


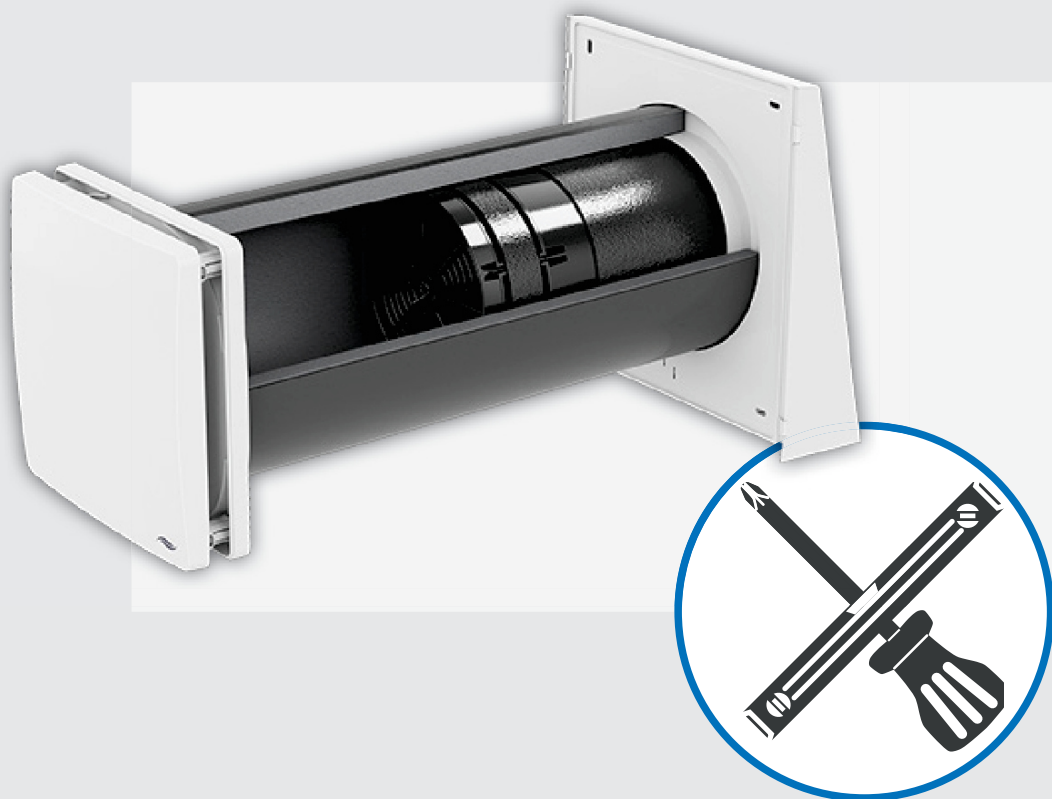


INVENTER

iV14-Zero

Standard • Corner

 HIGH-TECH
MADE IN GERMANY



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Disclaimer

This documentation is a translation of the original German installation instructions. After completion of the installation it must be given to the user (tenant, owner, property management, etc.). The content of this documentation has been checked for compliance with the described hardware and software. Nevertheless deviations may still occur, therefore no guarantee of compliance can be provided. This documentation describes the functionality of the standard scope. The documentation does not purport to cover all details on all types of the product and cannot cover every conceivable scenario for installation and assembly. The illustrations in this document may differ slightly from the design of the product that you have purchased. The same functionality is ensured despite any design deviations.

This documentation is updated regularly. Necessary corrections and appropriate supplements are always included in subsequent editions.
You can find the latest version at www.inventer.eu/downloads

Version 1.0

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1 User and safety instructions

Thank you for purchasing this high quality product from inVENTer!

This section provides an overview of the basic safety precautions for safe and proper operation of your ventilation unit.

1.1 User information

Concept of safety instructions

The safety and warning instructions in these installation instructions have a uniform structure and are marked with a symbol on the left side of the instruction. A signal word in front of the text also indicates the hazard level. If several hazard levels exist, the highest level safety instruction is always used.

The safety and warning instructions contain the following information.



SIGNAL WORD: Type and origin of the hazard. Possible consequences of the hazard!
Measures to avoid the hazard.

A signal word indicates the severity of the potential hazard unless the preventative measures are taken.



WARNING indicates: Possible danger of serious injury or death.



CAUTION indicates: Imminent or possible risk of minor/significant injury.



CAUTION indicates: Imminent or possible risk of minor/significant injury due to electricity. Before carrying out any work on steps stressed with this symbol disconnect the power supply.



NOTICE indicates: Imminent or possible damage to property due to an adverse event/state.



Damage to property due to non-observance of required slope: Install the component with a slope to the exterior wall side to ensure that occurring condensate may drain away.



Damage to property, e. g. accumulation of algae, due to missing sealing tapes. When installing the unit attach all sealing tapes!

If you see this sign, ensure you observe the described measures to prevent possible hazards and/or damage.

Other symbols used in this documentation

In addition to the safety instructions, the following symbols are used:



Red frame surrounding: Graphic shows the interior wall.



Blue frame surrounding: Graphic shows the exterior wall.

1.2 Safety instructions

These installation instructions are part of the ventilation unit and must be permanently available. When handing the equipment/system to a third party, the installation instructions must be handed over also. Before performing any work on the system, read the installation instructions carefully and observe all information regarding installation and assembly contained in this section. Also note the safety instructions that precede the described handling instructions. Non-observance of safety warnings could result in injury and/or property damage.

Intended use

The ventilation unit is designed to ventilate dwellings and similar residential spaces. It is controlled via an inVENTer system controller.

General instructions

- Observe the relevant standards, regulations and guidelines, especially the applicable building codes and fire and accident prevention regulations issued by the respective trade association.
- Use the equipment/system exclusively for the applications that are described in this documentation and only in conjunction with components that are recommended, authorised and described by inVENTer GmbH in this documentation. Changes or modifications to the equipment/system are not permitted.
- Your ventilation unit is exclusively designed for use in ambient temperatures between -20 and 50 °C.
- Trouble-free and safe operation of the equipment depends on proper transportation, proper storage and installation as well as careful operation and maintenance.

Assembly and installation




- **CAUTION:** Installation of the system may only be performed by qualified personnel.
- Before starting work, you should have a ventilation concept from which the number of ventilation units, their position, the ventilation principle (cross ventilation, individual room ventilation, extraction) and the relevant controllers can be determined. The exact positioning of the units and controllers must be determined on-site and, if necessary, adapted to the local conditions by the user/planner. Installation is recommended in a suitable position in the upper wall area for optimal operation.



- **WARNING:** Install a pressure monitor in rooms with open flues. In any case air exchange must be assured to be sufficient for the ventilation units as well as the fire place. Consult your chimney sweeper and/or building planner before installation!



- **NOTICE:** The ventilation unit must not be used for drying out buildings. It must not be put into operation until after completion of the construction work. The ventilation unit must remain sealed against dust during the construction work (attached protective discs).
- **NOTICE:** Do not place the unit near radiators, room thermostats or in the immediate vicinity/above sensitive paintings or furnitures.
- **NOTICE:** Observe the predetermined minimum distances on both sides of the wall and in front (see , page 15) to avoid the mixing of outdoor air and exhaust air, and to ensure access to the unit and its components.
- **NOTICE:** Install the wall sleeve outside airtight and inside vapour tight into the air resistance layer. Material must be provided by the customer. After installing the wall sleeve replace the wall structure as far as the wall sleeve and observe the necessary barrier levels in order to avoid the interruption of the thermal insulation composite system. Consult your planner!



- **NOTICE:** Install the wall sleeve with a slope of 1 – 2° to the exterior wall in order to ensure that occurring condensate may drain away.
- **NOTICE:** The ventilation unit must not be installed in areas in which direct contact with water spray is possible.
- **NOTICE:** In order to prevent algae accumulation and a discolouration of the façade around the exterior closure observe all installation advices (apply all sealing tapes!). In vulnerable areas, apply a biocidal/water repellent treatment to the plaster surface around the weather protection hood, flat duct and the reveal grille before installing. Consult your planner!
- **NOTICE:** When installing components to (exterior) walls with insulation use insulation plugs to ensure safe fastening. These are not part of the scope of supply, but are available as an option.
- **NOTICE:** Exclusively use permanently elastic sealing compound for exterior/outdoor use to seal the joints at the exterior closures.
- **NOTICE:** Your ventilation unit has scratch-sensitive plastic surfaces. Do not touch the inner cover with oily and/or dirty hands. Avoid contact with sharp or pointed objects, e.g. rings.

Wiring/Electrical connection of the fan



- **CAUTION: Electrical connection of the system may only be performed by qualified personnel.**
- **NOTICE:** Your ventilation unit operates with a safety extra low voltage (SELV) and an operating voltage of 6 – 16 V DC. The ventilation unit must therefore not be connected directly to the 230 V mains, but **must always be connected via a controller.**



- **NOTICE:** Laying of cables without a plaster-resistant sheath underneath the plaster/concealed may result in short-circuit and cable fire. Exclusively lay cables without a plaster-resistant cable sheath inside an empty conduit.
- The ventilation units must be synchronised when using multiple ventilation units controlled via multiple controllers (see installation and operating instructions for the controller). All of the controllers should be connected via a mains fuse in the building distributor.

If your equipment/system has a defect, contact your nearest distributor or our technical service.

Any kind of use other than the intended use will exclude all liability claims.

Improper use

Any use that is not mentioned in the intended use section, is considered to be improper.

Do not install the equipment in areas which...

- Contain (or may contain) strong oils or lubricants.
- Contain (or may contain) flammable gases, liquids or vapours.
- Contain (or may contain) extreme dusts.
- Are exposed to ambient temperatures below -20 °C and above 50 °C.
- Contain obstacles that hinder access to, or removal of, the unit's components.
- it is used to dry up the structure.

Qualified personnel

The equipment/system may only be installed, set up and operated in conjunction with this documentation and the documentation for the controllers.

Assembly and installation

Installation, electrical connection and set up of the equipment may only be performed by qualified personnel. Qualified personnel within the meaning of the safety notices in this documentation are persons who are authorised to install, put it into operation and identify equipment, systems and circuits in accordance with established safety procedures.

Conformity

The ventilation unit complies with the applicable technical safety requirements and standards for household and similar electrical appliances. They are conform to the following European directives:

- 2014/30/EC: Electromagnetic Compatibility directive
- 2009/125/EC: Energy related products directive
- 2014/35/EC: Low voltage directive
- 2011/65/EC: Restriction of certain Hazardous Substances (RoHS)

2 System overview

The iV14-Zero ventilation system is designed as a sound absorbing ventilation solution. It ventilates living rooms and bedrooms in single- and multi-family houses, hotels and guest houses, rooms in public facilities and work rooms in office buildings. It is usually located in the exterior wall.

The construction of the iV14-Zero product range complies with the applicable European regulations.

The ventilation unit iV14-Zero comprises a wall sleeve into which a thermal accumulator insert is installed. A closable inner cover conceals the ventilation unit visually discreet on the interior wall side. The integrated filter assures, that no pollen or dust may enter the interior room from outside. On the exterior wall a driving rain proof hood covers the unit.

A sound insulation coating made of Inventin[®], a material specially developed for noise reduction, is inserted into the wall sleeve. Into the so lined wall sleeve the thermal accumulator, and inVENTron[®] are mounted. inVENTron[®] consists of two airflow optimising guiding vanes, embedding the Xenion[®] reversible fan. The guiding vanes on both sides of the fan ensures efficient capacity utilisation and even flow through the thermal accumulator. The sound insulation coating of Inventin as well as the unique design of Xenion's fan blades reduce sound passage effectively.

The standard length of the wall sleeve is 495 mm. For thicker walls, there is the option of ordering a wall sleeve with a length of 745 mm. Both versions can be trimmed on site.

It is controlled via one of the following inVENTer[®] system controllers¹⁾:

- sMove s4
- sMove s8
- MZ-Home

Components

- Inner cover incl. dust filter of class G4
- Thermal accumulator insert (thermal accumulator, inVENTron[®], and sound insulation coating made of Inventin[®])
- Wall sleeve
- Exterior closures
- Pollen, micro and activated carbon filter options available
- Sound and wind protection options available as accessory

Models

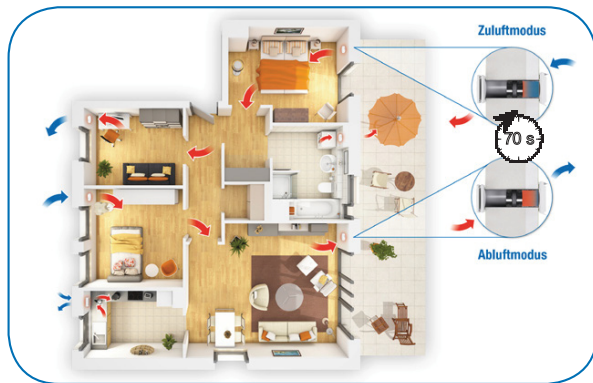
- **Standard version:** iV14-Zero ventilation units with driving rain proof weather protection hood Nova Zero (white/grey/Nord/custom colour)
- **Corner version:** iV14-Zero ventilation units with flat duct integrated into the thermal insulation layer and reveal grille (white/grey/Nord/custom colour).

The Corner version is particularly suitable when subsequently fitting insulation or if a weather protection hood cannot be fitted to the outside wall for structural or other reasons (e.g. listed buildings). Due to the reveal grille in the window reveal the ventilation unit disappears subtly into the external wall.

¹⁾ The installation and operating instructions for the controller do not form part of this documentation and are supplied separately.

2.1 Function

The iV14-Zero ventilation system is used to provide ventilation for living rooms and bedrooms. The combination of inVENTron, and sound insulation coating made of Inventin ensures optimum heat recovery with minimum sound emission and maximum air flow.



The ventilation unit operates on the principle of heat recovery by changing the direction of the fan. The integrated thermal accumulator charges itself with heat energy from the room's air as it flows to the exterior (extract air). After 70 seconds, each Xenion reversible fan changes direction. When the reversible fan changes direction, it releases the stored heat energy into the incoming outside air (supply air).

For this principle to work correctly and to ensure the room's pressure stability the incoming air and extract air volumes must match, i. e. two iV14-Zero ventilation units are required. These are operated in pairs in push-pull operation: One ventilation unit works in supply air mode while the other works in extract air mode at the same time.

iV14-Zero is characterised by its silent operation. The patented sound insulation concept is based on a combination of the coating made of Inventin and the Xenion reversible fan. The sound insulation coating absorbs acoustic waves from outside and the unit itself (sound passage and flow-generated sound). Due to the fan blade's arrangement and structure the sound passage from the exterior is reduced again.

Due to the Xenion reversible fan's high pressure built-up and active speed control (integrated wind stabiliser) the air flow within the system is kept nearly constant. Thus, the air flow's sensitivity to pressure variation meets the requirements of class S3 according to EN 13141-8 (max. 30 % air flow deviation at ± 20 Pa).

In order to ensure the full functioning of the ventilation system throughout the entire year, an additional, flexible temperature sensor is integrated into the Xenion reversible fan. This measures the temperature of the air flow. If the temperature falls below $+ 5$ °C, the reversible fan is automatically switched to extract air mode for 4 cycles. This allows the thermal accumulator to heat up again and prevents cooling of the interior due to cold drafts. During this phase, the mode that has been set on the controller is ineffective. Subsequently, the controller switches the ventilation unit back to the originally selected mode.

A multi-use dust filter of filter class G4 is integrated discreet and easy of access into the inner cover. It filters off reliably dusts as well as allergenic particles (such as pollen) from the ambient air before it can enter living spaces. Dust filters are season independent. For special requirements micro, pollen and activated carbon filters are available as an option.

A decentralised ventilation system is based on the free movement of air between individual pairs of ventilation units. Therefore, internal doors must not have air-tight seals. Ensure adequate air transfer measures: An air gap of about 10 mm below the door, unscrew the hinges by 5 mm, use a ventilation grille or similar (cross ventilation).

The ventilation unit is controlled via one of the inVENTer system controllers. Depending on the controller, operating modes and functions may be selected.

2.2 Control elements

sMove controller



The controllers from the sMove product range are electronic control units for controlling the iV14-Zero ventilation units. They are characterised by their timeless and slim design and a simple touch-based operating concept.

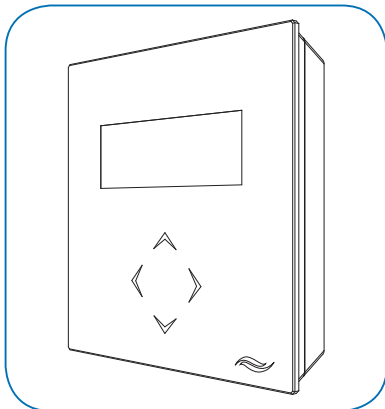
The sMove controller is available in the s4 and s8 versions. s4 is used to control up to four iV14-Zero ventilation units. s8 is used to control up to eight iV14-Zero ventilation units.

Both versions are available in a flat and standard version: In contrast to the flat version, in addition to pause mode, the standard version provides the option to switch off the ventilation unit completely.

The connected ventilation units can be controlled in the following modes:

- Heat recovery
- Continuous ventilation
- Pause function
- Off (only sMove standard version)

MZ-Home controller



The MZ-Home controller is an electronic control unit for controlling up to 16 iV14-Zero ventilation units.

Due to its unique and innovative Clust-Air technology (multi-zone control) and its versatility MZ-Home controls up to four zones within the residential unit. Thus, it ensures individual ventilation to each living area.

The MZ-Home controller consists of a control unit and at least one (optional up to four) Clust-Air module(s). Each Clust-Air® module can control up to four iV14-Zero ventilation units in different zones within the accommodation unit. For each zone, the operating mode and output level can be set manually or via a 7-day timer.

The connected ventilation units can be controlled in the following modes:




- Heat recovery
- Continuous ventilation
- Dehumidification
- Off / Pause function

The sMove and MZ-Home controllers can be expanded with additional sensors. An external interface allows the connection of a potential-free switching contact or integration into an existing home automation system via an analogue input.

For detailed information see the separate operating instructions of the controller.


3 Specifications

3.1 General specifications


Feature		Value
Operating range [°C]		-20 – 50
Extract air/Outdoor air		Free from aggressive gases, dust and oils
Air flow in reverse operation (push-pull) per unit [m³/h]		8.5 – 29
Extract air flow per unit [m³/h]		17 – 58
Sound pressure level [dB (A)]		11 – 29
Standard sound level differential [dB]		Standard: 48 – 56
		Corner: 49 – 51
Heat recovery [η'_w]		0.87
Output voltage [V DC]		6 – 16
Power consumption [W]		1 – 3
Flow based electrical fan capacity [W/(m³/h)]		0.15
Protection class (EN 61140)		III
Type of protection (EN 60529)		IP20
Filter class (standard filter) (EN 779:2012)		G4
Air flow sensitivity at ± 20 Pa (EN 13141-8)		S3
Frost protection		Automatically due to push-pull operation (up to -20 °C)
Weight [g]		Max. 6,000 (with weather protection hood Nova Zero)
		Max. 6,800 (with exterior closure Corner Zero)
Conformity		
Energy efficiency class	local demand control	
	manual control	

3.2 Specifications according to EC Directive ErP, regulation 1254/2014 [Germany]

iV14-Zero, local demand control:

 Product fiche iV14-Zero according to VO 1254/2014 EU, dated 2014-07-11			
Pt.	Description	Data	
a	Supplier's name	inVENTer GmbH	
b	Supplier's model identifier	iV14-Zero iV14-Zero Corner	
c	SEC class / Specific energy consumption [kWh/(m ² a)]	cold	-88.068
		average	A+ -43.952
		warm	-18.678
d	Typology	BVU	
e	Type of drive installed	2	
f	Type of heat recovery system	regenerative	
g	Thermal efficiency of heat recovery η_t [%]	87	
h	Maximum flow rate (supply air) [m ³ /h]	58	
i	Electric power input [W]	6	
j	Sound power level L_{wa} [dB (A)]	37	
k	Reference flow rate [m ³ /h]	42	
l	Reference pressure difference [Pa]	0	
m	Specific power input (SPI) [W/m ³ /h]	0.15	
n	Control factor	0.65	
o	Internal/external leakage rate [%]	n. a.	
p	Mixing rate [%]	n. a.	
q	Position of visual filter warning	Controller	
r	Regulated supply and exhaust grilles in the facade (one-direction devices only)	no	
s	Internet:	www.inventer.eu	
t	Airflow sensitivity [%]	29.4	
u	Indoor and outdoor air tightness [m ³ /h]	6.3	
v	Annual electricity consumption [kWh/(m ² a)]	0.87	
w	Annual heating saved [kWh/(m ² a)]	cold	90.25
		average	46.13
		warm	20.86

