

INSTALLATION GUIDE — FREE-STANDING CONVECTORS

1. UNIT DESCRIPTION

A free-standing heating unit. Models SUF1, SUF2, SPF1, SPF2, SMF1, SWF1, SWF2, and SPF0 use the natural convection heating principle, models SKF1 and SKF2 are equipped with a fan for forced convection. Since the heater uses physical laws of thermodynamics it represents one of the most efficient methods of interior heating.

Benefits of heating convectors:

- › High output
- › Silent operation or low noise when the fan is running (models with a fan)
- › Lightweight compared to heating units with similar output which use radiation principle
- › Low hot water consumption
- › Short response time
- › Design
- › Minimum requirements for operation and maintenance

3. TECHNICAL PARAMETERS

- › Use: Convectors without fan are designed for dry and wet environment, and convectors with a fan are designed for dry environment only.
- › Maximum operating pressure: 1 MPa.
- › Maximum operating temperature: 110°C.
- › Operating medium: Water. It is not allowed to use a medium other than water. Water may not be mixed with other substances, such as antifreeze fluids!
- › Environment: interiors with temperatures ranging between +5 °C and +40 °C.

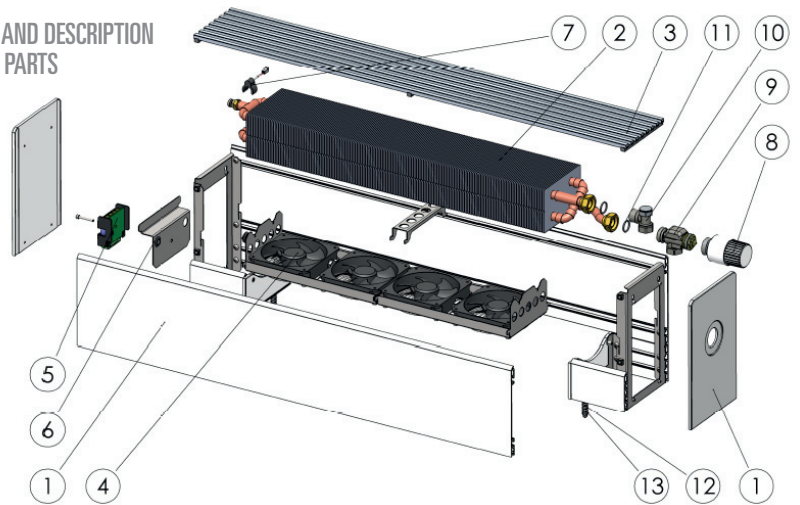
1. CONVECTOR BODY – Aluminum convector frame painted with color shade according to the catalog.
2. HEAT EXCHANGER – Copper pipes with pressed-on aluminum fins through which the heating water flows. The heat exchanger design differs according to the convector model.
3. COVERING GRILLE – Grille used to cover the convector outlet; with color shade according to the catalog.
4. AXIAL FAN (models with a fan) – Set of fan modules for forced convection of the heated air. The number differs according to the length of the convector.
5. EB CONTROL UNIT (models with a fan) – Fan motor control unit.
6. EB CONTROL UNIT BRACKET (models with a fan) – Used for fitting the control unit on the convector casing.
7. TEMPERATURE SENSOR (models with a fan) – Used for sensing temperature for the EB control unit.
8. THERMOSTATIC HEAD – Used for temperature control and operation of the axial valve.
9. AXIAL THERMOSTATIC VALVE – A valve used for incoming heating water flow control.
10. CONTROL SCREW FITTING – A valve which controls / adjusts the heating water flow.
11. GASKET RING – A gasket in the connection between the valve and the heat exchanger.
12. FLOOR SCREW – A screw used to attach the convector to the floor.
13. SCREW ANCHOR – For attaching the convector to the floor.

2. CONTENTS OF THE BOX

Contents of the box	SKF1	SKF2	SUF1	SUF2	SPF1	SPF2	SMF1	SWF1	SWF2	SPF0
Convector										
Grille	1	1	1	1	1	1	1	1	1	1
Convector body	1	1	1	1	1	1	1	1	1	1
Heat exchanger	1	1	1	1	1	1	1	1	1	1
Fan – assembly of modules	2-4	2-4	-	-	-	-	-	-	-	-
EB control unit	1	1	-	-	-	-	-	-	-	-
Accessories										
Axial radiator valve	1	1	1	1	1	1	1	1	1	1
Thermostatic head	1	1	1	1	1	1	1	1	1	1
Control Screw fitting	1	1	1	1	1	1	1	1	1	1
O-ring 18X2 NBR70	2	2	2	2	2	2	2	2	2	2
Valve connection template	1	1	1	1	1	1	1	1	1	1
Screw 6x40	4	4	4	4	4	4	4	4	4	4
Screw anchor 10	4	4	4	4	4	4	4	4	4	4
Flexible hose 41mm	-	-	1	1	-	-	-	-	-	1

Each position in the table corresponds to Figure No. 1.

