This Quick Start Manual is designed to get you up and running with the Go EFI System Base Kit and either the 40003 Fuel Command Center or the 40005 Inline Fuel Delivery Kit. The FiTech Go EFI System is the industry’s most advanced throttle body EFI system and also the easiest to install. It includes a very advanced Handheld Controller but is also capable of being far more tunable than any competitive product that utilizes a Handheld Controller. Please read the full instruction manual before beginning your installation.

These instructions cover the Basic Kit installation and setup as well as instructions for both of the optional Fuel Delivery Kits. For technical assistance with your Go EFI System, call 951-340-2624.

Warning: Caution must be observed when installing any product involving fuel system parts or gas tank modifications. Work in a well ventilated area with an approved fire extinguisher readily available. Eye goggles and other safety apparel should be worn to protect against debris and sprayed gasoline. We recommend having this installation performed by an experienced qualified automotive technician. The finished installation must be thoroughly checked for any fuel system leaks. All safety precautions must be observed when working with fuel. Note: Do not use solid core ignition wires.

### 30001/30002/30004/30012/30061/30062/30064 Kit Contents

1. 4-Injector Throttle Body - Tumbled Polished (30001) or,
2. 1-4 Injector Throttle Body - Matte Black Finish (30002) or,
3. 1-4 Injector Throttle Body - Matte Black Finish (30004) or,
4. 1-8 Injector Throttle Body - Matte Black Finish (30012) or,
5. 2-4 Injector Throttle Bodies - Tumbled Polished (30061) or,
6. 2-4 Injector Throttle Bodies - Matte Black Finish (30062) or,
7. 2-4 Injector Throttle Bodies - Matte Black Finish (30064)
8. Harness "A" (Plug-in pigtail user harness)
9. ECU (Mounted on Throttle Body)
10. Set of four or eight injectors pre-installed
11. Throttle Position Sensor (Mounted on Throttle Body)
12. Coolant Sensor
13. Handheld Controller w/billet case
14. Wide Band O2 Sensor
15. O2 Sensor Bung Kit
16. Fuel Pressure Regulator (Installed in Throttle Body)
17. Gasket Kit
18. -06 AN Inlet/Outlet Fittings (Installed on Throttle Body)
19. Inlet/Outlet Port Plugs (Two installed on Throttle Body)
20. Data Com Cable
21. 8 gigabyte SD Card (Installed in Controller)
22. 3/8-NPT Reducer
23. 10mm Port Plug
24. Instruction Booklet

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### About your FiTech Go EFI System

The FiTech Go EFI System will bolt directly to any 4-BBL intake manifold. To fit on a spread bore 4-BBL manifold will require an inexpensive adapter plate to avoid leaks. Note that the FiTech throttle body will bolt directly to a spread bore 4-BBL manifold but may leak without the adapter plate. Suitable adapter plates are available from several suppliers such as Summit Racing (SUM-G1420).

The FiTech Go EFI System is self-tuning once the simple initial setup is performed using the Handheld Controller. When the necessary initial inputs are made with the Hand-
FiTech offers two different fuel delivery options. One is the 40003 Fuel Command Center. When using this option, you can configure the system to operate on a returnless basis. The other fuel delivery system is the 40005 Frame Mount Inline External Pump. Using this pump the system must have a return line. The Fuel Command Center uses your existing carbureted fuel pump and fuel lines to deliver the fuel to the Command Center which is mounted in the engine compartment. The only plumbing required is from the Center to the EFI.

High pressure hose and fittings are supplied with this kit to plumb from the Command Center to the EFI throttle body. A 340 L/PH EFI pump is submerged in the fuel in the Command Center sump tank. The Center also has a regulator and fuel pressure gauges.

When using the 30001/30002 Go EFI kits, the Command Center is suitable for engines making from 200 HP to 600 HP. Either fuel delivery system can be used with these EFI systems. When using the 8-injector 30012 Go EFI System and the Fuel Command Center, the system is suitable for engines making up to 800 HP. When combining the 30012 Go EFI System with the 40005 Inline Pump, it is suitable for engines up to 600 HP.

Note: If you have elected to use the Fuel Command Center and your vehicle currently has a high pressure fuel injection pump, it must be replaced with a low pressure carbureted style pump. Note that vehicles equipped with factory high pressure EFI pumps are not compatible with the Fuel Command Center.

