Testing precautions
Once the fitting is permanently connected to the mains supply, a commissioning discharge test as required in AS/NZS 2293.2 must be carried out. You will need to allow 24 hours for the battery to fully charge prior to conducting this test, presently (at the time of writing), the standard requires that fittings operate in emergency mode for a period not less than 2 hours for their commissioning test and for not less than 90 minutes thereafter (it is required that 6 monthly discharge tests be carried out). You will need to keep the records for the commissioning test and enter them into the building emergency services logbook or via other recording methods as allowed by AS/NZS 2293.2.

Construction sites
Continuously switching off the mains power supply that is connected to emergency light fittings during the construction phase of an installation will cause these fittings to discharge and charge their batteries many times over a short period; this can shorten life of the battery. ABB does not recommend such practices and may not honour the warranty on batteries when they are subjected to such harsh operating conditions. Emergency light fittings are designed to be discharge tested once every 6 months as per AS/NZS 2293.2, subjecting the product to repeated discharge or charge cycles is regarded as an abuse of the fittings.

Troubleshooting guide
If you have installed and connected the fitting as per the instructions listed earlier and it does not function correctly, use the following table as a guide to fixing the problem. Look up the type of fault in the left column and check the possible causes from the right column.

<table>
<thead>
<tr>
<th>No.</th>
<th>Fault</th>
<th>Possible causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LED not lit; or LED not flashing green</td>
<td>AC supply not connected; or AC supply turned off</td>
</tr>
<tr>
<td>2</td>
<td>LED is flashing green but AC lamp does not come on when connected to mains</td>
<td>Switch active supply turned off; or Missing loop from unswitched to switched active; or Lamp damaged; or Lamp not inserted properly</td>
</tr>
<tr>
<td>3</td>
<td>LED is flashing green but AC lamp does not come on when test switch is pressed</td>
<td>Lamp damaged or lamp not inserted properly; or Battery pack not connected; or Battery pack damaged; or Test switch damaged</td>
</tr>
<tr>
<td>4</td>
<td>LED not red after the commissioning</td>
<td>Battery pack not connected; or LED wire not properly inserted into the terminal block</td>
</tr>
<tr>
<td>5</td>
<td>Lamp lit momentarily when test switch is pressed; or When mains fail</td>
<td>Battery not fully charged (allow up to 24 hours); or Battery pack damaged</td>
</tr>
<tr>
<td>6</td>
<td>LED is constant green</td>
<td>Fitting self checks fail - return to manufacturer</td>
</tr>
<tr>
<td>7</td>
<td>Fitting LED is not flashing yellow/orange under wink node command</td>
<td>Fitting is not receiving communication signal. Check data cable wiring path and cable connections. Refer to Nexus user and technical guide.</td>
</tr>
</tbody>
</table>

Thank you for choosing ABB product
Please read this document thoroughly before commencing installation and retain for future reference. Contact ABB customer service in Australia on 1800 60 20 20 if you need any assistance. The installation instructions were correct at the time of print. To reflect changes in technology and Australian standards; ABB reserves the right to amend the instructions without notice. Updated document can be found on the Stanilite website.

Safety warning
In Australia and New Zealand, only licensed electricians are permitted by law to work with 240 volt electrical installations. Do not attempt to install or connect this product unless you are a licensed electrician. Turn off and isolate the electrical supply before connecting this fitting to the building wires. Do not touch the terminals of the terminal block when the light fitting is energised.

EMC warning
Power pack complies with EMC regulations. We advise that if you incorporate this pack into your product (batten/fitting) you must test the complete (product/fitting) for EMC compliance.

PL Lamp warning
For PL lamp application it is recommended that the power pack be used without a LDR. The fitting should be designated as a non-maintained fitting. The LDR is not designed to be affixed to a PL lamp. If AC lamp monitoring is required then the LDR must be mounted adjacent to the PL lamp. Please contact ABB customer service on 1800 60 20 20 if you require more information. Specific PL lamp power packs are supplied without a LDR and are programmed as non-maintained.

Nexus LX (data cable system)
The Nexus range of emergency light fittings are designed to be connected together into a special communication network over a level 4 (or higher) high speed, single twisted pair data cable. The Nexus user and technical guide describes all you need to know to successfully install a Nexus project. Ask for it from your superviser, from your employer or from your nearest ABB product supplier. The network cabling of the building must be installed as per the procedure detailed in the Nexus user and technical guide. No mains or mains carrying cables are to be connected to the data terminals or cables.

Important to note:
- This product is designed for indoor use only.

