

**SafetyHub 250**  
**Fuse Block with Remote Battery Switch**  
PN 7727 / PN 7727B

PN 7727 includes a Remote Control Contura Switch, two connector plugs and an Engine Circuit Link Bus

The SafetyHub 250 combines an ignition protected fuse block with a remote battery switch and integrated connecting plugs. It is safe for use on gasoline powered boats, reduces connecting wires, and consolidates up to seven fused circuits. The SafetyHub 250 provides battery control from a remote location and a local switch for emergency shutdown or servicing.



- ✓ Mount in a dry location.
- ✓ Disconnect all battery connections before beginning the installation.
- ✓ Blue Sea Systems strongly recommends that a competent electrical professional perform the installation of this product.
- ✓ Do not switch the SafetyHub to OFF while the engine is running. Damage to the alternator will result.

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

Blue Sea Systems Inc.  
425 Sequoia Drive  
Bellingham, WA 98226 USA

p 360.738.8230  
f 360.734.4195  
conductor@blueseasystems.com  
www.blueseasystems.com

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## Operating Instructions

The SafetyHub 250 uses a SPDT ON-ON Remote Control Switch for control from a remote location. The Remote Control Switch should be mounted in a convenient location for quick access. It incorporates a lockout slide to reduce the risk of accidental switching.

**CAUTION** Do not switch the Remote Control Switch to OFF while the engine is running!

ACTION	OPERATION	LED INDICATION
To switch the battery bank and high-amperage circuits <b>ON</b>	Depress the top part of the Remote Control Switch actuator.	LEDs on switch and block illuminate, indicating that switched circuits are <b>ON</b> .
To switch the battery bank and high-amperage circuits <b>OFF</b>	Depress the bottom part of the Remote Control Switch actuator.	LEDs on switch and block do not illuminate, indicating that switched circuits are <b>OFF</b> .

### Unswitched Fused Circuits

Fused circuits A, B, C, and D are always on 24-hour, (non-switched), regardless of the Remote Control Switch and manual override switch states (see Illustration 1.2 - System Diagram on reverse side).

### Fuses

Unlatch the two yellow tabs on the fuse cover to access fuses.

The ATO®/ATC® Fuse Block of the SafetyHub 250 is used for 24-hour (non-switched) circuits. The total continuous amperage of this block must not exceed 50A.

The AMI®/MIDI® Fuse Block of the SafetyHub 250 is used for the switched circuits. The total continuous amperage of this block must not exceed 240A.

### Engine Link Bus

Use the Engine Link Bus in place of a AMI®/MIDI® fuse for a switched engine starting circuit. (See illustration 1.2 on reverse side.)

### Indicator LED

The SafetyHub LED will illuminate when the battery switch and high-amp switched circuits are **ON**.

## Specifications

Amperage Maximum Operating (combined)	(see table below)
Nominal Operating Voltage	12V DC
Minimum Input Cable Size to Meet Ratings	4/0 AWG (120 mm <sup>2</sup> )
Recommended Ring Terminal	M8 (5/16")
Stud Size	M8 x 1.25
Stud Torque	15 ft-lb (20.3 N-m)

### Internal Battery Switch

Continuous Amperage Rating	240A
Cranking Rating: 10 sec.	1,000A

### AMI®/MIDI® Fuse Block

Amperage Maximum Operating (per block)	240A†
Amperage Maximum Operating (per circuit)	170A†
Fuse Amperages Available	30A–200A
Minimum Cable Size to Meet Ratings	2/0 AWG (70 mm <sup>2</sup> )
Screw Size	M5 x .8 x 10
Screw Torque	27 in-lb (3.0 N-m)

### ATO®/ATC® Fuse Block

Amperage Maximum Operating (per block)	50A†
Amperage Maximum Operating (per circuit)	20A†
Fuse Amperages Available	1A–20A

### Regulatory

C€ marked

Meets ISO 8846 ignition protection, and SAE J1171 external ignition protection requirements.

### Input Wire Size and Current Derating Table

AWG Wire Size	Metric Wire Size	Amperage Maximum Operating (combined)
4/0 AWG	120 mm <sup>2</sup>	280A
2/0 AWG	70 mm <sup>2</sup>	240A
1 AWG	50 mm <sup>2</sup>	180A
4 AWG	25 mm <sup>2</sup>	125A

† Ratings are dependent on input cable sized for appropriate amperages.

