Installation manual

Air heater

Type DXC

CE

EN - v2.2 / 12-2025

ORIGINAL INSTRUCTIONS

Contents

1. Introduction

This manual is intended for the gas, electrical and mechanical installer.

This document gives instructions on how to use and maintain the air heater. It is most important to follow the instructions in this document for safe operation of this air heater.

It is important to read this document before starting the installation process. Store this document close to the air heater for quick reference.

1.1. Symbols used in this manual

DANGER! Indicates a dangerous situation that would lead to death or severe injury.

WARNING! Indicates a potentially dangerous situation that could lead to death, severe injury or serious product damage.

CAUTION! Indicates a potentially dangerous situation that could lead to injury or product damage.

NOTICE Indicates important information that is not directly related to safety.

1.2. Warranty

NOTICE Using, installing or maintaining this air heater in any other way than described in this manual may cause damage that voids the warranty.

NOTICE Failing to follow the safety instructions in this manual can lead to damage to the air heater or the installation and void the warranty.

1.3. Disclaimer

2. Safety instructions

Always follow the safety instructions in this chapter when installing, using or performing maintenance on this air heater.

2.1. Installation

WARNING! If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.

CAUTION! This air heater must be installed and maintained by an authorized, qualified and competent installer, using calibrated equipment.

NOTICE This air heater must be installed and maintained in accordance with this manual, national and local building regulations and local health and safety regulations.

2.1.1. Protection against dust

CAUTION! Cover the air heater while spreading sawdust on the floor. This prevents large amounts of dust from accumulating on the heater.

CAUTION! The air heater can be used in a dusty environment (e.g. a poultry shed) if they are cleaned and maintained more frequently.

2.1.2. Temperature

CAUTION! Do not install the heater in places where the temperature can rise above 40°C. Higher temperatures cause the internal components to degrade much faster.

NOTICE Air heaters installed in very cold environments may form condensate in the flue system. Make sure a condensate discharge is installed.

2.1.3. Corrosive vapours

WARNING! Do not install the air heater in areas that contain any corrosive or explosive vapours. Corrosive vapours (e.g. containing Chlorine) that are sucked into the air intake will cause corrosion of the heat exchanger and a leakage of flue gas. This is also the case for the room thermostat.

2.1.4. Fixing

CAUTION! The appliance should be properly fixed to the ceiling, a wall or any other support, which can carry the weight of the heater.

The appliance has four threaded M10 holes on the bottom for fixing onto a support. The top has four eyebolts for suspension with chains. Suspension set GA8574 (not included), contains four chains and eight carabiner hooks. See paragraph 3.3 for dimensions.

2.2. Use

CAUTION! Make sure the area around the air heater is dry when performing maintenance on the air heater.

CAUTION! Always close the doors and inspection hatches of the air heater, except when adjusting and checking the appliance.

2.3. Maintenance & Cleaning

Frequent maintenance and cleaning of the air heater is necessary to ensure safe and proper operation. Failure to do so could lead to damage to the heater or its surroundings and void the warranty.

CAUTION! Air heaters installed in a dusty and/or wet environment must be maintained and cleaned more frequently.

CAUTION! Air heaters installed in poultry sheds must be maintained and cleaned after every breeding cycle.

2.3.1. Protection from water (IP class)

WARNING! Never use water when cleaning electrical parts.

This air heater is protected against splash water and has an IPX4D classification.

WARNING! Do not use a pressure washer to clean parts that contain electronics, such as the electric motor or the machine cover.

2.3.2. Disinfecting fluids

CAUTION! Some aggressive disinfection fluids can damage the heater. When using such fluids, cover the heater while disinfecting the shed.

2.4. Children and vulnerable users

WARNING! Children aged from 3 years and less than 8 years shall only switch on/off the appliance provided that it has been placed or installed in its intended normal operating position and they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children aged from 3 years and less than 8 years shall not plug in, regulate and clean the appliance or perform user maintenance.

WARNING! This air heater can be used by children aged 8 years and above and by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, if they are supervised or instructed concerning use of the appliance in a safe way and understand the hazards involved.

CAUTION! Some parts of this product can become very hot and cause burns. Particular attention has to be given where children and vulnerable people are present.

WARNING! Children shall not play with the air heater.

WARNING! Children shall not clean and maintain this air heater without supervision.

2.5. Converting to another gas type

CAUTION! For safety reasons, the manufacturer recommends that the air heater is converted to another gas type only by the manufacturer, its representative or a qualified service technician. Contact your supplier for more information.

DANGER! Always measure the air heater's CO production. Too much CO usually means the gas mixture is too rich.

DANGER! A poor adjustment can lead to overheating of the air heater and/or production of toxic carbon monoxide.

3. Technical specifications

3.1. Performance

Technical specification	Unit	Type DXC v4.2		
		DXC60	DXC80	DXC100
Net nominal heat input (max.)	kW	65.5	83.0	108
Net nominal heat input (min.)	kW	44.0	53.5	73.5
Heat output (max.)	kW	59.9	75.9	99.1
Heat output (min.)	kW	39.4	47.9	65.8
Efficiency at max. power	%	91.5	91.5	91.8
Efficiency at min. power	%	89.5	89.5	89.5
Air output (max.)	m^3/h	6000	8000	10000
Throw horizontal (max.)	m	40	45	50
Gas connection	G”	3/4" M	3/4" M	3/4" M
Electrical connection (50 Hz)	V	230	230	230
Electrical power consumption	kW	0.8	0.9	1.4
Stand-by electrical power consumption	kW	0.004	0.004	0.004
Electrical current (max.)	A	3.5	3.9	6.1
Protection class	-	IPX4D		
NOx emission (GCV)	mg/kWh	139	126	135
NOx class	-	3	3	3
Flue gas amount (max.)	kg/h	122	150	199
Chimney flue pressure (max.)	Pa	25	40	60
Pressure switch point	Pa	↑ 192 / ↓ 180	↑ 175 / ↓ 160	↑ 192 / ↓ 180
Thermostat connection	-	2-wire low voltage communication bus or ON/OFF		
Flue length (max.)	m	9	9	9
Weight	kg	140	150	175

3.2. Gas types

3.2.1. Natural gas G20

Specification	Unit	Natural gas G20		
Nominal supply pressure	mbar	20		
Supply pressure (min. - max.)	mbar	17-25		
Gas category	-	$II_{2H3P\ B/P}$ NL: $I_{I2EK3B/P}$ DE: $II_{2ELL3B/P}$ BE: $I_{2E(s)}$, I_{2Er} FR: $II_{2Er3B/P}$ PL: $II_{2ELwLs3B/P}$		
Class	-	B22, C12, C32		
Specification	**Unit**	**DXC60**	**DXC80**	**DXC100**
Gas consumption	m^3/h	6.9	8.8	11.4
Burner injectors	n x Ømm	5x 3.7	6x 3.7	8x 3.7
Burner pressure high	mbar	6.5	7.4	7.7
Burner pressure low	mbar	3.0	3.2	3.5
CO_2 High (indication)	%	8.3	8.3	8.3

3.2.2. Propane

Specification	Unit	Propane G31 (P)		
Nominal supply pressure	mbar	30-50		
Supply pressure (min. - max.)	mbar	25-50		
Gas category	-	$II_{2H3P\ B/P}$ NL: $II_{2EK3B/P}$ DE: $II_{2ELL3B/P}$ BE: I_{3P} FR: II_{2Er3P} PL: $II_{2ELwLs3B/P}$		
Class	-	B22, C12, C32		
Specification	**Unit**	**DXC60**	**DXC80**	**DXC100**
Gas consumption	kg/h	5.2	6.6	8.6
Burner injectors	n x Ømm	5x 2.3	6x 2.3	8x 2.3
Burner pressure high	mbar	17.5	19.5	18.5
Burner pressure low	mbar	8.0	8.1	8.5
CO_2 High (indication)	%	9.2	9.2	9.5

3.2.3. Butane / LPG

Specification	Unit	Butane / LPG G30 (B/P)		
Nominal supply pressure	mbar	30-50		
Supply pressure (min. - max.)	mbar	25-50		
Gas category	-	$II_{2H3P\ B/P}$ NL: $II_{2EK3B/P}$ DE: $II_{2ELL3B/P}$ BE: $I_{3B/P}$ FR: $II_{2Er3B/P}$ PL: $II_{2ELwLs3B/P}$		
Class	-	B22, C12, C32		
Specification	**Unit**	**DXC60**	**DXC80**	**DXC100**
Gas consumption	kg/h	3.9	5.0	6.5
Burner injectors	n x Ømm	5x 2.3	6x 2.3	8x 2.3
Burner pressure high	mbar	13.5	15.0	14.5
Burner pressure low	mbar	6.0	6.0	6.5
CO_2 High (indication)	%	9.2	9.2	9.2

3.3. Dimensions

The dimensions of this air heater can be found in figure 1.

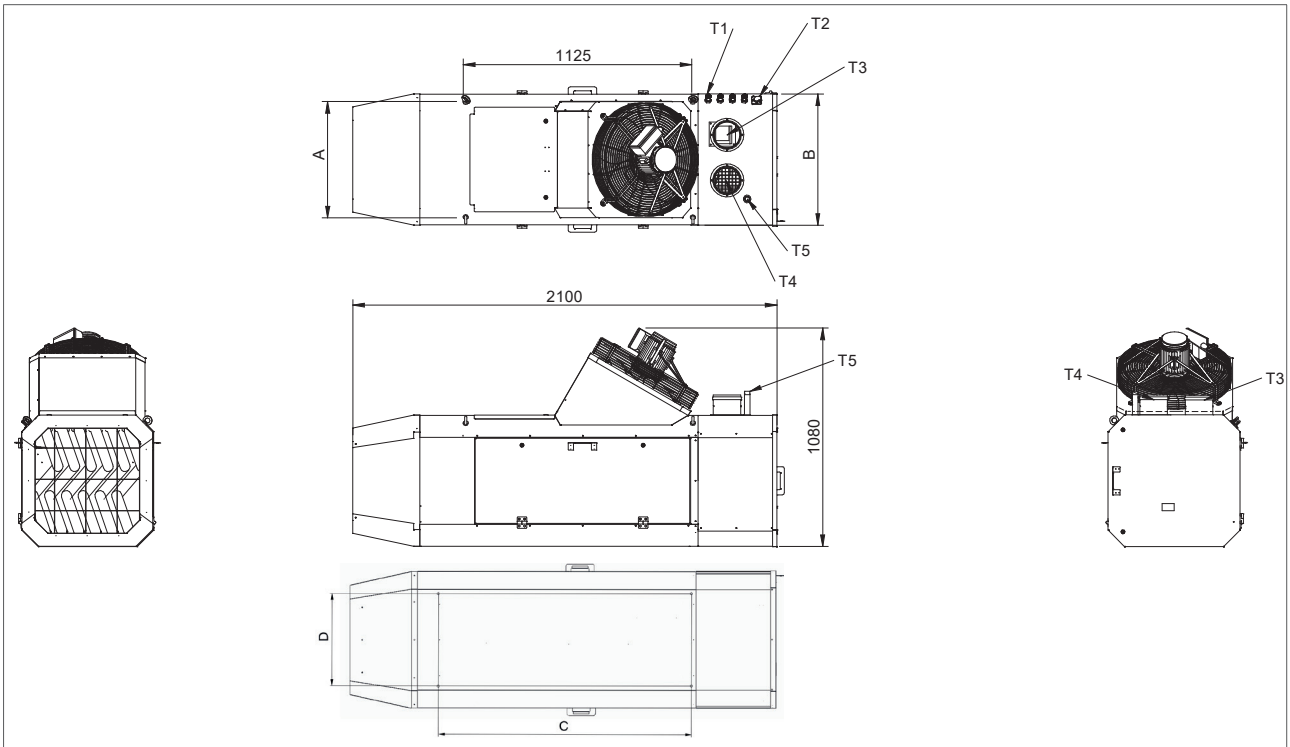


Figure 1 - Dimensions of the DXC

Dimension	Unit	DXC60-80	DXC100
A	mm	575	650
B	mm	740	815
C	mm	1251.5	1251.5
D	mm	440	590
T1	-	Electrical supply	
T2	-	Function switch	
T3	-	Flue discharge	
T4	-	Air inlet	
T5	-	Gas supply (¾" M)	

4. Installation

4.1. Preparation

Before installation, please use the data badge to check:

- if the heater is in accordance with the order;
- if the heater is suitable for the local present provisions (gas type, gas pressure, electrical supply etc.)

