Merlin 500S+

Dual Utility Isolation Controller

INSTALLATION & OPERATION

Please read these instructions carefully before use and retain for future reference.

These instructions can also be downloaded in electronic form.

For specific requirements that may deviate from these instructions – contact your supplier.

snsnorthern.com

Content

Important Information

Copyrights

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Manufacturer's Warranty

The manufacturer warrants to the original consumer purchaser, that this product will be free of defects in material and workmanship for a period of **3 years** from the date of purchase.

The manufacturer's liability hereunder is limited to replacement of the product with repaired product at the discretion of the manufacturer. This warranty is void if the product has been damaged by accident, unreasonable use, neglect, tampering or other causes not arising from defects in material or workmanship.

This warranty extends to the original consumer purchaser of the product only. Any implied warranties arising out of this sale, including but not limited to the implied warranties of description, merchantability and intended operational purpose, are limited in duration to the above warranty period. In no event shall the manufacturer be liable for loss of use of this product or for any indirect, special, incidental, or consequential damages, or costs, or expenses incurred by the consumer or any other user of this product, whether due to a breach of contract, negligence, strict liability in tort or otherwise. The manufacturer shall have no liability for any personal injury, property damage or any special, incidental, contingent, or consequential damage of any kind resulting from gas leakage, fire, or explosion. This warranty does not affect your statutory rights.

During the above warranty period, your product will be replaced with a comparable product if the defective product is returned together with proof of purchase date. The replacement product will be in warranty for the remainder of the original warranty period or for six months – whichever is the greatest.

Disposing of Electrical & Electronic Equipment (WEEE)

When this product has reached the end of its life it must be treated as Waste Electrical & Electronics Equipment (WEEE). Any WEEE marked products must not be mixed with general household waste, but kept separate for the treatment, recovery and recycling of the materials used.

Please contact your supplier or local authority for details of recycling schemes in your area.

Revisions

Every effort is made to ensure the accuracy of this document; however, **S&S Northern Limited** can assume no responsibility for any errors or omissions in this document or their consequences. **S&S Northern Limited** would greatly appreciate being informed of any errors or omissions that may be found in the content of this document. For information not covered in this document, or if there is a requirement to send comments/corrections, please contact **S&S Northern Limited.**

Safety Statements

⚠

Take extra care where this symbol is used throughout this document to understand the nature of potential hazards and how to avoid them.

⚠ Before any installation, use or maintenance read this manual carefully.
⚠ The information contained within this manual should be referenced for typical installation and operation only.
⚠ For site specific requirements that may deviate from the information in this guide – contact your supplier.
⚠ If the equipment is used in a manner not specified by the manufacturer, the safety and protection provided by the equipment may be impaired.
⚠ Installation must be in accordance with recognised standards in the country concerned.
⚠ Cables must be protected against mechanical damage.
⚠ This device requires a continual supply of electrical power – it will not work without power.
⚠ A switch or circuit breaker must be fitted, it must be accessible and marked as the disconnecting device!

Installation

General Description

⚠ **Installation must be in accordance with recognised standards in the country concerned.**

