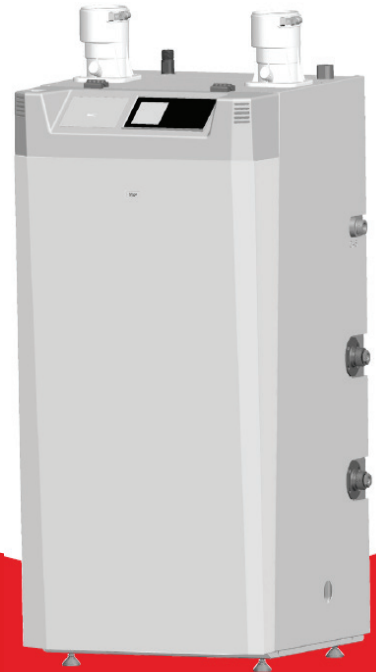


# Application Guide

## Instinct FSB

SOLO 110-155-199 & COMBI 155-199



### NOTICE

- This manual is applicable to all Instinct floor standing boilers with display software version 0.40 or later.
- If this guide does not apply to your boiler, Please visit [triangletube.com](http://triangletube.com) to obtain the correct application guide.

### WARNING

This document is intended to be used by a factory trained and qualified heating contractor or service technician only. Read all Instructions within this document and within the relevant Boiler Installation and Maintenance Manual before proceeding. It is recommended

to follow the procedures in the steps given. This guide does not replace the Installation and Maintenance manual. Skipping or missing procedural steps could result in substantial property damage, serious injury, or death.

### NOTICE

- When receiving the Instinct unit, any claims for damage or shortage in shipment must be filed immediately against the transportation company by the consignee.
- Customer must register unit within sixty (60) days of installation in order to gain warranty coverage. See Warranty Card for details.
- Leave all documentation received with appliance with the owner for future reference.
- Installation and service should only be performed by a qualified installer or service technician.
- Installations and service should be performed by a licensed plumber or gas fitter in the Commonwealth of Massachusetts.

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# Instinct Application Guide



## 1. Boiler Pump Presets

The boiler comes preconfigured for several preset pump outputs.

1. To access the Installer screen, touching simultaneously the up and down soft keys for 3 seconds as shown in Fig. 1.

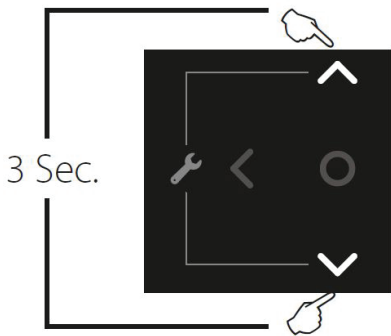


Fig. 1: Installer Button

2. Enter the installer access code "054" by using the **LEFT** and **RIGHT** buttons to select a digit and the **UP** and **DOWN** buttons to change the digit. Press the OK button to enter the access code.



