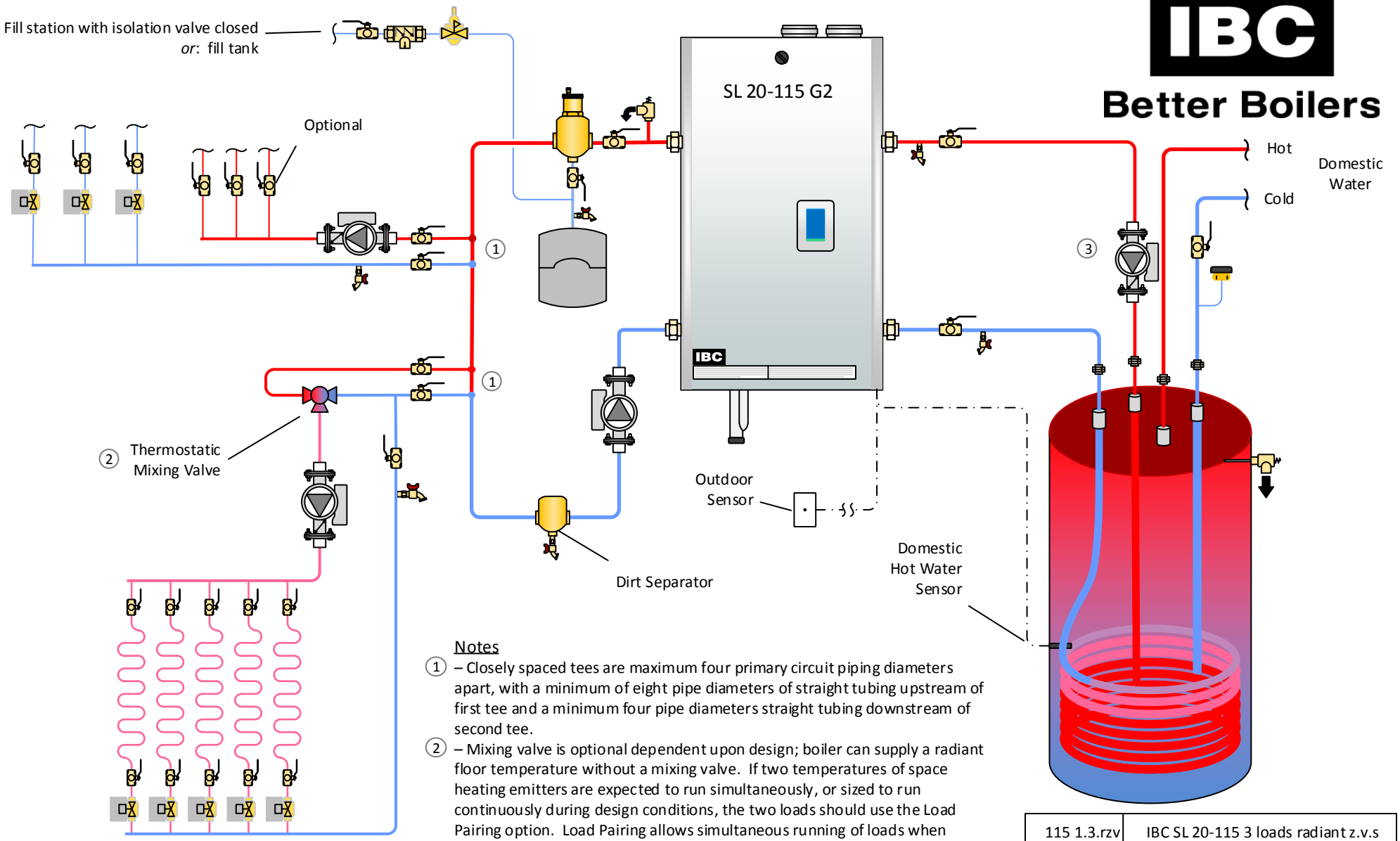


IBC

Better Boilers

Notes

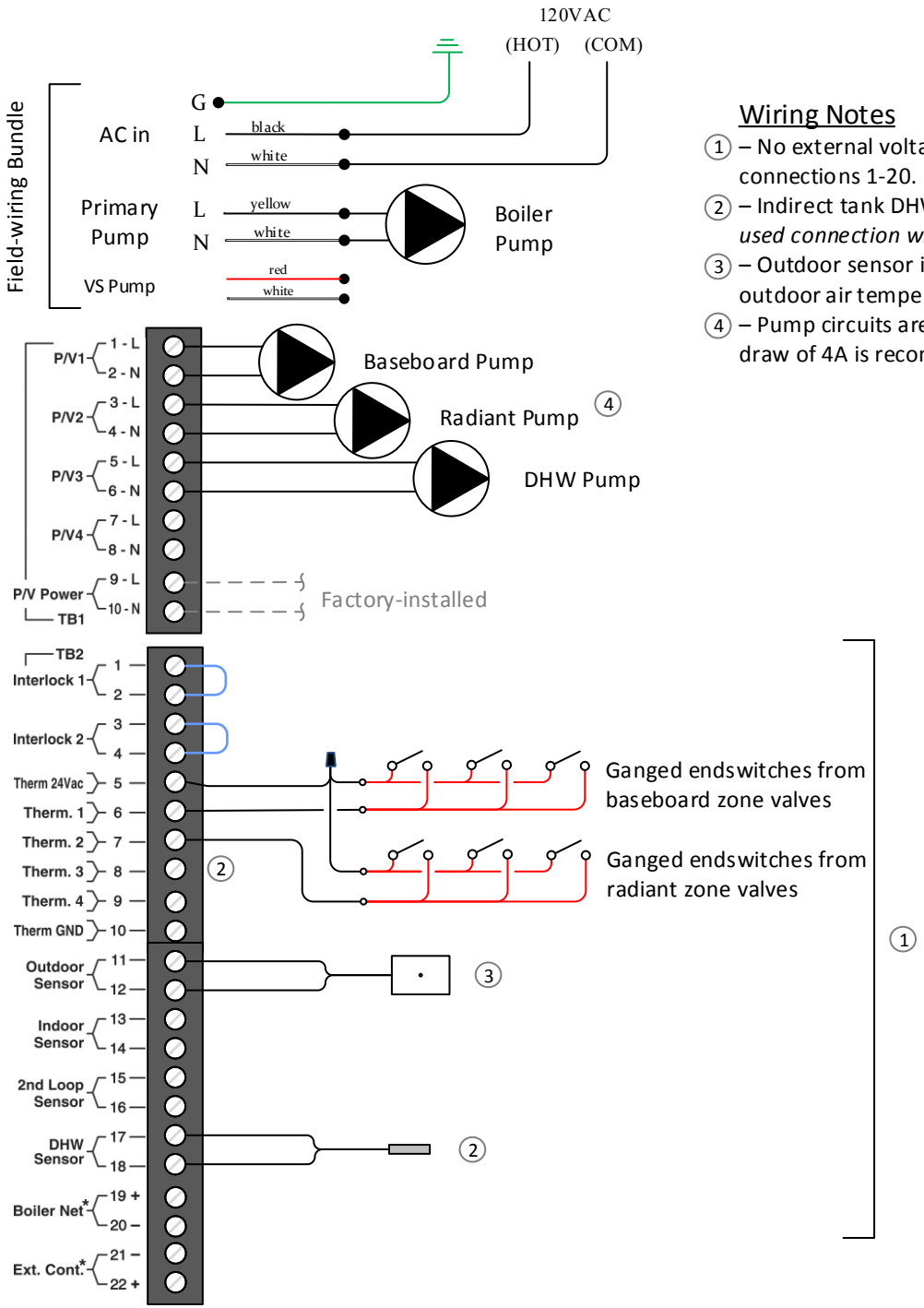
(1) – Closely spaced tees are maximum four primary circuit piping diameters apart, with a minimum of eight pipe diameters of straight tubing upstream of first tee and a minimum four pipe diameters straight tubing downstream of second tee.

(2) – Mixing valve is optional dependent upon design; boiler can supply a radiant floor temperature without a mixing valve. If two temperatures of space heating emitters are expected to run simultaneously, or sized to run continuously during design conditions, the two loads should use the Load Pairing option. Load Pairing allows simultaneous running of loads when target temperatures are compatible; in the case of high-temperature and radiant loads a mixing strategy will be required.

(3) – In *DHW / Edit* set *Boiler Pump* to *Off* when using two-sides piping option; this turns off primary pump during priority domestic hot water operation; startup air removal may require temporary definition as *On*.

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.

115 1.3.rzv	IBC SL 20-115 3 loads radiant z.v.s
DRAWN BY: BRAD POULSEN	DATE: 23/09/2015
DESCRIPTION: Two-sided installation with three loads. Domestic hot water receives priority operation. Two loads of space heating can operate independently or simultaneously using the load pairing option.	PAGE: 1 OF 2



Wiring Notes

(1) – No external voltages to be applied to TB2 control terminal strip connections 1-20.

(2) – Indirect tank DHW Sensor to terminals 17 and 18; *if an aquastat is used connection will be to a Therm., e.g. terminals 5 and 8 (Therm 3).*

(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

