

The 4000E-24 heating-unit is installed in the foundation slab or suspended floor, and contains a fan and four heating elements, with contactors that are controlled by 1 - 4 external electric room thermostats.

It is used together with heating unit box 4000A 100/100 (4"/100 mm spiral pipes) or with heating unit box 4000A 50/50 (2"/50 mm plastic pipes).

TECHNICAL DATA

Operating voltage 1 P - 230V 60Hz
 Fan motor power consumption 225W
 Breaker rating (GFI required) 30A
 Output, electrical 4 x 1250W
 Air flow with:
 8 - 100 mm (4") pipes $\geq 900 \text{ m}^3/\text{h}$ / 530 CFM
 Air flow with:
 20 - 50 mm (2") pipes $\geq 750 \text{ m}^3/\text{h}$ / 440 CFM

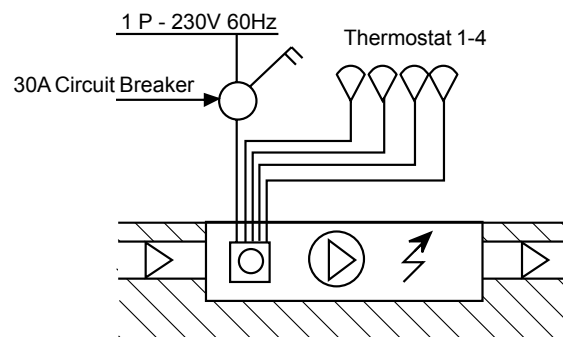
This data is generic.

Each Legalett installation is unique. Refer to customized specifications on your installation design drawing for actual design parameters.

FUNCTION

The 4000E-24 is controlled by one (single zone) to four (quad zone) external electric room thermostats. These external thermostats operate the contactors in the unit, energizing the heating coil and fan when the room needs heat. The unit is also equipped with seven overheating protection devices.

When controlled by a programmable thermostat, the 4000E-24 can benefit from two-tiered energy rates for night storage of less expensive energy in the LEGALETT heated floor.

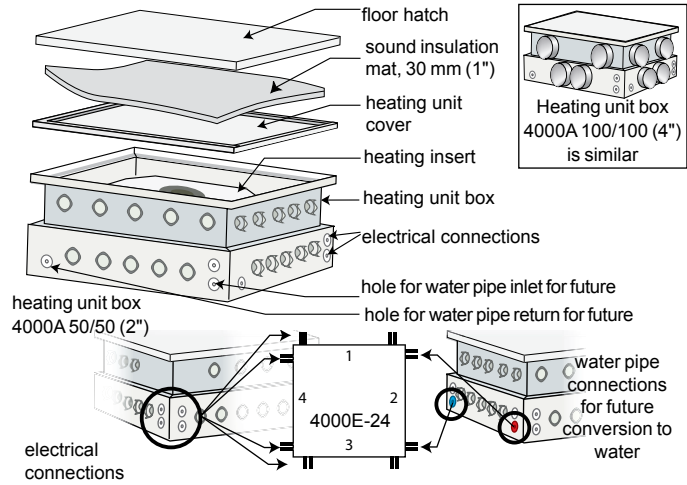


ASSEMBLY

Install the heating unit boxes in the correct location, with the height adjusted so that the lid is flush with the concrete surface, before pouring the concrete. Refer to the instructions on the box cover.

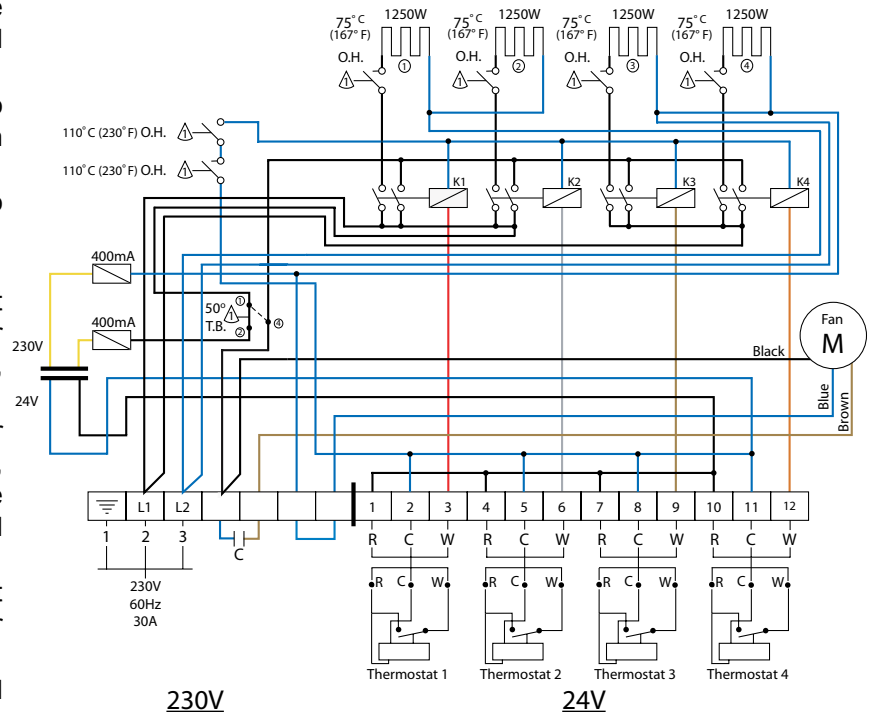
1. Run conduit from one of the cable inlets on the box to the local disconnect for 230V power. Run conduits from the remaining cable inlets to a convenient location above the slab for each of the 24V thermostats.
2. (Optional) For future conversion to water insert, connect the sleeves for the inlet and outlet water pipes to the water pipe connections of the furnace box. Install the water pipes, and make sure they extend at least 100 mm (4") into the box. As well, run a conduit for optional signal wiring to the boiler.
3. After the concrete has dried sufficiently with the construction heater, prepare the box for the heating unit according to the steps below, which are to be performed by an authorized electrician and plumber.

4. Clean the furnace box carefully. No water or dampness should be in the box or pipe system when installing the permanent insert.
5. Install the heating unit insert with the terminal block turned towards the electric connection conduit openings.



ELECTRICAL CONNECTIONS

1. Check the electrical data on the unit so that other installation materials are compatible. The installation must be performed by an authorized electrician.
2. Install a properly sized two-pole local disconnect to enable total isolation for servicing. GFI protection is required.
3. Use properly sized copper wire for connection to the panel.
4. Connect thermostats.
5. Seal the conduits which run into the unit using a duct sealing compound for both water and electrical, after the water and electrical connections have been made, for sound attenuation.
6. Install the heating unit cover. Test run for 1 hour and then open for a check. If necessary clean, check for dryness, and test run again. If moisture is still present, re-install construction heater and run until the system is dry.
7. Install the sound insulating foam-rubber mat between the heating unit cover and the floor hatch.
8. Install the floor hatch. If desired, use standard transition trim between the hatch and the floor.



Overheating Protection

If the overheating protection has tripped, then complete the following steps:

1. Turn off the power.
2. Carefully investigate the reason for the overheating. Any repairs should only be performed by an authorized electrician.

Contactors marked K1 - K4
O.H. = Overheating protection device

If 1 - 3 thermostats are used, or if more than one thermostat is installed in the same room, install a jumper between the connection blocks 3, 6, 9 and 12 as required.

Refer to the floor plan for thermostat locations.