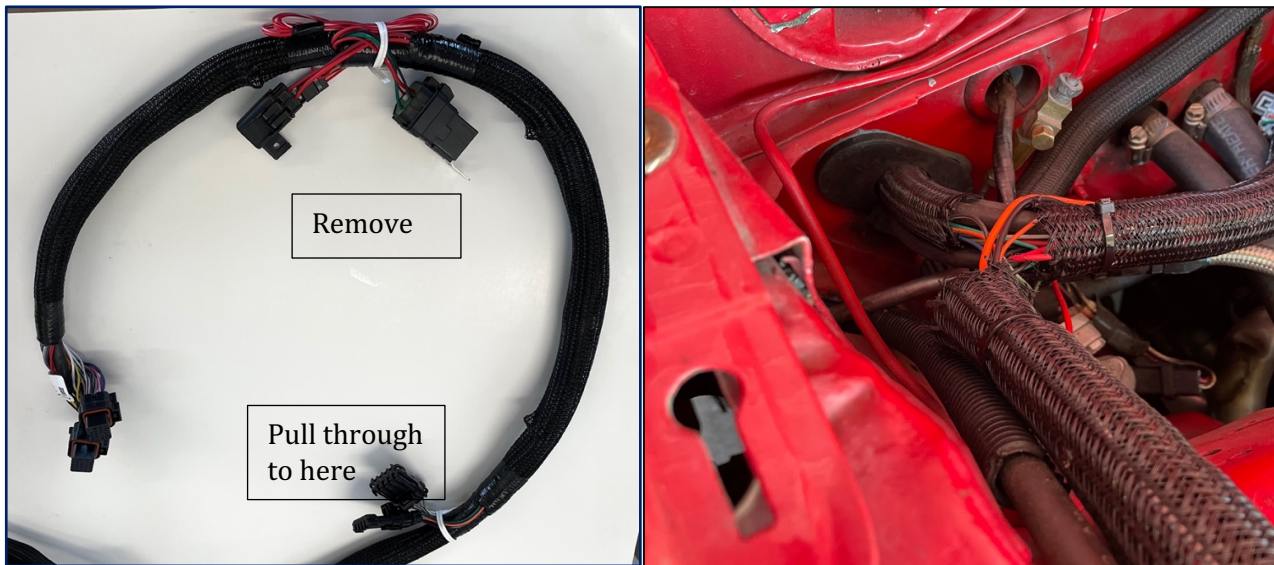


WMS FOX-X TERMINATOR EFI

This is the supplemental manual specific for installation in the 79-95 Mustang. Please refer to the Holley Quick Start Manual for full system details.

Remove the stock engine harness, computer and mounting bracket

Cut the stock firewall grommet from the stock harness and reuse with the Holley engine harness



Remove the relay and fuse from the Holley harness so that is more compact, then route through the firewall from the engine side. It will route behind the heater box and along the passenger's side kick panel.

Pull through the firewall so the two black plugs in harness are close to the firewall. A fish wire can be used to pull the harness through.



Bolt the Terminator ECU to the bracket as shown.

Plug in the two main harnesses to the ECU

Plug the main power harness into the ECU but do not connect to power.

Bolt the bracket and ECU into the car. The lower hole uses an existing bolt hole, drill the upper hole 1/8" and use the supplied self tapping screw

Reinstall the relay and fuse in harness.

Route harness and secure along kick panel above the ECU and behind the heater box.



Earlier Fox Mustangs do not have the same opening for the ECU. Modifications to the bracket are required for mounting. Max ECUs for automatics will require the bracket mounted lower.

You will need to unbolt the bracket and slide the ECU down to see the diagnostic LEDs. These are not used during normal operation.

Injectors

Plug injector harness into the injectors. #1 is front of the passenger side, #5 is front of the driver side

Distributor Connection

86-93 Mustangs – plug connector into the TFI module on side of the distributor.

94-95 Mustangs – to use the remote TFI on the passenger side fender apron the stock wiring from TFI to distributor must be retained. Using a 86-93 distributor is an easier plug in solution.

Holley Dual Synch distributor – if you are using the Holley Dual synch distributor it will plug directly into the main ignition connector in the Holley harness.

Ignition Trigger

The extra WHITE wire labeled IGN TRIGGER out of the TFI harness by the distributor will trigger a coil or an ignition box. Refer to the wiring diagram in the Holley manual, page 33 – Ford TFI Computer Controlled Distributor.

The Terminator X can directly trigger a coil but for any performance application we recommend an ignition box like a MSD Street Fire or 6A

Coolant Temperature

Install the coolant temperature sensor (CTS) and connect to harness. On a stock 5.0 Mustang the sensor replaces the stock sensor found in the coolant tube on the passenger front of the engine. Aftermarket manifolds often use the passenger side front water passage.

