Iso-Gard® Line Isolation & Overload Monitor (LIOM)

MLHG6

TWO YEAR WARRANTY

ISO·GARd®
Line Isolation Monitor

Setup Guide

This document is intended as a guide for the basic physical setup of the Line Isolation & Overload Monitor (LIOM). This document includes wiring diagrams and typical display indications of the monitor unit (LIM). For complete details, including installation, setup, settings, and troubleshooting, refer to the *Isogard Line Isolation & Overload Monitor Installation and Reference Guide* for the MLHG6/MLHG6-AU.

Components

The LIOM, MLHG6, consists of a Line Isolation Monitor display panel (LIM: MLHG6-AU) and a Backplate Assembly. The LIOM must be installed in the Recessed Wall Box MLHG6B-AU.

The wall box is ordered separately and can be installed before the wall is finished. Later, the LIOM can be installed and configured.

⚠ ⚠ DANGER

RISK OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- This product must only be installed and serviced by appropriately qualified and/or licenced electrical personnel.
- Isolate the electrical supply before doing any work on this product.
- Ensure that the product has been correctly installed and tested for safe operation before reconnecting the electrical supply.
- The LIOM must be installed and enclosed in the wall box.

Failure to follow these instructions will result in death or serious injury.

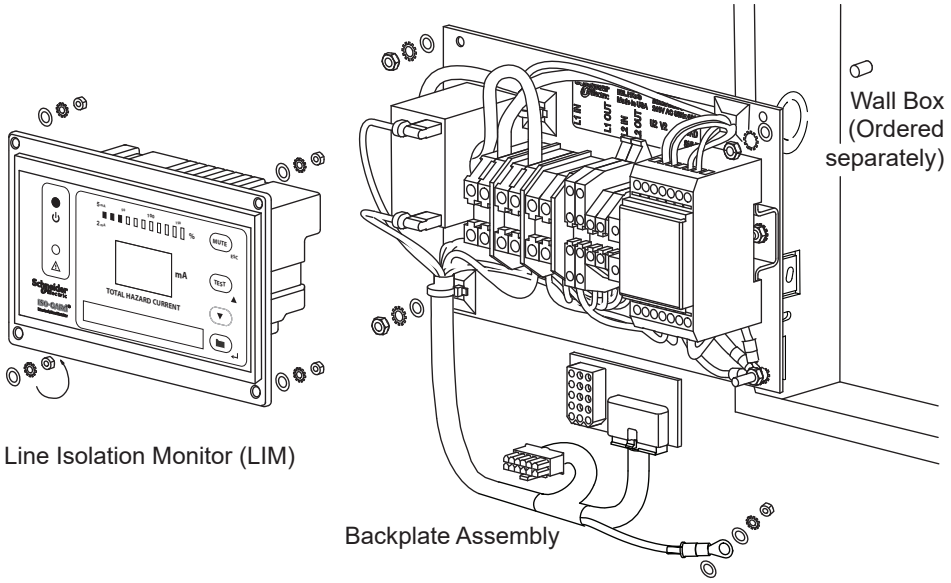
Contents

Included and Orderable Parts

Some components are shipped with the LIOM. Some parts can be ordered separately as options. The wall box can be purchased and installed during construction and the LIOM Kit can be installed when the site is ready.

Catalogue Number	Component or Accessory Name	Included in Kit	Ordered Separately
MLHG6	Line Isolation & Overload Monitor, with Front Panel and hardware kit	Yes	Yes
	Backplate for LIOM with small parts MLHG6-BP mounting kit	Yes	No
MLHG6B-AU	Recessed Wall box	No*	Yes
MLHG6RD-AU	Remote Display Unit (option). Requires the 147/2 Wall Box.	No	Yes

* The Recessed Wall Box is ordered separately.



Technical Support and Product Information

Technical and Sales Support

For assistance with technical problems, contact your nearest Schneider Electric sales representative. Contact information is provided on the back cover of this document.

