

# MRXBOX-SIL2 & MRXBOX-FF2

## MRXBOX Silencer & First Fix Plenum Chamber Installation and Maintenance Manual



### 1.0 IMPORTANT SAFETY INFORMATION

- Ducting must be securely fixed with screws to the spigot to prevent access to live parts. Duct runs terminating close to the fan must be adequately protected by suitable guards.
- This appliance should not be used by children or persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning the safe use of the appliance by a person responsible for their safety. Children shall not play with the appliance. Cleaning and user maintenance shall not be carried out by children.

### 1.1 HAZARD SYMBOLS



#### REFER TO INSTRUCTION MANUAL

Read and understand the installation and maintenance manual before installing, operating or maintaining this product.

### 1.2 IMPORTANT INFORMATION

This manual contains important information on the safe and appropriate assembly, transport, commissioning, operation, maintenance, disassembly and simple troubleshooting of the product.

While the product has been manufactured according to the accepted rules of current technology, there is still a danger of personal injury or damage to equipment if the following general safety instructions and the warnings contained in these instructions are not complied with.

- **Read these instructions completely and thoroughly before working with the product.**
- **Keep these instructions in a location where they are accessible to all users at all times.**
- **Always include the operating instructions when you pass the product on to third parties.**

### 1.3 PERSONAL PROTECTIVE EQUIPMENT

The following minimum Personal Protective Equipment (PPE) is recommended when interacting with Nuaire product:

- **Protective Steel Toed Shoes** - when handling heavy objects.
- **Full Finger Gloves (Marigold PU800 or equivalent)** - when handling sheet metal components.
- **Semi Fingerless Gloves (Marigold PU3000 3DO or equivalent)** - when conducting light work on the unit requiring tactile dexterity.
- **Safety Glasses** - when conducting any cleaning/cutting operation or exchanging filters.
- **Reusable Half Mask Respirators** - when replacing filters which have been in contact with normal room or environmental air.

Nuaire would always recommend a site specific risk assessment by a competent person to determine if any additional PPE is required.

### 2.0 INTRODUCTION

Nuaire's First Fix and Acoustic Solution system is designed to not only significantly reduce noise but to improve the installation when wall or cupboard mounting the MRXBOX(AB)-ECO2 MVHR Units.

Offering a complete MVHR acoustic and first fix solution to overcome both noise and ease the installation of heat recovery units.

Nuaire's system addresses both duct and breakout noise; provides an aesthetically pleasing cupboard installation for the home occupant and reduces installation errors and time.

**Information shown refers to complete system, not all parts will be relevant if part of system is fitted.**

### 3.0 MECHANICAL INSTALLATION

**Installation must be carried out by competent personnel in accordance with the appropriate authority and conforming to all statutory governing regulations.**

No boarding should take place until after the full system installation has been completed.

Please note a clear working space is required around the installed MVHR unit to allow the cover to be removed and provide sufficient access for maintenance such as filter change.

Allow a minimum of 350mm in front of the MVHR unit for access.

The fan must be installed indoors, on a suitable wall away from direct sources of frost, heat and water spray or moisture generation.

For a vibration-free result the unit must be mounted to a solid wall.

For further installation information for the MVHR unit please refer to installation document supplied with the unit.

**Fig 1: Acoustic Solution and Ducting for Wall Mounted ECO2 MVHR Units**

**SECTION 1. First Fix Plenum Chamber (Code: MRXBOX-FF2)**

Rectangular spigots 204 x 60mm  
(2 each side of plenum).

4 Hanging brackets  
(2 each side of plenum).

Hanging brackets fix to the underside  
of the floor slab at first fix stage of  
the build.

Rectangular spigots 204 x 60mm  
(2 each side of plenum).

**SECTION 2. Silencer (Code: MRXBOX-SIL2)**

The box has four airflow chambers.

Wall mounting bracket  
(Only to be used to temporarily hang  
MRXBOX-SIL2 when being fitted in  
conjunction with MRXBOX-FF2  
Do not use if only fitting MRXBOX-SIL2  
to MVHR unit).

**SECTION 3. MVHR Unit (Code: MRXBOX(AB)-ECO2)**

Nuaire's ECO2 heat recovery system is designed  
for medium to large new build properties.