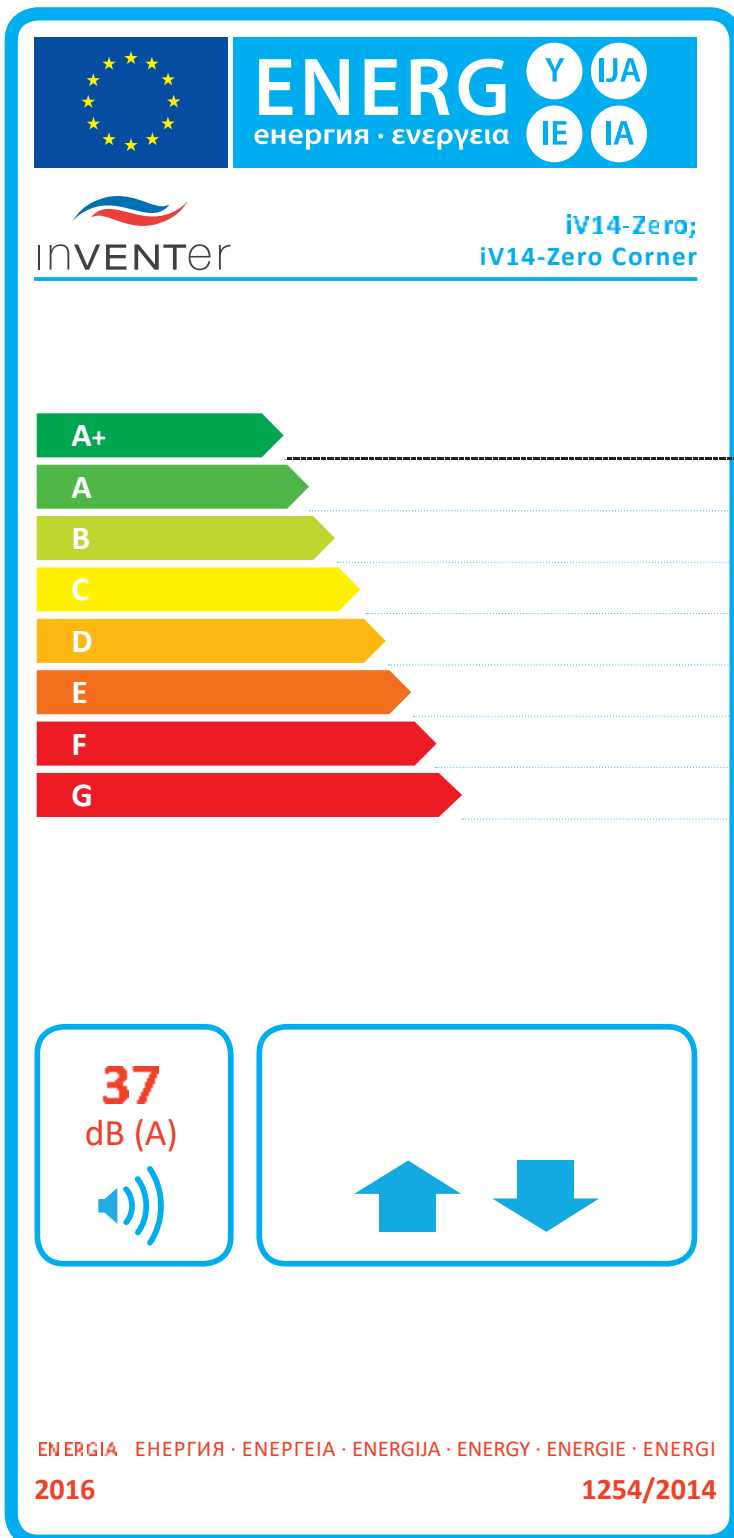
iV14-Zero, manual control:

 Product fiche iV14-Zero according to VO 1254/2014 EU, dated 2014-07-11			
Pt.	Description	Data	
a	Supplier's name	inVENTer GmbH	
b	Supplier's model identifier	iV14-Zero iV14-Zero Corner	
c	SEC class / Specific energy consumption [kWh/(m ² a)]	cold	-82.062
		average	A
		warm	-14.995
d	Typology	BVU	
e	Type of drive installed	2	
f	Type of heat recovery system	regenerative	
g	Thermal efficiency of heat recovery η_t [%]	87	
h	Maximum flow rate (supply air) [m ³ /h]	58	
i	Electric power input [W]	6	
j	Sound power level L_{wa} [dB (A)]	37	
k	Reference flow rate [m ³ /h]	42	
l	Reference pressure difference [Pa]	0	
m	Specific power input (SPI) [W/m ³ /h]	0.15	
n	Control factor	1	
o	Internal/external leakage rate [%]	n. a.	
p	Mixing rate [%]	n. a.	
q	Position of visual filter warning	Controller	
r	Regulated supply and exhaust grilles in the facade (one-direction devices only)	no	
s	Internet:	www.inventer.eu	
t	Airflow sensitivity [%]	29.4	
u	Indoor and outdoor air tightness [m ³ /h]	6.3	
v	Annual electricity consumption [kWh/(m ² a)]	2.07	
w	Annual heating saved [kWh/(m ² a)]	cold	87.23
		average	44.59
		warm	20.16

3.3 Energy Label according to EC Directive ErP, regulation 1254/2014 [Germany]

On the energy label you can find the following information from the product fiche:

- Energy efficiency class (Specific energy consumption class)
- Sound power level L_{wa}
- Maximum air flow (supply air)



Local demand control	Manual control
MZ-Home sMove with sensors	sMove without sensors

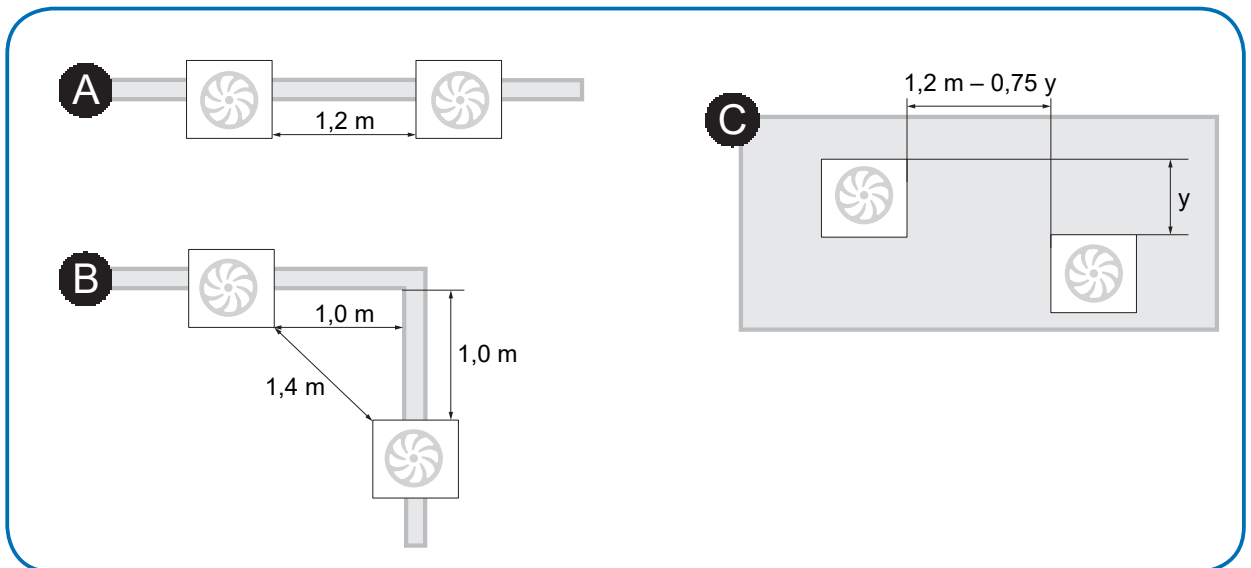
4 Preparing for installation/mounting position

- The exact positioning of the units and controllers must be determined on-site and, if necessary, adapted to the local conditions. The exact positioning of the units and controllers must be determined on-site and, if necessary, adapted to the local conditions.

Consult your planner!

Installation is recommended in a suitable position in the upper wall area for optimal operation (approx. room height 1.8 m [top edge of finished floor]).

- Do not place the unit near radiators, room thermostats or in the immediate vicinity/above delicate furniture, surfaces or pictures.
- The ventilation unit must not be installed in areas in which direct contact with water spray is possible.
- Observe the following **minimum distances for the unit's wall opening**:
 - between two ventilation units in push-pull operation (pair) in the same room to avoid the mixing of outdoor air and exhaust air:



- to adjacent components on the exterior wall (observe insulation/shutters):

Nova protective hood: 450 mm from hole center / center axis circumferentially

Corner Zero flat duct (to bottom edge of reveal):

155 mm from hole center / center axis circumferentially

- to adjacent components on the interior wall:

250 mm from hole center / center axis circumferentially

- to frontal adjacent components: 300 mm for maintenance tasks

5 iV14-Zero ventilation unit

5.1 Construction

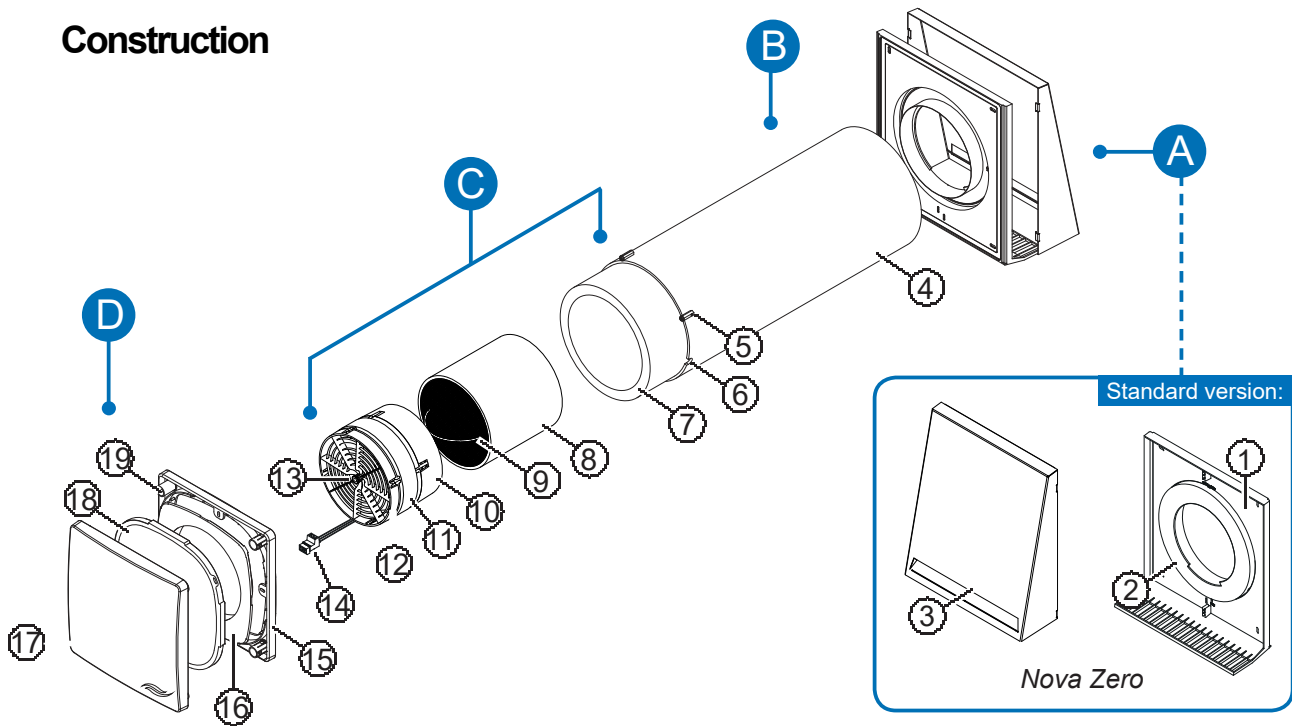


Figure 1: Overview of iV14-Zero Standard ventilation unit

Components

- A Exterior closure:**
Standard version:
Nova Zero protective hood
- 1 Protective hood base plate
 - 2 Ring insert (pre-assembled)
 - 3 Protective hood cover
- B Wall sleeve**
- 4 Wall sleeve R-D200
 - 5 Fastening elements for inner cover
 - 6 Recess for fan BUS (interior wall side)
- C Thermal accumulator insert**
 (Thermal accumulator, inVENTron and sound insulation coating of Inventin)
- 7 Sound insulation coating
 - 8 Thermal accumulator with insulation
 - 9 Thermal accumulator handle
 - 10 Standard guiding vane (broad)
 - 11 Xenion reversible fan
 - 12 Slim guiding vane (narrow)
 - 13 Guiding vane knob
 - 14 BUS plug connection
- D Flair Zero inner cover**
- 15 Inner cover base plate
 - 16 Insert Flair Zero (pre-assembled)
 - 17 Inner cover panel
 - 18 Dust filter of class G4¹⁾
 - 19 Spacer (4 x)

¹⁾ Pollen, micro and activated carbon filter options available

5.2 Dimensions

Designation	Depth/length [mm]	Width [mm]	Height [mm]
Wall thickness with render [mm]	> 255	-	
Wall opening for wall sleeve	Wall thickness ¹⁾	Ø225	
Wall sleeve R-D200x495 (745)	495 (745)	Ø200	
Nova Zero protective hood	23 – 88	279	313
Flair Zero inner cover V-233x233, SDE	61 ²⁾	233	233

1) incl. render, insulation, masonry and inner structure

2) opened

Sectional drawing

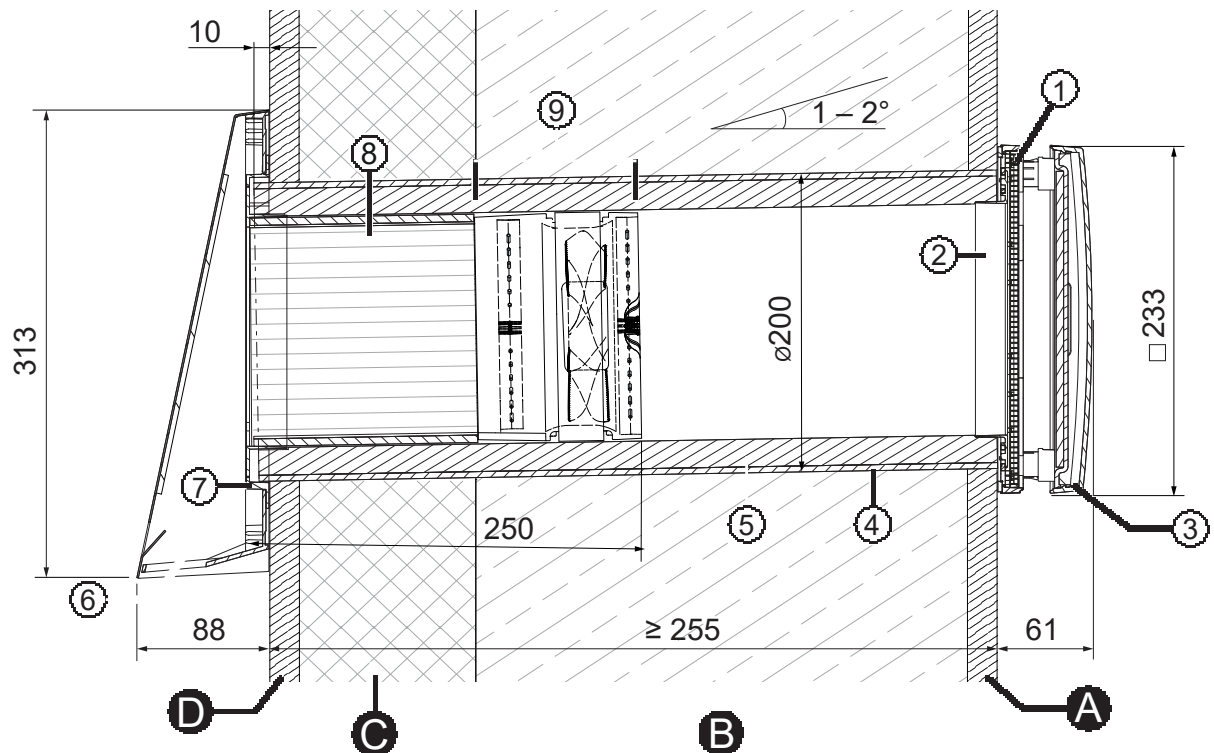


Figure 2: Sectional drawing iV14-Zero (side view)

A Inner plaster/internal structure
 B Masonry

C Insulation
 D Render

1 Inner cover base plate
 2 Insert Flair Zero (pre-assembled)
 3 Inner cover panel with sound insulation insert SDE
 4 Wall sleeve R-D200
 5 Sound insulation coating

6 Nova Zero protective hood
 7 Ring insert Nova Zero (pre-assembled)
 8 Thermal accumulator
 9 inVENTron:
 Xenion reversible fan embedded in guiding vanes

Exterior closure: Nova Zero protective hood

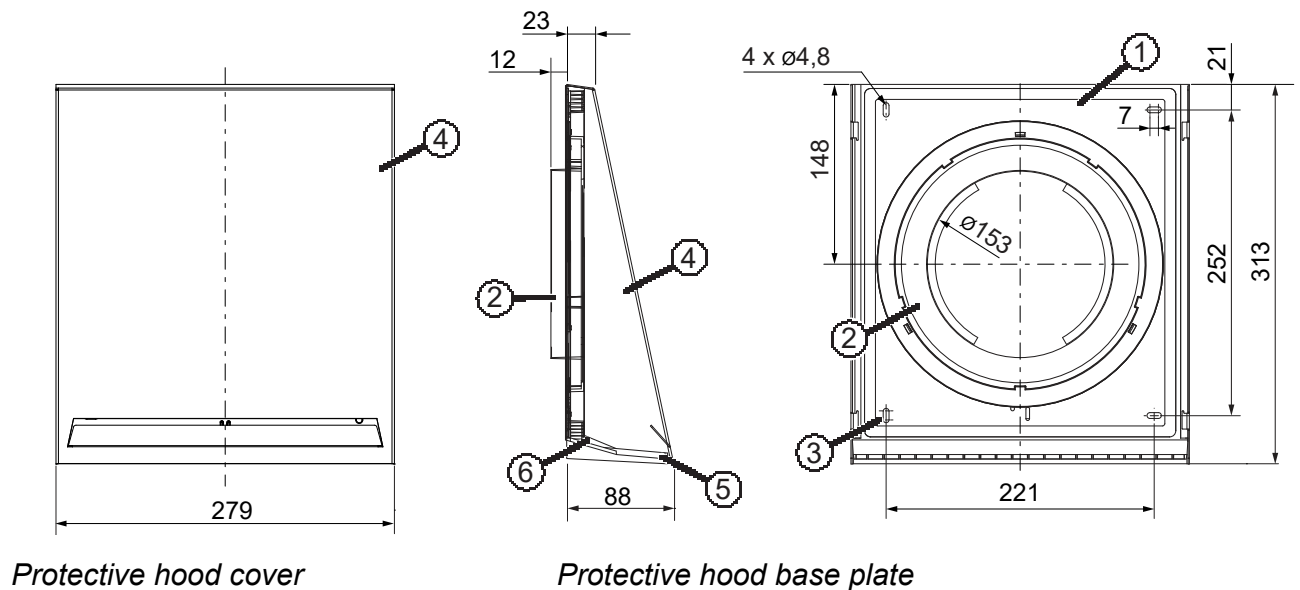
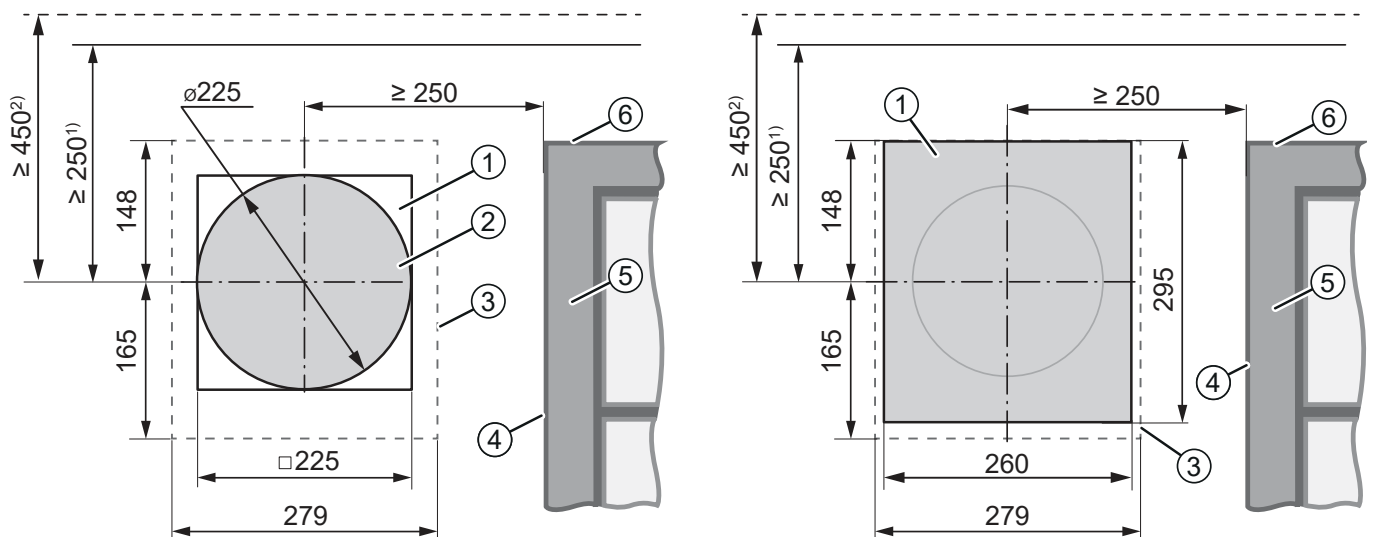


Figure 3: Dimensioned drawing of Nova Zero protective hood

- 1 Protective hood base plate
- 2 Ring insert Nova Zero (pre-assembled)
- 3 Exterior wall attachment with Ø 8 mm, min. 50 mm deep (4 x)
- 4 Protective hood cover
- 5 Protective grid
- 6 Drip rail

Position of wall opening



Position of wall opening

Position of Simplex wall installation system

Figure 4: Dimensioned drawing of wall opening iV14-Zero (Interior view)

- 1 Wall opening New buildings (Fig. 4, left)
Simplex installation system (Fig. 4, right)
- 2 Wall opening: Existing buildings
- 3 Position of protective hood (contour)
- 4 Window reveal
- 5 Door/window frame
- 6 Bottom edge of reveal³⁾