For links to specific tools/documentation and how to contact technical support see: https://www.clipsal.com/trade/support/

Document Name	Component Model	Form Number
Isogard Line Isolation & Overload Monitor (LIOM) Setup Guide	MLHG6	F2395
Isogard Line Isolation & Overload Monitor Installation and Reference Guide	MLHG6/MLHG6-AU	F2392
Isogard Recessed Wall Box for LIOM Instructions	MLHG6B-AU	F2418
Isogard Current Transformer Application Note	MLHG6CT-AU	F2396
Isogard Test Simulator Module Application Note	MLHG6T-AU	F2394
Isogard Remote Display Unit for (LIM) Setup Guide	MLHG6RD-AU	F2397
Isogard Line Isolation Monitor (LIM) Setup Guide	MLHG6-AU	F2417

Supplies Needed

Some hardware items required for the installation and commissioning of the LIOM are not included with the product. The installer is responsible for obtaining locally the electrical fittings and hardware used to install the wall box according to the wiring rules in the location where the equipment is installed.

The ***Line Isolation & Overload Monitor Installation and Reference Guide*** is essential for the proper configuration and testing of the LIOM.

You can view and print the PDF file using the Acrobat Reader available at: **http://www.adobe.com.**

For your Safety

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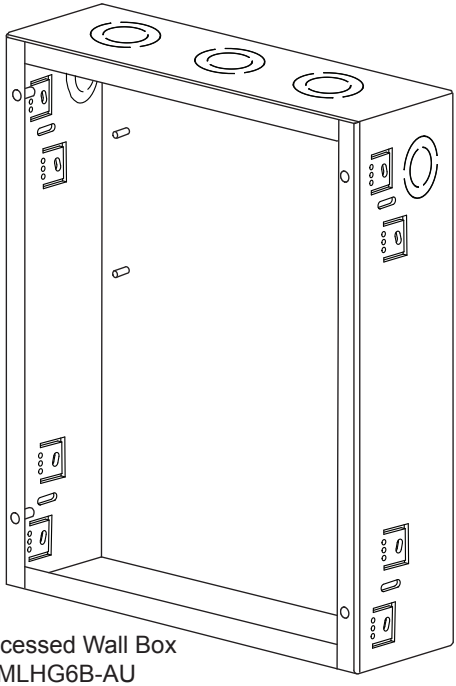
Wall Box

The LIOM must be installed in the Recessed Wall Box.



Recessed Wall Box
MLHG6B-AU

Location and Mounting

When selecting a mounting location for the LIOM be sure that the unit is placed where the display is clearly visible to people operating the load devices. Also, make sure that the LIOM is installed at a convenient height for viewing the display and using the front panel buttons to make menu selections.

Do NOT install the LIOM in a location where it can be damaged by any of the following:

- Doors opening or closing or heavy foot traffic, such as in passageways where equipment carts are used.
- Direct sunlight or direct sources of heat or steam.
- Exposure to harsh chemicals, either liquid or airborne.
- Unauthorised persons tampering with the unit.

The wall box must be securely attached to a solid surface or structural timber or steel before you attempt to install the Backplate Assembly. Use suitable hardware (not supplied) to secure the box.

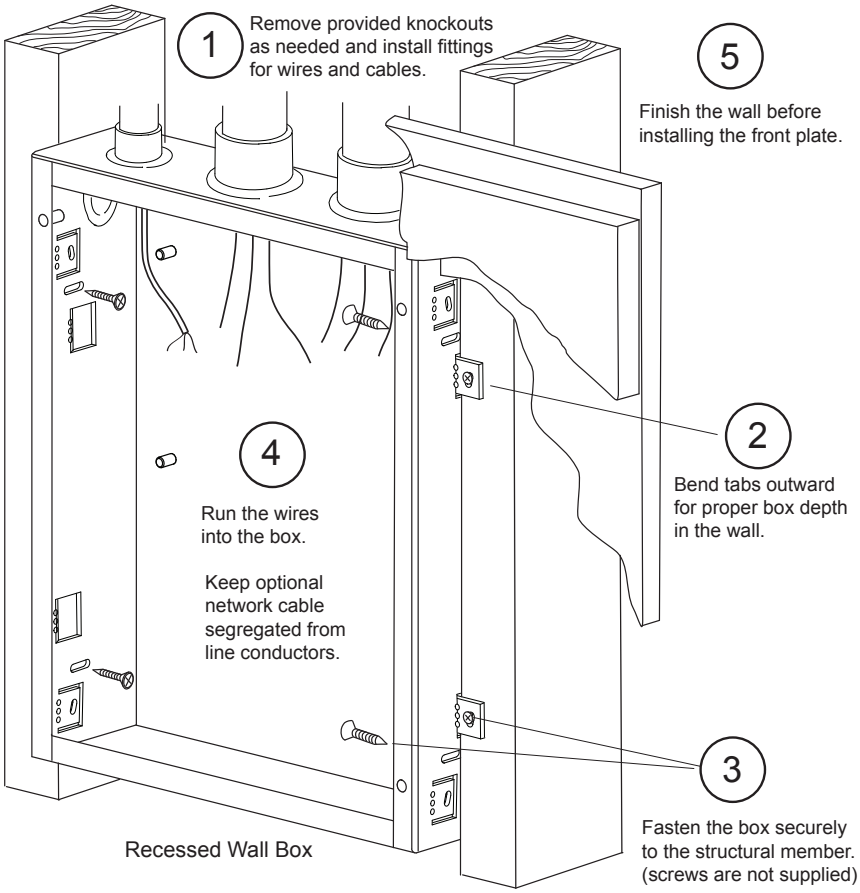
During installation, the wall surface should be completely finished before installing the Backplate and the LIM and front panel.