Air Temperature

Install the air temperature sensor (MAT) and connect to harness. On a stock 5.0 Mustang the sensor replaces the stock sensor in one of the runners of the lower intake manifold on the driver side. On other applications, the best location for the air temperature sensor is in the intake tube after the air filter or intercooler and before the throttle body.

Idle Air Control

Plug in the IAC connector to the stock Idle Air Control solenoid found on the throttle body. Connect the RED wire on the IAC harness to +12V key on power.

If you have ordered your system for the optional Stepper Motor IAC the correct plug is already installed.

Throttle Position

A new Weatherpack connector and pins are provided for the TPS. Cut the stock TPS plug off at the TPS sensor and crimp on the supplied terminals. Assemble into the new plug matching the wire colors - Black to Black, Orange to Orange, Green to Green for a 86-93 Mustang

94/95 Mustang uses a different TPS sensor, you will need to cut the plug off the stock harness and wire as follows:

Holley Black to Black / White

Holley Orange to Brown / White

Holley Green to Grey / White

Fuel Pump

The Holley Terminator will control the fuel pump directly for pumps under 15 amps. Connect the GREEN wire from the Holley harness to the fuel pump +12V. Typical Mustang replacement 255-340 lph pumps are under 15 amps.

86-91 Mustang can connect the GREEN to the stock fuel pump wire found at the relay under the seat.

Typically a large gauge Pink / Black wire that runs back to the pump.

92-95 Mustang can connect the GREEN to the stock fuel pump wire found on the passenger inner fender just in front of the shock tower. Typically a large gauge Green / Yellow wire that runs back to the pump.

Cut the fuel pump wire from the relay plug, the relay will no longer be used.

Other Loose Wires in main harness

Red / White – connect to +12V key on power, this will turn the system on. Be sure it has power when the key is in the ON position and the START position

Black – connect to a good chassis ground that is also grounded well to the battery

Red – connect directly to the positive battery terminal

White – The ignition trigger wire used with a Holley Dual Sych distributor, see diagram in Holley manual.

Yellow – Not used in the Ford system.

Other Wiring and sensors – please refer to the Holley manual for further information.

Main ECU Power / Battery Connection – a large red and black connect directly to the battery

Wideband Oxygen Sensor – the included sensor plugs into the main harness

Map Sensor - the Terminator X uses an internal map sensor to measure load on naturally aspirated engines. Connect a good vacuum source to the vacuum line running out of the ECU, using the supplied quick connectors.

An external map sensor is needed for engines running boost and will plug into the map connector on the main engine harness.

CANbus – used to connect the handheld screen, a laptop or a Holley dash

Fuel and Oil Pressure – optional sensors that can be added to the system but are not necessary

Additional Inputs & Outputs – These can be used to control electric fans and AC functions, see Holley manual Additional inputs & outputs for further information.

IAC control is pre wired into this plug – output 4 – pin H

Electric fan control – output 1 – Pin E – Grey / Yellow. The Holley ECU activates a ground to trigger a relay to turn on the fan.

Retaining the stock gauges

The stock gauge wiring is part of the stock engine wiring harness that was removed. You can strip these wires from the stock harness and connect with stock plugs at the firewall or simply run new wires to the gauge sensors.

Coolant Temperature – A Red / White wire running to the single terminal sensor on the driver front of the intake.

Oil Pressure – A White / Red wire running running to the single terminal sensor on the drivers front of the block, behind the timing cover.

Tachometer – A single wire that was connected to the negative side of the stock coil. If you are using an ignition box, connect this wire to the tach output from the box.

86-90 Mustang tach wire – Green / Yellow

91-95 Mustang tach wire – Tan / Yellow

If you are using the stock tach on a 79-86 Mustang, a tach adapter is required like MSD 8920

The stock fuel, volt and speedometer are still wired as stock and will function correctly.

The stock Mass Air Meter is not used with the Terminator EFI. It can be removed or left in place as a spacer tube for your air intake

Start up

A base tune has been loaded onto the SD card in the handheld programmer for the specs given when ordered. Once the system is powered on the main menu will show in the handheld. Go to FILE – then GLOBAL CONFIGS – you will see a '50basetune' file. Select this file and click UPLOAD TO ECU. This will load the base tune so you will skip the calibration wizard.

The TPS Autotune procedure does need to be performed. Follow the Holley manual further startup and tuning information.

Once the engine is running you must check the timing. Set the static timing in the Holley to 10 degrees (using the handheld or a laptop) Once timing is locked at 10 with the Holley, use a timing light to check that the timing at the balancer is also set a 10. If it does not match, rotate the distributor until it does.

Once set, clear the static timing and then use the timing light to verify timing on the gauge screen matches timing on the balancer. Check this at idle as well as various rpm points to be sure it always matches.