Before leaving the factory, the air heater has been tested for safety and has been set to the operating settings. It has been configured for the type of gas that is stated on the data badge. Should there be any doubt about the settings that apply to your situation, please contact your supplier.

4.1.1. Standards

NOTICE The installation must comply with all applicable local and national standards.

NOTICE The air heater must be installed in accordance with the relevant requirements of the Gas Safety regulations, Electrical installation regulations and or other local regulations that may apply.

For United Kingdom only:

NOTICE The air heater must be installed in accordance with the relevant requirements of the Gas Safety regulations, Electrical installation regulations and or other local regulations that may apply (e.g. The Institute of Gas Engineers IGE UP-1 and 2, BS6230, BS5440 building regulations and the IIE regulations that incorporate the gas safety regulations).

4.2. Positioning the air heater

Keep the following requirements in mind when choosing a location to install your air heater:

WARNING! Never install an air heater close to flammable materials.

- Keep sufficient distance between the heater and any obstructions. This is both for safety reasons and to allow access for service and maintenance (figure 2).
- Make sure the air flow to and from the heater is free from obstacles at least 5 metres in front of the heater. Also make sure the air intake is free from obstacles.
- Make sure enough space remains to open the door of the air heater.
- Make sure the wall or roof can support the air heater.
- Ensure sufficient clearance distance for the flue system.

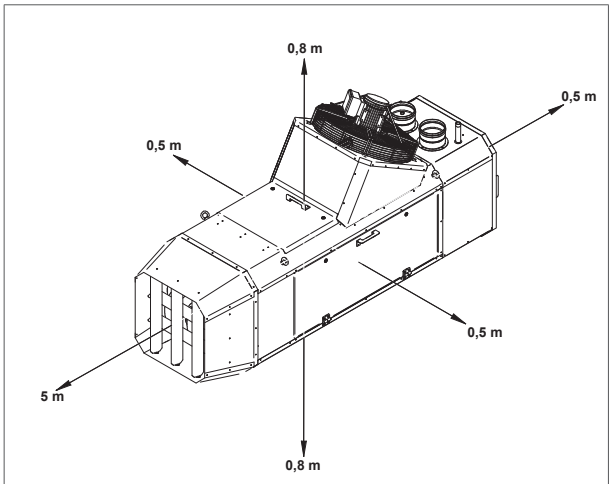


Figure 2 - Minimum clearances around the air heater

4.2.1. Orientation

- Install the heater horizontally without an inclination (figure 3).

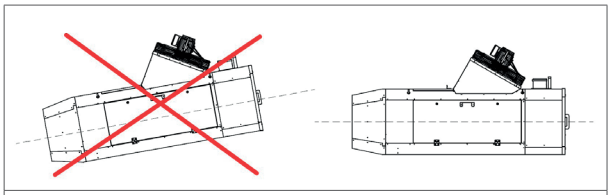


Figure 3 - A correct and incorrect horizontal orientation

4.2.2. Fixing

CAUTION! The appliance should be properly fixed to the ceiling, a wall or any other support, which can carry the weight of the heater.

The appliance has four threaded M10 holes on the bottom for fixing onto a support.Wall support GD5002 (not included) is suitable for all models of DXC heaters.

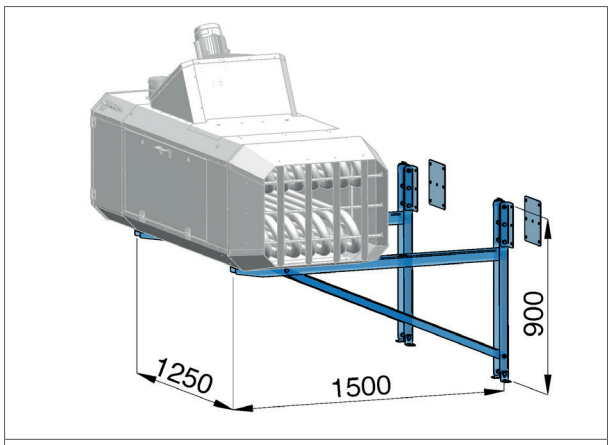


Figure 4 - Wall support DXC

The top has four eyebolts for suspension with chains. Suspension set GA8574 (not included), contains four chains and eight carabiner hooks. See paragraph 3.3 for dimensions.

4.3. Gas type & connection

The unit is suited for natural gas, propane or butane (LPG).

The specific gas type that a heater is set up for can be found on the packaging labels and on the heater badge. The heater can be converted to another gas type. Contact your supplier for more information.

The working and standing supply pressure must be a minimum of 17 mbar, and a maximum of 50 mbar, measured at the inlet pressure nipple of the gas control in the heater.

NOTICE The supply line's manual isolation valve must be placed within reach of the heater.

NOTICE All gas supply lines must be mounted without any mechanical tension.

NOTICE Always clean the inside of a gas supply line before connecting it to the air heater. Place a gas filter in the supply line when needed.

CAUTION! When using pressures above 60 mbar to test the supply lines, always close the manual isolation valve of the air heater.

For United Kingdom only:

The supply line for gas must comply with the Gas Engineers publications UP-1 and UP-2, as well as with BS 6891.

4.4. Electrical connection

The electrical installation must comply with local and national requirements as well as IEE regulations.

4.4.1. Power supply

The air heater requires an earthed power supply of 230 V/ AC 50 Hz. The control circuit is a two wire low voltage bus communication.

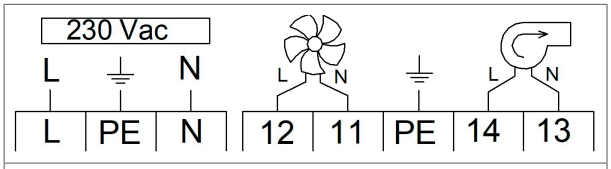


Figure 5 - The air heater's connection clamps

- The heater must be electrically isolated during servicing. For the installation, use an isolation switch in the fixed wiring with a minimum contact opening gap of 3 mm, a power plug or a non-switched fuse spur, to provide full disconnection of all poles of the supply under overvoltage category III. See the electrical wiring diagram in §11

A supply cord with a connection plug is supplied with the air heater.

NOTICE Make sure you do not damage the supply cord. A damaged cable needs to be replaced by a qualified person immediately.

4.4.2. Fuse

One fuse is present on the air heater's control board (see the electrical wiring diagram in §11).

- When replacing this fuse, always use one of the same type (5AT).

4.5. Control

The air heater can be controlled in five ways:

- by a volt-free ON/OFF signal, see paragraph 4.5.2
- by a 230V signal (optional), see paragraph 4.5.3
- through a bus communication system with an external interface, see paragraphs 4.5.4 and 4.5.5
- Via a 0 - 10 V input signal, see paragraph 4.5.6
- Via Modbus, see paragraph 4.5.7

4.5.1. Installation requirements

Following these requirements when placing the thermostat to ensure the heater functions correctly:

- Make sure that air can circulate around the thermostat.
- Make sure the sun does not shine directly upon the thermostat.
- Do not place the thermostat on a cold wall.
- Place the thermostat on an inner wall free from draught.
- Never place the thermostat within the throw of the heater.
- Never mount the thermostat near the aerials of internal communication networks. These emit radiation that can disturb the thermostat. Keep several meters distance.

In all cases, the communication between the heater and the thermostat is based on a two wire, low-voltage connection. (see the electrical wiring diagram in §11). Follow these instructions to prevent malfunction of the installation and damage to the thermostat or air heater:

- Use a cable with the following specifications:
  - Signal cable.
  - Shielded and twisted.
  - Minimum dimensions: 1 x 2 x Ø0.8 mm^2.
  - Maximum length: 200 m.

CAUTION! Keep the thermostat cable separated from the mains cables.

CAUTION! Only connect the cable's earth shield to the earth terminal inside the air heater. Do not connect the other end of the cable's earth shield.

NOTICE A cable with a thickness of less than 0.8 mm will result in a poor signal.

NOTICE A cable that is not shielded and twisted may result in a disturbed communication in an EMC-unfriendly environment.

4.5.2. ON/OFF thermostat installation

To connect the air heater to an ON/OFF room thermostat with a volt-free contact, do the following:

- Connect the two thermostat wires to terminal 6 and 7 (see figure 6 or the electrical wiring diagram in §11). This is a 24 V connection for the thermostat signal.

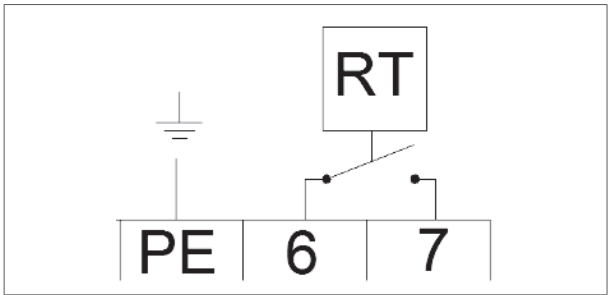


Figure 6 - ON/OFF thermostat connection

NOTICE Never combine these connections with the terminals 6 and 7 of other air heaters.

NOTICE Always use separate relays for each air heater.

NOTICE Do not connect an external power source to these terminals. These terminals need a dry contact.

