

## SMS Surface Mount System

PN 3113 / PN 3116 / PN 3117 / PN 3118 / PN 3119 / PN 3120

Meets ABYC E11 when used with an ELCI Main circuit breaker and mounted within 10 feet of the shore power inlet



The Surface Mount System panel enclosure should be installed by a certified marine electrician.



Hazardous voltage. Improper handling can cause death or serious injury. Turn off any shore sources and disconnect shore cord(s). Lock out other AC power sources before beginning electrical installation.

- Models available with ELCI Main circuit breakers for 120V 30A, 120V 50A, and 120/240V 50A
- Blank apertures for custom breaker loading
- Glass filled polycarbonate base
- Clear cover allows easy view of circuit breaker status
- Overlapping cover for strength and increased gasket protection
- Oversized, formed in place seamless PUR gasket
- Easily removable stainless steel hinge pin for unobstructed installation
- Stainless steel latch secures cover without penetrating the enclosure
- Blank circuit positions accommodate Carling Technologies™ A and C Series Flat or Raised Rocker and ELCI Main circuit breakers
- Stainless steel mounting hardware included
- Includes waterproof glands (3116, 3117, 3118, 3119, 3120)
- LED lights for back lighting and ON indication (3116, 3117, 3118, 3119, 3120)

**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.

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980009910 Rev.003

## Specifications

### Box Specifications

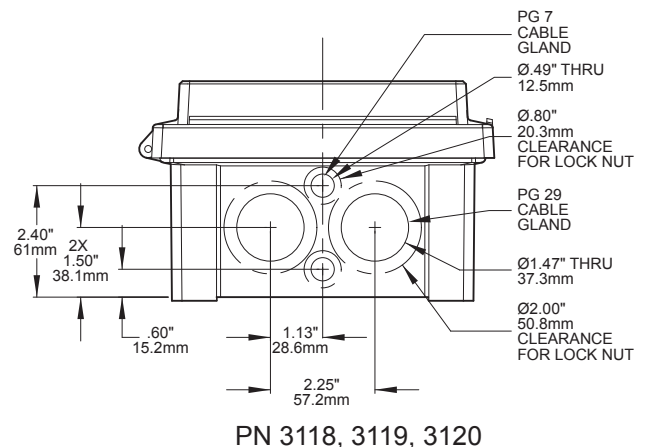
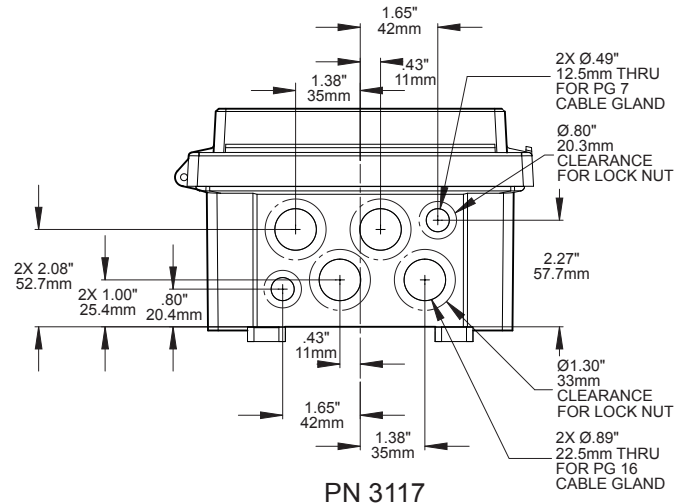
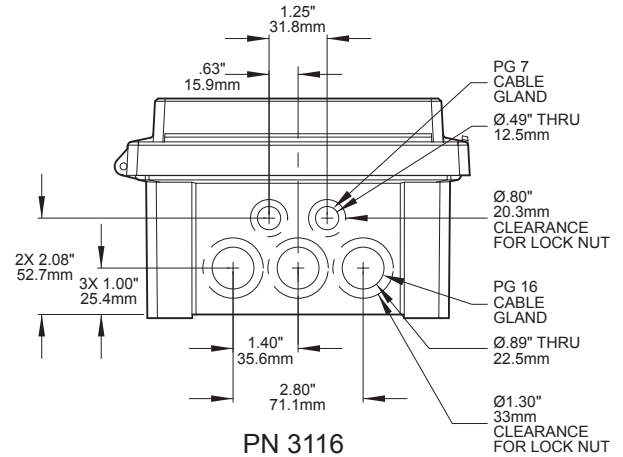
Temperature Range -40°C to +85°C  
Cover Screws and Hardware 10-32, stainless steel  
Mounting Hardware ¼" diameter, #12, (6 mm)

