



## Installation Manual Local Ventilation System with Heat Recovery Type e<sup>2</sup> and e<sup>2</sup> short

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### About this manual

- Read this manual carefully and completely before assembly. Abide by the general safety instructions and the safety symbols with information in the text.
- Hand out this manual to the user (tenant, proprietors, property management etc.) after completing assembly.

### Symbols in this manual



This symbol is a danger warning in connection with risk of injury



This symbol is a danger warning in connection with risk of injury from electricity

### Safety instructions



**Beware!** Any assembly work to the ventilation device may only be carried out after disconnecting all phases of supply voltage! The ventilation device is fitted with protective insulation according to Protection Class II, the protection connection is superfluous!



**Attention!** The electric connection may only be made by authorised qualified personnel and according to the applicable version of VDE 0100!



**Attention!** This device may not be operated by children and persons (filter replacement/cleaning) who are not able to operate the device safely due to their psychic, sensory or mental abilities or their inexperience or lack of knowledge. Children should be supervised to ensure that they do not play with the device.

### Technical specifications

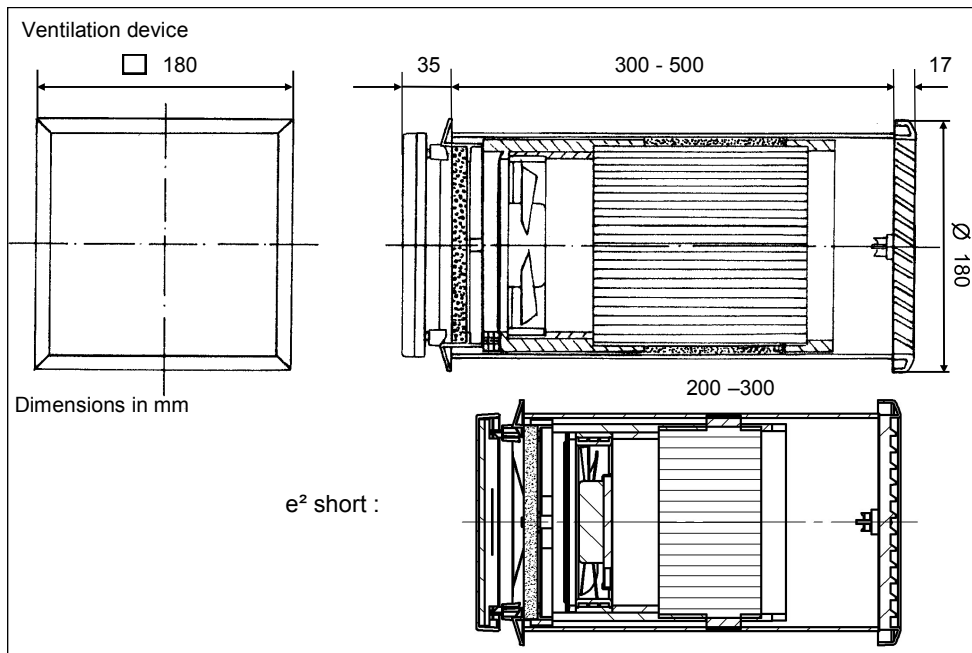
|                                |   |
|--------------------------------|---|
| Device voltage:                | 12 VDC SELV   |
| Type of protection:            | IP 22   |
| Volume flow:                   | 15m <sup>3</sup> /h; 30m <sup>3</sup> /h, 38m <sup>3</sup> /h |
| Measuring sound pressure level | 16,5 dB; 19,5 dB  |
| Sound level difference:        | 42 dB   |

### Disposal



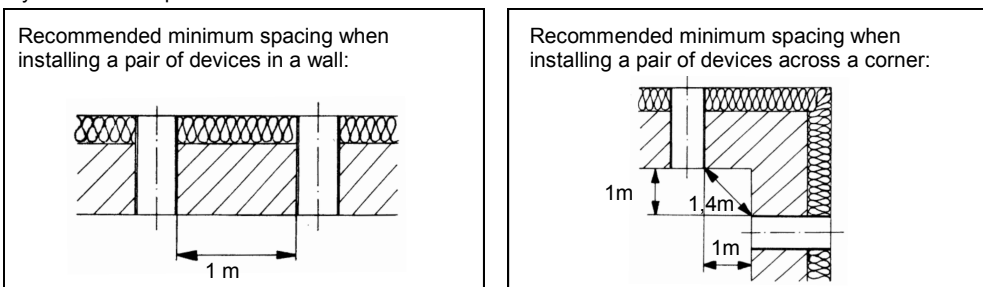
Dispose of the packaging correctly sorted. If you want to dispose of the device, abide by the current rules and regulations. The applicable municipal office will provide information.