(A) – *Note that Therm. and P/V connections other than shown 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 and P/V (pump) connection.***

(B) – In *Installer Setup* Menu define Load 1 as *Reset Heating*, define the emitter as *Baseboard,* enter the temperature value you wish for the coldest weather at *Design Supply, u*pdate the *Design Outdoor* to suit your locality, and set *Priority* to 55. *Save* your settings. If no outdoor sensor is installed, use *Setpoint* rather than *Reset Heating*.

(C) – In *Installer Setup* Menu define Load 2 as *Reset*, define the emitter as *High-Mass Radiant,* enter the *Design Supply,* enter the same *Design Outdoor* and *Maximum Supply* used for Load 1, set the *Supply Differential Temperature* to its maximum of 62°F, and set *Priority* to 20 . The wide *Diff. Temp*. will allow Load Pairing to run Load 2 at a compromised (high) temperature when it must be compatible with Load 1, but still operate at its ideal temperature when it is the only load calling.

(D) – In *Installer Setup* Menu */ Load Pairing* select Load 1 as *Primary Load* and Load 2 as *Secondary Load*. In the *Status* line at bottom of menu, *Enabled* will confirm that temperatures and priorities are compatible. It may be necessary to slightly increase the Load 2 *Design Supply* and/or the Load 1 *Supply Differential* to achieve compatibility. See *Load Pairing* Tech Memo for more information.

115 1.3.rzv	IBC SL 20-115 3 loads radiant z.v.s
DRAWN BY: BRAD POULSEN	DATE: 23/09/2015
DESCRIPTION: Two-sided installation with three loads. Domestic hot water receives priority operation. Two loads of space heating can operate independently or simultaneously using the load pairing option.	PAGE: 2 OF 2

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