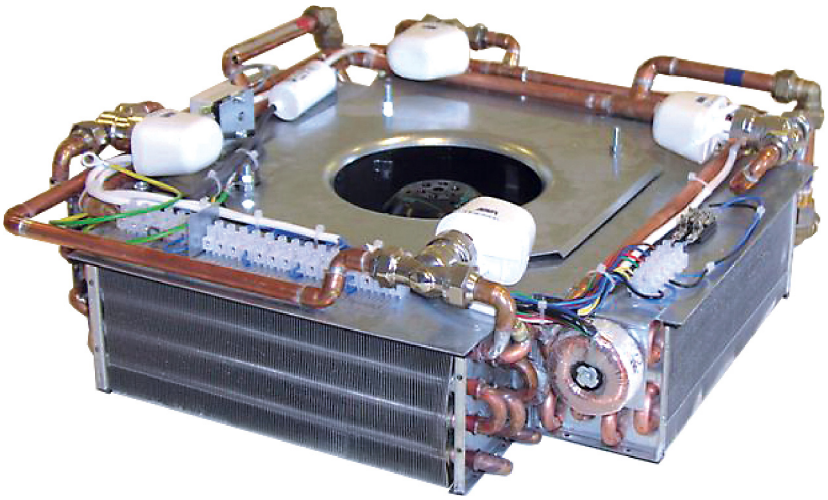


The 4000W-24 heating unit is installed in the foundation slab or suspended floor, and contains a fan and four water/air-exchangers, with valves that are controlled by 1-4 external electric room thermostats. It is used together with heating unit box 4000A 100/100 (4"/100 mm spiral pipes) or with heating unit box 4000A 50/50 (2"/50 mm plastic pipes).

TECHNICAL DATA

Operating voltage .....1 P - 230V/24V 60Hz
Fan motor power consumption 225W
Breaker rating (GFI required) 15A
Water-air exchanger output
with 8-100 mm (4") pipes approx. 5 kW @ 55°C (130°F)
air flow.....approx. 900 m^3/h (530 CFM)
with 20- 50 mm (2") pipes approx. 5 kW @ 60°C (140°F)
air flow.....approx. 750 m^3/h (440 CFM)
Air temperature range.....30-55°C (85-130°F)
Connection, pipe.....lavatory style, 1/2" straight thread

Design data for all 4 exchangers and valves:
Design flow .....400 l/h (1.75 USGPM)
Design pressure drop ..... 21.5 kPa/7.2' (3.1 PSI)
Maximum full flow pressure drop (noise limited):
..... 35 kPa/11.2' (5.1 PSI)
Maximum zero flow pressure drop (i.e. maximum pump pressure, noise limited) ..... 40 kPa/15' (7 PSI)

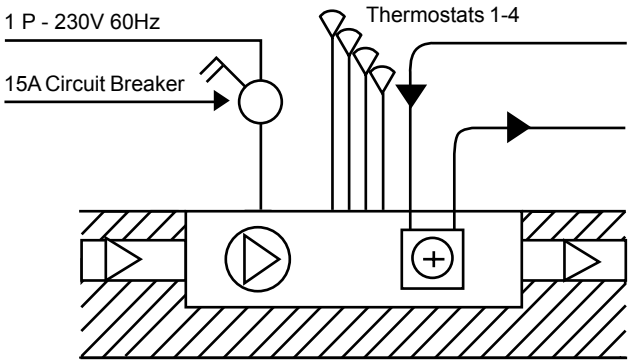
This data is generic. Each Legalett installation is unique. Refer to customized specifications on your installation design drawing for actual design parameters.

FUNCTION

The 4000W-24 is controlled by one (single zone) to four (quad zone) external electric room thermostats. These external thermostats operate the control valves in the unit, opening the control valve when the room needs heat. A water temperature sensor built into the 4000W -24 starts the fan motor when the inlet water temperature reaches 30°C (86°F).