### Regulatory

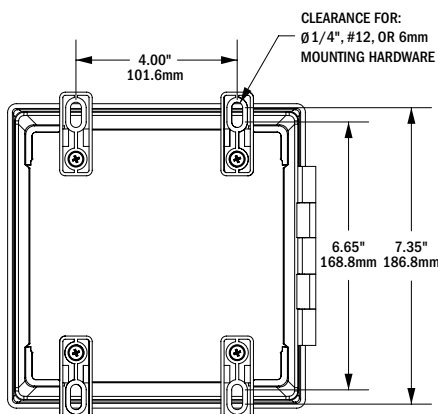
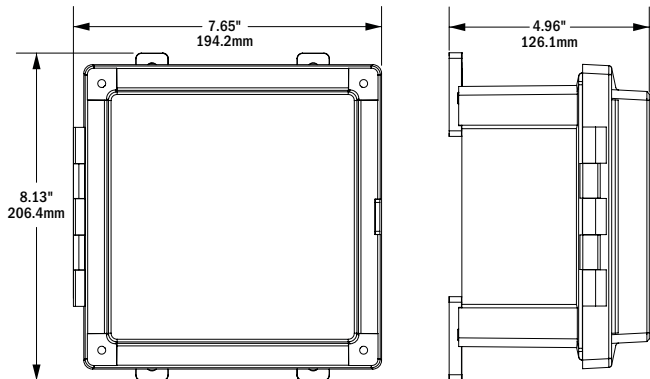
IP66—Protected against powerful water jets  
Flammability rating—Per UL 508  
Toxicity— Non-toxic, halogen free, RoHS compliant  
UL Listed and NEMA 4X rated, NEMA Type 4, 4X, 6, 6P, 12, and 13

Specifications subject to change. See [www.blueseasystems.com](http://www.blueseasystems.com) for additional information and specifications

## Drill Guides



## Enclosure Dimensions



# Installation

## Required Tools

- Hole Saw, drill or step drill suitable for cable glands (see information on back).
- Drill motor suitable for above
- Screw Drivers
- Knife
- Measuring device
- Wire cutters and Crimpers

## Required Parts




- Suitable ring terminals for circuit breaker and grounding connections
- In some installations it may be desirable to attach a mounting substrate to the hull with adhesive or epoxy instead of screwing directly to the hull.

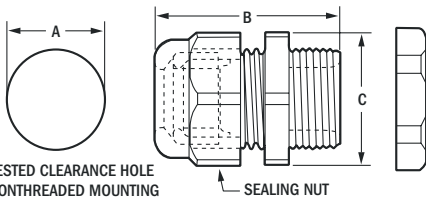
## Installing the Enclosure Panel

- The Surface Mount System Enclosure Panel should be installed by a certified marine electrician.
- Plan the installation by determining where the enclosure will be mounted
  - o Per ABYC, the enclosure cannot be mounted further than the reach of a 10' cable from the AC power inlet
  - o Consider the needed clearances to access the enclosure and open the sealed cover
  - o Allow for a wire drip loop outside the enclosure and sufficient service loop for wires inside the enclosure
- Determine which included glands are needed. It is recommended that glands be installed on the bottom of the enclosure to maintain the waterproof integrity of the sealed enclosure.
- Smaller glands may permit convenient installation of a galvanic isolator if used in the systems. In this case the line safety ground wire would exit the enclosure to the galvanic isolator and the boat side of the galvanic isolator would return to the enclosure to join the internal connections and the ground from the load side power cable.
- Try all cable glands on the wire for correct fit before proceeding.
- Flat cables can be manipulated to a nearly round shape to fit and seal better in the gland.
- Large round cables with #6 Wire may be a very tight fit in the cable gland. Dismantle the gland and use wire lubricant to ease cable through the rubber seal if necessary.
- When drilling holes for cable glands, be sure to allow sufficient clearance inside for the nut. The best location is as close to the back of the enclosure as possible and still allow for the nut.

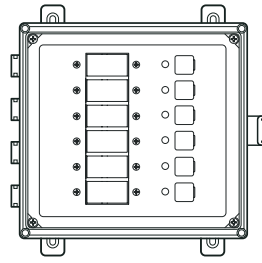
# Gland Specifications

## GLAND SPECIFICATIONS

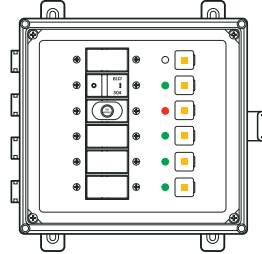
	WIRE SIZE	CABLE DIA. RANGE		DIMENSIONS
		Min. Dia.	Max. Dia.	
 Small 3124 (PG7)	#14 to #10 Single Wire	.114 in 2.9 mm	.250 in 6.4 mm	A. Clearance Hole .492 in (12.5 mm) B. Max. O. A. Length 1.17 in (29.7 mm) C. Wrenching Flats .59 in (15.0 mm) Reference diagram below
 Medium 3125 (PG16)	#14 to #10 Cable	.230 in 5.8 mm	.530 in 13.9 mm	A. Clearance Hole .886 in (22.5 mm) B. Max. O. A. Length 1.66 in (42.2 mm) C. Wrenching Flats 1.05 in (26.7 mm) Reference diagram below
 Large 3126 (PG29)	#6 Cable	.590 in 15.0 mm	.990 in 25.4 mm	A. Clearance Hole 1.470 in (37.3 mm) B. Max. O. A. Length 2.23 in (56.6 mm) C. Wrenching Flats 1.66 in (42.2 mm) Reference diagram below



