



## Frequently Asked Questions

**Q: Can you make me a RWRP pickup to match with my 1959 Orville Stratoplaster guitar?**

A: There is no agreement in the pickup industry which direction pickups should be made and even pickups made by the same company- i.e. Gibson will differ in orientation from year to year and model to model. You can not be sure when you mix pickups of different manufacture (or even pickups from different batches made by the same manufacture) that the pickups will be in phase with each other, let alone the possibility of them being reverse wound reverse polarity from each other.

If you never use both pickups at the same time phasing or RWRP will not affect the tone of the individual pickups.

As far as the term RWRP goes all that means is one coil in comparison to another has the magnetic polarity and winding direction reversed. In other words, RWRP is a relative term. The pickup is only RWRP relative to the other pickup(s) it is being matched with. This will make a combination when both pickups are used at once that will minimize 60 cycle hum. You can't call up and order a RWRP pickup to mix with another manufacturer's pickup because no one agrees what direction or polarity is standard practice.

All pickups I make and have ever made will be in phase with each other no matter what the design is or what year it was made unless they were made to match some other company's pickup per customer request which is unusual. Any pickup I make that varies from my normal will be marked as "custom" or some other designation that indicates the custom-made aspect of the pickup.

**Q: Why does the volume drop to an extreme and the bass frequencies disappear when I switch the pickups so both are on?**

A: The pickups are out of phase with each other. An easy test to be sure of this - assuming you have a volume control for each pickup- is to roll both volumes all the way up and then roll one volume back slowly while playing. If the volume jumps up dramatically and the bass fills in for a short time as you roll it down the pickups are certainly out of phase.

Guitar pickups generate an alternating current meaning the signal goes from positive to negative in a wave form. The current will be either positive or negative at the beginning of the signal depending on if the magnet in the pickup is north or south up and if the coil is wound clockwise or counter clockwise. It's not really the winding direction, it's the direction of the wire between the hot lead and the ground lead. If you look down at the top of a strat pickup with the lead wires facing you you'll see the black wire will be either on the right or the left. If the white wire is on the right the coil direction goes counter clockwise from white to black. If the white wire is on the left the coil direction goes clockwise from white to black.

In a simplistic view a pickup with the magnetic polarity south towards the strings with a counterclockwise coil will make a negative signal initially. A pickup with a south up orientation combined with a clockwise wound coil will give a positive signal.

A pickup north up counterclockwise coil will give a positive signal, a pickup north up clockwise will give a negative signal. If you combine two pickups and run them at the same time and one has a negative signal and the other has positive they will be out of phase and the signal will cancel itself out.

In order to sound best both pickups need to have the same phasing. On vintage strat pickups it's sometimes not as simple as just reversing the leads. You can't necessarily just run black to hot and white to ground to reverse the phase because the coil often shorts out against the magnets. Fenders originally had the inside of the coil attach to the ground wire so if it does short out against the pole pieces it doesn't matter. But, if you were to reverse the leads and make the hot lead the inside wire on a vintage fender and it did short out against the pole piece, by touching the pole piece and the strings at the same time you will lose signal – it will short circuit.

On my strats the magnets are well insulated so you can reverse the lead wire—black for hot, white for ground—if you need to change the phasing on it to match another manufacturer's pickup.

On teles, the metal plate on the bottom of the bridge pickup is connected to the black lead wire and grounds your strings, also the cover on the neck pickup is connected to its black wire which grounds the cover and helps provide some shielding. If you hook up the black wire to hot your pickup cover will make a racket if you touch it or even worse you'll lose signal if you touch the cover and the strings at the same time Same goes with the bridge- reverse the lead wire and you'll get a loud buzzing when you touch the strings. This is the same problem with Gibson humbuckers that have vintage lead wire- the covers are attached to the braided shield which is also attached to the coil. The solution on buckers is to use 4 conductor wire with a separate shield so you can reverse your lead wires separate from the shield wire.

On teles you have to add a separate wire that only connects to the cover or the metal base plate – a three wire system that isolates the lead wires on the coil from the pickup cover. You also need these separate ground wires on at least one of the pickups if you are going to wire the pickups in series with a 4 way tele switch. Normally the third wire is added to the neck pickup.

**Q: Why do I get a slightly lower volume when I run both pickups at once?**

A: Some slight drop in volume, drive, and bass is normal when you have two pickups on at the same time and they are wired in parallel which is how most guitars are wired, when the two pickups are wired in series – somewhat unusual- the pickups will get slightly louder than a single pickup and you'll get more drive and bass. Resistance is cut in half when you wire two pickups in parallel and inductance drops- this makes output and bass decrease, resistance doubles when two pickups are wired in series and inductance rises.

**Q: My guitar buzzes when I lift my hands off the strings.**

A: This is normal and is the reason your strings are grounded- to eliminate 120 cycle hum when you touch the strings.

**Q: My Guitar Buzzes when I touch the strings.**

A: You most likely have the output jack wired backwards. Your hot lead is attached to the ground lug on the jack which causes a similar sound as if you touched the tip of the guitar cord when you have it plugged into an amp. Reverse both connections on the jack and the problem should be resolved.

