SIRHC LABS

WATER/METHANOL PUMP DRIVER INSTALLATION INSTRUCTIONS
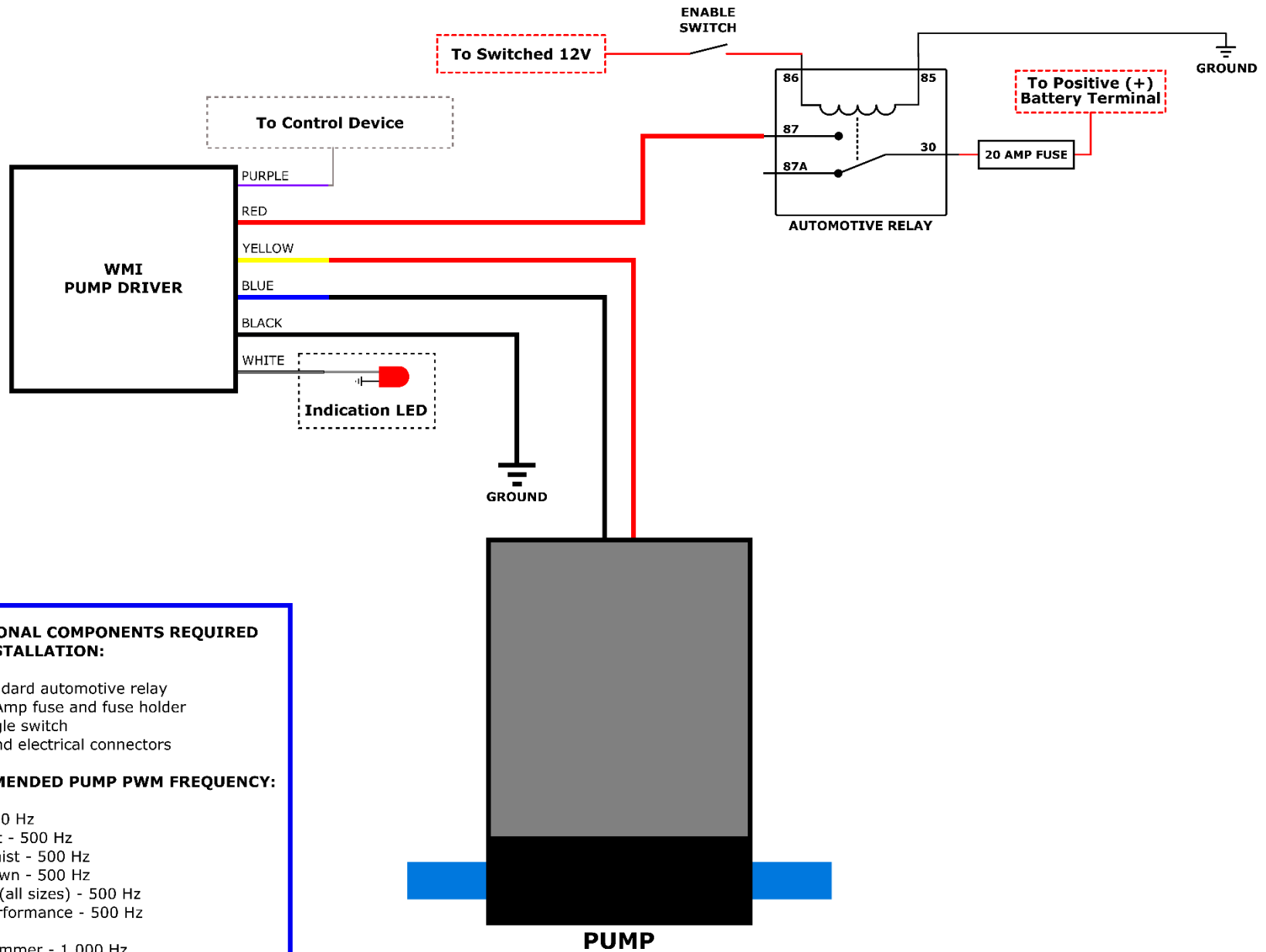**Rev 1.0.0**

The Water/Methanol Injection (WMI) Pump Driver has been specifically designed to provide optimal pulse width modulated (PWM) control of water/methanol injection pumps.   Each driver can provide a single WMI pump with precision PWM control at frequencies up to 1,000 Hz.