The **Merlin 500S+** is an isolation panel with 2x UTILITY outputs. It is designed to provide an effective way of isolating gas, water, electricity, oil etc. by means of a key switch on the panel or by the operation of the emergency shut off button. It can be integrated with a BMS, fire alarm panel and remote emergency shut-off buttons.
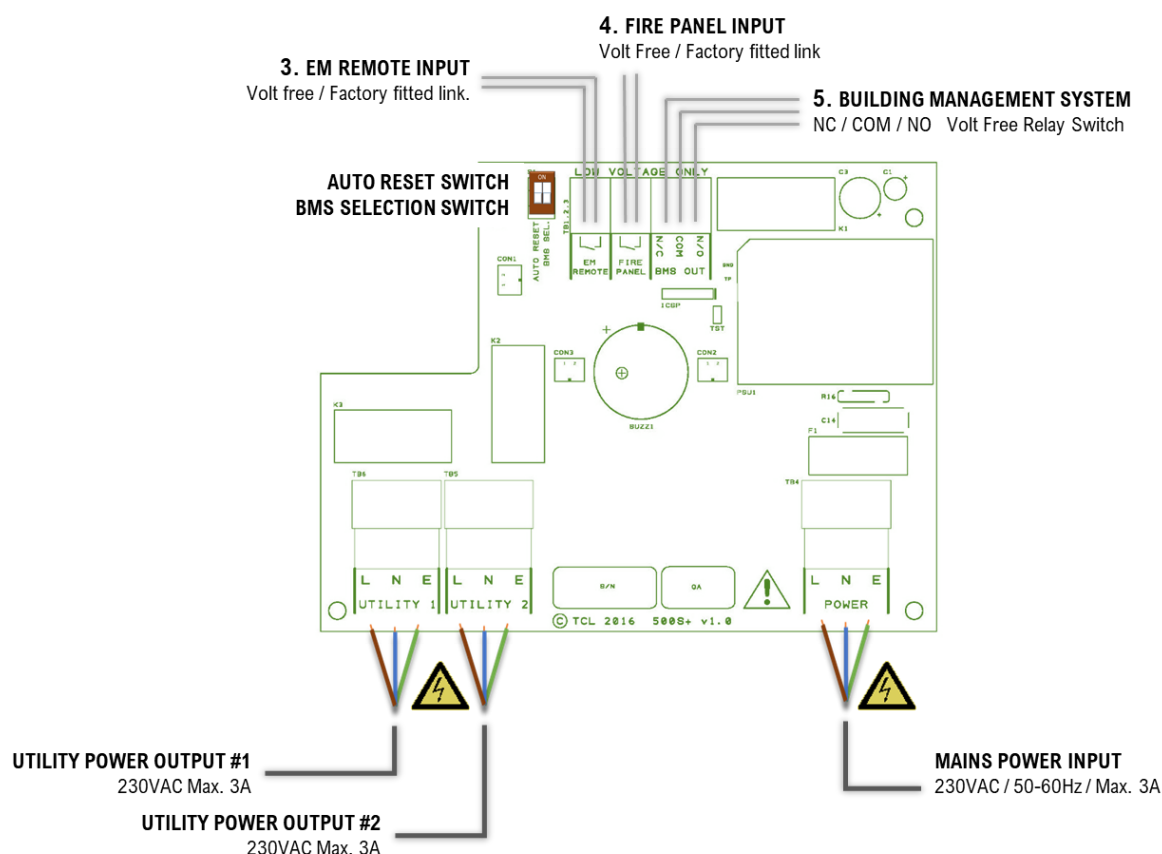
Mounting & Cabling

⚠ **If mounting direct to wall - ensure the wall surface is flat to prevent base distortion.**
⚠ **Where suitable cable glands/conduits are used for wire entry, use 20mm (3/4 inch).**

1. Unpack all the parts.
2. Carefully remove the front cover from the unit by unscrewing the four bolts located at each corner. To do this – use the socket wrench provided.
3. Mark the four screw holes located on the back of the enclosure to the wall. Ensure the wall surface is flat to prevent base distortion.
4. After executing the mounting and the connections – replace the front cover and insert the security caps over the four bolts.