Installing the Recessed Wall Box

The Recessed Wall Box, catalogue number MLHG6B-AU, is suitable for stud-frame or metal-frame construction. The wall box has bendable flanges that provide the correct mounting depth in the cavity when single thickness or double thickness gyprock is used.

Install the wall box so that it is slightly recessed (approx. 4mm) behind the finished wall surface. This will ensure that there are no gaps when the front panel and LIM are installed.

Remove knockouts as needed to provide connections for line and common connections to the Backplate. If you are using one or two optional Remote Display Units, provide a separate entry into the wall box for the signal and d.c. power wiring. Refer to the following figure.



Use a punch or screwdriver and a hammer to remove a knockout

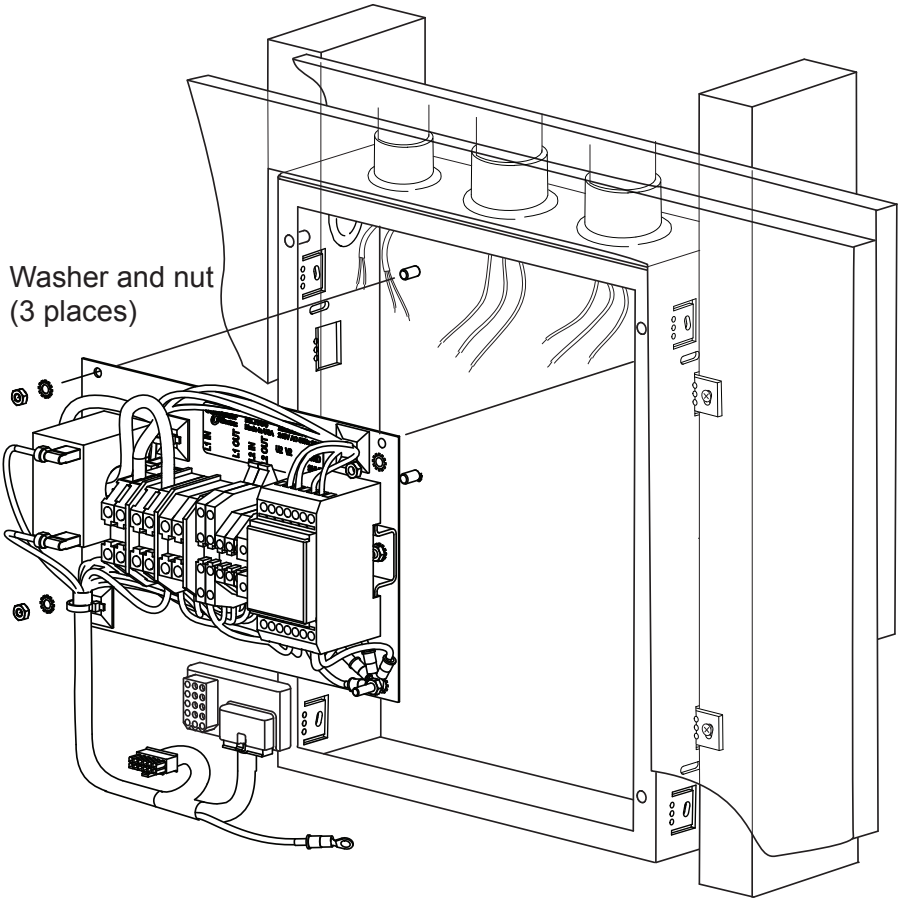
Punch from the outside of the box to remove a large (outer) knockout →

