

# Fitment Guide

## BA-BF FALCON I6

V1.3



The Shift-I™ requires 3 wires to be connected, ground, ignition and tacho.

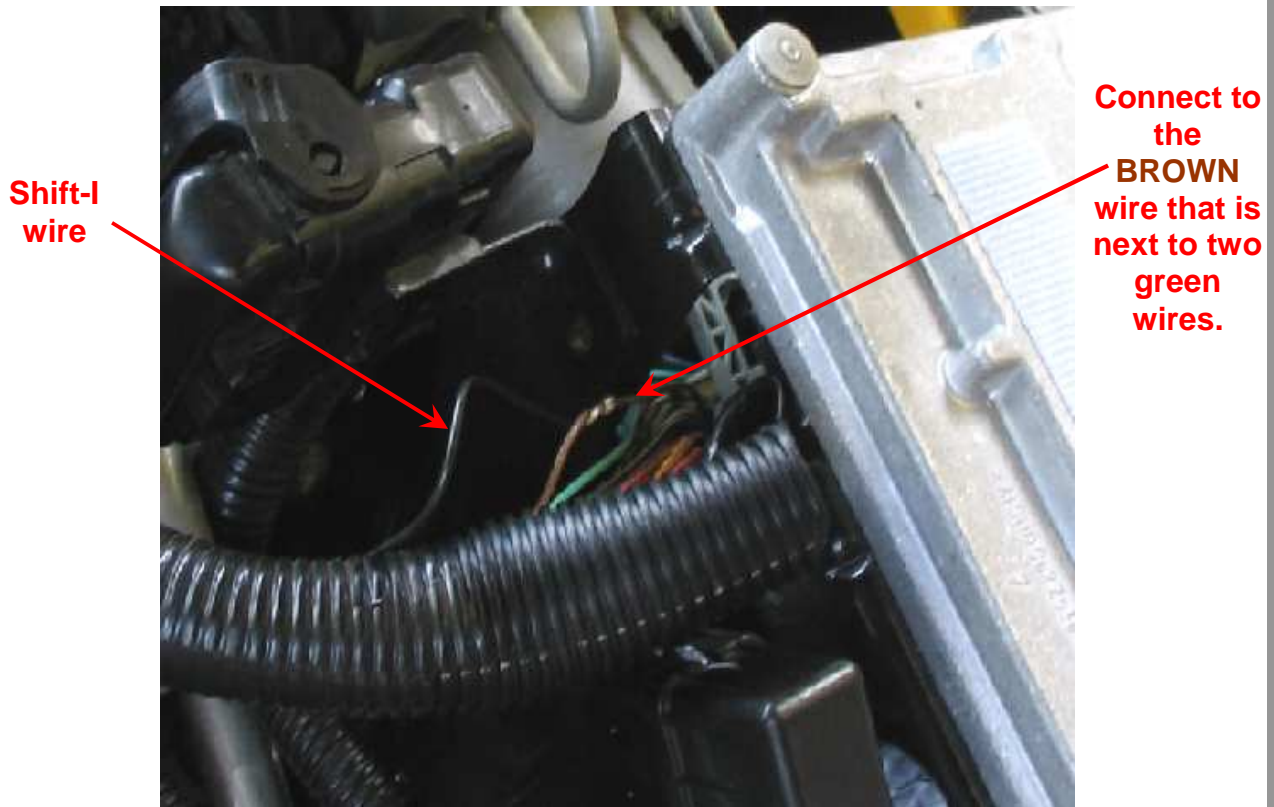
The BA-BF Falcon does not have a digital tacho signal going to the instrument, as it's sent via the communications bus. So instead, the tacho wire needs to be connected at the engine controller.

The tacho wire has to be connected to a fuel injection driver and not an ignition coil driver. This is because the ignition coils are fired 3 times while the engine is at idle and would give a false reading to the Shift-I™.

The tacho wire is connect at the powertrain control module (PCM), which is located at the back right of the engine.

