

Instructions

PN 7635 / 7635B



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Senses low battery voltage and automatically disconnects devices to save power for starting or to preserve battery life

- Status light in both m-LVD and Remote Control Switch provides visual warning of low voltage state prior to disconnect
- Alarm output available for audible warning of low voltage state prior to disconnect (optional alarm required)
- Remote Control Switch Functions:
 - Disconnect Voltage Adjustment** - Sets desired disconnect voltage
 - Override** - Temporarily delays circuit disconnect for 10 minutes
 - OFF** - Temporarily disconnects circuits until voltage rises
 - Override or OFF** - Silences alarm (optional alarm required)
- Includes Remote Control Switch PN 7928

GUARANTEE: Blue Sea Systems stands behind its products for as long as you own them. Find detailed information at www.blueseasystems.com/about. For customer service, call 800-222-7617.

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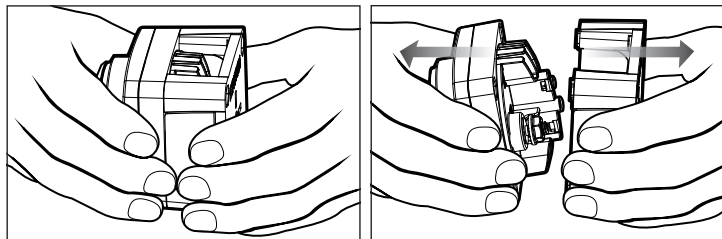
980016770 Rev.003

Specifications

Intermittent Rating: 5 min.	115A
Continuous Rating	65A
Nominal Voltage	12V DC
Cable Size (to meet current ratings)	6 AWG (16mm ²)
Terminal Stud Size	1/4"-20 (M6)
Disconnect Voltage	11.3V-12.1V Adjustable
Factory Default Disconnect Voltage	12.1V
Time Delay to Alarm	The unit waits 5 mins after the voltage goes below the set point before it starts the warning. Then an additional 5 mins to disconnect, 10 mins total.
Alarm Time Before Disconnect	5 mins
Reconnect Voltage	13V DC
Remote Control Switch	Type: SPDT, Action: (ON)-OFF-(ON) () = momentary
Maximum Alarm Current	250mA
Maximum External LED Current	14mA
Regulatory	ISO 8846, Meets SAE J1171 external ignition protection requirements

Installation (continued)

Remove rear insulating cover as illustrated.



Installation

⚠ CAUTION ⚠

CAUTION symbol refers to a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

⚠ WARNING ⚠

WARNING symbol refers to a potentially hazardous situation which, if not avoided, may result in death or serious injury.

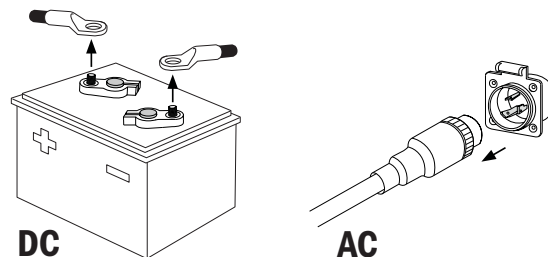
⚠ CAUTION ⚠

✓ If you are not knowledgeable about electrical systems, consult an electrical professional.

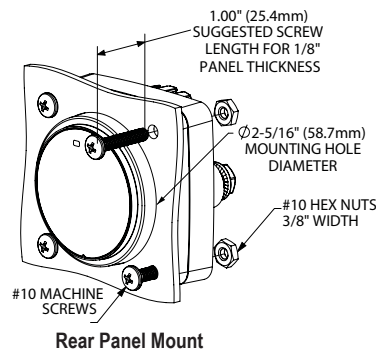
⚠ WARNING ⚠

✓ Before beginning electrical installation, disconnect all AC and DC power sources.

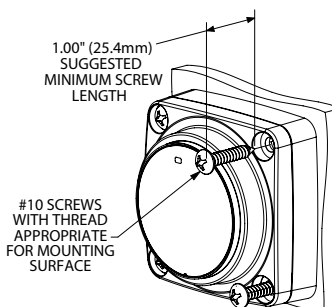
✓ Do not service equipment that has been automatically disconnected by the m-LVD without first permanently removing power from the equipment by a means other than the m-LVD.



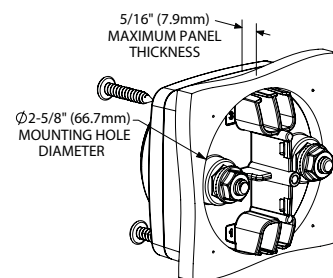
Mount the m-LVD. Three mounting options are illustrated below:



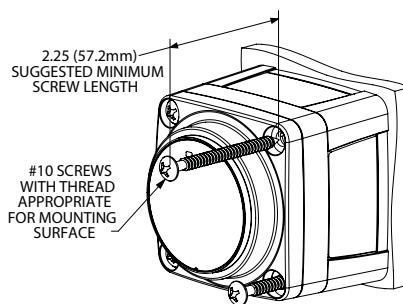
Rear Panel Mount



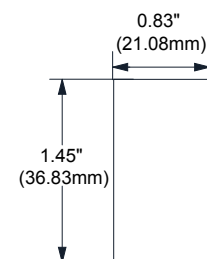
Front Panel Mount



Front Panel Mount (Rear View)



Surface Mount



Remote Control Switch
Mounting Hole Dimensions

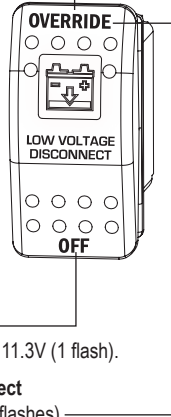
Disconnect Voltage Adjustment

- Press and hold the **VERRIDE** position of the remote control switch for 10 seconds to enter adjustment mode. Adjustment mode can only be entered in the **Connected** or **Disconnected** states, not in the **Low Voltage Warning** state. LED will begin a flash pattern to indicate the current **Disconnect** voltage setting (see table below).