When the control valve is closed and the inlet water temperature decreases to approximately 27°C (81°F), the fan motor stops. The fan operation is independent of the position of the zone valve, and responds only to water temperature.

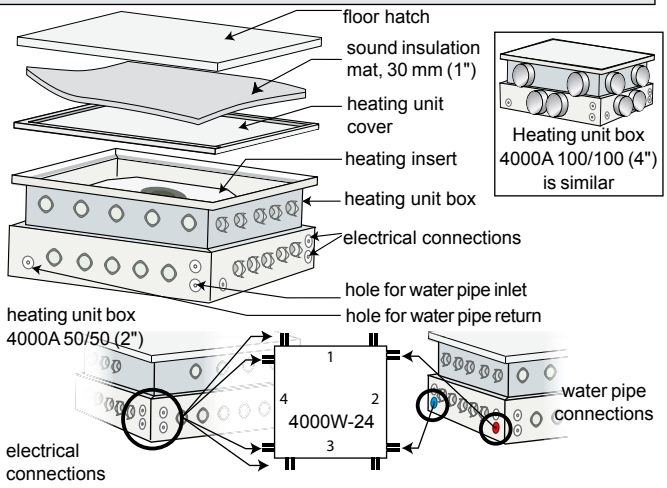
When controlled by a programmable thermostat, the 4000W-24 can benefit from two-tiered energy rates for night storage of less expensive energy in the LEGALETT heated floor.



ASSEMBLY

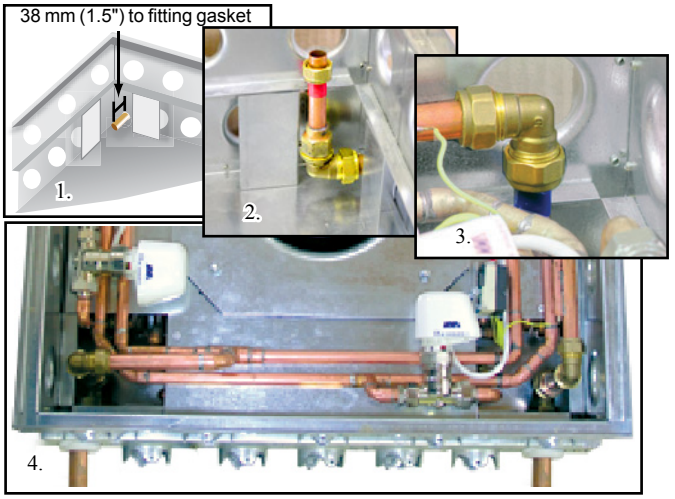
Install the heating unit boxes in the correct location, with the height adjusted so that the lid is flush with the concrete surface, before pouring the concrete. Refer to the instructions on the box cover.

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 and optional signal wiring to the boiler.
2. 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.
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.



HOT WATER CONNECTIONS

1. Flush debris and bleed air from both lines before connecting insert.
2. Install 'swivel faucet adaptors' (female threaded adaptors with integral gasket for ½" lavatory-style straight threaded NPSM male fittings) on PEX water pipe, and adjust pipe position so that the end of the fittings stick 38 mm (1.5") inside the box (Picture 1). If PEX pipe is not used, or a 'swivel faucet adaptor' is not available for the PEX pipe used, please contact Legalett for assistance.
3. Disconnect the two vertical pipes from their top elbow connections, which are loosely mounted on the heating unit inlet and outlet pipes. Connect lower elbow connections to the water pipes (Picture 2).
4. Install the heating insert so that the vertical pipes stick into the top elbow connections above and tighten the joints (Pictures 3 and 4).
5. Turn on water and check for leaks.
6. Once the electrical connections have been completed, turn up all thermostats to open all the valves and then bleed any air from the heating insert using the bleed screws on the exchangers.



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 and verify that each zone responds to the correct thermostat.
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.

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.