Complete Solutions in Emergency Lighting



Continuously switching on and off of the unit's mains supply during the installation process (due to building works or for some other reason), could cause the unit's to discharge and charge their batteries many times over a short period. This may shorten the life of the battery. Thomas & Betts does not recommend such practices and may not honour any warranty on the life of the batteries or the lamps when subjected to such harsh operating conditions. The unit's are designed to be regularly discharge tested once every 6 months as per AS/NZS2293.2. Deliberate consistent discharge testing is considered an abuse of the fittings.

Emergency Light LED Flash Patterns for Nexus Fittings

LED Pattern Description	State	
LX: Yellow flashing	flashing Wink mode cable tracing is on. Valid messages are being received by the unit.	
LX: Yellow static	Wink mode cable tracing has been turned off.	
LX/RF: Red static	ed static Unit has been commissioned, battery is charging, lamp filament is intact.	
LX/RF: Red flashing	Unit is under test.	
LX: Green / Off flashing	Unit uncommissioned, otherwise normal (Unit PID is not nefw003b).	
LX: Red / Yellow flashing	Unit uncommissioned, otherwise normal (Unit PID is nefw003b).	
LX/RF: Green on steady	Okay when button pressed or unit faulty when button is not pressed.	
LX/RF: Off	Fitting is not powered or battery is not charging.	
RF: Green very slow flash	Unconfigured.	
RF: Yellow flash - 1 long 6 short	Configured and in flash yellow mode for identification.	
RF: Green flash with 2 red blinks Configured and hardware okay but unit uncommissioned and no RF network conner		
RF: Green flash with 3 red blinks	Configured and hardware okay and RF network connection okay but unit uncommissioned.	
RF: Green flash with 4 red blinks	Configured, commissioned and hardware okay but no RF network connection.	

TROUBLE SHOOTING GUIDE

If you've installed and connected the unit as per the instructions listed earlier and it doesn't work properly, 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.

#	Fault	Possible Causes
1	Lamp and LED not lit	AC mains supply not connected; or AC mains supply turned off; or Unit not inserted into the base properly; or Test switch damaged
2	Lamp not lit but LED is lit	Lamp damaged; or Battery incorrectly inserted
3	Lamp is lit but LED not lit	Test switch damaged; or Battery not connected
4	The lamp doesn't switch to emergency mode when the test button is pressed	Test switch damaged
5	The lamps works momentarily on emergency when the test button is pressed	Battery not yet charged (allow up to 24 hours)

the unit still doesn't work after checking these possible causes, contact Thomas & Betts Service in Australia on 1300 666 595, Monday to Friday, 8.30am to 4.30pm (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. Thomas & Betts is committed to providing valuable Through-Life Support for its products.



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LED Quickfit and Remote Powerpack Installation Manual PSLED1W6, PSNRFLED1W6, PSNXSLED1W6, WPSLED1W6, WPSNRFLED1W6, WPSNXSLED1W6

Contents	What's Inside the box
Electrical Safety Warning	Remote Powerpack for LED Quickf
Installation Instructions	10 metre long Remote Cable
Testing Precautions	Installation Manual
Trouble Shooting Guide	Warranty Information





Congratulations on choosing to use this Thomas & Betts product. This document is designed to assist you during the installation of this product, so for the safety of yourself and others. Thomas & Betts recommends that you read this document thoroughly before commencing installation.

The Quickfit range of fittings as the name implies, are designed to be fitted quickly. These are advanced pieces of electronic equipment and when treated with due care and maintained through regular and appropriate servicing, will perform without trouble 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 the lamp/s. 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.

NEXUS LX (DATA CABLE SYSTEM)

The Nexus range of light fitting are designed to be connected together into a special communication network over a Level 4 (or higher) high speed data single twisted pair cable. The Nexus LX User & 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 Thomas & Betts product supplier. The network cabling of the building must be installed as per the procedure detailed in the Nexus LX User & 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 fitting are designed to be connected together into a special RF communication network. The installation of this product is no different to Standard product. The commissioning of the Nexus RF product is done by Thomas & Betts service personal, please contact Product Support Hotline for more information in Australia on 1300 666 595.