**Q: I get a crackling sort of like a static sound that builds up in intensity as I play me telecaster.**

A: This is due to the pickguard not being grounded and also happens on other guitars like archtops with pickups attached to the pickguard. Plastic gives off electrons as your body contacts it. This causes a static charge to build up and discharge through the strings and the pickup cover. This problem can get worse in the winter when the air is dryer from heating. You can temporarily alleviate the problem by wiping down the pickguard with an anti-static towel like you use in a dryer, or you can hook up a ground wire to the back of the pickguard and solder it to the back of a pot or any other ground point. This will also happen with certain finishes like metallics, Gibson goldtops, or polyesters (urethane).

**Q: How Do I keep the treble from bleeding off when I roll the volume down?**

A: For Gibson type wiring use the 57 Les Paul custom wiring schematic included in the installation instructions or on my website. You can adapt this to fenders with a little creative adjustment.

I do not recommend using a volume bypass capacitor. If you have one on your fender- it's usually a very small cap and resistor located between two of the lugs on the volume control pot.

Treble bypass caps roll off the bass and accent the treble as soon as you roll off the volume. The more you roll off the more it sounds like you are playing through a little tin can. This scheme can also degrade the bass and volume when the volume is all the way up if it is leaking. I have had many times where someone called me commenting the pickups sound trebly and weak. Once they got rid of the volume bypass cap the pickups sounded fuller and stronger to an amazing extent. I recommend that you never use that, instead put a smaller tone cap on- fenders use .047, try a .022 which can really improve the volume and tone control action and if needed rewire it to look more like the 57 LP custom schematic.

**Q: How do I order a matched set of pickups?**

A: To order a matched set of pickups you just go to the pickup page- click on the pickup and it will take you to a shopping cart. Once you get in there you will have a form where you can click a box marked neck or bridge- buy one neck and one bridge and you'll get a "matched set" meaning a RWRP set with a pickup wound specifically for the neck and one wound specifically for the bridge

**Q: Do you make a metal base plate for strats pickups?**

A: I did some testing on what makes a tele sound like a tele and how well a similar base plate would work on a strat pickup.

Testing was this: I made a tele pickup and 2 strat pickups with the same size and type of magnet- same coil height and the same turn count. I put steel base plates on the tele and one of the strat pickups and left the other strat pickup bare.

I have two strats that are as close to identical as you can get and they have matched pots- both guitars have pots and caps that read the same. I put one of each type of strat pickup in each of the guitars.

I could hear the tiniest bit of difference but the other people listening did not hear it. The base plate seemed to add the slightest amount of compression I could "sense." Maybe I could hear it only because I was playing the guitars. But maybe I didn't actually "hear" it; maybe I felt it more than heard it.

There was no difference in volume between the two. I installed the tele pickup into a traditional tele bridge and mounted it on a tele with pots and caps that matched the strats. I got about 15% to 20% more volume out of the pickup, a little more bass and more aggressive tone. Most noticeable was the volume boost. I have also made tele pickups without the base plate- they have a little less up front aggressiveness. If you measure a strat coil lets take one at 2 henries for example and you put a steel plate on the bottom the inductance will raise to approximately 2.15 henries. So you can measure that something is actually happening, but it is hard to hear the difference and I have pretty good ears. After this I decided not to recommend a base plate on strats. It just doesn't seem to have enough effect to make it worthwhile.

**Q: Will my new pickups come with installation hardware?**

A: Yes. All new pickups come with the appropriate installation hardware. For most pickups, this includes screws and height-adjustment screws.

**Q: Can you tell me where I can find a wiring diagram?**

A: There is a wiring diagram on the inside of the folded warranty insert. You'll find that under the bottom layer of foam inside your pickup case. You can also go to this page on our web site: [www.lollarguitars.com/Installation.htm](http://www.lollarguitars.com/Installation.htm)

**Q: I can't find my installation hardware, Help?**

A: Look underneath the bottom layer of foam of your pickup case. You'll find them there, plus some other goodies.

**Q: I hear a volume drop when I'm in the 2 or 4 position on my strat ...Is that normal?**

A: Yes, that is typical of the strat 2 & 4 position. Anytime you wire two pickups in parallel and use them together you get some drop in volume and bass.

**Q: How close to the strings should I adjust my new Lollar pickups?**

A: That depends a little from pickup to pickup. On a Lollar Vintage Blackface® set or a Lollar Special S Series® we recommend that you start approximately 1/8" from the top of the pickup to the underside of the string (when the string is unfretted). Go a little closer for the high e, and a little further for the low e. On a Lollar Vintage Blonde® or a Lollar Vintage Tweed® you can actually start a bit closer to the strings to begin with. On Lollar T Series pickups 1/8" is also a good starting point. For P-90s, start at around 1/8". Humbuckers work well when you adjust them as close to the strings as possible, without any string interference. Remember, all of these are starting points. The next step is purely up to you. Don't be afraid to adjust pickups closer than you have been told- it won't hurt anything and you may like them as close as they can get and you can always adjust them farther away if you don't like it. Many of our pickups have magnets that are not fully charged in an effort to make them perform more like vintage pickups- with weaker magnets you'll need to raise the pickups closer to get the best dynamic performance. Take time to listen and tweak until you have the pickups set up where they sound best to you.