Punch from the inside of the box to remove a small (inner) knockout ←

Installing the Backplate

The Backplate Assembly is held in place at the back of the wall box by three studs, washers and steel hex nuts. The small parts are provided in the MLHG6-BP mounting kit.

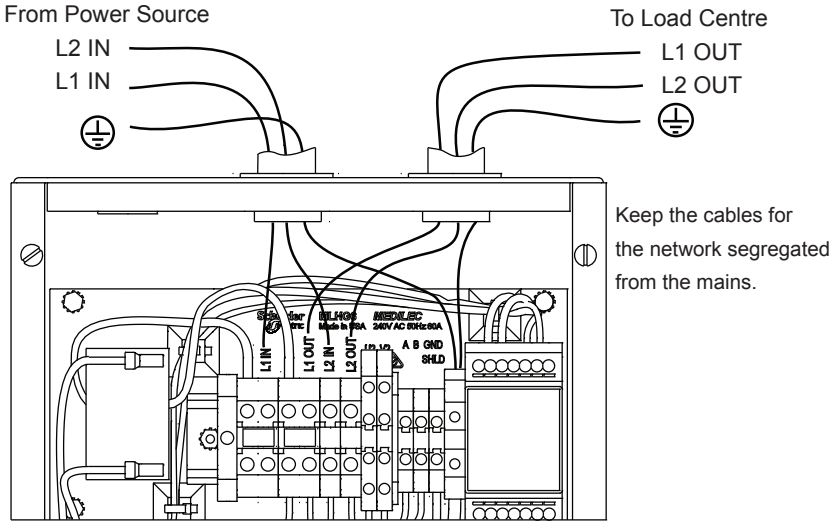
1. Inspect the Backplate Assembly for any damage. Contact your sales representative immediately if you need a replacement unit. Make sure that the wiring connections are tight and that the clips on the CT are firmly attached.
2. Move the wires inside the Wall Box to allow installation of the Backplate Assembly.
3. Carefully place the Backplate Assembly into the Wall Box and secure it with the washers and hex nuts as shown in the figure.

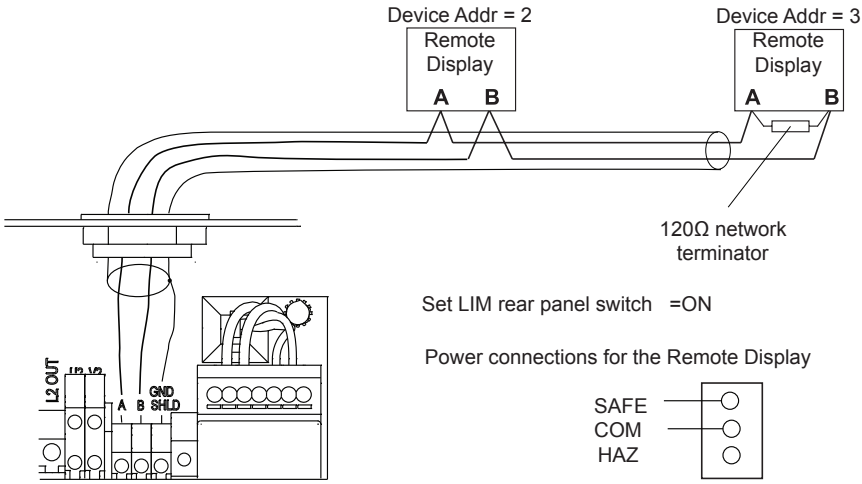


Wiring the Backplate

The connections from the power source to the Backplate Assembly must be completed before attaching the LIM. Follow these steps:

1. Disconnect the power source from building power before making connections inside the Wall Box. Lock out and tag the supply circuit breaker.
2. Use the wiring diagram in this document and the label on the Backplate Assembly. If you are using one or two Remote Display Units, you should connect the network cable at the same time as the line connections using the drawing provided.