Fig. 2: Installer Access Code

3. Press the OK button while the **CH & DHW Settings** icon is highlighted.

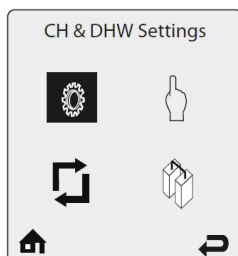


Fig. 3: CH & DHW Settings

4. Press the OK button while the **Boiler Settings** icon is highlighted.

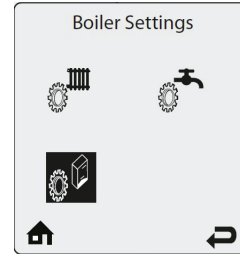


Fig. 4: Boiler Settings

5. Press the OK button while the **Pump Settings** option is highlighted.

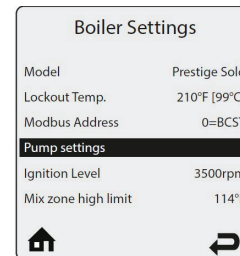


Fig. 5: Pump Settings

6. Press the OK button while the **Pump Settings** option is highlighted.

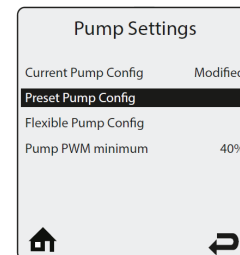


Fig. 6: Preset Pump Configuration

7. Scroll down the preset pump list and select one of the following options shown in Table 1.

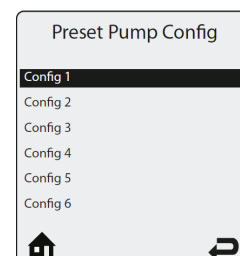


Fig. 7: Preset Pump Configuration

Table 1: Instinct Preset Pump Configurations

Preset Configuration	Boiler Pump Flex 1	CH1 Pump Flex 5	CH2 Pump Flex 3	DHW Pump Flex 2
A	CH1 Call CH2 Call DHW Call	CH1 Call CH2 Call		DHW Call
B & C Out of the box setting	CH1 Call CH2 Call DHW Call	CH1 Call	CH2 Call	DHW Call
D	CH1 Call CH2 Call DHW Call	CH1 Call CH2 Call	CH1 Call CH2 Call	DHW Call
E	CH1 Call CH2 Call	CH2 Call	CH2 Call	DHW Call
F	CH1 Call CH2 Call	CH1 Call CH2 Call	CH1 Call CH2 Call	DHW Call

Note: Other Presets are shown as available. These are non functional in the Instinct Boilers