If you choose to use some other fuel delivery system other than FiTech, it is important to make sure that you confirm its compatibility with the FiTech EFI system. Contact the FiTech technical staff to check compatibility. Failure to do so can void your warranty.
Note the following special instructions:

- We recommend using the Fuel Command Center for all installations. A submerged pump is quieter and lasts longer.
- If using the Frame Mount Inline Fuel Pump, it should be mounted as close to the fuel tank as possible and also as low as possible. It should be within two to three feet of the tank. This type of pump is designed to pump, not draw, and works best when gravity fed.
- Only use hard fuel lines when using proper EFI rated flared fittings. Make sure that you remove ALL low pressure flex joints on factory fuel lines and replace them with EFI rated fuel hose and use proper flared connections and clamps. Be careful not to mix 45° and 37° AN fittings, they look similar but will not work together. 45° fittings usually come from a hardware store or auto parts store while 37° AN fittings are the ones supplied by Fitech and most speed shops. Remember that your system will be running at 58 PSI so consult a professional if you are not certain about this portion of your installation. Fitech does not recommend aluminum fuel lines EVER! Or you can use the supplied EFI high pressure fuel hose that is supplied in your Fuel Delivery Kit.
- Use the supplied push lock style hose ends only with the supplied hose and vice versa. Intercanging hose ends and hose with other brands could cause leaks.

VERY IMPORTANT NOTE: Your fuel tank must have a vent to prevent pressure building up inside the tank.

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**Plumbing Schematic for Fuel Command Center - Fuel Delivery Kit #40003**

See separate Instruction Sheets that were provided with this pump kit for complete details

**Figure 1**

![Fuel Command Center Schematic](image1)

- Cap off Return Port
- Supplied EFI Grade Fuel Hose plus push-lock style hose ends, a fuel filter and fittings.
- A carb style pre-filter is required to keep debris from sticking the needle and seat that is installed in the Command Center.
- IN 3-8 PSI
- This replaces Stock Fuel Line

**Plumbing Schematic for External Inline Pump - Fuel Delivery Kit #40005**

See separate Instruction Sheets that were provided with this pump kit for complete details

**Figure 2**

![External Inline Pump Schematic](image2)

- Return fuel Line to tank
- Must be mounted as low as the lowest point of the Fuel Tank and within 2-feet of it
- IN
- Fuel Tank
- Post-Filter
- Fuel Pump
- Pre-Fuel Filter

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**Note:** Before starting any installation, disconnect the ground connection on the battery. Be very careful when disconnecting any fuel lines to let the fuel drain into a receptacle or a dry cloth. Do not allow raw fuel to collect on the engine as this is a fire hazard. Please observe extreme caution when working with the fuel system.

**Oxygen Sensor Installation**

The supplied O2 Sensor can be installed in either exhaust bank. The Sensor cable connects to one of the cables coming out of the ECU on the throttle body.

A. The ideal location for the Sensor is 2-4 inches after the exhaust collector. It must always be at least 18-inches from the exhaust tip. Where short or open headers are utilized, install the sensor in the primary tube of the rear cylinder. Must be at least 8-inches from the exhaust port. It will not work on "zoomie" style headers.

B. The sensor should be at least 10° above horizontal (see figure #3) to allow condensation to run off. If this is not adhered to, the sensor is susceptible to water damage.

C. Never position the sensor on the outside of a bend in the tubing.
Throttle Body Installation

Installing the throttle body is no different than replacing the carburetor. Disconnect the throttle linkage and the fuel line. Remove the existing carburetor from the intake manifold. Clean the gasket surface of the manifold.

Vacuum Ports: Before installing the throttle body determine the engine’s need for vacuum accessories. The FiTech throttle body has five vacuum ports including ported and manifold. These ports cover accessories such as power brakes. There are three 3/16" male nipples and two 3/8" male nipple. If you need more vacuum connections than this, you can purchase vacuum tees and vacuum hose at your local auto parts store. See Figures 4, 5, and 6 for location and use of various vacuum nipples.

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Throttle Body Installation: Place the supplied gasket onto the manifold and place the throttle body onto the gasket. The throttle body linkage must be on the driver’s side of the engine. Install the original nuts and washers onto the four carburetor studs. Tighten to 16 lb. ft. of torque.

