READY TO INSTALL YOUR NEW HOME OF TONE SOLDERLESS GUITAR WIRING HARNESS?

Before we dive straight in, do please take the time to read through this install guide. I have written it to help you with your install, to help the process be as stress free as possible, and to hopefully cover any questions along the way. I have intended this for any guitarist, whether you are new to the world of guitar wiring, or an accomplished pro with plenty of re-wires under your belt. I thank you for taking the time to read this guide!

First of all, I want to say a heartfelt thank you for choosing one of my Solderless pre-wired harnesses for your guitar. Whether it's for a long overdue repair, upgrade, modification or a project, I honestly enjoy making them for you all and the response from guitarists since introducing my Signature Series harnesses back in 2015 has helped that enjoyment grow further with the introduction of the new Solderless Series too! Thank you for the continued support.

Important note
Solderless pre-wired guitar harnesses offer guitarists an even simpler solution to swapping your guitar's wiring, but I do still recommend taking your time to familiarise yourself with the task ahead before attempting to fit. Although the Solderless kits are potentially a lot simpler to install than their soldered cousins, with the correct preparation, tools and knowledge, it can be a stress free, rewarding job to carry out and I hope that this guide helps you achieve that.
In theory, you shouldn't have to touch a soldering iron to install this harness into your guitar. You shouldn't even need one to remove the old wiring from your guitar (if this is a replacement kit for your existing guitar's components rather than a fresh build), as the old components can be lifted out as one and/or wires snipped off.
With that being said, if you are at all unsure about fitting, I do highly recommend getting a professional and importantly, trusted guitar technician to fit the harness for you. If you are local to my office (West Midlands based), I do also offer a fitting service of my harnesses if required or if you're not local, I have began to compile a small list of trusted techs I would be happy to recommend across the country.

I cannot take responsibility for the incorrect fitting of your wiring harness, control knobs and other harness related items to your guitar. If you choose to fit this harness yourself, please do ensure that you have the correct tools prepared, have read through this guide, taken the time to feel confident in carrying out the task and have read and fully understand the wiring diagram supplied. Importantly, you should feel 100% comfortable carrying out the task. I pride myself in the level of care and attention when making my harnesses and the components and solder joints are checked prior to packing, if the item has been mistreated, incorrectly fitted or damaged by yourself or those fitting for you, I cannot take responsibility for said damage which is another reason why I highly recommend having a qualified, trusted professional guitar technician carry out the work for you. Since introducing my harnesses in 2015, I can honestly say the entire experience has been very positive and any customers who have been concerned about any details have contacted me prior. I am very much here to help and take pride in doing so, so if you have any questions do please contact me before diving in and possibly fitting incorrectly, causing damage to your much loved guitar and/or new wiring harness. I'll be more than happy to help with any queries!

Your tools

- As mentioned earlier in the guide, you shouldn't need a soldering iron to fit the Solderless Series harness. This of course depends on how you want to remove the original soldered wiring from the guitar for example. If you'd like to remove the old harness be de-soldering the wire connections, then you can of course do this, but you can also simply snip the wires at the connections ready to attach them to the new solderless connections.
- Depending on brand/model of pickups you have, you may also require wire strippers if they are plastic coated wires, or simply wire cutters if they are push-back style wires.
- Small nose pliers. These make some delicate or small wires easier to handle when installing the harness and pickups etc.
- Small 2.5mm flat head screwdriver. This is probably the main tool you'll need! This will be used to tighten or loosen the solderless wire connectors for each wire.
- Other assorted Screwdrivers for removal/installation of pickguards, pickups etc depending on your model of guitar.
- 13mm socket to tighten new pot and jack nuts

Wiring Diagrams

I have created wiring diagrams for all of my pre-wired harnesses, and in an effort to reduce the amount of excess packaging and waste, I have made all of these available on my website to view or download as a PDF. The wiring diagram will help with the final stages of the install, and I've tried to make the illustrations as simple to follow as possible as well as a simple colour coded system for which connection is for which wire. Please do familiarise yourself with the diagram prior to starting the install. The wiring diagram will mainly be required by you when fitting your pickups and where to solder those wires too. You will find the wiring diagram on the website page 'Wiring Diagrams & helpful technical info.' But if you're not sure which is the correct one for the harness you have purchased, do please drop me a message and I'll happily forward it to you via e-mail as well! - **james@homeoftone.co.uk**

Pickup wire colour codes

When attaching your pickup wires, you will need to consider the colour code of the wires. Rather unfortunately, no two guitar pickup companies appear to totally agree on a set colour coding to use. Different pickup makers and factories use their own colour codes, so please ensure you refer to their colour code diagrams prior to going ahead with soldering. Depending on the guitar, and type of pickups you are intended to fit, there could be a variety of pickup wire types and colour codes to consider. If you are at all unsure, contact your pickup manufacturer prior to starting the harness install, or failing that, feel free to get in touch with me and I'll do my best to help! My wiring diagrams have been drawn with either traditional 2 conductor or McNelly Pickups colour codes in mind. Again, a McNelly colour code diagram is available to view on the 'Wiring Diagrams & helpful technical info' page of the website.

