

PowerKon + ST FTG Plus

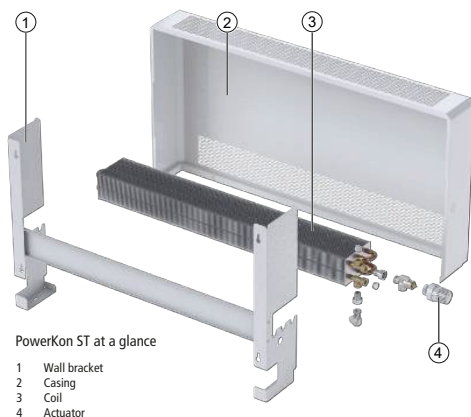
Installation Guide



ATTENTION: The connection of this radiator to a central heating system should be carried out by a suitably competent person who is familiar with current regulations.

READ THIS GUIDE BEFORE STARTING INSTALLATION

1 Overview



PowerKon ST at a glance

- 1 Wall bracket
- 2 Casing
- 3 Coil
- 4 Actuator

2 Safety

This section provides an overview of all important safety aspects to ensure optimum protection of personnel as well as safe and trouble-free operation. In addition to the safety instructions in these operating instructions, the valid safety, accident prevention and environmental protection regulations must be observed for the area of use of the unit. It is the duty of the operator to ensure that instructions relating to maintenance (e.g. relating to hygiene) are complied with.

2.1 Correct use

The units are used to heat all areas of buildings that need to be heated in winter. Within the room to be heated, the unit needs to be connected to the building's heating/cooling/ventilation system and to the building's sewage system and power grid. The operating limits and limits of use described in Chapter 2.2 [1-5] must be observed.

Intended use of the unit also includes adherence to these instructions.

Any use beyond or other than the stated intended use is considered as misuse.

Any modification to the unit or use of non-original spare parts will cause the expiry of the warranty and will invalidate the manufacturer's liability.

2.2 Limits of operation and use

Limits of operation		
Min./max. water temperature	°C	15-90
Min./max. air intake temperature	°C	15-40
Min./max. air humidity	%	15-75
Min. operating pressure	bar/kPa	-
Max. operating pressure	bar/kPa	10/1000
Min./max. glycol percentage	%	25-50



IMPORTANT NOTE!

Danger of frost in cooling mode!

There is a risk of the heat exchanger freezing when used in unheated rooms.

- ▶ Protect the unit from frost.



IMPORTANT NOTE!

Warning of misuse!

In the event of misuse, as itemised below, there is a danger of limited or failing operation of the unit. Ensure that the airflow can circulate freely.

- ▶ Never operate the unit in humid areas, such as swimming pools, wet areas etc.
- ▶ Never operate the unit in rooms with an explosive atmosphere.
- ▶ Never operate the unit in aggressive or corrosive atmospheres (e.g. sea air).
- ▶ Never operate the unit above electrical equipment (such as switch cabinets, computers or other electrical units, or contacts that are not drip-proof).
- ▶ Never use the unit as a construction site heater.
- ▶ Never operate the unit in areas with a high dust content.

2.3 Personnel requirements - Qualifications

Expertise

The installation of this product requires specialist knowledge of heating, cooling, ventilation, installation and electrical engineering.

Damage caused by improper installation is the responsibility of the operator or installer. The installer of these units should have adequate knowledge of the following gained from specialist professional training

- ▶ Safety and accident prevention regulations
- ▶ Country-specific guidelines and recognised technical regulations, i.e. Association of German Electricians (VDE) regulations, DIN and EN standards.
- ▶ VDI 6022; maintenance personnel must be trained to Category B (possibly Category C) to comply with hygiene requirements (as required).

2.4 Personal Protective Equipment

Personal protective equipment is used to protect people from impaired safety and health when working with the unit. The applicable accident prevention regulations at the place of use apply in all cases.

3 Installation and wiring

3.1 Requirements governing the installation site

Only install and assemble the unit if the following conditions are met:

- ▶ Make sure that the unit is securely suspended/standing.
- ▶ Ensure that the airflow can circulate freely.
- ▶ Provide for adequate space for floor and return water connections on site.
- ▶ If need be, provide a condensation connection with a sufficient gradient on site.

3.2 Installation



CAUTION!

Risk of injury from sharp metal housing!

The inner metal of the casing can have sharp edges.

- ▶ Wear suitable protective gloves.



IMPORTANT NOTE!

Horizontal installation of units!