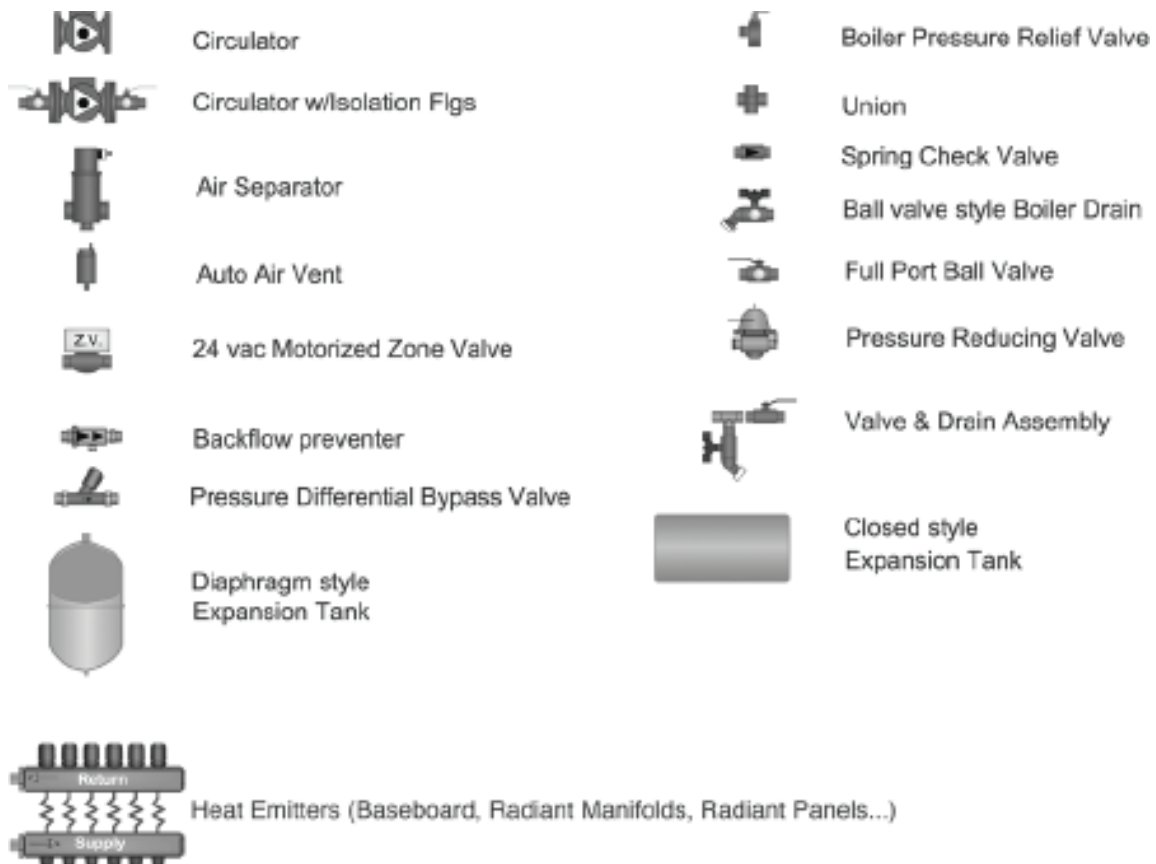


Fig. 8: Piping Layout Legend

# Instinct Application Guide



## 2. Flexible Pump Configuration

This allows the installer to customize the flexible Pump Output (relays) to a specific installation arrangement that is not addressed in the Preset Pump Configuration options. There are a total of four Pump Output(relays) that must be set.

1. To access the Installer screen, touching simultaneously the up and down soft keys for 3 seconds as shown in Fig. 9.

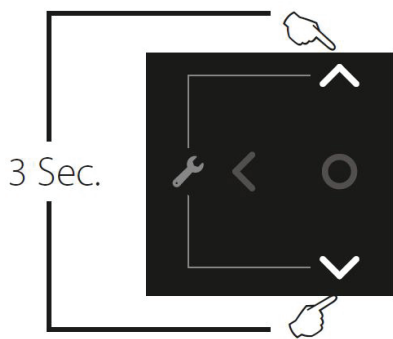


Fig. 9: Installer Button

2. Enter the installer access code "054" by using the **LEFT** and **RIGHT** buttons to select a digit and the **UP** and **DOWN** buttons to change the digit. Press the OK button to enter the access code.



Fig. 10: Installer Access Code

3. Press the OK button while the **CH & DHW Settings** icon is highlighted.

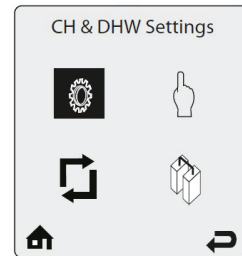


Fig. 11: CH & DHW Settings

4. Press the OK button while the **Boiler Settings** icon is highlighted.

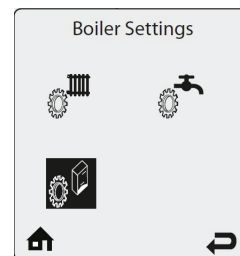


Fig. 12: Boiler Settings

5. Press the OK button while the **Pump Settings** option is highlighted.

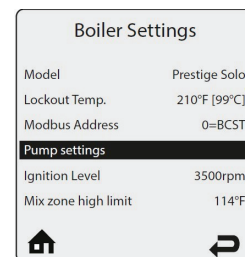


Fig. 13: Pump Settings

6. Press the OK button while **Flexible Pump Config** option is highlighted.

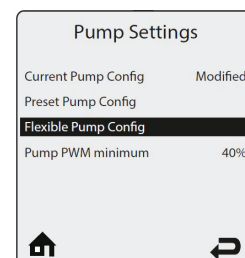


Fig. 14: Flexible Pump Config

7. A list of 4 Flex Relays are clickable. These are the Boiler actions to be edited.

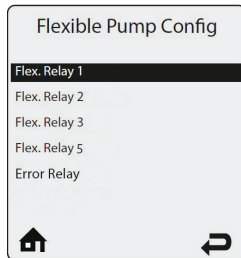


Fig. 15: Flex. Relays

- When selecting Flex Relay 1, the boiler pump actions are being edited.
  - When selecting Flex Relay 2, the DHW pump actions are being edited.
  - When selecting Flex Relay 3, the CH2 pump actions are being edited.
  - When selecting Flex Relay 5, the CH1 pump actions are being edited.
8. Select the relay to be changed. Choose whether the relay will be on or off for any of the following calls: *CH1*, *CH2*, *DHW*, *MIX OPEN*, *MIX CLOSE*, *ERROR*, *FLAME*.