¹⁾ Minimum distance to adjacent components on the interior wall

³⁾ Observe insulation/shutters

²⁾ Minimum distance to adjacent components on the exterior wall

Flair Zero inner cover

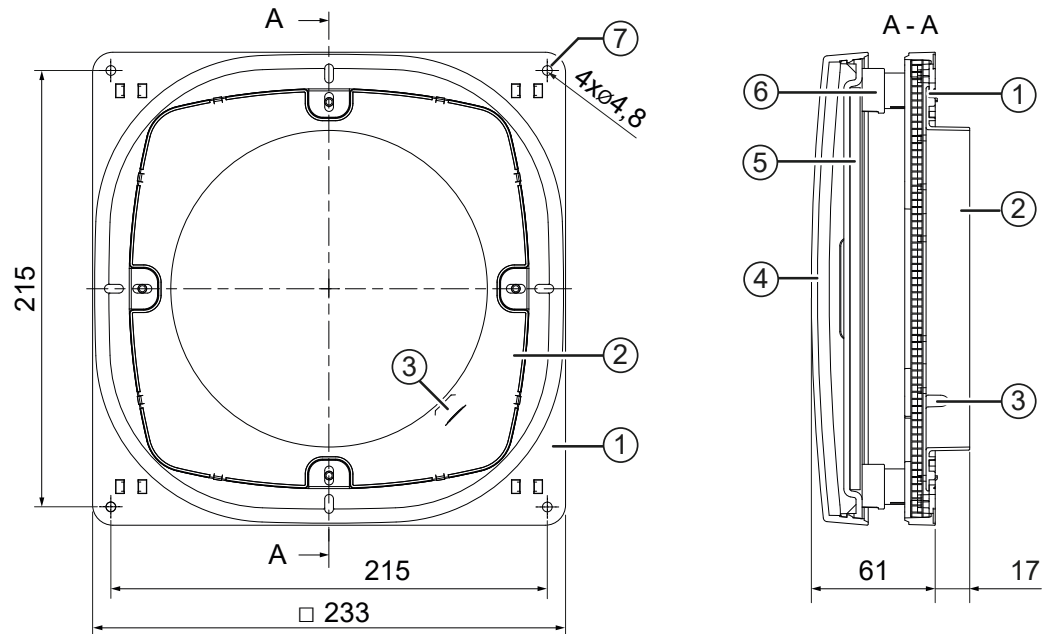
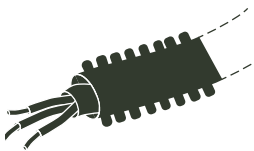
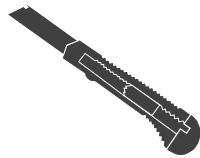
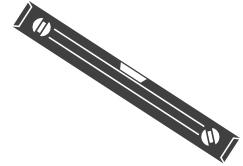
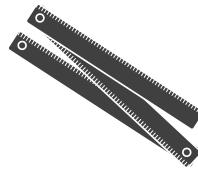
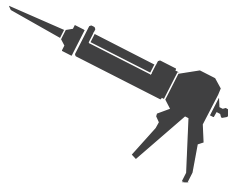
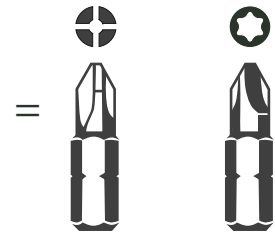
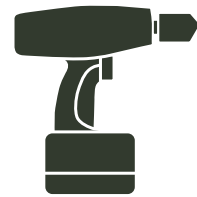
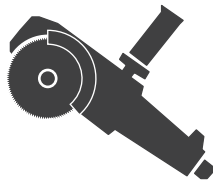
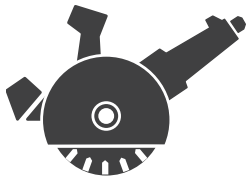
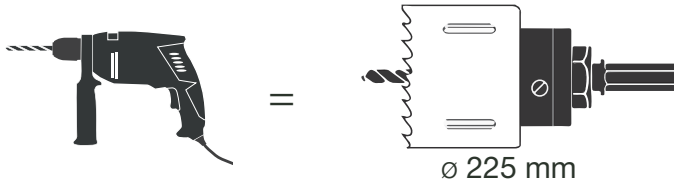


Figure 5: Dimensioned drawing of Flair Zero inner cover V-233x233

- | | |
|--------------------------|--|
| 1 Inner cover base plate | 5 Sound insulation insert SDE |
| 2 Insert Flair Zero | 6 Spacer (4 x) |
| 3 Fan BUS feed-through | 7 Interior wall attachment with \varnothing 6 mm,
min. 40 mm deep (4 x) |
| 4 Inner cover panel | |

5.3 Assembly and installation



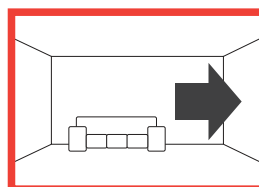
Cable (braided flex),
3 x 0.75 mm²



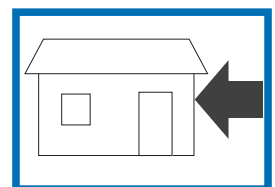
Wire ferrules with
collar



0.75 mm²



Interior wall

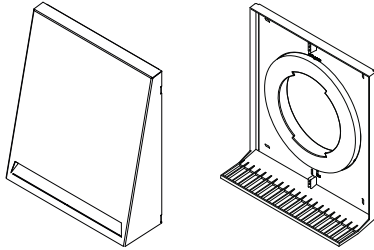
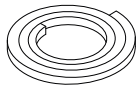


Exterior wall

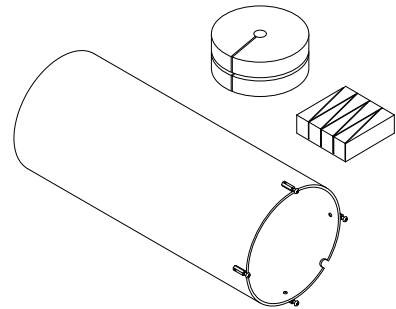


4x 

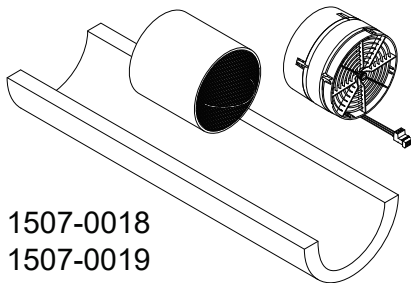
4x 



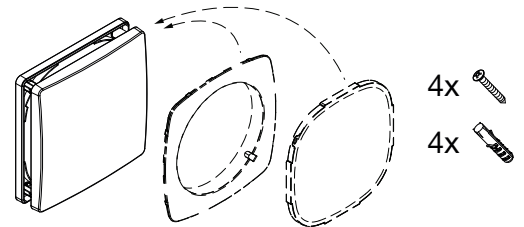
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Item no. 1506-0070 / 1506-0071



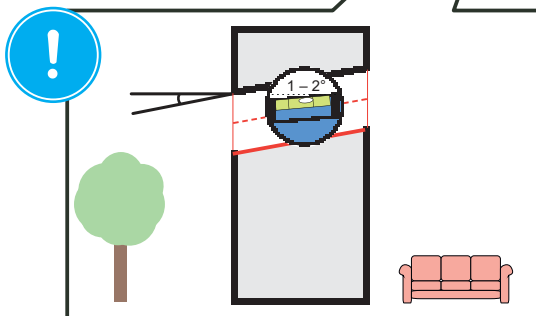
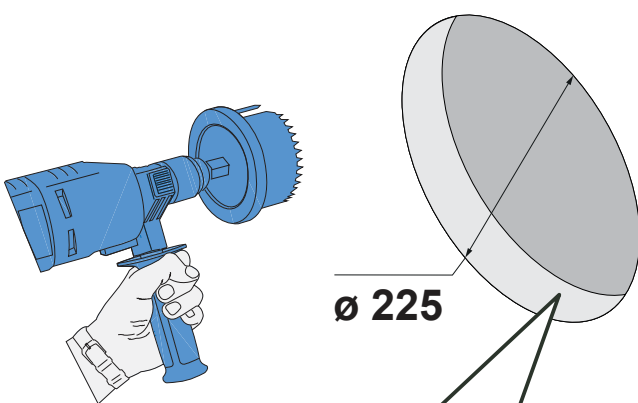
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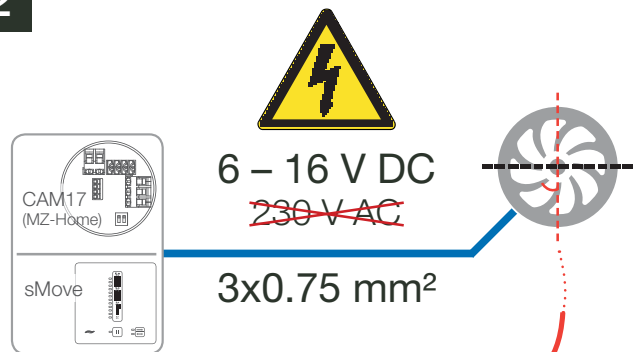
4x 
4x 

Item no. 1505-0038

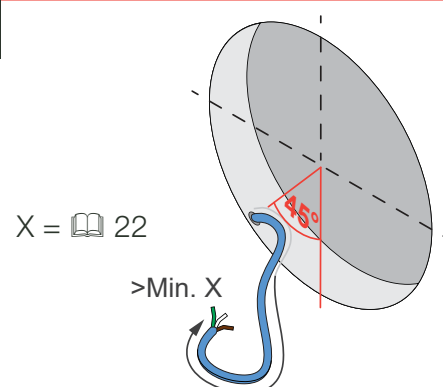
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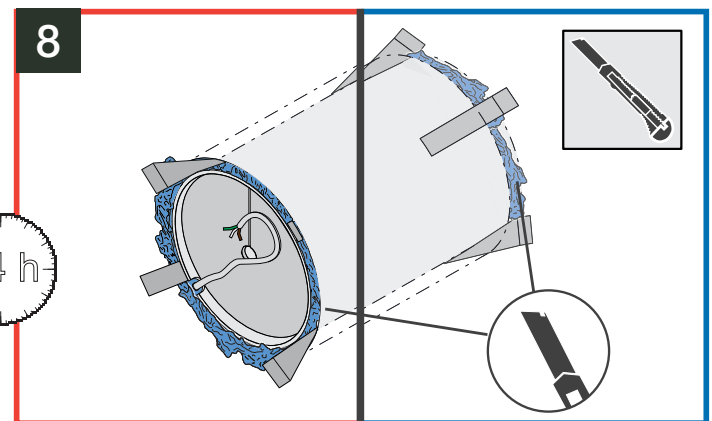
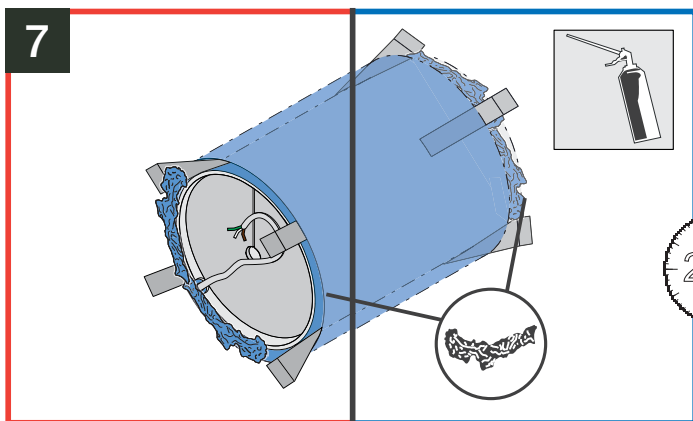
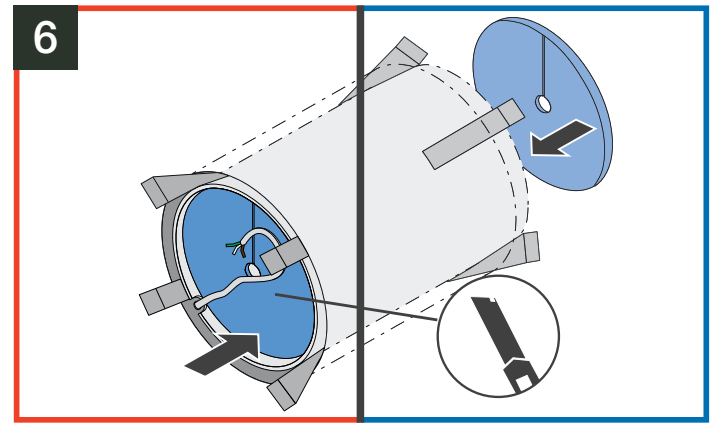
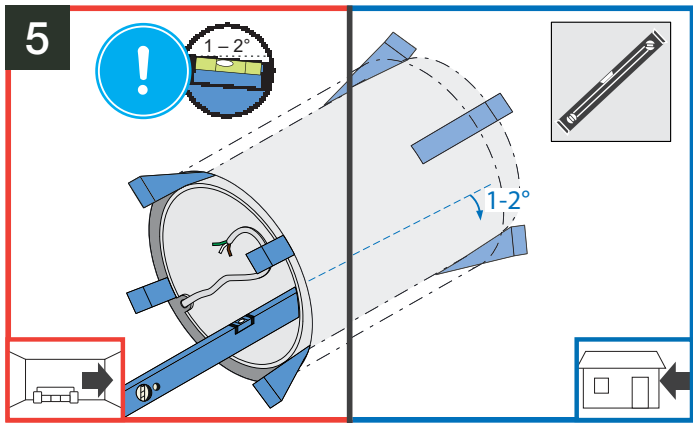
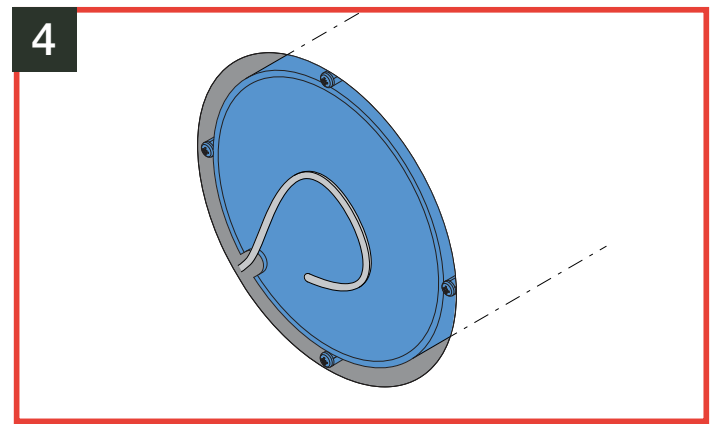
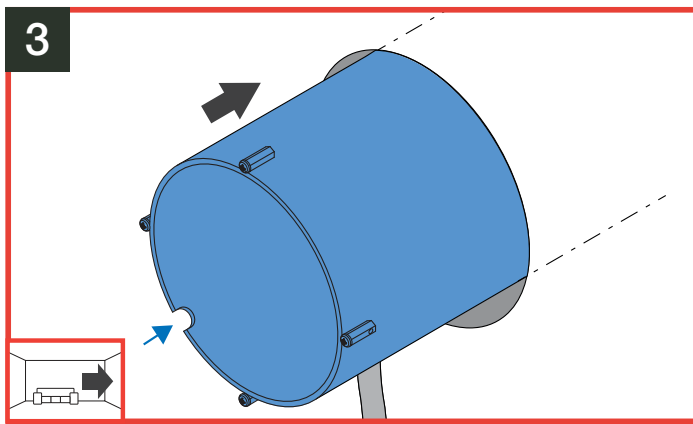
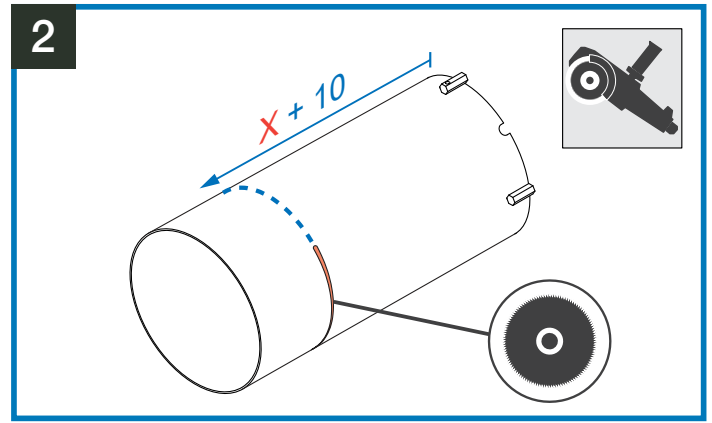
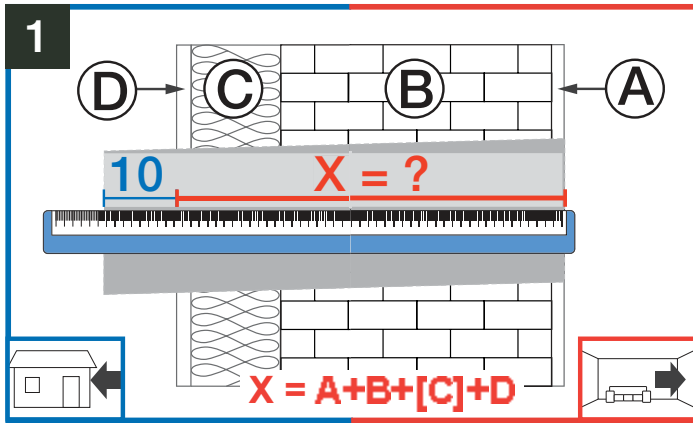