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Installation instructions

1. Use a pencil to mark the position of the mounting screw holes for the inverter and the battery pack in the gear tray. Figure 1 describes the inverter pack dimensions.

Figure 1: Inverter pack Nexus dimensions; length 268mm, width 47mm, height 41mm

2. Fit the inverter and battery pack using suitably sized screws and nuts. Make sure that the battery pack is mounted as far as possible from the ballast or from any other components that may get hot.

3. Light sensing clip (LDR) monitors mains on/off lamp condition and is to be affixed on the mains lamp/tube refer figure 2.

Note: The light sensing clip (LDR) is not supplied for PL lamp power packs and the PL lamp power packs are programmed as non-maintained (refer PL lamp warning on page 1).

4. Lamp operation:
   • Maintained; once powered up, in a maintained fitting the normal AC lamp (if present) should light up and stay on until the power supply fails. The emergency function of the fitting should only operate when the unswitched active power supply fails or when somebody presses the manual test button located on the fitting. The emergency function also operates when the fitting receives a command from the Nexus controller to switch into emergency mode.
   • Non-maintained; once powered up, in a non-maintained fitting the present lamp stays off. The emergency function of the fitting should only operate when the unswitched active power supply fails or when somebody presses the manual test button located on the fitting. The emergency function also operates when the fitting receives a command from the Nexus controller to switch into emergency mode.

5. When you first install the new power pack Nexus its LED will be flashing green. During different modes of operation the LED status should be as follows:

<table>
<thead>
<tr>
<th>LED indication</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flashing orange</td>
<td>Wink mode cable tracing is on. Valid messages are being received by the fitting</td>
</tr>
<tr>
<td>Static orange</td>
<td>Wink mode cable tracing has been turned off</td>
</tr>
<tr>
<td>Static red</td>
<td>Fitting has been commissioned and battery is charging</td>
</tr>
<tr>
<td>Flashing red</td>
<td>Fitting is under test</td>
</tr>
</tbody>
</table>

6. Refer to the Nexus user and technical guide for detailed description of all possible LED states and their meanings.

7. Check the operation of the fitting to ensure that the installation was successful. When powered up, allow a few minutes to give the battery a small charge, then press the manual test button located on the fitting. Press and hold the test button for a few seconds and observe that the emergency lamp lights up and stays on, until the test switch is released. If the lamp works only momentarily, this ensures that the connections are correct and the battery requires at least 24 hours to fully charge. If the lamp does not work at all, check the supply, the connections and the troubleshooting guide at the end of this document.

8. Once manually checked as per item 7 above, the fitting is ready to be communication tested and commissioned into the Nexus network. Keep the information details of this fitting including exact location description, DB (distribution board) and CB (circuit breaker) numbering, channel and router numbering, plan number and cross referencing information as all this will be required for entry into the database during commissioning. Refer to the Nexus user and technical guide for full details.

Important: 24 hours is required to allow the fitting battery to reach full capacity, i.e: prior to a discharge test. As the installer, it is your responsibility to conduct the initial discharge testing of the installed fitting. Refer to AS/NZS 2293.

Wiring connections

- Following below are the wiring connections to wire power pack as maintained, non-maintained and sustained. When wiring power pack to a sustained fitting, the fitting must be programmed as sustained using utility tools. Ensure that the stripped wire ends are completely inserted into the terminal block and no bare conductors are exposed to the metal.

Note: Wiring connections are different if using electronic ballast.

Data connections

- Data cable connects via the 3-way strain relief plug (supplied with the power pack) to the data terminal as shown in figure 2.
- When correctly installed no fitting should have more than 2 data cables connected to it.
- If you have more than 2 data cables at any 1 fitting, the installation is incorrect.
- Consult the Nexus user and technical guide for further detail, including product commissioning.
- No mains carrying cables are to be connected to the data terminals or cables.

Removal instructions

1. Before removing the installed power pack Nexus, switch off the mains supply to the fitting.
2. Unscrew/unplug the unswitched active, switched active, neutral and output (lamp and ballast) wire connections from the terminal block using a suitably sized screwdriver.
3. Undo the test switch nut and remove LED from the grommet.
4. Unscrew/unplug the data cable connection from the terminal block and remove sensing clip from the tube/lamp.
5. Disconnect the battery plug from the battery pack and then unscrew the mounting screws of the power pack Nexus.
6. When the fitting is reconnected to the supply, it will need time to recharge its battery before it will be capable of a full length discharge again.

Note: When sending power packs Nexus for repair make sure that LED, test switch and light sensor are included with the power pack.