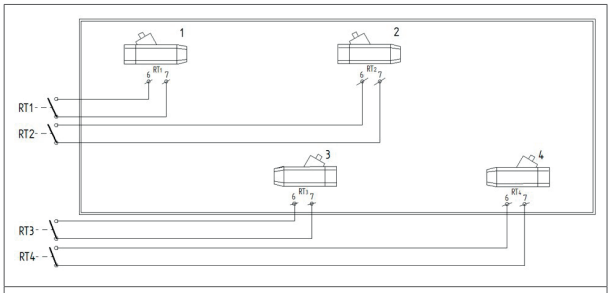


Figure 7 - Separate potential free contacts for each individual heater

4.5.3. ON/OFF 230 V thermostat installation (optional)

To connect the air heater to an ON/OFF room thermostat with a 230 V output, do the following:

- Check if the special 230 V thermostat input kit is mounted on the heater; terminals 8 and 9 should be available.

If so:

- Connect the 230 V signal of the external thermostat to terminals 8 and 9 (see figure 8). The terminals 6 and 7 should have been connected to the relay of the thermostat kit (see figure 6 or the electrical wiring diagram in §11).

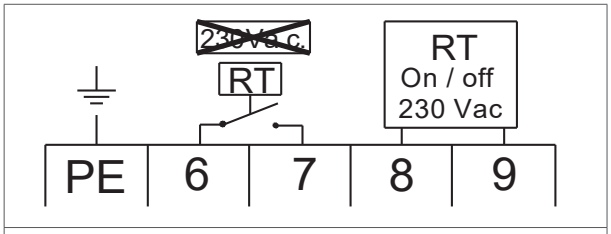


Figure 8 - ON/OFF 230 V thermostat connection

WARNING! The thermostat terminals 6 and 7 are only suited for an ON/OFF thermostat with a potential-free contact (see §4.5.2). Connecting a 230 V thermostat signal to these terminals will cause irreparable damage to the electronics in the heater.

If not:

- Order the 230 V thermostat input kit (GA3925) and follow the instructions included in the kit.

4.5.4. Bus communication system installation

To connect the air heater to a bus communication system, do the following:

1. Connect the two control wires to terminals 4 and 5 (see figure 9 or the electrical wiring diagram in §11).
2. Set the S1 and J14 switches on the control unit as follows (figure 10 / 11):
   a. Set S1 to 1.
   b. Set J14 to 1.

NOTICE The air heater must be switched off when setting the switches. Otherwise the settings will have no effect.

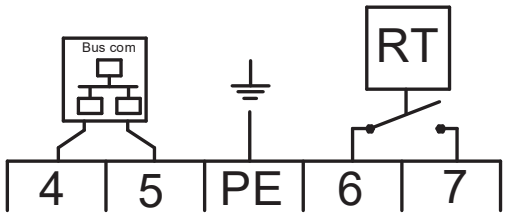


Figure 9 - Bus communication connection

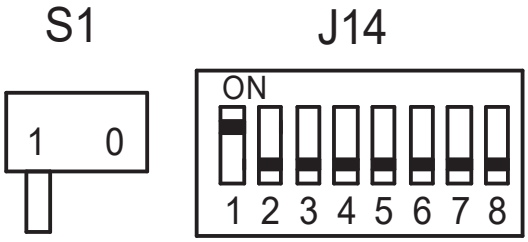


Figure 10 - Positions of the S1 and J14 switches

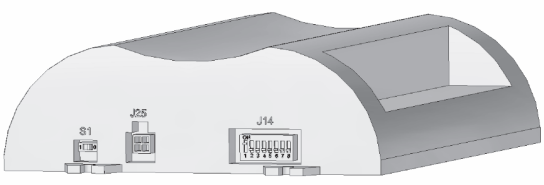


Figure 11 - Location of the S1 and J14 switches

4.5.5. Installation of multiple heaters on one control unit

An MTS room thermostat, or interface module can control up to 8 air heaters. To connect the air heaters, do the following (figure 12):

NOTICE This functionality does not apply to an ON/OFF thermostat.

1. Connect the two wires of the thermostat to terminals 4 and 5 of the first air heater.
2. Connect the first air heater to the second air heater.
3. Repeat for each subsequent air heater.

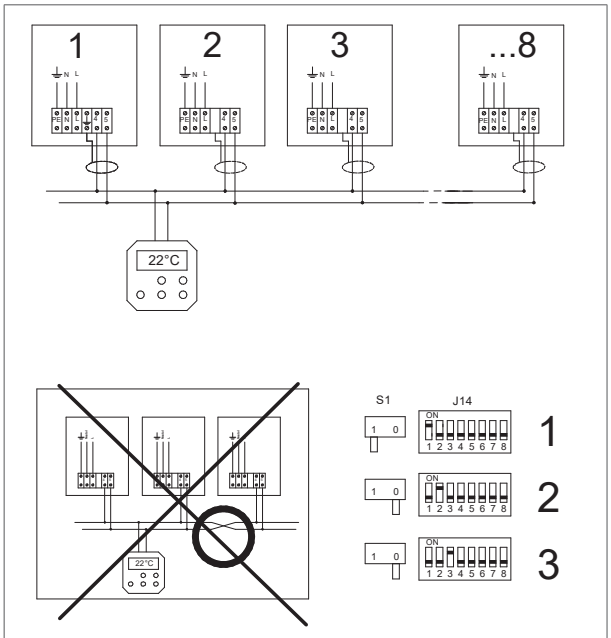


Figure 12 - Connection of multiple air heaters to a modulating room thermostat

Each air heater needs an unique number to be recognised by the room thermostat. This number can be set with the J14 switch on the control unit of each air heater:

1. Set the S1 and J14 switches on the control unit as follows (figure 13):
   a. Set the S1 switch of the first air heater to 1.
   b. Set the S1 switch of the other air heaters to 0.
   c. Set the J14 switch of the first air heater to 1.
   d. Set the J14 switch of the second air heater to 2, etc.

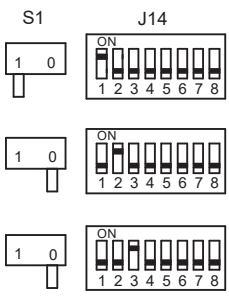


Figure 13 - Positions of the S1 and J14 switches for the first three air heaters in a system

NOTICE If the J14 switch of more than one air heater is set to the same number (overlapping numbers), the system will not work.

NOTICE The air heater must be switched off when setting the switches. Otherwise the settings will have no effect.

4.5.6. Controlling the heater via a 0 - 10 V input signal

For control via a 0-10V signal, install accessory GA5906 and follow the supplied installation instructions.

4.5.7. Controlling the heater via Modbus

For control via a Modbus signal, install accessory GA5903 and follow the supplied installation instructions.

5. Flue systems

To ensure safe and proper use, this air heater must be connected to a flue system. This flue system must be installed according to this manual as well as national and local regulations. A flue system consists of a flue terminal, piping and an optional condensate discharge system.

CAUTION! Do not use flue terminals for condensing appliances on non-condensing heaters. This can lead to water inside the flue system.

NOTICE Only use the prescribed flue material for the roof terminal, wall terminal and for the piping between the heater and the terminal. This is the only way the installation will be approved.

NOTICE Local regulations can require the flue terminal to be placed at least 0.6 m above roof level.

NOTICE Local regulations can require a minimum distance between the flue terminal and air ventilation openings on the building.

5.1. Flue terminals

The following flue terminals are compatible with this air heater:

Vertical discharge	
Flue terminal	**Art. Nr.**
DDV130/200	IA8305

Horizontal discharge	
Flue terminal	**Art. Nr.**
CT130/200	IA8312

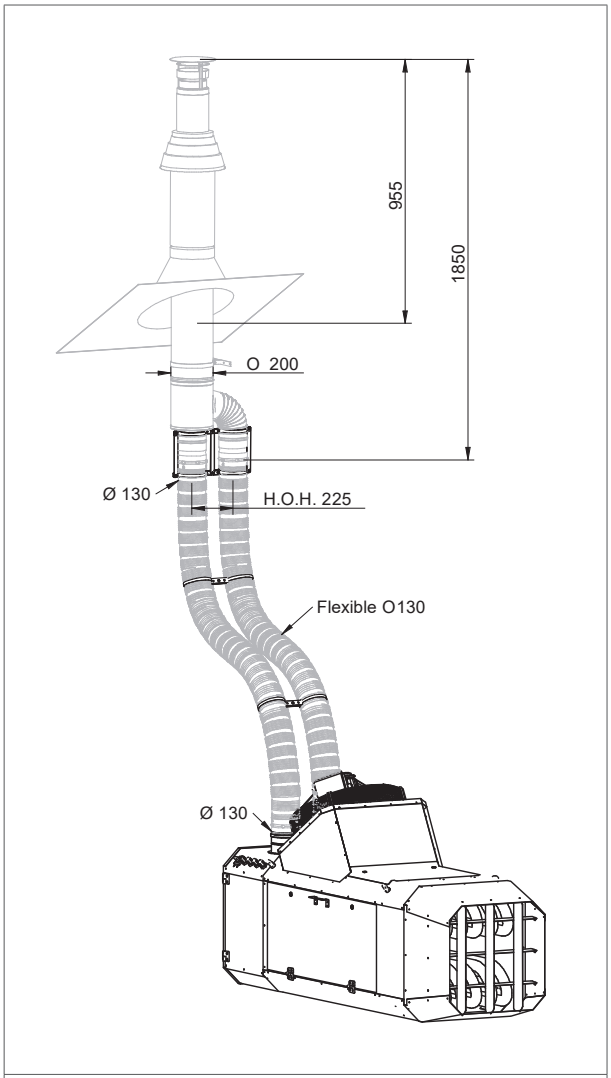


Figure 14 - Vertical flue terminal

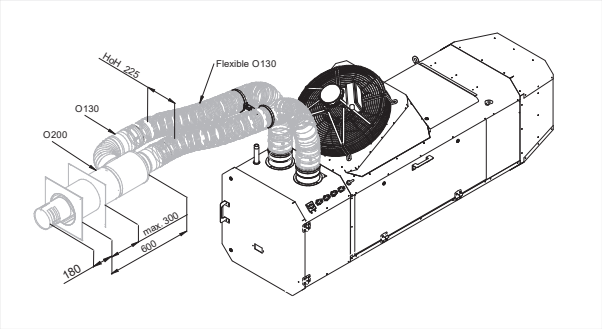


Figure 15 - Horizontal flue terminal

5.1.1. Flue material

Only use CE marked flue material from the manufacturers Muelink & Grol (M&G) and Burgerhout.

Use type Alu-fix with a minimum temperature class of T200 P1.

Type (aluminium 1,5 mm)	Pipe diameter	Article number
Elbow 90°	Ø 130 mm	IA8368
Elbow 45°	Ø 130 mm	IA8362
Elbow 30°	Ø 130 mm	IA8360
Pipe 1000 mm	Ø 130 mm	IA8358
Pipe 500 mm	Ø 130 mm	IA8352

or

M&G's Stainless Steel SP Isoflex 0.10 flue material T200 P1.

