

## Verics™ Enabled Remote Monitoring & Control of Street Lights Fault Diagnostics Overview

Fault Type	Trigger Criteria	Typical Cause
Photocontroller not working	<p>Created: When the PhotoController has not transitioned within the past 18hrs.</p> <p>Cleared: The next time the PhotoController changes state.</p>	PhotoController is failed or has a poor connection.
Photocontroller Oscillating	<p>Created: When the PhotoController changes from ON to OFF a 5th time within 18hrs. Note that repeated "glove tests" can trigger this fault</p> <p>Cleared: When there have been fewer than 5 ON to OFF transitions within the prior 18hrs.</p>	PhotoController is in foliage, sensitive to headlights or nearby fixtures, or has ineffective transition hysteresis such that it flip-flops at dawn and dusk.
Cycling	<p>Created: When the lamp arc is detected to have extinguished for a 5th time within a continuous ON command period.</p> <p>Cleared: At the end of an ON command period &gt;20 minutes during which there were fewer than 5 arc extinguishes.</p>	Lamp is near end of life and unable to maintain arc.
Fixture Malfunction	<p>Created: After 45 continuous minutes of ON command state during which a lamp arc has not been detected.</p> <p>Cleared: When an arc has been detected within the first 45 minutes of an ON command period.</p>	Failed starter, ballast, lamp or connections within the fixture.
Line Voltage Fault	<p>Created: If the line voltage is &lt;99Vac, 132-187Vac, or &gt;305Vac for 20 continuous minutes.</p> <p>Cleared: At the end of an ON command state period during which the fault was not re-triggered. The ON period must be &gt;20 minutes.</p>	Poor power connections or inadequate wire gauge for fixture wattages.
CheckPoint Fault	<p>Created: If the CheckPoint fails the continuously running self-diagnostics.</p> <p>Cleared: When the command state changes from ON to OFF.</p>	Failed CheckPoint.
Not communicating	<p>Created: If no messages have been received from the CheckPoint within the prior 18 hrs.</p> <p>Cleared: Upon receipt of a message from the CheckPoint.</p>	No power to twistlock receptacle, poor twistlock connection, or failed CheckPoint.

Operation of the Photocontroller, CheckPoint, and light fixture should be checked by doing a "glove test". Confirm proper operation without the CheckPoint installed, then again after CheckPoint installation. For guidance on troubleshooting techniques, see your lighting manual such as in the "BASICS" section of <http://www.advancetransformer.com/university/default.asp>.