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FAQ

WIRING QUESTIONS SUMMARY

- How do I wire my pickups up?
- How do I wire a coil tap? a phase switch?
- Can I adjust the output level of my pickups?
- What value capacitor do you use with the volume and tone controls?
- Can I mix EMG's with passive pickups?
- Can I use EMG accessory circuits on passive pickups?





ANSWERS

How do I wire my pickups up?

Complete installation instructions and hardware are included with all of our pickups, accessories, and systems. In addition to basic assembly, there are often useful customization tips which are worth checking out. If you need a new copy of the installation sheet, contact EMGTek to get a new copy.

We also have a set of our nine most common wiring diagrams available here online. This covers most basic setups, but you can contact us for assistance with any custom requirements you may have.

Our pickup wiring color code is standardized across most models for simplicity:

White = Signal Output

Metal braid = both signal & power Ground

Red = Power feed (+9V) to the active electronics

The EMG-89 wiring is quite a bit more complicated and is covered by it's own tech page.

Similarly, the color code for our accessory circuits looks like this:

White = Signal Input

Green = Signal Output

Red = Power feed

Black = signal and power Ground

How do I wire a coil splitter? A phase switch?

The design of EMG active pickups doesn't allow access to the individual coil outputs from the pickups. As such, it's not possible to wire coil taps or pickup phase switches in the traditional manner. We do provide a number of alternative accessories to help you simulate some of these tone mods.

To create the sound of a split coil pickup, you can either change to the EMG-89 pickup which contains both a dual-coil humbucker and single-coil pickup selectable by a switch, or you can add the EMG DMSK Dual Mode Switch Kit which lets you customize a switchable high-pass filter to create a sound reminiscent of a single-coil pickup. One advantage of using these devices are that they will retain their low-noise performance, unlike a split coil pickup which will be quite buzzy compared to the humbucker mode.





The EMG PI2 Phase Inverter actively inverts the phase of an EMG pickup giving you a true out-of-phase effect, controllable by a switch.

Can I adjust the output level of my pickups?

The pre-amp circuitry in each EMG pickup is factory preset for the optimum output level. This level was carefully determined to minimize hum and noise while maximizing a clean output signal under heavy playing and high transients, and can't be modified. Please note that a clean, high output level from the pickup into a high-gain amplifier is the BEST way to get a full, distorted tone!

If you would like to have increased output from the guitar, you can add our EMG-PA2 inline pre-amp booster which includes a trimpot that lets you adjust the output level up to +20dB(!).

EMG active pickups have higher output levels than traditional passive pickups. If you find that the output level of your EMG pickup is too hot to get clean tones, the easiest fix is to reduce the gain on your amp (if it has pre-amp/master volume controls). If that doesn't do the trick, then try turning down the volume control on your guitar. Unlike a traditional passive volume/tone system, the low-impedance EMG system lets you turn down the volume with very little effect on the tone, so you won't sound muffled when you back off the volume knob. If this is still a problem, contact EMG tech support at the email address listed above for more info on circuit mods to address your problem.

What value capacitor do you use with the volume and tone controls?

We use 0.1 micro farad capacitors for all our volume and tone control setups including guitar and bass.

Can I mix EMG's with passive pickups?

It is possible to mix EMG's with passive pickups. There are three possible wiring configurations; one is better than the other two.

Use the high impedance (250K-500K) volume and tone controls. The problem is that the high impedance controls act more like a switch to the EMG's. The passive pickups, however, will work fine. If you have a guitar with two pickups and two volume pots, with a three-way switch, there is another alternative. Use the 25K pots for the EMG, and the 250K pots for the passive pickup. This way you can use one or the other with no adverse affects, but with the switch in the middle position the passive pickup will have reduced





gain and response.

Use the low-impedance (25K) volume and tone controls provided with the EMG's. The problem here is that the passive pickups will suffer a reduction in gain and loss of high-frequency response.

This is the best alternative. Install an EMG-PA-2 on the passive pickups. There are two benefits to doing this. With the trimpot on the PA-2, you can adjust the gain of the passive pickups to match the EMG's. The PA-2 acts as an impedance matching device so you can use the low-impedance EMG controls (25K) without affecting the tone of the passive pickups. You will also be able to use other EMG accessory circuits such as the SPC, RPC, EXB, EXG, etc. For this application, we recommend ordering the PA-2 without the switch for easy installation on the inside of a guitar.

Can I use EMG accessory circuits on passive pickups?

Most EMG accessories can be used directly with passive pickups. They are the: EMG-PA2, EMG-SPC, EMG-RPC, EMG-VMC, EMG-BTC CONTROL, EMG-BTS CONTROL, EMG-BQC CONTROL, EMG-BQS CONTROL

These EMG accessories cannot be used with passive pickups:

EMG-EXG, EMG-EXB, EMG-BTC SYSTEM, EMG-BTS SYSTEM, EMG-BQC SYSTEM, EMG-BQS SYSTEM