Description	Article number
Flue mounting kit (Obligatory with each pipe set) (incl. 2× male & 2× female adapters, 2 safety clamps, silicone kit)	GA8350
Flexible pipe set 1 m. Ø 130	GA8310
Flexible pipe set 2 m. Ø 130 (incl. 1 spacer bracket)	GA8315
Flexible pipe set 3 m. Ø 130 (incl. 2 spacer brackets)	GA8320
Flexible pipe set 4 m. Ø 130 (incl. 3 spacer brackets)	GA8325
Flexible pipe set 5 m. Ø 130 (incl. 4 spacer brackets)	GA8330
90° Elbow set, Ø 130	GA8355

Use flue pipes with the same diameter as the flue spigots on the heater.

Contact your supplier to purchase these flue materials.

NOTICE Different manufacturers use different connections systems for flue pipes. Do not combine systems from different manufacturers.

5.2. Flue length (max.)

The maximum straight length between the air heater and its flue terminal for both orientations is:

- Vertical: 9 meters.
- Horizontal: 6 meters.

Bends that are used in the connection between an air heater and the flue terminal cause a decrease in pressure:

- Using a 90° bend decreases the maximum length of the connection by 2 meters.
- Using a 45° bend decreases the maximum length of the connection by 1 meter.

For further information regarding the flue system, please contact your supplier.

5.3. Installation of the flue terminal

There are flue terminals available for installation through a roof or through a wall.

NOTICE The flue terminal must be installed according to local and national regulations.

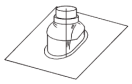
NOTICE Do not combine components or materials from different manufacturers.

5.3.1. Installation - Roof terminal

To install the flue terminal in the roof, do the following:

5.3.1.1. Preparation

1. Check all components for possible damage.
2. Choose the right accessory depending on the type of roof

Roof type:	Flat horizontal roof	Sloped roof 15°–60°, flat or corrugated	Trapezoidal roof 0°–45°
Accessory image			
Accessory type	Flat roof flashing	Deformable roof panel	Roof plate set for trapezoidal roof
Pipe diameter	Ø 210 mm	Ø 210 mm	Ø 130 - 210 mm
Plate dimensions (l × w)	Ø 520 mm	1000 × 800 mm	280 × 280 mm
Article number	IA8322	IA8344	GA8334

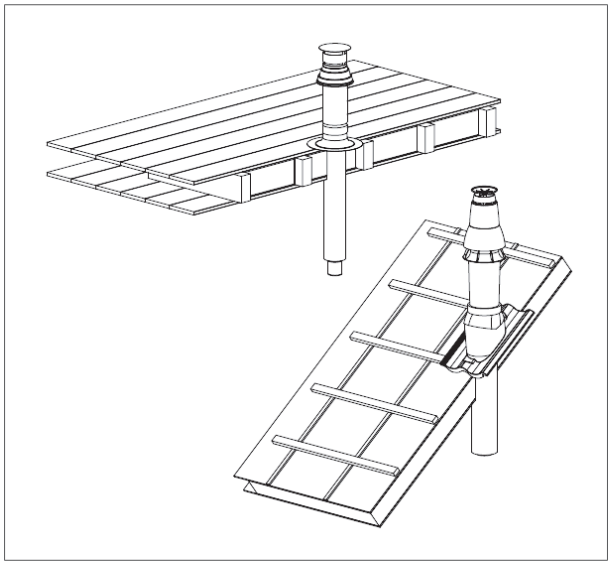
3. Determine where the flue terminal will be positioned.

5.3.1.2. Installation

1. Create a hole from the outside of the roof.

CAUTION! Make sure no debris or dust gets into the air heater.

2. Install the weather collar.
3. Carefully insert the flue terminal from the outside.



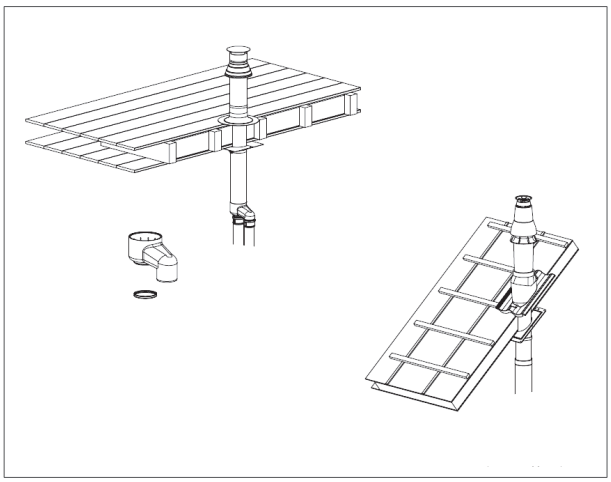
CAUTION! Do not rotate the cap.

4. Put the flue terminal into a vertical position. Use a level.
5. OPTIONAL - If desired, fit cover plates. These are supplied separately.

If necessary, extend the pipe using a concentric extension set:

Concentric extension set 130 / 200 mm		
Article number	IA8313	IA8411
Length (meters)	0.5 m	1.0 m

6. Place the supplied wall clamp around the flue terminal and fit it to the roof construction. Do not tighten the clamp yet.
7. Connect the gasket and the twin-tube connection. Make sure that the gasket is not damaged.



NOTICE Make sure the flue tube and the air inlet tube are not mixed up. The flue tube should be in the centre of the flue terminal.

8. Tighten the roof wall clamp.
9. Check if all steps have been carried out correctly.

5.3.2. Installation - Wall terminal

To install the flue terminal in a wall, do the following:

5.3.2.1. Preparation

1. Check all components for possible damage.

5.3.2.2. Installation

1. Create a hole through the wall.

CAUTION! Make sure no debris or dust gets into the air heater.

2. Carefully insert the flue terminal from the outside.

CAUTION! Do not rotate the cap.

3. Put the flue terminal in a horizontal position. Use a level.
4. Mark the holes on the wall.
5. Drill the holes.
6. Insert screws to fix the terminal in place.
7. Seal the edges of the flue terminal with kit.
8. Fix the shield on the inside of the wall.

CAUTION! Make sure that the gasket is not damaged.

9. Connect the gasket and the twin-tube connection.

NOTICE Make sure the flue tube and the air inlet tube are not mixed up. The flue tube should be in the centre of the flue terminal.

10. Check if all steps have been carried out correctly.

5.4. Installation of the flue system parts

This chapter gives the instructions for installing an ALU FIX flue system or stainless steel Isoflex system.

5.4.1. Requirements

The installation must follow these requirements:

- Minimum distance between the flue system and combustible materials of 40 mm.
- Minimum depth of female sockets of 40 mm.
- Minimum slope of horizontal piping of 50 mm/m (3°). This allows condensate to flow to the heater.

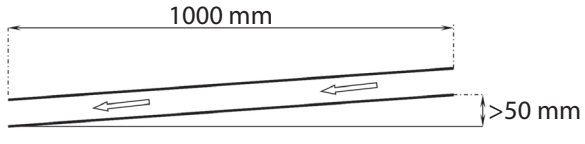


Figure 16 - Minimum slope of horizontal piping of 50 mm/m (3°)

Condensate may form in the flue gas system when the air heater is warming up. This condensate will evaporate once the heater has been operating for a longer period.

CAUTION! Do not apply mechanical force on the parts during installation.

NOTICE Use brackets that match the flue system. Different manufacturers use different connection systems for flue pipes. It is not allowed to combine systems from different manufacturers.

5.4.2. Elements system ALU FIX thick wall

An ALU FIX flue system is created with four elements (figure 17).

Figure 17 - The elements of a flue system

5.4.3. Elements stainless steel Isoflex system

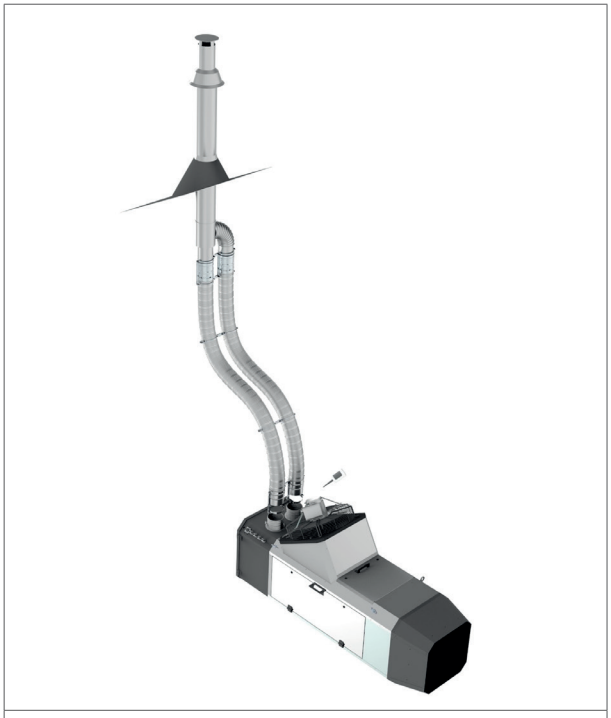


Figure 18 - Flexible pipe set

Figure 19 - Brackets flexible pipe set

The set includes two sets of brackets: one for securing the flexible pipes to the roof terminal, and one for securing the flexible pipes to the DXC.

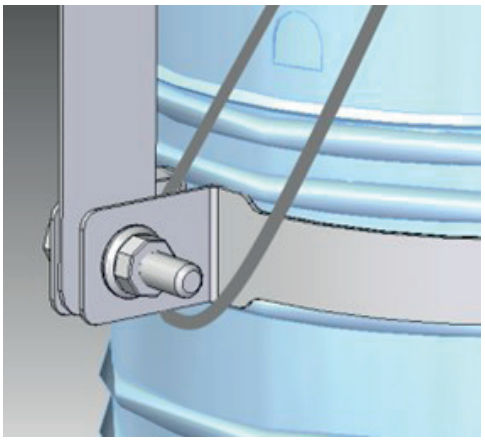


Figure 20 - Securing the safety clamps to the ceiling

CAUTION! Make sure the flexible pipe is properly fixed to the ceiling with the steel wires to avoid pull-forces on the roof terminal.

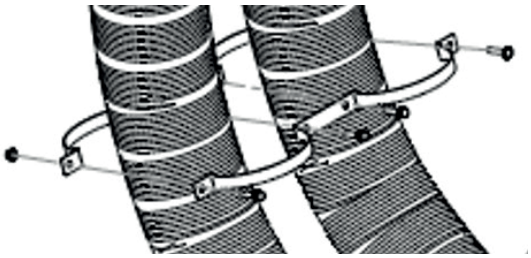


Figure 21 - Spacer brackets flexible pipe

5.4.4. Seals

The connection between the different flue elements must be made airtight and waterproof with silicon seals.

CAUTION! If the flue elements have been cut, make sure to clean and chamfer the edges. Sharp edges will damage the seals.

CAUTION! Do not drill or screw in the flue elements.

CAUTION! Do not try to seal the connections with kit, foam or tape.

CAUTION! Do not use grease, vaseline or oil to lubricate the installation.