- When selecting CH1, the relay is activated at CH1 demand.
- When selecting CH2, the relay is activated at CH2 demand.
- When selecting DHW, the relay is activated at DHW demand.
- Mix Open is not functional in the Instinct Boilers.
- Mix Close is not functional in the Instinct Boilers.
- When selecting ERROR, the relay is activated on error.
- When selecting FLAME, the relay is activated when appliance is running and a flame signal has been detected.

9. Once the Relay's actions have been selected, scroll down and hit enter on the **Save and Exit** option at the bottom. This relay shown in Fig. 16 is set to turn on the pump wired to the CH1 terminal only for CH1 calls.

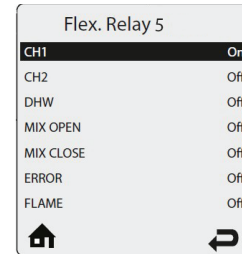


Fig. 16: Flex. Relay 1 Settings

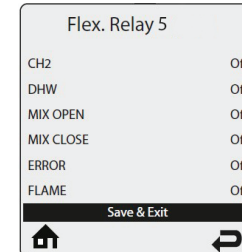


Fig. 17: Flex. Relay 1 Save Option

## NOTICE

*The options will not be saved when quick exiting (hitting the house or back arrow at the bottom of the menu).*

### 3. Instinct Solo Piping Diagrams

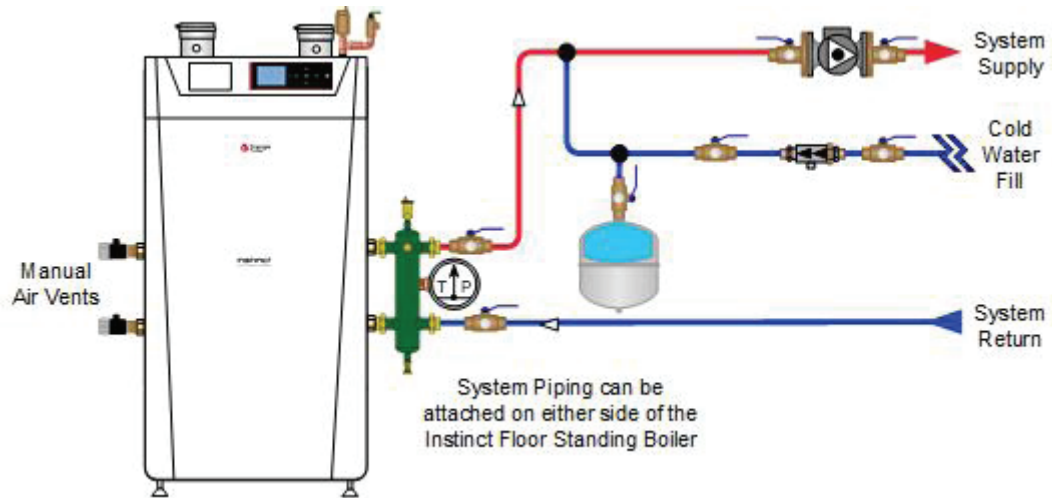


Fig. 18: Instinct Solo Near Boiler Piping with hydraulic separator

### Preset B Pump Configuration

Heat Call	Boiler Pump	CH1 Pump	CH2 Pump	DHW Pump
CH1	ON	ON	OFF	OFF
CH2	ON	OFF	ON	OFF
DHW	ON	OFF	OFF	ON

