Fuel Pump Power Step Down Box #180300

BARRY GRANT FUEL SYSTEMS
The Powerfuel Systems!

INSTALLATION INSTRUCTIONS

INTRODUCTION

The Fuel Pump Power Step Down Box allows for the use of high flow racing electric fuel pumps in non-racing applications and decreases the wear on pump internals when maximum flow is not required. This box will eliminate pump motor over heating, which in turn will protect the motor and reduce heat transfer to the fuel, while still providing sufficient fuel for normal driving conditions without any adjustments to the regulator.
As with any electrical product, proper installation and wiring are imperative to maximum performance. These instructions will cover both installation location and wiring. Please read and follow the instructions carefully.

INSTALLATION LOCATION

It is recommended that the box be located as close as possible to the fuel pump in a protected area, such as in the trunk of the car. The box can be mounted either horizontally or vertically using the four (4) isolation feet. Diagram One shows the hole pattern for mounting the box with the included hardware (four (4) 1/4"-20 nuts and 1/4" lock washers.)

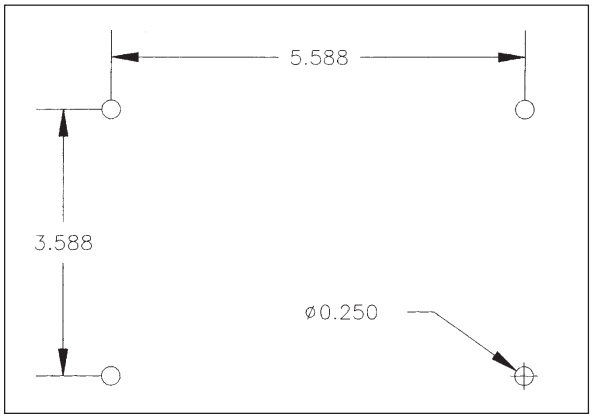

Diagram 1

NOTE: THIS DEVICE IS NOT RECOMMENDED FOR EXTERNAL INSTALLATION. EXPOSURE TO MOISTURE OR IMPACT CAN SEVERELY DAMAGE PRODUCT!

WIRING

NOTE: USE OF THIS PRODUCT ELIMINATES THE NEED TO USE A RELAY IN WIRING THE FUEL PUMP!

Wiring the Fuel Pump Power Step Down Box is simple, once you decide which method is best for you. There are two basic ways to wire the box, depending on whether two (2) single-pole, single throw switches are to be used (Diagram Two), or

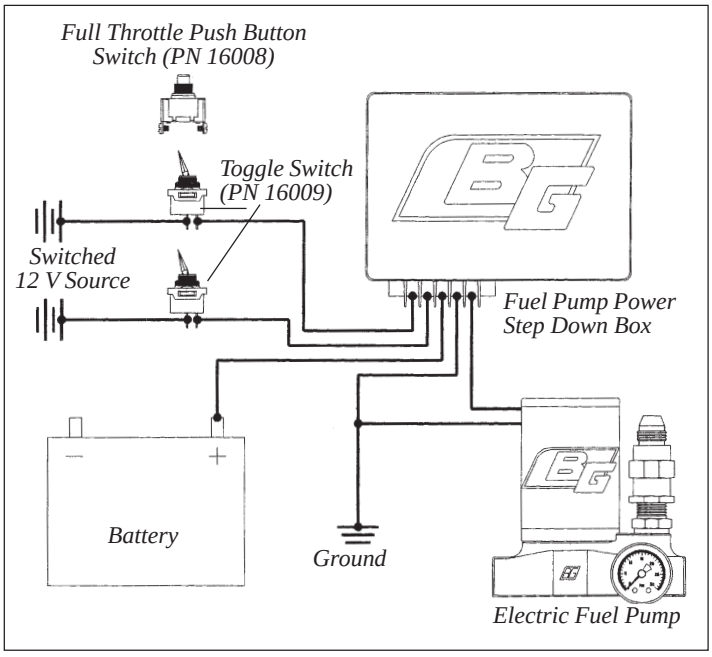

Diagram 2

one (1) single-pole, double throw switch is to be used (Diagram Three) *see reverse side.* Either method is acceptable, depending on your application. The box features a five (5) port terminal block along its side. Looking at this block with the top of the box (BG logo side) up, from left to right, number the ports 1-5 (see Diagram Four).