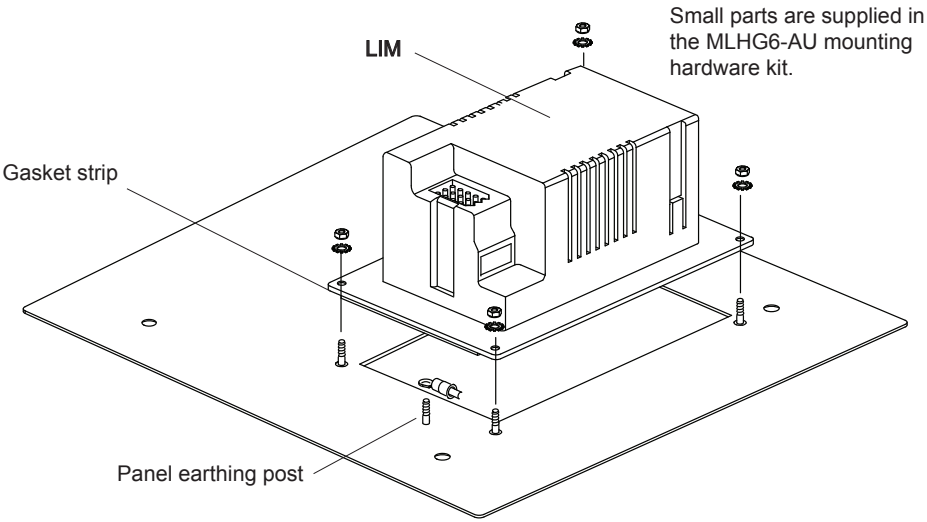


Attaching the LIM to the Front Panel

Attach the LIM to the front panel using the washers and nylon hex nuts provided in the MLHG6-AU mounting hardware kit. Refer to the drawing below.

1. Make sure that the gasket material is properly positioned on the front of the LIM.
2. Use the front panel supplied with the LIOM kit. When doing the final assembly, use silicon rubber between the back of the panel and the finished surface of the wall.
3. Do not use excessive force to secure the nylon hex nuts.

Note: There is a grounding post on the panel. When you are ready to attach the LIM with front panel to the wall box, you must connect the earthing wire to the front panel.



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The connections between the Backplate Assembly and the LIM are made via two cable harnesses. The four finishing screws (to connect the panel to the wall box) are included in the parts package.

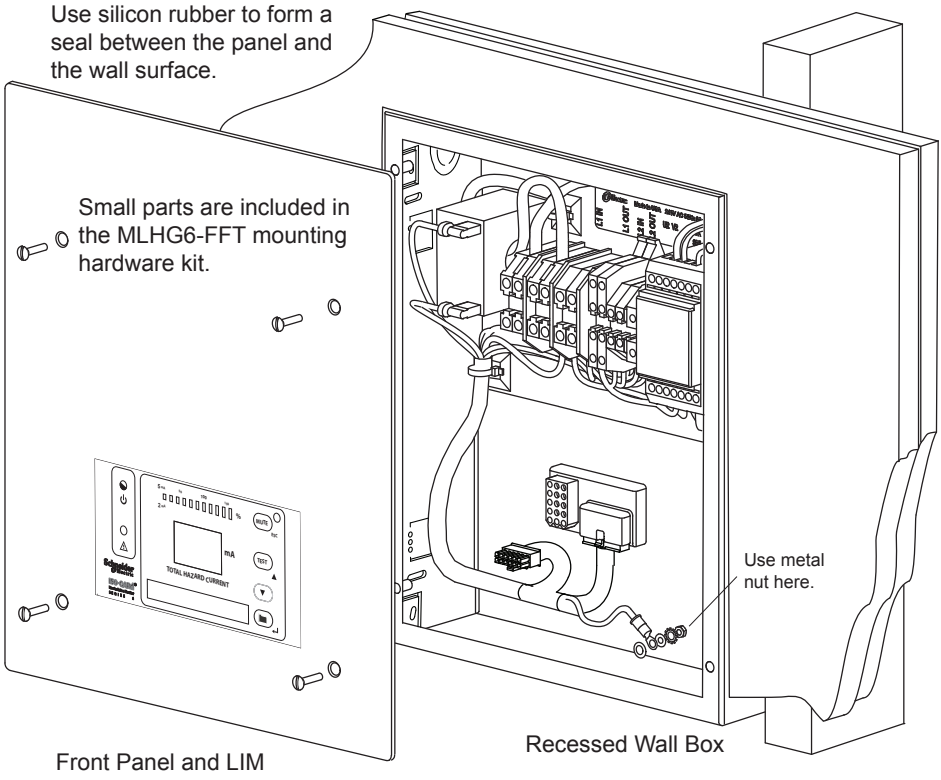
An earthing wire must be connected from the wiring harness to the post on the front panel. The metal nut and washers are provided in the MLHG6-AU hardware kit.

