



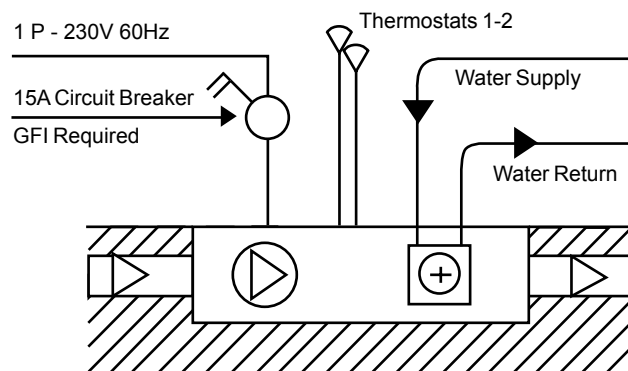
The 3200W heating unit is installed in the foundation slab or suspended floor, and contains a fan and two air/water-exchangers, with a nominal output of 3 kW, and is controlled by 1 or 2 external 24V electric room thermostats.

FUNCTION

The 3200W is controlled by one (single zone) or two (dual zone) external 24V electric room thermostats. These external thermostats open one of two water valves when a zone needs heat. An internal temperature sensor starts the fan motor when the inlet water temperature reaches approximately 40°C (105°F).

When both water valves close and the inlet water piping temperature decreases to approximately 37°C (100°F), the fan motor stops. The fan operation responds only to water temperature.

The 3200W can benefit from two-tiered energy rates for night storage of less expensive energy in the LEGALETT heated floor with appropriate thermostat programming.



COVER INSTALLATION AND FINISHING

1. Install box inner cover and secure with supplied screws. Fully tighten screws, then back off 2-3 turns.
2. Install the 2 sound insulating foam-rubber mats (from insert packaging) between the heating unit inner cover and the floor hatch.
3. Install the floor hatch, handle side up. Remove handle if not desired. If the floor hatch will be subject to damage, replace with a floor hatch made of 1/4" steel fastened to 1/2" plywood that is the same overall size as the standard floor hatch.
4. (Optional) Extend flooring over floor hatch, leaving a seam/gap at the floor hatch edges. If water resistance is desired, seal seam/gap with silicone. If desired, use standard transition trim between the hatch and the floor to cover the seam/gap.

