



## LOW AMP SOLENOID DRIVER INSTALLATION INSTRUCTIONS

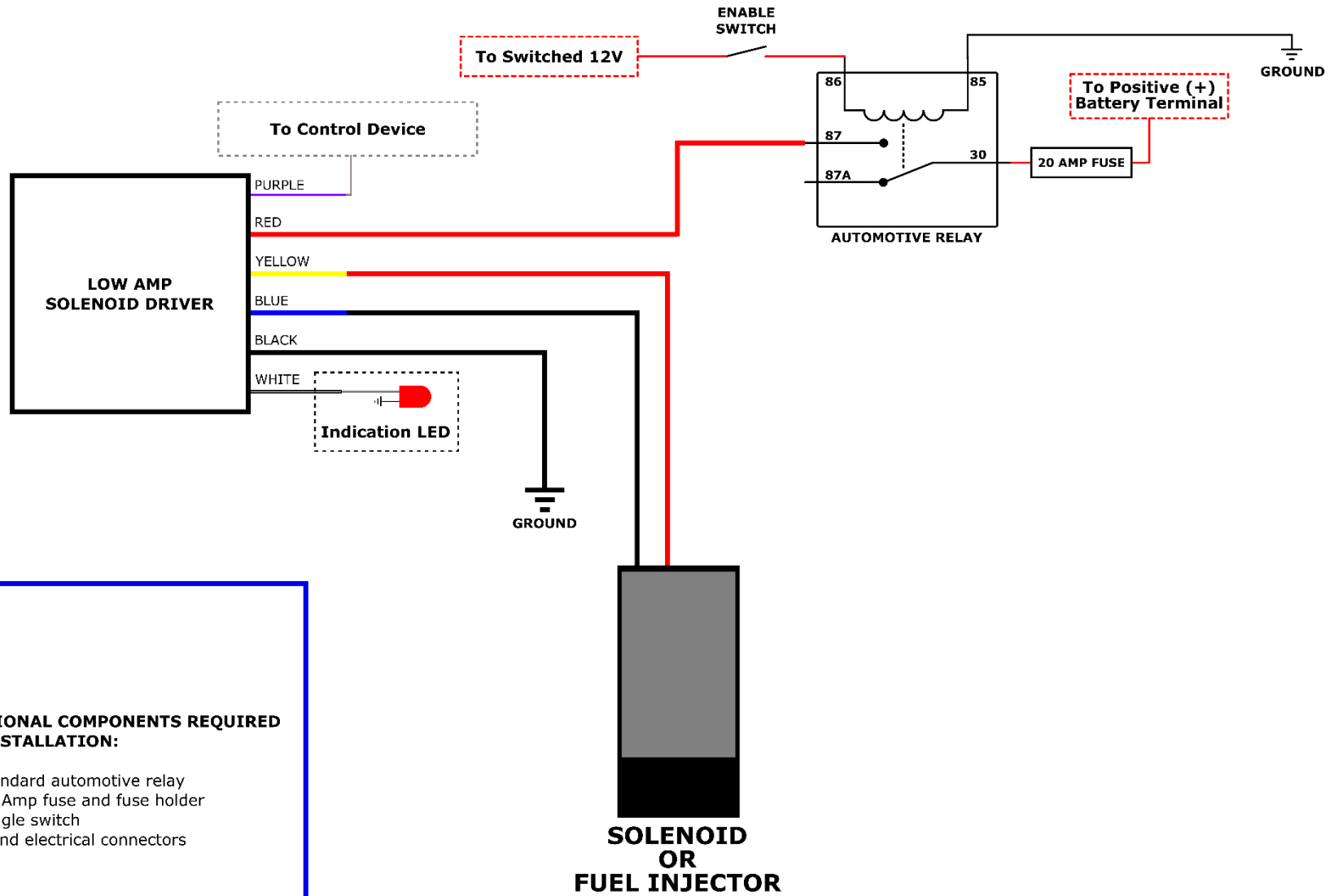
Rev 1.0.1

The Low Amp Solenoid Driver has been specifically designed to provide optimal pulse width modulated (PWM) control of high-speed water/methanol injection solenoids and fuel injectors. Each driver can provide progressive control for a single high-speed solenoid or fuel injector that draws 4 Amps or less. When using PWM to control a solenoid there is a limit to how quickly the solenoid is able to open and close. Below a certain duty cycle the solenoid will never open, and above a certain duty cycle the solenoid will never close. While the opening time is primarily determined by battery voltage, the closing time can vary greatly depending on the hardware being used to control the solenoid. The hardware inside of the Low Amp Solenoid Driver has been designed to minimize the time required for your solenoid to close, allowing you to achieve the maximum possible dynamic flow range from your injection system.

