



I-2

Installation Instructions

Upon receiving your kit, open the package and check all items are matched on the components list.

Ensure you read and understand all of the steps listed here before you make a start on your installation.

1. Using the full size penetration template, mark the location on the vessel where you intend the grille to be installed. **You must ensure that you have enough room around your template for the width of the fixing flange. i.e.: with a standard fixing flange of 40mm, you must have 40mm on each side of the template to accommodate the fixing flange.**



2. Prior to cutting or drilling anything, ensure that no services or obstructions exist on the inside of your chosen location. If installing mirror units mark and check both port and starboard sides before proceeding any further.
3. Once you have ensured the location is safe, suitable and clear, cut out the panel and clean away all edges.
4. Once complete, use a vacuum cleaner to clear away all debris. This

will be your last chance to vacuum any construction swarf prior to the grille being installed. You may not be able to easily access the inside after the grille is installed.

5. Position the grille into the vessel ensuring that the orientation is correct. To check your placement, the fins/vanes in the internal part of the grille should face aft and run vertically. The drain slots should be outboard and at the base.

6. (You may need an assistant for this task).

NB: You need to ensure firm pressure on the grille to prevent any movement & to prevent the tape seal being dislodged when drilling.

You must now drill (using the supplied drill bit and Lanotech lubricant) a hole on either top corner of the grille. Next drill the hole diagonally opposite this first hole. Use these holes as your reference marks for the purpose of keeping the grille accurately located.

NB: The size of this drill suits the tap. If you lose or break this drill bit please ensure that all holes remain M5 size.

7. Using the Lanotech lubricant and the spiral tap, now tap all holes to M6 size. This is fastest using a reversing battery drill on a very low rpm and very low torque. Do not use high torque or you will risk breaking the tap. Slowly tap each hole, reversing out to clear swarf each time the torque clutch cuts drive.

8. Now apply Loctite sealant to two fasteners, and install one to each corner location that you have just drilled and tapped. Now secure the fasteners firmly using the drive bit supplied.

NB: If the vessel is to be painted, it would be best to leave the grille out until after painting is completed. In this case complete all drilling and tapping and test fit all fasteners only. Do not apply sealant and complete the installation.

9. You are now ready to install the grille. Before proceeding, check you have the following close at hand:

- Fasteners
- Drive bit
- Battery drill
- Mineral Turps (not thinners) and clean rag
- Thread seal compound
- Bog wiping card.
- Having positioned and checked that the grille is sitting square

and correctly proceed to drill all remaining fastener holes using the M5 drill bit and Lanotec lubricant.

10. Apply Loctite sealant supplied to fasteners and loosely position all the metal threads onto their holes before tightening nay. this will allow any minute adjustment you may require to avoid cross threading.
11. Now that all fasteners are in position, set your battery drill to minimum torque and secure all fasteners using a cross stepping technique. I.e.: Secure one fastener, move to the fastener diagonally opposite this one and secure that one, and so on. The grille does not need to be secured too tightly. Doing so will distort the fixing flange and/or dislodge all of the sealant. You may have noticed the isolation bushes protrude through the fixing flange a few millimeters. This will allow the seal to do its job.
12. Now apply a single run of masking tape around the outer perimeter of the grille on the hull surface leaving an even 2mm all round the fixing flange. This will allow an even seal around the grille flange. You will need to clear away the excess sealant using the bog wiping card. Now wipe away any sealant smear on the grille and remove the masking tape from the surface. NB: Do not leave the tape with the intention of removing later as this may damage the seal.

Congratulations, you have now completed your grille installation.