

# LEWMAR

## Portlight and Fixedlight Fitting Instructions

(To be retained in owners manual for future reference)

Lewmar Portlights and Fixedlights are for use on the deck and coachroof of yachts in accordance with **ISO/DIS 12216.2(E), DESIGN CAT. "A", AREAS II, III and IV** for Portlights and **AREAS I, II, III and IV** for Fixedlights. Modification of the product will invalidate the compliance with this directive.

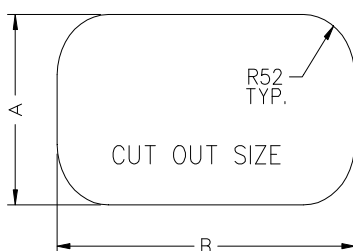
### Fitting Instructions

Lewmar Portlight and Fixedlights should be fitted to a flat surface with a maximum tolerance of +/-1mm extending 12mm beyond the planned cutout and a deck / hull thickness if 6-34mm. Hold the inner frame on the inside of the intended position, ensure that a flat bearing area exists over the surface of the inner frame, leaving sufficient clearance for the trim to be fitted, (see sketch of typical cross section).

With a pencil mark out the cutout to the recommended dimension shown.

**The lower edge of product fitted in the hull AREA I should be a minimum of 600mm above the floatation plane in the crafts fully loaded ready-for-use condition, the boat being at rest in the upright condition.**

**Where craft are intended to be operated on 'OCEAN' or 'OFFSHORE' voyages (as defined by ISO/DIS 12216.2(E)), no part of the plate or its framing is to extend beyond the outer surface of the hull or of a built-in-fairing being an integral part of the hull.**



Size No.	Product Size	Dim A		Dim B	
		mm	ins	mm	ins
0	4x10	156	6 $\frac{1}{8}$	303	12
1	5x12	171	6 $\frac{3}{4}$	347	13 $\frac{5}{8}$
2	4x14	156	6 $\frac{1}{8}$	405	16
3	5x15	171	6 $\frac{3}{4}$	429	16 $\frac{3}{4}$
4	5x23	171	6 $\frac{3}{4}$	627	24 $\frac{1}{2}$
5	7x15	244	9 $\frac{5}{8}$	429	16 $\frac{7}{8}$
6	3x15	126	5	429	16 $\frac{7}{8}$

**It is essential that the outer frame is placed squarely on the deck opening. When fitting a number of portlights it is advisable to prepare a template.**

Cut out deck along pencil line using a suitable saw.

Where the deck is of composite construction, it is recommended that the exposed laminate be sealed with the appropriate material prior to fitting the product. Openings cut in metal decks should have all burrs and sharp edges removed.

**Portlights and Fixedlights should not be considered as stiffening members and it is recommended that the deck be adequately stiffened to prevent distortion during heavy weather.**

Measure thickness of skin (and inner trim if fitted).

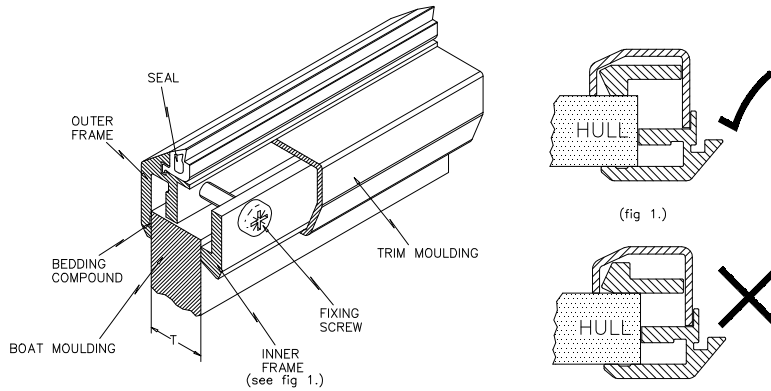
Re-check the frame on aperture and then apply bedding compound to the channel in outer frame. Bedding compound must have good adhesive qualities (eg. silicone sealant), be a suitable grade for marine sealing applications, of 3mm minimum thickness and compressible to allow the outer frame to be pulled down in contact with the deck by the securing screws.

Position the outer frame unit, and with the inner frame joint on the lower edge, bolt firmly in place, working from the centre out to the ends up to a maximum torque of 2.8Nm (25 in.lb). Clean off surplus sealant.

#### **Caution:**

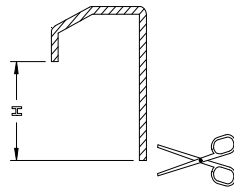
**M5 screws supplied are for skin thickness 17-22mm. It is important that you use the correct length of screw otherwise you will damage the product. Check skin thickness and select correct length of screw from table.**

**Please Turn Over**



**Typical installation cross section**

Portlight shown



**Trim cross section**

Adjust the trim moulding to the calculated length H by cutting the inner edge only to suit, using a fine toothed saw or tin snips, such that when fitted the trim clips to the inner frame. Snap the trim moulding into final position making sure that it clips onto the inner frame and is fully home all around its perimeter. It is a simple matter to remove the trim by prising it away on the outside edge, refit by snapping back onto the inner frame.