The FiTech throttle body has four fuel ports. Three inlet and one return. Any one of three can be the inlet. The outlet port is marked with the word "Return." On a returnless setup the outlet port is plugged. Three plugs are provided in the kit for the unused ports. Two plugs are installed in the throttle body with one loose one in the kit. All three plugs will be used on returnless configurations and only two will be used when the system will have a return line.

Coolant Temperature Sensor Installation

The Temperature Sensor should be threaded into one of the ports in the intake manifold or cylinder head. The sensor threads are 3/8-NPT. Some manifolds have 1/2-NPT ports and in this instance use supplied pipe reducer. Connect the Yellow/Black wire lead from the throttle body to the sensor. Snap the connector into the sensor. Use Teflon tape or a quality pipe sealant on both the pipe reducer (if used) and on the temperature sensor.
**Wiring the EFI System**

The supplied Harness "A" (see Figure 7) plugs into mating Connector "B" from the throttle body mounted ECU. See Figure 8. The various wires will need to be extended to make required connections. See the Wire Chart on page 6 which lists each wire used in the system and what it connects to. It is strongly suggested that any wire extensions are made with the same gauge and color wire as is used in the supplied Harness. Make connections as a soldered joint rather than as a crimped connection. Utilize a shrink wrapped sleeve covering all connections.

![Fan Circuit](image)

Harness "A" plugs into connector "B" from throttle body mounted ECU. See Figure 8 and page 6 Wiring Chart.

The above photo shows all of the cables that are associated with the FiTech Go EFI System throttle body. The large cable at the bottom left connects to the supplied Harness "A" which contains the main six wires used in the system. The large coiled cable at top left connects to the supplied Oxygen Sensor cable.
Wiring Chart
The Chart below lists all of the wires in the FiTech Go EFI System. The wires are color coded and the wires that are part of Harness "A" are all marked for where they go. There are six wires in Harness "A." Four of them are required connections and two are optional. One of the optional wires (Black) is required when the Timing Control feature is being used. If Timing Control is not used, then the Blue wire is used in place of the Black wire. More detailed connection information (Figures 9 through 13) is provided on later pages of these instructions.

<table>
<thead>
<tr>
<th>Req./Opt.</th>
<th>Wire Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required</td>
<td>Red (Large)</td>
<td>Main power. Connect this wire directly to the positive (+) terminal of the battery. This circuit needs to be live even when the switch is off so that the self learning files are maintained. This is fused with a 25 amp fuse.</td>
</tr>
<tr>
<td>Required</td>
<td>Yellow/Black</td>
<td>This wire connects to the Engine Coolant Temperature Sensor</td>
</tr>
<tr>
<td>Required only if Timing Control is not used</td>
<td>Blue</td>
<td>This is the tach input wire which triggers the system. It connects to the 12V Negative terminal of the coil. On HEI distributor it connects to the &quot;Tach&quot; terminal on the distributor cap or connects to a tach output on a CDI box.</td>
</tr>
<tr>
<td>Required only if Timing Control is used</td>
<td>Black</td>
<td>This is the coil trigger wire. Connect this wire to the points wire on any external ignition CDI box such as an MSD 6A or to negative coil post if not using a CDI box.</td>
</tr>
<tr>
<td>Required</td>
<td>Orange (Large)</td>
<td>Fuel Pump circuit. This wire provides 12V to the fuel pump and connects to the positive (+) terminal on the pump. No relay is required.</td>
</tr>
<tr>
<td>Required</td>
<td>O₂ Harness</td>
<td>This cable from ECU connects to the Wide Band Oxygen Sensor harness.</td>
</tr>
<tr>
<td>Required</td>
<td>Wiring Harness A</td>
<td>This connects to Connector &quot;B&quot; from ECU. See Figures 7 and 8 (Page 5).</td>
</tr>
<tr>
<td>Required</td>
<td>White</td>
<td>On/Off - Connect this wire to a switched 12V circuit. Must be on during both &quot;Key On&quot; and &quot;Cranking.&quot; DO NOT connect to the coil terminal when using an external CDI box such as an MSD 6A or any other CD ignition.</td>
</tr>
<tr>
<td>Optional Used with Timing Control</td>
<td>Violet (+) Green (-)</td>
<td>This is the input for a magnetic pickup, such as from an MSD distributor or any other magnetic pickup two-wire distributor. This connection is only used in conjunction with the Timing Control feature.</td>
</tr>
<tr>
<td>Optional</td>
<td>Yellow</td>
<td>Fan Circuit #1. This wire goes to the ground terminal of the fan relay.</td>
</tr>
</tbody>
</table>

