



*Marine  
AirFlow  
International*

## 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. NB: Your template will note whether your grille has a standard fixing flange of 40mm or a reduced fixing flange of 25mm. **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. Position the grille into the vessel ensuring that the orientation is correct. Your template will be marked, as will your grille. 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.

NB: The isolation bushes have been purposely pre fitted to the grille flange. This will assist in protecting the surfaces and also help with the hole position accuracy.

5. (You may need an assistant for this task).  
With the grille in position, drill two holes (using the 5mm drill bit supplied) at opposite locations on the grille flange. Now remove the grille and using the M6 spiral tap supplied, and using low torque on your drill, tap these two holes. Now reposition the grille and install two fasteners to temporarily locate the grille in position. This will ensure complete accuracy of all remaining holes to be drilled by preventing the grille from moving.
6. With the grille temporarily secured into position, continue to drill (using 5mm bit supplied) all remaining holes. Once complete remove grille and position out of the way so as to prevent swarf entering the grille face.
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. Once complete, use a vacuum cleaner and clear away all swarf inside and out of the boat. You may not easily be able to access the inside after the grille is installed. Use metholated spirits or similar to wipe away any remaining lanotech.
8. Now reposition the grille and loose fit all fasteners to ensure all threads and location are good. **At this stage no sealant should yet be applied as you are test fitting only.** If the vessel is yet to be painted, do not proceed with step 9.
9. While the grille is loosely secured into position, place a single run of 25mm masking tape on the vessel surface around the perimeter of the fixing flange. You should allow about 2mm of clearance from the flange to the tape to allow the tape to assist you in forming a clean edge with the sealant.
10. Once you have ensured a good accurate fit up, remove the grille once again. **NB: If the vessel is to be painted, it would be best to leave the grille out until after painting is completed.**
11. You are now ready to install the grille. Before proceeding, check you have the following close at hand:
  - Fasteners

- Drive bit
- Battery drill
- Metho and clean rag
- Thread seal compound
- Bog wiping card.

Using the supplied sealant, apply a small bead of seal on the rear of the fixing flange, both sides of the tape seal. Ensure you use the specially cut nozzle. To use the nozzle correctly, position the cut out portion at the rear of your travel direction to produce a pinnacle shaped bead that will sit a little higher than the foam tape. **Once you apply the sealant you will have no time to waste so ensure you are ready to position the grille immediately.**

12. Now position the grille into the vessel penetration. Once again, ensure you have the correct grille (if you are installing mirror grilles) and that it is in the correct rotation. Fins/Vanes must be in the vertical position and face aft of the vessel and the drain slots must be outboard and at the base.
13. Apply thread sealant supplied to fasteners and loosely position all the metal threads into their holes before tightening any. This will allow any minute adjustment you may require to avoid cross threading.
14. 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.
15. Once you have ensured all fasteners are firm and even, 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.