For portlight installations, check for correct operation of the window, closing / locking operation, even pressure on the seal etc. Don't forget to leave the flyscreen on board.

Dimension T	Screw	Order No.	Dimension H
6 – 9mm	use M5x12	19899000	H=T-12mm Where: H=Trim length T=boat moulding measurement
8 – 13mm	use M5x16	19899100	
12 – 17mm	use M5x20	19899200	
17 – 22mm	use M5x25	19899300	
22 – 27mm	use M5x30	19899400	
27 – 32mm	use M5x35	19899500	
32 – 34mm	use M5x40	19899600	

**Alternative screw length table**

**User Notes**

Flyscreens, when fitted are located between the outer frame and seal, enabling the portlight to be closed with the flyscreen in place. See the separate sheet for detailed instructions.

If a deadlight is required, we suggest that a plywood, aluminium or fibreglass plate be made to cover the portlight (notched to clear the hinges and handles on opening versions). The portlight trim moulding can then be removed allowing the inner frame to be drilled and tapped to facilitate bolting the deadlight in position.

Always wash the Portlight or Fixedlight with soap, water and a soft cloth.

***Never use abrasive or solvent cleaners on the window, as this may at a later date damage the acrylic.***

**Please Turn Over**

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## NEW STANDARD PORTLIGHT SEAL REPLACEMENT INSTRUCTIONS

### 1) Check the seal

Check that the seal you have received is the correct size for the portlight to which it is to be fitted (N.B the fitted seal is slightly stretched at the corners to prevent it wrinkling on the inside edge).

### 2) Remove the old seal

The seal is held in place by a hook in the rubber which fits into a cavity in the aluminium (see Fig 1). In addition silicone sealant has been applied to the cavity to aid assembly and help prevent leaks.

### 3) Clean the cavity in the aluminium

This may be done using a plastic scraper, extra attention should be given to the corners. Solvents should not be used to remove the old silicone sealant as it may attack or otherwise damage the anodised aluminium. It will also result in damage or increased weathering to the acrylic should it come into contact with the window.

### 4) Dry fit the seal

When fitted to the frame the join in the rubber seal and the air release holes should be positioned relative to the hinge and handle catches as shown in Figure 2.

Using your fingers, push the seal home starting from the middle of each edge and working towards the corners. If careful it is possible to feel the hook engage in the cavity. Push the seal home in the following order

- 1) hinge edge
- 2) handle edge (or for the Size 5 with handles on three edges, the edge opposite the hinge)
- 3) the remaining edges

If the seal will not locate at one point check that all the old sealant has been removed.

There should be an equal amount of seal left to be fitted to each corner. The seal will require stretching slightly to fit around the corners. This may be done using a "pusher" or "roller" tool, Figure 3 (NB excessive use of a roller tool with too sharp an edge may damage the surface of the seal)

When the seal is in place inspect closely from the outside with the window open and closed and from the inside. If an area of the seal is uneven it may indicate it is not properly installed.

Remove the seal

### 5) Applies sealant

Apply a bead of silicone sealant all the way around the inside of the cavity. Fit the seal as above, close the portlight and leave to dry for 24 hours.

When the silicone sealant has dried the portlight may be opened and a very thin coating of silicone grease applied to the hinge edge of the seal where it contacts the window. This provides some lubrication where the window slides across the seal as it closes.

