

Lethal Performance Dual / Triple Relay Return Style Wire Harness Installation Instructions

For model years 1999-2021

If you have a 1999-2010 model (or a 2007-2014 Shelby GT500):

Starting from the rear of the car you're going to access the FPDM (fuel pump driver module).

- **1999-2004 (GT/Cobra/Mach-1/V6)** The FPDM is behind the trunk liner on the driver's side of the car
- 2005-2010 Mustang GT The FPDM is located in the spare tire well on the driver's side
- 2010-2014 GT500 The drivers side FPDM is located at the rear of the trunk wall behind the plastic lining.

Once you have access to the FPDM you're going to pull back the loom from the FPDM connector (the side that comes FROM the PCM) so that the wires are visible and you're going to locate the following wire:

- 1999-2004 GT/Mach-1/99-01 Cobra: Locate the pink/black wire
- 03-04 Cobra: Locate the green/yellow wire
- 05-09 GT/GT500: Locate the the white wire
- 2010-2014 GT/GT500: Locate the Violet with Green tracer wire

You're going to cut the located wire about 4" from the FPDM connector. The small piece of wire that's still hanging from the connector is left alone. The other piece of that wire which leads back to the PCM you're going to crimp onto the **BLUE** wires from the relays. *Make sure to heat shrink the connection.*

Next, move on to the ground wires.

If you have a 2011-2021 Mustang GT / GT350 / Ecoboost / V6 / 2020+ Shelby GT500:

For the 2011+ Mustang you'll locate the OEM connector that plugs into the factory fuel pump assembly. Peel back the wire loom on the connector. Locate the **Yellow with Gray** Tracer wire. You'll cut the **Yellow with Gray** wire a few inches from the connector and connect the side of the wire on the harness to the **BLUE** wires from the relays. The piece of yellow/gray tracer wire hanging on the connector is not used.

Click here to check out a quick video going over the process: <u>https://www.youtube.com/watch?v=p6bAmlgUgCU</u>

Ground wires:

Take the **BLACK** ground wires from the relays that have the ring terminal on them and ground them to the chassis. *For the 1999-2010 (and 2007-2014 GT500) vehicles* that have wired into the FPDM connector, you will locate & ground the wires at the same location that the FPDM is ground. Mount the relays in the area around the FPDM with some self tapping screws. Once the relays have been mounted run wires with the 6 pin connector on the end of them to the fuel hat assembly. You can run the wires along the back of the trunk and under the carpet to the grommet located above the fuel tank. It's easiest to pull the grommet up first and cut it with a blade in order to pass the wire with connector through it. Once the wires are passed through to the underside of the car you'll plug the 6 pin connector into the DivisionX fuel hat.

For the 2011-up Mustangs (excl. 07-14 GT500), locate the nearest chassis ground and use that to ground the relay wires. Mount the relays nearby. Once the relays & grounds have been mounted, plug the 6 pin connector into the DivisionX fuel hat.

NOTE: If you're using this harness with an older model hat which doesn't have the 6 pin connector on it you can cut the 6 pin connector off of the harness and wire the harness directly to the wires on the hat. The (2) **BLACK** larger black wires go to the **BLACK** ground wires on the fuel hat. The **ORANGE** and **YELLOW** power wires on the harness to each red wire on the hat which is power to the pumps. *We recommend you solder and heat shrink the connections for each pump.* Make sure that you use extreme caution soldering around the fuel tank as you do not want to cause any sparks or open flames close to gasoline. We recommend doing this work before the fuel hat is installed and away from the tank.

The last part of the installation will be running the **RED** power wires from the relays to the battery. You can run these wires on the drivers side under the back seat carpet and door sill plates all the way to the front of the car. You'll then pass these wires through the grommet located on the firewall by the steering shaft. Continue routing these wires up the drivers side to the battery. Solder and heat shrink the fusible link with the ring terminal on it to the (2) **RED** power wires. Then attach the fusible link with the ring terminal on it to the positive lug on the power distribution box. When installed correctly the pumps will run when the car is keyed on. When the car is keyed off the pumps will stop running.

LEVEL SENDER WIRES

On the wire harness where the 6 pin connector meets the fuel hat you'll see (2) short wires with butt connectors crimped onto them. Those are for the level sender. You're going to connect the **YELLOW** wire on the Lethal Harness to the **YELLOW** wire on the stock wiring harness. Then connect the **BLACK** *or* **PURPLE** wire on the Lethal Harness to the **BLACK**/ORANGE wire on the stock wiring harness.

For FAQ, diagrams & more regarding our fuel systems & wiring, click here: <u>https://www.lethalperformance.com/info/fuelsystemfaq</u>