



## R5 Generator Rev Limiter - Installation Instructions

R5-2014-GRL

Parts Included	Quantity
GRL Rev Limiter Control Unit	1
Toggle Switch	1
Toggle Switch Guard	1
Auto Reset Breaker (20 AMP)	1
Auto Reset Breaker Cover	1

After you have installed the Valve as described in the Valve Installation Instructions, install the Rev Limiter Electrical Kit as detailed on the following pages:

- Install the Control Unit and Toggle Switch
- Set the Rev Limiter
- Test the Rev Limiter Setting



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## **Step 1: Electrical Installation**

### **1. DISCONNECT BATTERIES**

2. Mount the Control Unit on the firewall of the engine compartment away from moving parts and heat sources so that it is accessible for set up and testing. Do not tighten the screws until after setup is complete.

**ATTENTION**  
Always mount box  
in upright position  
as pictured.



Create a drip loop as per  
good wiring practices to  
ensure any moisture  
goes to the bottom  
of the loop.

3. Connect ground (black) wire and power (red) wire **directly** to the battery. Install supplied 20 Amp auto reset breaker (no fuses) in the power supply wire(red). Use crimp style heat shrink connectors only.

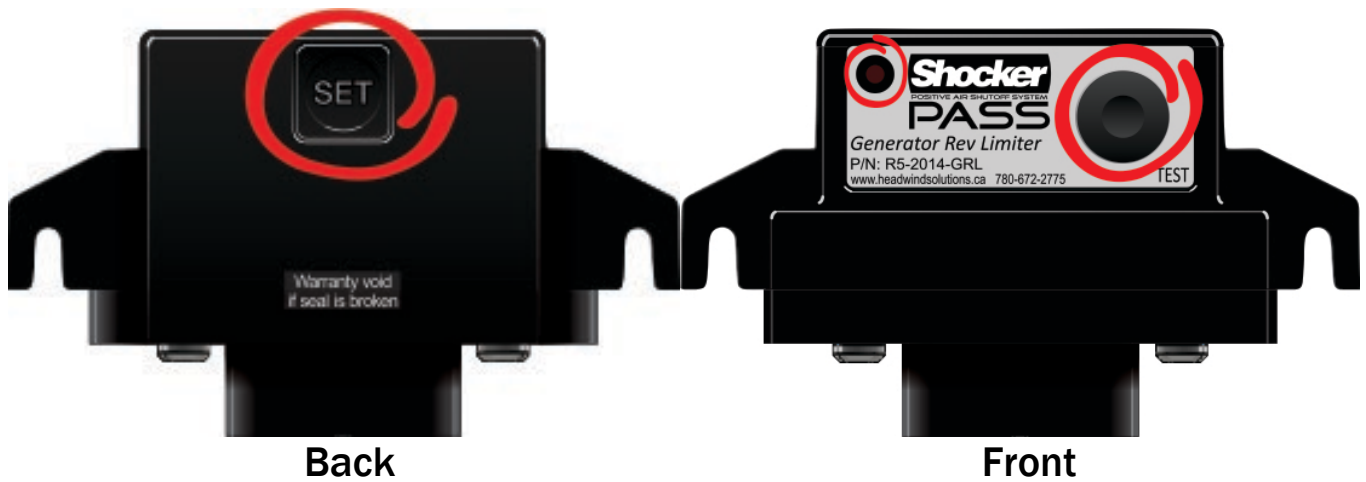
**DO NOT CONNECT WIRES TO FACTORY FUSE PANEL. CONNECT POWER AND GROUND WIRES DIRECTLY TO BATTERY. IMPROPER CONNECTIONS **WILL** VOID WARRANTY.**

4. Install toggle switch on the control panel if possible, GROUND one side of the switch to the battery or cab ground post.
5. Connect the harness as per the attached wiring diagram using crimp style heat shrink connectors.
6. Connecting Pin10 YELLOW and Pin5 BROWN wires:
  - If the unit has a main breaker, connect the yellow wire to the line-in side of the main breaker and connect the brown wire to generator neutral.
  - If the unit DOES NOT have a main breaker, connect the yellow wire to the line-in side of an individual breaker on a 110V outlet and connect the brown wire to generator neutral.
  - 3-phase power: connect the yellow wire to the line-in side of the first phase and connect the brown wire to the generator neutral.

### **7. RECONNECT BATTERIES**

## **Setting the Rev Limiter for Constant Throttle-Welders, Generators etc.**

1. On the back of the Control Unit, press and **release** the **SET** button. The **GREEN** LED on the front of the Control Unit will illuminate.
2. Start the engine and allow the RPM to level off at the maximum work speed.
3. Press and release the **SET** button. The **GREEN** LED will flash three (3) times. Setup is now complete.  
**NOTE:** The **RED** LED will strobe if no signal is detected. If so, check the termination points and all connections, and then repeat the above steps.



### **Testing the Setting for a Constant Throttle**

1. On the front of the Control Unit, press the **TEST** button once. The **RED** LED on the front of the Control Unit will illuminate.
2. Start the engine. As the engine RPM rises, the solenoid on the valve will trip at 60% of the target RPM.
3. If using a manual-reset valve, reset the valve by turning the blue knob on the valve 90 degrees clockwise until it locks into position.
4. If using an auto-reset valve, it will automatically reset after the engine reaches and maintains 0 RPM for 17 seconds.