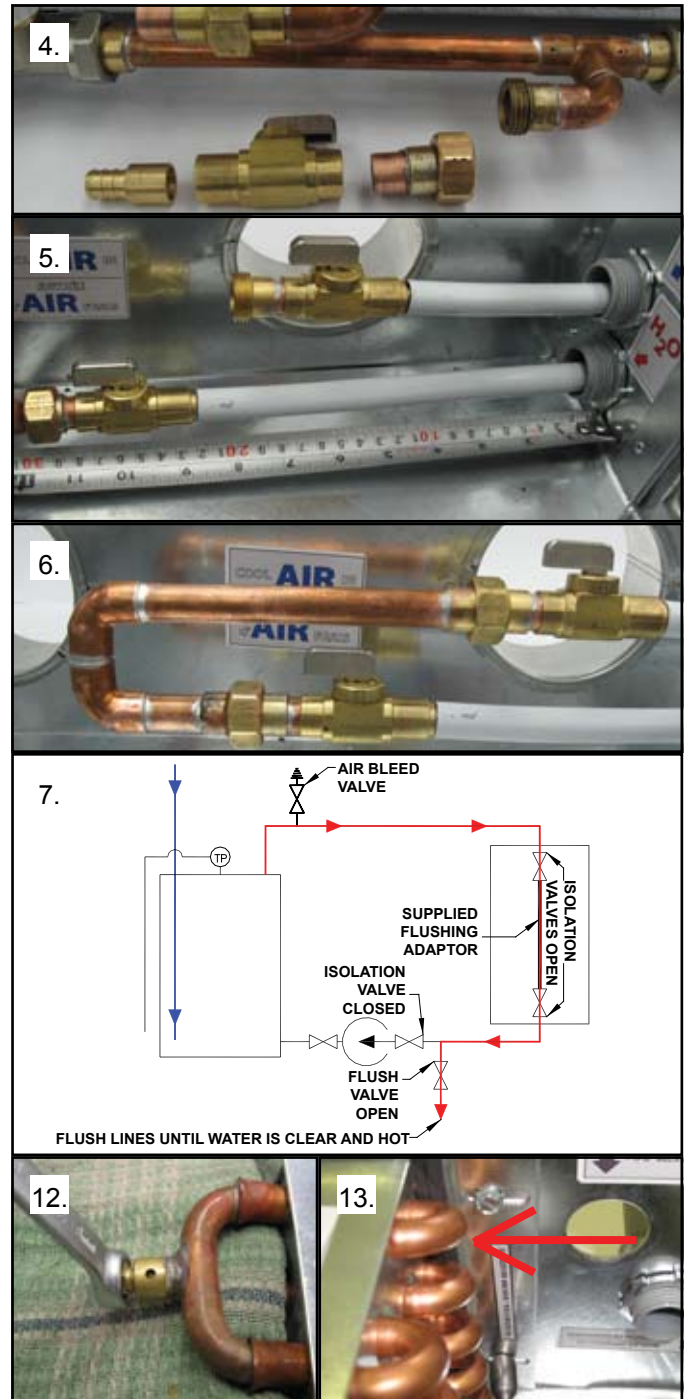
TECHNICAL DATA

Output, heating coil.....nominal 3 kW @ 60°C (140°F)
 Flow300 l/h (1.5 USGPM)
 Pressure drop (insert only) 10 kPa/3.3' (1.5 PSI)
 Maximum zero flow pressure drop (i.e. maximum pump pressure, valve limited)..... 103 kPa/34' (15 PSI)

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

PLUMBING CONNECTIONS - TO BE PERFORMED BY A QUALIFIED PERSON

1. Ensure the concrete has dried sufficiently with the construction heater prior to insert installation - **refer to the Construction Heater Product Data Sheet - strict adherence to construction heater use requirements is required for warranty validation.**
2. Clean the furnace box thoroughly.
3. Prior to performing plumbing connections, **verify that the insert is not installed in the box and has not been connected electrically.** If the unit is already plugged in, contact Legalett for assistance.
4. Remove supplied union halves from insert inlet and outlet and sweat into mini ball valves (Dahl 121-13-13 or generic equivalent), with the valve handle towards the threads. Local external ball valves are also acceptable.
5. Cut inlet pipe so that the union half face is 300 mm (11-13/16") from the box surface. Cut outlet pipe so that the union half face is 202 mm (7-15/16") from the box surface. Connect mini ball valve/union half assemblies to piping. Note that inlet and outlet insert connections are not interchangeable.
6. Connect the hot water feed line to the return line with the supplied flushing adaptor.
7. **Flush out plumbing system:** Close the isolation valve at the pump. Then open the flush valve next to pump, and run water through the piping until all debris and air have been flushed out of the lines. Close flush valve, open isolation valve at pump, bleed and energize pump until pump outlet piping is hot.
8. Close mini ball valves in unit, remove flushing adaptor, and clean out any water that may have spilled into the box.
9. Loosen adjustable sealing angles and slide outwards.
10. Remove exchanger protective cardboard, place the insert in the box and tighten union connections.
11. Open mini ball valves at unit and check for leaks.
12. **Bleed plumbing system to ensure no entrained air:** Bleed any air from the heating insert using the 8 mm (5/16") bleed screws on the exchangers.
13. Adjust sealing angles and tighten screws.



TECHNICAL DATA

Operating voltage 1 P - 230V 60Hz
 Power consumption (fan/actuators/transformer) . 130W
 Breaker rating (GFI required, ganging permitted)... 15A
 Recommended supply wire capacity for temporary construction heater usage 30A
 Thermostat wire specification 3-conductor

ELECTRICAL CONNECTIONS - TO BE PERFORMED BY A QUALIFIED PERSON

1. Do **NOT** connect unit until plumbing is complete.
2. The insert plug provides the local disconnect.
3. If not already completed, terminate supplied 30A locking receptacle in the electrical box and install supplied cover plate.
4. Terminate thermostats in the orange control wiring plug. Remove control plug from control receptacle when terminating control wiring.
5. Plug unit into 30A receptacle in box.
6. **Seal the piping and wiring in all conduits using a duct sealing compound.**
7. **Replace temporary construction heater breaker with a 15A GFI breaker. It is permissible to gang multiple heaters on a single GFI breaker in the panel. Refer to Power consumption above.**
8. Test run and confirm that each zone responds appropriately using the coloured valve indicator (appears on the actuator) to verify. Allow 5 minutes for valve response.

