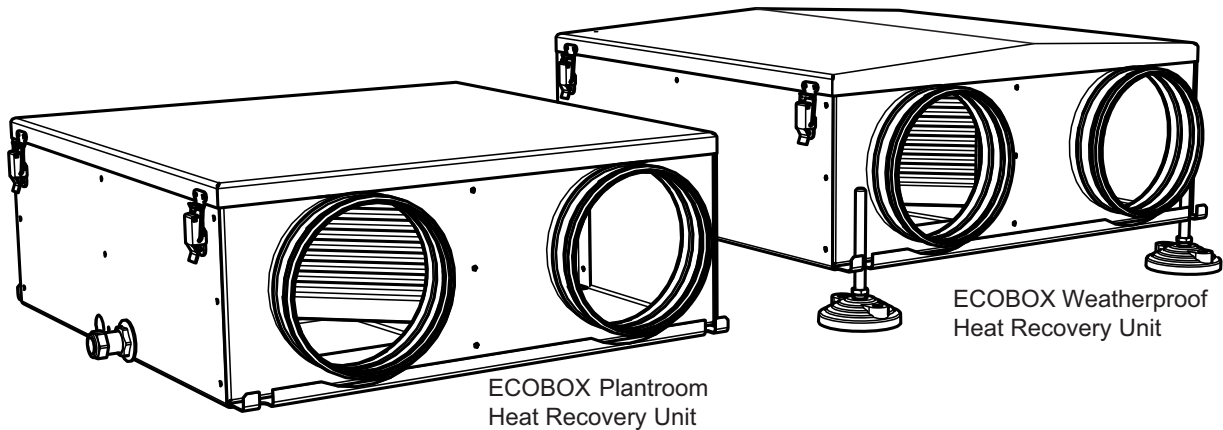



ECOBX Heat Recovery Unit


Installation, Operation and Maintenance Manual





Important  This manual must be read in full before Installation, Operation and Maintenance of the units supplied. When supplied with other equipment, please also refer to the accompanying documentation.

Please ensure that this document is passed to the end user. This manual forms an integral part of the product and should be kept for the working life of the product. Additional copies of this and supporting documents are available by contacting VES or by visiting www.ves.co.uk and following the 'Download O & M's' link.

The following symbols used within this document refer to potential dangers or advice for safe operation

Warning  Indicates hazards associated with electric current and high voltages

Caution  Indicates hazards that require safety advice for personnel and/or potential unit/property damage

Important  Indicates important information

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ECOBX Heat Recovery Unit

Installation, Operation and Maintenance Manual

Introduction 1 The ECOBOX series is a range of heat recovery units to be used in conjunction with air handling units with duties up to 1.0m³/s. The ECOBOX series is available in both /P suitable for internal applications and /W suitable for weatherproof/external applications. The unit offers round spigots and drainpans throughout the range, for unit dimensions consult ECOBOX outline drawings. The standard operating temperature of these units is -20 to +35°C.

For further technical details regarding dimensions etc contact VES on 08448 156060, quoting the sales order (SO) number and the unit type as found on the unit nameplate, or visit www.ves.co.uk.

Unit Description 2 Part number coding:

Point description	Point Variants	Details
1 Product	EBX	ECOBX-EBX
2 Unit size	100 200 300 400 500 600 800	
3 Unit configuration	/P /W	Plantroom Weatherproof
4 Handing	/L	Supplied LHS as standard (see pg 4 for instructions on changing handing)
5 Colour	Null /R7004	Galvanised plantroom/RAL7004 weatherproof Powder coat finish, RAL7004 etc...
6 Powder coat type	Null /IT /BT	Galvanised plantroom/RAL7004 weatherproof Internal powdercoated only Internal/External powdercoated

Typical example **EBX 400 /P /L /R7004 /BT**
 (1) (2) (3) (4) (5) (6)



ECOBIX Heat Recovery Unit

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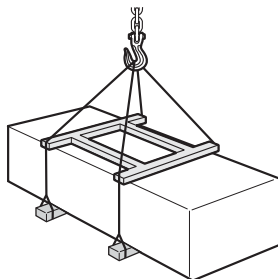
Receipt of Goods & Handling

- 3 Immediately upon receipt of goods, check for possible damage in transit. In the event of any damage having occurred or if any item is found to be missing, it is essential to inform VES Andover Ltd. within 7 days of delivery quoting sales order number and the unit type, as found on the unit nameplate. After this period, VES would be unable to accept any claim for damaged or missing goods.