Complete Solutions in Emergency Lighting

INSTALLATION INSTRUCTIONS

Note: These instructions are for the power supply unit's wiring only. For mounting instructions of Weatherproof Housing refer to Doc No: 29-01069 (Quickfit Weatherproof Exit / LED Quickfit Weatherproof Housing Installation Manual).

- Remove the unit from the packaging and inspect it for damage or imperfections. If any damage is found, do not install the unit and 1 notify the Thomas & Betts Product Support Hotline in Australia on 1300 666 595.
- 2. If all looks okay, proceed with the installation.
- 3 Remove the power supply unit's cover, place the base against the wall and mark the position of the mounting screw holes.
- 4. Determine the mains cable entry direction which can be from rear, side or top and remove the appropriate cable entry knock out (for 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.
- Secure the power supply base to the wall using appropriate fasteners to suit the building material (not provided due to the wide 5. variety of building construction materials).
- 6 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 nousing.
- 7. Terminate the mains cable and remote 4 core cable to the mains and remote terminal blocks as labeled. 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 neighboring terminal or the metal frame of the fitting will cause undesirable results when the fitting is powered. Incorrect wiring will damage the unit. Ensure that the double insulation of the cable/s passes complete into the terminal block enclosure so that no single insulation is exposed.
- 8. This step is for 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.
- 9. This step is for 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.
- 10 Run the 10m remote cable to the weatherproof enclosure. Follow instruction 29-01069 to mount the weatherproof unit in place and drill the cable access hole to suit
- 11. Feed the remote cable into the weatherproof unit, double check the cable management and allow adequate length to the Quickfit bracket's termination block before trim the cable. Strip and connect wires to the Quickfit bracket's terminal block as labeled and wire colour coded, again paving particular attention to correctly identify the two pairs. Take care while stripping the twisted colored pairs and double check the wiring. Incorrect wiring will damage the electronic components. Warning: Mains cable should be terminated to the remote power supply unit only. No mains or mains carrying cable are to be connected to plastic weatherproof housing.
- 12. Use hole plug set 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.
- 13. Attach the LED Quickfit exit fitting to the mounting bracket by aligning the top left hand end of the unit (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 unit up into the slot in the left hand end of the bracket (Step (1) in Figure 1) and hold the unit horizontal to and parallel with the bracket. It should be approximately 50mm to the right of its final destination. Simply slide the unit (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 unit 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. Ensure the correct pictograph inserts have been attached to the diffuser assembly.

STANILITE

14. Once powered up, the normal AC LED light source will energise and remain lit. The emergency function of the light fitting will only operate when the normal lighting power supply fails or when somebody presses the manual test button located on the front of the unit. Red LED indicates that the power is connected and the battery is charging.

Figure 1: Quickfit Insertion Diagram & Internal View

- 15. Check the exit fitting and power supply unit's battery operation to ensure that the installation was successful. When powered up, allow five minutes to give the battery a small charge, then press the manual test button located at the front face of the power supply unit. Hold the test button in for a few seconds and observe the operation of the LED light source switching from mains to the emergency mode.
- 16. Refer to the table on page 4 and the Nexus LX/RF User & Technical Guides for detailed descriptions of all possible LED patterns and their meanings. If the exit unit does not work, refer to the trouble shooting guide for possible causes and remedy.
- 17. If the commissioning test was successful, install the clear housing to the weatherproof unit and cover to the power supply unit.

TO REMOVE THE UNIT FROM THE MOUNTING BRACKET

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. The unit 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. The unit will automatically switch into emergency mode because it has been removed from the power supply. It will stay on emergency until such time as the battery cutoff threshold is reached or it is reconnected back onto the power supply, whichever happens first. When the unit is reconnected to the 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

If the unit is to be left permanently connected to the mains supply from now on, you will need to allow it 24 hours to charge its battery and then you will have to conduct a manual discharge test as per the requirements of AS/NZS2293.2. Presently (at the time of writing), the standard requires that units should operate in emergency mode for a period not less than 2 hours for their first test upon installation and for not less than 90 minutes thereafter once every 6 months. You will need to keep the records for the initial test and enter them into the building emergency services logbook.

If the unit isn't permanently connected to mains supply at this time, you are responsible to give it the initial 2 hour test when you do connect it permanently to the mains supply.