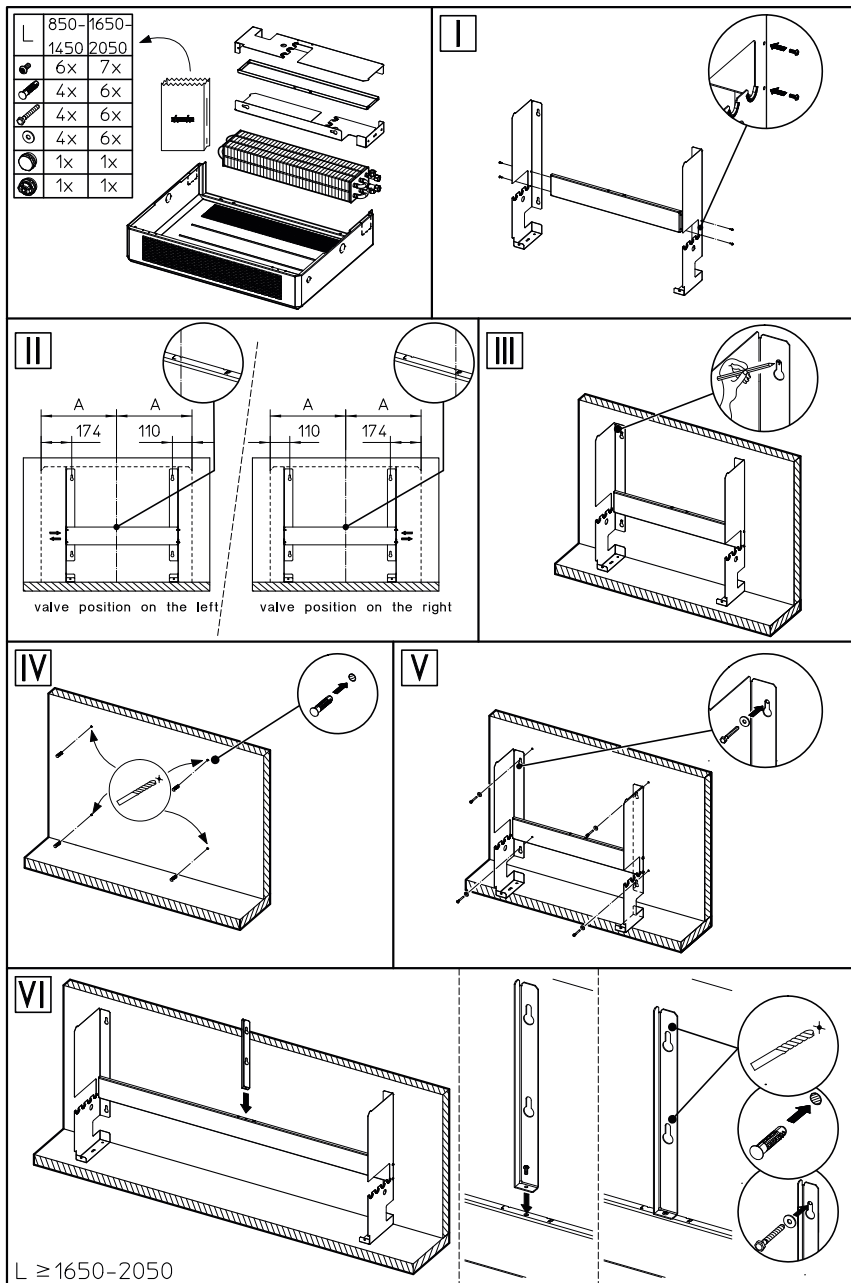
When installing the units, ensure that they are completely horizontal to ensure proper operation.