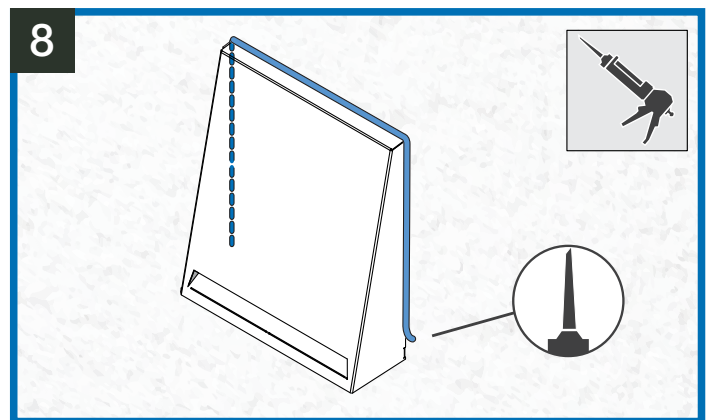
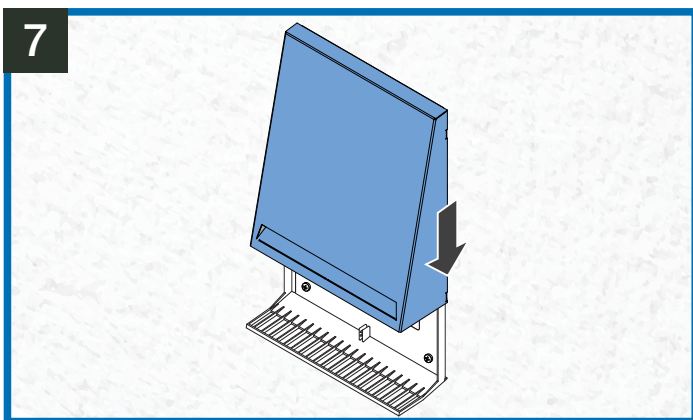
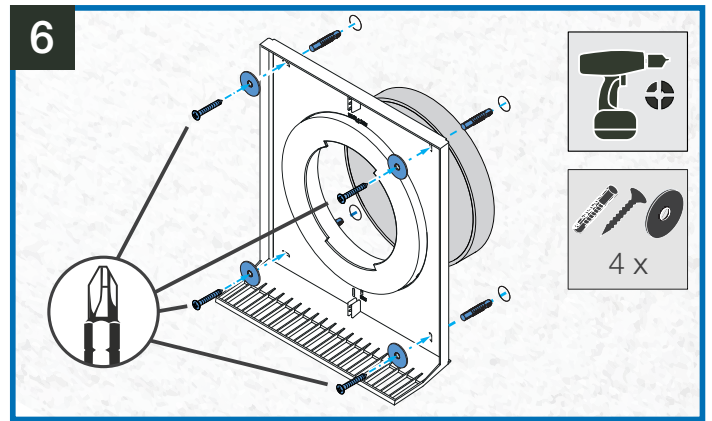
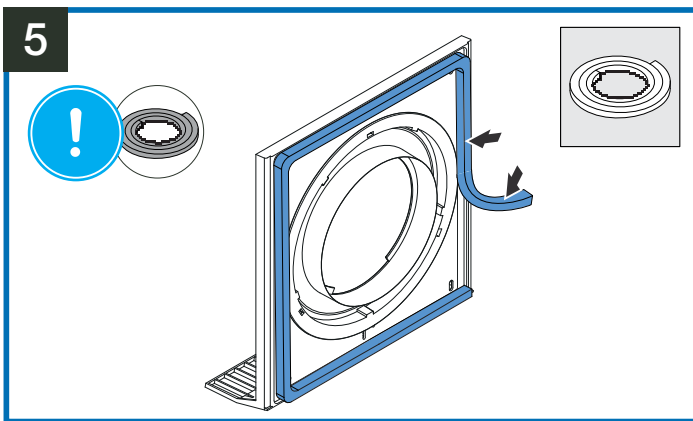
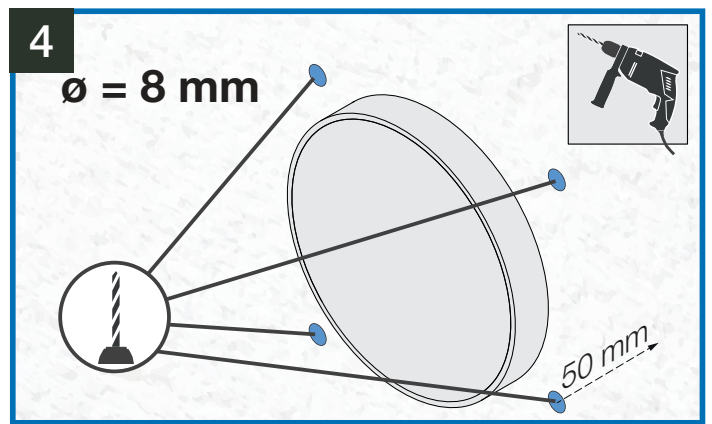
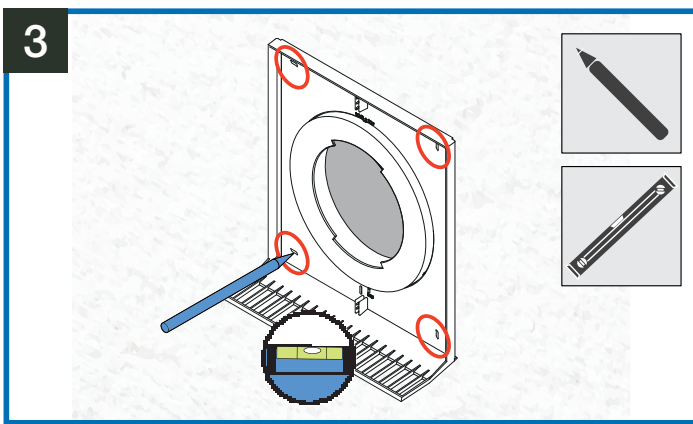
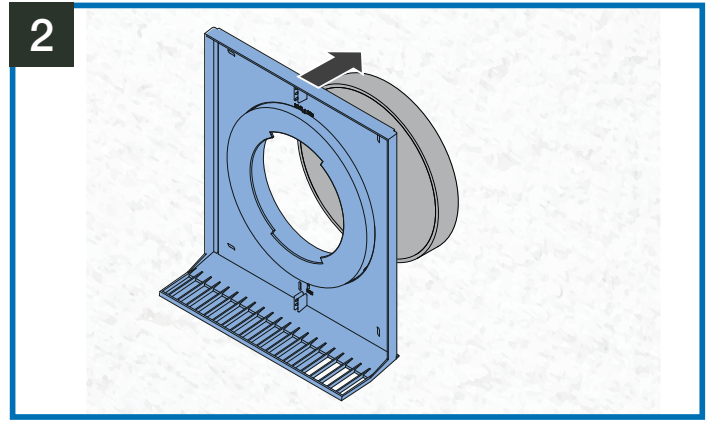
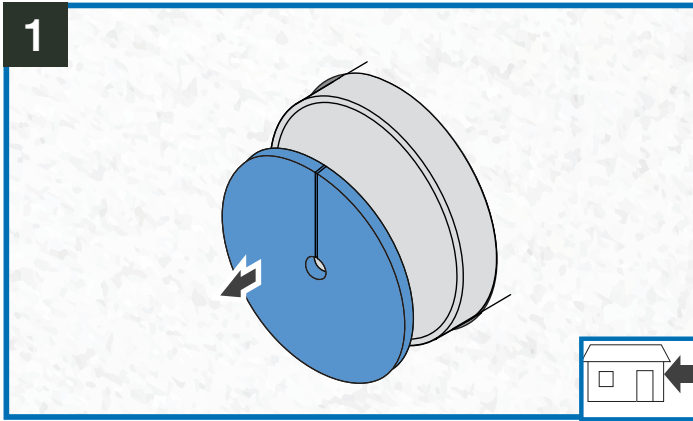
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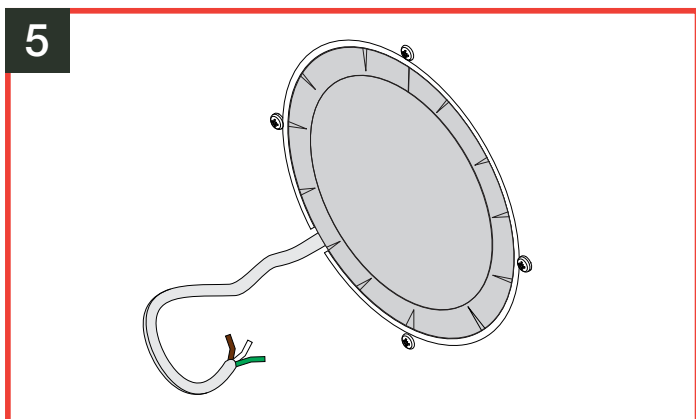
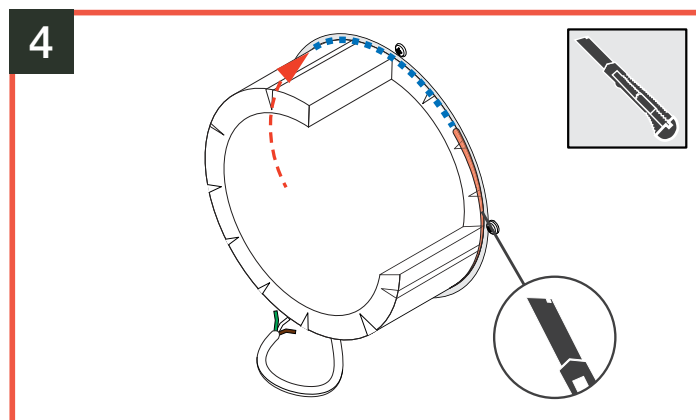
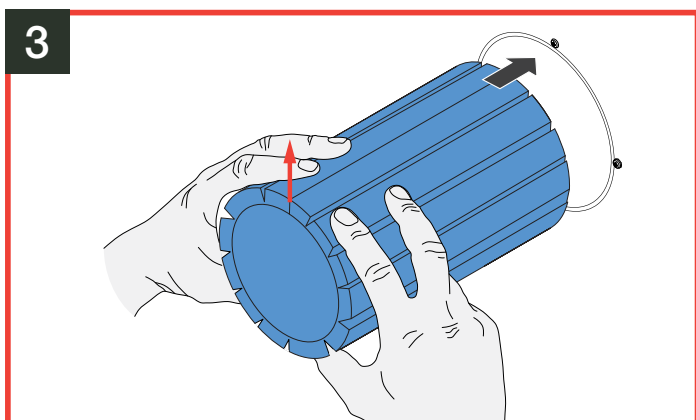
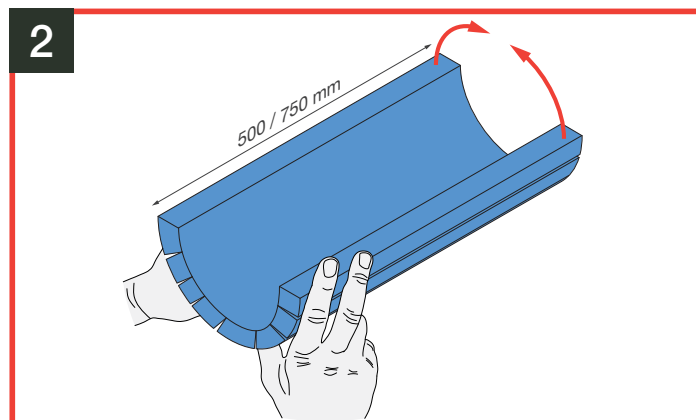
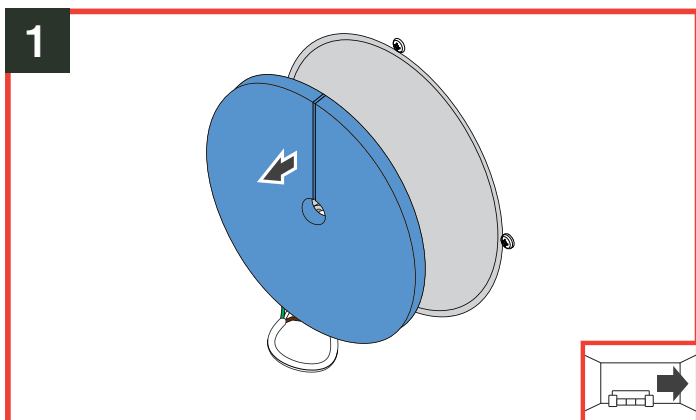


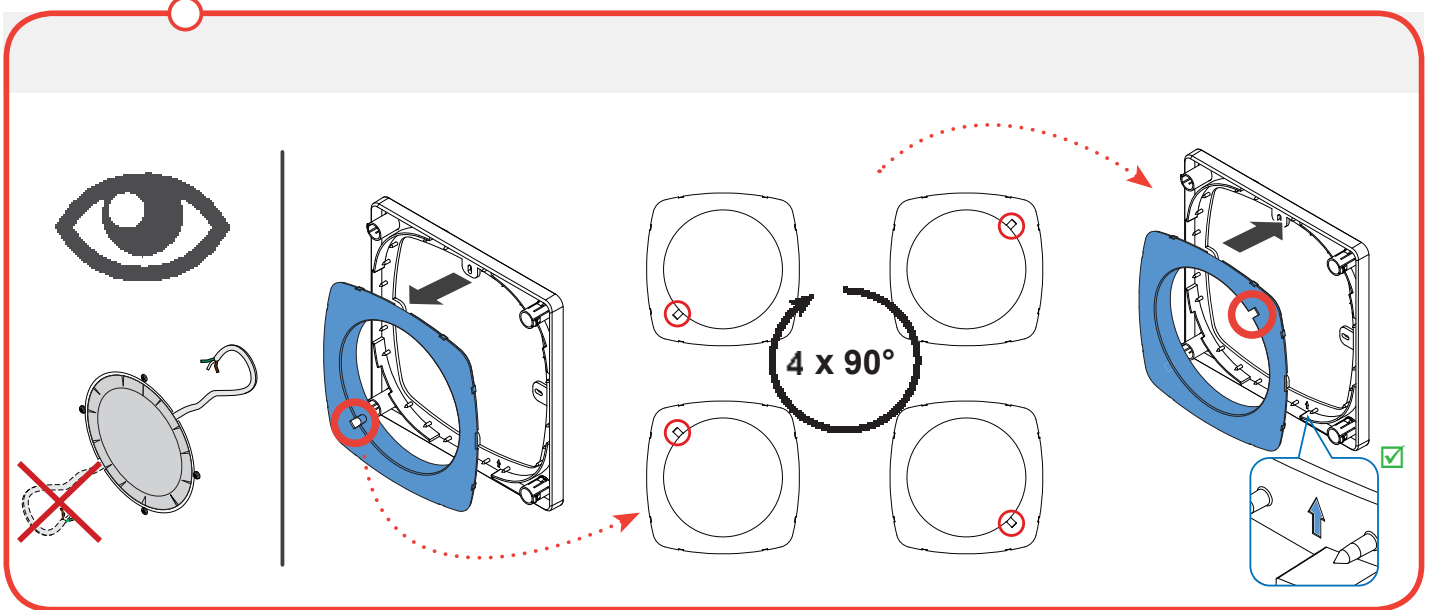
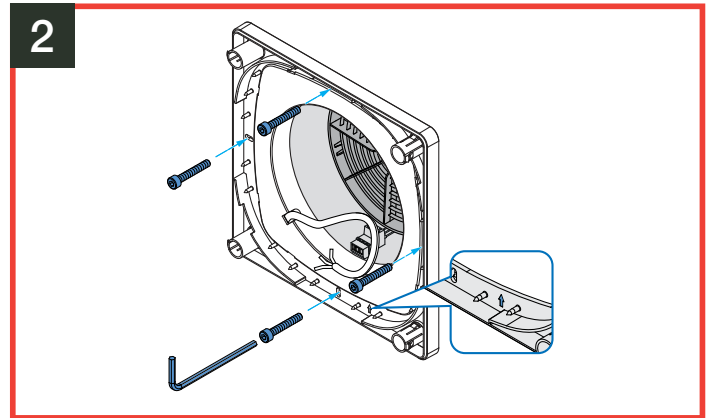
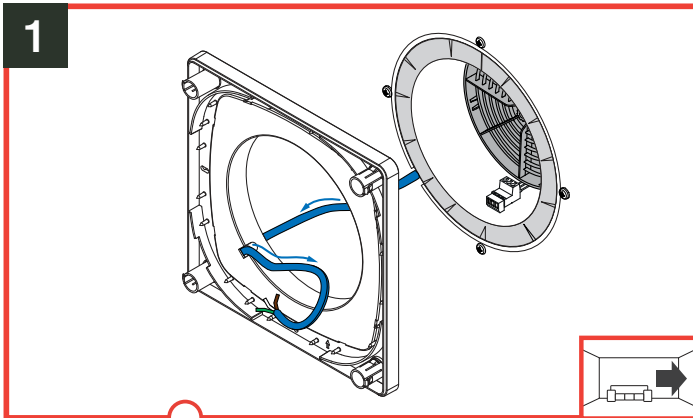
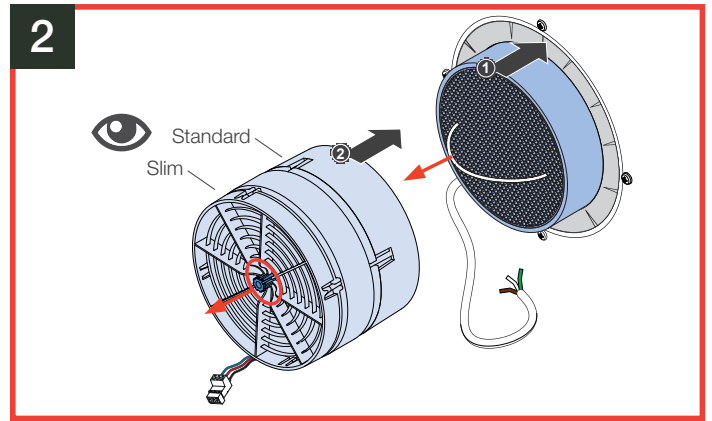
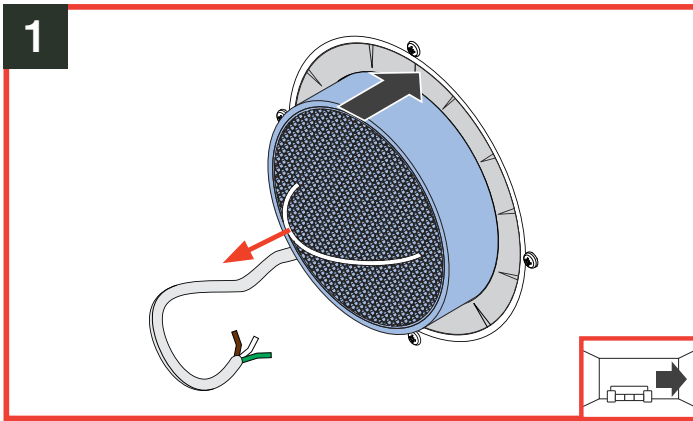
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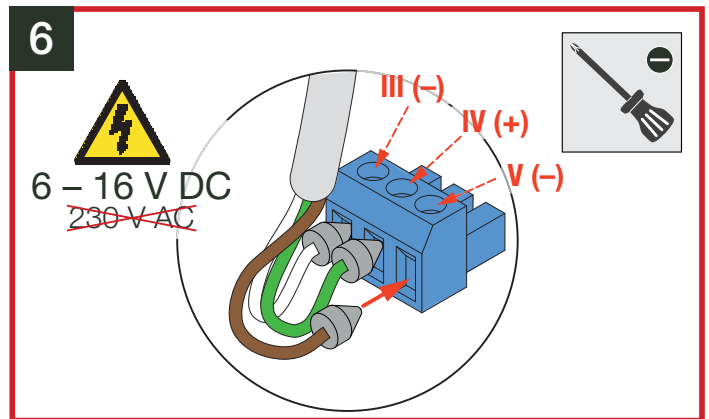
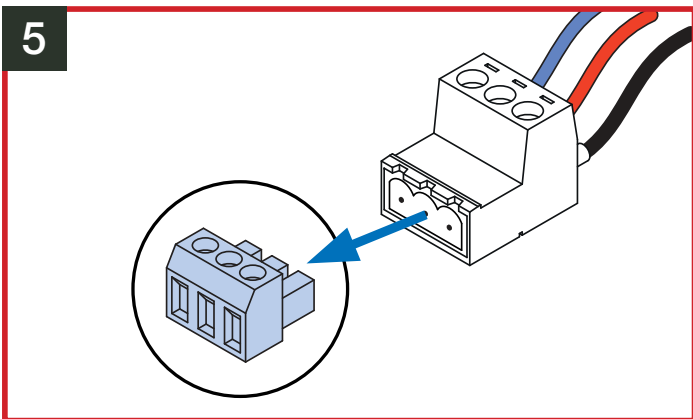
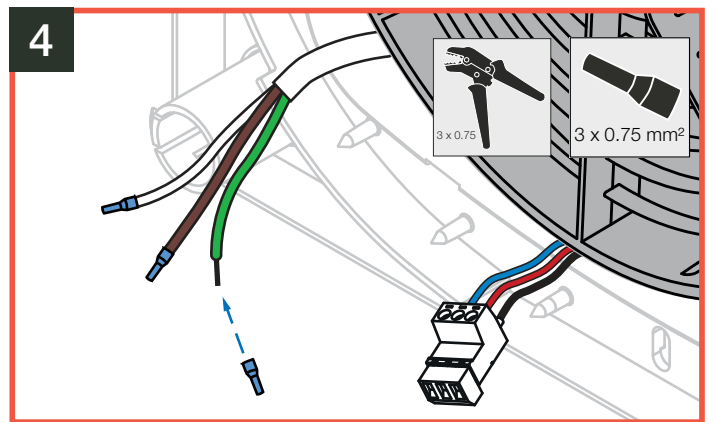
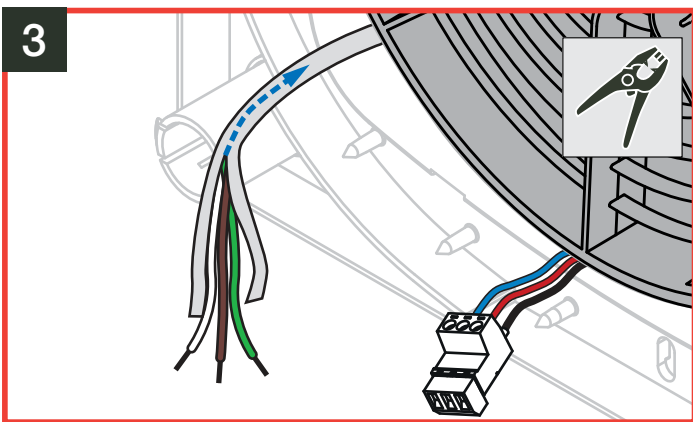
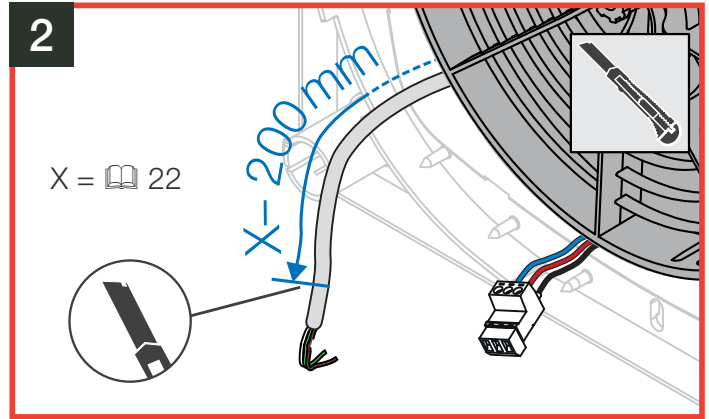
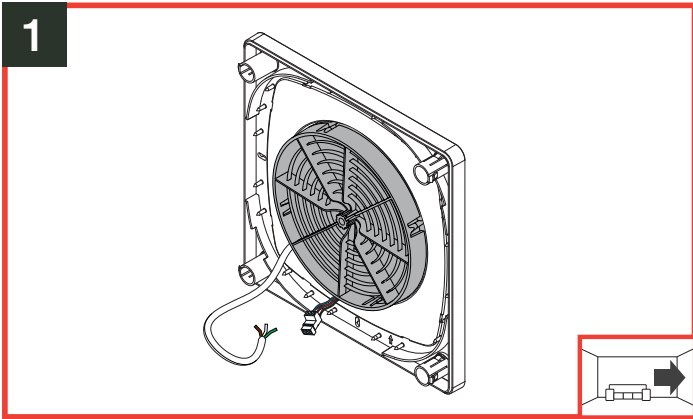