The Following Additional Wires Are Used In Power Adder Systems (4-Pin Connector)

<table>
<thead>
<tr>
<th>Req./Opt.</th>
<th>Wire Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional</td>
<td>Red (Thin)</td>
<td>Air Conditioning</td>
</tr>
<tr>
<td>Optional</td>
<td>Black</td>
<td>Fan Circuit #2. This wire goes to the ground terminal of the fan relay.</td>
</tr>
<tr>
<td>Optional</td>
<td>White</td>
<td>Nitrous &quot;IN&quot; Signal. This should receive 12V positive when Nitrous arming safety switch is activated.</td>
</tr>
<tr>
<td>Optional</td>
<td>Tan</td>
<td>Nitrous &quot;OUT&quot; signal. This is the relay ground for nitrous solenoids. Trigger wire cannot ground the Nitrous solenoid directly. Must use relay.</td>
</tr>
</tbody>
</table>

Wiring Diagrams
On the following five pages are various wiring diagrams that address the most common ignition arrangements that will be found. Each diagram will show you the specifics of how to wire your FiTech Go EFI System for that particular ignition setup. Note that the FiTech Go EFI timing control feature cannot be utilized if you have a "ready-to-run" distributor or an HEI distributor. It will work with most other aftermarket or stock distributors but in every instance the advance mechanism in the distributor must be locked so it cannot function when using timing control. Most aftermarket distributors provide instructions on how to lock the advance mechanism.
Selecting the correct wiring schematic: Review Figures 10 through 14 and select the schematic that suits your particular application. Note that if you elect to use Timing Control you must select a suitable schematic. Figure 10 shows how to connect a ready-to-run distributor without timing control. Figure 11 is for an HEI distributor without timing control. Figure 12 is for a system with an external CDI box without timing control while Figure 13 is a CDI box with timing control. And Figure 14 is with a conventional 2-wire distributor with timing control. One of these configurations will suit your vehicle.

Wiring Connections for FiTech Go EFI System with Ready-to-Run Distributor w/o Timing Control

Timing Control cannot be used with Ready-to-Run Distributor

Figure 9
Wiring Connections for FiTech Go EFI System with HEI Distributor w/o Timing Control

Timing Control cannot be used with HEI Distributor

Use this wiring schematic if you are utilizing an HEI distributor without an external CDI box, such as a MSD 6AL or similar aftermarket ignition box. Note that the Fitech EFI Timing Control feature cannot be used with this type of distributor. All other EFI features are compatible.
Wiring Connections for FiTech Go EFI System with External CDI Box w/o Timing Control

Use this wiring schematic if you are utilizing a conventional two-wire distributor box, and you will not be using the FiTech Timing Control feature. See Figure 11 for this configuration with Timing Control.

Figure 11

- Yellow/Black Wire connects to "tach out" wire from CDI Box
- This harness is a permanent connection to ECU on the EFI throttle body
- Yellow Wire (Connect to fan relay ground)
- Black Wire not used
- Large Orange Wire
- Large Red Wire
- Small Green Wire
- Small White Wire
- Small Red Wire
- Yellow Wire
- Blue Wire from CDI box
- Ignition Switch
- Coil
- Coolant Temperature Sensor
- Throttle Body
- Handheld Controller
- Oxygen Sensor
- Conventional Two-Wire Distributor
- External CDI Box such as an MSD 6AL or similar aftermarket ignition box
- Inline Fuel Pump shown. Connections are the same for the Fuel Command Center
- Electric Fan
- Electric Fan
- 4-Pin Connector
- 2-Pin Connectors
- Vehicle Battery

Indicates a splice. It is recommended that all splices be made as a soldered connection.
Use this wiring schematic if you are utilizing a conventional two-wire distributor with an external CDI box, such as a MSD 6AL or similar aftermarket ignition box, and you want to use the FiTech Timing Control. Note that your mechanical advance mechanism must be locked to use Timing Control.
Use this wiring schematic if you are utilizing a conventional two-wire distributor without an external CDI box, such as a MSD 6AL or similar aftermarket ignition box, and you want to use the FiTech Timing Control. Note that your mechanical advance mechanism must be locked to use Timing Control.