Impedance	Less than 5 k Ohm
System Gain	3dB
Signal-to-noise Ratio	94 dB
Discrete Component Design	FET low noise class A input stage, bipolar class AB output stage

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