# **TROUBLESHOOTING**

#### On the Road - Electrical

- Check fuse or circuit breaker. Replace or reset if necessary.
- Check all wire connections and terminals to make sure they are not broken, shorted or disconnected. If no problem is found, proceed to step 3.
- 3. Connect a jumper wire between the "Normally Open" and "Common" contacts on the temperature sensor. The clutch, if operable, will make a click sound. If it does, the temperature sensor is defective and should be replaced as soon as possible. The jumper wire may

be left on the temperature sensor until it can be replaced.

If the problem is not corrected by following steps 1-3, the following should be done:

- Located on three of the fan bolts are special lock-up washers.
- 5. Loosen the three bolts, and line up the special lock-up washers with the slots provided in the aluminum clutch fan hub and the inner body. (See Figure 2.)
- 6. Tighten bolts.



Lockup washers in locked up position



Lockup washers in normal operating position

#### Figure 2

#### NOTE:

Do not use the manual lock-up feature until the electrical checks in steps 1-3 have been made. Running the clutch for long periods of time in the locked up position can damage the fan hub bearing.

## **FACET FAN CLUTCH**

### Installation, Maintenance & Troubleshooting Guide

#### In the Garage

Problem	Probable Cause	Solution
Engine overheats due to clutch not operating	Fuse or circuit breaker blown     Broken or shorted wires	Replace or reset - check for shorts in wires     Check all wires and connections - replace or repair
	<ul><li>3) Inoperative temperature sensor</li><li>4) Failed clutch coil</li><li>5) Shorted Diode Block</li></ul>	3) Replace with new sensor of the same temperature setting 4) Replace magnet body 5) Replace with new Diode Block.
Excessive vibrations and/or noise when clutch is disengaged	<ol> <li>Fan hub bolt not tight</li> <li>Shaft running eccentric with hub</li> <li>Internal parts broken or damaged</li> <li>Worn waterpump or fan hub bearings</li> </ol>	<ol> <li>Tighten to recommended torque</li> <li>Check shaft runout with dial indicator. It should not run out more than .002" total indicator reading.</li> <li>Inspect parts and replace all that are bad.</li> <li>Replace or adjust according to the manufacturer's recommended procedure.</li> </ol>
Excessive vibrations and/or noise when clutch is engaged	1) Fan out of balance or bent 2) Worn waterpump or fan 3) Internal parts broken or damaged	<ol> <li>Replace with Facet approved fan blade.</li> <li>Replace or adjust according to the manufacturer's recommended procedure.</li> <li>Inspect parts and replace all that are bad.</li> </ol>