Important



Lids, spigots and drain connections must not be used as lifting points.



When moving the unit, handle with care and in such a manner as to avoid damaging the external finish. Units are to be rigged and lifted using spreaders, taking into account the weight of the unit. Lifting gear should be arranged so as not to bear on the casework.

Left
Unit rigged and
lifted using spreaders

Installation

- 4 The entire system must be considered for safety purposes and it is the responsibility of the installer to ensure that all of the equipment is installed in compliance with the manufacturer's recommendations, with due regard to the current HEALTH AND SAFETY AT WORK ACT and conforms to all relevant statutory regulations. Where a unit is installed so that a failure of components could result in injury to personnel, precautions should be taken to prevent such an injury.

Important

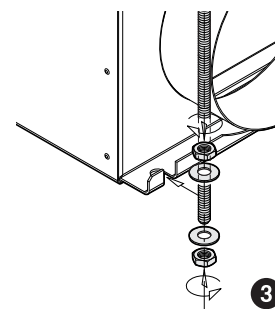
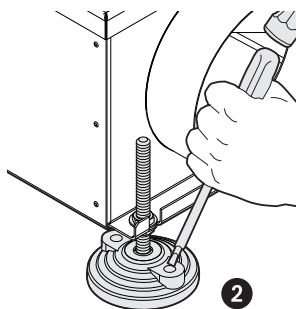
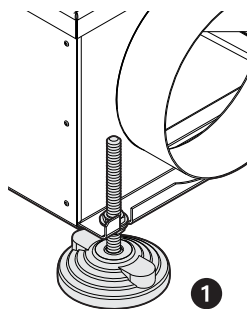


Only experienced fitters should undertake this work. Take necessary safety precautions when working in elevated positions.

It is the installer's responsibility to ensure that access panels are not obstructed in any way and safe working access for maintenance must be provided in line with Health and Safety and Building Regulations.

For optimum unit performance, careful consideration must be paid to the location of the unit in relation to the ductwork and associated items; it is advisable to maintain good working practice as detailed within DW144. Consideration must also be given by the installer for adequate illumination of the unit location in order for safe maintenance.

Units are fitted with feet suitable for drop-rod mounting, with airflow in the horizontal plane. Alternatively Self levelling feet ① can be fitted for floor mounting, M10 fixings as per drop rods. If required the unit can be secured to the floor via knockout fixings holes ② fixings by others. When hanging units from drop-rods ensure that the load is evenly spread and that all feet are used within the support. When hanging the unit it is critical the unit is level to ensure the drain operates affectively. Secure drop rods/unit with M10 fixings as shown in ③. Standard units should be mounted in the horizontal plane, level with lid access to the top only. For alternative mounting please consult your outline drawing as supplied with the unit, or refer to VES Customer Services for further information.





ECOBIX Heat Recovery Unit

Installation, Operation and Maintenance Manual

Installation 4 Continued

Where provided, flanges and spigots should not be used to support the ductwork and solely as a means of ductwork connection.

Where the drain pan is not required remove the compression nut and olive from tank connector and replace with a standard tank connector end cap (supplied by others).

Changing handing - all units are supplied left hand side as standard. The following gives instructions for changing the handing:

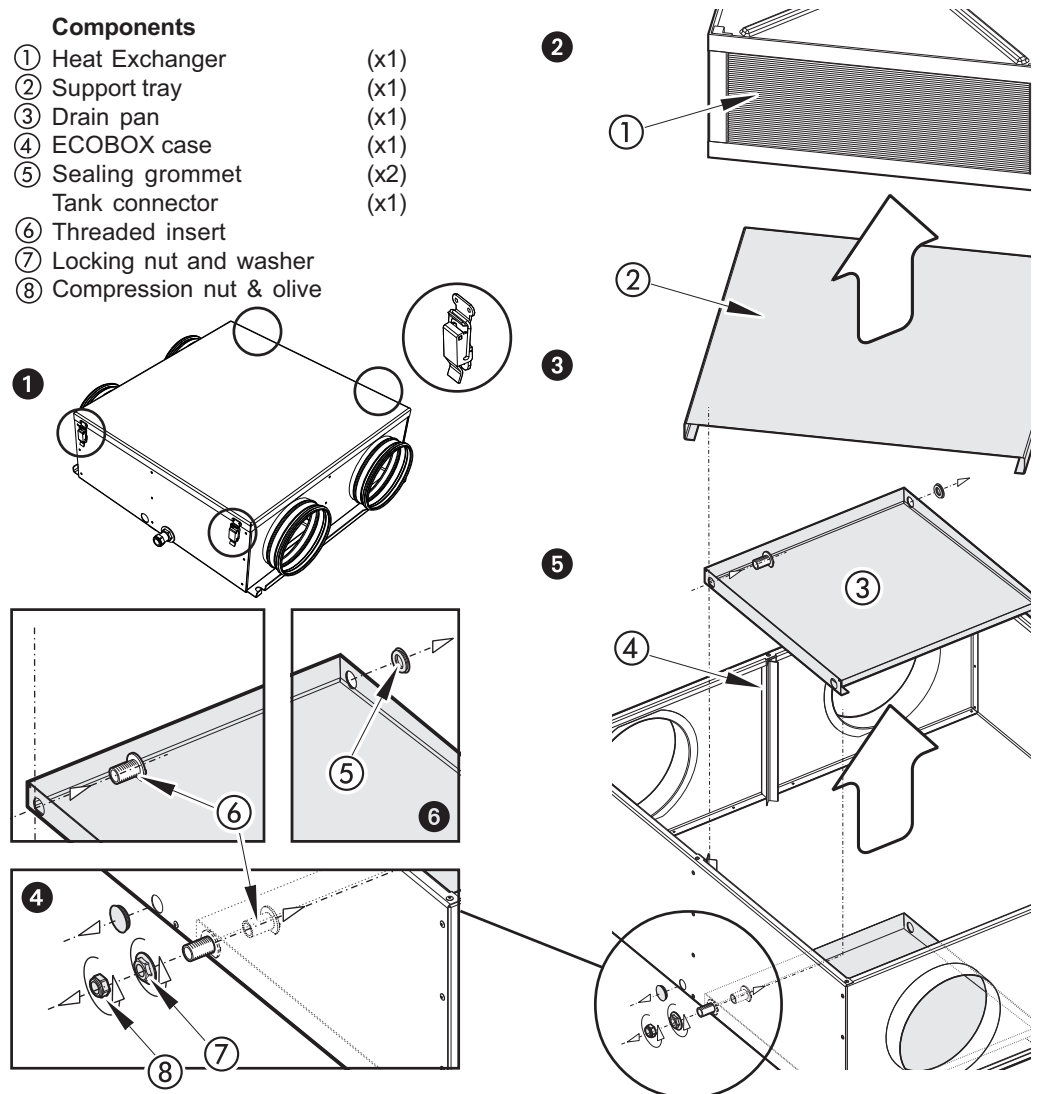
- Carefully remove the lid as shown ①
- Remove the heat exchanger ② by carefully lifting straight up and out, taking care not to damage the heat exchanger fins or seal whilst doing so.
- Remove the spacer ③, again lifting straight up and out.
- ④ Using waterpump pliers or similar undo the connector on the outside of the unit. This secures the internal drain pan in place.
- Withdraw the condensate drainpan ⑤ and remove/retain the loose connector.
- ⑥ Remove/retain the sealing grommet from the drainpan.



Caution When accessing the unit ensure the access panels are lowered in a controlled manner so as to avoid damage to the unit or injury to personnel.

Components

- | | |
|---------------------------|------|
| ① Heat Exchanger | (x1) |
| ② Support tray | (x1) |
| ③ Drain pan | (x1) |
| ④ ECOBOX case | (x1) |
| ⑤ Sealing grommet | (x2) |
| Tank connector | (x1) |
| ⑥ Threaded insert | |
| ⑦ Locking nut and washer | |
| ⑧ Compression nut & olive | |