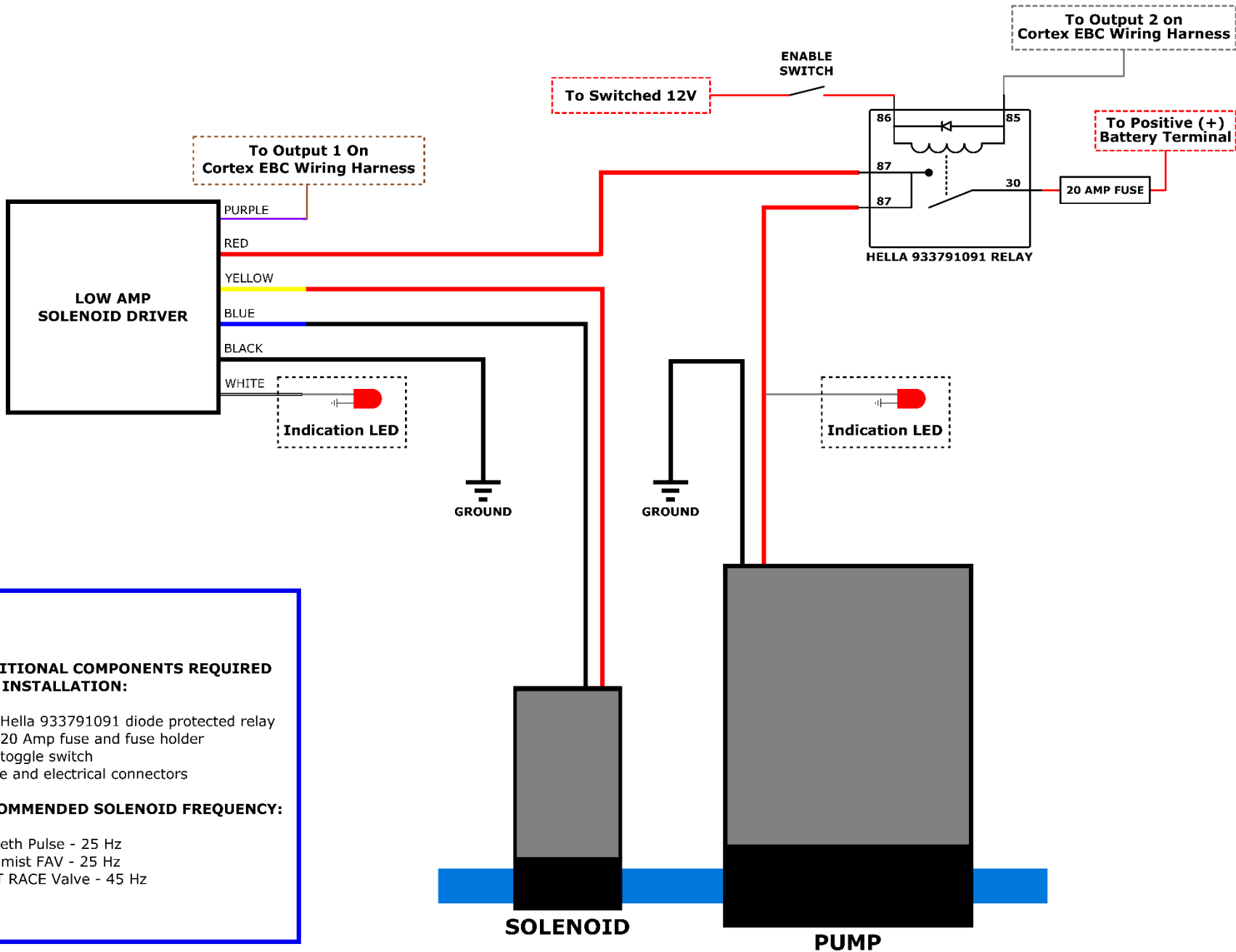
**NOTE:** This device is intended for intermittent operation and should not be used for applications that require the solenoid to be pulsed at all times when the vehicle is running.

<p><b>INCLUDED COMPONENTS</b></p> <ul style="list-style-type: none"><li>• Low Amp Solenoid Driver</li><li>• 12 V Diffused Indication LED (Red, Green, Blue)</li></ul> <p><b>CONTROL DEVICE COMPATIBILITY</b></p> <ul style="list-style-type: none"><li>• Cortex EBC</li><li>• Any ECU or other control device with outputs that are 12 V tolerant and able to sink at least 15 milliamps.</li></ul> <p><b>ACTIVATION METHOD</b></p> <ul style="list-style-type: none"><li>• The Low Amp Solenoid Driver is activated by pulling the control input (purple wire) to ground.</li></ul> <p><b>CONTROL INPUT PULL-UP RESISTANCE</b></p> <ul style="list-style-type: none"><li>• 1,000 <math>\Omega</math> pull-up to supply voltage</li></ul>	<p><b>MAXIMUM CURRENT</b></p> <ul style="list-style-type: none"><li>• 4 Amps</li></ul> <p><b>MAXIMUM PWM FREQUENCY</b></p> <ul style="list-style-type: none"><li>• 100 Hz</li></ul> <p><b>FLYBACK CLAMPING VOLTAGE</b></p> <ul style="list-style-type: none"><li>• 50-60 V</li></ul> <p><b>SIZE</b></p> <ul style="list-style-type: none"><li>• 51.5 mm x 35 mm x 20 mm (2.00 in x 1.38 in x 0.79 in)</li></ul>
---	---

# GENERAL WIRING DIAGRAM



# CORTEX EBC WATER/METHANOL CONTROL WIRING DIAGRAM



## ADDITIONAL COMPONENTS REQUIRED FOR INSTALLATION:

- 1x Hella 933791091 diode protected relay
- 1x 20 Amp fuse and fuse holder
- 1x toggle switch
- wire and electrical connectors

## RECOMMENDED SOLENOID FREQUENCY:

- ProMeth Pulse - 25 Hz
- Aquamist FAV - 25 Hz
- USRT RACE Valve - 45 Hz