The WMI Pump Driver is compatible with all WMI pumps including AEM, Aquamist, Alky Control, Cooling Mist, Devil's Own, ProMeth (PM 75, PM115, and PM 190), Snow Performance, and the USRT Hammer.

INCLUDED COMPONENTS
- Water/Methanol Injection Pump Driver
- 12 V Diffused Indication LED (Red, Green Blue)

CONTROL DEVICE COMPATIBILITY
- Cortex EBC
- Any ECU or other control device with outputs that are 12 V tolerant and able to sink at least 30 milliamps.

ACTIVATION METHOD
- The WMI Pump Driver is activated by pulling the control input (purple wire) to ground.

CONTROL INPUT PULL-UP RESISTANCE
- 500 Ω pull-up to supply voltage

MAXIMUM CURRENT
- 20 Amps

MAXIMUM PWM FREQUENCY
- 1,000 Hz

SIZE
- 66.5 mm x 50 mm x 40 mm (2.62 in x 1.97 in x 1.58 in)

GENERAL WIRING DIAGRAM

ENABLE SWITCH

To Switched 12V

GROUND

86   85

To Positive (+) Battery Terminal

To Control Device

87

87A   30

20 AMP FUSE

PURPLE

RED

AUTOMOTIVE RELAY

WMI PUMP DRIVER

YELLOW

BLUE

BLACK

WHITE

Indication LED

GROUND

PUMP
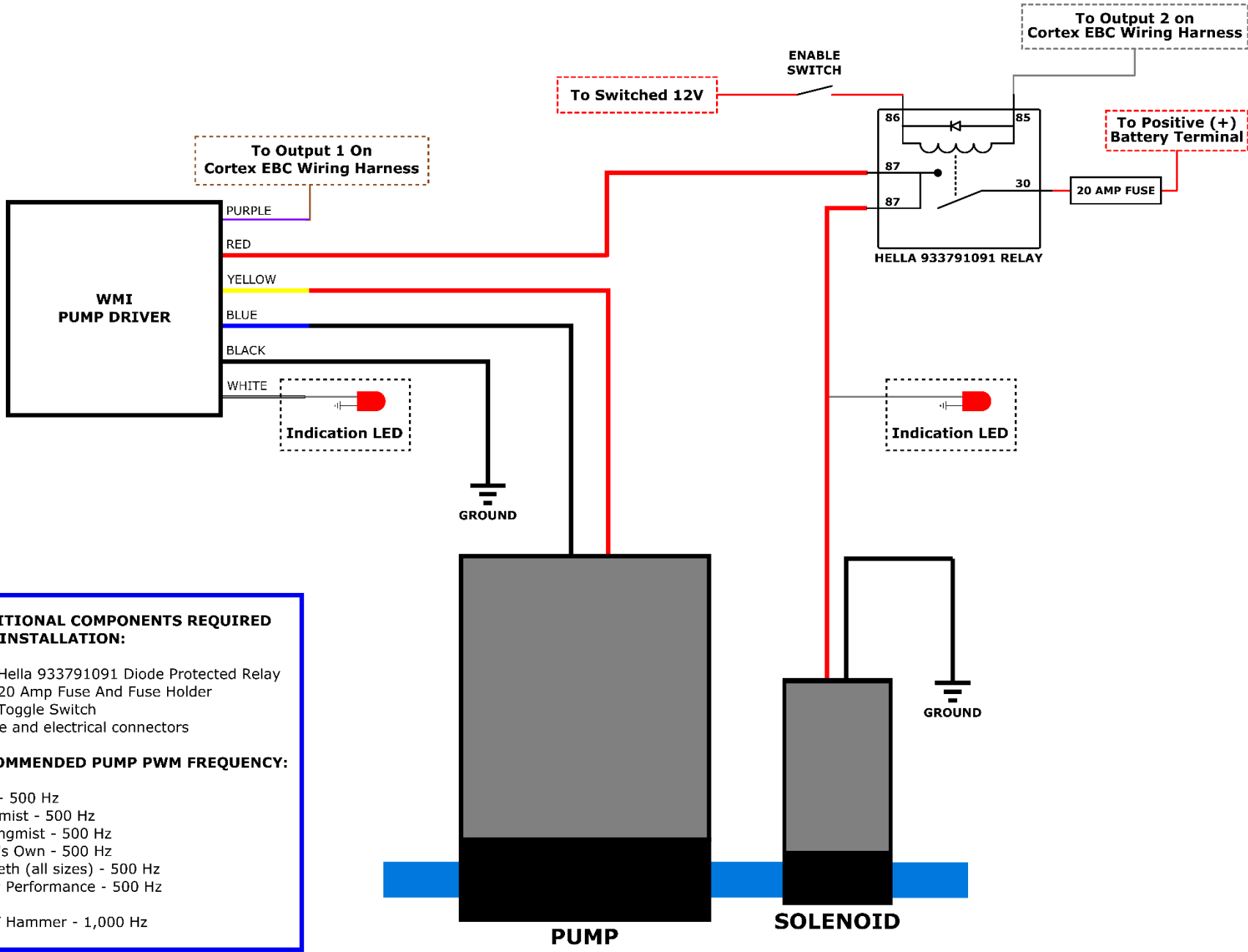
ADDITIONAL COMPONENTS REQUIRED FOR INSTALLATION:

• 1x standard automotive relay
• 1x 20 Amp fuse and fuse holder
• 1x toggle switch
• Wire and electrical connectors

RECOMMENDED PUMP PWM FREQUENCY:

AEM - 500 Hz
Aquamist - 500 Hz
Coolingmist - 500 Hz
Devil's Own - 500 Hz
ProMeth (all sizes) - 500 Hz
Snow Performance - 500 Hz

USRT Hammer - 1,000 Hz

SIRHC LABS - 2021

CORTEX EBC WMI PUMP + ANTI-SIPHON SOLENOID WIRING DIAGRAM

To Output 2 on
Cortex EBC Wiring Harness

ENABLE
SWITCH

To Switched 12V

To Positive (+)
Battery Terminal

To Output 1 On
Cortex EBC Wiring Harness

86   85

87

87   30

20 AMP FUSE

HELLA 933791091 RELAY

PURPLE

RED

YELLOW

BLUE

WMI
PUMP DRIVER

BLACK

WHITE

Indication LED

Indication LED

GROUND

GROUND

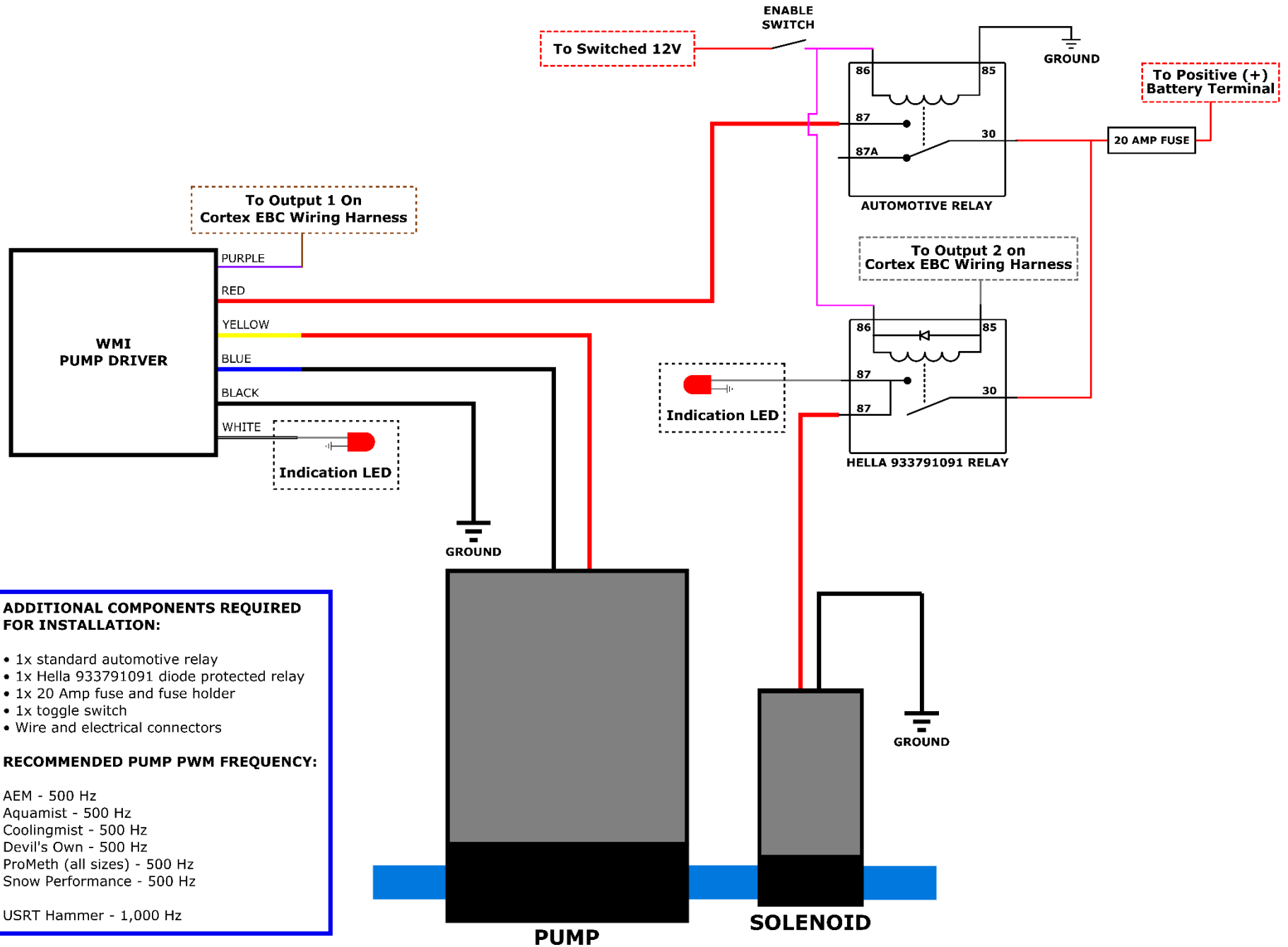**ADDITIONAL COMPONENTS REQUIRED
FOR INSTALLATION:**

• 1x Hella 933791091 Diode Protected Relay
• 1x 20 Amp Fuse And Fuse Holder
• 1x Toggle Switch
• Wire and electrical connectors

