

Troubleshooting guide

If you have installed and connected the fitting 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.

If the fitting still does not work after checking these possible causes, contact ABB customer service in Australia on 1800 60 20 20.

No.	Fault	Possible causes
1	LED light source and indicating LED not lit	AC supply not connected; or AC supply turned off
2	LED light source is lit but indicating LED not lit	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)

INSTALLATION MANUAL

Stanilite® Platinum Spitfire® LED surface mount DALI emergency



This document covers	What's inside the box
Safety warning	Spitfire LED surface mount
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Thank you for choosing ABB product

Please read this document thoroughly before commencing installation and retain for future reference. Contact ABB customer service in Australia on 1800 60 20 20 if you need any assistance. The installation instructions were correct at the time of print. To reflect changes in technology and Australian standards; ABB reserves the right to amend the instructions without notice. Updated document can be found on the Stanilite website.

As the installer, it is your responsibility to ensure compliance with all relevant building and safety codes, (ie: AS/NZS 3000, AS/NZS 2293). Refer to the applicable standards for data and mains cabling installation procedures and requirements.

Important to note:

- This product is designed for indoor use only.

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 head assembly and battery pack. LED light source is not user-serviceable. Do not attempt to service other parts of the fitting as this will void the warranty.

DALI (Digital Addressable Lighting Interface)

DALI is widely acknowledged as being an open protocol as defined under IEC 62386 and is designed only for communication in lighting systems. ABB exit and emergency luminaire with DALI functionality comply with DALI standard IEC 62386. The DALI Spitfire surface mount wiring consists of additional 2 way terminal block in the base labelled as + and - for DALI control wires apart from the mains terminals, ie: USA, N and E. **Note: No mains or mains carrying cables are to be connected to DALI terminals or 2 control wires (white and black).**


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Installation instructions

1. Remove the top cover from the gear tray by unscrewing a screw on each side.
2. Work out the mains entry then hold the gear tray in position and mark the centre of 2 fixing holes.
3. 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 fitting which is approximately 3.5kg.
4. 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	Maintained - no SA
Unswitched active	Wire to terminal A
Neutral	Wire to terminal N
Earth	Wire to terminal E or 

5. Connect the mains wiring brown to (active), blue to (neutral), white to (DALI +) and black to (DALI -).
6. Connect the battery cable and lamp head cable to the control pack, if not connected.
7. Install the cover to the gear tray and secure it in place by 2 screws provided.
8. Check operation of the fitting 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 troubleshooting guide at the end of this document.

Removal instructions

1. Before removing the installed fitting, de-energise and lock off the supply circuit.
2. Remove the cover, disconnect the mains and DALI wiring connections.
3. Disconnect the battery connection from the power pack.
4. Undo the mounting screws and remove the fitting from wall or ceiling.

Testing precautions

Once the fitting is permanently connected to the mains supply, a commissioning discharge test as required in AS/NZS 2293.2 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/NZS 2293.2.

Construction sites

Continuously switching off 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 life of the battery. 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/NZS 2293.2, subjecting the product to repeated discharge or charge cycles is regarded as an abuse of the fittings.

DALI emergency features

DALI emergency comprises most of the standard features of DALI in addition to features and commands specific to emergency products. Some of these are outlined below:

Rest

- To ensure maximum battery life (especially through the construction stages), a smart control system can use the rest command to extinguish the emergency lamp (when power has been lost) and limits the number of continual charge and discharge cycles present in the commissioning or installation phase. This reduces the stress on the battery and ensures the longest possible life.

Function test

- A test designed to quickly check the fitting's functionality. During this short test the fitting is able to check that the battery, lamp and circuitry are all working correctly. The result of this test is stored and can be returned to the control system when required.

Duration test

- The most important test for an emergency device is the duration test. This test allows the device to change to emergency mode and discharges the battery.

- 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). The result of the test is stored and can be returned to the control system when required.

Inhibit

- Another measure that can be initiated by the control system is the inhibit feature which can stop the emergency DALI device from going into emergency mode.

Prolong time

- The prolong time function of the emergency DALI protocol gives installers the ability to prolong the emergency light's emergency state. This time can be set from 0 to 60 minutes and can ensure that a safe lighting level is present after a short power failure.

Important: 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/NZS 2293.