FIG. 1: COMPONENTS AND DESCRIPTION OF THE CONVECTOR PARTS



4. DESIGN DETAILS, CONNECTION DIMENSIONS, PLACEMENT

L = Standard CONVECTOR LENGTH: 900, 1000, 1250, 1500, 1750, 2000 mm

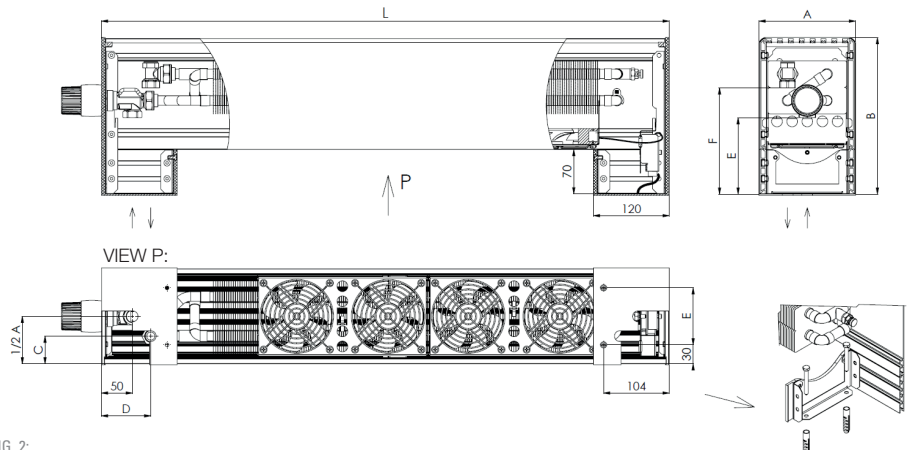


FIG. 2:

	A	B	C	D	E	F
SKF1	150	248	45	80	120	170
SKF2	150	418	45	80	120	190
SUF1	115	248	30	35	70	145
SUF2	115	418	30	35	70	145
SPF0	150	148	45	30	70	75
SPF1	150	248	45	50	70	115
SPF2	150	418	45	50	195	75
SMF1	195	248	35	85	110	85
SWF1	220	248	45	50	80	145
SWF2	220	418	45	50	80	145

TABLE 1: applies to all lengths L 900, 1000, 1250, 1500, 1750, 2000 mm

5. INSTALLATION

Please read the following instructions before you start. Free-standing convectors made by MINIB are to be floor-mounted. We recommend leaving a 50–150 mm space between the convector and the wall - Figure 3. Never cover the top grille - this would result in flow reduction and a considerable decrease in the convector output.

Decide whether the convector will act as the main source of heat, or an additional heating element or, if applicable, as a thermal barrier.

As the main source of heat in your apartment or room, the convector should sufficiently cover the entire thermal loss of the room. Therefore, always choose a heating unit with a capacity that is higher than the thermal loss of your apartment, room, or other areas.

All free-standing convectors with a fan are designed for dry environment. A dry environment is an environment where the average annual relative humidity does not exceed 75%. A wet environment is an environment where such average annual value is equal to or greater than 75% or where the convector is exposed to direct contact with water. In terms of convector selection, a dry environment is in general any environment where no precipitation of vapor occurs in the convector unit.

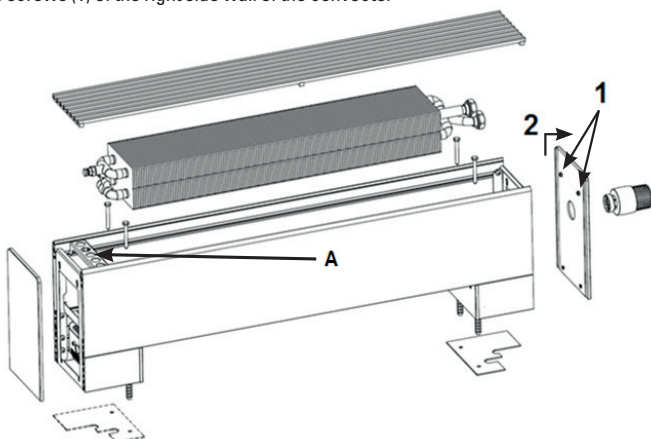
5.1 Use the supplied fixing elements to fix the free-standing convector.