**SECTION 4. Angle Bracket (Code: 7713046)**

A cross brace should be fitted using  
M5 fixings. These are only to be used  
when installing both a MRXBOX-SIL2  
and MRXBOX-FF2.

**3.1 INSTALLATION (SEALING)**

**3.1.1 MRXBOX-FF2**

Fit rectangular spigots to required positions, the remaining cut outs should be covered by the 4 hanging brackets supplied.

All components should be fitted with self-tapping screws provided and sealed with silicone.

When fitting the spigots to the foam lined chamber of the plenum, the foam should be cut away in the openings where the spigots are to be fitted.

**If MRXBOX-SIL2 is not being used, spigots should be fitted with self-tapping screws provided and sealed with silicone.**

**3.1.2 MRXBOX-SIL2**

Remove 4 spigots from the MVHR unit and fit a length of self-adhesive seal around the perimeter of each cut-out covering the screw heads (Fig 2).

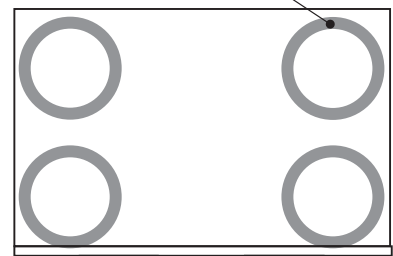
**If MRXBOX-FF2 is not being used, the spigots removed from the MVHR unit can be re-fitted to the top panel of MRXBOX-SIL2 using the same fixings and sealed with silicone.**

Otherwise fit the remaining length of self-adhesive seal to the top surface of the MRXBOX-SIL2 to form a sealed perimeter around each circular cut out (Fig 3).

Ensure all joints are mated neatly to prevent leakage.

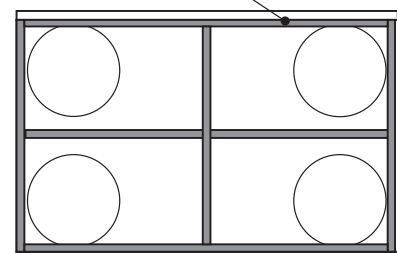
**Fig 2: MVHR Unit Viewed From Above**

Remove 4 x 125mm spigots from MRXBOX(AB)-ECO2 and fit a length of self-adhesive seal around the perimeter of each covering the screw heads.



**Fig 3: MRXBOX-SIL2 Viewed From Above**

Self-adhesive seal around top surfaces of the MRXBOX-SIL2 airflow chambers to form a sealed perimeter.



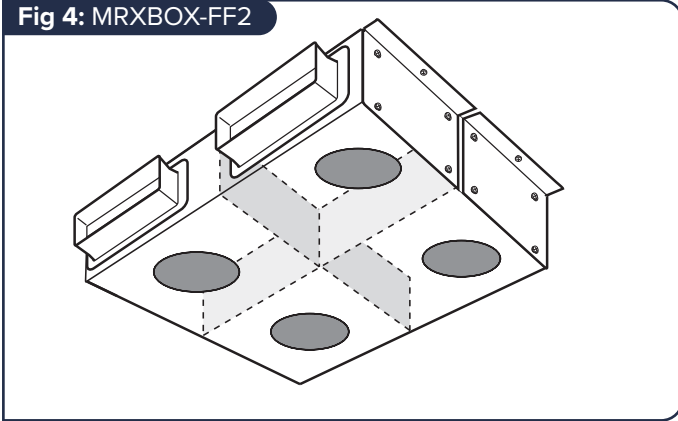
## 3.2 INSTALLATION (FIRST FIX)

### 3.2.1 MRXBOX-FF2

The First Fix plenum chamber should be fixed (fixings supplied by others) with the off-centre, circular cut-outs nearest to the wall the MVHR unit is to be installed on. A 30mm clearance between the wall and the rear face of the plenum chamber is required (Fig 1 and Fig 11).

The ceiling of the property will require an appropriate size cut out to allow the connection to be made when the secondary items are to be fitted.

Fig 4: MRXBOX-FF2



## 3.3 INSTALLATION

### 3.3.1 MRXBOX-SIL2

The unit is designed for mounting on a solid wall, a gypsum block or stud/plasterboard wall will not suffice. If fixing to a stud wall a piece of MDF at least 25mm thick should be solidly fixed behind the board, the MDF panel should ideally run from floor to ceiling but must be a minimum of 2m. The MDF panel should also extend width wise over a minimum of three studs with centres no more than 400mm, additional vertical supports may be required.