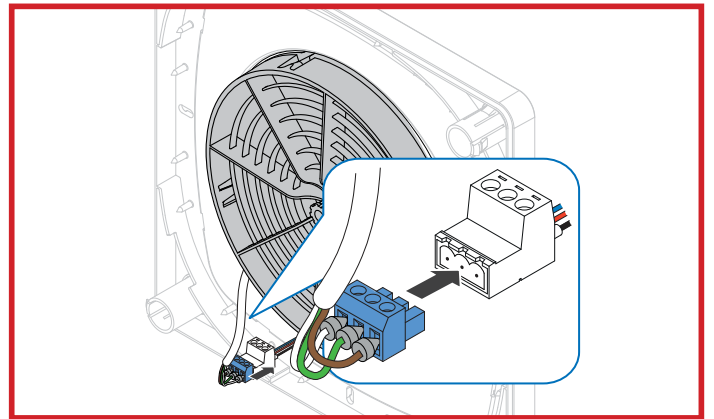
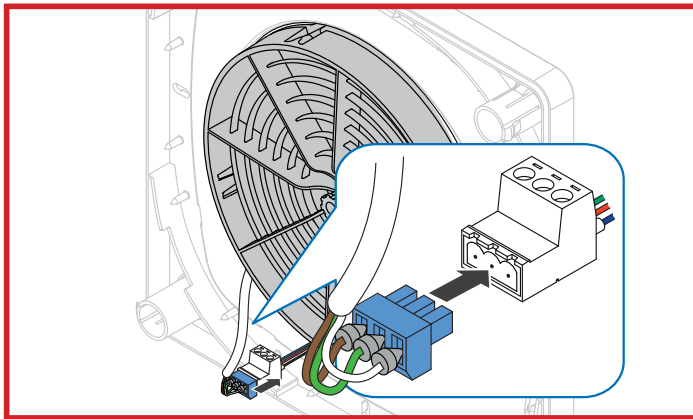
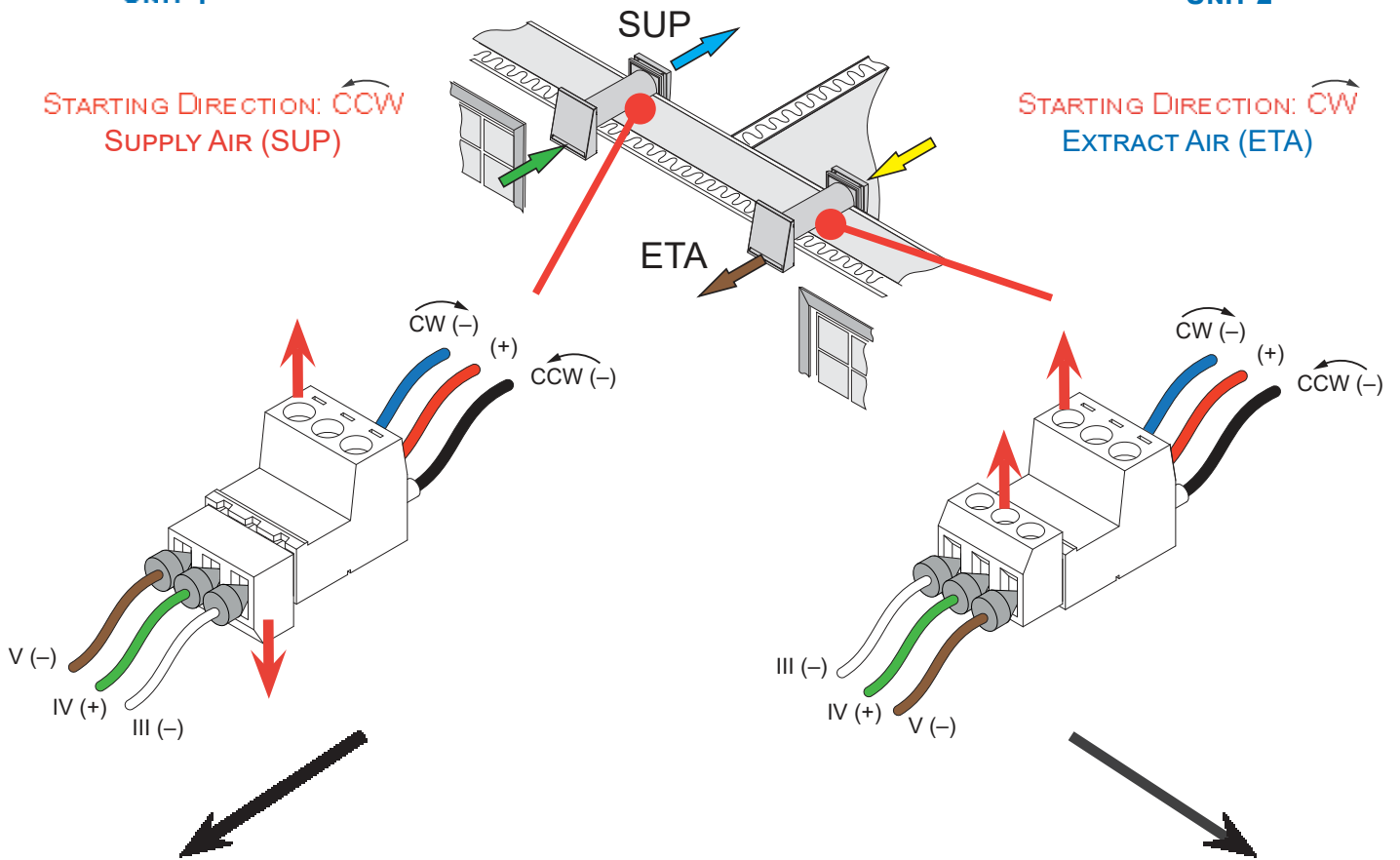


UNIT 1


UNIT 2

STARTING DIRECTION: CCW
SUPPLY AIR (SUP)

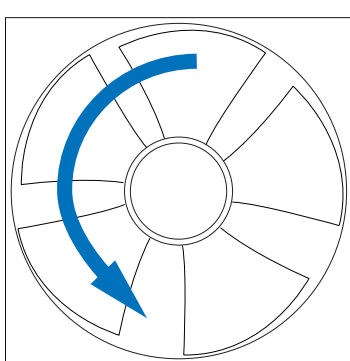
STARTING DIRECTION: CW
EXTRACT AIR (ETA)



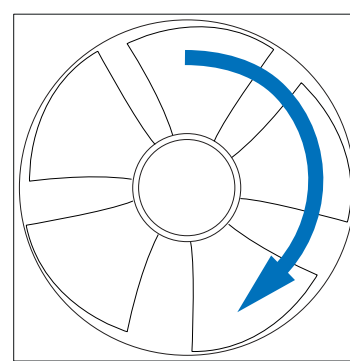
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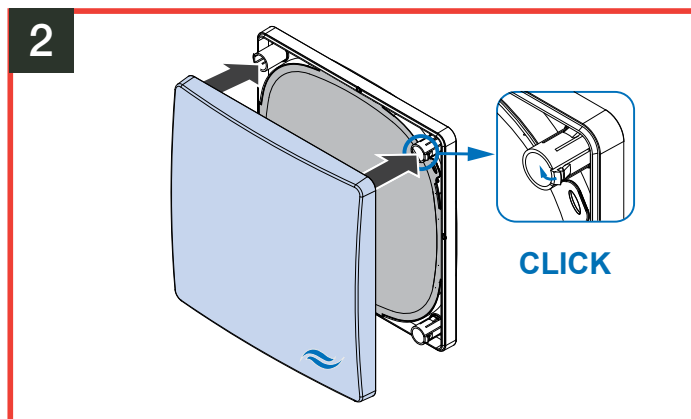
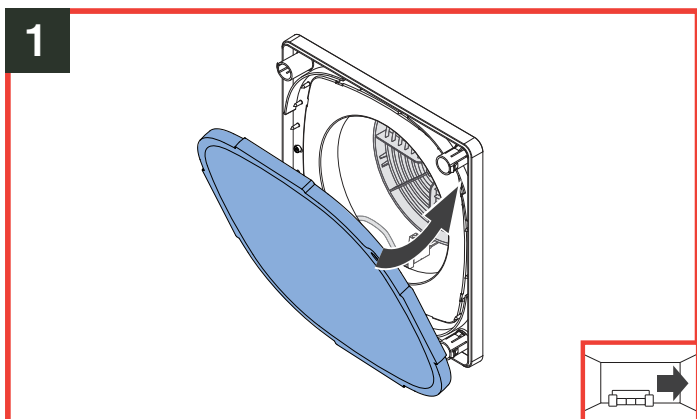


CCW



CW





6 iV14-Zero Corner ventilation unit

6.1 Construction

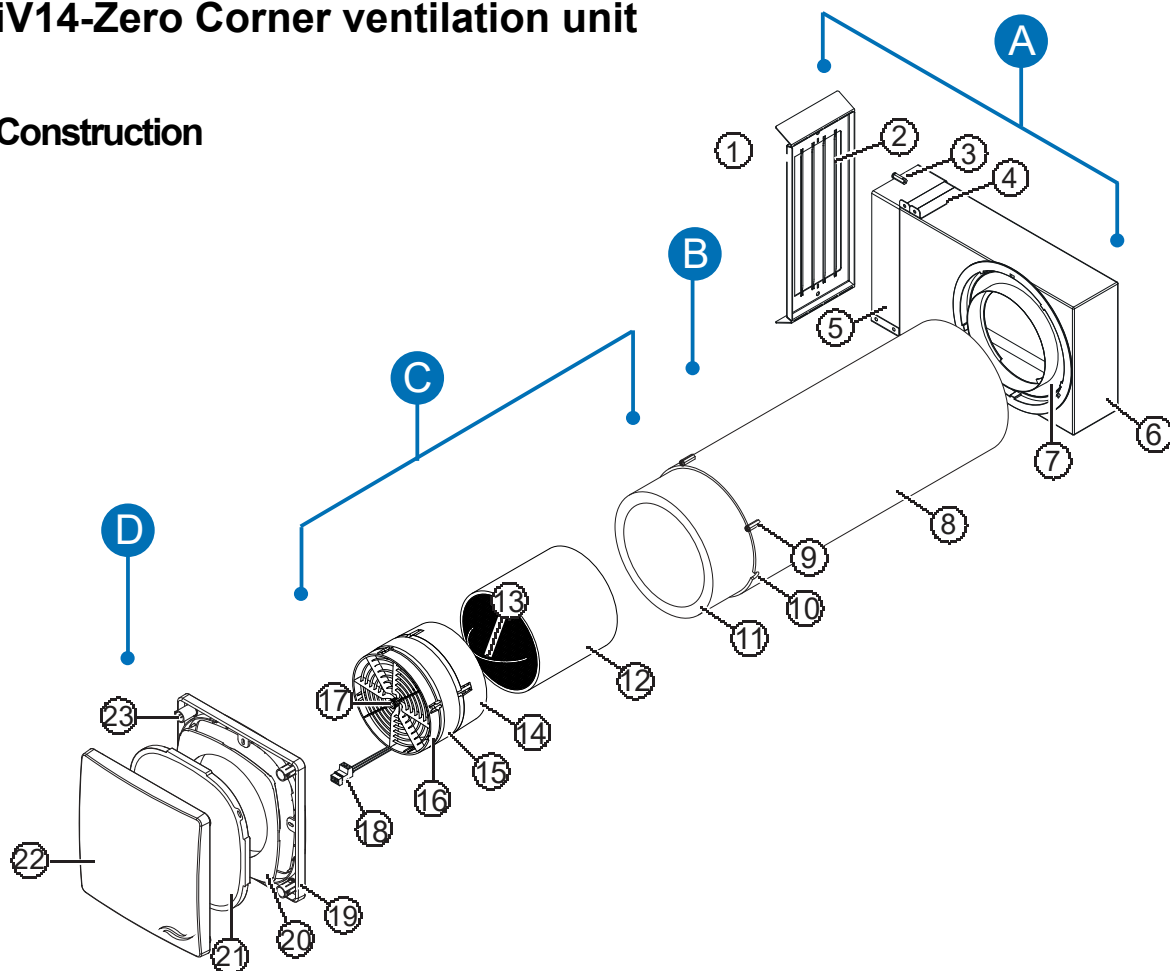


Figure 6: Overview of iV14-Zero Corner ventilation unit

Components

A Exterior closure:

Reveal grille and flat duct

- 1 Reveal grille
- 2 Louvres
- 3 Fastening elements for reveal grille (2 x)
- 4 Spacer (2 x)
- 5 Flat duct sliding sleeve
- 6 Corner Zero flat duct
- 7 Ring insert Corner Zero (pre-assembled)

B Wall sleeve

- 8 Wall sleeve R-D200
- 9 Fastening elements for inner cover
- 10 Recess for fan BUS
(interior wall side)

C Thermal accumulator insert

(Thermal accumulator, inVENTron and sound insulation coating of Inventin)

- 11 Sound insulation coating
- 12 Thermal accumulator
- 13 Thermal accumulator handle
- 14 Standard guiding vane (broad)
- 15 Xenion reversible fan
- 16 Slim guiding vane
- 17 Guiding vane knob
- 18 BUS plug connection

D Flair Zero inner cover

- 19 Inner cover base plate
- 20 Insert Flair Zero inner cover
- 21 Inner cover panel
- 22 Dust filter G4¹⁾
- 23 Spacer (4 x)

¹⁾ Pollen, micro and activated carbon filter options available

6.2 Dimensions

Designation	Depth/length [mm]	Width [mm]	Height [mm]
Thickness Masonry and inner structure / inner plaster	> 255	–	–
Thickness Insulation	> 120	–	–
Wall opening for wall sleeve	Wall thickness ¹⁾	Ø225	
Wall sleeve R-D200x495 (745)	495 (745)	Ø200	
Corner Zero flat duct 90x220x400 (D200)	400	95	224
Corner Zero flat duct 90x220x500 (D200)	500	95	224
Reveal grille V-90x220	10	104	281.5
Flair Zero inner cover V-233x233, SDE	61 ²⁾	233	233

¹⁾ incl. render, insulation, masonry and inner structure

²⁾ opened

Sectional drawing

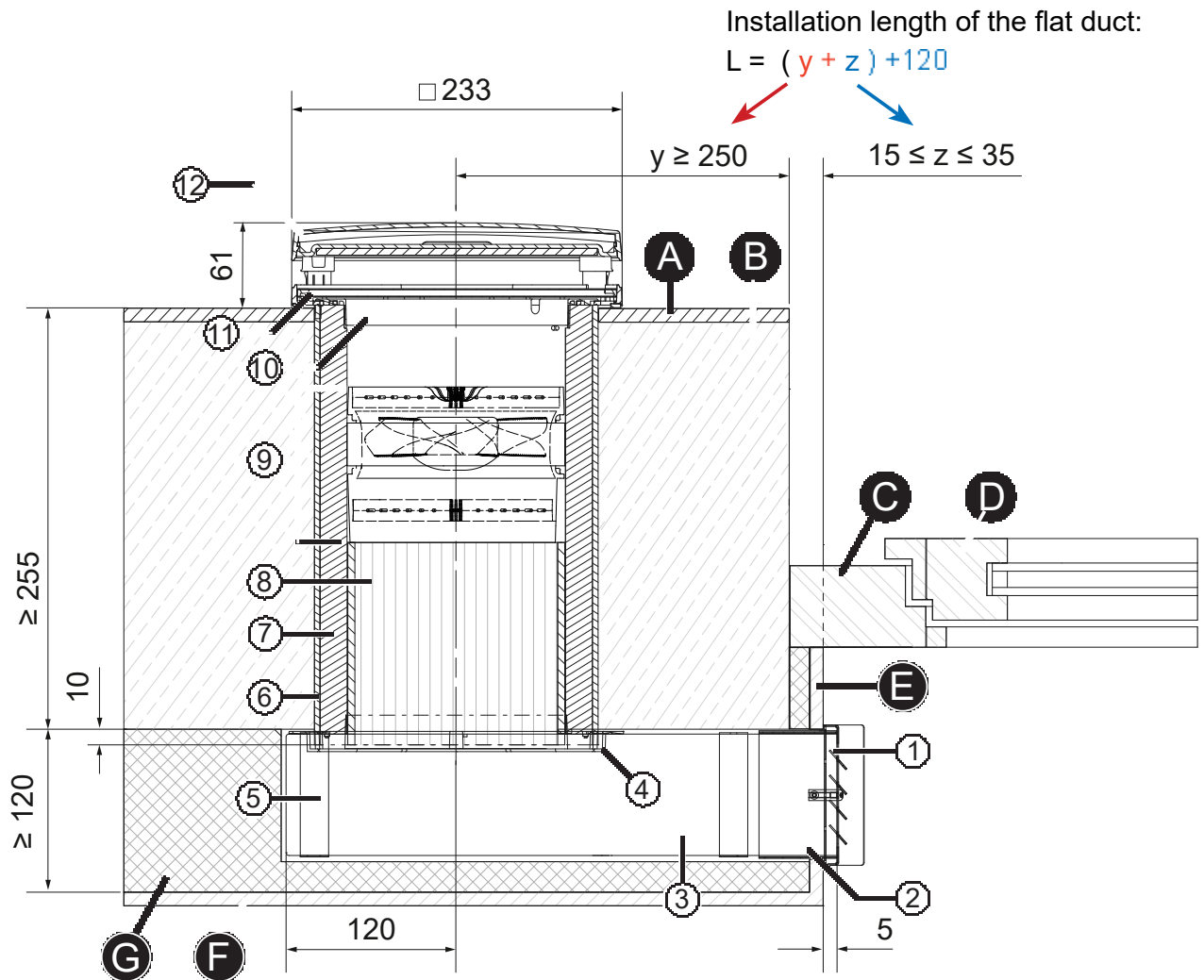


Figure 7: Sectional drawing iV14-Zero Corner ventilation unit

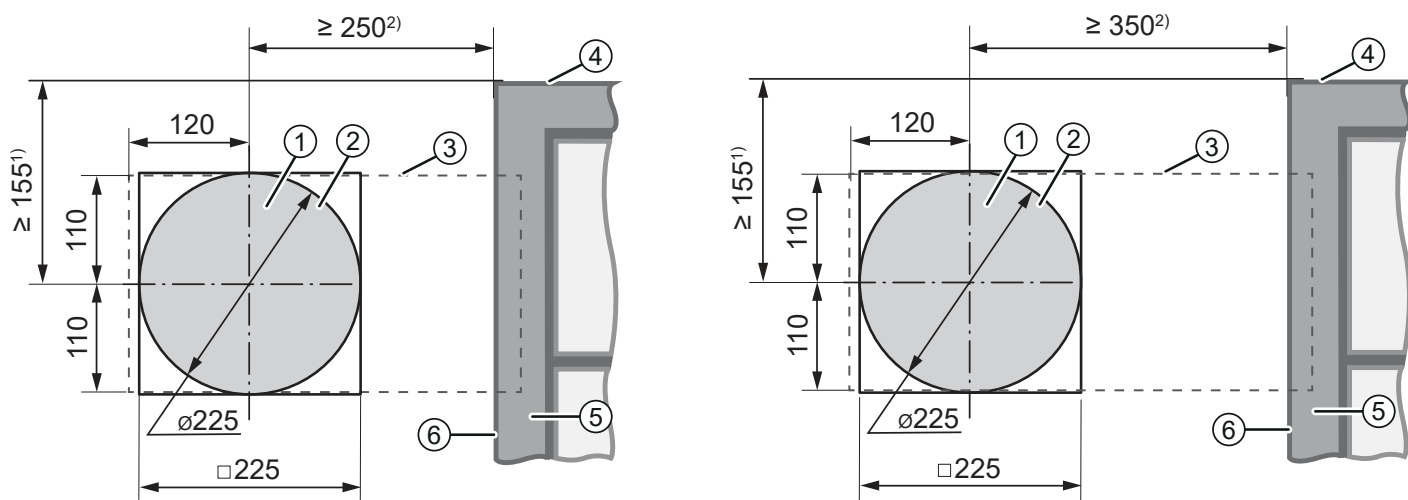
- | | |
|---|--|
| A Plaster | E Render of reveal |
| B Masonry | F Render |
| C Window frame | G Insulation ¹⁾ |
| D Window casement | |
| 1 Reveal grille | 9 inVENTron:
Xenion reversible fan embedded in
guiding vanes |
| 2 Flat duct sliding sleeve | 10 Insert Flair Zero (pre-assembled) |
| 3 Corner flat duct ^{2), 3)} | 11 Inner cover base plate |
| 4 Ring insert Corner Zero (pre-assembled) | 12 Inner cover panel with sound insulation
insert SDE |
| 5 Spacer (2 x) | |
| 6 Wall sleeve R-D200 | |
| 7 Sound insulation coating | |
| 8 Thermal accumulator | |

¹⁾ Insulation on flat duct must be at least 10 mm.

²⁾ Use flat duct Corner 400 if (y + z) is at least 265 mm / is max. 285 mm.

³⁾ Use flat duct Corner 500 if (y + z) is at least 365 mm / is max. 385 mm.