CAUTION! Only use the lubricant allowed by the manufacturer to lubricate the connections. A maximum soap concentration of 1% is allowed.

NOTICE Follow the instructions from the manufacturer if the connections need to be fixed.

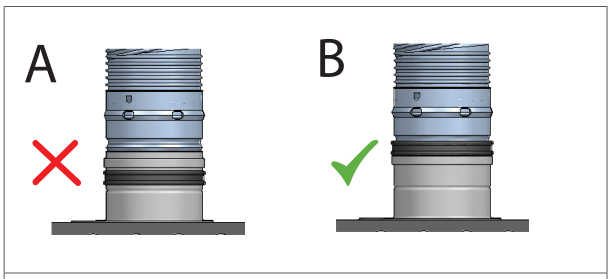


Figure 22 - Seal for protection against water

6. Operating the air heater

6.1. Manual function switch

The air heater can be manually controlled with a function switch.

No.	Function	Symbol	Description
0	Off		The heater is off. The power to the electrical components is interrupted (neutral and live). The earth connection is not interrupted.
1	Auto		The heater is in standby mode and ready to use. It will start to burn when a thermostat connection is made.
2	Auto + fan	+	The heater is in standby mode and the fan is running continuously. The heater will burn when a thermostat connection is made.
3	Burn		The heater is burning continuously, independent from any other control settings.

6.2. Burner cycle

The air heater's display shows the current status of the burner cycle (figure 23).

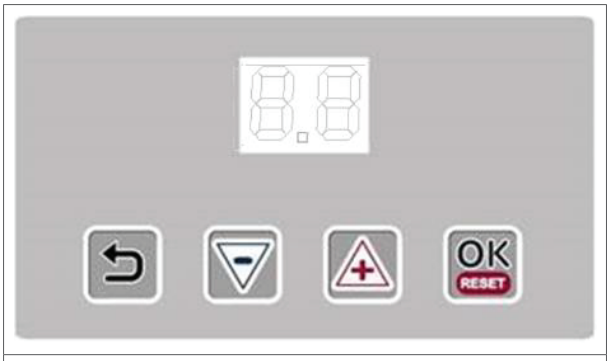


Figure 23 - Display of the air heater

Display	Status	Description	Time (seconds)
0	Stand-by	Waiting for heat demand.	
1	Reset	Software reset.	
3	Pre-check	Zero position check pressure switch.	
4	Pre-purge	30 seconds of pre ventilation by the combustion fan. The pressure switch is checked.	30
5	Pre-ignition	Ignition without opening the gas valve.	
6	Ignition	5 seconds of ignition. The gas valve opens.	
7	Flame check	The air heater checks if the flame is present.	
8	Burn	The heater fires up and starts to modulate.	≥ 60
9	Minimum	Before the flame stops, the burner will modulate to minimum power.	
10	Burner off	The gas valve closes. The flame stops.	
11	Post purge	Burner fan purges with fresh air. System fan cools the heat exchanger.	60
		System fan cools the heat exchanger.	60 - 120
P	Anti-shuttle	The heater can not generate a heat demand during this period.	10
F	Ventilation	Request to start (summer) ventilation mode.	

6.3. Minimum firing time

The heater will always fire for a minimum of 1 minute, even if the heat demand stops. This is to avoid a large amount of start and stops.

NOTICE The heater will try to ignite 2 times before it stops and gives an error.

Summer ventilation can be activated on the air heater. For further information, see §7.2.3.

6.4. Overheating protection

The heat exchanger of the air heater is protected against overheating.

6.4.1. Heat exchanger

An NTC sensor is located near (or on) the heat exchanger. This sensor monitors the heat exchanger temperature.

If the heat exchanger becomes too hot, this sensor will cause the heating process to stop. Depending on the temperature, the air heater performs the following actions:

- Step 1: Power reduction (if possible) (thermostat display: A07).
- Step 2: The burner stops, followed by an automatic restart once the unit has cooled down (thermostat display: E05 / E36).

- Step 3: The burner stops, followed by a lockout. A manual reset is required (thermostat display: L15).

NOTICE A manual reset can be done on the electronic circuit board or remotely with the special room thermostat.

6.5. Flue passage check

The air heater is equipped with a pressure switch that checks the passage of combustion air through the heat exchanger. The pressure switch checks if there is sufficient movement of combustion air through the heat exchanger. If the pressure difference is too low, the air heater will stop. Error L-14 will be shown on the display.

7. Commissioning the air heater

7.1. Adjusting the settings

Prior to packaging, the safety and functioning of each air heater is checked in detail. It is also set to the right combustion efficiency.

In general, the heater does not need to be adjusted after installation. It is only necessary to perform a functional check and to obtain a flue gas analysis and record it for later reference.

CAUTION! Use only calibrated instruments to adjust the air heater.

CAUTION! Never carelessly turn the adjuster screws.

NOTICE Adjusting the control without a supporting flue gas analysis voids the warranty.

Only adjust the burner pressures if they differ more than 0,5 mbar from its setting.

7.2. Commissioning the air heater

Once the unit is installed according to this manual, the unit can be commissioned. To do so, follow these instructions:

1. Make sure the gas supply pipe is clean, gas tight and free from air.
2. Switch on the electric supply with the maintenance switch.

You are now able to observe the first start-up and become familiar with the functioning of the heater.

NOTICE If the gas line is not purged correctly, the heater will attempt to start twice before going into a lock-out condition. In this case, manual reset is necessary.

1. Instruct the end user of the about a safe use of the air heater:
   - The presence of gas
   - The location of the manual gas valve
2. Instruct the end user about the operation of the heater:
   - Lock-out indication
   - Reset
3. Instruct end user about the necessary maintenance.
4. Leave this manual with the end user.

7.2.1. First use – thermostat

To commission the air heater via the room thermostat, do the following:

- Put the thermostat in the highest position. The start sequence is always the same.

The air heater will burn for the minimal firing time (see §6.3 for more information).

7.2.2. First use - display

To commission the air heater via the display's manual test mode, do the following:

NOTICE The display's manual test mode will only work for maximum 10 minutes.

1. Press and hold the **Return** and (–) button for a few seconds (figure 24). The display will alternate between Lo and St. This means the heater will start up in Low fire.
2. Press the (+) and (–) buttons to toggle between Low and High fire (figure 24).
3. Press the (–) button until 0 is displayed to exit the service. The air heater will always cool down the heat exchanger for several minutes.

The test mode will automatically end after 10 minutes.

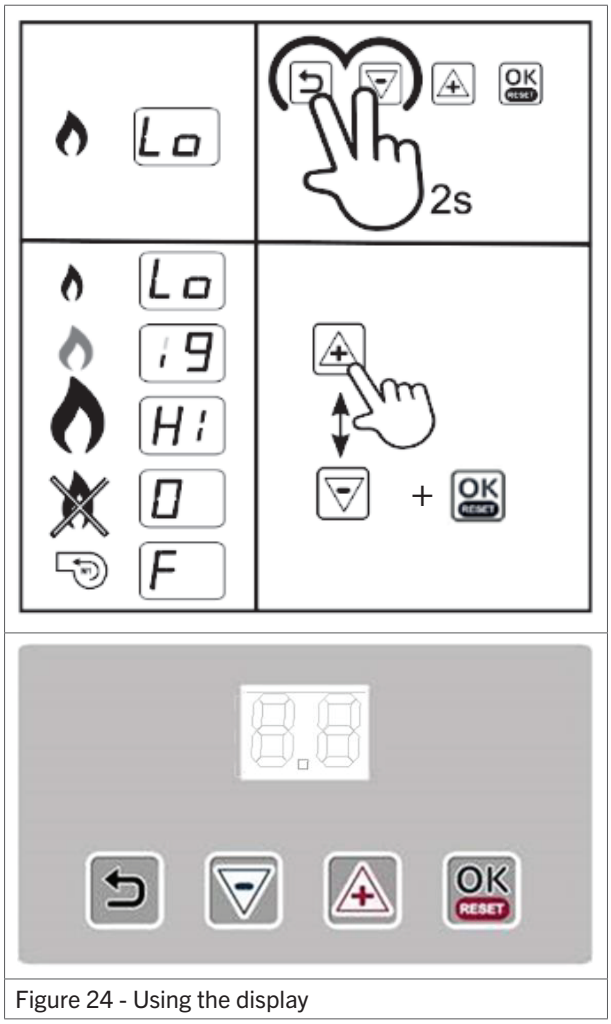


Figure 24 - Using the display

7.2.3. Manual operation

The air heater can be operated without an external thermostat or signal. There are three modes available:

Heat demand deactivated

When this mode is activated, the air heater does not respond to heat demands, except for heat demands received through bus communication.

To activate the heat demand deactivated mode, do the following:

1. Press the (+) and **(-)** buttons (figure 25) simultaneously. The display shows a blinking 0.
2. Press the (+) button until the display shows a blinking 6.
3. Press the OK button to deactivate the heat demands. The display shows H-.

12 hour burner cycle

When this mode is activated, the air heater starts a burner cycle of 12 hours.

To activate a 12 hour burner cycle, do the following:

1. Press the (+) and **(-)** buttons (figure 25) simultaneously. The display shows a blinking 0.
2. Press the (+) button twice until the display shows a blinking 7.
3. Press the OK button to activate the 12 hour burner cycle mode. The display shows H2.

Summer ventilation

When this mode is activated, the air heater ventilates continuously. The air heater does respond to heat demands. When a heat demand ends, the ventilation function continues.

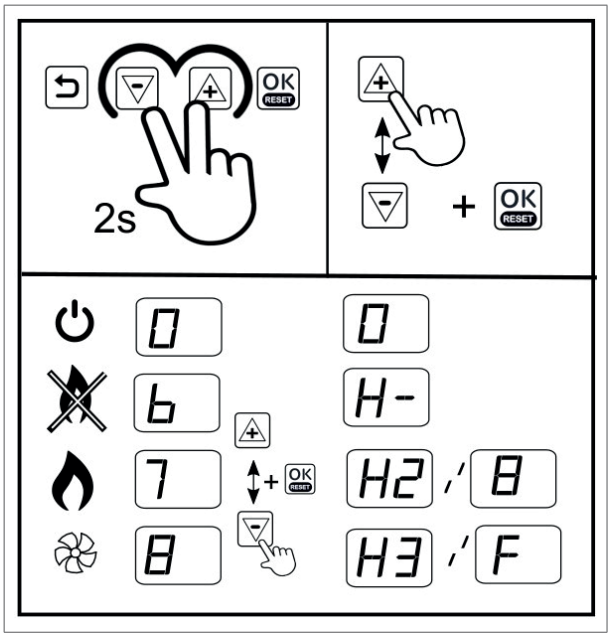
To activate the summer ventilation, do the following:

1. Press the (+) and **(-)** buttons (figure 25) simultaneously. The display shows a blinking 0.
2. Press the (+) button three times until the display shows a blinking 8.
3. Press the OK button to activate the summer ventilation. The display shows H3.