A correctly installed convector is in horizontal position and firmly supported along the entire width of the leg.

5.2 Installation process

- › Plan the placement on the floor according to the convector dimensions in table 1 and on Fig. 2.
- › Use the template for the particular model (Fig. 4) to mark the heating water supply pipe position, the power supply position (models with a fan). The outer dimension of the template = dimension of the leg of the particular model.
- › Drill the holes, insert the screw anchors, install the heating water supply pipe, power supply cable (models with a fan).
- › Remove the cover grille. Loosen (do not remove!) the 2 top screws (1) of the right side wall of the convector

FIG. 4



(by the valves, position 1) and remove it in the direction of the arrows (position 2) on Fig. 4.

- › For models with a fan loosen the screws (see the previous paragraph) in the opposite side wall and remove it for access to the EB control unit.
- › Move the strut (y) of grille A to the side and remove the heat exchanger from the convector casing.
- › Install the valves (axial valve and the control screw fitting) on the heating pipe according to the dimensions on Fig. 2 and Table 1. Adhere to the dimensions for the particular model.
- › Fit the convector on the prepared pipes with valves and fix it to the floor at the fixing points.
- › Replace the heat exchanger in the casing and connect it to the installed valves on the heating water pipes, Fig. 5.
- › For models SUF1, SUF2, SPF0 – connect the heat exchanger with the control screw fitting using the supplied flexible hose, Fig. 5a.
- › For models with a fan - connect the power line to the EB control unit, Fig. 6.
- › Place back the side wall(s) and tighten the screws and install the thermostatic head on the axial valve.
- › Move back the grille strut(s) and place back the cover grille.
- › Vent (bleed) the convector according to section 7 if necessary.

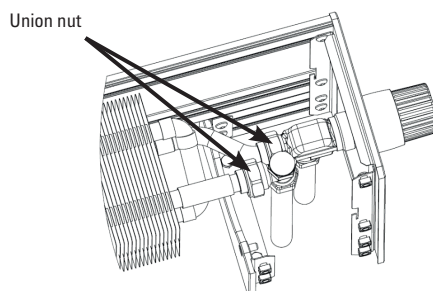


FIG. 5: Close-up view of the connection between the valves and the heat exchanger (the heat exchanger design differs according to the model).

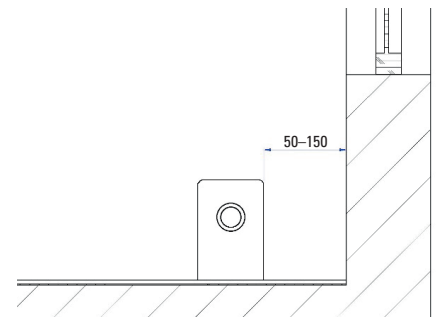


FIG. 3: Recommended placement of the free-standing convector (model with a fan / without fan).

6. CONNECTION OF THE FITTINGS

An axial radiator valve is connected to the water inlet of the heat exchanger. Control screw fitting is to be installed on the outlet line. Insert O-rings between the axial radiator valve / control screw fitting and the heat exchanger. Use gaskets for all the other connections.

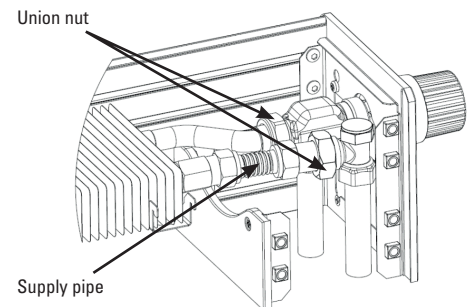


FIG. 5a: Only for models SUF1, SUF2, SPF0

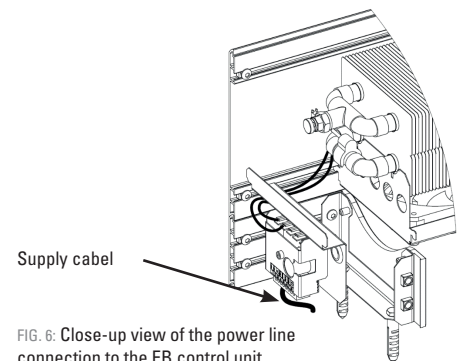


FIG. 6: Close-up view of the power line connection to the EB control unit.

7. VENTING THE UNIT

Vent (bleed) the unit using the air vent valve during the first use as necessary. In free-standing convectors, the location of air vent valve on the heat exchanger pipe depends on the model.

For additional options see the catalog or visit: www.minib.com.

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