**Q: Which pots would you recommend for my new pickups?**

A: In most cases, we recommend using 500K pots for Lollar Imperials and for P-90 style pickups. For Lollar Strat & Tele style pickups use 250K. For Jazz bass style use 250K. For Original single-coil bass pickup use 250K, and for split-coil P-Bass pickups use 250K. Pots can be changed to different values if you like. For instance, if the guitar seems to be slightly brighter and it has 500K pots try 250K pots and see if you like it better. In the other direction, if the guitar seems a little dark or dull and it has 250K pots try 500K.

**Q: I'm thinking about changing my capacitor. What is your recommendation?**

A: A lot has to do with personal preference, your music style, and the sound you are aiming for. A higher value pot (.047 for example) will roll off a wider band of top-end frequencies. A lesser value pot (0.15 for example) will roll off a narrower band of top-end frequencies, starting with the highest. The .047 will also roll off that wider band of frequencies "faster." In other words, even with a small adjustment of the tone knob you will hear more of a difference, sooner. Jason's personal favorite is .015

**Q: If I buy a Charlie Christian for my tele neck, will I have to route my guitar?**

A: Yes, in many cases some routing is involved. A routing diagram will be included with your order, along with a step-by-step set of illustrated installation instructions.

**Q: I am buying a set of dogears for my Epiphone Casino but I don't see chrome covers as an option. Where can I get those?**

A: The Epiphone Casino (and also the Wildcat) is a "whole different animal" although it looks a lot like a standard dogear set. On a Casino set we re-use both the covers and the chassis. We basically "gut" the pickup and build a new p90 into what you send us. Also, some of them were originally built with a clip type connector (usually white) on the lead wire. Make sure to include this as well. Also make sure to include your contact information. Turnaround time is around a week after we receive your items.

**Q: There is an item I know you make, but I can't find it on the web site?**

A: There are a number of items we build that are not yet in our shopping section. If that is your situation, just write what you want in the "comments" field. When you place an order a computer does not automatically charge your card. We take the information and run it ourselves. Since the item isn't on the web, we will contact you by email or phone to give you a price. We always contact you first before we run an order that will cost more than what the shopping cart tells you, or if you are purchasing a specialty item that isn't on the web site.

**Q: How do you send International orders?**

**A:** We ship via USPS “International Express” which is a 3 to 5 day service and is fully insured for the full value. You have to pay taxes or VAT on it. Shipping is approximately \$25 to \$35, depending on your location. The web site does not automatically calculate international shipping. We will calculate it for you and send you an email to verify the additional cost. Please make sure to respond to this email and verify the international shipping charge. We cannot process your order until we hear from you to verify the international shipping cost.

On occasion the shopping cart does not like the way foreign addresses are written so if you can not get your address to work, send an email and we will help you get the order finished.

**Q: How important is DC Resistance?**

**A:** DC resistance ( $k\Omega$ ) is a handy but rough measure. The DC resistance of any given pickup will change based on other variables like temperature. For example if the pickup has been sitting in a sunny window and is warmer, the dc resistance will read higher. If you took that same pickup and stored it in your basement / practice room and it was cooler in temp, the dc resistance would read lower. The dc resistance will also read lower once the pickup has been installed into your guitar. Another factor is variation of copper wire. Although it’s manufactured to rigorous specs, variation exists between spools of copper wire—including spools made by the same manufacturer and from the same lot number. A microscopic size variance that’s still within specs can affect dc resistance. Equipment calibration can vary between ohm meters and can also change if your battery is low.

**Q: Can you tell me about the magnets that you use in your pickups?**

**A:** People are always asking about magnet “strength.” To list magnet type like AL-2, AL-3, or AL-5 can be a little misleading. This is because we use our own proprietary techniques to gauss and/or de-gauss our magnets. The terms AL-2, AL-3, AL-5 are not just a measure of oersteds or magnet strength. They also reflect different proportions of the other trace metals that are mixed with ferrous material. These different metal amalgams give different tonal qualities. Also, magnet type like AL-2, AL-3, AL-5 is also not a “stand-alone” thing. It has to be considered along with the type of wind. The results aren’t necessarily “cut and dried.” In other words, you still have to do R&D on the overall sound. All the variables added together are what shapes the overall tone and performance of the pickup.

**Q: What do you mean by Inductance (H)?**

**A:** When iron or an iron-based (ferrous) metal moves within a magnetic field, it has the capacity to induce a current in any conductive material also in that magnetic field (i.e. the copper wire coil). This is inductance – a measure of the physical property to induce a current. In general, the greater the inductance, the greater the output and greater the bass response.