Disconnect Voltage Adjustment Table

Disconnect Voltage	LED Flash Count
Factory Default: 12.1V	5
11.9V	4
11.7V	3
11.5V	2
11.3V	1

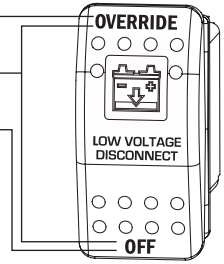
- Press and release **OFF** to decrease the **Disconnect** voltage setting in 0.2V increments down to a minimum of 11.3V (1 flash).
- Press and release **VERRIDE** to increase the **Disconnect** voltage in 0.2V increments up to a maximum of 12.1V (5 flashes).
- When you are satisfied with your selection, release the switch, and wait approximately 20 seconds, the m-LVD will save the new **Disconnect Voltage Setting**, and automatically return to normal operation.



Remote Control Switch

Operation during Low Voltage Warning or when Disconnected

- Press **VERRIDE** to temporarily delay circuit disconnect for 10 minutes.
- Press **VERRIDE** or **OFF** to silence alarm (optional alarm required).
- Press **OFF** to temporarily disconnect circuits until voltage rises.



Electrical Connections

- The Installation Diagram illustrated below represents a common installation and is not meant to be a guide for wiring a specific vessel.

Caution: Disconnect battery connections before beginning the installation. Reconnect after the installation is complete.

Use the wire sizing chart below to select the appropriate wire sizes. Consult an ABYC certified electrician for proper fuse placement and sizing.

Wire Size and Fuse Rating Chart*			
Amps	Min. Wire Size* (AWG)	Fuse Rating	Min. Wire Size* (Metric)
≤30	#10	40A-50A	6 mm ²
≤50	#8	60A-65A	10 mm ²
≤65	#6	90A-100A	16 mm ²

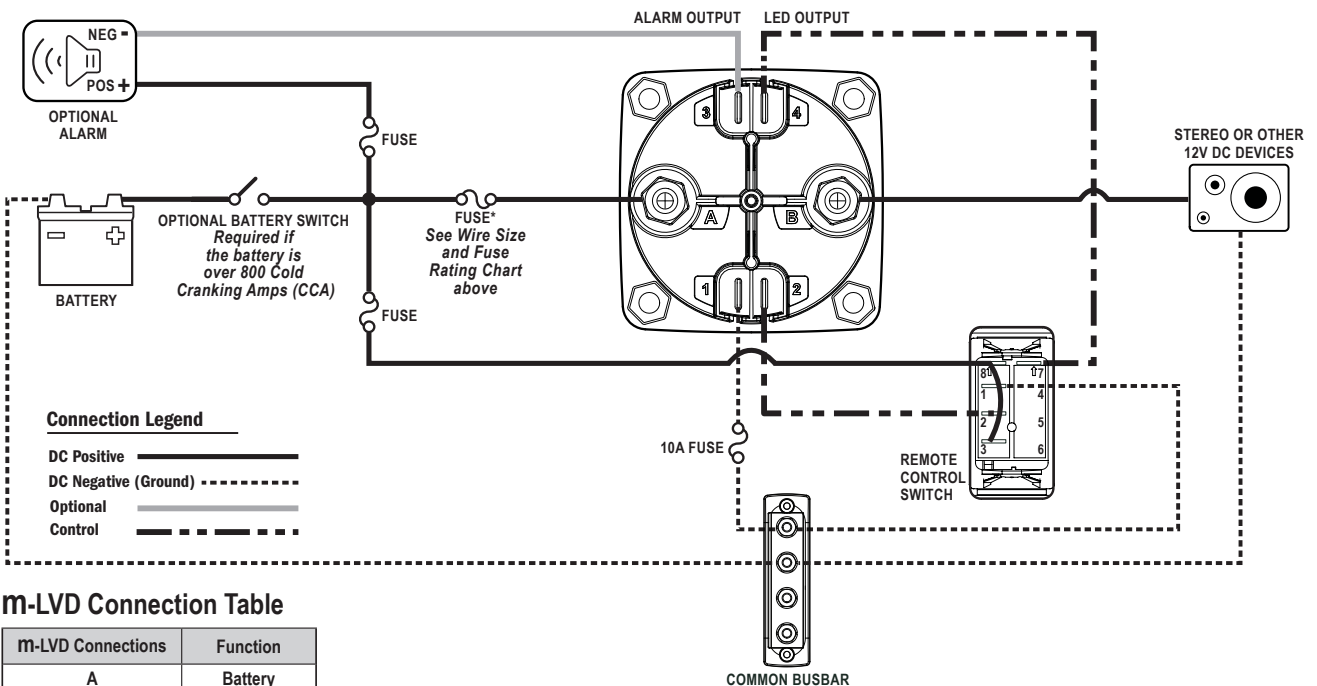
* Larger wire sizes may be required to minimize voltage drop in long wire runs. For more information please use the Circuit Wizard at www.circuitwizard.blueseas.com.

m-LVD Normal Operation Status Chart

m-LVD Normal Operation Status Chart

LED	Alarm	Relay	Status
OFF Solid	OFF	Closed	Connected
ON Solid	ON	Closed	Low Voltage Warning
Double Flash	OFF	Open	Disconnected

Installation Diagram



m-LVD Connection Table

m-LVD Connections	Function
A	Battery
B	Load
1	Ground
2	Remote Switch
3	Alarm Output
4	LED Output