For more detailed information on how to mount the unit and structural requirements please refer to the I&M document supplied with the MVHR unit.

**Please note** that a clear working space is required around the installed MVHR unit to allow the cover to be removed and provide sufficient access for maintenance such as a filter change. Please allow a minimum of 350mm in front of the unit (continued overleaf).

**The below information regarding the angle brackets is only relevant when the installation includes both a MRXBOX-SIL2 and MRXBOX-FF2, if this is not the case the MVHR unit should be fitted using the standard installation instructions supplied with that product. If only fitting an MRXBOX-SIL2 this should then be sat on top of the MVHR unit and clamped in place as detailed later in this section.**

**If fitting in conjunction with a MRXBOX-AV2 follow the installation instructions with that product. A MRXBOX-AV2 cannot be used if fitting both a MRXBOX-SIL2 and MRXBOX-FF2.**

The wall mounting brackets and angle bracket (7713046) should now be fitted (fixings supplied by others) according to the installed position of the plenum and the measurements shown in Fig 12.

MRXBOX-SIL2 to be hung on the wall using mounting bracket supplied loose in the MVHR unit packaging, see below.

The MVHR unit can then be sat on the angle brackets and the cross brace should be fitted using the M5 fixings provided, once the unit is in position.

Raise the units using the adjustment feet provided until the MRXBOX-SIL2 is lifted off its wall mounting bracket, ensuring the two sections are correctly aligned and fasten the toggle clamps on the sides of the units. The safety pins supplied should be fitted to secure the clamps in place (Fig 7). Continue to raise the units using the adjustment feet again checking for good alignment to form a seal against the MRXBOX-FF2 and ensure installation is level.

When positioning is complete the adjustment feet should be secured in position using the four locking nuts (Fig 8).

**Please note** the above method is the preferred installation arrangement, a minimum gap of 75mm either side of the unit is advised to allow access to the toggle clamps.

If space constraints do not allow this, the toggle clamps can be replaced with the metal fixing plates provided (Fig 9). The MVHR unit and MRXBOX-SIL2 will need to be secured together and lifted as one assembly using suitable lifting equipment.