### Dimensional diagrams (all dimensions in mm)



### Installation position

Local ventilation devices with heat recovery of the type e<sup>2</sup> only function in pairs in bidirectional operation. A device operates 70 s (50s for e<sup>2</sup> short) in feed air operation, the other 70 s (50s for e<sup>2</sup> short) in exhaust air operation at the corresponding volume flow level as set. Then the air direction is changed. It is thus ensured that the total of the volume flow admitted is equal to the total of the exhausted volume flow. If a device pair operating in push-pull operation is installed in two different rooms of the flat and operated, a sufficiently dimensioned interconnection between the air movement must be provided by overflow air apertures.



### Operating conditions

Temperatur conditions: -15°C to +40°C

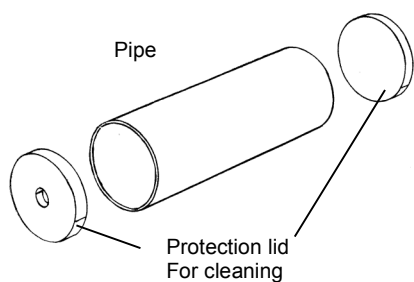
Applicable indoor up to 65% relative humidity. During heating period are small condensate formation possible. If the limitation of use are overstepped, turn of the device and close the indoor blind. Ensure the gasper supply.

## Shipping units

**Check the supplies for completeness and perfect conditions!**

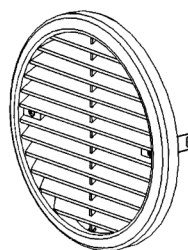
### Assembly pipe (min 2x, max 4x)

Type 9/R 160 Order No.: 36 765



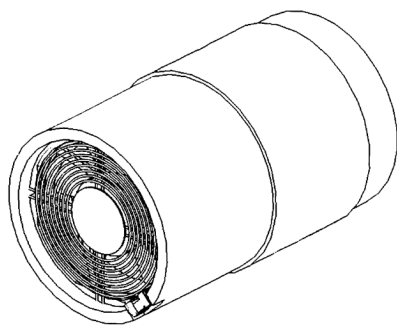
### Outside grid (min 2x, max 4x)

|                          |                   |
|--------------------------|-------------------|
| Type 1/WE 180 white      | Order No.: 39 852 |
| Type 1/GE 180 light grey | Order No.: 39 853 |
| Type 1/RE 180 red-brown  | Order No.: 39 854 |

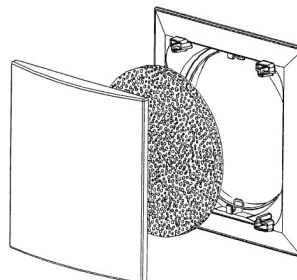


### Heat exchanger unit – Indoor blind (min 2x, max 4x)

Heat exchanger unit



Indoor blind



e<sup>2</sup>:

Assembly pipe, outdoor grid white, heat exchanger unit, indoor blind and installation instructions can be supplied as a complete set (Order No.: 39 846).

Heat exchanger unit, indoor blind and installation instructions can be supplied as replacement set of ALD-R160 (type WTB 160, Order No.: 39 847).

e<sup>2</sup> short:

Assembly pipe, outdoor grid white, heat exchanger unit, indoor blind and installation instructions can be supplied as a complete set (Order No.: 39 962).

Heat exchanger unit, indoor blind and installation instructions can be supplied as replacement set of ALD-R160 (type WTB 160 kurz, Order No.: 39 964).