Exit a mode

To deactivate a mode, do the following:

1. Press the (+) and **(-)** buttons (figure 25) simultaneously.
2. Press the **(-)** button until the display shows 0.
3. Press the OK button to deactivate the mode.



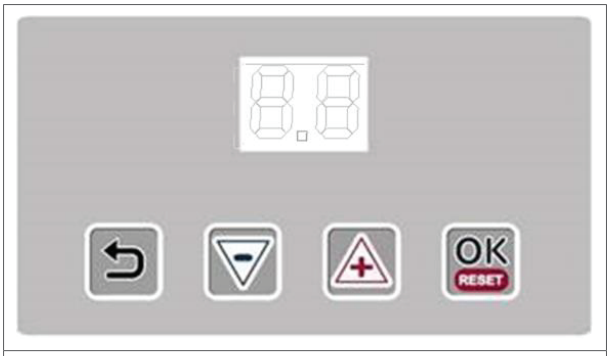


Figure 25 - Using the display

8. Combustion settings

In principle, it is not necessary to adjust the control shortly after commissioning the air heater. When the control does have to be adjusted after a period of use or after installing a new heater, this must be done by a qualified person using calibrated equipment.

DANGER! A poor adjustment can lead to overheating of the air heater and/or production of toxic carbon monoxide.

8.1. Adjusting the burner settings

The flow of gas to the burner is controlled with a gas valve. The valve must be set to a high and a low burner pressure. To adjust the burner pressures, do the following:

1. Look up the correct burner pressures (see §3.2).
2. Remove the cover from the gas valve. Use a (small) screwdriver.
3. Switch on the air heater on high fire (see §6.2).
4. Set the high burner pressure by turning the outside of the adjuster screw. Use a 10 mm wrench.
5. Set the air heater to low fire.
6. Set the low burner pressure by turning the inside of the adjuster screw. Use a screwdriver.

NOTICE Do not set the burner pressure lower than 3 mbar. This avoids problems with cross-lightning of the burner.

NOTICE Because the high and low burner pressures influence each other, always check both burner pressures at least twice after any adjustment.

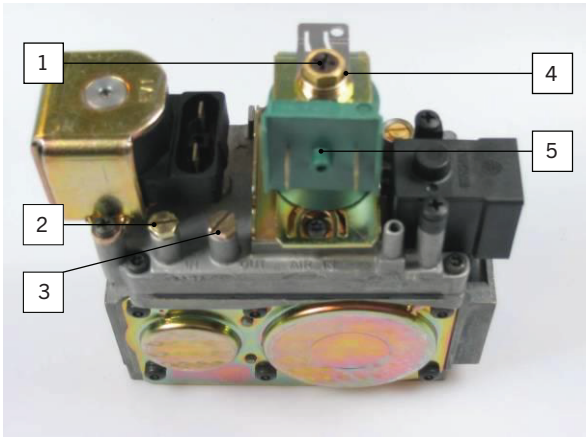


Figure 26 - Main parts of the gas valve

1) Low setting
2) Inlet pressure
3) Burner pressure
4) High setting
5) High/low

DANGER! Always measure the air heater's CO production. Too much CO usually means the gas mixture is too rich. Adjust this if necessary with the two adjusters (figure 26).

To perform a flue gas analysis, unscrew the cap with the red sticker from the flue outlet on the top right of the unit and insert the measuring probe. Don't forget to place the cap back after taking the measurements.

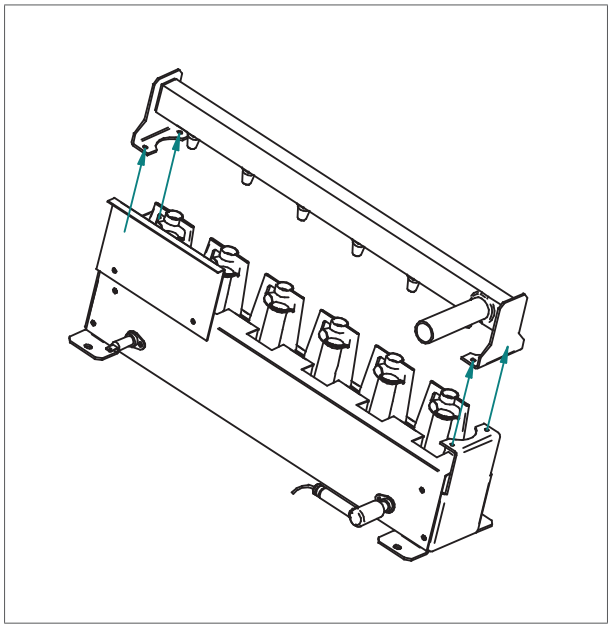
Figure 27 - Cap gas analysis

8.2. Converting to another gas type

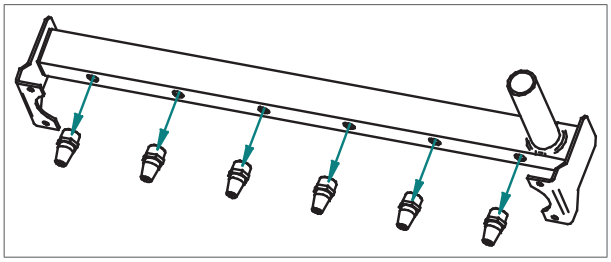
CAUTION! For safety reasons, the manufacturer recommends that the air heater is converted to another gas type only by the manufacturer, its representative or a qualified service technician. Contact your supplier for more information.

To convert the air heater to another gas type, the gas injectors on the burner unit have to be changed. A conversion kit is available for this:

1. Switch off the air heater.
2. Shut off the gas and electricity.
3. Disconnect the ignition and ionisation cables from the burner unit.
4. Disconnect the burner manifold from the gas valve. This is a clamp coupling.
5. Unscrew the screws that attach the burner manifold to both ends of the endplates of the burner unit.
6. Remove the burner manifold.



7. Remove the gas injectors from the burner tube.



8. Select the correct injectors (see §12).

NOTICE The injectors have a stamp that corresponds to the diameter of the injector. For example, 130 means 1.30mm and 210 means 2.10mm.

9. Apply the sealing paste from the conversion kit on the threads of the injectors.

CAUTION! Avoid paste from getting into the injectors.

10. Insert the new gas injectors.
11. Reattach the burner tube to the burner unit.
12. Mount the burner unit back into the air heater and reconnect all cables.
13. Expel air from the piping and check the gas valve and supply line for leaks.
14. Change the labels on the air heater with ones that have the correct values for the new gas type.
15. Attach an Attention sticker that notifies users that the air heater has been converted to another gas type.
16. Set the burner pressures (see §8.1).

9. Troubleshooting

If the air heater malfunctions, first check if the problem is caused by external circumstances (e.g. no supply power). If the problem is not caused by external circumstances, use the tables and instructions in this chapter to fix the air heater.

NOTICE Please remember the built in waiting times of the air heater; the signals of the LED's and the code on the display. Do not react too soon.

9.1. Volatile lock outs

The table below describes the volatile lock outs that can occur. These can only be reset by hand.

Display	Error type	Description	Case #
L-0	Internal error	Internal error	13
L-1	Ignition error	Flame lasts only 5 seconds after ignition	1
		No flame after ignition	2
L-2 and 3	Internal error	Internal error	13
L-4	E-error	E-error for more than 24 hours	12
L-8 to 12	Internal error	Internal error	13
L-13	Pressure switch error	Pressure switch is closed in stand-by mode	14
L-14	Pressure switch error	Pressure switch does not close during pre-purge	11
L-15	Overheating	Heat exchange sensor is overheated	3
L-17 to 19	Internal error	Internal error	13
L-20	Flame error	Flame detected after closing the gas valve	15
L-21	Flame error	Flame detected before opening the gas valve.	16
L-22	Flame error	Flame failure during burning	5
L-25	Sensor error	Heat exchange sensor failure	4
L-27 to 31	Internal error	Internal error	13
L-32	Sensor error	Heat exchange sensor failure	4
L-33 to 38	Internal error	Internal error	13
L-35	Pressure switch error	Too many pressure switch errors	11
L-43	Overheating	Heat exchange sensor is overheated too often	3

9.2. Temporary errors

The table below describes the temporary errors that can occur. These will disappear automatically after the cause has been resolved.

Display	Error type	Description	Case #
E-00 to 04	Internal error	Internal error	13
E-05	Overheating	Heat exchange sensor is overheated	3
E-06 to 13	Internal error	Internal error	13
E-14	Flame error	Flame detected when there shouldn't be one	16
E-15 to 20	Internal error	Internal error	13
E-21 and 22	Heat exchanger sensor error	Heat exchanger sensor not detected	4
E-27 and 28	Heat exchanger sensor error	Heat exchanger sensor short-circuit	4
E-34	Reset button error	Too many reset actions in a short timespan	9
E-36	Overheating	Heat exchange sensor is overheated	3
E-38 and 39	Heat exchanger sensor error	Heat exchanger sensor not detected	4
E-47 and 48	Heat exchanger sensor error	Heat exchange sensor short-circuit	4
E-49 to 64	Internal error	Internal error	13
E-65	Voltage too low	Supply voltage is too low for over 1 minute	n/a
E-66	Voltage too high	Supply voltage is too high for over 1 minute	n/a
E-67	Pressure switch error	Pressure switch opens during burn.	11
E-69	Configuration error	Heater configuration error	19
E-70	Temperature sensor error	Temperature sensor false measurement	13

9.3. Warnings

The table below describes the temporary warnings that can occur. The heater may still be working, or stops until the cause has been resolved.

Display	Error type	Description	Case #
A-02	Configuration error	Heater configuration error	19
A-07	Overheating	Heat exchange sensor is almost overheated	3

9.4. Instructions

After identifying the problem, use the Case number to find the possible cause in this paragraph.

Case 1: Flame lasts only 5 seconds after ignition.

- The flame is not detected:
  - Check the ignition/ionisation cable and the electrode. The cable should have a resistance of 1 kΩ.
- The air heater is not earthed properly.
- The circuit board is defective.

Case 2: No flame after ignition.

- There is not enough gas pressure.
- The gas mixture is too poor:
  - Adjust the gas valve (see §8.1).
- The gas valve does not open:
  - During ignition, check for a 230 V voltage on the valve.
- Check if the ignition electrode sparks. If not:
  - Check the cable and electrode and replace them when damaged.
  - Check the burner control unit and replace it when it does not give a spark output.

Case 3: Heat exchange sensor or flue sensor is overheated.

- Check if the connectors J12 and J6 are plugged in correctly and if the connection J12[1-4] (optional overheating protection) is closed.
- Check if the system fan supplies enough air.
- Check the settings of the gas valve. The heater may be overfired. If so:
  - Adjust the burner pressure.

Case 4: Heat exchange temperature sensor not detected, or short circuit.

