

# **MSD** INSTALLATION INSTRUCTIONS

## **Single, Two, & Four Channel Relays PN 7566-1, PN 7566-2, PN 7566-4**

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### **Parts Included:**

- 1 - MSD Relay Module
- 1 - 40 Amp Fuse per Channel (Installed)

**WARNING:** During installation, disconnect the vehicle battery cables. When disconnecting, always remove the Negative cable first and install it last.

## **FEATURES**

- 7V to 20V supply
- One to four independent 40A outputs
- Configurable single-wire activation with Ground (-) input or 12V (+) input, with removal of Tie-Bar
- Removable cover for easy accessibility
- LED status indicators

## **OPERATION**

The main power supply to the unit should connect directly to the positive battery post.

### **WARNING: LIVE BATTERY POWER**

Failure to follow these warnings may cause fire, injury, property damage, or even death. All connections must be properly secured.

Use only automotive grade wire with adequate heat and chemical resistance.

All wire gauges must be adequate for the current in the application.

## **MOUNTING**

The Relay Module must be mounted in a dry location and away from extreme heat. The unit should not be immersed or subjected to direct spray from a power washer.



**Figure 1 PN 7566-1 - Single Channel Relay**



**Figure 2 PN 7566-2 - Two Channel Relay**



**Figure 3 PN 7566-4 - Four Channel Relay**

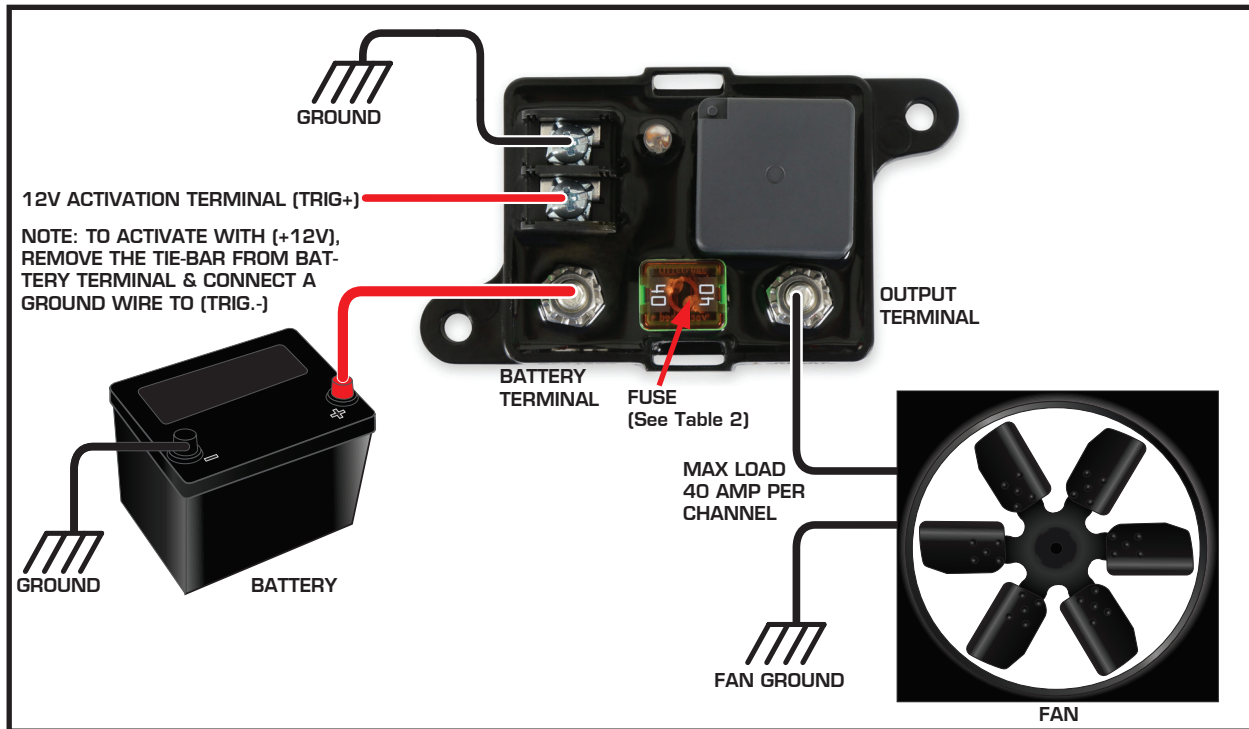


Figure 4 Single Channel Relay - 12V Activation

## WIRING

The 'Battery' and 'Output' wires connected to the large terminals, must be sized according to the **Wire Size Selection Guide (Table 1)**.

### WARNING:

Attach the power wire to the BATTERY+ terminal on the relay **before** connecting it to the battery post.

#### 1. Main Power

**Single Channel (PN 7566-1):** Use #10 ring terminals on the wire that supplies the relay with +12V. Install the star-washer and 10-32 nut, torque to 20 in-lbs.

**Two & Four Channel (PN 7566-2, PN 7566-4):** Use 1/4" ring terminals on the wire that supplies the relay with +12V. Install the star-washer and 1/4-20 nut, torque to 30 in-lbs.

Securely connect the BATTERY+ terminal wire to the positive battery post. Use the 'Wire Size Selection Guide' to choose the appropriate wire (**Table 1**).

#### 2. Outputs

Use #10 ring terminals and appropriately sized wire to connect the Channel (CH\_) OUTPUT to desired accessory (pump, fan, ect.). Install star-washer and 10-32 nut, torque to 20 in-lbs.

