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.

If the fitting still does not work after checking these possible causes, contact ABB customer service in Australia on 1800 60 20 20.

<table>
<thead>
<tr>
<th>No.</th>
<th>Fault</th>
<th>Possible causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LED light source and indicating LED not lit</td>
<td>AC supply not connected; or AC supply turned off; or Test switch damaged</td>
</tr>
<tr>
<td>2</td>
<td>LED light source is lit but indicating LED not lit</td>
<td>Test switch damaged; or Battery not connected or faulty</td>
</tr>
<tr>
<td>3</td>
<td>LED light source does not switch to emergency mode when the test button is pressed</td>
<td>Test switch damaged; or Battery not connected or faulty</td>
</tr>
<tr>
<td>4</td>
<td>LED light source works momentarily on emergency when the test button is pressed</td>
<td>Battery not yet charged (allow up to 24 hours)</td>
</tr>
</tbody>
</table>

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.

This document covers

- Safety warning
- Installation instructions
- Removal instructions
- Testing precautions
- Troubleshooting guide
- Warranty information

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 supervisor, 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.

Nexus RF (wireless system)

The Nexus RF range of light fittings are designed to communicate via a proprietary RF network, however the electrical installation of the fittings is identical to that of a standard non-monitored fitting.

Exit LED Quickfit® and remote power supply

Standard, Nexus® LX, Nexus RF
Installation instructions

Important: These instructions are for the remote power supply installation and wiring, wiring of the exit LED Quickfit mounting bracket and installation of the exit LED Quickfit. For mounting instructions of weatherproof housing refer to document number 29-01069 (exit LED Quickfit weatherproof and housing LED Quickfit weatherproof installation manual).

Remote power supply installation

1. Remove the power supply’s cover, place the base against the wall and mark the position of the mounting screw holes.
2. Determine the mains cable entry direction which can be from rear, side or top and remove the appropriate cable entry knock out (for Nexus LX fitting; remove the data cable’s knock out as well). For plastic enclosure; drill a 20mm hole at the middle of the base or side to suit the mains cable entry. Remove all sharp edges or burrs around the hole.
3. Secure the power supply base to the wall using appropriate fasteners to suit the building material (not provided due to the wide variety of building construction materials).
4. Run the mains and 10m power cable as appropriate through the cable access holes. Use the cable gland provided to protect the 4 core cable (supplied) to the remote exit sign, and use appropriate protection for the mains cable where it enters the housing.
5. Terminate the mains cable and remote 4 core cable to the mains and remote terminal blocks as labelled. Pay particular attention to ensure that the remote cable pairs are correctly identified and terminated to the correct positions on the remote terminal block. Be careful with multi-strand conductors that all of the strands are twisted together before insertion into the terminal. Any strand that inadvertently comes into contact with their neighbouring terminal or the metal frame of the fitting will cause undesirable results when the fitting is powered. Incorrect wiring will damage the fitting. Ensure that the double insulation of the cable/s passes completely into the terminal block enclosure so that no single insulation is exposed.
6. This step is for Nexus RF fittings only; mount the antenna to the side panel. Collect the MAC address by removing the peel off sticker section and locating it on your floor plan or spreadsheet.
7. This step is for Nexus LX fittings only; terminate the data cable to the two way terminal block marked ‘data’. If looping data cable, ensure that the screens are joined together.

Exit LED Quickfit weatherproof installation

1. Disassemble the exit LED Quickfit weatherproof. Follow instructions document number 29-01069 to mount the weatherproof housing in place and drill the cable access hole to suit. Run the 10m remote cable from the remote power supply to the weatherproof enclosure.
2. Feed the remote cable into the weatherproof fitting. Use the plastic grommet provided to protect the remote power cable as it passes through cable entry hole in the Quickfit mounting bracket. The cable entry into the housing must be sealed via a grommet, conduit bush or similar in order to maintain the IP rating of the housing. Double check the cable management and allow adequate length to the Quickfit bracket’s terminal block before trimming the cable. Strip and connect wires to the Quickfit bracket’s terminal block as labelled and wire colour coded, again paying particular attention to correctly identify the 2 pairs. Take care while stripping the twisted coloured pairs and double check the wiring. Incorrect wiring will damage the electronic components.

Warning: Mains cable should be terminated to the remote power supply only. No mains or mains carrying cable are to be connected to plastic weatherproof housing.
3. Attach the exit LED Quickfit fitting to the mounting bracket by aligning the top left hand end of the fitting (the end without the protruding electrical connecting metal lugs) with the large cut-away slot towards the left hand end of the bracket. Slip the left hand end of the fitting up into the slot in the left hand end of the bracket (step 1 in figure 1) and hold the fitting horizontal to and parallel with the bracket. It should be approximately 50mm to the right of its final destination. Simply side the fitting (step 2) in 50mm to the left along and into the bracket to engage the connections and the locking tab. Once in place, the exit fitting cannot be removed from the bracket without the use of a tool (a small screwdriver) to push in the locking tab at ‘D’ in figure 1.

Exit LED Quickfit removal instructions

1. Insert a small screwdriver into the slot (at ‘D’ in figure 1) on the front of the bracket towards the right hand end of the fitting, to ease the locking tab into the fitting and away from the bracket.
2. The fitting is then free to slide to the right along the bracket for about 50mm, at which time the slots line up and it can be lowered away from the bracket, allowing the two to separate.

Fitting type

<table>
<thead>
<tr>
<th>Fitting type</th>
<th>Indicator LED state - on initial powering - no fitting faults</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-monitored</td>
<td>Solid red</td>
</tr>
<tr>
<td>Nexus LX</td>
<td>Flashing green</td>
</tr>
<tr>
<td>Nexus RF</td>
<td>Green flash with 2 red blinks, green flash with 3 red blinks</td>
</tr>
</tbody>
</table>

5. If the indicator LED does not match the status in the table, refer to the troubleshooting guide at the end of this document. The emergency function of the light fitting will only operate when the normal lighting power supply fails or when the manual test button located on the remote power supply is pressed.
6. 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 test button to ensure that fitting function is in emergency mode.
7. This step is for Nexus LX or Nexus RF fitting only. Once manually checked, it is ready for the commissioning into the Nexus network. Keep the important 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 of 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; ie: 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.

Vertical wall mounting

1. If mounting exit vertically on side wall, you must allow approximate 50mm free space above the ceiling bracket in order to slide the exit (step 2) into ceiling bracket.
2. The exit must only be installed as per figure 2, that is, with the terminal block at the top. This is to ensure that the exit is securely held and cannot inadvertently slide out of the bracket.

Figure 1: Quickfit insertion diagram and internal view

Figure 2: Quickfit vertical wall mounting