Circuit Board Overview

⚠ **Damage to PCBs when creating cable entry points may void any warranty.**

⚠ **Wiring of different circuits shall be separated by means of routing, clamping or barrier.**

⚠ **A switch or circuit breaker must be fitted, it must be accessible and marked as the disconnecting device.**

⚠ **Restrain the hazardous live wiring from accidental loosening to prevent wires from moving after installation and touching parts of opposite polarity or at low voltages.**

⚠ **Isolate the equipment from all hazardous live power sources before opening the cover.**

4. FIRE PANEL INPUT
Volt Free / Factory fitted link

3. EM REMOTE INPUT
Volt free / Factory fitted link.

5. BUILDING MANAGEMENT SYSTEM
NC / COM / NO   Volt Free Relay Switch

AUTO RESET SWITCH
BMS SELECTION SWITCH

UTILITY POWER OUTPUT #1
230VAC Max. 3A

UTILITY POWER OUTPUT #2
230VAC Max. 3A

MAINS POWER INPUT
230VAC / 50-60Hz / Max. 3A

AC Power Input. 230V~ supplied to [POWER] connector using a 3-core cable, fused at 3A and the live voltage serves the main isolation switch on the front fascia to cut power to the equipment.

Utility Power Output. 230V~ electrical power output from [UTILITY] terminal using a 3-core cable - connected to a solenoid valve or electrical contactor. This output stops upon an alarm status.

EM Remote. This terminal is for volt-free external emergency shut-off buttons. A factory fitted link is installed (closed circuit).

Fire Panel. Connection is only to be used where an output from an alarm panel is to shut off the Utility power output. A factory fitted link is installed (closed circuit).

BMS Out. The system can be integrated with a BMS to make/break a circuit on an error condition i.e. fire alarm or emergency stop activation. These are volt/load free.

BMS SEL Switch There is a dipswitch located on the circuit board labelled [BMS SEL]. This is factory set to 'OFF' which signals the BMS on Utility status (Power on/off). When switched 'ON', the 500S+ will only signal the BMS on a fault, i.e. emergency stop pressed.

AUTO RESET Switch. There is a switch located on the circuit board labelled [AUTO RESET]. This is factory set to on and instructs the system to restart automatically when power is restored (after power cut/loss). Switch off to manually restart the system after power is restored.

Operation

First Power Up – Utility key Switch

Supply 230V~ electrical power. (Power LED ON). Turn the utility key switch on to provide power output. (Utility LED ON). To turn utility supply off, turn the utility key switch off.

LED Indication Status

⚠ **The cause of any alarm must be investigated and rectified before restarting the system.**

● **Power**

On = Controller connected to mains electrical supply.

Off = No power to system or fuse not intact.

● **Utility 1 / Utility 2**

On = Utility power supplied.

Off = Utility power supply Isolated.

● **Em Stop / Fire Alarm**

On = Alarm activated. Utility power supply isolated.

Off = System operating as intended.

The emergency stop must be reset before restarting the system following an alarm condition.

Maintenance

Cleaning the Equipment

Keep your device in good working order

- Remove any dust/debris from the outer enclosures regularly using a slightly damp cloth.
- Never use detergents or solvents to clean your device(s).
- Never spray air fresheners, hair spray, paint or other aerosols near the system.
- Never paint the device(s). Paint may interfere with the equipment.

Technical Specification

General	
Model:	Merlin 500S+
Size: (H x W x D)	140 x 190 x 62mm (5.51 x 7.48 x 2.44")
Mounting:	Wall/Surface Mounted. Indoor use only
Weight:	780g
User Interface	
Visual Indicators (LED):	Power / Utility / Emergency Stop / Fire Alarm
Audible Buzzer:	>65dB @1m (3.28ft). Quiet conditions.
Power Supply	
Power Consumption:	4.1W
Power Input:	100-240V AC. Max.3A. 50-60Hz Single Phase
Internal Fuse:	3.15A
Equipment	
Overvoltage Category:	II
Pollution Degree:	2
Environmental	
Operating temperature	0 ~ 50°C / 32 ~ 122°F 20 ~ 95% RH (non-condensing)
Approvals	
Compliance	CE / UKCA

Installation Details

Please pass this manual to the system owner or system user.

Date of Installation:	
Installation Location:	
Organisation:	
Stamp/ Signature of the installer:	

CONTACT US:

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