

### 3. TROUBLESHOOTING

#### 3.1 TROUBLE SHOOTING STARTING CIRCUIT

Condition	Possible Cause	Remedy
Start motor will not energize	<ul style="list-style-type: none"> <li>Insufficient battery charge</li> <li>Blown 60 amp fuse</li> <li>Inoperative key switch</li> <li>Malfunctioning safety start switch</li> <li>Malfunctioning starter</li> <li>Malfunctioning starter relay</li> </ul>	<ul style="list-style-type: none"> <li>Recharge or replace the battery</li> <li>Replace the 60 amp fuse</li> <li>Test the switch and replace if necessary</li> <li>Check the switch</li> <li>Check the starter</li> <li>Repair or replace the starter if necessary</li> <li>Check the starter relay</li> <li>Replace the starter relay if necessary</li> </ul>

#### 3.2 TROUBLE SHOOTING GLOW PLUG CIRCUIT

Condition	Possible Cause	Remedy
Glow plug will not heat.	<ul style="list-style-type: none"> <li>Insufficient charge</li> <li>Blown 60 amp fuse</li> <li>Corroded buss bar connection</li> <li>Inoperative glow plug</li> </ul>	<ul style="list-style-type: none"> <li>Recharge or replace the battery</li> <li>Replace the 60 amp fuse</li> <li>Clean or replace the buss bar</li> <li>Check plug resistance and replace if necessary</li> </ul>
Glow plug indicator light not functioning properly.	<ul style="list-style-type: none"> <li>Inoperative preheat controller</li> <li>Inoperative indicator light</li> </ul>	<ul style="list-style-type: none"> <li>Check for current and ground circuit to preheat controller</li> <li>Test the preheat controller and replace if necessary</li> <li>Check for current and ground circuit</li> <li>Replace the indicator bulb</li> </ul>
Continuously discharge battery	<ul style="list-style-type: none"> <li>Preheat operation sustained</li> </ul>	<ul style="list-style-type: none"> <li>Defective preheat controller</li> <li>Wiring short</li> </ul>

#### 3.3 TROUBLE SHOOTING LIGHTING CIRCUIT

Condition	Possible Cause	Remedy
Lights will not illuminate.	<ul style="list-style-type: none"> <li>Insufficient battery charge</li> <li>Blown 60 amp. fuse</li> <li>Inoperative key switch</li> </ul>	<ul style="list-style-type: none"> <li>Recharge or replace the battery</li> <li>Replace the 60 amp. fuse</li> <li>Test the switch and replace if necessary</li> </ul>
Front lights will not illuminate.	<ul style="list-style-type: none"> <li>Blown 15 amp fuse</li> <li>Malfunctioning light switch</li> <li>Faulty connections at connector</li> <li>Improper ground to headlight</li> <li>Blown bulbs</li> </ul>	<ul style="list-style-type: none"> <li>Replace the 15 amp fuse</li> <li>Test the switch and replace if necessary</li> <li>Check connection of terminals and correct if necessary</li> <li>Check ground source at terminal</li> <li>Replace the bulb</li> </ul>
Rear lights will not illuminate	<ul style="list-style-type: none"> <li>Blown 15 amp fuse</li> <li>Malfunctioning light switch</li> <li>Faulty connections at connector</li> <li>Improper ground to stop light</li> <li>Blown bulbs</li> </ul>	<ul style="list-style-type: none"> <li>Replace the 15 amp fuse</li> <li>Test the switch and replace if necessary</li> <li>Check connection of terminals and correct if necessary</li> <li>Check ground source at terminal</li> <li>Replace the bulb</li> </ul>
Hazard lights not flashing	<ul style="list-style-type: none"> <li>Inoperative flasher unit</li> <li>Blown 10 amp fuse</li> </ul>	<ul style="list-style-type: none"> <li>Test the unit and replace if necessary</li> <li>Replace the 10 amp fuse</li> </ul>
Lights are dim or not illuminated	<ul style="list-style-type: none"> <li>Improper ground circuit</li> <li>Faulty connections at harness</li> </ul>	<ul style="list-style-type: none"> <li>Check ground source</li> <li>Check connections at harness connectors</li> </ul>