

SSIT-1001(b)6 Power Off Indicator

Purpose

These instructions describe the tests required to verify the PO indication at grade crossing warning systems is functioning as intended.

Test Intervals

Tests are performed when installed, as required, and at least once a month as prescribed in *SSIT-7 Signal System Inspection and Test Intervals*.

Rail Safety

Employee shall ensure the site is safe for employees, the public, vehicular traffic and train operations as defined in *SSIT-8 Protecting Train Operations* prior to performing tests and inspections.

Procedure - AC Lit

The following tests are to be performed at each crossing warning system location:

Step	Procedure
1. Review Circuit Plans	<ul style="list-style-type: none"> Determine if crossing is AC lit (using a lighting transformer) or DC lit (no transformer). Proceed to Procedure – DC Lit for DC lit applications.
2. Check PO Indication	<p>→ Check Power off light is lit upon arrival.</p> <p>If PO light is off: Check AC feed to the light using meter.</p> <p>If AC disconnected: Restore AC power or deploy generator.</p> <p>Report outage to the ONR S&C Supervisor and note in log book.</p> <p>If AC connected: Refer to <i>SSIT-401 Inspecting and Testing Relays</i>.</p>
3. Turn Off AC Power	<ul style="list-style-type: none"> Turn AC power off. <p>→ Check the PO light extinguishes.</p> <p>If PO light does not extinguish: Check PO relay and contacts, AC transformer, and wiring. Refer to <i>SSIT-401(c) Vital Relays - Electrical Tests</i>.</p>
4. Restore AC Power	<ul style="list-style-type: none"> Turn AC power back on. <p>→ Check the PO light illuminates.</p> <p>→ Check AC power feed is operational.</p> <p>If PO light does not return to original state: Wiring adjustments not correct, or AC power not available.</p>
5. Update Log Book	<ul style="list-style-type: none"> Add any notes of issues observed, or adjustments made.
6. Complete Test Form	<ul style="list-style-type: none"> Record the test as completed on Grade Crossing Warning System Test Form.

Procedure - DC Lit

The following tests are to be performed at each crossing warning system location:

Step	Procedure
1. Review Circuit Plans	<ul style="list-style-type: none"> Determine if crossing is AC lit (using a lighting transformer) or DC lit (no transformer). Return to Procedure – AC Lit for AC lit applications.
2. Check PO Indication	<p>→ Check Power off light is lit upon arrival.</p> <p>If PO Indication is flashing: Refer to crossing design and/or PO manufacturer manual to determine meaning and troubleshooting.</p> <p>If PO light is off: Check AC feed to the light using meter.</p> <p>If AC disconnected: Restore AC power or deploy generator. Report outage to the ONR S&C Supervisor and note in log book.</p> <p>If AC connected: Refer to <i>SSIT-401 Inspecting and Testing Relays</i>.</p>
3. Turn Off AC Power	<ul style="list-style-type: none"> Turn AC power off. <p>→ Check the PO light operates as per PO circuit design.</p> <p>If PO light does not change as required: Check PO relay and contacts, AC transformer (if applicable), and wiring. Refer to <i>SSIT-401(c) Vital Relays - Electrical Tests</i>.</p> <p>→ Check if charger is equipped with a charging output monitor.</p> <p>If PO connected to charging output monitor: proceed to step 4. Otherwise proceed to step 6.</p>
4. Remove Battery Power from Charger	<ul style="list-style-type: none"> Disconnect batteries from charger unit. Check the PO light extinguishes as per circuit design. <p>If PO light does not extinguish: Problem with charger, relay or circuit.</p>
5. Restore Battery Power	<ul style="list-style-type: none"> Reconnect battery to charger. <p>→ Check the PO light flashes as per PO circuit design.</p> <p>If PO light does not flash: Check PO relay and contacts, and wiring to charger.</p>
6. Restore AC Power	<ul style="list-style-type: none"> Turn AC power back on. <p>→ Check the PO light illuminates.</p> <ul style="list-style-type: none"> Check AC power feed is operational. <p>If PO light does not return to original state: Wiring adjustments not correct, or AC power not available.</p>
7. Update Log Book	<ul style="list-style-type: none"> Add any notes of issues observed, or adjustments made.
8. Complete Test Form	<ul style="list-style-type: none"> Record the test as completed on Grade Crossing Warning System Test Form.