Fig 5: Wall Mounting Bracket

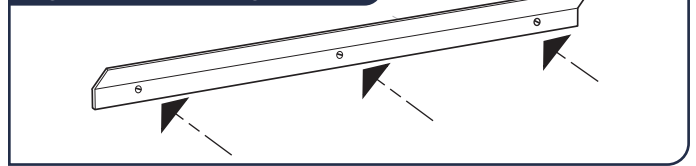


Fig 6: Toggle Clamp

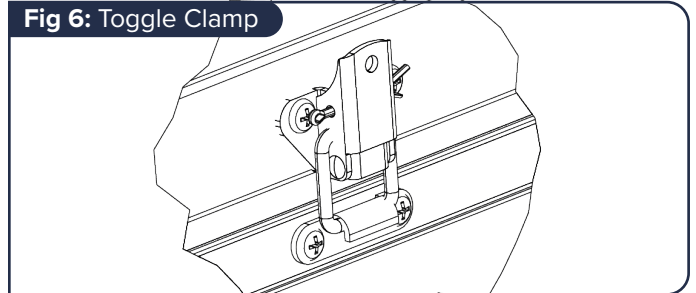


Fig 7: Mounting Silencer Using Bracket

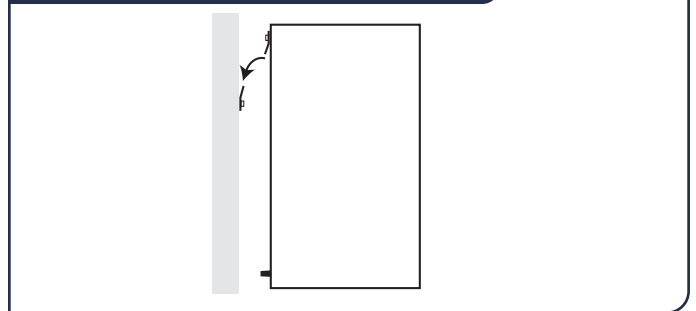


Fig 8: Locking Nut

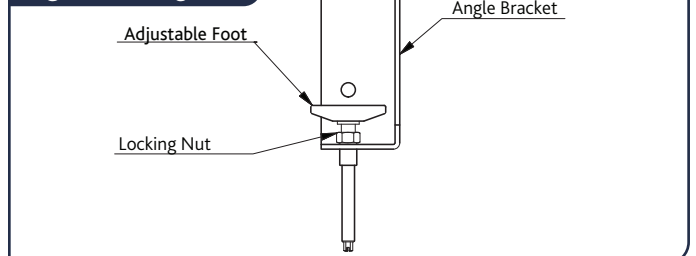
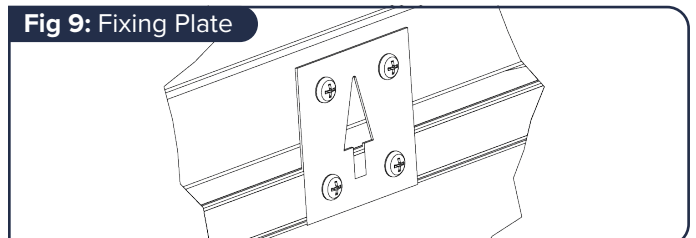


Fig 9: Fixing Plate



3.4 DIMENSIONS (mm)

Fig 10: MRXBOX-SIL2

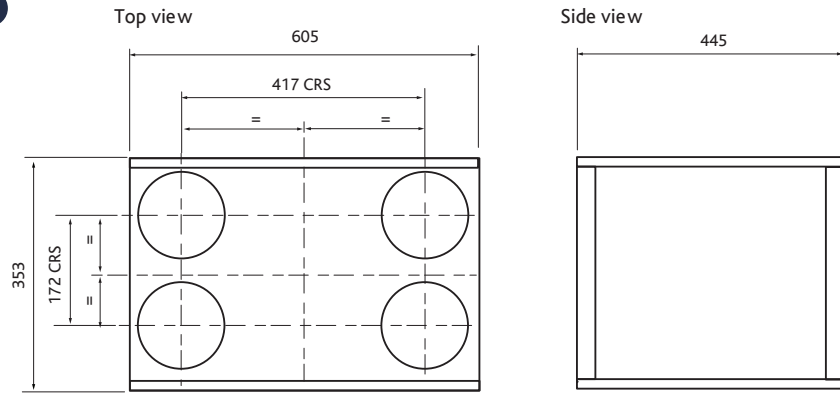


Fig 11: MRXBOX-FF2

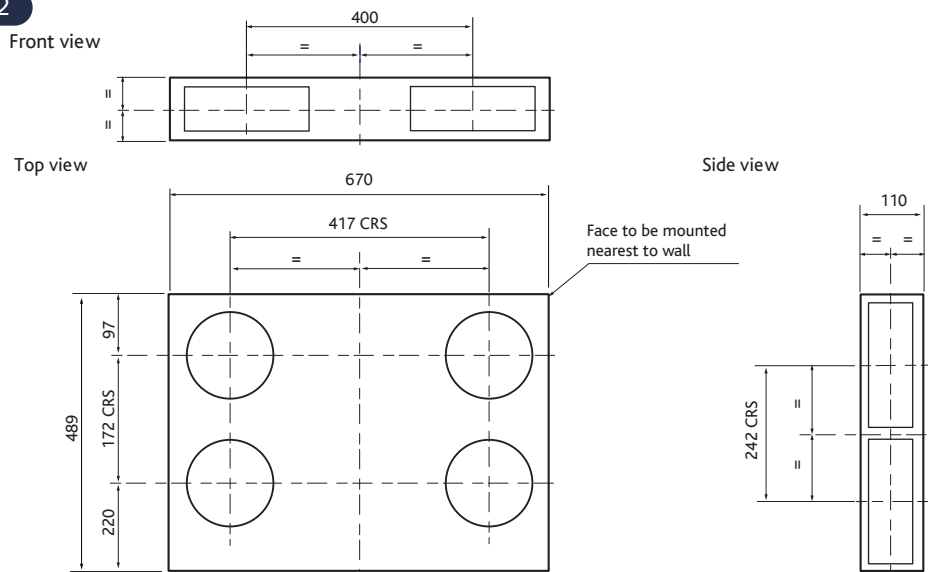


Fig 12: Assembly Dimensions

