

Off Road Engineering  
(949) 581 2991  
High Idle Controller HIC875 Rev. A  
For 2007 and newer GM gas and diesel, and 2008+ H2 Hummer

Installation

1. Disconnect the connector going into the accelerator pedal. Plug the male connector of the HIC875 into the accelerator pedal socket. Plug the vehicle's accelerator pedal connector into the female connector of the HIC875.

**IMPORTANT!!!!** Route the power wires (RED and BLACK ) away from the accelerator pedal wire harness. The wires should not come in contact with the harness.

Do not zip tie any wires to the accelerator pedal wire harness. This might cause an unstable RPM level when the high idle is activated.

Connect the RED wire from the HIC875 to 12V ignition. **NOTE:** When using the battery charge protect mode, connect the RED wire to the battery system to be monitored. For dual alternator systems connect after the secondary battery solenoid.

The red wire provides power and is used to sense battery voltage.

Connect the BLACK wire from the HIC875 to a good ground.

2. **For Gas engines:** Connect the BLUE tach signal wire to the white wire with black stripe coming out of the bottom ECM X2 connector.

**For Duramax Diesel engines:** Connect the BLUE tach signal wire to the white wire with black stripe coming out of the top ECM X1 connector.

The ECM is located on the driver's side at the front of the engine compartment. Test this wire first, it should read about 2.5 volts DC with the engine running and will read frequency equal to engine rpm. Solder and seal this connection.

3. Connect the GREEN park interlock wire, see interlock table on the wiring diagram page

For 2007 and newer GM, except Hummer H2, the green interlock wire from the 6-way connector connects to the shift lock solenoid located at the steering column. Use the supplied pig tail harness and connect inline with shift lock harness.

*High idle will only be enabled with the vehicle in PARK and is disabled when the vehicle is taken out of PARK. Depressing the brake pedal (with vehicle in PARK) will disable the high idle.*

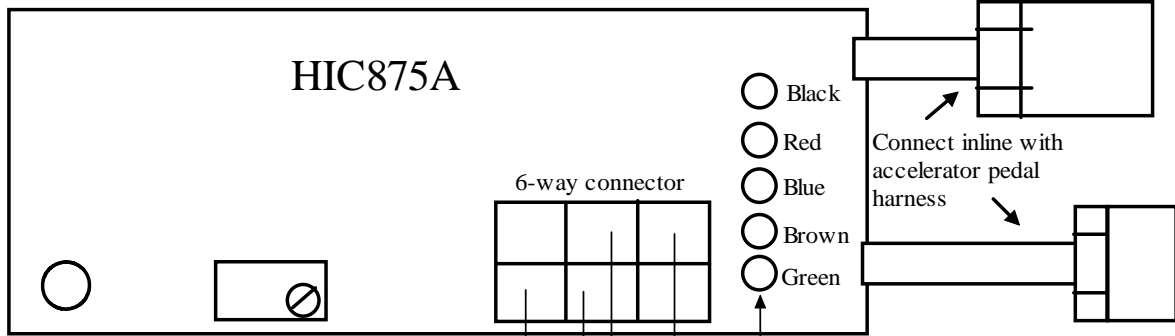
For 2008 and newer Hummer H2 the green interlock wire on the module (next to the brown wire) connects to the ECM X1 pin 1, orange wire with black stripe. This is the top connector of the ECM, Park/Neutral signal, and will read 0V with transmission in park or neutral, and 12V in gear. Solder and seal this connection.

*High idle will only be enabled with the vehicle in PARK and the parking brake set.*

For manual transmissions connect the GREEN wire to 12V Ignition. High idle will only be enabled if the parking brake is set.

4. Brown parking brake interlock wire: Connect to parking brake wire.
5. Orange manual on wire: Connect to the High Idle switch. +12V will activate the high idle.
6. Purple battery charge protect wire: Connect to 12V ignition to activate the charge protect function.
7. Yellow variable RPM wire: Connect to blue wire of remote pot, part # OREWS. (Optional)

## Installation Diagram

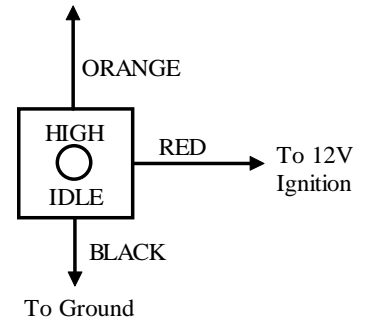


**LED**  
Will light when all interlocks are satisfied, and high idle is on. The led will flash initially when low voltage is detected.

**Trim Pot**  
Adjusts rpm level

### Optional High Idle switch

Connect to Orange  
Manual ON wire  
+12V OUT



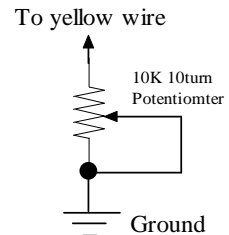
Manual ON, apply 12V to activate high idle, connect to orange wire of optional "High Idle" switch.