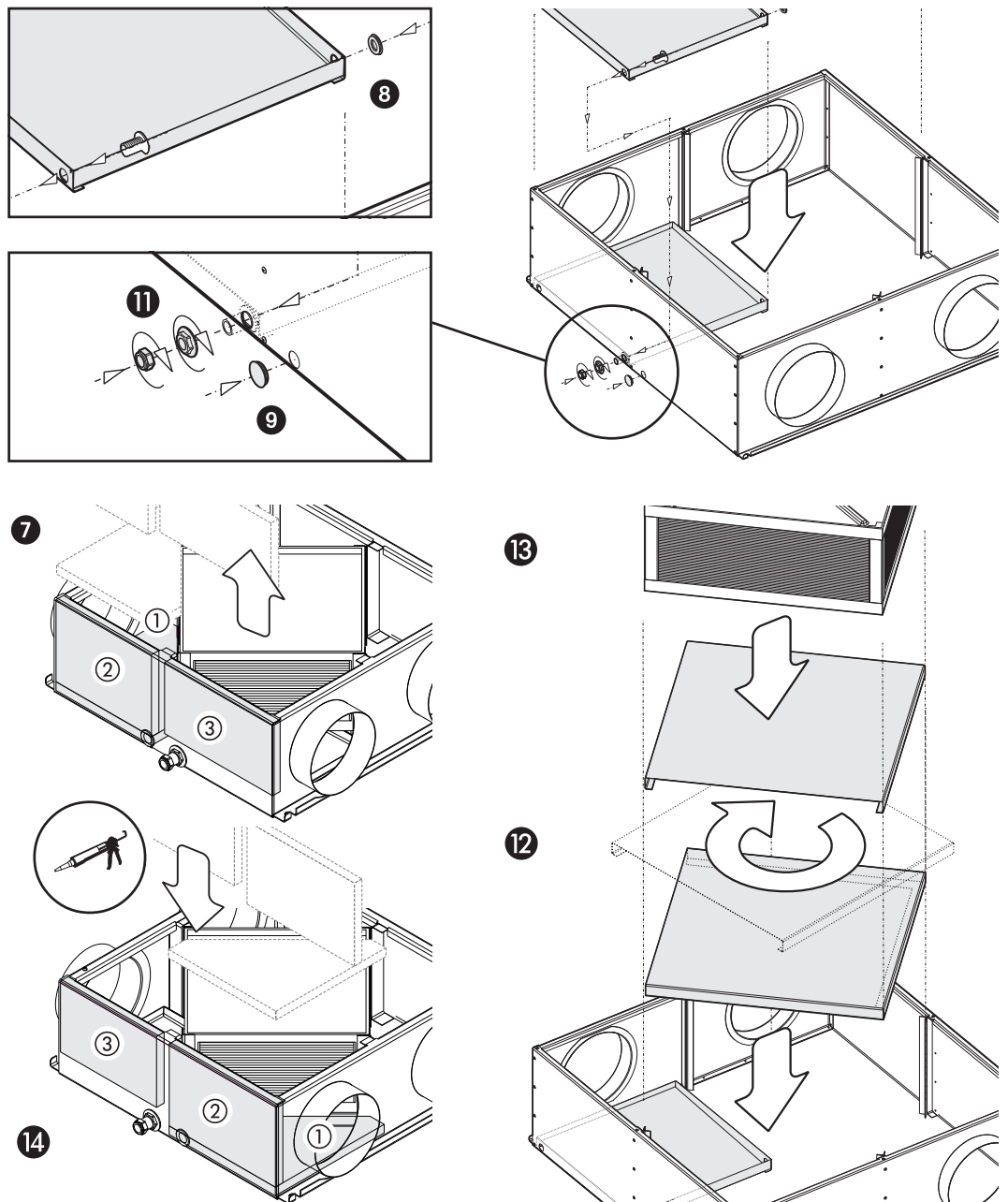


ECOBIX Heat Recovery Unit

Installation, Operation and Maintenance Manual

Installation 4 Continued

- Remove insulation panels ①, ② & ③ and retain ⑦.
- Replace sealing grommet (removed/retained earlier) on the other side of drainpan ⑧.
- Remove/retain the sealing grommet from the outside of the case. and replace on the other side as shown ⑨.
- Replace the drainpan on the opposite side of the unit as shown ⑩.
- Replace the drain connector ⑪, through the drainpan and out of the case as shown and secure into place the pump pliers or similar.
- Replace the spacer ensuring the cutout section is adjacent to the drain for fit ⑫.
- Replace the heat exchanger taking ⑬ care not to damage the heat exchanger fins or seal whilst doing so. This may require more than one person for larger units.
- Re-orientate and replace insulation panels ①, ② & ③ - where necessary secure with silicon as shown ⑭.
- Continued page 5.