Note: the boiler is set up in this configuration out of the box

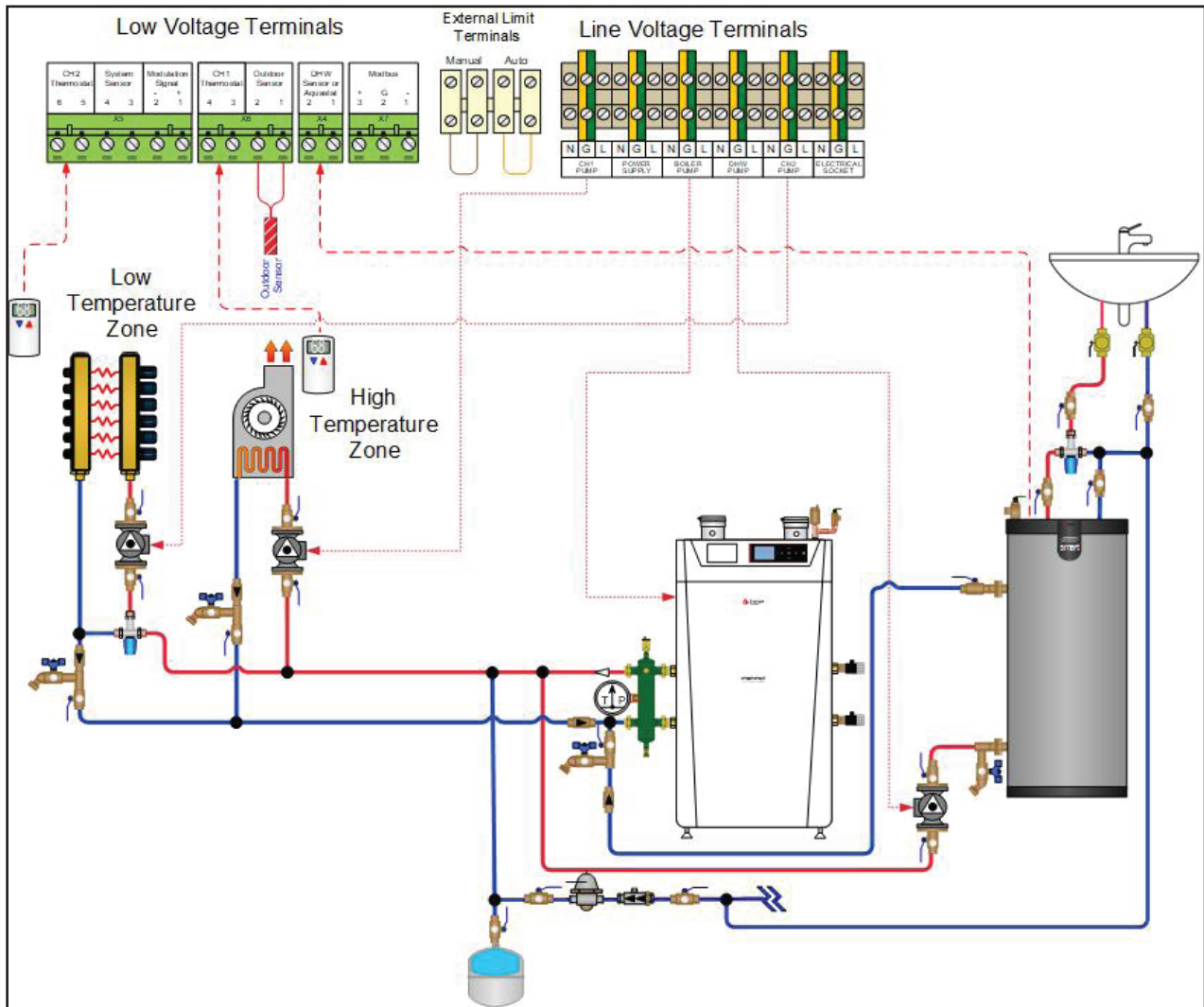


Fig. 19: Instinct Solo - Multiple Temperature Zones with Circulators - Domestic Piping Alternate

#### NOTICE

Layout is shown with separate Circulator and check valve. If using a circulator with internal check valve, the corresponding check valve is unnecessary.



### Preset B Pump Configuration

Heat Call	Boiler Pump	CH1 Pump	CH2 Pump	DHW Pump
CH1	ON	ON	OFF	OFF
CH2	ON	OFF	ON	OFF
DHW	ON	OFF	OFF	ON