Battery charge protect enable, apply 12V to activate the charge protect function. (Optional)

Variable RPM function, connect to blue wire of remote pot, part # ORESW. (Optional)

Park interlock, *for 07+ GM gas and diesel only*, connect to shift lock solenoid located on the steering column, using interlock harness. (leave disconnected on 08+ H2)\*

### Optional variable RPM function connection



Connect to ground ← Black

Connect to 12V Ignition ← Red

Blue

Connect to parking brake wire ← Brown

Green\*

Tach signal,

For **GAS engines** connect to the white wire with black stripe coming out of the bottom ECM X2 connector.  
For **Duramax diesel engines** connect to the white wire with black stripe coming out of the top ECM X1 connector.

Park interlock, *for 08+ H2 Hummer only*, connect to ECM X1 pin 1, Orange wire with black stripe. This is the top connector of the ECM, Park/Neutral signal, and will read 0V with transmission in park or neutral, and 12V in gear. Solder and seal this connection. (used only on 08+ H2 Hummer, leave disconnected on 07+ GM)\*

The ECM is located on the driver's side at the front of the engine compartment. Test this wire first, it should read about 2.5 volts DC with the engine running and will read frequency equal to engine rpm. Solder and seal this connection.

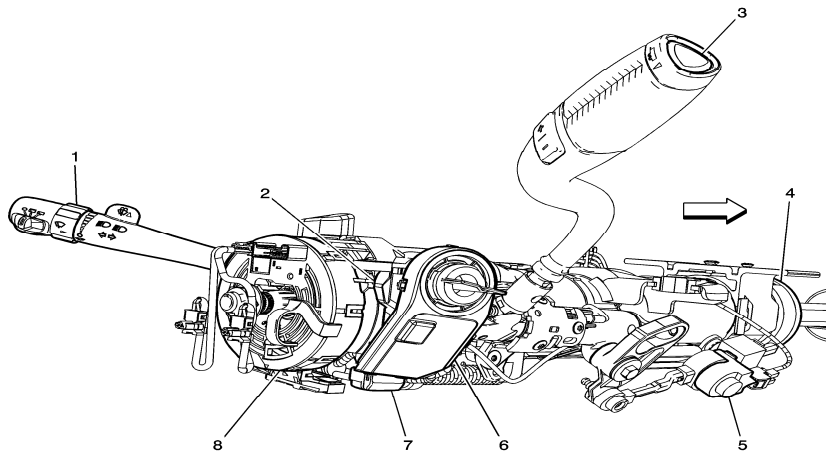
\*Interlock connections:

| Interlock      | 07+ GM gas, diesel except H2 Hummer | 08+ H2 Hummer except 07+ GM |
|----------------|-------------------------------------|-----------------------------|
| Parking Brake  | Brown wire from module              | Brown wire from module      |
| Park Interlock | Green wire from 6-way connector     | Green wire from module      |

## Green interlock wire connection procedure

### 2007 and newer GM gas and diesel, except Hummer H2:

Connect the Green interlock wire coming from the 6-way connector to the shift lock solenoid harness located on the steering column, see drawing item # 5. Disconnect the shift lock solenoid connector, item #5, and plug the supplied shift lock pig tail in line with the harness. Then connect the green wire from the 6-way connector to the green wire of the pig tail. (Leave the green wire from the module next to the brown wire disconnected)



### 2008 and newer Hummer H2

Connect the Green interlock wire from the module (next to the brown wire) to the orange wire with black stripe coming out of the ECM X1 connector, pin 1. This is the top connector of the ECM located in the engine compartment. This wire is the Park/Neutral signal, and will read 0V with transmission in park or neutral, and 12V in gear. Solder and seal this connection. (Leave to green wire from the 6-way connector disconnected)

## Operation

The HIC875 high idle controller provides a variable user adjustable high idle speed. The idle speed is adjusted with the trimpot located on the HIC875 control module. RPM range is 1000 to 2000 RPM.

The HIC875 comes preset from the factory at 1500 RPM.

The vehicle must be in park and parking brake set, to enable the high idle. The high idle is turned on by applying +12V to the ORANGE wire.

The Battery Charge Protect mode is activated by applying 12V Ignition to the purple wire. The high idle will turn on when insufficient alternator output causes the battery voltage to drop below 13.0V for a period of 5 seconds. Once the high idle is enabled it will remain on until reset by an interlock or the engine is turned off.

The variable RPM function is activated when turning the optional remote pot fully CCW, part # OREWS. The engine rpm will then increase to 1000 RPM. Turning the pot CW will increase the rpm gradually to 2000 RPM.