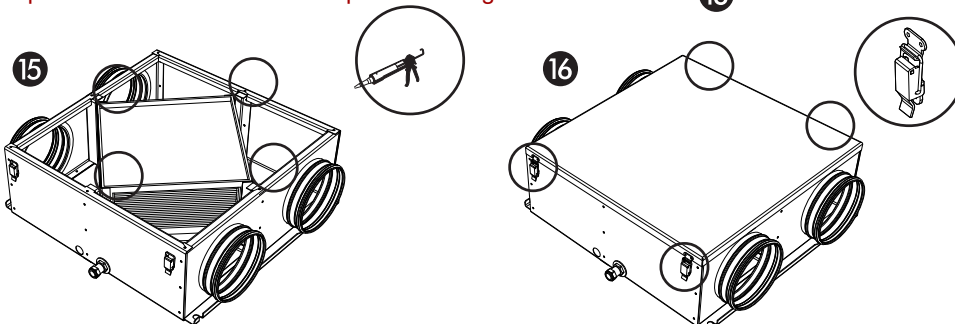


ECOBX Heat Recovery Unit

Installation, Operation and Maintenance Manual

Installation 4 Continued

- It is recommended that once handling has been established, the heat exchanger is silicon sealed into position (locations as shown 15) to assist with air-tightness.
- Replace the lid and secure into position using the fitted latches. 16



Maintenance 5

All accompanying documentation, including warning labels must be referred to prior to carrying out any work on our units.

Although there are no live or moving components within the ECOBox range care must be taken to ensure any associated units are COMPLETELY ISOLATED and any moving parts are allowed to come to rest as per associated Operational Manuals.

ECOBX units are as standard available in top access, units mounted in ceiling voids or similar may need to be repositioned in order to access internal components.

Recommended Checks

In general, this series of units require very little maintenance. In the unlikely event of component failure, spares are available from stock at VES Andover Ltd..

Plate heat exchanger units have no moving parts, therefore only minimal maintenance is required. Periodical inspection is recommended of the heat exchanger matrix for any debris, dust or dirt build up. Simply remove the fixings/lid and inspect the plate heat exchanger for any debris.

Note - Frequent contamination might be as a result of poor filtration and should be investigated.

If found contaminated, foreign matter should be removed accordingly; superficial dust or debris can be removed from the surface of the heat exchange matrix by gently brushing. Loosened debris can then be vacuumed from the surface of the matrix or flushed through with warm water. Stubborn deposits can be removed by using a low pressure washer with an approved detergent solution. The solution temperature should not exceed 50 °C. When using any pressure device care must be taken not to damage the heat exchanger matrix. Under NO circumstances should the heat exchanger be steam cleaned. In addition to checking the heat exchanger, ensure the drain pan, in particular the drain connection is free from debris ensuring any condensate produced can freely drain away.

Spares & Repairs

When enquiring after or ordering spares contact VES Spares Department, quoting the sales order (SO) number and unit type as found on the unit nameplate.

Telephone 08448 15 60 60 • Fax 02380 26 12 04



Recycling

At the end of their useful life the packaging and product should be disposed of via a suitable recycling centre. Do not dispose of with normal household waste. Do not burn.



Q 05375



PLEASE ENSURE THAT THIS DOCUMENT IS PASSED ON TO THE END USER

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CE Declaration of Conformity

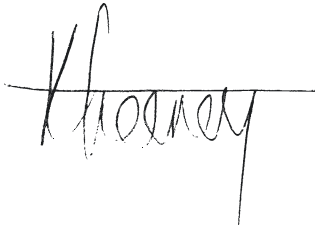
Date: 20th. May 2015
Product: Ecobox Heat Recovery Units
Type: EBX
Manufacturer: VES Andover Limited

The product above is produced in accordance with EC Council Directives:

2006/42/EC (Machinery Directive)

Basis of Self attestation:
Quality Assurance to ISO 9001-2008, BSI Reg. Firm Cert. No. Q05375

Signature of Manufacturer:

Name:	Signature	Position of Signatory:
R. Peters		Deputy Managing Director
K. Feeney		Engineering Associate Director