The Solderless Colour code system

The Solderless series follows a simple colour code to help guide where to put each pickup wire, your ground wires & on certain models, the jack wires. On the solderless connectors you'll see little colour dots by each lug, the colours are as follows -

Silver Metallic - For the Neck Pickup HOT wire
Blue Metallic - For the Middle Pickup HOT wire
Bronze Metallic - For the Bridge Pickup HOT wire

Green Metallic - Jack HOT wire (model specific)

Black - For any Ground wire

The Ground wires can be attached to any of the black dotted solderless connector lugs.There is also an additional solderless connector (shown on each wiring diagram as position will vary depending on which harness it is). This is used for any misc ground wire, such as the bridge or vibrato claw depending on the guitar model/specs along with a spare in case your guitar happens to have a ground wire coming from the body cavity shielding paint, which some models do.

The Install

Pot shaft diameters

As my harnesses use USA specification pots, if you are upgrading your far east built guitar for example, you may find you need to widen the body holes and/or pickguard holes to accommodate for the larger shaft diameter (9.5mm). I recommend doing this using a step cutter. This is in my experience the safest method as it will reduce the risk of paint chipping around the hole, I usually widen the pot mounting hole on pickguards or bodies depending on the guitar being worked on, to a 10mm hole to comfortable suit and fit the CTS USA specification 9.5mm shaft diameter.

A good technique is to tape off the stop point diameter required on the step cutter to avoid drilling to the wrong diameter hole, and carefully run your drill to ensure an accurately finished hole. Once this is done, you can final finish the hole to straight edges by running a suited regular drill bit through for the pots to easily fit through.

IMPORTANT- Again, please note that if you are not comfortable with doing this in any form, or importantly don't have the correct tools, I highly recommend taking this to be done by a trusted professional guitar technician. It's not worth the upset and disappointment in damaging your guitar.

Fitting Push-fit control knobs

Now this paragraph might seem utterly crazy, how hard can pushing your control knob on be?! But hand on heart, this is a very common mistake and one that deserves mentioning specifically!

This does not apply to solid shaft type pots as they are affixed via a adjustable grub screw and shouldn't require the attention to detail upon install that a spline shaft, push-fit control knob does.

Whether you are refitting your existing USA spec control knobs (5.95mm spline diameter with 24 splines), or have purchased a new set of control knobs either from myself or another store, this is very very important as it can easily cause damage to your freshly fitted and wired in harness which only leads to disappointment.

Please ensure care is taken when fitting your push fit control knobs to your pots as they are designed to be a snug fit on the pot shaft, but if forced on can cause extensive damage to your pots which I can't be held liable for. Gently push them onto your pot shaft first. If it feels too tight, to the point that excessive pressure is required or that you get a feel that you are forcing it on, then stop immediately and remove the control knob. With the control knob removed, slightly pinch the split shaft of the pot together and re-fit the control knob, repeat if required until fit is perfect. It should push on fairly easily but with enough pressure to feel like it has sufficiently gripped the pot shaft and your control knob will stay put. If you have import sized control knobs these will NOT fit the CTS pots I used for my harnesses, they're too small and will damage your pot in forcing on to fit, so please do not attempt to fit these to the harness.

The very design of a split shaft pot is to do this, ensuring a tight, secure fit on the control knob. They are of course super super easy to fit, but surprisingly super easy to break your new pots in doing so as well. I advise to take care when fitting to avoid any damage to your pot. Nothing worse after spending time fitting your fresh harness, string back up etc and finally end up damaging your pots by forcing the control knobs on afterwards.

Troubleshooting

You've finishing the install, and eager to hear your guitar breathe again but something is wrong! Then don't worry, it is likely to be something quite simple and I'm also here to help best I can. If for any reason you have encountered a problem after following the instructions and wiring diagrams, here are a few common issues that may get you back up and running before any concerns kick in.

- *There's no sound at all?* If it is completely dead, with no signal at all then this is possibly a broken hot lead. Check your guitar cable and re-address.

- *There's a loud hum/buzz, but there's no string sound?* This is possibly down to a broken ground connection. A correctly grounded circuit in a guitar is pivotal in it operating correctly. Check the ground connections made, and re-address.

- There's a hum, which gets louder when I touch the pickups or components? In my experience this usually points to a pickup that is at fault. If the pickups are brand new, consult the pickup supplier/manufacturer (providing all other wiring connections have been tested and proved to be okay). If they are old pickups that worked perfectly prior, check you have correctly identified the 'hot' and ground wires, and install the pickups correctly to the harness.
- One or more of the pot controls don't work? This is likely because of a broken connection. Check back on the wiring, and look for any connections that may have been broken and address.

Ultimately, I wouldn't wish or expect you to have to fault find yourself. So if you have an issue that you are at all concerned about, please let me know and I will be happy to help you resolve and get back to enjoying playing your freshly wired up guitar! If you have any further questions, or perhaps wish to have your harness fitted to your guitar by me, don't hesitate to get in touch and I'll be there to help as soon as possible. I really take a lot of pride in my wiring harnesses and most important to me is that fitting is as straightforward as possible and your guitar is enjoyed more than before! Thanks for supporting our shared passion.

Please be safe upon installing your Solderless new harness.

James' Home of Tone