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3.2.1 Installing the unit

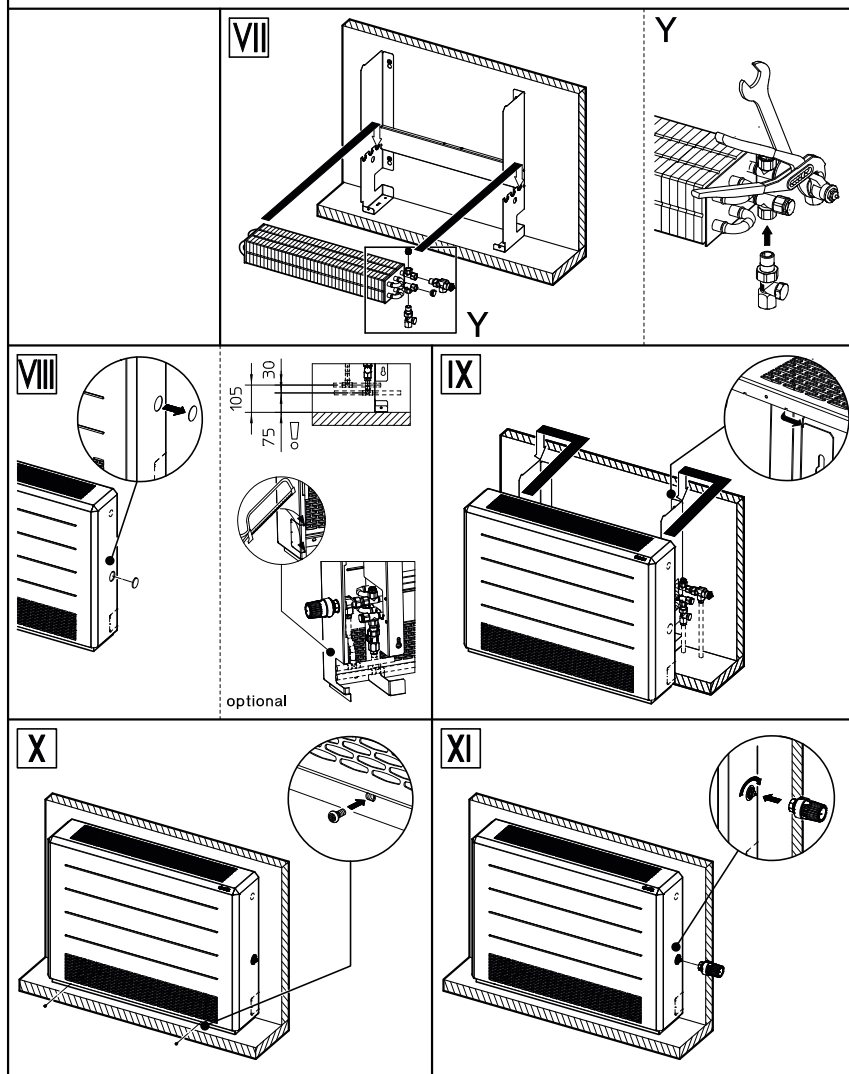


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Valve kit with External TRV Head