#### **NOTE:**

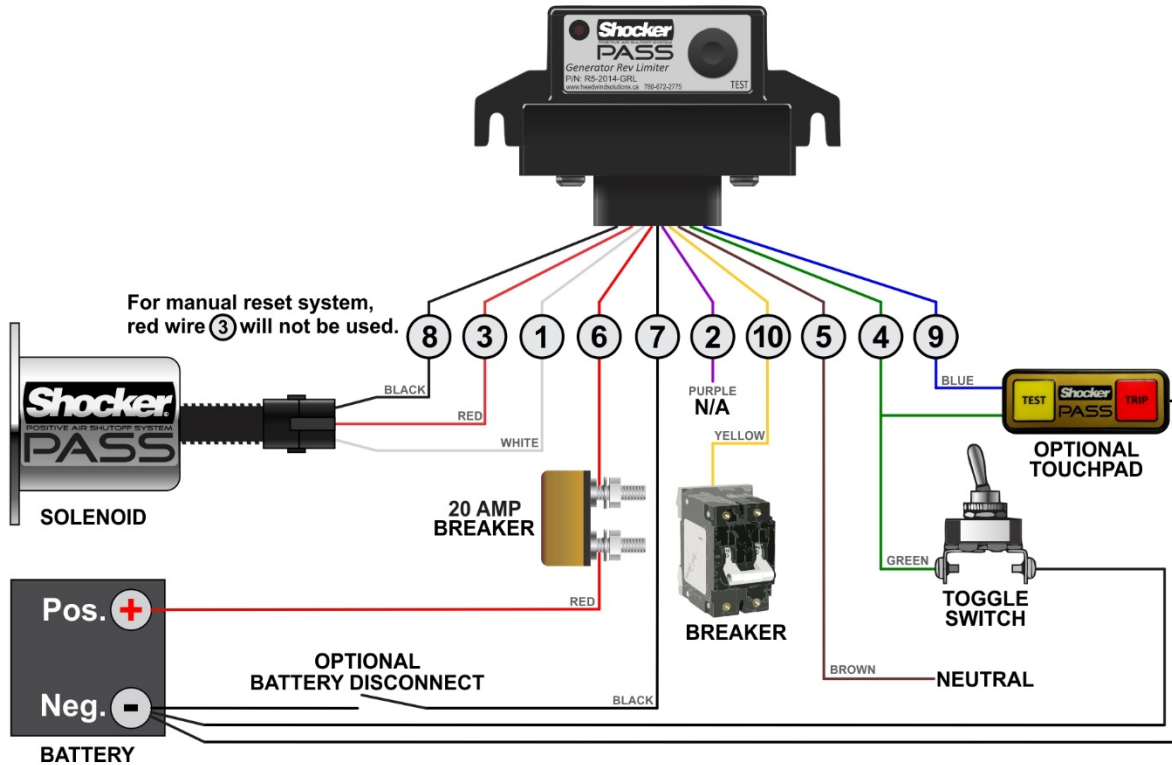
- The valve will trip 7-10 times when activated by the toggle switch or at the preset RPM limit.
- The solenoid will close the valve for 17 seconds after 0 RPM has been reached.

Installation and testing are now complete.

Thank you for choosing Shocker brand products.

**See other side for wiring diagram**

# Generator Rev Limiter R5 WIRING HARNESS ASSEMBLY



Power and ground **MUST** be run **DIRECTLY** to the battery with a minimum of 12 gauge wire. Improper grounding **WILL** cause damage to the component, voiding warranty.

Pin	Use	AWG #	Color
1	Solenoid Pull-In	12	White
2	N/A	16	Purple
3	Solenoid Hold	12	Red
4	Manual Switch	16	Green
5	Neutral	16	Brown
6	12-24 V Battery Power (+)	12	Red
7	Battery Ground (-)	12	Black
8	Solenoid Ground	12	Black
9	Optional Touch Pad Remote Test	16	Blue
10	Line Input (120V/240V AC)	16	Yellow

**\*\* 5 & 10 MUST BE TERMINATED LINE SIDE OF MAIN BREAKER \*\***

**12 gauge minimum wire must be used for ground and power supply.** Do not extend ground and power harness wires; doing so will void the warranty. Order the appropriate wire harness according to the following list:

6' length: WH-0001-R5-6ft

9' length: WH-0001-R5

15' length: WH-0001-R5-GRL

25' length: WH-0001-R5-24V

**IMPROPER GROUNDING OR REMOVAL OF DELPHI PLUG CAN  
CAUSE DAMAGE TO COMPONENTS, VOIDING WARRANTY**

**CONNECTORS MUST BE RATED 25 AMP MINIMUM.  
DO NOT USE: DEUTSCH DT,DTM,DTMH,DTMN.**

Headwind Solutions warrants the components of this device for a period of two (2) years from the date of purchase. The customer is responsible for the correct installation, setup and testing of the product, including: a) the location of all components; b) correct wiring connections and wire gauge; c) correct setup and testing of the installed product. This warranty is void if the product is incorrectly installed, set up or tested.