- The heat exchange sensor consists of two internal sensors. The readings of these sensors may differ too much:
  - Measure the resistance of each sensor. The resistance should be 20 KΩ at 25 °C and 25 KΩ at 20 °C.
  - If the measured values differ too much, replace the sensor.

Case 5: Too many flame failures while burning.

- The gas supply is not constant. This results in a drop in gas supply pressure while burning and causes the flame to extinguish.
  - Check the gas supply pressure while the heater is burning.
- The burner pressure for Low fire is too low. This causes the flame to extinguish because it is too small to be detected.
  - Check the burner pressure at Low fire and adjust if necessary (see §8.1).
- Recirculation of flue gas. Due to a problem with the flue terminal the flue gas is sucked back into the air inlet. This results into a lack of oxygen and causes the flame to stop.
  - Check the flue system and fresh air supply. Only certified, original parts should be used.

Case 9: Too many reset actions in a short timespan.

- This error will disappear after some time or if the main power is disconnected for a while.

Case 11: Insufficient air passage through the heat exchanger. Pressure switch does not close.

- Check if the combustion fan is running.
- Check if the flue system is blocked or restricted.
- Check the pressure switch and the connections.
- Check the heat exchanger for flue leakage.

Case 12: E-error for more than 24 hours.

- Switch the air heater off and on and check the error code.

Case 13: Internal error.

- Isolate the electrical supply and reenergise. If this does not help:
  - Replace the burner control unit.

Case 14: Pressure switch is closed in stand-by mode.

- Check if the contact is stuck. If so:
  - Replace the pressure switch.
- Check if there is water in the hose. If so:
  - Dry the hose.

Case 15: Flame detected after closing the gas valve.

- Check if the gas valve closes too slow. If so:
  - Replace the gas valve.
- Check if the ionisation electrode is wet. If so:
  - Dry, clean or replace the electrode.

Case 16: Flame detected before opening the gas valve.

- Check if there really is a flame before ignition. If so:
  - Replace the gas valve.
- Check if the ionisation electrode is wet. If so:
  - Dry, clean or replace the electrode.

Case 19: Heater configuration error

- The heater does not know which program to run, due to a mismatch between the burner control unit and the display. If so:
  - Contact your supplier.

9.5. Further troubleshooting

When the air heater does start but shows a different problem than described above, check if the following problems apply.

9.5.1. Explosive ignition and/or frequent flame failures

- Check if the gas control settings are correct (see §8.1). A correct CO_2 value is important for a proper ignition.
- Check the ignition cable. It should have a resistance of 1 kΩ.

10. Maintenance

CAUTION! The air heater must be inspected and cleaned once a year by a qualified installer with sufficient knowledge about the device.

CAUTION! Sufficient maintenance is critical in circumstances such as high humidity, dust, high switching on/off frequency, etc.

10.1. Preparation

Before performing maintenance on an air heater that is already installed, do the following:

1. Set the thermostat to the lowest setting.
2. Close the manual gas valve.
3. Turn off the power supply to the air heater using the maintenance switch.

CAUTION! Always check for gas leaks after working on the air heater.

CAUTION! The heater must be electrically isolated during servicing.

Water can be used to clean the air heater.

CAUTION! Only the heat exchanger can be cleaned with a pressure washer. Do not use a pressure washer on the following parts:

- The big fan motor on top of the air heater.
- The electronics housing.
- The temperature sensor in the front part of the air heater.

10.2. Basic maintenance

To perform basic maintenance on the air heater, do the following:

CAUTION! When cleaning parts of the air heater, use a dry cloth, brush, compressed air or a vacuum cleaner. Never use a steel brush.

1. Inspect the outside of the heat exchanger.
2. Clean the fan guard on the outside of the heater. Clean the fan blades if required.
3. Open the access panel.
4. Clean the inside of the air heater. Focus on the following parts:
   - Body
   - Fan blades and motor
   - Heat exchanger
   - Temperature sensor
   - Vane switch (if present)
5. Check if the wiring, nuts and bolts are properly secured and tightened.
6. Grease any parts and bolts that are regularly loosened for maintenance.
7. Open the manual gas valve in the supply line and check if the supply lines are air tight, do not leak and do not contain air.

Some checks can only be performed when the heater is running. Do the following:

1. Reconnect the air heater to the power supply.
2. Switch on the air heater.
3. Check if the heater operates without problems. See §9 if any errors occur.
4. Check the air heater's combustion efficiency. If necessary:
   - Adjust the burner settings (see §8.1).

10.3. Maintenance of the burner unit

The burner unit is an important part of the air heater and requires special maintenance.

To perform maintenance on the burner unit, do the following:

1. Disconnect the ignition and ionisation cables from the burner unit.
2. Disconnect the burner manifold from the gas valve. This is a clamp coupling.
3. Remove the burner assembly from the air heater,
4. Check the burner for damage, corrosion and alignment of the separate burners.
   - Clean with a brush.
5. If necessary, clean the electrodes.

CAUTION! Do not twist the electrode out of shape.

6. Check the inside of the heat exchanger for dirt and/or damage. If necessary:
   - Clean the heat exchanger.

7. Disassemble the motor part from the flue fan. The housing can remain on the heater.
8. Clean the inside of the flue fan.
9. Check the air supply and the flue discharge for dirt and clean it.
10. Reassemble the burner unit.

10.4. Extensive maintenance in poultry sheds

WARNING! Air heaters that are used in poultry sheds must be cleaned and inspected after every clean-out, before disinfection and the spreading of sawdust on the floor.

CAUTION! The heat exchanger can be cleaned with a pressure washer. Do not use a pressure washer to clean parts that contain electronics, such as the electric motor or the machine cover.

ATTENTION Depending on the level of contamination, especially in cold and humid areas, it may be necessary to clean the air heater during the cycle.

1. Use compressed air or a soft brush to clean the remaining parts from the air heater. Focus on the following parts:
   a. The inside and outside of the body.
   b. The fan blades and motor.
   c. The temperature sensor.
2. Remove all dust from the motor. Accumulated dust acts as insulation and can cause the motor to overheat.
3. Use a brush to remove any baked on dust.
4. Clean the burner unit (see §10.2).
5. Switch on the air heater and let it heat for a while. This burns off any remaining dust particles.
6. Stop the heating process.
7. Cover the air heater when it is fully cooled off. This protects it from dirt or dust.
8. Make sure the air heater is electrically isolated.
9. Disinfect the poultry shed and spread the sawdust.
10. Remove the cover from the air heater. The heater is ready to be used.

Instructions for cleaning the air heater with a high-pressure cleaner:

Never aim the high-pressure cleaner at components inside the air heater. When the water jet from the high-pressure cleaner hits components inside the air heater, parts can be damaged or bend.

1. Maintain a distance of 50 cm between the spray nozzle and the surface of the air heater being cleaned (figure 28).
2. Never spray on the electronics.
3. Never spray water or chemicals into the fan opening or fan motor (figure 28).

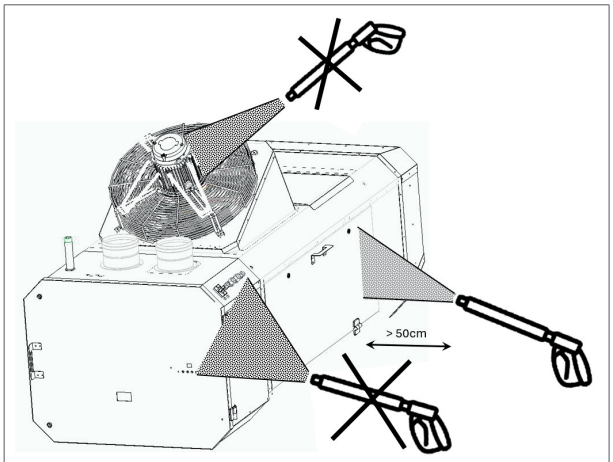
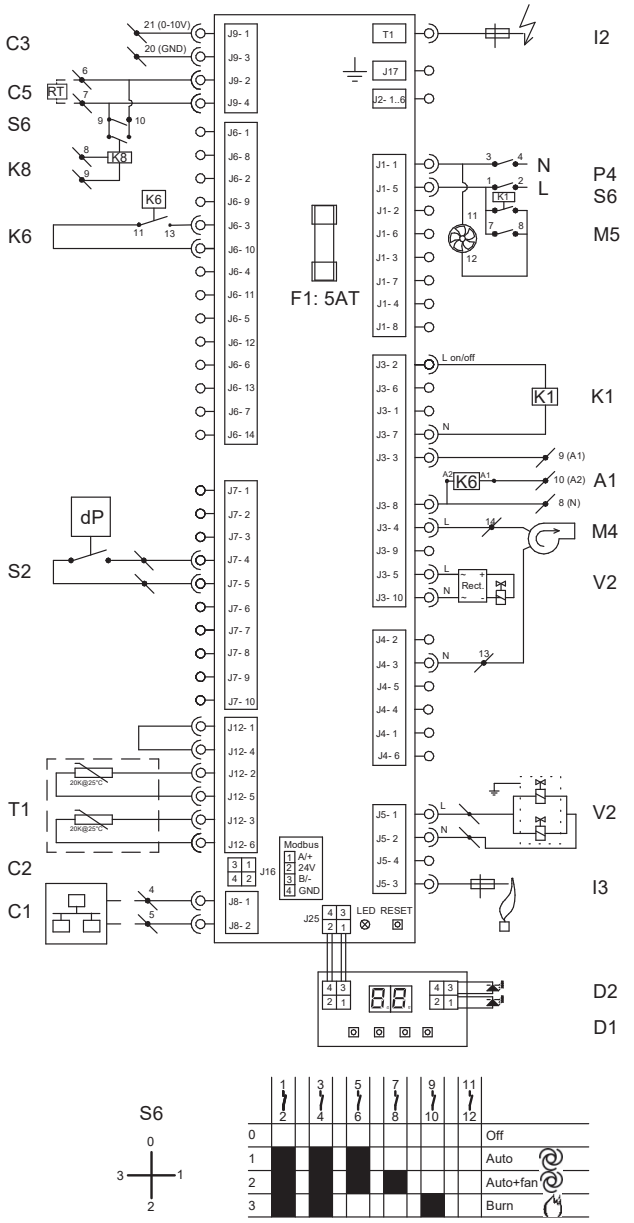


Figure 28 - Maintain a distance of 50 cm between the spray nozzle and the surface of the air heater being cleaned

4. Always rinse chemical cleaning agents off the air heater immediately with water. Chemical cleaning agents contain aggressive substances that can damage the stainless steel of the air heater.

11. Electrical wiring diagram

A complete electrical wiring diagram is shown in figure 29. The connections that are most important to the installation process are shown in figure 30.



