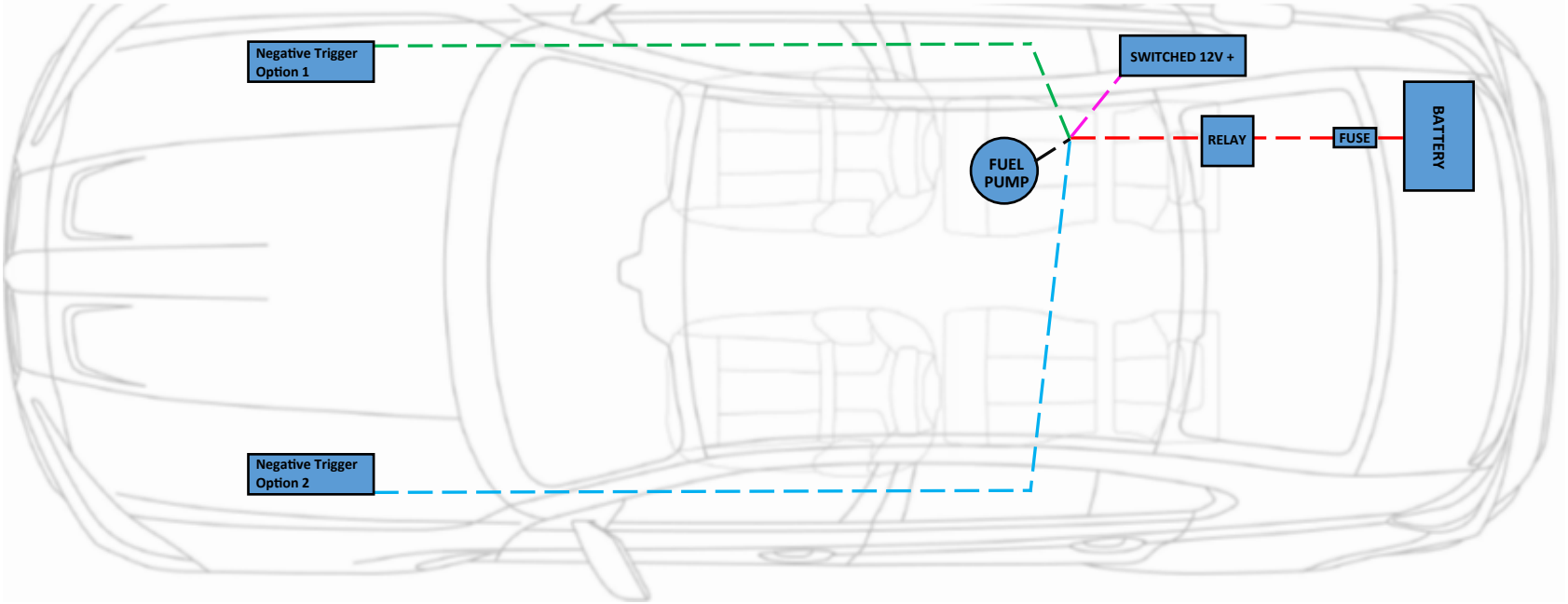
Installation Instructions for: 201-0049

PUMP ACTIVACTION GENERAL INSTALLATION DIAGRAM / CONFIGURATION OPTIONS

WIRE ROUTING AND EQUIPMENT LOCATIONS ARE FOR ILLUSTRATION PURPOSE ONLY
EACH VEHICLE IS DIFFERENT AND WIRES MAY NEED TO BE ROUTED DIFFERENTLY



Test Wire: A test wire is included with harness can be used for setting fuel pressure or troubleshooting but is not intended as long term control method of pump

Note: The standard relay included can not be ran PWM it must be used as on or off. Our solid state relay upgrade for this harness can be used for PWM speed control.

Pump Activation Methods

The Precision Raceworks pump activation harness is configurable to be used with your choice of either positive trigger or negative trigger control method.

Negative Trigger Harness

Negative trigger activation is the most common method used. This option allows for use of any negative trigger source to activate the fuel pump. A pressure switch (AKA hobb switch) is the most common negative trigger method for pump activation. Additionally this trigger can be an electronic controller.

Kit includes 13psi Pressure Switch

Positive Trigger Harness

While negative trigger is more common, a positive trigger may be desired. The above example illustration shows the positive trigger hooked to a switched 12v source so that the pump runs anytime the vehicle is in the ON position. Other positive triggers can be used.

Positive trigger is not compatible with solid state relay.

Main Harness

The main harness provides power to the fuel pump based on the positive or negative trigger configuration. This harness comes standard with a mechanical relay and fuse. The fused wire is connected directly to the battery positive and the ground wire is connected to battery or good chassis ground connection.

Fuel Pump Harness

The fuel pump harness provided has an easy quick connect to the main harness capable of high current (30A). This section of harness comes with 2 ring terminal that will fit M6 bolts. Additionally this wire is fuel compatible and can be used with wire bulkhead to route directly into the fuel tank.

Recommended Wiring Procedure & Modification for use with Electronic Controller activation

1. **Cut the harness about 2 inches back from the 2 wire electrical connector**
2. **Discard the pressure switch (or keep if you ever decide to use pressure switch)**
3. **Remove loom and heat shrink from wire (Razor may be needed, do not cut wire)**
4. **Cut the brown wire flush with the rubber seal (or tape up if planning to use in future)**
5. **The green wire is the Negative trigger wire for the Pump Activation harness This will be the wire connected to your electronic controller of choice that outputs negative trigger.**

PWM Variable Speed Control Functionality

The standard relay included with the harness will fail if controlled PWM, only use values of 0 and 100% for duty cycle of controller when used with standard relay. Recommended PWM frequency is 20-40hz.

This harness is compatible with our solid state relay (sold separately), when this relay is installed in place of the mechanical relay PWM control through use of the negative trigger input can be achieved to allow full control of pump speed. A value of 0% duty will equal zero for pump speed, and a value of 100% duty will equal 100% pump speed. The pump speed is linear with duty cycle so as an example 50% duty cycle would be 50% pump speed. Recommended Frequency is 100hz.