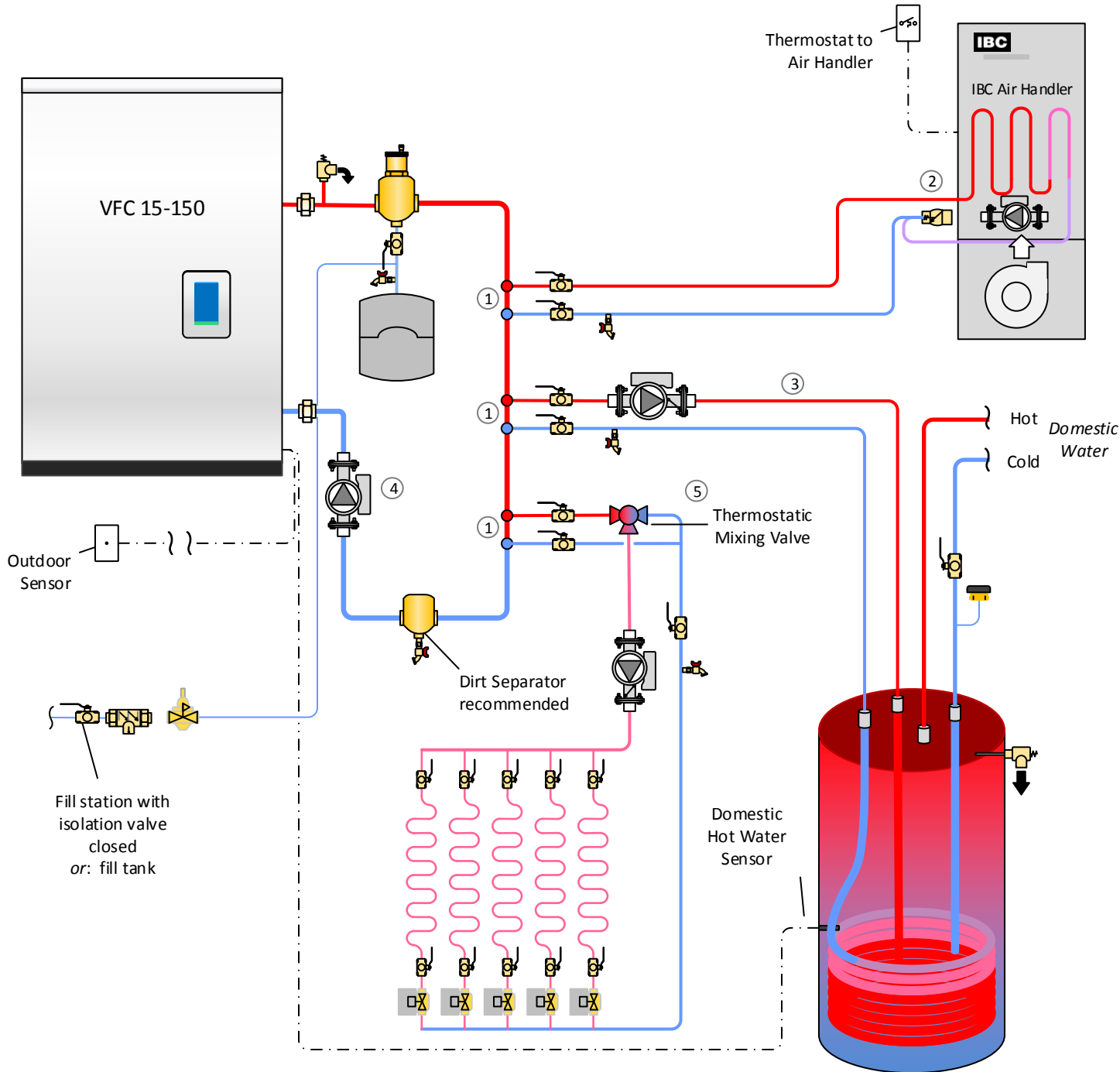




Better Boilers



Notes

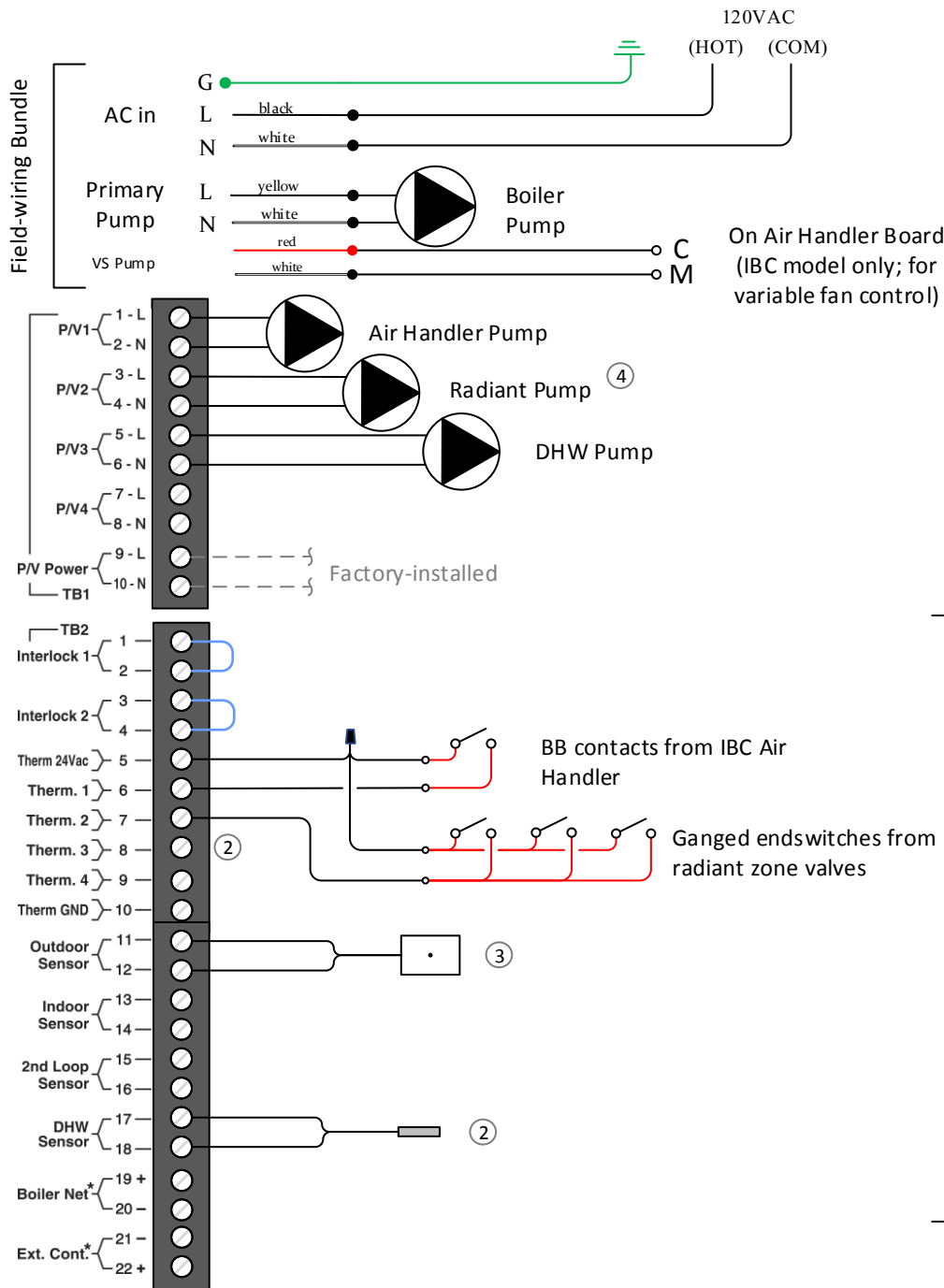
- 1 - Closely spaced tees are maximum four primary circuit piping diameters apart, with a minimum of eight pipe diameters of straight tubing upstream of first tee and a minimum four pipe diameters straight tubing downstream of second tee.
- 2 - IBC air handler shown; ships with its own pump and check valve. Other air handlers may require additional controls interface. Boiler control board sends modulation signal to air handler fan.
- 3 - DHW load receives priority operation.
- 4 - Boiler pump UPS 15-58 on speed 2 or 3, or equivalent. Inlet and outlet connections 1 1/4" NPT.
- 5 - Mixing valve is optional dependent upon design; the boiler can supply radiant floor temperatures without a mixing valve, but if two temperatures of space heating emitters are expected to run simultaneously, in the case of high-temperature and radiant loads a mixing strategy such as shown will be required. The two loads should use the load pairing option. Load pairing allows simultaneous running of loads when target temperatures are compatible.

CAUTION: This drawing is a simple schematic guide to a successful installation. There may be many necessary components not shown here. We require that our boilers be installed by licensed and experienced trades people who are familiar with the applicable local and national codes. System design is to be completed by an experienced hydronic designer or Engineer. It is necessary to carefully read and follow the installation instructions that come with the boiler along with the application drawing that fits your system.

150 1.3.air-rad	IBC VFC 15-150 3 loads air + radiant	
DRAWN BY	BRAD POULSEN	DATE 18/09/2015
