

Installation manual

Spitfire® LED surface mount Standard, Nexus LX, Nexus RF

Doc no. 29-RQAP003



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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 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.

Installation instructions

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 1800 222 435.
2. If all looks okay, installation can proceed.
3. Remove the top cover from the gear tray by unscrewing a screw on each side.
4. Work out the mains entry then hold the gear tray in position and mark the centre of 2 fixing holes.
5. Drill holes and secure the gear tray in place by using 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 3.5kg.
6. 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 

7. This step is for Nexus LX product only; 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.
8. This step is for Nexus RF product only; fit the antenna connector through the vacant hole on the cover and connect the antenna to it. Collect the MAC address, by removing the peel off sticker section and locating it on your floor plan or spreadsheet.
9. Connect the battery cable and lamp head cable to the control pack.
10. Install the cover to the gear tray and secure it in place by 2 screws provided.
11. 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 Spiffire 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.
12. 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.

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.

Removal instructions

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

Testing instructions

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.

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.