For Figures see drawing (B5967-B) on reverse

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B5967-B

## REPLACING NEW STANDARD PORTLIGHT SEALS

FIGURE 1

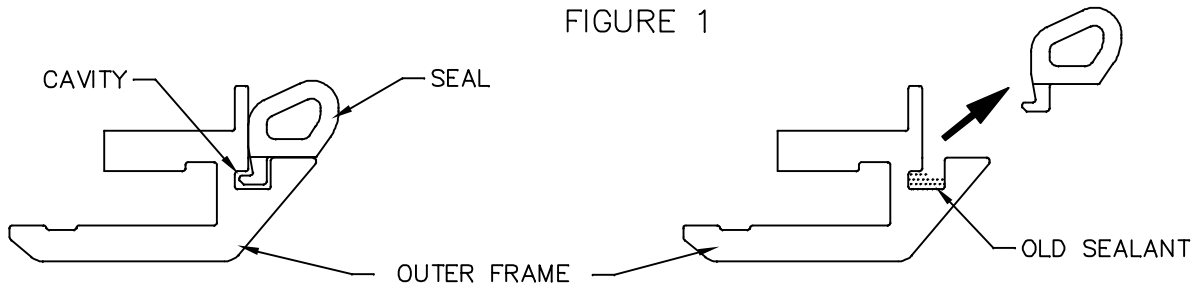


FIGURE 2

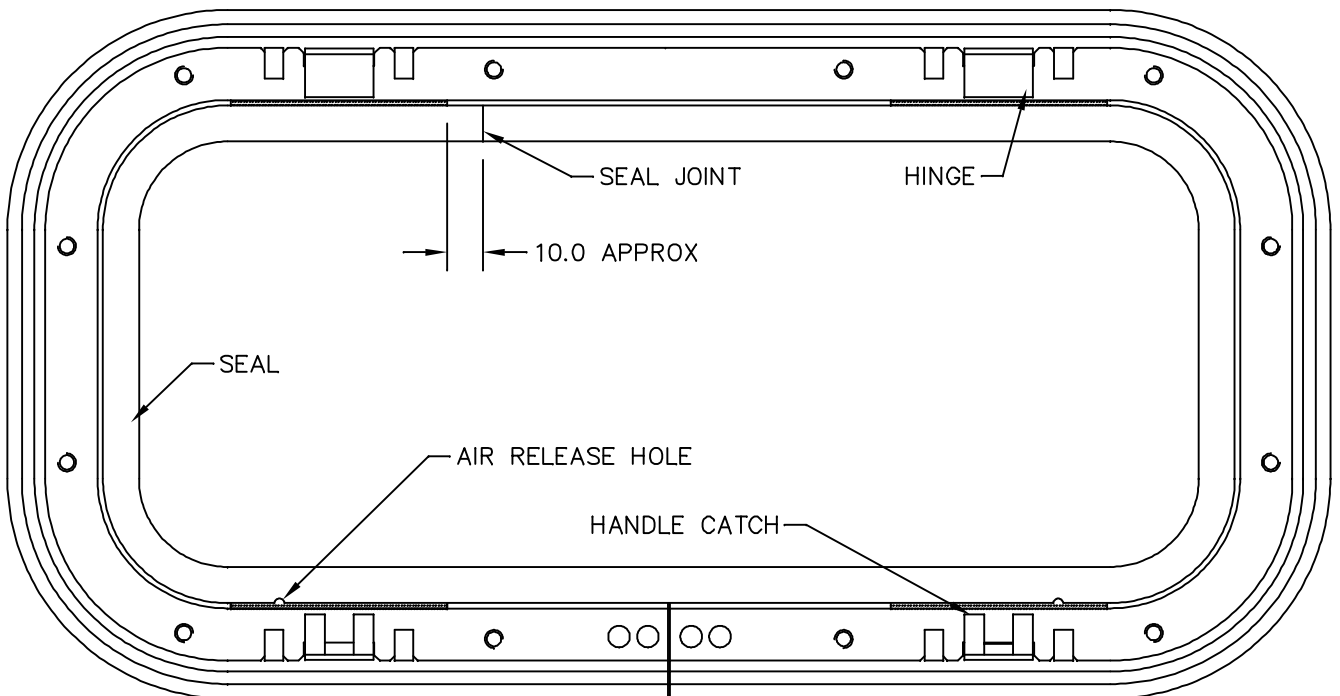
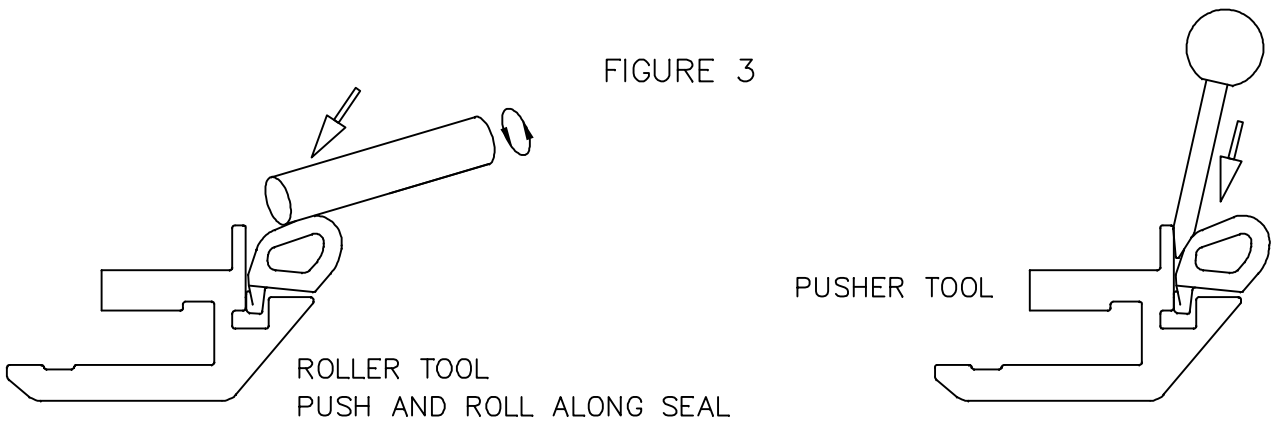


FIGURE 3



FOR TEXT SEE REVERSE (B5967-A)

REPLACEMENT SEALS

ISSUE

1

DATE

20.5.98