DESCRIPTION Installation with three loads on a primary loop. Domestic hot water receives priority operation. Space heating operates on outdoor reset or setpoint.		
		PAGE 1 OF 2



Better Boilers



Wiring Notes

- ① – No external voltages to be applied to TB2 control terminal strip connections 1-20.
- ② – If aquastat is used in indirect tank well, connect to *Therm. 3* terminals; in this case the DHW sensor will not be connected.
- ③ – Outdoor sensor installed on North exterior wall, exposed to actual outdoor air temperature.
- ④ – Pump circuits are fused for a total draw of 5A; maximum amperage draw of 4A is recommended.

Programming Notes

- Ⓐ – Note that other Therm. and P/V connections are possible: the installer may program any of the four Loads as any type (e.g. Setpoint, DHW, etc.). **Every Load number (1-4) is associated with a corresponding Therm. connection (1-4) and P/V (pump) connection (1-4).**
- Ⓑ – In *Installer Setup Menu / Edit*, for all loads: *Maximum Supply Temperature* acts as a high limit.
- Ⓒ – In *Installer Setup Menu / Site Settings / System Settings*, set *VS Output to Load 1 Fan* (for IBC Air Handler only).
- Ⓓ – Selecting high *Supply Differential Temperature* (max. 60°F) for the radiant slab allows that load to run at a compromised temperature when it must be compatible with air handler, but still operate its ideal temperature when it is the only load calling. See *Load Pairing Tech Memo* for more information.
- Ⓔ – In *Installer Setup Menu / Load Pairing* select Primary Load as 1 - *Reset* and Secondary Load as 2 - *Reset Heating*. A status of *Enabled* at the bottom of the menu will confirm that temperatures and priorities are compatible.

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