# 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 1800 222 435, 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

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Copyright © 2016 ABB All rights reserved Installation manual

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

## Doc no. 29-01095



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This document covers	What's inside the box
Safety warning	Lamp head assembly
Installation instructions	Battery and control pack
Removal instructions	Accessory kit
Testing precautions	Installation manual
Trouble shooting guide	Warranty information

## 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-servicable.

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.

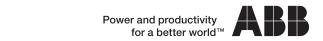
Important note: This product is designed for indoor use only.

## 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.





Phone: 1800 222 435

#### Installation instructions

- 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 1800 222 435.
- 2. If all looks okay, installation can proceed.
- Please note the circuit supplying mains power to the fitting must not be energised until installation of the fitting is completed.
- 4. Mark and cutout a hole in the ceiling to suit either small or large spitfire head. The cut-out size for the standard lamp head is 50mm. The cut-out size for a small 85mm adaptor plate is 70mm and for the large 141mm adaptor plate is 130mm. Note: The adaptor plates are mainly used for existing Spitfire replacement or where access is limited.
- 5. Snap the lamp head to the appropriate adaptor plate (if used).
- 6. Connect the battery to the control pack, the battery pack can be attached to the control pack using cable tie supplied.
- 7. Connect data cable to the control pack.

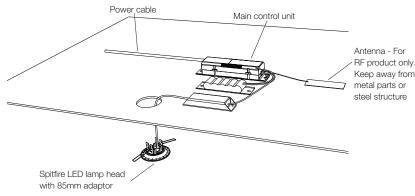


Figure 1: Product installed in ceiling

- 8. Feed the battery and control pack assembly through the ceiling cut-out and secure them to a suitable location within the ceiling space. If access to the ceiling cavity is not available, connect the mains power cord before recessing the battery and control pack in the ceiling cut-out. Secure the battery and control pack to a suitable location within the ceiling space.
- 9. For Nexus LX product; refer to data connection section.
- 10. Nexus RF product; connect the antenna to the control pack. Collect the MAC address, by removing the peel off sticker section and locating it on your floor plan or spreadsheet.
- 11. Connect flex and plug to the supply socket.
- 12. Check operation of the unit to ensure that the installation was successful. Once powered up, as a non-maintained fitting the present lamp stays off. 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. Operation modes of the LED status should be as follows:

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

13. 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.

**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.

#### Data connection

Connect the data cable as shown in figure 2 using suitably sized screwdriver. Ensure that the data cable/s are completely inserted into the connector and properly secure with the cable tie.

**Note:** 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.

Warning: No mains carrying cables are to be connected to the data terminals or cables.



Figure 2: Data connection

### Removal instructions

- 1. Before removing the installed fitting, de-energise and lock off the supply circuit.
- 2. Unplug the power cord from the mains socket.
- 3. Disconnect the battery and lamp head plug.
- 4. For Nexus LX product: unplug the data cable connector from the control pack.

# 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/NZ2293.2.

#### 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.