

## GROUP 5 ELECTRICAL SYSTEM

Trouble	Probable cause	Remedy
<b>Starter will not engage</b>	<ul style="list-style-type: none"> <li>· Battery discharged</li> <li>· Loose or disconnected wiring</li> <li>· Defective solenoid</li> <li>· Defective starter</li> </ul>	<ul style="list-style-type: none"> <li>· Check and charge battery. Replace if required.</li> <li>· Check and repair.</li> <li>· Check and replace, if required.</li> <li>· Check and replace, if required.</li> </ul>
<b>Starter motor engages, but engine does not turn over</b>	<ul style="list-style-type: none"> <li>· Defective overrunning clutch</li> </ul>	<ul style="list-style-type: none"> <li>· Replace.</li> </ul>
<b>Pinion engages, but starter motor does not turn over</b>	<ul style="list-style-type: none"> <li>· Defective starter</li> <li>· Defective solenoid</li> </ul>	<ul style="list-style-type: none"> <li>· Check and replace, if required.</li> <li>· Check and replace, if required.</li> </ul>
<b>Starter motor rotates at full speed before pinion engages</b>	<ul style="list-style-type: none"> <li>· Defective pinion spring</li> </ul>	<ul style="list-style-type: none"> <li>· Replace.</li> </ul>
<b>Starter does not disengage after engine starts</b>	<ul style="list-style-type: none"> <li>· Faulty ignition switch</li> <li>· Defective solenoid</li> </ul>	<ul style="list-style-type: none"> <li>· Check and replace, if required.</li> <li>· Check and replace, if required.</li> </ul>
<b>Battery low in charge or discharged</b>	<ul style="list-style-type: none"> <li>· Drive belt slipping</li> <li>· Defective battery</li> <li>· Faulty wiring or connections</li> <li>· Defective regulator</li> <li>· Dirty alternator slip rings or brushes</li> </ul>	<ul style="list-style-type: none"> <li>· Adjust.</li> <li>· Check and replace, if required.</li> <li>· Check and repair.</li> <li>· Check and replace, if required.</li> <li>· Check and repair.</li> </ul>
<b>Alternator overcharging and battery overheats</b>	<ul style="list-style-type: none"> <li>· Defective battery</li> <li>· Defective voltage regulator</li> <li>· Defective alternator</li> </ul>	<ul style="list-style-type: none"> <li>· Check and replace, if required.</li> <li>· Check and replace, if required.</li> <li>· Check and replace, if required.</li> </ul>
<b>Low or no output from alternator</b>	<ul style="list-style-type: none"> <li>· Drive belt slipping</li> <li>· Faulty wiring or connections</li> <li>· Defective voltage regulator</li> <li>· Defective rectifier</li> </ul>	<ul style="list-style-type: none"> <li>· Adjust.</li> <li>· Check and repair.</li> <li>· Check and replace, if required.</li> <li>· Check and replace, if required.</li> </ul>
<b>Charge indicator lamp dims</b>	<ul style="list-style-type: none"> <li>· Faulty wiring or connections</li> <li>· Dirty slip rings or brushes</li> </ul>	<ul style="list-style-type: none"> <li>· Check and repair.</li> <li>· Check and repair.</li> </ul>

Trouble	Probable cause	Remedy
<b>Charge indicator goes out, but becomes brighter with increased speed</b>	<ul style="list-style-type: none"> <li>· Faulty wiring or connections</li> <li>· Defective rectifier</li> </ul>	<ul style="list-style-type: none"> <li>· Check and repair.</li> <li>· Check and replace, if required.</li> </ul>
<b>Charge indicator lamp ON with engine running</b>	<ul style="list-style-type: none"> <li>· Drive belt slipping</li> <li>· Defective alternator</li> </ul>	<ul style="list-style-type: none"> <li>· Adjust. Perform alternator voltage output test. Perform alternator current output test.</li> <li>· Perform alternator <b>B</b> circuit voltage test. Perform alternator <b>L</b> circuit continuity test. Perform alternator <b>I</b> circuit continuity test.</li> </ul>
<b>Charge indicator lamp is OFF when starter switch is ON, but engine is not running</b>	<ul style="list-style-type: none"> <li>· Defective indication lamp</li> <li>· Defective wiring</li> </ul>	<ul style="list-style-type: none"> <li>· Check and replace, if required.</li> <li>· Check wiring continuity between lamp and ignition switch. Check wiring continuity between lamp and alternator <b>L</b> terminal.</li> </ul>