Note: the boiler is set up in this configuration out of the box

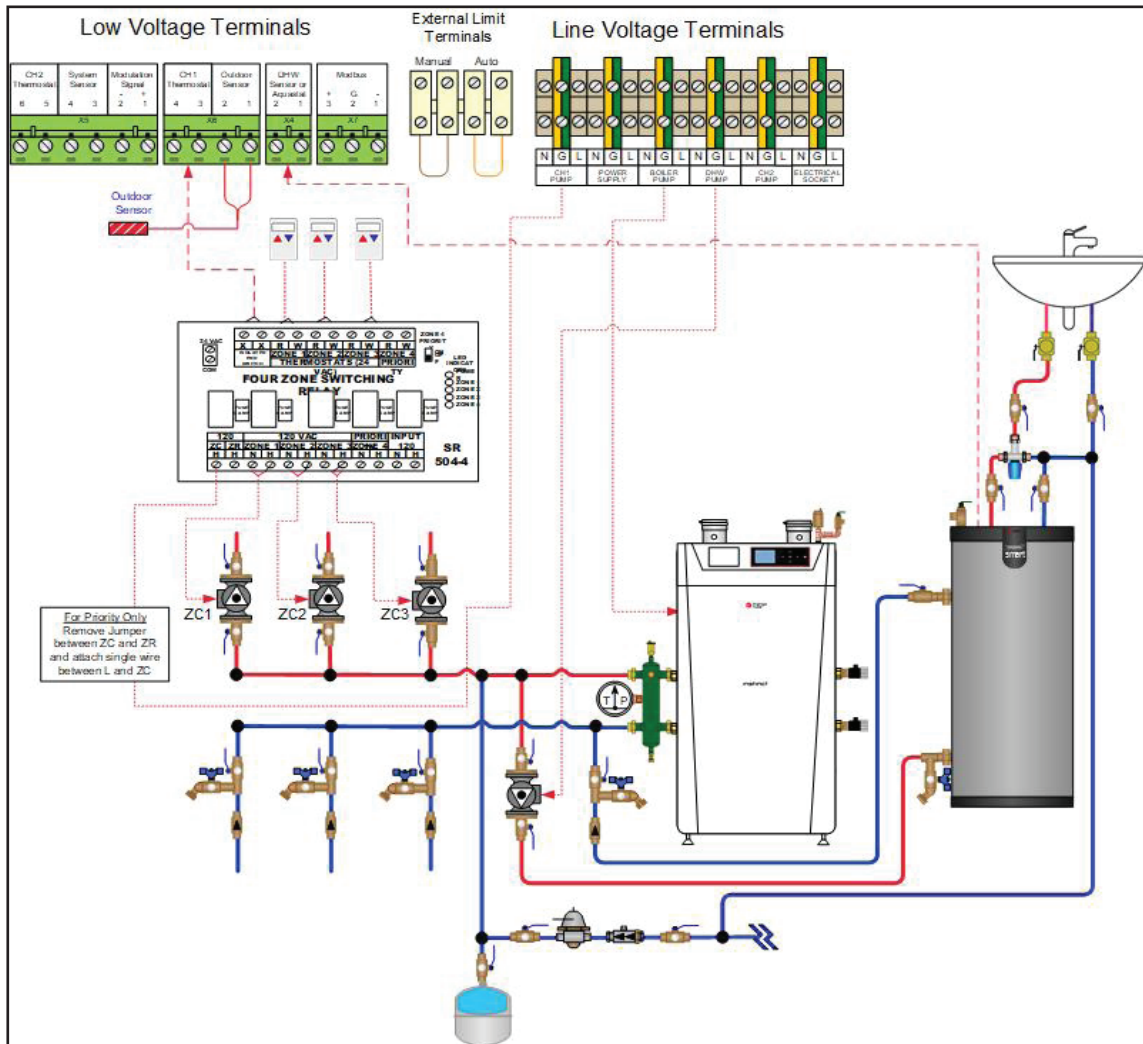


Fig. 20: Instinct Solo - Multiple Zones with Circulators

### NOTICE

Layout is shown with separate Circulator and check valve. If using a circulator with internal check valve, the corresponding check valve is unnecessary.