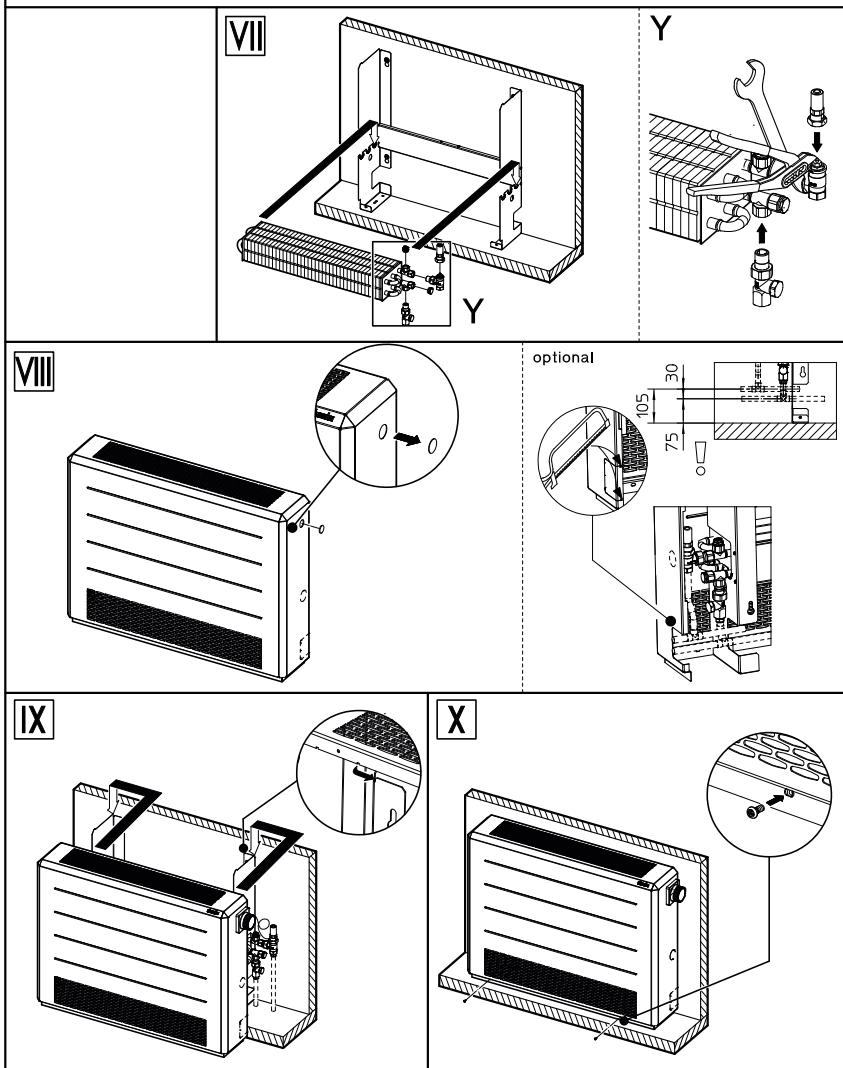


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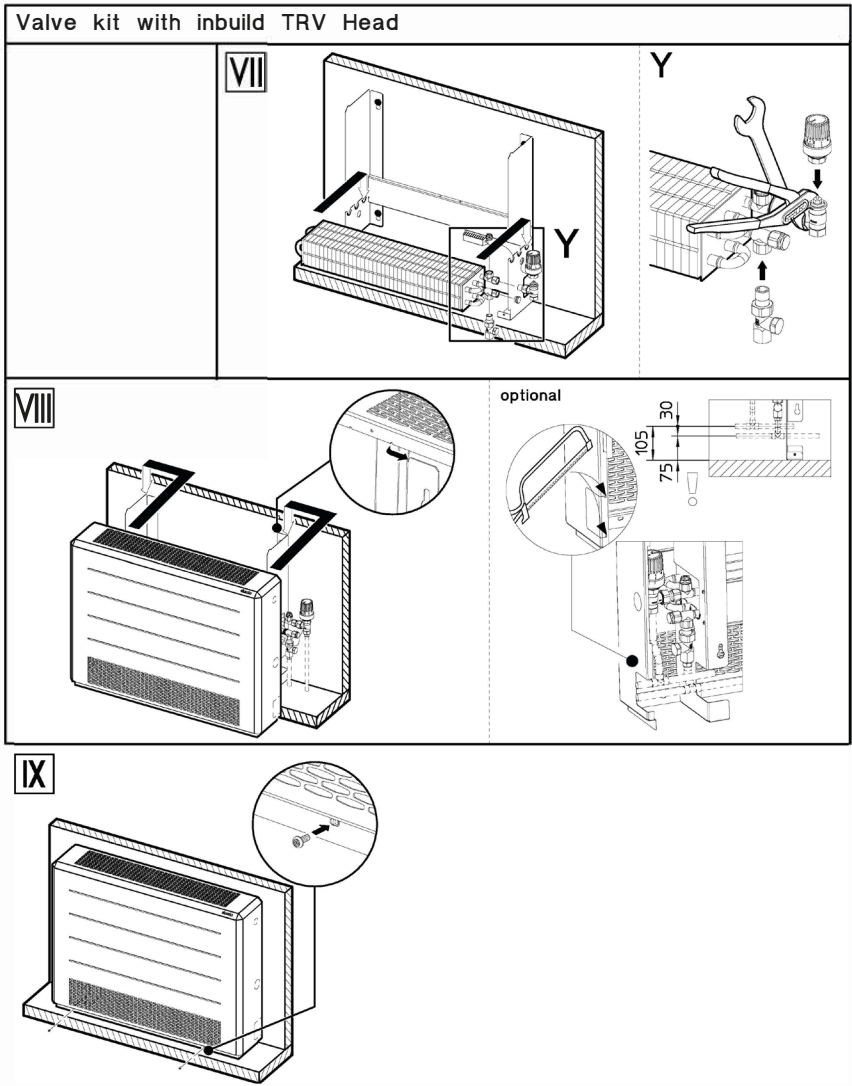


Valve kit with Tamper proof TRV



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4 Pre-commissioning checks

Before initial commissioning, check whether all the necessary conditions have been met so that the unit can operate safely and properly.

Structural tests

- Check that the unit is securely standing and fixed.
- Check the horizontal installation/suspension of the unit.
- Check whether all components are properly fitted.
- Check whether all dirt, such as packaging or site dirt, has been removed.

Water-side checks

- Check whether all supply and drainage lines have been properly connected.
- Fill pipes and unit with water and bleed.
- Check whether all bleed screws are closed.
- Check leak tightness (pressure test and visual inspection).
- Check whether the parts carrying water have been flushed through.
- Check whether any shut-off valves fitted on site are open.
- Check whether any electrically actuated shut-off valves have been properly connected.
- Check whether all valves and actuators are working properly (note permitted mounting position).