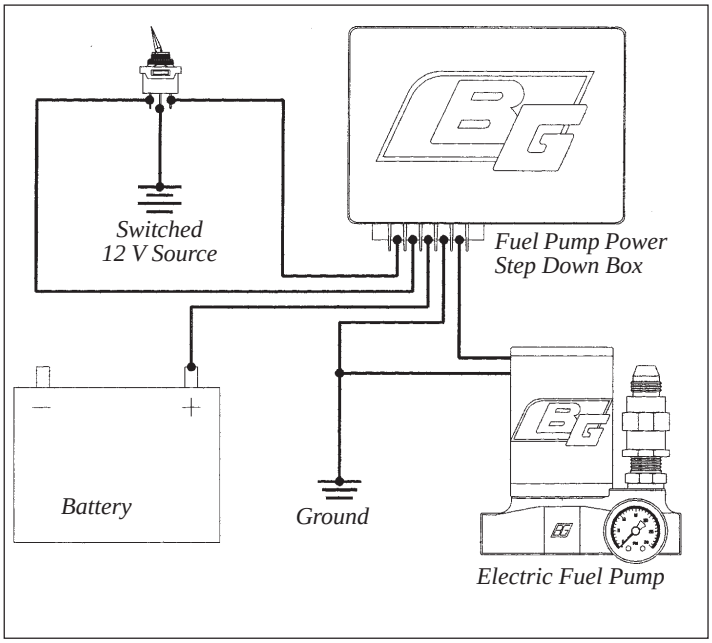

Diagram 3

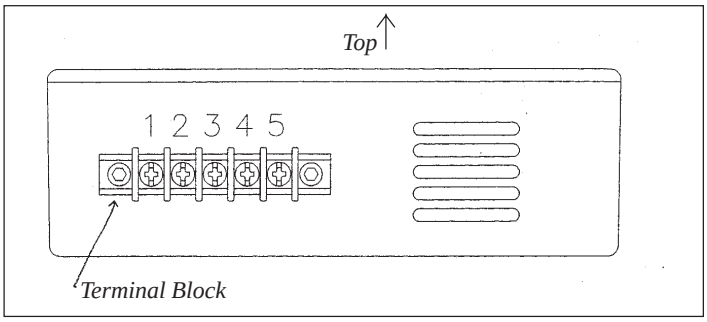

Diagram 4

We will look at wiring the box one port at a time. It should be noted that use of 22-18 gauge wire is acceptable for ports one (1), two (2), and four (4). 12-10 gauge wire should be used for ports three (3) and five (5).

PORT ONE (far left port)

This port should receive the signal for maximum flow operation. This can come from either a toggle or momentary switch in the two switch method or one side of the single-pole, double throw switch. This input should come from a switched 12V source.

PORT TWO (second from left)

This port should receive the signal to turn the fuel pump "ON". In the two switch method, this would come from the switch used to turn the fuel pump "ON". If a single switch is to be used, wire this port to the other "hot" side on the double throw switch. This input should also come from a switched 12V source.

PORT THREE (middle port)

This port should be wired directly to a continuous 12V source, such as the positive battery terminal.

PORT FOUR (second from right)
This port should be wired to a good common ground.

PORT FIVE (far right)

This port should be wired to the positive lead on your fuel pump.

If the box is wired properly, your fuel pump should operate in the "Step Down Mode" until either the toggle or momentary switch are engaged (two switch method) or the double throw switch is in the "full power" position. Once this happens, your pump will recieve full power and produce maximum flow. A quick check to verify this is recommended.

NOTE: THE FAN WILL NOT OPERATE UNLESS THE BOX IS IN THE STEP DOWN MODE!

For further questions, please contact our technical department at (706) 864-8544.