### Preset A or D Pump Configuration (D Shown)

Heat Call	Boiler Pump	CH1 Pump	CH2 Pump	DHW Pump
CH1	ON	ON	ON	OFF
CH2	ON	ON	ON	OFF
DHW	ON	OFF	OFF	ON

Note: the boiler pump settings must be changed for this arrangement

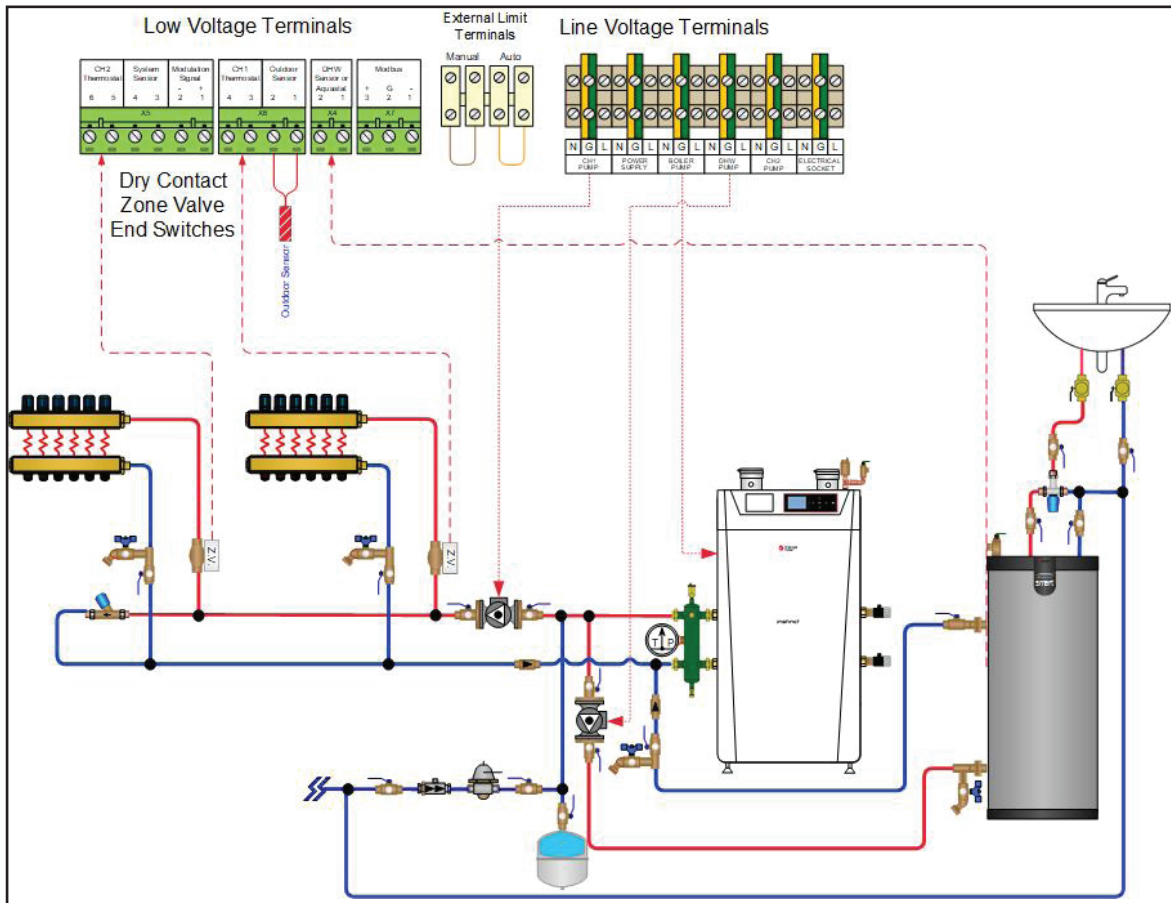


Fig. 21: Instinct Solo - Piping with Zone Valves

#### NOTICE

Layout is shown with separate Circulator and check valve. If using a circulator with internal check valve, the corresponding check valve is unnecessary.

