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## Alternator Warranty Claims

### Situation

The Warranty Receiving and Failure Analysis group receives and inspects all returned alternators submitted for warranty. There are few cases where the warranty is denied because there is no trouble found with the returned alternator.

In some situations, alternator replacements for warranty require a pre-authorization.

Occasionally, a pre-authorization is misunderstood as an approval for warranty. All pre-authorizations and parts returned for warranty are contingent upon the analysis of the failure by Mercury's Failure Analysis group.

### Inspection/Test

There are some obvious causes that could result in a misdiagnosis of a failed alternator charging system on the outboard engines.

Check the following before referring to the service manual:

1. Failed fusible link: Outboard engines that use a belt driven alternator will have a fusible link between the alternator and the start solenoid. The fusible link is designed to protect the alternator from damage due to accidental reverse of the battery connection. If the battery cables are reversed, the fusible link will create an open circuit and must be replaced. With the fusible link open, the engine can be started, but the run time will be limited because the alternator is not charging the battery due to an open circuit on the alternator's output to the battery. Failure of the fusible link can only be caused by accidental reverse connection of the battery cables or grounding the fusible link harness (solenoid end) to the engine ground with the battery connected to the engine. Fusible link failures are not covered by the Mercury Outboard Limited Warranty.
2. Weak or open ground on the alternator: Always check for a good ground at the alternator's body. The alternator ground strap could be corroded or a terminal is broken, so the cable should be removed for inspection. If the ground strap is not used, the alternator should be removed to inspect between the alternator mounting for corrosion.
3. Check the connector on the alternator for battery voltage. The sense wire should measure battery voltage and the ignition wire terminal may not have power until the engine is cranking.
4. Check the belt condition and tension.
5. Check wire connections at the alternator for tightness and absence of corrosion.

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6. Check wire connections at the battery for tightness and absence of corrosion.
7. Check the battery condition.

## Warranty

Alternators received for warranty consideration and found to have no product defects will have the claims denied. Those alternators will be returned to the dealer.

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