

McCULLY RACING MOTORS: Ford Harness Modification

The normal process is that you send us your donor speed density (1987-1988), mass air (1989-1993) or SN95 (1994-1995) 5.0 Mustang harness and any other harnesses you want us to work on. We modify them and when we are done we send you a paypal invoice to your email. Once you receive the invoice you can pay it via a paypal account or via any major credit/check card online. Once we receive payment we ship it out to you, usually via USPS.

The base cost of modifying a good Mustang donor harness is \$245 + \$35 to ship it back to you. For this we do the following:

- Strip the split loom off the harness and inspect it to make sure it's all there.
- Repair/replace any bad plugs or wires (within reason)
- Create a Fuel pump power circuit and with a new relay. This eliminates the need to find a fuel pump harness or hard wire the Miata fuel pump. The Ford ECU controls the pump.
- Create a main power connection with remote fuse if necessary
- Create a Keyed hot connection
- Create a VSS (speed sensor) circuit which terminates in a new VSS plug-this eliminates the need to find a Mustang transmission harness or run without a VSS.
- Create a check engine light lead
- Create a NGS switch jumper
- Create a tachometer connection
- Simplify and remove redundant wires from the coil circuit
- Create a main ground connection
- Create a HEGO (O2 sensor) ground connection
- Replace the case ground eyelet to allow it to work with a M6 screw
- Remove all plugs, circuits and wires that are not used in a V8 Miata
- Create an oil pressure sensor extension
- Create a H2O temp sensor connection
- Relocate the AC shut-off relay behind the firewall and create an AC splice
- Rewrap the harness
- label all points, connections, splices and plugs on the harness for easy installation

When done, the harness is packed up in a box with its original split loom (any that could be salvaged) in the bottom of the box should you decide to use it over. We also print out a 20 page installation manual with pictures of every connection on a completed V8 Miata and add it to the order. The manual can also be downloaded from this link:

<http://www.mccullyracingmotors.com/Directions/MRM-Conversion%20Harness.doc.pdf>

Included in the base package is the option to use either the Mazda oil pressure and water temp senders for your gauges (recommended) or the Ford ones. If you use the Ford ones you have to also send us the two small resistors that are included in the Monster Miata kit so that we can add them into your harness. If you go with the Mazda senders, which will be much more accurate, you will need to pick up a couple small adapter fittings. We can give you the part numbers should you decide to go that route.

Over the base package we have a few options that the majority of customers have us do. They are:

O2 sensor harness integration: +\$35.00 (\$50 if you do not have a HEGO harness to donate)

-The Ford harness terminates with a HEGO harness plug which means you still need to find a HEGO (o2) sensor harness to connect it to your main harness. For \$35 we'll reroute the HEGO wires down the shifter hole with the VSS wires and splice in your HEGO harness to it so that it terminates with actual o2 sensor plugs on the end, eliminating the need for a separate o2 harness.

Injection Harness clean-up: +\$35

-We can also clean up and label the injection harness for you (the one that runs from the main harness to the injectors). This includes the same process that we do to the main harness, stripping it down, inspecting it, cleaning it, repairing/replacing any bad plugs, modifying it to use a Mazda water temp sender if you chose that option above, and then re-wrapping and labeling.

Injection Harness integration: +\$20

-In addition to the above we can also remove the black and white "salt and pepper" plugs and integrate the injection harness into the main harness. Removing the 10 pin plugs reduces a common loss-of-connection problem with Ford harnesses and greatly cleans up the area behind the intake (it gets very crowded there on a V8 Miata).

TFI Relocation: +\$54.99 (includes the TFI relocation kit heat sink and jumper harness)

-The Ford design is to locate the TFI Module (ignition module) on the distributor. Unfortunately this location allows it to get very hot (even more so in a V8 Miata than a Mustang) and eventually fail. The usual failure rate in a well-used V8 Miata is once a year or so. Ford designed a heat sink for later model TFI-equipped cars that moved the module to the fender to solve this problem. We sell a kit that includes a custom version of this heat sink and a connection harness which has been very popular with owners of Mustangs, F150s, Escorts and other distributor mounted TFI Fords. If you order the kit with your harness order we'll not charge the shipping on the TFI kit (\$10) as well as reroute the TFI connections in your main harness to better work with the relocation kit. We do not charge for the extra work to your main harness to make the kit work better. Note that SN95 harnesses already have a relocated TFI module and (if you have the donor vehicle) possible a Ford factory heat sink. If you'd like an upgraded MRM heat sink (more effective than the original) we can include that for \$29.99.

Speed density to Mass Air conversion: +\$35

-If you picked up a Speed Density Mustang harness by mistake and want it upgraded to Mass Air we can

do that while making the other mods. The cost includes the addition of a Mass Air meter plug and all wiring to update the harness to Mass Air spec.

When you are ready to ship you donor part(s) to us send them to:

McCully Racing Motors
2115 W. Washington St.
Allentown, PA 18104

Turnaround time is usually about one to two months.

PLEASE do contact us before sending donor parts to us. We can only do about one harness a month and usually have a few harnesses jobs in line ready to go. By contacting us we can discuss the actual pros and cons of your choice of donor harness and mods desired and let you know how many jobs are ahead of you in queue.