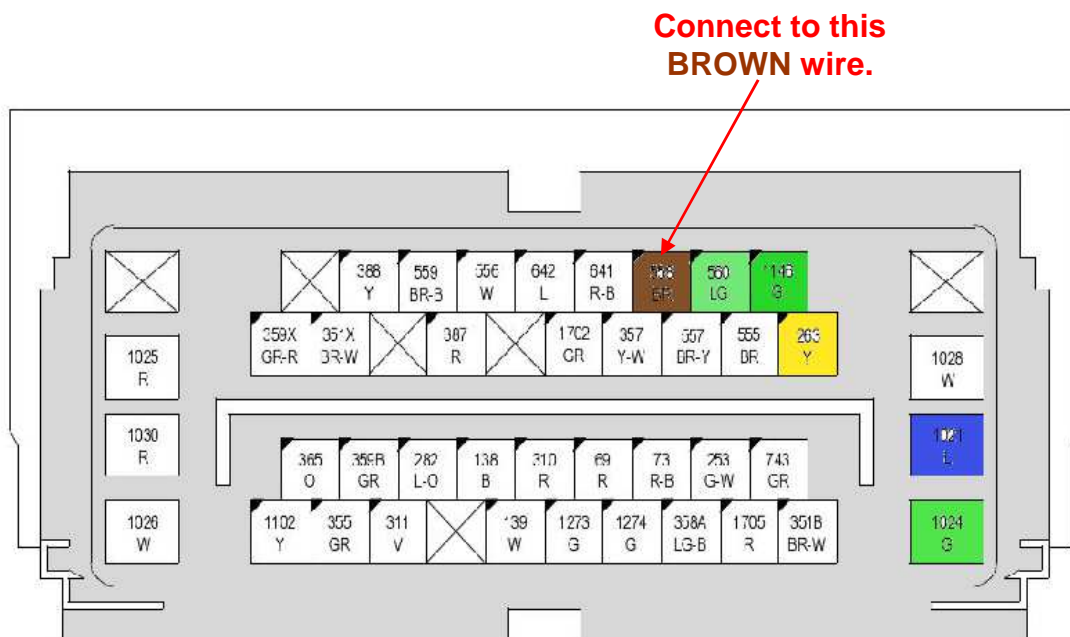


**Un-tape the conduit to get access to the wires.**



The Shift-I™ comes standard with at least 600mm wire length. To reach the engine, you will need additional wire.

The diagram below shows the pin out of the connector, which shows the brown wire next to the two green wires. Diagram is useful as a guide to double check.



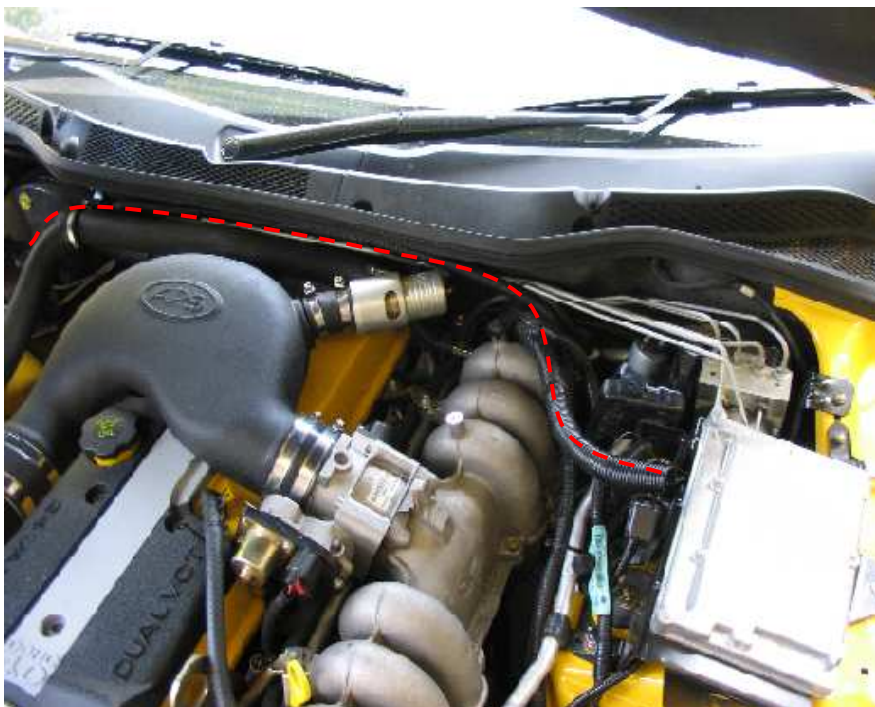
Note: The V8's use a Tan/Black wire, in the same position on the connector.