RECOMMENDED PUMP PWM FREQUENCY:

AEM - 500 Hz
Aquamist - 500 Hz
Coolingmist - 500 Hz
Devil's Own - 500 Hz
ProMeth (all sizes) - 500 Hz
Snow Performance - 500 Hz

USRT Hammer - 1,000 Hz

PUMP

SOLENOID

CORTEX EBC WMI PUMP + SECOND STAGE SOLENOID WIRING DIAGRAM

ENABLE SWITCH

To Switched 12V

GROUND

To Positive (+) Battery Terminal

86   85

87

87A   30

20 AMP FUSE

AUTOMOTIVE RELAY

To Output 1 On Cortex EBC Wiring Harness

To Output 2 on Cortex EBC Wiring Harness

PURPLE

RED

YELLOW

BLUE

BLACK

WHITE

WMI PUMP DRIVER

86   85

87

87   30

Indication LED

HELLA 933791091 RELAY

Indication LED

GROUND

GROUND

PUMP

SOLENOID

ADDITIONAL COMPONENTS REQUIRED FOR INSTALLATION:

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

RECOMMENDED PUMP PWM FREQUENCY:

AEM - 500 Hz
Aquamist - 500 Hz
Coolingmist - 500 Hz
Devil's Own - 500 Hz
ProMeth (all sizes) - 500 Hz
Snow Performance - 500 Hz

USRT Hammer - 1,000 Hz

SIRHC LABS - 2021