



HEAVY DUTY ELECTRIC SPECIALIST

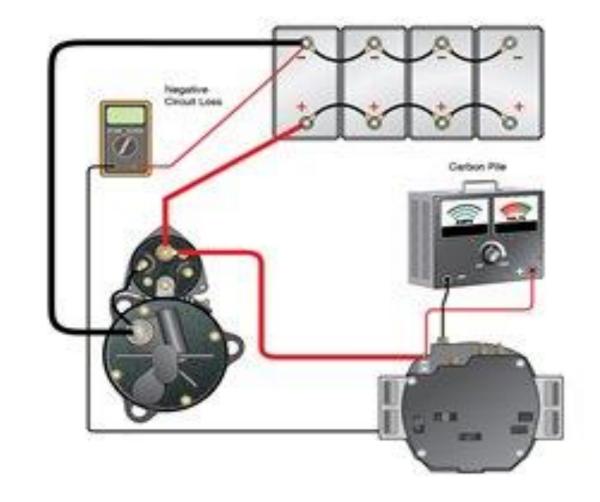


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## **Pre-Installation Check:**

Before you install your New Ultra-Power starter we suggest you preform a simple inspection of the battery cables and wiring harness, making sure it is clean and free of any corrosion. Also, perform a **Voltage Drop Test** to insure that there is no more than 2 tenths of a volt drop per ten foot of harness length. I have included a simple "How To" drop test diagram for your convenience.

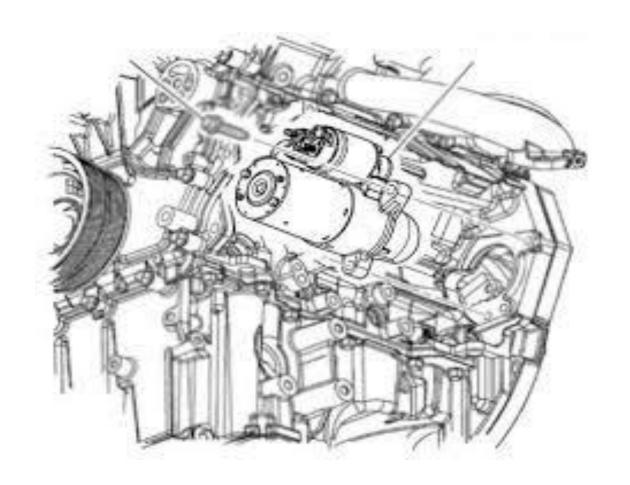




## **Shipping Issues:**

Please check your new starter for any shipping or handling damage that may have occurred before installing your new unit.

New Ultra-Power units are a "Drop-In Replacement" with SAE flanges to meet most if not all OE standard units.





# Testing Procedures:

Every Ultra-Power unit is designed to exceed OE standards and 100% end-of-the-line tested to insure they do so.

Ultra-Power uses only DV test benches, the world standard for Heavy Duty testing.





### Quality is important to us. Your trust is everything to us.

We have been importing rotating electric products, primarily from South East Asia, for more than 20 years. Needless to say, we have built very strong trusting relationships with all of our suppliers, many of whom we have had for more than 12 years. Our engineering staff, I included, are very experienced in the rotating electric industry with a combined 90+ years of experience. This expertise has helped us drive continuous improvement processes within our partner factories by way of factory audits, stringent first article sample analysis, feedback and corrective action procedures.

All of our suppliers are visited at minimum annually, usually more. We travel to China and inspect their facilities to ensure the manufacturing processes are compliant with our production standards. We inspect all PPAP processes and quality documentation that goes along with their ISO/TS certifications. All of our factory's hold the ISO9001/9002 certification and many are IATF 16949 certified (formerly TS16949). 100% of our partners utilize state of the art computerized manufacturing equipment as well as test machines. Most employ the use of D&V testing machines and standards. D&V Electronic based in Toronto is a world class manufacturer of test machines for the automotive and heavy duty rotating electric industry. D&V has become the industry standard by which all others are compared.



## Quality is important to us. Your trust is everything to us.

We have several layers of internal quality control that begins with new product approval processes.

All new products are vetted in this manner:

- First Article Samples are requested. Our engineering team completes a teardown analysis, including but not limited to: castings, bearings/bushings, shafts, windings, regulation, solenoids, starter drives etc., leaving no screw unturned.
- We compare our findings to brand new OEM units' specifications and dimensions.
- We then test using state of the art computerized D&V test benches to test performance of the sample. (We have created baseline parameters derived from performance of OEM units)

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If the unit passes the inspection and testing process the product is released to be purchased. If the product fails and is deemed economically feasible to invest corrective action efforts, our engineers prepare an 8D corrective action report with our findings and required improvements. If we do not believe the economics make sense, we reject the product and source from another supplier.

The next layer of quality control is our incoming inspection process.

Incoming products are inspected in this manner:

- Orders are segregated from normal stock in a designated receiving area.
- Samples are pulled for each item received to be examined by our inspection team.
   (inspected quantities vary depending on order piece count)
- Samples are visually inspected to insure conforming physical traits.

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- Samples are electrically tested on D&V test machines using first article testing parameters
- Conforming material is released for warehousing and sale.
- Non-conforming materials are removed from the receiving area and sent to designated
  quarantine area to be assessed by engineering. Depending on the nature of the rejection,
  Ultra-Power at times corrects the product on site or defers to the factory for their disposition to
  scrap or return.



#### **Warranty Support**

Warranty support is another key element to our industry. Electrical items have a mystique about them to many technicians and we make it a goal to educate and inform technicians about warranty issues. It is our belief that the more educated your customer is the better the customer is and the better supplier we are. Warranty analysis is very much a combination of first article processes and incoming inspection processes.

#### Warranties are inspected in the manner:

- Return Authorization is provided to the customer for potential warranty consideration.
- Pertinent information available is requested. Machine make/model. Symptoms, environmental conditions etc.
- Possible warranty is received and electrically tested. Even a unit that tests good electrically
  with no trouble found is subjected to a teardown inspection of the internal components to
  determine unit condition.
- Findings are reported to the customer by way of 8D report and dispositions made based on customer agreement.



Ultra-Power is available from your DC warehouse or by Direct-ship program under Fotab FD564

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