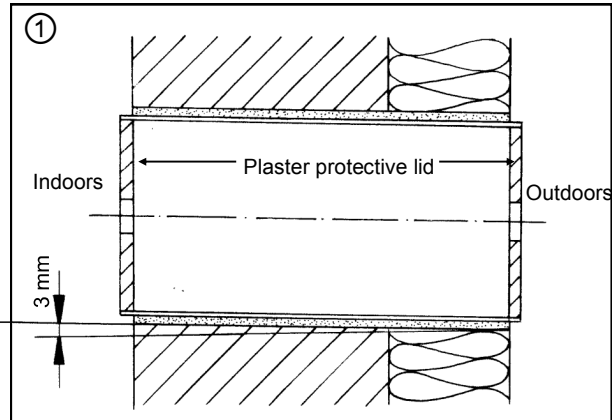
## Assembly – Assembly pipes

Make the wall openings for the assembly pipes (e.g. by coring, core bit Ø 162 mm).

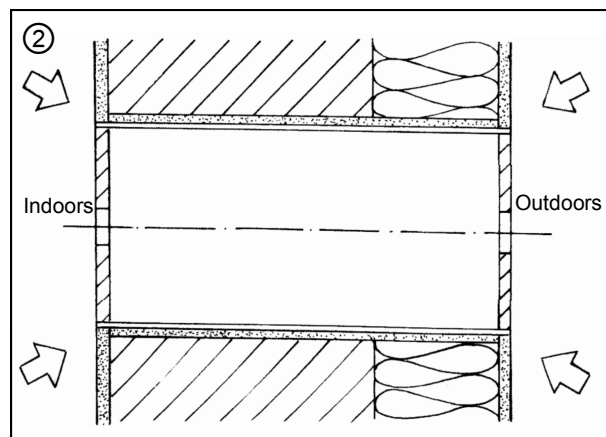
If necessary shorten the pipe to the required installation length ( $e^2$ : min. 300 mm;  $e^2$  short: min. 200mm).

Take care that the pipe overlaps on both sides to cope with the plaster thicknesses (after plastering the pipe must close flush with the plaster). Insert the pipe and seal it all around (assembly glue Order No. 038 733).

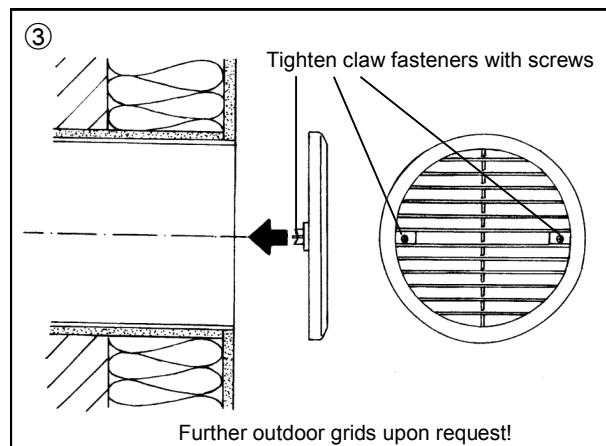
**⚠ The product is not intended for connection to rigid metal conduit. Only use the provided plastic pipe.**



Apply plaster indoors and outdoors. When outdoor closure is plastered first replace the plaster protection lid outdoors by an outdoor closure piece.



Remove the plaster protection lid outdoors. Assemble the outdoor grid using the integrated claw fasteners (tighten screws).



## Assembly – electric installation and electric connection

### Safety instructions:



Beware! Any assembly work to the ventilation device may only be carried out when all phases of supply voltage have been disconnected!



Make sure that the supply voltage of all connection lines is dead! (separation from the power supply with a free space between contacts of at least 3 mm, e.g. all-phase disconnecting electr. protection).



Each electric circuit of this ventilation system must be fitted with a residual current protection (e.g. RCD)!



**WARNING – TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:**

a.) Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction.

b.) Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.

c.) When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.

d.) Ducted fans must always be vented to the outdoors.

e.) If this unit is to be installed over a tub or shower, it must be marked as appropriate for the application and be connected to a GFCI (Ground Fault Circuit Interrupter) – protected branch circuit.

