ES-335 - VINTAGE WIRING





Gibson's premier Electric Spanish guitar, the ES-335 introduced in 1959 is still one of the coolest and most desired guitars of all time. Equally at home playing jazz, blues, and rock, it is one of the most versatile guitars ever.

The wiring is simple. Two pickups, each with a volume and tone control. A three-way selector that gives you either pickup alone, or both pickups in parallel. But there are a couple of options, one that is typically referred to as *modern wiring*, and another that is typically referred to as *vintage wiring*. This document details vintage wiring, but we have a similar document that details modern wiring, which you can find on our website.

The difference between the two is in how the tone controls are wired. The modern wiring exhibits a trait that some people feel to be a flaw, namely that the guitar loses treble as the volume controls are rolled down. Some people don't mind the treble roll-off; others address it with treble-bleed networks (resistor/capacitor networks).

There's no real consensus on this issue, and no wrong or right. In fact, calling the vintage wiring "vintage" may be a bit of a misnomer, because there seem to be Les Pauls from the '50s that came wired one way, and Les Pauls from the '50s that came wired the other, so perhaps Gibson wasn't consistent. If you want to read more about this, then have a look at some of the Internet forum sites and you can get in on the debate.





OUR POTS

The pots in most of our Gibson wiring kits come with threaded bushings that are longer than the ones typically used in Gibsons. This gives extra flexibility in terms of accommodating guitars with differing top thicknesses. We provide an extra nut for each pot so that you can adjust how much of the threaded bushing protrudes from the face of the guitar. You may find that the thickness of the top varies at the control hole locations, so each pot may need to be adjusted individually to allow the minimum amount of threaded bushing to protrude from the guitar's face, that still allows for a flat washer and a nut to be installed on the face of the guitar (you want a toothed lockwasher inside, and a flat washer outside).

By the way, our pots have the USA-pattern fine knurl, designed for knobs that have 24 teeth molded into them, not 18 teeth. If your knobs have 18 teeth, you'll need new ones! Genuine Gibson knobs have 24 teeth.

WIRE TYPES & SHIELDING

In the diagram at left, you'll see white wires and black wires. The white wires carry signal, while the black wires don't, they're just ground wires. Other than the two pickup hot leads, there are only three wires that carry signal, and all three are attached to the switch.

We have no way of knowing what kind of pickups you'll be installing, and what kind of leads will be attached to them. You might have a white/black pair as shown, or a 4-conductor lead with white/black/red/green/bare, or a braided lead similar to the braided wire we've included in your wiring kit.

Our kits include both shielded wire (the one with the exterior braid) and unshielded wire (all the others). Shielding is generally a good thing, it reduces unwanted hum and extraneous noise caused by EMI/RFI (ElectroMagnetic Interference and Radio-Frequency Interference), many sources of which exist in our modern world. Gibson has always been keen on hum-reduction, so they have traditionally used the shielded wire for all wires that carry signal.

But the shielded wire is a pain to work with. If you use it, you'll connect the inner conductor (the black wire in the middle) wherever we show white wires at left. Once you've connected the inner black wire to the appropriate place, the outer braid is connected - at either end, or both - to any ground point. This usually means tacking it to a pot casing (as shown in the gray box at left), or to the ground lug on the switch (that's the big heavy lug).

But you may have an alternative to using the shielded wire. Some guitars allow you to easily shield the control cavity with a conductive material such as copper or aluminum foil, or shielding paint. Les Pauls, for instance, are pretty easy to shield since the cavity and cover plate are completely accessible. In cases where the entire cavity is shielded, using shielded wire would be redundant and unnecessary.

Unfortunately, ES-335s don't usually fall into the *easy to shield* category. But some similar guitars, such as Gibson's ES-336, do allow for easy shielding. If your guitar has a control cavity that is accessible, we would recommend shielding the entire cavity over just using braided wire, as this will yield a more comprehensively shielded guitar. Copper and aluminum shielding tapes and foils are readily available, just make sure you buy something designed for EMI/RFI shielding, with conductive adhesive. Or use paint. M.G. Chemicals Super Shield (aerosol or brush on) is a very good, nickel-based paint specifically made for shielding circuits from EMI/RFI.