



# 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**

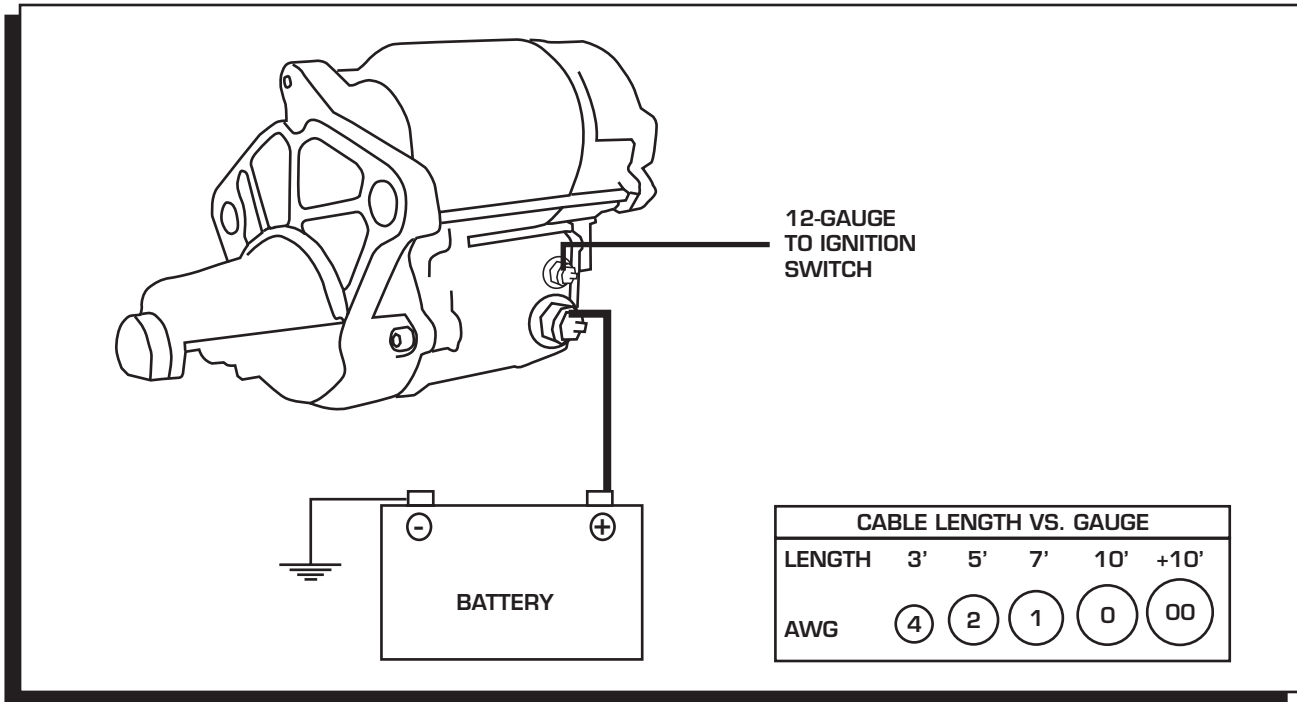
The most common cause is due to low input voltage. The battery should be checked, but also inspect the battery wires, terminals, connections or switches.

### **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.**

### Service

In case of malfunction, this MSD component will be repaired free of charge according to the terms of the warranty. When returning MSD components for warranty service, **Proof of Purchase** must be supplied for verification. After the warranty period has expired, repair service is based on a minimum and maximum fee.

**All returns must have a Return Material Authorization (RMA) number** issued to them before being returned. To obtain an RMA number please contact MSD Customer Service at 1 (888) MSD-7859 or visit our website at [www.msdisignition.com/rma](http://www.msdisignition.com/rma) to automatically obtain a number and shipping information.

When returning the unit for repair, leave all wires at the length in which you have them installed. Be sure to include a detailed account of any problems experienced, and what components and accessories are installed on the vehicle. The repaired unit will be returned as soon as possible using Ground shipping methods (ground shipping is covered by warranty). For more information, call MSD Ignition at (915) 855-7123. MSD technicians are available from 7:00 a.m. to 6:00 p.m. Monday - Friday (mountain time).

### Limited Warranty

MSD IGNITION warrants this product to be free from defects in material and workmanship under its intended normal use\*, when properly installed and purchased from an authorized MSD dealer, for a period of one year from the date of the original purchase. This warranty is void for any products purchased through auction websites. If found to be defective as mentioned above, it will be repaired or replaced at the option of MSD Ignition. Any item that is covered under this warranty will be returned free of charge using Ground shipping methods.

This shall constitute the sole remedy of the purchaser and the sole liability of MSD Ignition. To the extent permitted by law, the foregoing is exclusive and in lieu of all other warranties or representation whether expressed or implied, including any implied warranty of merchantability or fitness. In no event shall MSD Ignition or its suppliers be liable for special or consequential damages.

\*Intended normal use means that this item is being used as was originally intended and for the original application as sold by MSD Ignition. Any modifications to this item or if it is used on an application other than what MSD Ignition markets the product, the warranty will be void. It is the sole responsibility of the customer to determine that this item will work for the application they are intending. MSD Ignition will accept no liability for custom applications.