

Electro-HELPS XI

Forced Air Zone Controller - Comments

Forced air zone damper systems work very well with WarmFlo/Electro-Mate. Basic suggestions:

1. Dampers must be in the distribution duct, **not** in the plenum with the Electro-Mate.
2. Strongly suggest the damper motors be wired normally open (NO).
3. In many cases, the simplest 4-wire thermostat zone controller works the best with WarmFlo interface module. Do not overly complicate these installations.
4. Electro drawing HH337 has a number of hookup and configuration examples. Request this drawing as it relates to the following.

WarmFlo II – Single Speed – EM3 or EZ3 Type Interface

Suggest selecting a zone controller for basic gas furnace type application, conventional 1H/1C, 4-wire stat. Drawing HH337, page 3 and 4, shows two different units connected to WF-EZ3. Same applies to WF-EM3.

WarmFlo Select SL1or Electro EZ-Mate – Single Speed Equipment

Similar to above, drawing HH337 has two examples, page 1 and 2.

2-SPEED EQUIPMENT

Air conditioning – typically the zone controller will need to service 2HEAT/2COOL type room thermostats. Reference *Electro-HELPS VII* for the arrangements. The zone controller terminal block “furnace or heating equipment” can connect to any of these plenum heater control boards at the same point labeled “roomstat”.

Heat pump – zone controller using conventional 2H/2C room thermostats – the zone controller “heating equipment” terminal block should represent the SL2 or HP2 stat input.

- However, the simplest zone controller can still be used (example – Honeywell Minizone). In this case you again setup or program the room thermostat as conventional but the upstairs level would be a 2HEAT/2COOL and the lower level a 1HEAT/1COOL. As shown on HH337, page 4, the upper level roomstat Y2 goes directly to the HP2 Y2 terminal (does not go through zone controller).

WarmFlo Select SL2

There is an example within HH337.

Interface WF-HP2

This controller has provisions for the stat input either conventional 2H/2C or heat pump multi-stage with “O” terminal. Drawing HH337 provides two examples.

Non-WarmFlo Electro-Mates, Control Boards with White/Blue Jumper, Stage 2 Interrupt

A low cost zone control method would be EB-5415A interlock (in place of HVAC manufacturer's forced air zone controller) with Brand X spring close zone damper motors having end switch closing for open. This is a lower cost arrangement and can be applied to 3-zone requirement. Drawing EH020 represents hookup and shows the roomstats directly wired to and driving the zone damper mechanism motor. The damper motor end switches with the EB-5415A directly control the Electro-Mate or HeatChoice control board.

Comment: If there is radiant floor in the lower level with forced air zone system, there no doubt is a wall thermostat for the forced air zone. There is **no successful way** you can operate the radiant electric boiler with a wall stat. The boiler wall stat will simply follow the forced air setting or vice versa. The solution is a slab stat for the radiant boiler set for a fixed floor temperature. With the slab stat the comfortable and economic heating from the floor will be priority and the zoned air stat will only come on when the boiler/radiant floor is slipping room temperature.



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