Wall opening



Corner flat duct 400 mm

Corner flat duct 500 mm

Figure 8: Dimensional drawing of wall opening with flat duct (Interior view)

- | | |
|--|---------------------------------------|
| 1 Wall opening: Existing buildings | 4 Bottom edge of reveal ¹⁾ |
| 2 Wall opening: New buildings (Simplex as an option) | 5 Door/window frame |
| 3 Corner Zero flat duct (contour) | 6 Window reveal |

¹⁾ Observe insulation/shutters on exterior wall

²⁾ 30, Fig. 8

Flair Zero inner cover

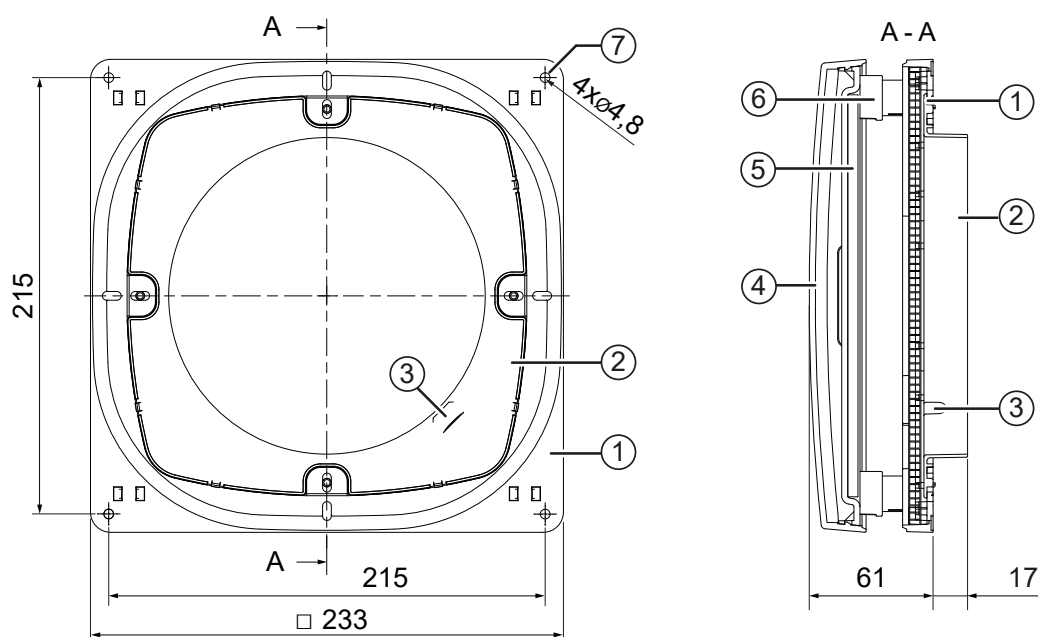


Figure 9: Dimensioned drawing of Flair Zero inner cover V-233x233

- | | |
|-------------------------------------|---|
| 1 Inner cover base plate | 5 Sound insulation insert SDE |
| 2 Insert Flair Zero (pre-assembled) | 6 Spacer (4 x) |
| 3 Fan BUS feed-through | 7 Interior wall attachment with ∅ 6 mm, min. 40 mm deep (4 x) |
| 4 Inner cover panel | |

Corner exterior closure

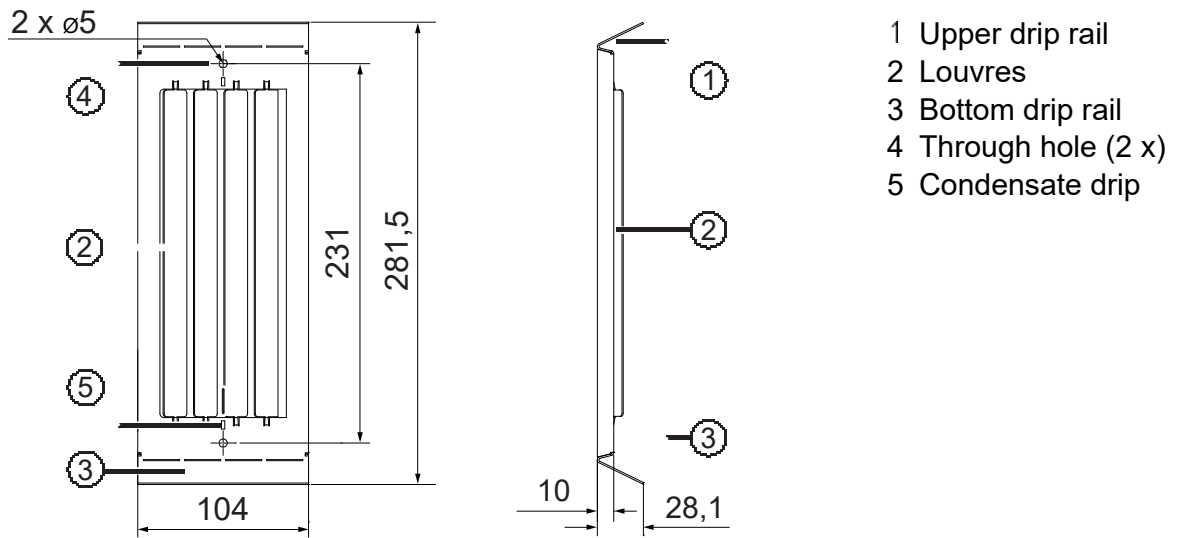


Figure 10: Dimensioned drawing of reveal grille

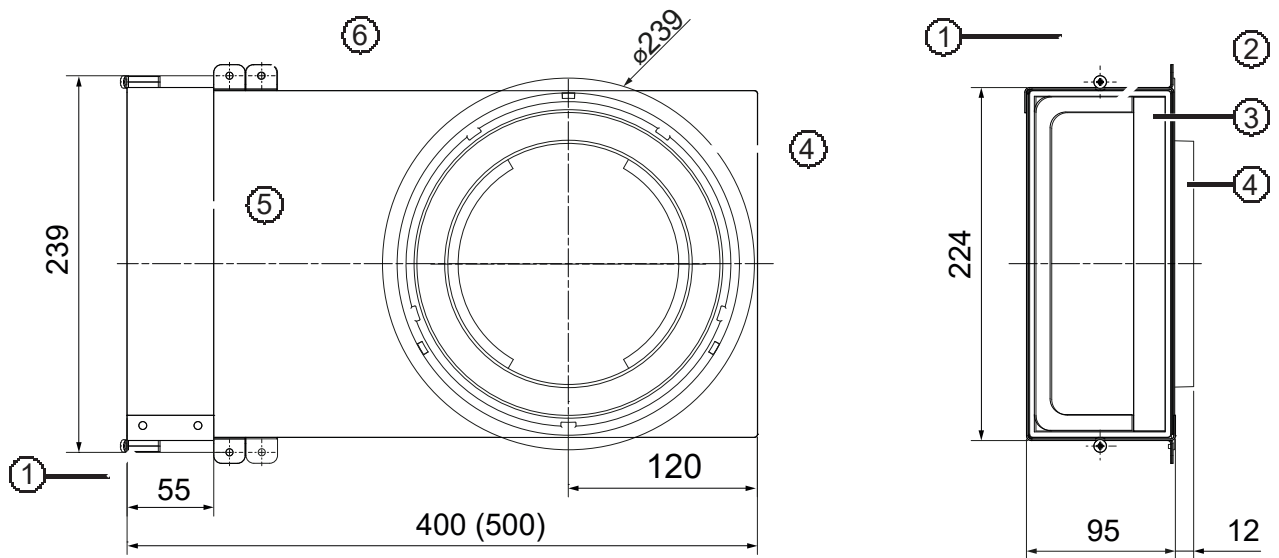
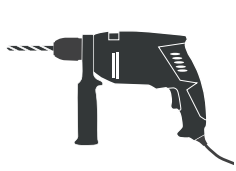


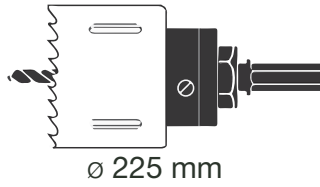
Figure 11: Dimensioned drawing of Corner Zero flat duct 90x220x400[500] (D200)

- 1 Fastening element (2 x)
- 2 Sound insulation
- 3 Neopor insert
- 4 Ring insert Corner Zero (opening for wall sleeve R-D200)
- 5 Flat duct sliding sleeve
- 6 Spacer (2 x)

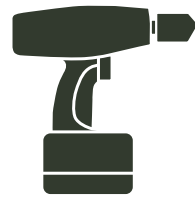
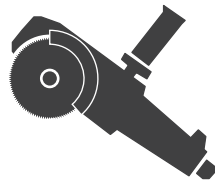
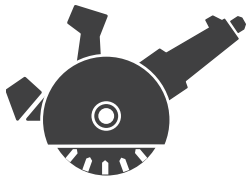
6.3 Assembly and installation



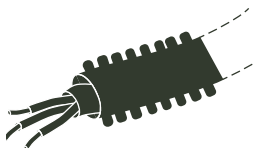
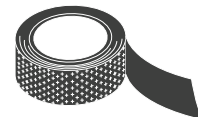
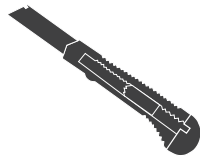
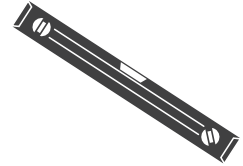
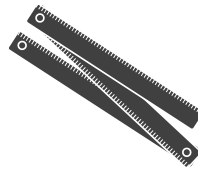
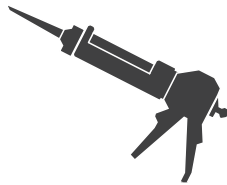
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ø 6 mm
ø 8 mm



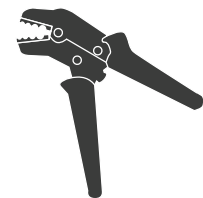
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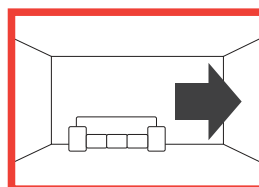
Cable (braided flex),
3 x 0.75 mm²



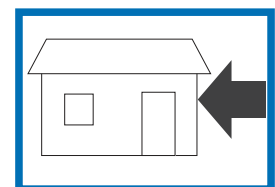
Wire ferrules with
collar



0.75 mm²

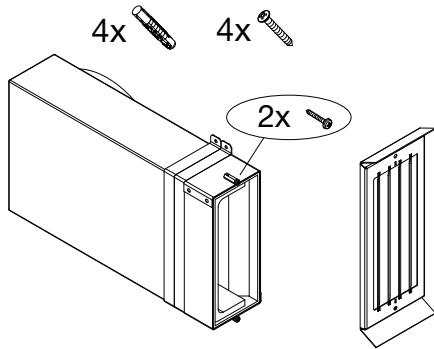


Interior wall

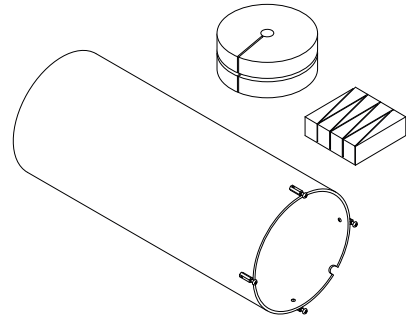


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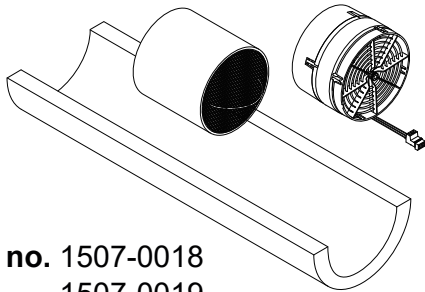
IV14-ZERO CORNER VENTILATION UNIT



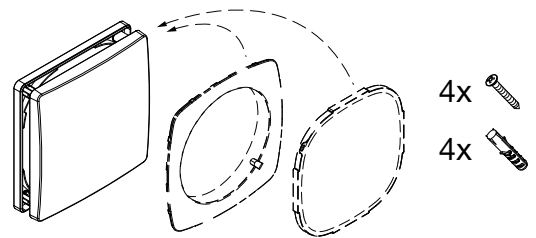
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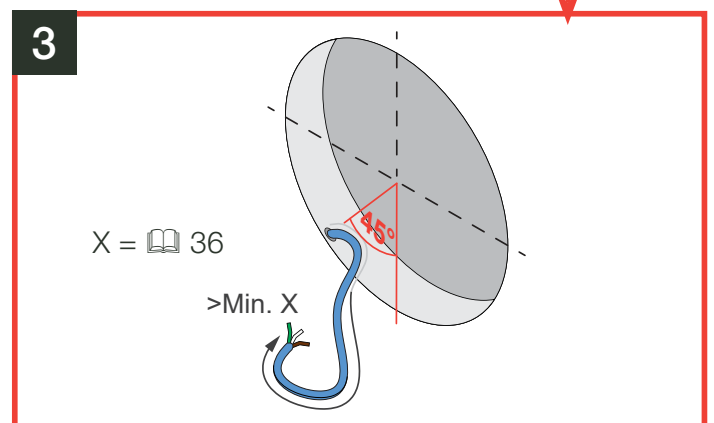
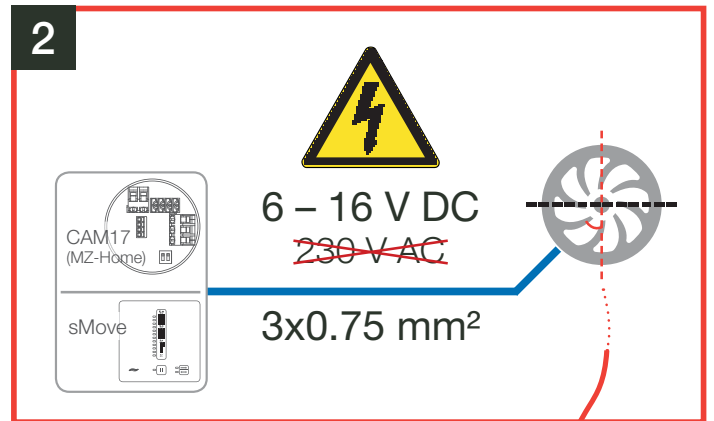
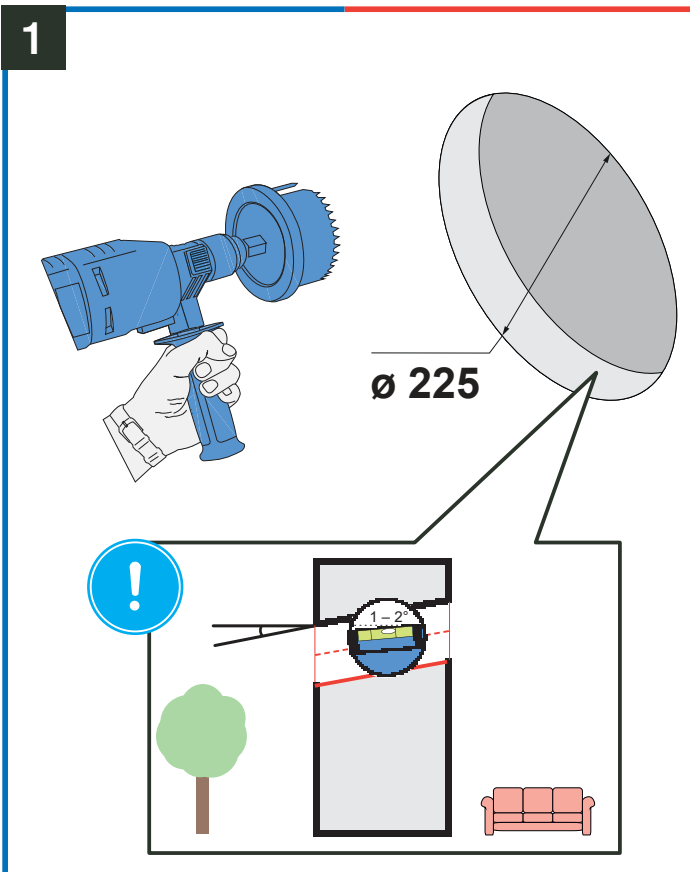
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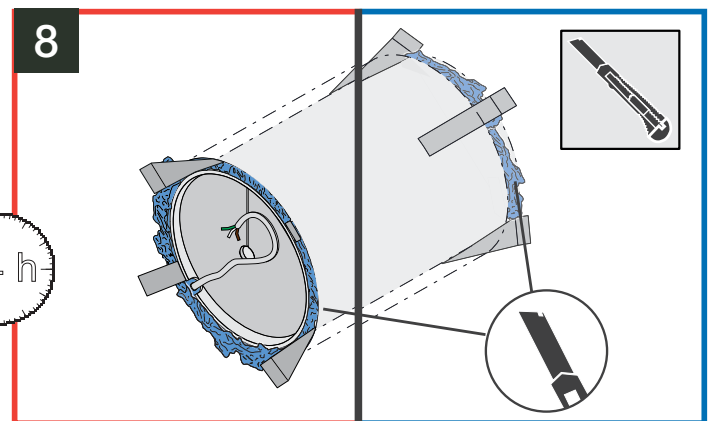
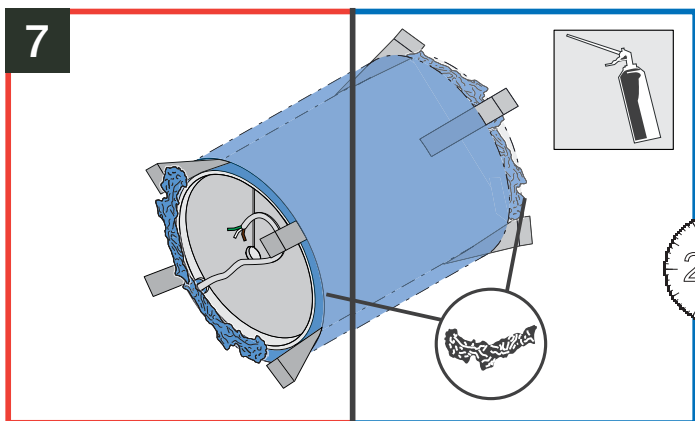
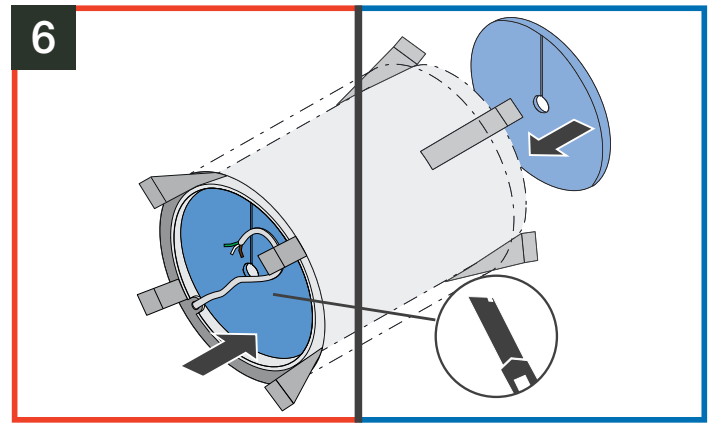
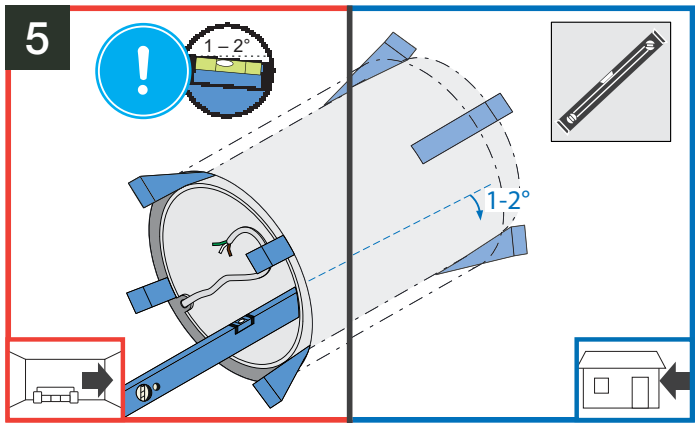
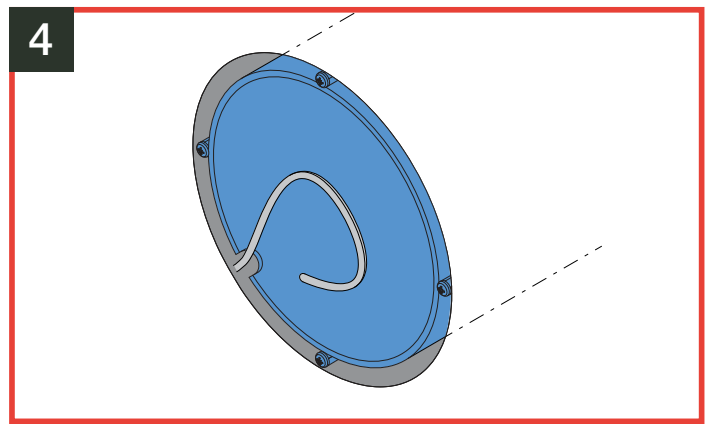
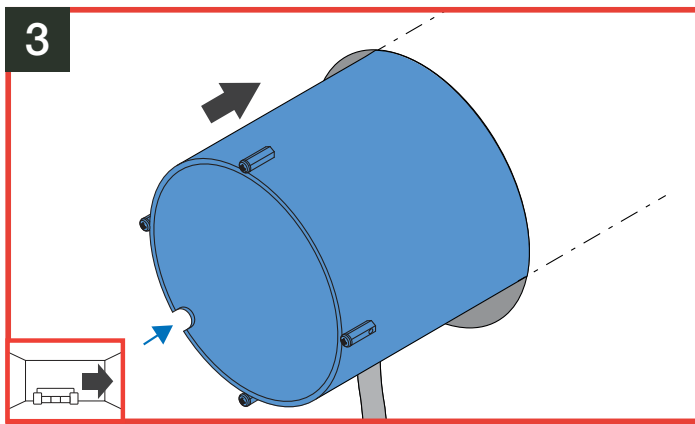
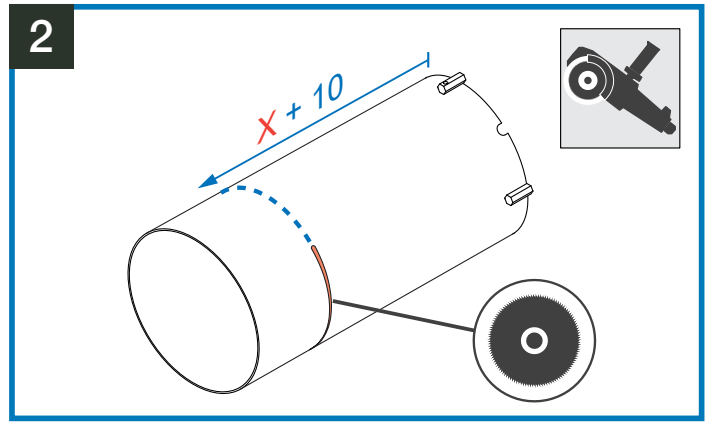
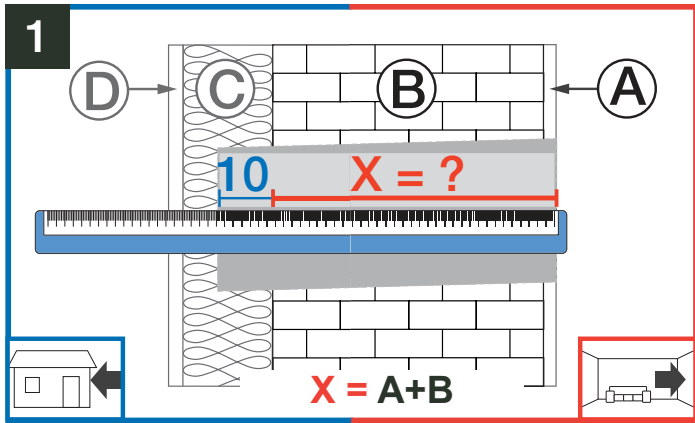


