## 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 lamp and indicator LED not lit	AC supply not connected; or AC supply turned off; or Test switch damaged	- Revision 8
2	LED lamp not lit but red indicator LED is lit	LED lamp damaged; or LED lamp plug incorrectly inserted in the mother board	
3	LED lamp not lit but indicator LED is flashing green	LED lamp damaged; or LED lamp plug incorrectly inserted in the mother board	
4	LED lamp is lit but red indicator LED not lit	LED damaged; or Check battery connection	ct 2016
5	The LED lamp does not switch to emergency mode when the test button is pressed	Test switch damaged	572 - 00
6	Indicator LED is constant green	Test switch damaged; or Self check fail - return to factory	713496
7	Indicator LED not red after commissioning	Check battery connection and battery plug polarity	X 106
8	The LED lamp works momentarily on emergency when the test button is pressed or tested by command from the Nexus system	Battery not yet be charged (allow up to 24 hours)	9AKK1

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

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Installation manual

# Exit LED edgelit surface mount Standard, Nexus LX, Nexus RF

#### Doc no. 29-00074





This document covers	What's inside the box
Safety warning	Surface mount base assembly
Installation instructions	Diffuser assembly
Removal instructions	Surface mount base cover
Testing precautions	Pictograph diffuser insert pack
Trouble shooting guide	Installation manual
	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.





#### 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 1300 666 595.
- 2. If all looks okay, installation can proceed.
- 3. Please note circuit suppling mains power to the fitting must not be energised until installation of the fitting is completed. The base of the unit is installed first on the ceiling (refer figure 1a), the mounting and cable entry hole dimensions shown in figure 1b can be used as a template, for the purpose of marking/drilling. The data cable only connects for the Nexus unit (part number PLSNXSLED/PLSNXSLEDP). Once the base is installed on the ceiling, connect the incoming unswitched active, neutral and earth to terminal marked USA, N and E respectively. Connect the Nexus data cable (only for Nexus unit).

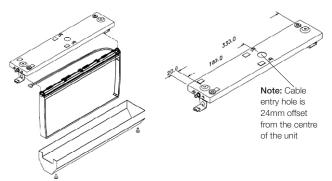


Figure 1a: Showing sequence of components

Figure 1b: Mounting and cable entry hole dimensions

4. Once the base is secured to the ceiling, hold the diffuser assembly in your hand and connect the diffuser wire loom polarised plug to the mother board (refer figure 2), the white wires on the plug should be towards the centre of the unit. Once the plug is connected, lay the wire loom carefully inside the base. Place one end of the diffuser in the diffuser holding latch hole (refer figure 2) and then push up the other side of the diffuser, the diffuser clicks and locks in place. Once the diffuser is locked in place, the cover is easily fixed to the base via 2 screws. Hold the cover in your hand and bring up to the base, pass diffuser through the cut out; make sure the side rectangular cut out on the cover for the LED and test switch lines up with LED and test switch on the base. Once the holes on both sides of the base and cover line up, secure with the screws provided.

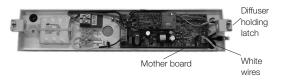




Figure 2: Connect wire loom plug to the mother board

5. Install the pictograph inserts by sliding into the diffuser. The pictograph inserts can be installed in the diffuser prior to installing the diffuser assembly in the fitting. Fitting is supplied standard with all pictograph insert options for single and double sided, as a complete one box solution to meet any site/project needs.









Figure 3: Pictograph inserts

- 6. The circuit suppling mains power to the fitting can now be energised. Once powered up, in a single point unit the red LED lamp should energise and remain lit on mains, until the power supply fails. For Nexus product; the normal initial uncommissioned status of the indicating LED on the unit is flashing green. Once commissioned, the LED changes to a steady red and flashes red during a test after receiving a command from the Nexus system. Please refer to the Nexus user and technical guide for a full detailed description of all possible LED states and their meanings. The emergency function of the fitting should only operate when the normal lighting power supply fails or when somebody presses the manual test button located on the unit or when commissioned on the Nexus network and the unit receives a command from the Nexus controller to switch into emergency mode.
- 7. Check the operation of the unit 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 unit. 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 because if the battery was 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 the trouble shooting guide at the end of this document.
- 8. Once manually checked as per item 6 above, the Nexus unit is ready to be communications tested and commissioned into the Nexus network and registered in the database. Keep the information details of this unit including exact location description, DB and CB 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. As the installer, it is your responsibility to conduct the initial discharge testing of the installed unit. Refer to AS/NZS2293.

#### Removal instructions

- 1. To remove/uninstall unit from the ceiling, the steps to be followed are the reversal of installation process. Turn off mains power to fitting, the fitting will automatically switch onto emergency mode as the mains power has been turned off. It will stay on in the emergency mode until such time as the battery cut-off threshold is reached.
- Remove cover by undoing the 2 cover screws turning anti-clockwise one by one using suitable screwdriver, make sure to hold cover with one hand while undoing the last screw. Once the screws are undone, remove the cover gently. The next step is to remove the diffuser assembly.
- 3. To remove diffuser assembly, hold the diffuser holding latch with thumb and fingers on one end and push gently to the opposite end to remove diffuser from the holding latch. Once diffuser is removed from the latch, disconnect/remove wire loom plug from the mother board. Once the diffuser assembly is removed, disconnect the battery pack plug on the mother board. The next step is to remove base of the installed unit.
- 4. Undo the mains wire connections ie: unswitched active, neutral and earth cable (and data cable connection where applies) from the terminal block using a suitably sized screwdriver. Unscrew the mounting screws turning anticlockwise one by one using suitable screwdriver, and make sure to hold base with one hand while undoing the last screw. Once the mounting screws are undone, the base can be pulled down gently from the ceiling.
- 5. When the unit is reconnected to the mains supply, it will need time to recharge its battery before it will be capable of a full length discharge again. The ability of the unit to operate on emergency is determined by the age, charge level, operating temperature conditions and environmental circumstances of the battery in the unit.

## **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.