Final Assembly

An earthing wire must be connected from the wiring harness to the post on the front panel. The metal nut and washers are provided in the MLHG6-AU hardware kit.

Before you connect the cable harnesses to the LIM, make sure that you have done the following:

1. Securely attached the wall box to the wall.
2. Installed the Backplate Assembly securely inside the wall box.
3. Connected the wires from the circuit being monitored (circuit must be de-energised).
4. Secured the LIM on the front panel.



LIM Panel Display Normal Operation

NOTICE

INSTALLATION HAZARD—OVERLOAD ALARM FACTORY SET TO 15A

Prior to initial operation, current value must be set to match transformer rating.

Failure to follow this instruction can result in equipment damage or reduced product performance.

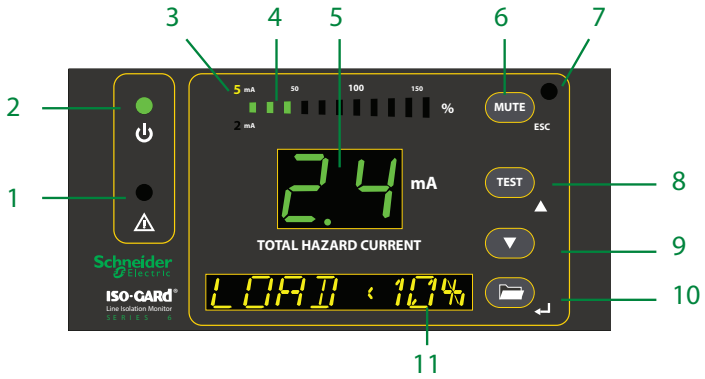


Figure Ref.	Panel Feature	Normal State
1	HAZARD LED (yellow)	Not illuminated.
2	NORMAL OPERATION LED (green)	Illuminated. Will be in the system normal condition when the displayed Total (Prospective) Hazard Current is below the 5mA response value.
3	Measuring range indicator light (yellow)	Illuminates when the 5mA THC response value has been activated.
4	LED bar graph	In a system normal condition, only the green bars are illuminated.
5	Seven-segment display of Total (Prospective) Hazard Current	Green in colour for the system normal condition.
6	MUTE button/ESC key	Moves to a higher level in the menu.
7	MUTE LED	Not illuminated in the system normal condition.
8	TEST button	Activates self-test. / UP key: Moves up in the menu and increases values.
9	DOWN key	Moves down in the menu and decreases values.
10	MENU key	Enters the main menu. / ENTER key: Confirms entries.
11	Digital display	Reads LOAD % in the normal condition. Displays menu options when in Menu mode.

LIM Panel Display Hazard (Alarm)