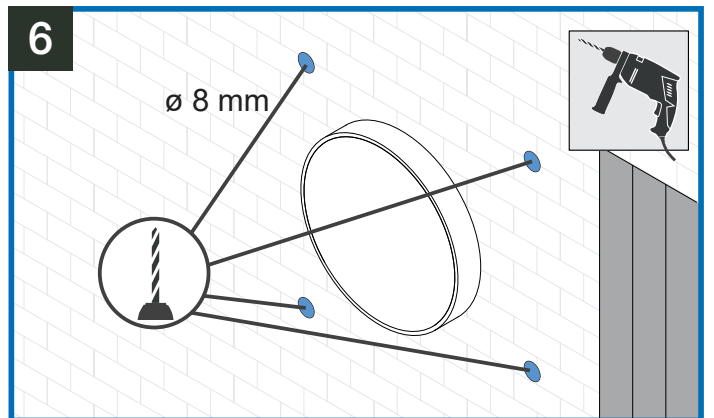
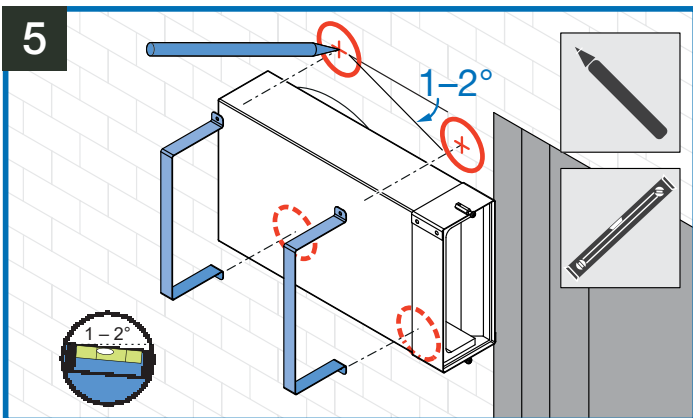
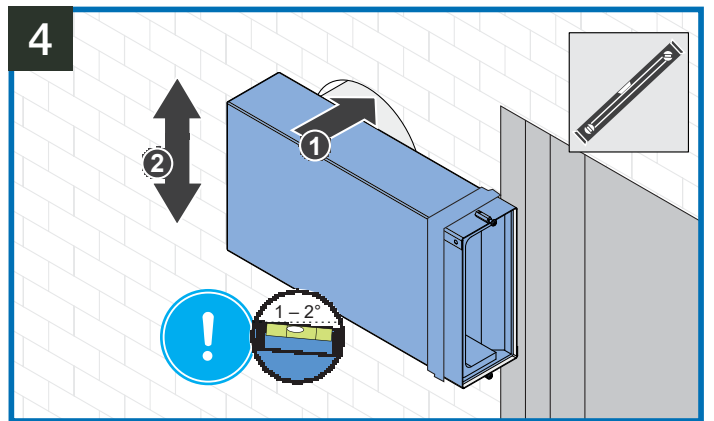
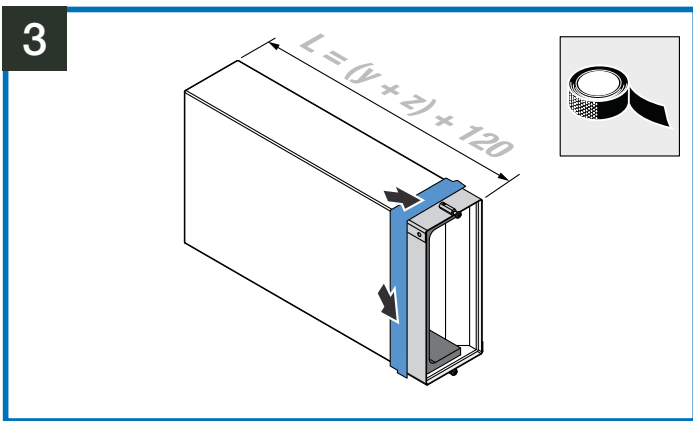
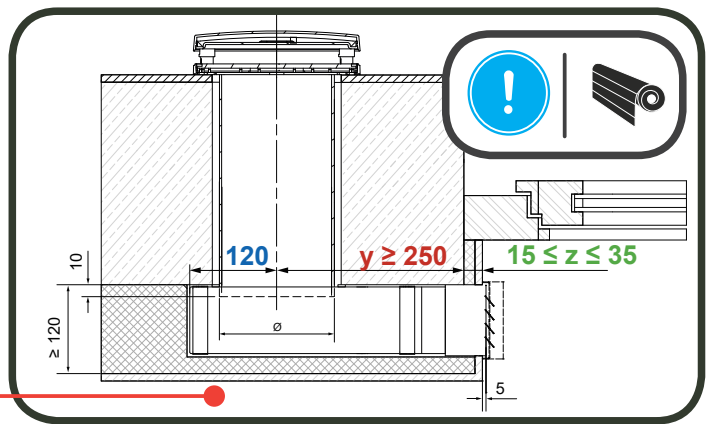
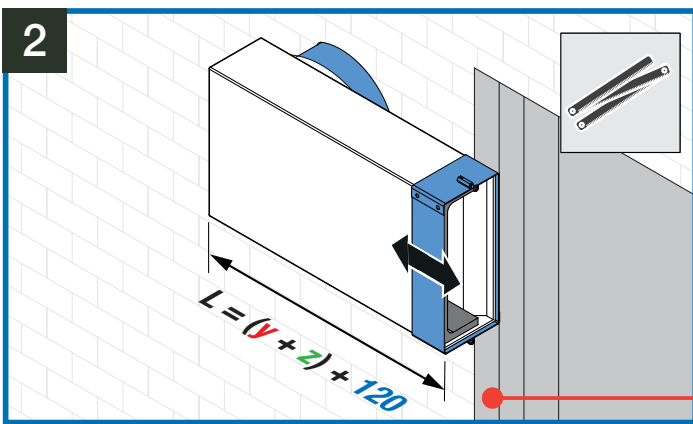
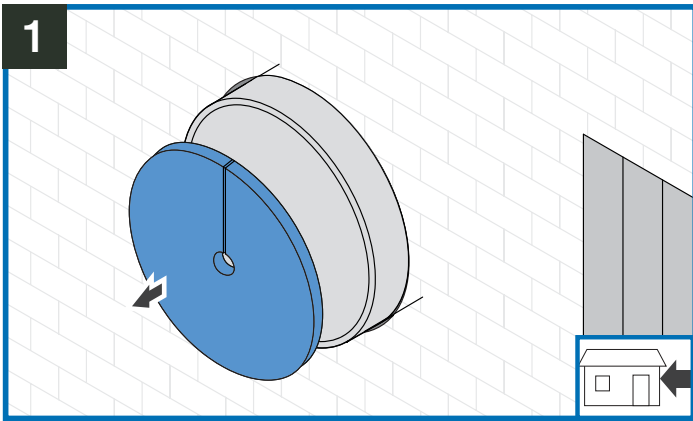
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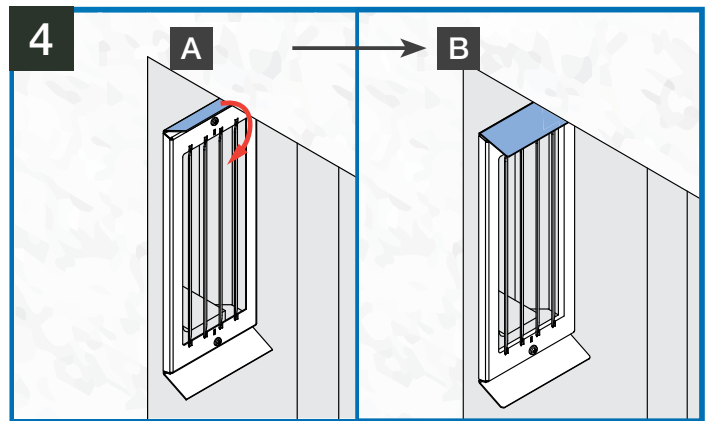
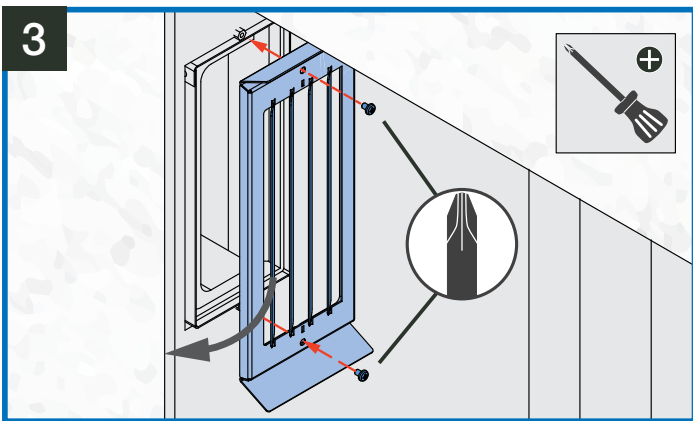
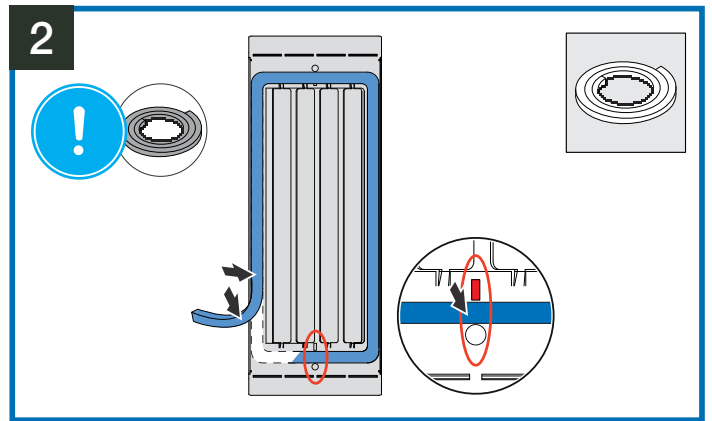
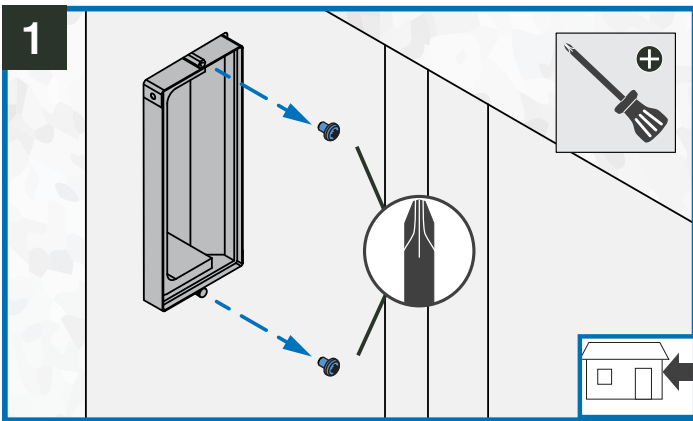
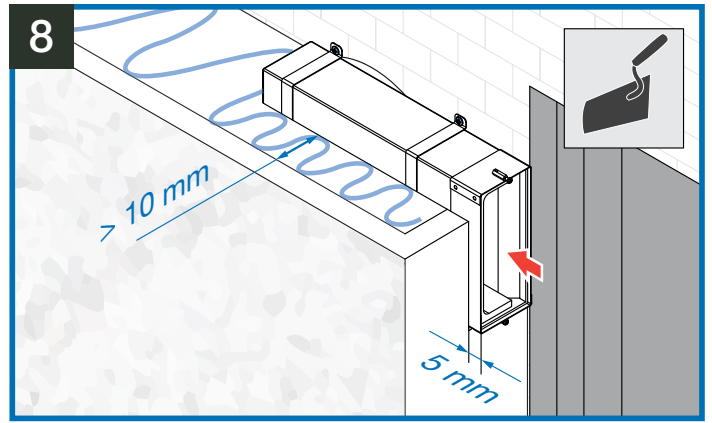
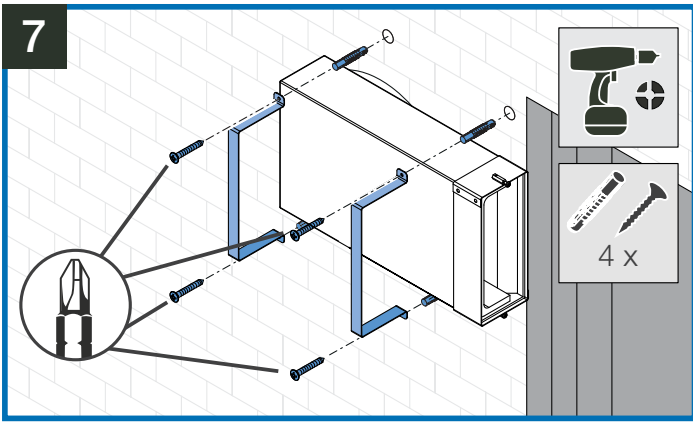
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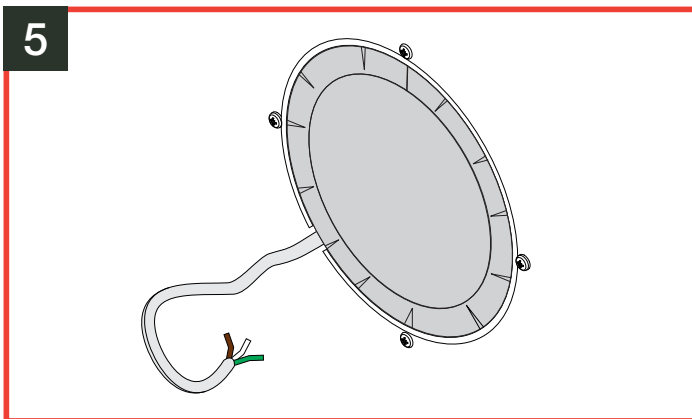
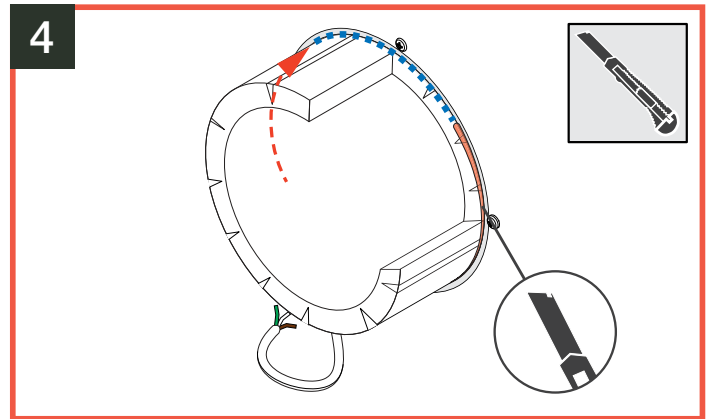
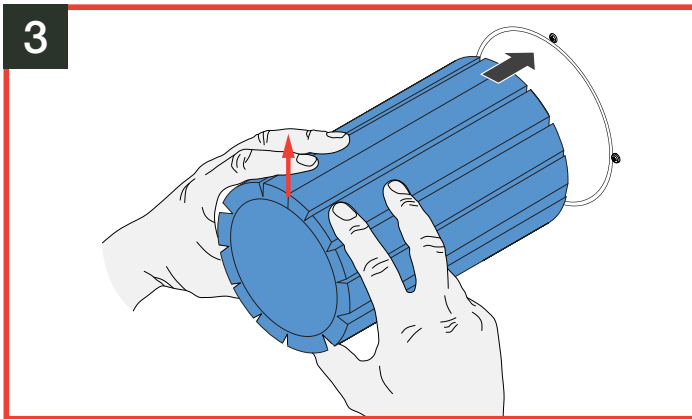
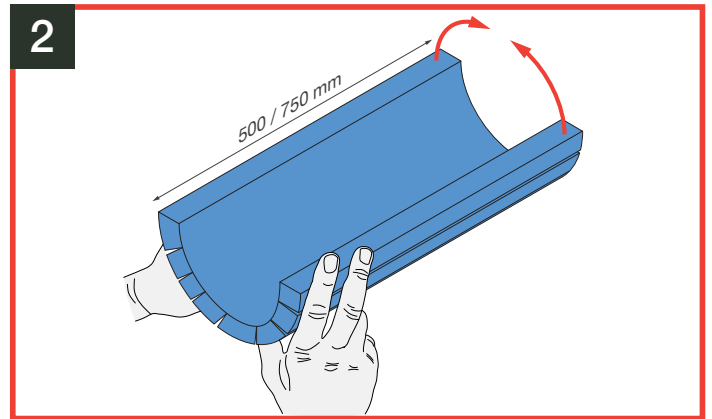
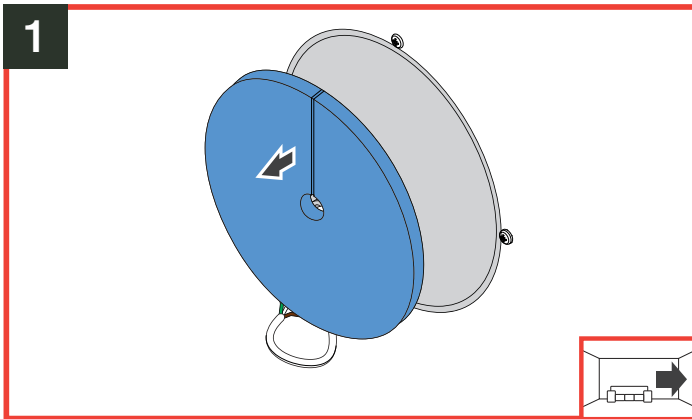




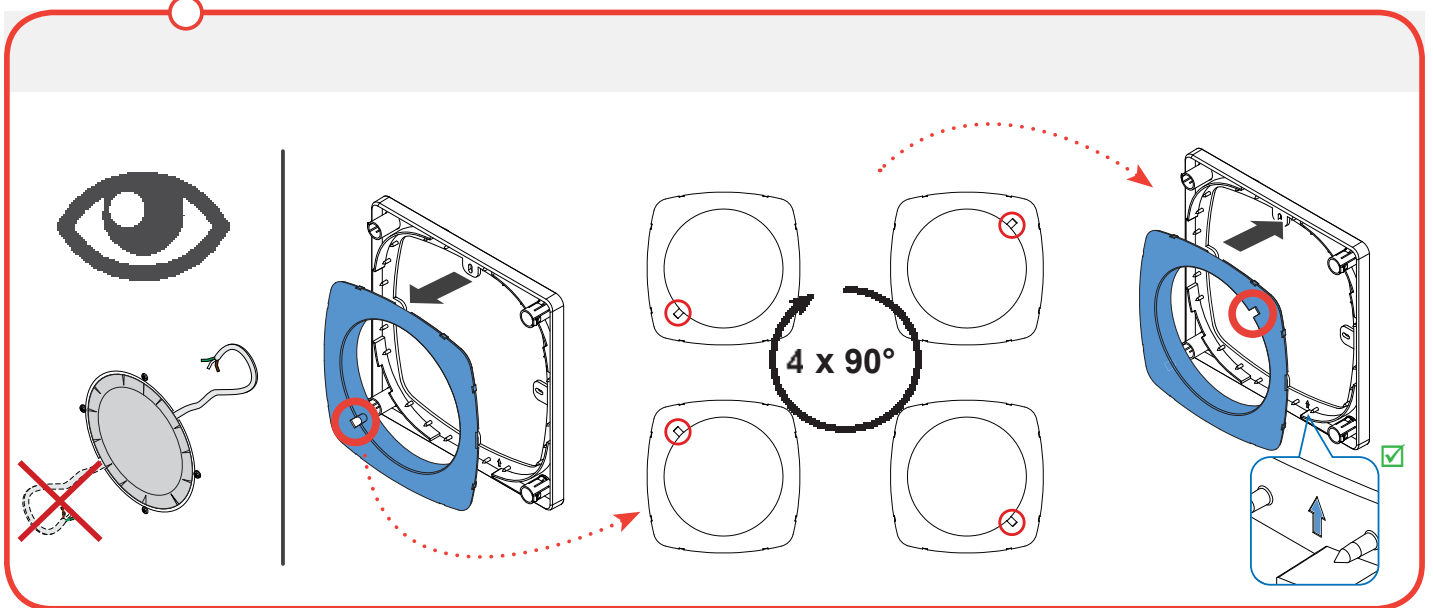
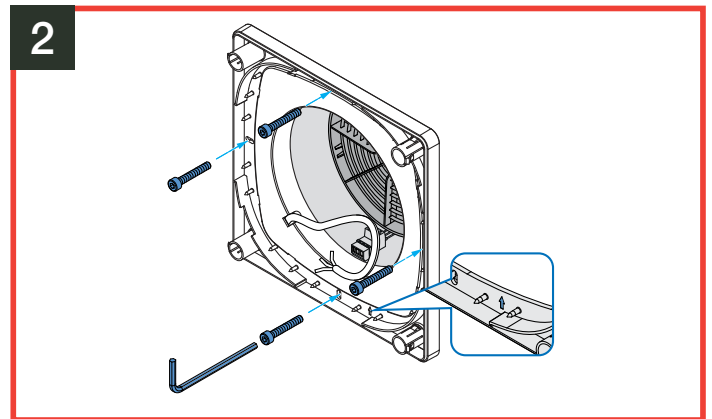
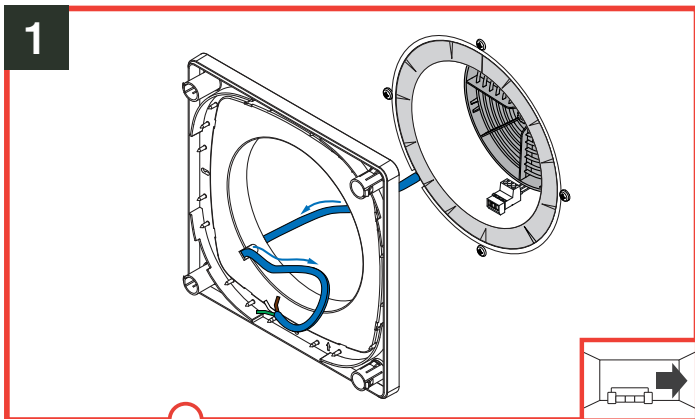
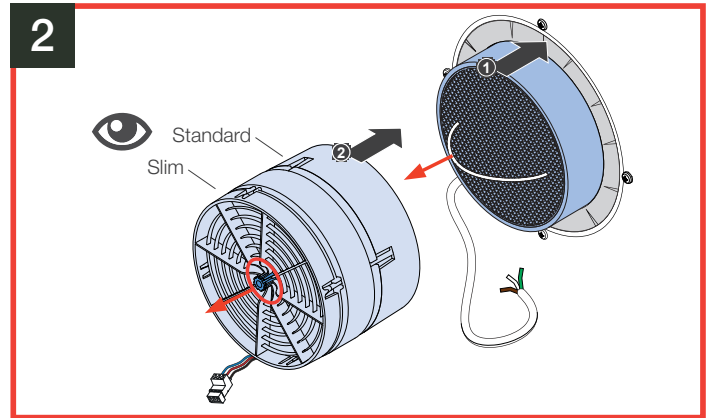
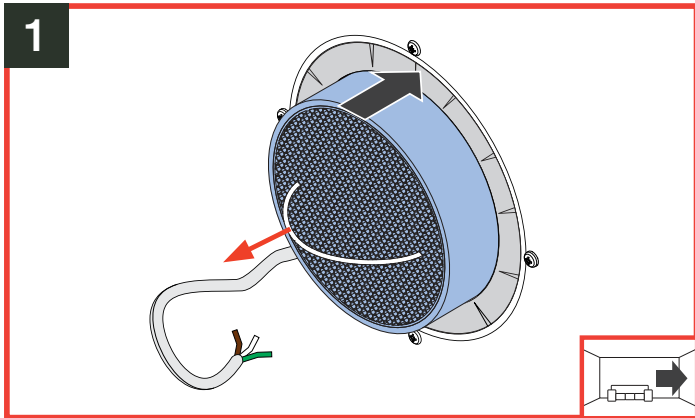