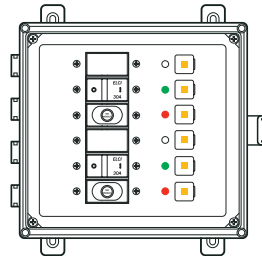
# Components Included



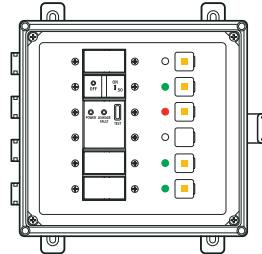
- 3113 SMS Panel Enclosure Includes:**  
**6 blank circuit positions**  
 6 LED plugs  
 12 circuit breaker mounting screws  
 30 Basic DC labels, 4205  
 30 Basic AC labels, 4206  
 Panel Voltage ID labels  
 12V DC, 24V DC  
 120V AC, 230V AC,  
 120/240V AC



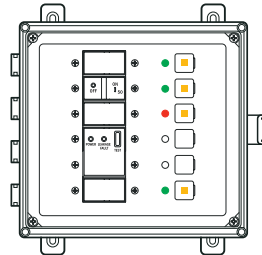
- 3116 SMS Panel Enclosure Includes:**  
**ELCI Main + 3 blank circuit positions**  
 1 ELCI Main 120V 30A, 30mA, 3102  
 2 small wire glands, 3124  
 3 medium wire glands, 3125  
 4 green "ON" indicating 120V AC LEDs, 8034  
 1 red "Reverse Polarity" indicating 120V AC LED, 8066  
 1 LED plug  
 12 circuit breaker mounting screws  
 6 Backlit circuit label positions  
 1 AC Main label, 1 Reverse Polarity label, 1 ELCI label  
 30 Basic AC labels, 4206  
 Panel Voltage ID label-120V AC



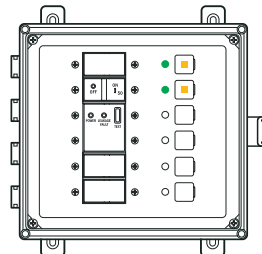
- 3117 SMS Panel Enclosure Includes:**  
**2 x 120V AC / 30A ELCI Main**  
 2 ELCI Main 120V 30A, 30mA, 3102  
 2 small wire glands, 3124  
 4 medium wire glands, 3125  
 2 green "ON" indicating 120V AC LEDs, 8034  
 2 red "Reverse Polarity" indicating 120V AC LEDs, 8066  
 2 LED plugs  
 12 circuit breaker mounting screws  
 6 Backlit circuit label positions  
 Source Selection Label Set (10 labels)  
 2 Reverse Polarity labels, 2 ELCI labels  
 Panel Voltage ID label-120V AC



- 3118 SMS Panel Enclosure Includes:**  
**ELCI Main + 2 blank circuit positions**  
 1 ELCI Main 120V 50A, 30mA, 3103  
 2 small wire glands, 3124  
 1 medium wire gland, 3125  
 2 large wire glands, 3126  
 3 green "ON" indicating 120V AC LEDs, 8034  
 1 red "Reverse Polarity" indicating 120V AC LED, 8066  
 2 LED plugs  
 12 circuit breaker mounting screws  
 5 Backlit circuit label positions  
 1 AC Main label, 1 Reverse Polarity label, 1 ELCI label  
 30 Basic AC labels, 4206  
 Panel Voltage ID label-120V AC



- 3119 SMS Panel Enclosure Includes:**  
**ELCI Main + 1 blank circuit position**  
 1 ELCI Main 120/240V, 50A, 30mA, 3104  
 2 small wire glands, 3124  
 1 medium wire gland, 3125  
 2 large wire glands, 3126  
 3 green "ON" indicating 120V AC LEDs, 8034  
 1 red "Reverse Polarity" indicating 120V AC LED, 8066  
 3 LED plugs  
 12 circuit breaker mounting screws  
 4 Backlit circuit label positions  
 1 AC Main label, 1 Reverse Polarity label, 1 ELCI label  
 30 Basic AC labels, 4206  
 Panel Voltage ID label-120V/240V AC



- 3120 SMS Panel Enclosure Includes:**  
**ELCI Main for Isolation Transformer**  
 1 ELCI Main 240V, 50A, 30mA, 3093  
 2 small wire glands, 3124  
 1 medium wire gland, 3125  
 2 large wire glands, 3126  
 2 green "ON" indicating 240V AC LEDs, 6806  
 4 LED plugs  
 12 circuit breaker mounting screws  
 2 backlit circuit label positions  
 1 AC Main label, 1 ELCI label,  
 Panel Voltage ID Label- 240V AC

- KEY**
- Red circuit status indicator LED
  - Green circuit status indicator LED
  - LED plug
  - Backlit circuit label position