### Wire Size Selection Guide

Current Rating AMP	Minimum Wire Size AWG
140	2
100	2
80	4
60	6
35	8

Table 1 Wire Selection Guide

3. Trigger/Activation

Each output channel can be activated by one of two configurations, Ground (-) trigger or 12 volts (+). The relays come pre-configured for a ground input trigger. Use a Fork or #8 Ring Terminal appropriately sized for input wire (18-22AWG).

3a. Ground Activation - using a switch or other control device, apply ground to the appropriate TRIG.- terminal. (Figure 7)

3b. 12V Activation - the Tie-Bar connecting the BATTERY+ to TRIG.+ must first be removed (Figure 5). A ground wire will need to be run from a good chassis ground source to the TRIG.- terminal. The +12V input trigger can then be connected to the appropriate channel TRIG.+ terminal. (Example Fig. 4)

LED INDICATORS

Each relay branch has an activation LED visible through the relay cover which corresponds to the output terminal. The LEDs status can assist with diagnosing wiring problems and open circuits. The LED will be on whenever the corresponding output terminal is active.



Figure 5 1 Channel Tie-bar removal for Ground activation

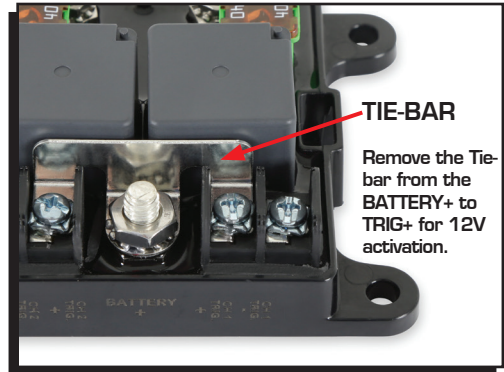


Figure 6 2 Channel Tie-bar removal for Ground activation

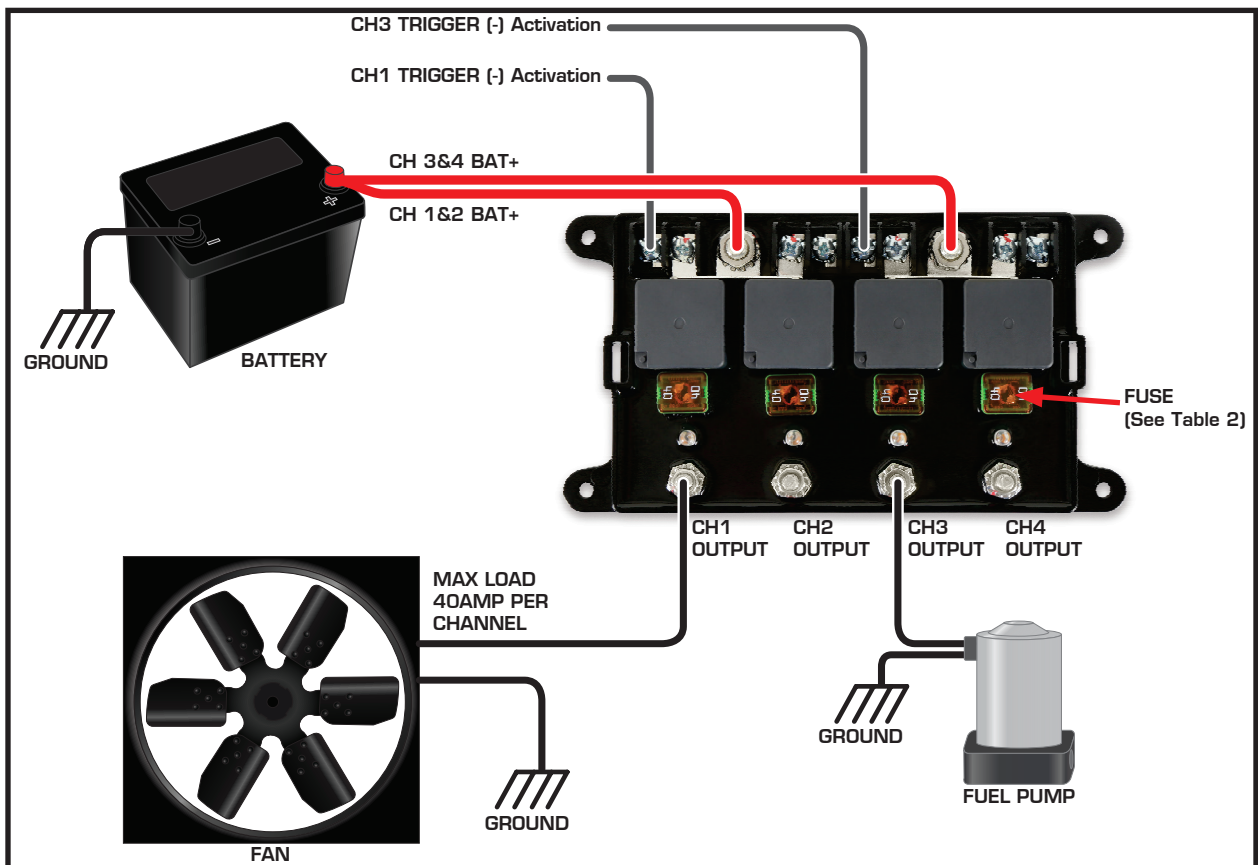


Figure 7 Four Channel Relay - Ground Activation