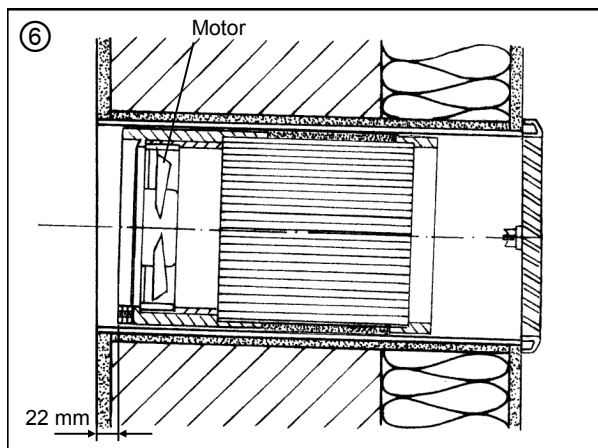


The product's installation shall not conflict with any requirement in the National Electrical Code, ANSI/NFPA 70-1999.

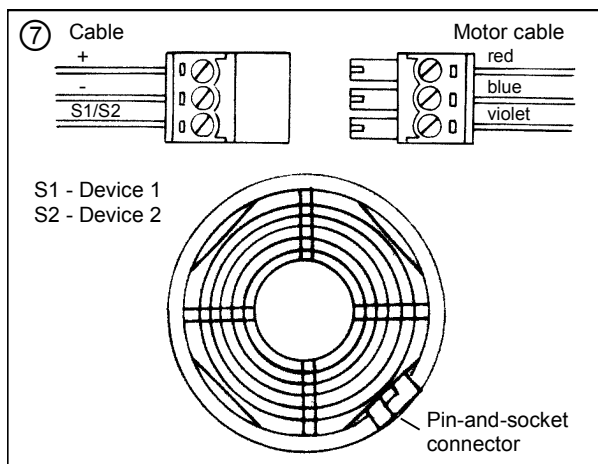
Additional installations and electrical components in this ventilation system are prohibited!

## Assembly – Assembly of the ventilation insert and the indoor room blind

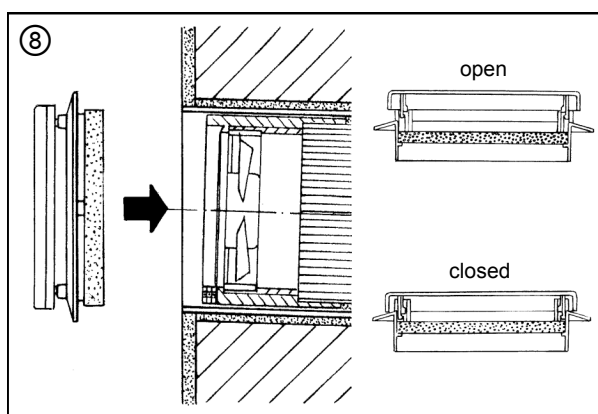
Remove plaster protection lid inside, insert heat exchanger unit into the assembly pipe, ensure there is a 22 mm spacing. Motor is on the inside. Using the loop on the inside of the heat exchanger unit the said unit may be pulled out for correction purposes.



Connect cables to plugs, insert pin and socket connectors into the recess of the heat exchanger casing.

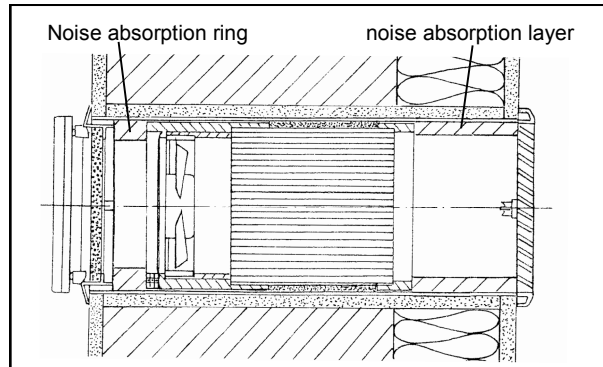


Insert indoor closure with filter casing, snap the indoor blind into place in open position! Ready!