No.	Connection type
A1	Alarm output 230 V (optional)
C1	Bus communication system
C2	Modbus connection (optional)
C3	0 - 10 V input (optional)
C5	ON/OFF thermostat
D1	Display (2 x 7 segment)
D2	Red and green LED
F1	Glass fuse (5 x 20 mm 5AT)
I2	Ignition electrode
I3	Ionisation electrode
K1	System fan relay
K6	External reset (optional)
K8	ON/OFF thermostat relay 230 V input (optional)
M4	Combustion fan (flue gases)
M5	System fan via relay
P4	Power supply (230 V)
S2	Pressure switch (combustion)
S6	Selection switch
T1	Temperature sensor (heat exchanger)
V2	High/low valve with rectifier

Figure 29 - Electrical wiring diagram

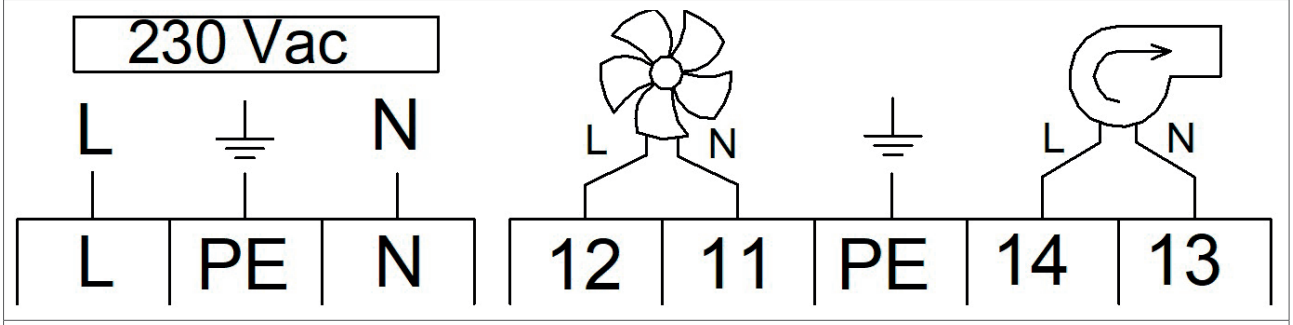


Figure 30 - Main connections for installation

12. Exploded view and spare parts

The parts of the air heater are shown in an exploded view in figure 31. The table below describes each part and shows the correct article number for a replacement part.

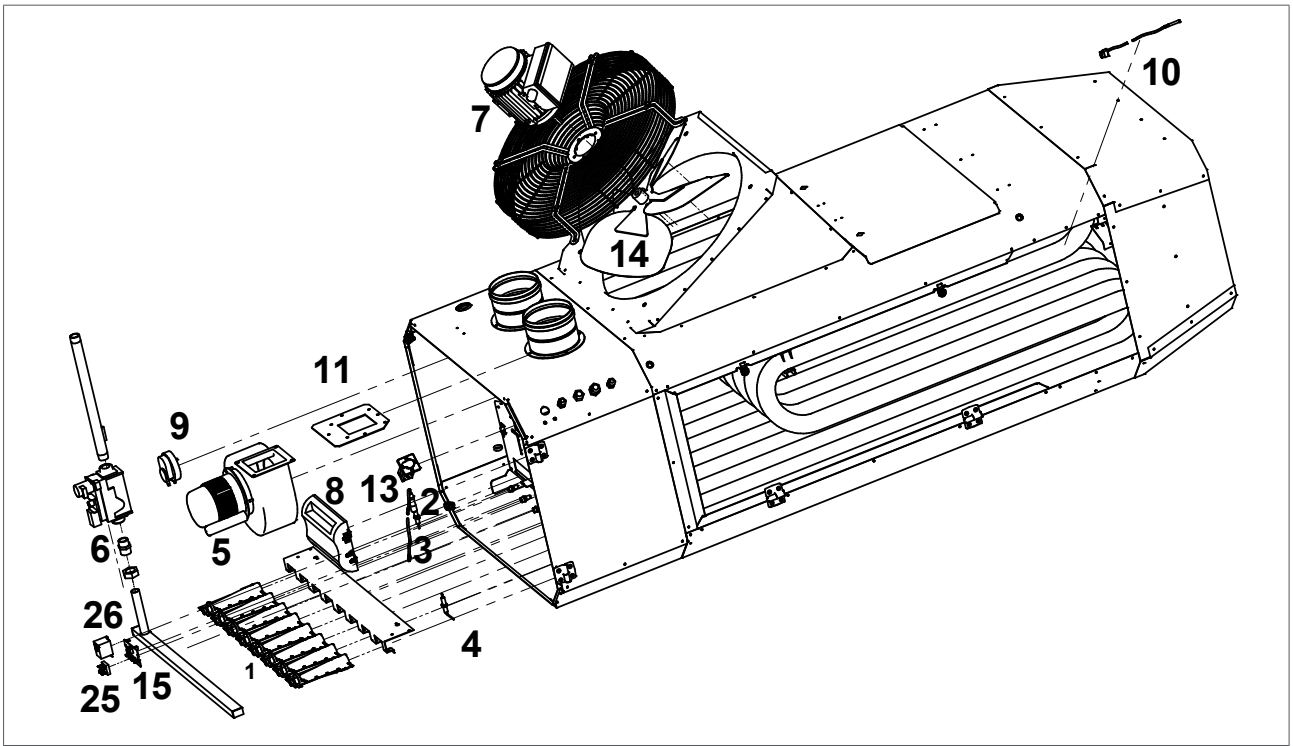


Figure 31 - Exploded view of the DXC60-100

No.	Description	DXC60	DXC80	DXC100
1	Burner	IB3204	IB3204	IB3204
2	Ignition electrode	GA3400	GA3400	GA3400
3	Ignition cable	IB3929	IB3929	IB3929
4	Ionisation electrode	GA3402	GA3402	GA3402
5	Combustion fan	GA4516	GA4516	GA4517
6	Gas valve	GA3314	GA3314	GA3314
7	System fan complete	GD4233	GD4238	-
7	Motor system fan	GD4234	GD4239	IP4813
7	Fan grid	GD4236	GD4236	IB4303
7	Mounting kit system fan	GD4237	GD4237	-
8	Burner control unit (EBM966)	GY5901	GY5901	GY5901
9	Pressure switch	IB3904	IB3911	IB3904
10	Heat exchange sensor	GY3935	GY3935	GY3935
11	Gasket set	GA6716	GA6716	GA6716
13	Selection switch	GD5285	GD5285	GD5285
14	Fan blade	GD4235	GD4240	IK4224
15	Display PCB	GY5902	GY5902	GY5902
25	Rectifier block	GY3921	GY3921	GY3921
26	Fan relay	IK5200	IK5200	IK5200
-	Service box	GA4004-1	GA4004-1	GA4004-1

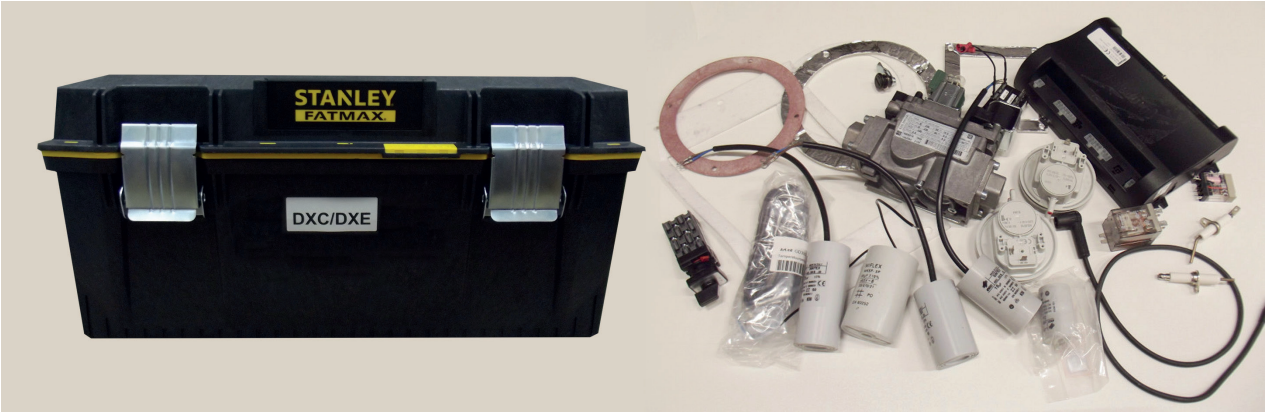


Figure 32 - Service box, GA4004-1

Contents service box DXC60-100, GA4004-1

Article number	Description	DXC60	DXC80	DXC100
IY3949	Ignition cable	X	X	X
IB3904	Pressure switch DXC ↑ 192 / ↓ 180 Pa	X	-	X
IB3902	Pressure switch DXE ↑ 162 / ↓ 150 Pa	-	-	-
IB3911	Pressure switch DXC ↑ 175 / ↓ 160 Pa	-	X	-
GA6716	Gasket set	X	X	X
IB4520	Capacitor 2.0 µF / 450 V for combustion fan GA4516	X	X	-
IB4521	Capacitor 3.15 µF / 450 V for combustion fan GA4517	-	-	X
IP4823	Capacitor 25 µF S2 0.75 kW and 1.1 kW motor	-	-	X
IB3402	Ionisation electrode	X	X	X
IB3400	Ignition electrode	X	X	X
GA3314	Gas valve	X	X	X
GY5901	Burner Control Unit (EBM966)	X	X	X
GY5902	Display PCB	X	X	X
IY7203	Sticker display small	-	-	-
IP220121	Sticker display large	X	X	X
GY3935	Heat exchanger sensor	X	X	X
IK5200	Fan relay	X	X	X
GA7419	Conversion kit propane → natural gas	X	X	X
GA7460	Conversion kit natural gas → propane	X	X	X
IK6850	Lock	X	X	X

13.Disposal and recycling

The meaning of the symbol on the material, its accessory or packaging indicates that this product shall not be treated as household waste. Please, dispose of this equipment at your applicable collection point for the recycling of electrical and electronic equipments waste. In the European Union and Other European countries which there are separate collection systems for used electrical and electronic product. By ensuring the correct disposal of this product, you will help prevent potential hazards to the environment and to human health, which could otherwise be caused by unsuitable waste handling of this product. The recycling of materials will help conserve natural resources. Please do not therefore dispose of your old electrical and electronic equipment with your household waste.

14. Declaration of conformity

Winterwarm B.V.
Olden Goorweg 1
7108 AE, Winterswijk
The Netherlands
Declares that air heater types:

- DXC60, DXC80 and DXC100
  - CE PIN: 0063BR3344

are in accordance with the essential requirements of the relevant EU directives, being:

- 2016/426/EU (GAR) relating to appliances burning gaseous fuels
- 2014/35/EU (LVD) relating to the electric safety of appliances
- 2014/30/EU (EMC) relating to electromagnetic compatibility of appliances
- 2023/1230 / EU (Machinery) relating to the safety of machinery

Goods should be installed and used in accordance with our instructions and with the applicable local and international rules. Installation should be done by an authorized, qualified and competent installer.

Winterswijk, May 1st 2023

Ir. M. Fiselier
Technical Director

15. Other approvals

Eurasian Conformity	
Ukraine	UA.TR.012