# **POWER FORGED**<sup>®</sup>

## **Battery Charger Service Parts**

#### Part # 696615 MULTI-DIODE SILICON RECTIFIER REBUILD KIT 20 - 504 Diodes / For 696011 and 696013 Pactifiers

20 – 50A Diodes / For 696011 and 696013 Rectifiers

## <u>OVERVIEW</u>

This kit includes all of the components required to rebuild the rectifier multi-diode array found in Power Forged® 696011 and 696013 rectifiers, which are used in many brands of high-output battery chargers which were manufactured by Century Manufacturing. The Assembly Diagram on the back of this page illustrates the assembly order for proper re-assembly of a single diode array. Your rectifier will have two of these arrays. They are identical, and this kit contains components to rebuild both. Except for the original heat sink plate, all components and hardware shown in the Assembly Diagram are in this kit.

### DISASSEMBLY - IMPORTANT!

Note the orientation of the button diodes as you disassemble the array, and reassemble it with the new diodes in the same orientation. Each diode has a printed ring around the cathode side contact. It is imperative that ALL of the new diodes are placed in the assembly with ALL of their rings facing the SAME direction – either ALL facing down against the heat sink, or ALL facing up against the diode pressure plate. We suggest that you note this orientation during disassembly.

**Note:** Most chargers made by Century Mfg will be "negative output", and the rings will be faced away from the heat sink. This type charger will have the NEGATIVE battery lead/clamp connected to the rectifier heat sink plate. This the way that Power Forged® 696011 and 696013 rectifiers are assembled. However, your charger may be "positive output", meaning the POSITIVE battery lead/clamp is attached to the rectifier plate. If so, all of the diodes will be installed with the rings facing down – against the heat sink. In either case, ALL diodes in BOTH arrays must be oriented the same.

#### **ASSEMBLY & INSTALLATION INSTRUCTIONS**

- 1. Clean the surface of the old heat sink plate to remove any loose debris or burn residue. A thin coat of thermal grease (included) may be applied to the contact areas (depressions) of the heat sink to improve diode heat dissipation.
- 2. Assemble the new components according to the assembly diagram. Proper assembly and alignment of these components is critical for safe and proper operation.
- 3. During assembly, ensure that the new diodes are seated flat in the depressions on the heat sink plate, and that the diode pressure plate tabs are aligned with the diode contacts.
- 4. Install only the first flange nut the one that sits against the cap. (Set aside the last washer and nut, they will be used to attach the transformer secondary leads in the next step). Use a 7/16" wrench to compress (tighten) the assembly to firm resistance. The O-Ring will ensure proper pressure to contacts/diodes. Check the diode/contact alignment during and after tightening. The spoked contacts of the Diode Pressure Plate should be centered over each diode, and each diode should sit flat in its depression in the plate.
- 5. Re-install rectifier. Using the washer and nut set aside in step 4, attach transformer secondary leads (2) to the rectifier AC Input Terminals. First, place the washer over the flange nut that you previously tightened. Next, place the transformer secondary leads over the washer. Then place the flange nut over the secondary lead on the rectifier AC Input Terminals and tighten securely.

Caution: Keep non-insulated leads from contacting charger cabinet (base or sides), or other internal components. Keep any part of the rectifier except insulated mounting bolts or standoffs from touching the charger base, sides, or mounting point.

6. Attach DC Output Cable to the rectifier heat sink plate with the original fastener assembly and tighten securely. The DC output circuit should have circuit breaker protection installed to help guard against damage due to overload. If no DC circuit breaker is present in the charger, install circuit breaker kit # 696624. This kit includes breakers, leads, bus bars, and required hardware.

**Questions?** 

We are here to help.

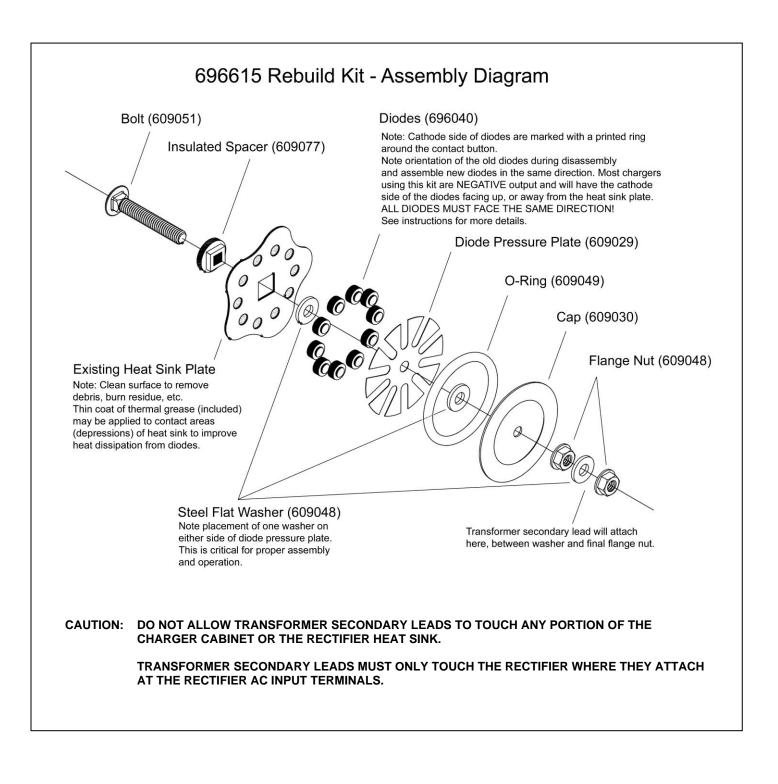
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