### Remote Control Switch

Contura Control Switch	SPDT ON-ON
Seals	Internal & External Gasket Panel Seal
Operating Temperature Range	-40°C to 85°C
Mounting Cut-out	1.450" x 0.830" (36.83 mm x 21.08 mm)
LED Rating	100,000 hours 1/2 life

### Regulatory

Meets ISO 8846 ignition protection and UL 1500 external ignition protection requirements IP67–Protected against immersion up to 1 meter for 30 minutes





## Operating Instructions (continued)

**The manual control override knob overrides the Remote Control Switch and provides:**

- An added level of safety that allows manual ON-OFF control with or without power
- LOCK OFF position for servicing the electrical system or to disconnect the battery bank and high-amperage circuits in an emergency

### Manual Control Override Operations

Battery bank and high-amp switched circuits 1,2, and 3 only:

ACTION	OPERATION	
To switch the SafetyHub 250 ON <i>See Note</i>	Turn manual control knob to the <b>ON</b> position and push button until latched.	
To switch the SafetyHub 250 OFF	Rotate manual control knob to the <b>OFF</b> (red) position (switch contacts open).	
To switch the SafetyHub 250 back to READY	Rotate manual control knob back to the <b>ON</b> position.	
To prevent remote operation of the SafetyHub 250 for SERVICE LOCKOUT	Rotate manual control knob to the <b>OFF</b> (red) position.	

*Note: If either the manual control knob or the Remote Control Switch is in the OFF position, the SafetyHub 250's internal battery switch and high-amp switched circuits will be off.*

# Installation Instructions

## Mounting

Install the SafetyHub in a readily accessible location as close as possible to the battery. **Mount in a dry and protected location.** Avoid mounting directly above vented lead acid batteries so that the SafetyHub is not exposed to corrosive gasses from the batteries.

Where possible, mount the SafetyHub in a vertical orientation. (see illustration 1.1 below)

For help selecting the appropriate wire size and circuit protection rating, go to [www.circuitwizard.bluesea.com](http://www.circuitwizard.bluesea.com)

## High Current Input / Remote Battery Switch Connection

Connect the positive battery terminal to the input stud on the SafetyHub. Torque the connection to 15 ft-lb.

## High-Amperage Switched Fuse Circuit Connections

To connect high amperage loads such as an engine starting circuit, distribution panel, or windlass, use the numbered high amperage studs.

**CAUTION** Do not switch the Remote Control Switch to OFF while the engine is running!

## Unswitched Fuse Circuit Connections

The fuse connections labeled with letters are designed to be used for circuits that are always on. PN 7727 includes a wire harness to connect to the ATO®/ATC® fuse connector plug receiver.

## Control Circuit Connections (wires contained in the wire harness)

**NOTE:** The SafetyHub is designed to be controlled by the Remote Control Switch. Use minimum 18 AWG (1.5mm<sup>2</sup>) wire for the control circuit.

## Remote Control Switch Dimensions

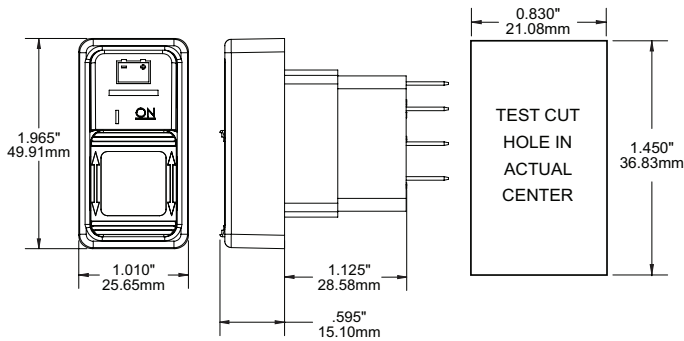
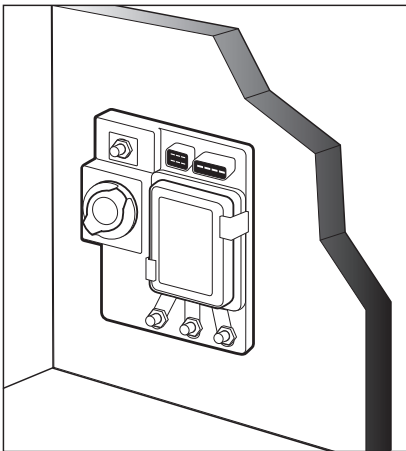


Illustration 1.1 - Mounting Orientation



Mount the SafetyHub 250 vertically as shown in illustration, and in a dry and protected location.

## Engine Link Bus (included)

**Note:** Wires used for engine starting do not require circuit protection. If you choose not to fuse the engine starting circuit, use the PN 7732 Engine Circuit Link Bus (included) instead of a MIDI®/AMI® fuse. Do not use this link for any other purpose.

# Installation Instructions (continued)

## PIN OUT Table

Connector Pin	Wire Insulation Color	Circuit Function
1	Black	External negative
2	N/A	No connection
3	Yellow	LED controlled negative
4	Red	Switch power source
5	Orange	Control signal
6	N/A	No connection

Illustration 1.2 - System Diagram