If you need a better view of the connector or a bit more wiring length to play with, you can unplug the connector. It is a lever lock connector and you need to pull the white lever right down before the connector will become loose. Make sure when plugging it back in that the lever goes all the way up, otherwise it won't be fully plugged in.



**Pull the lever down to unlock the connector.**

The Shift-I™ tacho wire was routed across the top of the engine in a length of conduit.



Thread the tachometer wire through this grommet.

This leads to the driver's pedals (easy to find).



The ignition and ground wires are easy to find. Remove the cockpit fuse panel, near the driver's right knee. For the ground, you can connect to the bolt shown below. For ignition, the plug indicated to on the left is a convenient connection point.

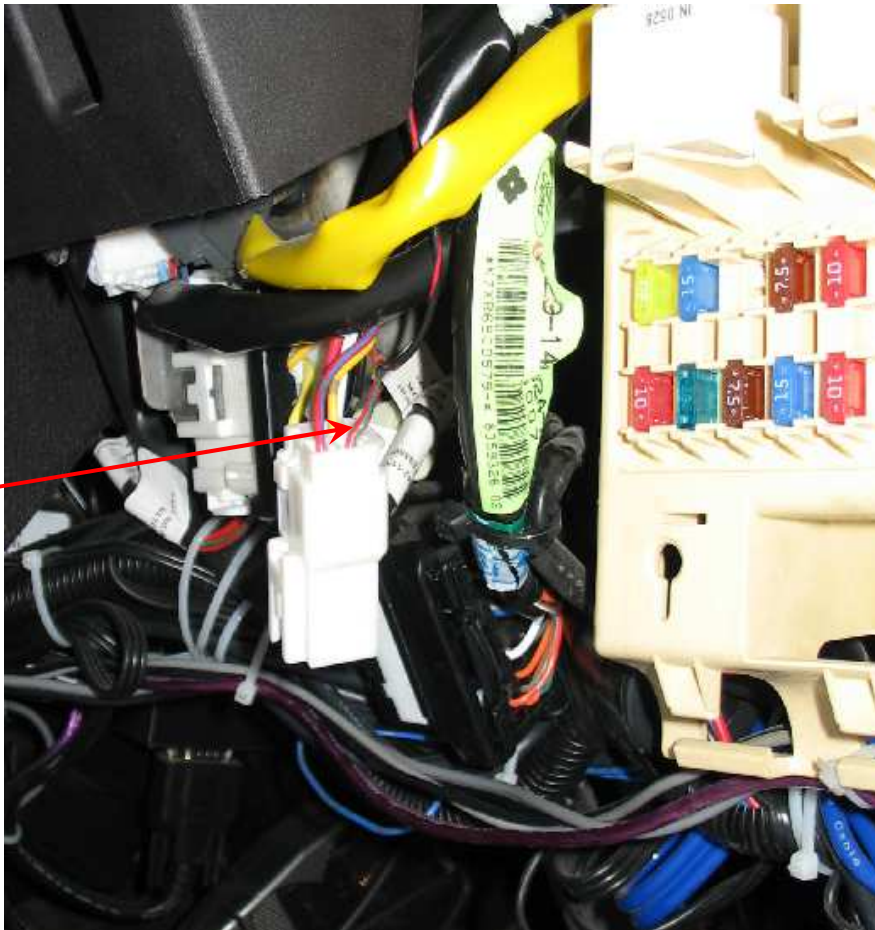
Ignition wire on this plug (next page)



Connect the Shift-I™ BLACK wire to this bolt with an O-terminal.