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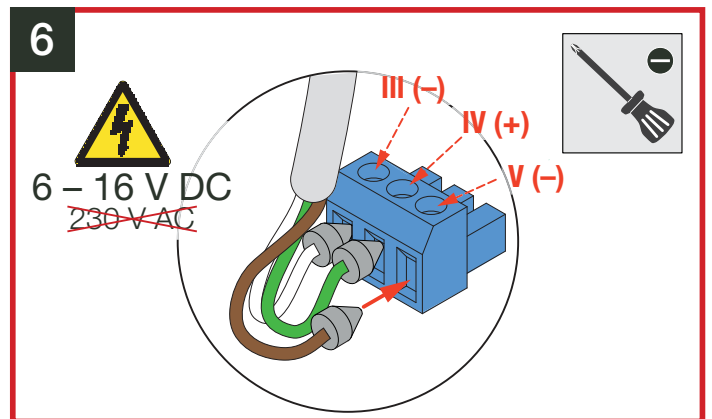
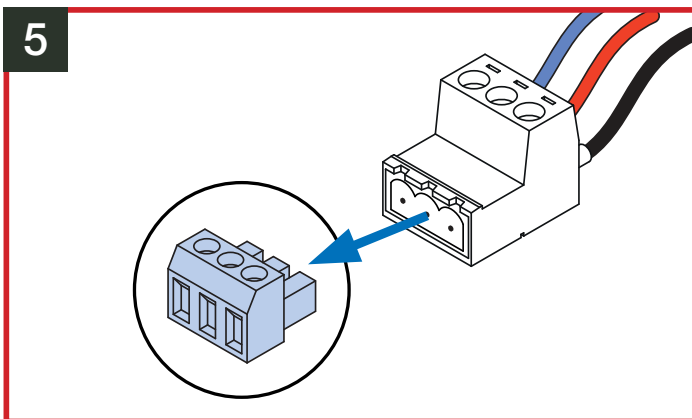
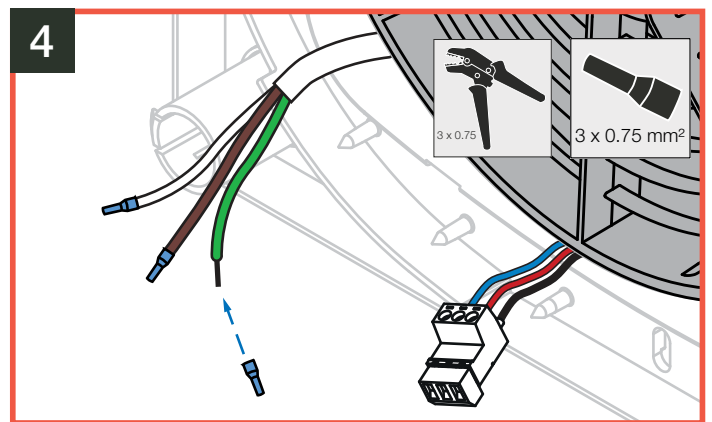
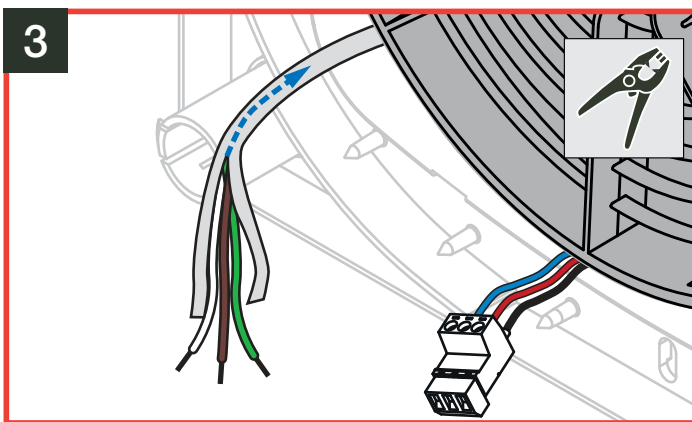
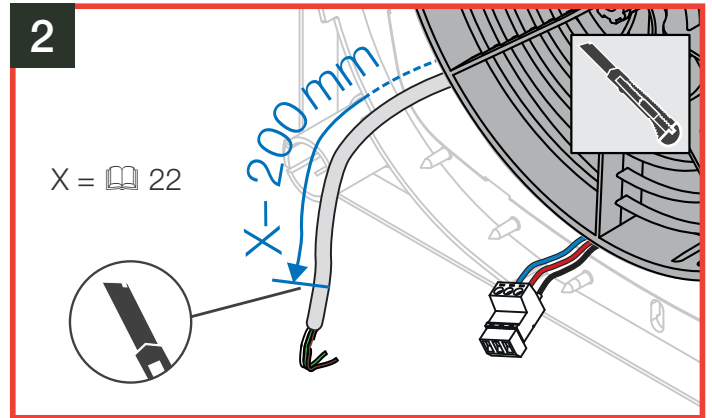
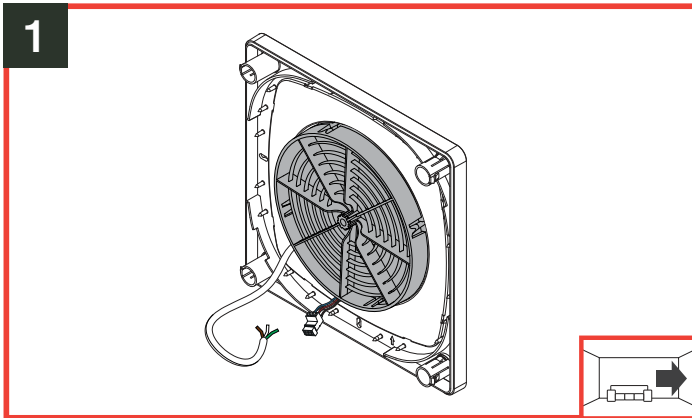




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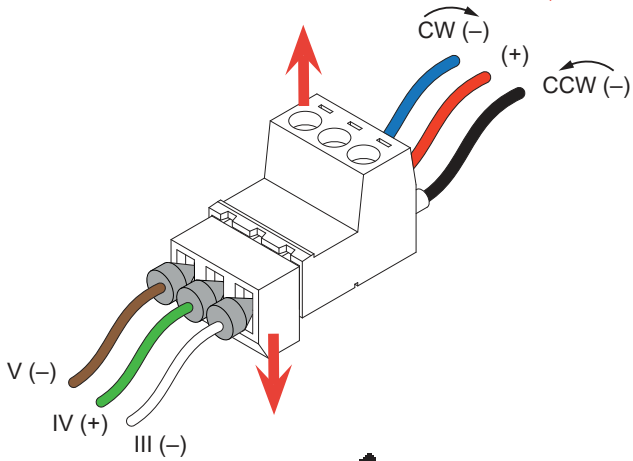
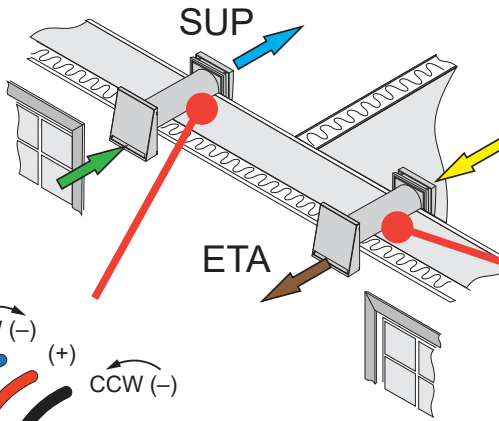
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IV14-ZERO CORNER VENTILATION UNIT

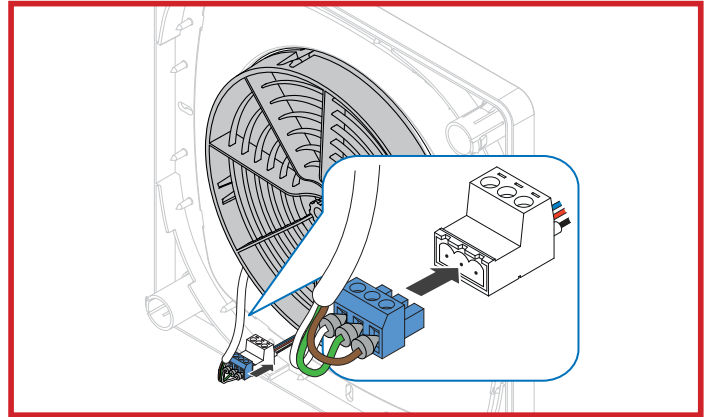
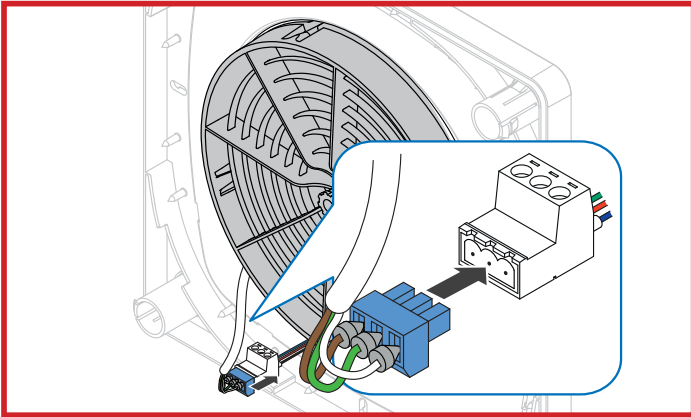
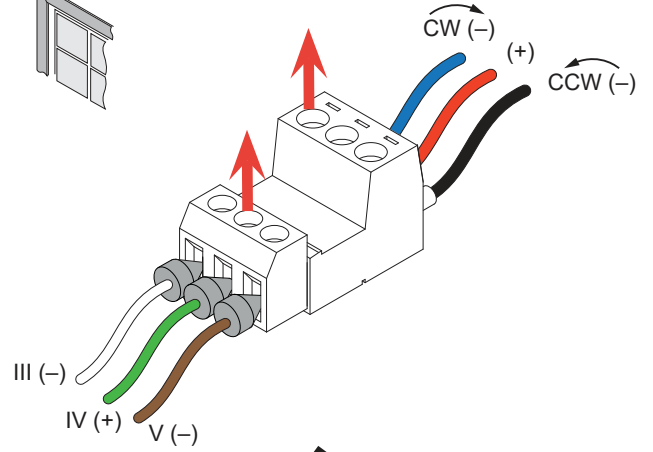
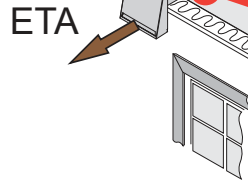
UNIT 1

STARTING DIRECTION: CCW
SUPPLY AIR (SUP)



UNIT 2

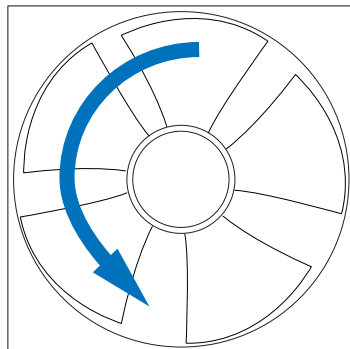
STARTING DIRECTION: CW
EXTRACT AIR (ETA)



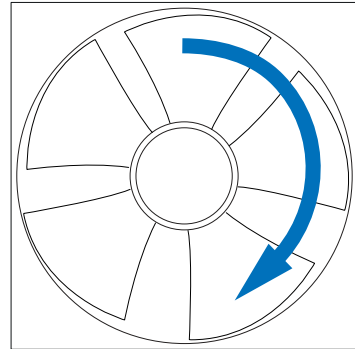
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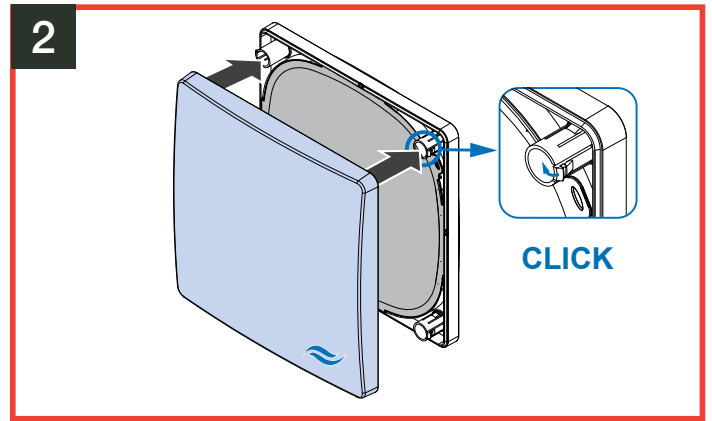
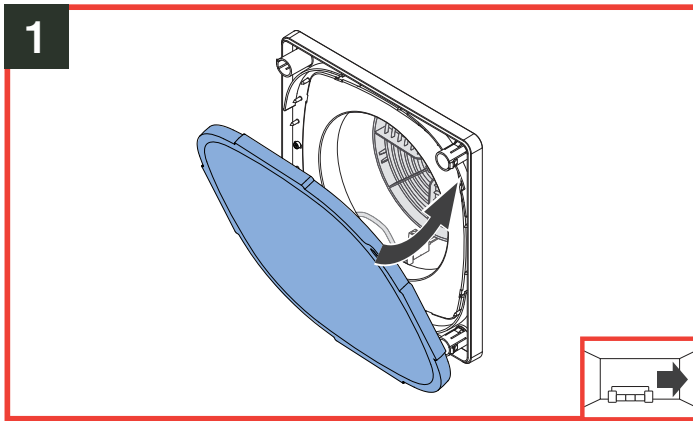


CCW



CW





7 Troubleshooting and disposal

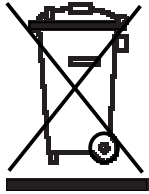
Troubleshooting

Fault	Possible cause	Remedy
Fan failure	No electrical power.	Check fuse.
	Installation error.	Check wiring for correct polarity. Check all connectors for correct fit. Check usage of wire end ferrules.
	Fan defective.	Replace fan.
	Controller/power supply defective.	Replace controller/power supply.
Fan does not switch off.	Faulty controller.	Replace controller.
Low air flow	Inner cover closed.	Open inner cover panel.
	Dust filter/pollen filter heavily soiled.	Clean/replace dust filters. Replace pollen filters.
	Micro filter/activated carbon filter inserted.	Inserted micro or carbon filter reduces the air flow. Only use filters for special requirements during periods of heavy pollution. Replace filter if heavily soiled.
	Fans are not operating in paired mode.	Connect the first fan in extract air mode and the second fan in supply air mode.
	Fan speed is too low.	Increase the output level.
	Thermal accumulator is soiled.	Clean the thermal accumulator.
Noises	Foreign body in the fan.	Remove foreign body from the fan. Clean the ventilation unit.
	Fan blades contaminated.	Clean fan blades.
	Thermal accumulator is not correctly positioned in the wall sleeve.	Slide the thermal accumulator out of the wall sleeve. Insert it again. Slide the thermal accumulator into the wall sleeve as far as the joint tape.
	Fan speed very high.	Set a lower output level on the controller.
Supply air is cold	Installation error.	Make sure, that the fan's type plate is situated in direction of the thermal heat accumulator.
	The controller is operating in ventilation mode.	Select heat recovery mode on the controller.

Disassembly

Disassemble the ventilation unit in the opposite sequence to the assembly sequence. Please note the disposal recommendation outlined below.

Disposal



Dispose of the product in compliance with the applicable national regulations.

The products described in these installation instructions are largely recyclable due to their low-pollutant processing. Contact an electronic appliance disposal company to arrange environmentally friendly recycling and disposal of your old system. Ensure that each product's packaging is sorted correctly for disposal.

Recommendations for disposal can be found in the table below.

Product	Material	Disposal
Nova Zero protective hood	Powder-coated stainless steel / ASA	Scrap metal collection / Recyclable material collection
Flat duct	PP	Recyclable material collection
Reveal grille	Powder-coated stainless steel	Scrap metal collection
Reversible fan	PBTP / PA	Drop-off centre for electronic equipment
Guiding vanes	PC	Recyclable material collection
Wall sleeve	PP	Recyclable material collection
Sound insulation coating	Inventin	Recyclable material collection
Flair Zero inner cover V-233x233 SDE	PS-SZ	Recyclable material collection
Thermal accumulator	Ceramics	Household waste
Dust filter G4	TPU / PES	Household waste
Pollen filter	PP	Household waste
Micro filter	PES	Household waste
Activated carbon filter	Polyester non-woven enriched with Activated carbon	Household waste

8 Guarantee and warranty

Warranty

Outside Germany, the national warranty provisions of the country in which the system is sold apply. Please contact the distributor for your country.

The warranty refers to the defect-free condition of the product at the time of purchase and covers all defects that were present at the time of purchase. Failure to observe the intended use will invalidate all warranty claims.

Manufacturer guarantee

inVENTer GmbH provides a five-year guarantee for all electrical components and the wall mounting sleeve, as well as a thirty-year guarantee on the heat accumulator ceramic. This covers premature product wear.

Further information about the warranty is available at www.inventer.eu/warranty

9 Service

Claims

Check the delivery for completeness and transport damage upon receipt using the delivery note. Report missing items immediately, and at the latest within 14 days to your supplier, distributor or factory representative.

Warranty and guarantee claims

In the case of a warranty or guarantee claim, contact your local distributor or factory representative.

In all cases, return the complete device to the manufacturer. The guarantee is an additional offer by the manufacturer and in no way affects the applicable law.

Accessories and spare parts

To order parts for your controller, contact your nearest factory outlet or our service staff.

Technical customer service

For technical support contact our service staff.

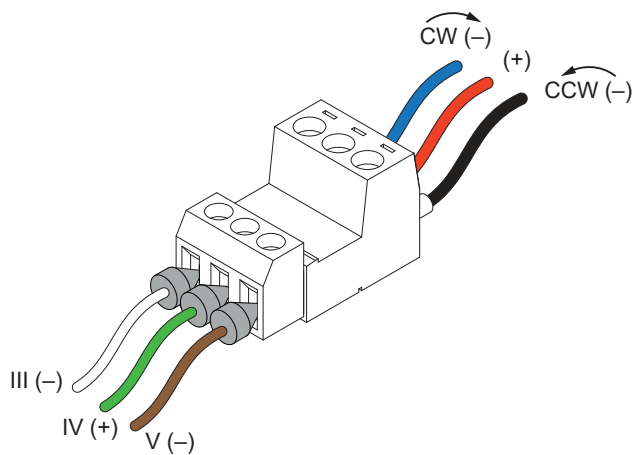


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Appendix 1: Terminal assignment: reversible fan

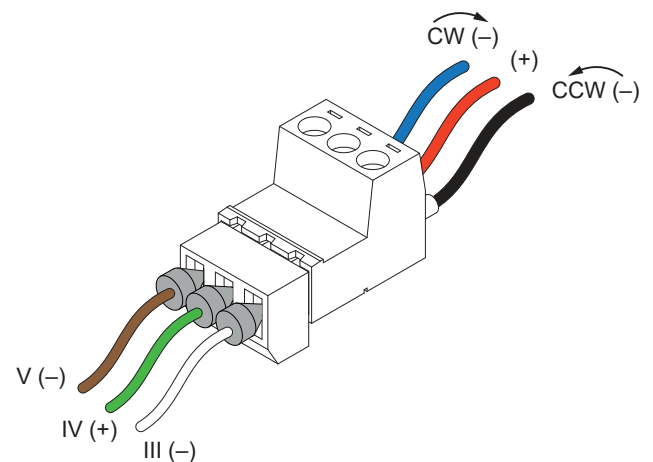
Plug (Cable from controller)						Socket (Cable from fan)	
Starting direction: Extract air			Starting direction: Supply air				
Terminal	Signification	Colour	Terminal	Signification	Colour	Terminal	Colour
III (-)	GND (-)	White	V (-)	GND (-)	Brown	CW (-)	Blue
IV (+)	Operating voltage	Green	IV (+)	Operating voltage	Green	+	Red
V (-)	GND (-)	Brown	III (-)	GND (-)	White	CCW (-)	Black

Starting direction of reversible fan



Starting direction Extract air:

- The locking screws of the green BUS terminal's plug and socket are pointing to same direction.



Starting direction Supply air:

- The locking screws of the green BUS terminal's plug and socket are pointing to different directions.



Appendix 2: Wiring protocol

Ventilation unit	Floor	Area/room and position	Ventilation zone (CAM)	Starting direction	
				Supply	Extract
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

APPENDIX 2: WIRING PROTOCOL

Ventilation unit	Floor	Area/room and position	Ventilation zone (CAM)	Starting direction	
				Supply	Extract
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					

COMPANY DETAILS

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