



# INSTALLATION INSTRUCTIONS

## MSD APS Starter Chrysler 318-440 Engines PN 5098

**IMPORTANT:** Proper installation of the APS Starter is important to the overall operation. Correct alignment of the starter pinion with the ring gear is needed to achieve the best operation and longevity from your starter. Please read the instructions before attempting the installation.

### Parts Included:

1 - Starter

2 - Mounting Bolts

**WARNING:** Before installing the APS Starter disconnect the battery cables. When disconnecting the battery cables, always remove the Negative (-) cable first and install it last.

1. Make sure the starter mounting surface on the bell housing is clean and flat.
2. Install the starter with the supplied hardware. Torque the bolts to 32 lb-ft.
3. Connect the switch wire to the ignition terminal. This wire should be at least 12-gauge (Figure 1).
4. Attach the battery cable. The gauge of the battery cable depends on its length. Using the proper gauge wire is important to the operation of the starter. Both the positive and ground wires must be able to meet the demands of the starter. The chart in Figure 1 shows the recommended sizes. Be sure to route the wire away from the exhaust and moving parts of the engine.
5. Connect the battery cables to the battery and start the engine.

**IMPORTANT:** Never operate a starter for more than 30 seconds at a time without letting it cool for at least two minutes.

## INSTALLATION INFO

### **SLOW CRANKING**

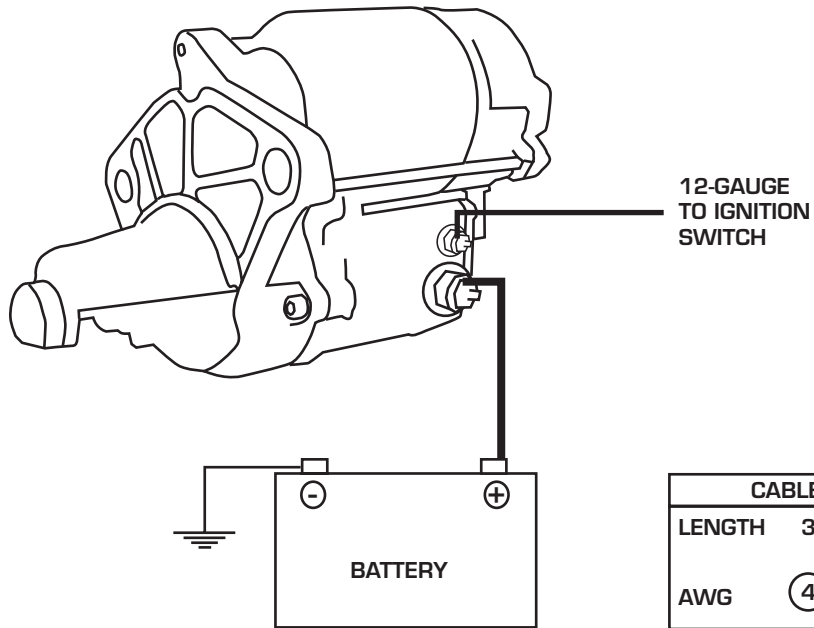
The most common cause is due to low input voltage. The battery should be checked, but also inspect the battery wires, terminals, connections or switches.

### **DISCONNECT SWITCHES**

Most sanctioning bodies require an emergency disconnect switch. Be sure to use a heavy duty switch that is capable of handling high current. Some starters may pull over 700 amps while cranking. Most disconnect switches are rated at continuous and intermittent amps. Make sure to use a switch that exceeds your starting and electrical system requirements.

### **VOLTAGE DROP**

To check any wire or cable for voltage drop, connect one side of the voltmeter to one end of the cable and the other side of the voltmeter to the other end. Operate the circuit and simultaneously measure the volt drop. It should be 0.5VDC or less. A high voltage drop indicates a bad connector or an undersized cable. The ground circuit can be checked in the same manner. Measure input voltage by connecting the positive probe of a voltmeter to the motor terminal of the solenoid and connecting the negative to the starter housing. This should be 9.6V minimum while cranking.



**Figure 1 Wiring the Starter.**