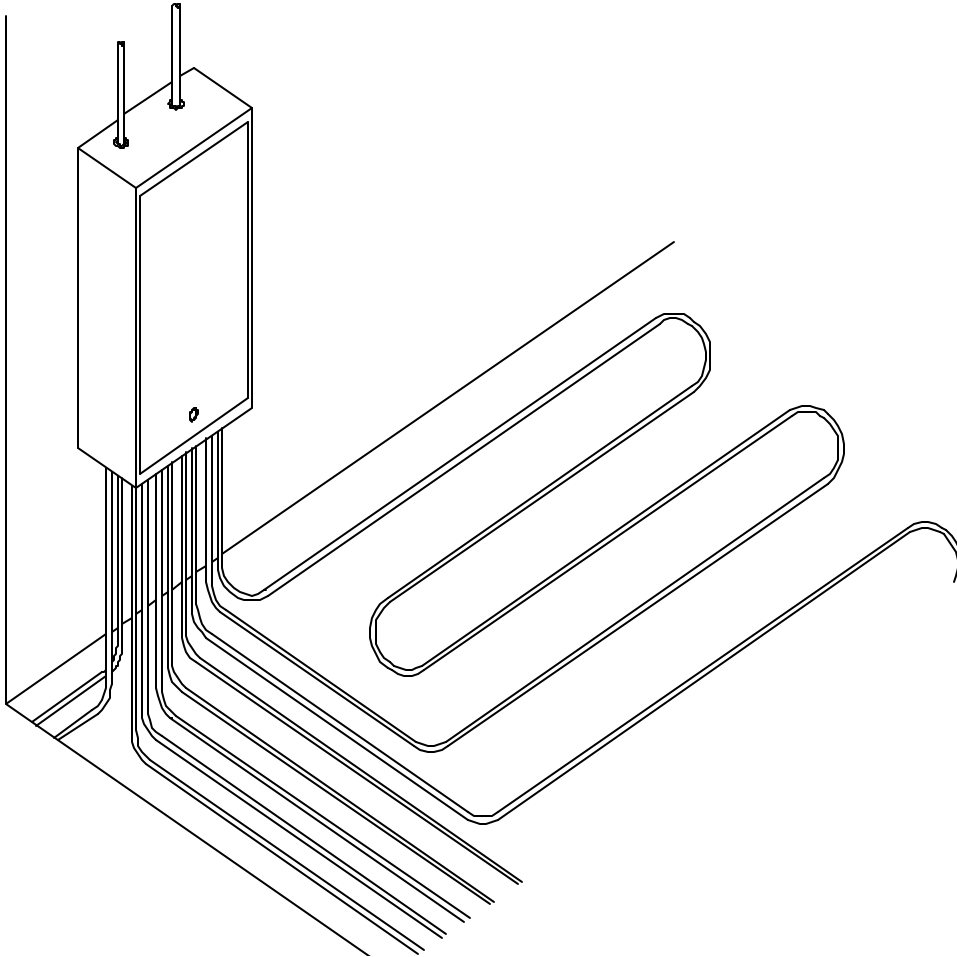


Installation Instructions



Introduction

MIBD™ (Manifold In a Box – Direct Connect) is a self-contained package for radiant floor heating of up to eight loops and 2400 sq. ft. It can provide floor warming or room heating in bathrooms, kitchens, foyers, basements or anywhere that requires extra comfort through radiant floor heating. It is suitable for new construction or for renovations.

Pump, temperature control valve, plumbing connections, a pair of manifolds and electrical controls are contained in an attractive cabinet that can be mounted anywhere. The unit comes pre-assembled to save time and simplify installation.

Physical Properties

Model	Cabinet dimensions			Water Connections*		Shipping Weight
	height	width	depth	Heat source	Radiant loops	
MIB3, MIB4, MIB5	24"	14 ¼"	8"	3/4" Sweat	1/2" PEX	40 lb.
MIB6, MIB8	30"	22 ¼"	8"	3/4" Sweat	1/2" PEX	50 lb.

Sweat connections are standard. *

Mounting

The MIBD™ may be mounted in a mechanical room or basement wall or in a closet. It may be surface mounted or recessed into the wall. It may be mounted in any orientation: up, down or horizontally.

For **surface mounting**, use anchors suitable for the wall surface (concrete, drywall or wood screws). The cabinet should be screwed through the top and bottom flanges.

For **recessed installations**, the cabinet may be screwed from the inside through the sides of the cabinet into the wall stud. The cabinet is designed to fit between wall studs that are 16 or 24 inches on centre. Additional wood blocking may be necessary to support both sides of the cabinet. It is recommended that the MIBD™ be recessed at least 3-1/2" in order to hide all plumbing connections.

Note: for recessed installations, all plumbing connections must be completed before the drywall is installed around the cabinet.

Piping Layout

The MIBD™ can be connected to up to eight 1/2" PEX loops of up to 300 feet each in length. Total nominal heating capacity is 70,000 Btu/hr.* (capacity may vary depending on design and floor covering.)

The MIBD™ comes with 3/4" connections for hot water supply and return.

Contact Ecologix for assistance with your radiant heating system design.

