

## ***Permanent Magnet High Performance Starter Ford Applications***

### **Installation Kit #5 Parts List**

One (1) Orange Jumper Wire with Terminal Connector Ends

Congratulations on buying one of the latest innovations in starter technology. This starter offers high torque, through Planetary Gear Reduction and a compact lightweight size. Installation of this starter is similar to the original OEM starter.

- The starter is designed for use on Ford applications.
- This starter is designed for **12-VOLT systems only!!** Use of this starter with higher than 12 VOLTS or long periods of cranking will damage starter and void warranty. **NOTICE: Never operate the starter motor more than 30 seconds at a time without pausing to allow it to cool for at least 2 minutes. Overheating, caused by too much cranking, will damage the starter motor.**
- The proper pinion to ring gear clearance and backlash must be obtained before trying to start the engine. ***Damage to either the starter or ring gear will occur if clearance is not set properly.*** Check the pinion to ring gear clearance at three ring gear locations 120° apart around the ring gear. A wide variance in the readings indicates a bent or out of round ring gear. Always wear safety glasses.
- This starter can be indexed to move its solenoid to several different positions to accommodate custom header installations. To do so, remove the 3 Allen screws holding the mounting block in place. Then rotate starter to desired location, then reinstall the three screws. Torque to 2.5ft lbs. – 3.6ft lbs..

### **INSTALLATION INSTRUCTIONS**

1. *REMOVE GROUND CABLE FROM BATTERY.*
2. Remove original starter by disconnecting battery cable, ignition switch wire, and mounting bolts.
3. Inspect ring gear for warpage and / or damage.
4. Position new starter on the engine.
5. Re-use the 2 starter mounting bolts from your original starter (Torque to 31-ft. lbs.).
6. Connect wiring (Positive battery cable to B-Terminal, Ignition wire to S-Terminal) to the starter solenoid. Use jumper wire (included in kit) when vehicle does not have separate ignition wire.
7. Reconnect battery ground cable.
8. Test starter for proper engagement by starting vehicle 4-6 times, listening for proper engagement.

### **SOLENOID HOOK-UP**

#### For Remote Applications

1. Remove nut and washer from B-Terminal.
2. Connect positive battery cable from the remote solenoid to the B-Terminal on the starter solenoid.
3. Attach connector terminal provided in installation kit from S-terminal to B-Terminal.
4. Reattach nut and washer to B-Terminal.