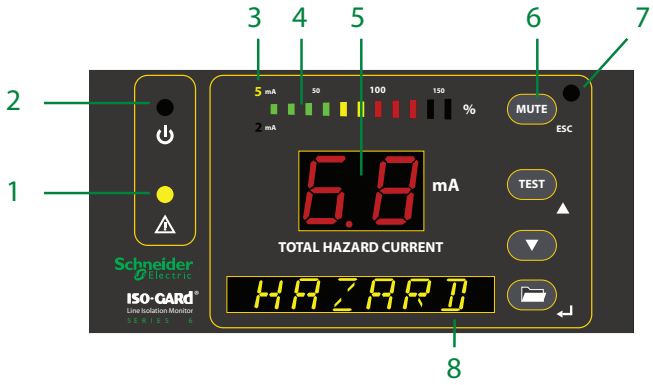


Figure Ref.	Panel Feature	Hazard (Alarm) State
1	HAZARD LED (yellow)	Flashes yellow.
2	NORMAL OPERATION LED (green)	Not illuminated.
3	Measuring range indicator light (yellow)	Indicates the 5mA trip level has been activated.
4	LED bar graph	In a system alarm condition, the red bars will be illuminated.
5	Seven-segment display of Total (Prospective) Hazard Current	Red in colour in a system alarm condition.
6	MUTE button/ESC key	Pressing the MUTE button will silence the audible alarm and activate the yellow MUTE LED.
7	MUTE LED	Will illuminate yellow after the MUTE button has been pressed and the detected fault is still present on the system.
8	Digital display	Reads HAZARD.

Navigating the Main Menu

NOTICE

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Accessing the main menu

Hold the "MENU" button for at least one second. The device will enter into menu mode. The first item in the menu, "VALUES," will appear. The number "1" will flash.

When initially energised, set the date to clear the message.

Entering the password prior to menu navigation

Many submenu options may be password protected. Passwords are entered as three digit numbers. The default password is **807**. When applicable, follow the below procedure to enter the password:

1. A flashing number illustrates which number is currently in focus.
2. Use the UP/DOWN arrow key to select the correct number.
3. Confirm with the ENTER button.
4. Repeat for the next numbers until the last number is confirmed.
5. Settings may now be modified until the menu is exited. Reentering the menu will require a reentry of the password.

When a parameter is changed and confirmed with the enter key, the change will have an immediate effect. The unit will continue to operate while settings are modified.

Exiting the menu

Press the ESC key to return to the last step in the menu. Repeat this step until the display has returned to the main screen. If the unit is idle in the menu for 5 minutes, the device will automatically return to the main screen.

Menu structure

Refer to the *Line Isolation & Overload Monitor Installation and Reference Guide* for a complete diagram of the MLHG6 menu.

Initialising the Clock

The LIM utilizes date/time stamping. When initially energized, use the menu diagram below to set the date and time. If message code 8.80 appears on the display panel, setting the time and date will clear this alarm automatically.

MENU Level 1	**MENU Level 2**	**MENU Level 3**	**Meaning**
		EXIT	
4. SETTING	**7. Clock**	**Tm 10.34 A**	Time: am/pm
		Dy 23/12	Date: day/month
		Yr 2011	Year
		DST off	Daylight saving time: auto/off (North America time zones only)
		EXIT	

Specifications

Parameter	Value
Catalogue Number	MLHG6 Includes Line Isolation Monitor, Backplate Assembly and Front Panel. Does not include the Wall Box that is ordered separately.
Operating voltage	220-240VAC typical, 50Hz, Single phase
Load Current	45A maximum
Overload monitoring range	10A minimum to 45A maximum
Electrical power and signal connections	Screw type terminals
Application	Indoor only. Must be installed in a wall box.
Digital display	Seven segment LED
Test function	Includes integral fault simulation circuitry
Hazardous current threshold	Menu selectable. Refer to the Installation and Reference document.
No user serviceable parts inside.	

Standards Complied

Declarations of Conformity

Australian/New Zealand EMC & Electrical Safety Frameworks and Standards

Regulation	Standard	Title
Safety	AS/NZS3100	General safety requirements.
Performance	AS/NZS4510	Isolated electrical supply systems for medical use -- Design and performance requirements.
EMC	AS/NZS 61000-6-3	General EMC Emissions requirements.

Do not dispose of this product to landfill or by incineration. This product should be disposed of by a licenced electronic waste disposal agency.
In some locations it is an offense to dispose of electronic items improperly.

NOTICE

EQUIPMENT DAMAGE/MODIFICATION

Do not change or modify this product without the express approval of Schneider Electric.

Failure to follow this instruction could void the user's authority to operate the equipment.

Customer care—Australia

We warrant this product for 2 years. For details, visit:
https://www.schneider-electric.com.au/en/about-us/legal/terms-and-conditions.jsp

Our goods also come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Schneider Electric (Australia) Pty Ltd

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