

PROFLEX Instructions for Commander PRO Installation Commander and

Thank you for purchasing a PROFLEX XDI adaptive flex fuel system for the 18+ Mustang GT from Advanced Fuel Dynamics. Your system includes the following components:

- 1. MPI Flex Fuel Module
- 2. DX Direct Injection Module
- 3. Fuel Content Sensor
- 4. Fuel Lines
- 5. Port Injector Harness
- 6. DI Injector Harness

Installation of your PROFLEX system is straightforward and should take you about an hour.

**NOTE:** This installation requires cutting and soldering an ECU wire. If you are not familiar with this process we strongly recommend you seek a professional installer.

- 1. Unplug the OE injector harness from your injectors.
- 2. Lay out new harness with Commander plug on battery side of engine bay. Injector leads connect as laid out longest to shortest
- Install new harness injector leads between injectors and vehicle harness. Once installed the harness leads can be tucked in below the fuel rail for a clean looking installation. Be sure connectors are fully seated. You should hear an audible click when the connectors are fully engaged. NOTE: Do not pull on wires, this can damage your harness. Only pull or push on connectors.
- 4. Find the fuel line that runs from your bulkhead (firewall) to your fuel rail. Disconnect this line. A quick disconnect fuel line tool will make this much easier. Caution: Your fuel line may be under pressure and may leak or spray some fuel when disconnected. Use eye protection and a rag to protect yourself and your engine components from stray fuel
- 5. Using the supplied fuel line(s), install the fuel content sensor. Connections are quick connect and simply click together. Be sure connectors are fully seated!
- 6. Plug fuel sensor harness lead into the fuel sensor.
- 7. Locate the main ground under your hood. The ground is very important, so be sure to clean area well before grounding wire. Install the ground wire (eyelet end) on the main ground bolt and replace bolt. Makes sure your existing ground wires remain installed.
- 8. Once the harness and fuel sensor are fully installed, start the vehicle. Vehicle should start and operate normally. Repeat 2 3 times to verify everything is plugged in properly. Any issues with idle or a check engine light indicate a loose connection. Recheck your connections and start again.
- 9. When you are sure all connections are made correctly install PROFLEX Commander module away from heat and weather as much as possible. We recommend mounting the PROFLEX Commander with the plug facing down to resist moisture intrusion. The Commander can be affixed with the 3M 2-sided adhesive strips the back.
- 10. Locate blue and brown wire at the pin 71 location on the largest of the ECU connectors. (see diagram)
- 11. Cut blue and brown wire from pin 71 at least 2" or more from the connector. Strip each end to expose 1/8" of wire.

- 12. Solder the female pigtail connector to the ECU end of the cut wire and protect with supplied heat shrink.
- 13. Connect to the male connector (purple wire) on the supplied harness to the female pigtail connector.
- 14. Solder the male pigtail connector to the sensor end of the cut wire and protect with supplied heat shrink.
- 15. Connect to the female connector (green wire) on the supplied harness.

NOTE: If the system ever needs to be removed from the car, simply disconnect the harness and join the male and female connectors on the original blue and brown wire to return to stock.

- 16. Connect the ground loop (black wire)
- to a factory body ground location.
- 17. Locate the fuel sensor "Y harness".

This harness is connected directly to the



fuel content sensor. The two remaining connectors will plug into the Port Commander Module and the Direct Commander Module. This allows both processing modules to use the same sensor data.

18. There is an ancillary power supply with a fuse jumper. You will not use this wire as the Y harness has integrated power. However, some cars may require a direct positive power supply due to electrical interference. Roll this lead and zip tie it in a safe location in case it is needed later.

19. Secure all wires using zip ties (not included). Do not over tighten zip ties. This can damage your wiring.

20. Connect the Direct Injection Module on one side of the Y harness. Either plug is fine.

21. Connect the Port Injection Module on the other side of the Y harness.

Your installation is complete.

To ensure the highest quality, all PROFLEX Commanders and components are tested before packaging. If you experience any issues with your system, please contact us at <u>info@afd-usa.com</u> or 866-902-FUEL (3835).

Thank you for your purchase and we always appreciate pictures/videos of our customer's cars! Images and videos can be sent to <u>info@afd-usa.com</u> or tagged on FB, IG or YouTube at #advancedfueldynamics and #ethhead.