### Assembly noise absorption set

Can be used as from a pipe length of 300 mm for  $e^2$  and 230mm for  $e^2$  short. Position noise absorption ring and noise absorption layer as depicted. The noise absorption layer can be shortened if necessary.

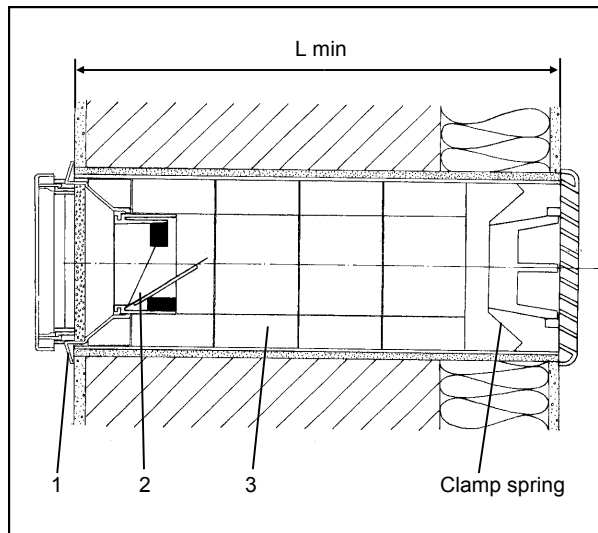


### Replace ALD-R 160 / ALD-R 160 L by $e^2$

When carrying out a replacement the following parts of ALD-R 160 are not required any more:

1. covering frame
2. wind pressure protection
3. noise absorber elements + noise absorber end fitting

The minimum length  $L_{min}$  of the assembly pipe should be 300 mm. When keeping the outside closure with clamp spring (types 1/R... 180)  $L_{min}$  is 320 mm. The assembly of the  $e^2$  is then carried out as described in this manual page 5 onward

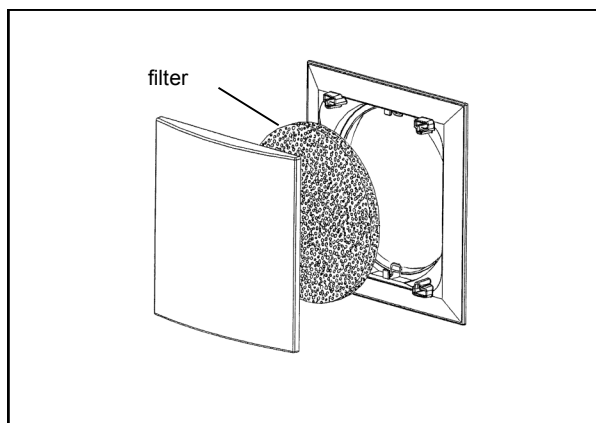


### Filter replacement

The contaminated filter will be signalize. For exact functionality please show the user manual for Universal Control 5/UNI or Touch Air Comfort TAC. In other respects do the filter replacement in the following way:

Put the indoor closure off, extract the filter, insert new or cleaned filter (the filter cleaning could be made for example in a dishwasher), put the indoor closure on.

The ventilation opening must not delivered or covered.



Please draw up the filter replacement below:

| Filter replacement date | Expected filter replacement | Type of filter used |
|-------------------------|-----------------------------|---------------------|
|                         |                             |                     |
|                         |                             |                     |
|                         |                             |                     |
|                         |                             |                     |
|                         |                             |                     |
|                         |                             |                     |
|                         |                             |                     |

### Cleaning

If necessary wipe the indoor blind and covering frame with a dry soft cloth.



Filter replacement and cleaning may neither be carried out by children nor by persons who are not able to operate the device safely due to their psychic, sensory or mental abilities or their inexperience or lack of knowledge.

### Additional / replacement parts

Indoor blind compl. 9/IBE

Replacement filter G3, 9/FIB3R, pack of 3

Noise absorption set 9/SW

Wind pressure fuse 9/WDSE (for assembly pipe from 370 mm length)

Acoustic insulated frame 9/IBS

Order No.: 39 851

Order No.: 37 214

Order No.: 39 850

Order No.: 39 860

Order No.: 39 947