



1. Before installation, please check the following :

- Check that the porthole can be fitted in the planned position. The maximum tolerance is +/- 1 mm.
- Check that you don't damage anything in this area : Superstructure, electric cables, lamps, deck equipment and that it can be opened freely.

2. This port light has to be fitted from outside, towards the inside of the boat, hinges and locking handles facing inside. Cut-out dimensions are given in table on main page (as CxD, the corner radius r.) Mark the cut-out with a pencil and check it with inside flange where cut out marked as shown on above diagram. If every thing seems as planned you may now cut the hull following the marked line.

3. Place the porthole in the hole cut and check if everything is all right before applying sealant. Please check the size of the tightening screws with the table below. You may change the screws since they are presented as standard size.

Deck thickness (mm)	3 - 6	6 - 10	10 - 14	14 - 18	18 - 22	22 - 27	28 - 32	32 - 36
Screw size	M5 x 12	M5 x 16	M5 x 20	M5 x 25	M5 x 30	M5 x 35	M5 x 40	M5 x 45

4. For hull depth 4-20 mm, There is no need for ABS frame. If ABS finishing frame to be used ( $t=20 \rightarrow 40$  mm), you may cut short this ABS frame to adjust it between the insidesurface and the porthole inner flange. The extension depth of the ABS frame  $w$ , should be 8 mm less than hull thickness  $t$ . ( $w=t-8$  mm) See diagram above.

5. Before installation, clear away dust and clean the surface of the deck where you want to fit the porthole. Apply sealant to the inner surface of the frame. See diagram above. Fix the porthole with screw type M5. Surplus sealant must be taken off after drying

6. Check the porthole operating well, when opening, closing and locking.

7. Do not force to close the port hole unless the handles are totally in open position, otherwise you may damage the parts of the plastic handle.

8. This port-hole needs low maintenance. It must be cleaned with clean water. Do not use abrasive cleaners which may damage the appearance of the alloy or of the glass.