Plumbing Connections

Install up to eight radiant floor loops. Close the valves on any unused manifold branches and cap them off with a short length of PEX from the supply branch to the return branch. Note that PEX with an oxygen barrier is required for

closed loop (boiler) systems. The oxygen barrier is not required for open (water heater) systems. Identify the inlet and outlet of each loop. Connect radiant floor heating loop supply (5) and return (6) from the heat source to the connections on the MIBD™ as shown in the diagram and labeled inside the cabinet.

Shut off the water supply and power for the boiler or water heater (heat source). Connect 3/4" plumbing supply (3) and return (4) from the heat source to the connections on the top of the MIBD™ as shown in the diagram and labeled inside the cabinet.

Electrical Connections

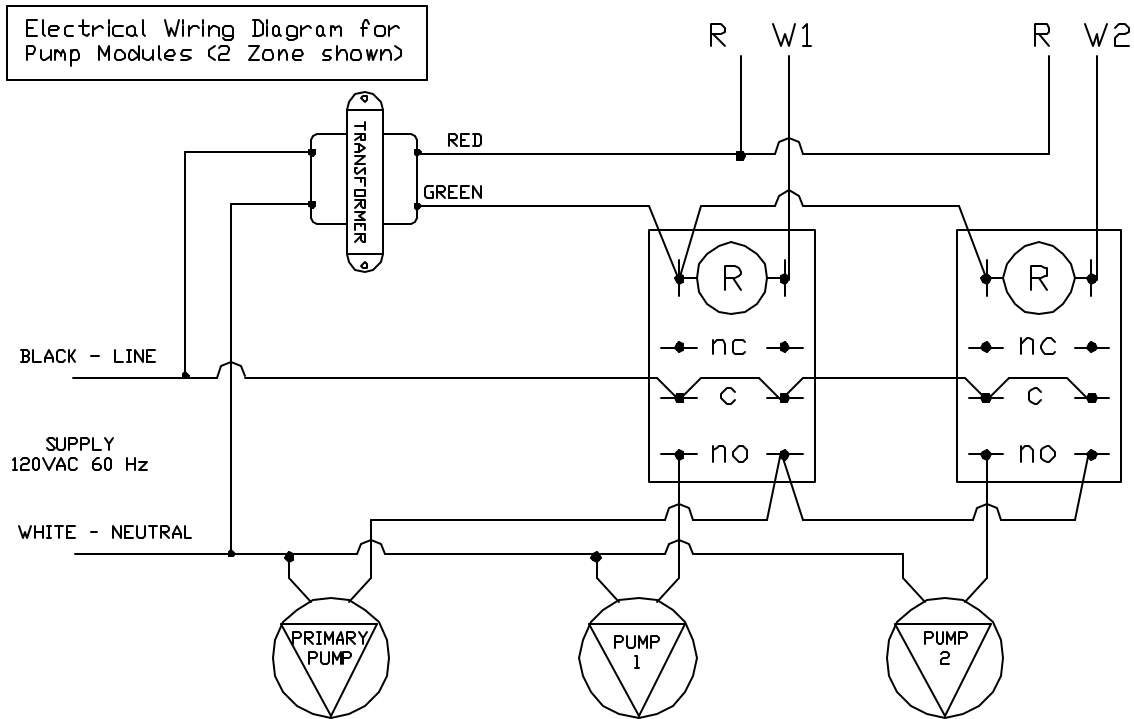
Plug the electrical cord into a standard 120VAC/60Hz/1Ph grounded outlet. This device draws less than 3 amps and does not need to be on a separate circuit. The cord can be removed and the unit hard wired by a qualified electrician. Follow all local electrical codes.

Connect low voltage thermostat wire from the red and white wires (R & W) of the MIBD™ control to the thermostat. The MIBD™ includes a pre-wired 24VAC power supply for the controls.

Start up

Ensure all plumbing connections are complete.

Purge all air from the plumbing or hydronic system. To purge air from the radiant heating system, open both heat source isolation valves. Connect a drain hose to the return leg purge valve. Open the purge valve. Once the water starts flowing through the drain hose, close the return isolation valve. Close all but one of the individual isolation valves on the manifold taking turns to purge all of the air out of each of the circuits (loops).



When all of the individual circuits have been positively purged, close the purge (drain) valve and open the return isolation valve. Remove the drain hose.

Once the MIBD™ has been positively purged, plug in the MIBD™ and set the room thermostat at the desired setting. The tankless water heater will fire when it senses the flow from the MIBD™.

Set the mixing valve to the desired temperature. Refer to the following table and the mix valve instructions.

	Loop Temp.	Mix Valve Setting	
		w.h. (140F)	Boiler (180F)
Floor warming (15 Btu/hr./sq.ft.)*			
in-slab with vinyl or ceramic floor	88	5	3
in-slab with carpeting	103	9	7
In-joist with vinyl or ceramic floor	103	9	7
In-joist with carpeting	118	13	11
Space Heating (30 Btu/hr./sq.ft.)*			
in-slab with vinyl or ceramic floor	108	11	9
in-slab with carpeting	138	23	17
In-joist with vinyl or ceramic floor	138	23	17
In-joist with carpeting	168	Not rec.	21

* These are guidelines only. Temperature adjustments may be required. For space heating, a proper heat loss is required. Contact Ecologix for assistance