

From: "Stewart-MacDonald" <enews@info.stewmac.com>
Subject: **How to open a humbucker and reverse the polarity**
Date: September 4, 2008 6:56:52 AM PDT
To: stephensdesign@opendoor.com

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NEWSLETTER



Everything for building and repairing stringed instruments!

Ever try to open a humbucker?

This Trade Secret is about **switching a humbucker's polarity**, but the hard part is getting the doggone pickup open!

Erick Erick Coleman,
September 4, 2008



ERICK COLEMAN

A customer called the other day with a simple wiring question. He had two 4-lead [humbuckers](#) to use with our [PRS wiring kit](#). The kit instructions call for one of the pickups to have opposing magnetic polarity. That's easily achieved by pulling and flipping the magnet this way:

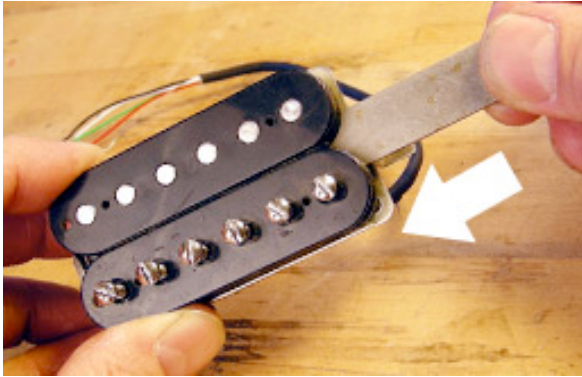


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To:

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- (1) Loosen the [polepiece screws](#) so they clear the baseplate, then loosen the [bobbin screws](#) a bit so the magnet slides out (2). Be careful so you don't damage any of the delicate connection wires.
- (3) Roll the magnet over, flipping it 180 degrees. This is the move that switches the polarity.



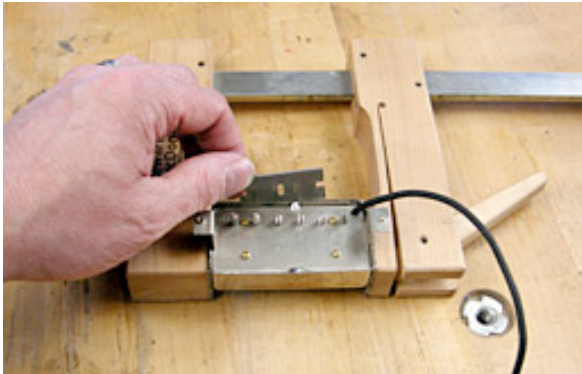
Re-install the rotated [magnet](#), sliding it back where it came from. Simple enough, right?

That's how I described the job to the customer. But then he asked, **“But how do I get the darn cover off?”**

Let me show you how I do it...

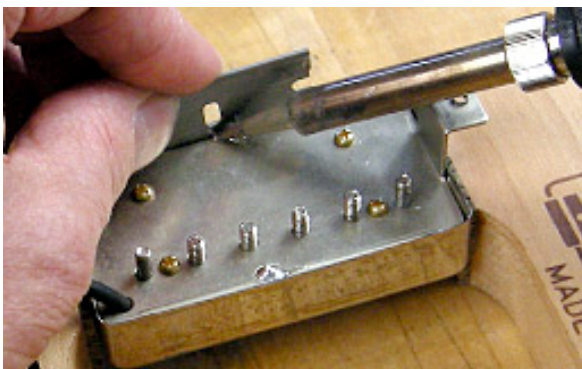
Removing the cover from a humbucker can be tricky.

Generally, the [cover](#) is soldered on. Removing it is even a little risky, because it's easy to damage the coil (don't ask how I know!!!). To do this you'll need two clamps, a razor blade and a soldering iron.



I like to hold the pickup in a [cam clamp](#) while I'm working on it. The cork lining in the jaws doesn't mar the plating.

While your soldering iron heats up, insert the corner of a single-edge razor blade between the cover and the baseplate of the pickup.



It only takes a touch of the hot iron to melt the solder. As soon as it does, carefully work the blade between the cover and baseplate just enough to keep the solder joint apart while the solder hardens.

When the solder cools, the blade slides right out. Do this on both sides, of course.



Guitar Tech Screwdriver Set



Humbucker Bobbin Mounting Screws



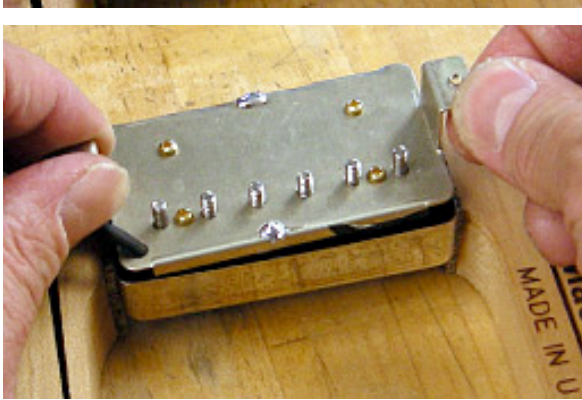
Humbucker Alnico V Magnet



Covers For Humbucking Pickups



Cam Clamps

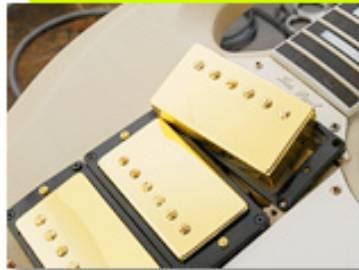


The [cover](#) is now loose and ready to come off.

After flipping the magnet, it's time to put the cover back on. But is that really what you want to do? **Here's a decision to think about:**



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Humbucker Kit



*Golden Age Humbuckers
with gold covers*

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Cover your pickups or let them run around naked?

Since the cover itself creates some capacitance, it can take the edge off the sound of the pickup. Some players prefer the brighter sound of an uncovered pickup, so they leave the covers off. That's why we offer our [Golden Age Humbuckers](#) in no-cover versions like the "Zebra" at right.



*Golden Age Zebras
with exposed coils*

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For those of us who like the sweet sound of a covered pickup, here's a quick way to put it back on.

I use a [mini cam clamp](#) to make sure the cover fits to the pickup as tightly as possible.



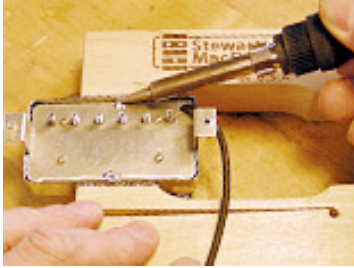
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*Mini Cam
Clamps*



I'll then use my medium clamp to bring the sides in tight against the [baseplate](#).



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*Wiring Kit for
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When the sides are clamped, remove the mini cam. A quick touch of a hot soldering iron will flow the existing solder together and secure the cover back in place.



When the solder has cooled, remove the clamp and your reversed-polarity pickup is ready to wire up in PRS fashion!

Crick



MORE...

Magnet Polarity Tester

Problem-solving products mentioned above:

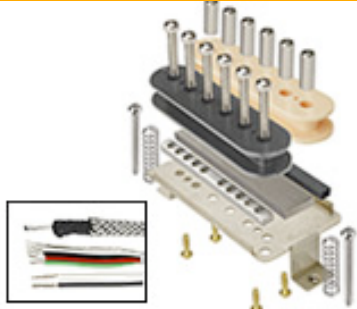


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