

## Trouble shooting guide

If you have installed and connected the unit 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.

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

If the unit still does not work after checking these possible causes, contact ABB service in Australia on 1300 666 595, Monday to Friday, 7.00am to 5.00pm (AEST) and ask for help. Our trained service personnel will usually be able to take your call immediately and assist you in resolving your difficulty. ABB is committed to providing valuable through-life support for its products.

**ABB Australia Pty Limited**  
Phone: 1300 666 595  
Fax: 1300 666 594  
E-mail: AU-ABB-Stanilite@abb.com

[www.stanilite.com.au](http://www.stanilite.com.au)

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## Installation manual

# Spitfire® LED weatherproof Standard, Nexus LX, Nexus RF

Doc no. 29-01150



This document covers	What's inside the box
Safety warning	Spitfire LED weatherproof
Installation instructions	Accessory kit
Removal instructions	Installation manual
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Trouble shooting guide	

### Congratulations

Congratulations on choosing to use this ABB product covered by our unique through-life support system. This document is designed to assist you during the installation of this product; for the safety of yourself and others **ABB recommends that you read this document thoroughly before commencing installation.** The fittings are designed for easy installation. They are advanced pieces of electronic equipment which, when treated with care and maintained through regular and appropriate servicing, will perform reliably for many years to come.

### 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. The only user-serviceable parts are fluorescent or halogen lamp/s. LED light sources are not user-serviceable. Do not tamper with the fitting or the warranty will be void. As the installer, it is your responsibility to ensure compliance with all relevant building and safety codes, (ie: AS3000, AS/NZS2293). Refer to the applicable standards for data and mains cabling installation procedures and requirements.

**Important note: This product is designed for indoor and outdoor use.**

### Nexus LX (data cable system)

The Nexus® range of emergency light fitting 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.

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## Installation instructions

**Important note: The mounting holes are at the same location as the lid's screws. The holes centre distance is 167 x 257mm. If the mounting holes are drilled through the enclosure, the installer must seal the holes with suitable sealant to maintain the enclosure IP rating integrity.**

1. Remove the unit from the packing box and inspect it for damage or imperfections. If any damage is found, do not install the unit, but replace it carefully into the packing box and notify the ABB product support hotline in Australia on 1300 666 595.
2. If all looks okay, installation can proceed.
3. Undo 4 screws and remove the transparent lid.
4. Remove the top plate from the gear tray by unscrewing 2 screws.
5. Unscrew 4 screws from the gear tray then remove the gear tray and top plate assembly completely from the enclosure. Decide on the mains entry (back or side) then drill a cable entry hole to suit the conduit or cable gland size. Remove all burrs and sharp edges around the cable entry hole and make sure the enclosure is free of dust. For cable side entry; the hole centre is 25mm from the base.
6. Determine the mounting location, hold the enclosure in position and secure it in place by appropriate M4 screws (due to the wide variety of building construction materials, fasteners are not supplied). Make sure the mounting screws are fixed into solid material that is strong enough to support the weight of the unit which is approximately 4kg.
7. Re-install gear tray to the enclosure.
8. Run mains cable inside the fitting as appropriate.
9. Terminate mains wires to the terminal block. Be careful with multi-strand conductors that all the strands are twisted together before insertion into the terminal block. Any stray strands that inadvertently come into contact with their neighbouring terminal will cause undesirable results when fitting is powered.

Wire/fitting type	
Unswitched active	Wire to terminal A
Neutral	Wire to terminal N
Earth	Wire to terminal E or 

10. For Nexus LX product; terminate the data cable to the small terminal block make sure the same colour wire from each data cables connects to the terminal marked +. The other colour wire from each of the data cables connects to the terminal marked -. No mains or mains carrying cables are to be connected to the data terminals or cables.
11. This step is for Nexus RF only; feed the antenna cable connector through the vacant hole on the top plate and secure it in place with the nut provided, then install the antenna to this connector.
12. Connect the battery cable and lamp head cable to the control pack and re-install the top plate.
13. Check operation of the unit to ensure that the installation was successful. Once powered up, allow a few minutes to give the battery a small charge, then press the test button located at the Spitfire lamp head. Hold the test button in for a few seconds and observe the operation of the lamp switching from mains to the emergency mode. If the lamp on emergency mode works momentarily, that's okay. Try again in a few more minutes in case battery is completely discharged, it may take a little time to charge up enough to operate even momentarily. After this time, press the test button again and if the lamp does not work at all, check the supply, the connections and follow the instruction given in the trouble shooting guide at the end of this document.

Fitting type	Indicator LED state - on initial powering - no fitting faults
Non-monitored	Solid red
Nexus LX	Flashing green
Nexus RF	Green flash with 2 red blinks, green flash with 3 red blinks

**Important note: 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/NZS2293.**

14. This step is for Nexus LX or Nexus RF unit only. Once manually checked, it is ready for the commissioning into the Nexus network. Keep the information details of this unit 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. As the installer, it is your responsibility to conduct the initial discharge testing of the installed unit. Refer to AS/NZS 2293.
15. If the installation is successful, secure the lid to the enclosure. Ensure to tighten the lid's screws properly to maintain the enclosure IP rating integrity.

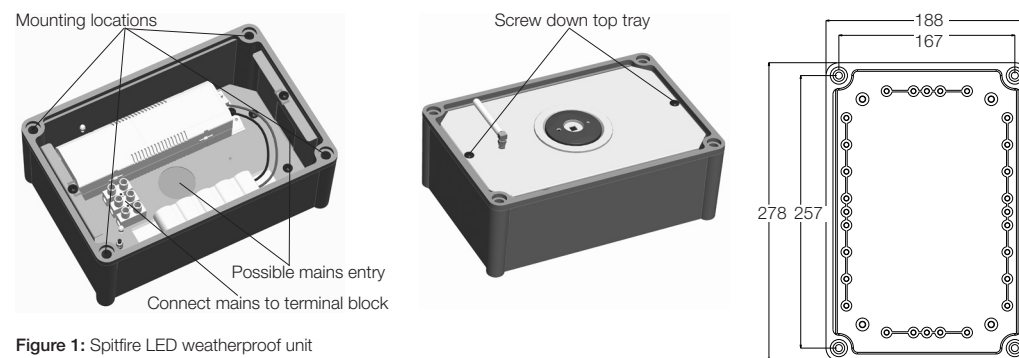


Figure 1: Spitfire LED weatherproof unit

## Removal instructions

1. Before removing the installed fitting, de-energise and lock off the supply circuit.
2. Remove the lid, disconnect the mains and data (for Nexus only) cable connection from the terminal block.
3. Disconnect the battery connection from the power pack.
4. Undo the mounting screws and remove the unit from wall or ceiling.

## Testing precautions

Once the fitting is permanently connected to the mains supply, a commissioning discharge test as required in AS/NZS2293.2 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/NZS2293.2.

## Construction sites

Continuously switching of 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 the life of the battery and will also result in shortened emergency lamp life. 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/NZS2293.2, subjecting the product to repeated discharge or charge cycles is regarded as an abuse of the fittings.