The ground wire to the Shift-I cannot be seen connected in the above picture, as it was routed across the top of the fuse box and down the side.

Connect the Shift-I™ BLACK/RED wire to the RED/GREEN wire on this connector.



Mount the Shift-I™ with the doubled sided adhesive pads. It was located on the top of the steering column for this installation, however could also be mounted on the top of the dashboard.



The Shift-I™ comes shipped with default settings, which you need to configure to suit this model vehicle. These are covered in more detail in the manual, however the info below will get you started quicker.

If changing these settings are a concern for you,  
ask Ecliptech to set them for you when ordering.

#### **CALIBRATION SETTING – Only need to change for units pre-Nov 2011**

The first setting to be changed is the “Calibration Value”. This makes sure the Shift-I interprets the RPM input correctly. Hold both buttons down, turn ignition on and release the buttons. You will have two lights on the right hand side. Press the left button several times until you have the left most light flashing slowly. This corresponds to a calibration value of 0.5. Press both buttons to save the setting.

#### **SETTING THE RPM RANGE**

Press and hold the left button (which is the down button). After a couple of seconds, the display will change. The 2<sup>nd</sup> light will flash, and the 3<sup>rd</sup>, 4<sup>th</sup> & 5<sup>th</sup> light will be on. This represents 1 0 0 0, or 1,000rpm. Press the right (up) button twice, and the flash sequence will now show the 2<sup>nd</sup> light flashing 3 times for 3,000rpm. This concept of reading the lights is demonstrated in the website animations. Press both buttons to save the setting (or rev the engine over 2,200rpm).

To set when they all flash, it is similar to above. This time, press and hold the left button to enter the mode. The default will start at 8,000rpm, so decrease this to 5,000rpm.

#### **CHANGING THE RPM STEP**

The above settings are too general going in steps of 1,000rpm, but in the right ballpark to start. To change the step size, hold the right button and turn on ignition. It will flash the value 1,000 (default). Decrease the value to a lower step size, such as 100rpm. Press left (down) button three times. Now you can refine the RPM range to something like 3,200rpm to 5,600rpm. You can also reduce the step size to 50rpm. The RPM range can be set at anytime the engine is not running or the RPM is below 2,200. So you can tweak the setting while sitting idle.

#### **BYPASS MAX RPM MODE – Only need to change for units pre-Nov 2011**

The engine controller does a neat job conserving fuel. When you off throttle, it doesn't inject any fuel. The Shift-I will think there is no RPM and then engine has turned off... and starts displaying the maximum RPM for the trip. You need to turn this feature off! Press both buttons, turn ignition on. Press and hold the right button and the first light will start flashing after a couple of seconds. Press the right button repeatedly until the last light is flashing, then press left, then right (two solid lights), then left.

#### **EXPECTED OPERATION**

When you first turn on ignition, you will get 3 or 4 lights. This is the battery monitoring mode. Each light represents 1 volt starting from 9V. So 3 or 4 lights represents above 11 or 12V. When starting the engine, you can see what happens to the ignition voltage, whereby it will dip during crank and then increase as the alternator contributes. You will get to know the condition of your battery by seeing how the voltage responds. 3 seconds after the Shift-I detects the engine is cranking, it will automatically switch to RPM mode (this can be switched off).

You really need to look through the manual to see all the features, so don't forget about having a look through the user manual. Otherwise, check the feature animations on the website [www.ecliptech.com.au](http://www.ecliptech.com.au) to familiarise yourself.

Enjoy the ride!