### Preset B Pump Configuration

Heat Call	Boiler Pump	CH1 Pump	CH2 Pump	DHW Pump
CH1	ON	ON	OFF	OFF
CH2	ON	OFF	ON	OFF
DHW	ON	OFF	OFF	ON

Note: the boiler is set up in this configuration out of the box

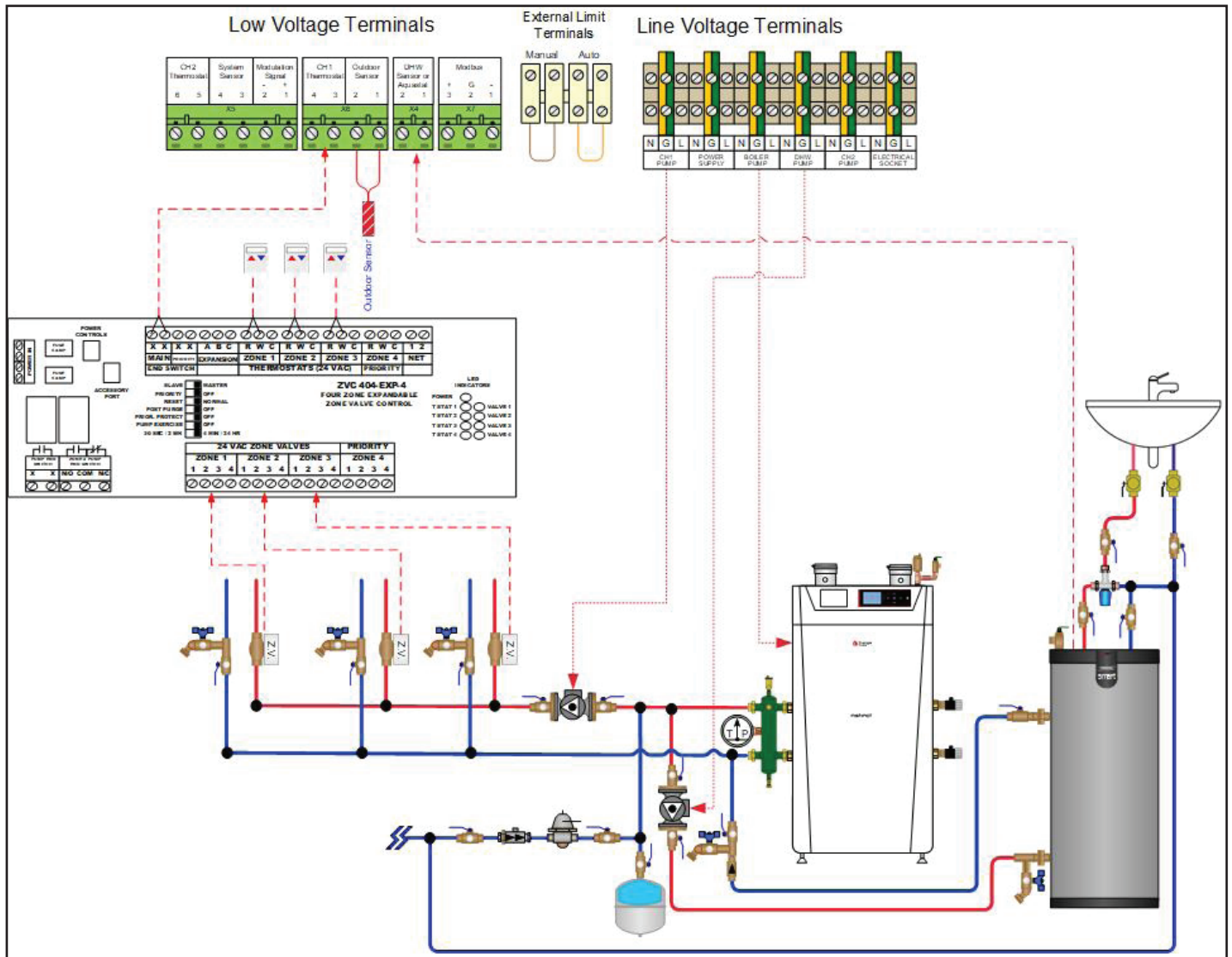


Fig. 22: Instinct Solo - Piping with Zone Valves and Zone Valve Control Panel

### NOTICE

Layout is shown with separate Circulator and check valve. If using a circulator with internal check valve, the corresponding check valve is unnecessary.

### Preset B Pump Configuration

Heat Call	Boiler Pump	CH1 Pump	CH2 Pump	DHW Pump
CH1	ON	ON	OFF	OFF
CH2	ON	OFF	ON	OFF
DHW	ON	OFF	OFF	ON

Note: the boiler is set up in this configuration out of the box

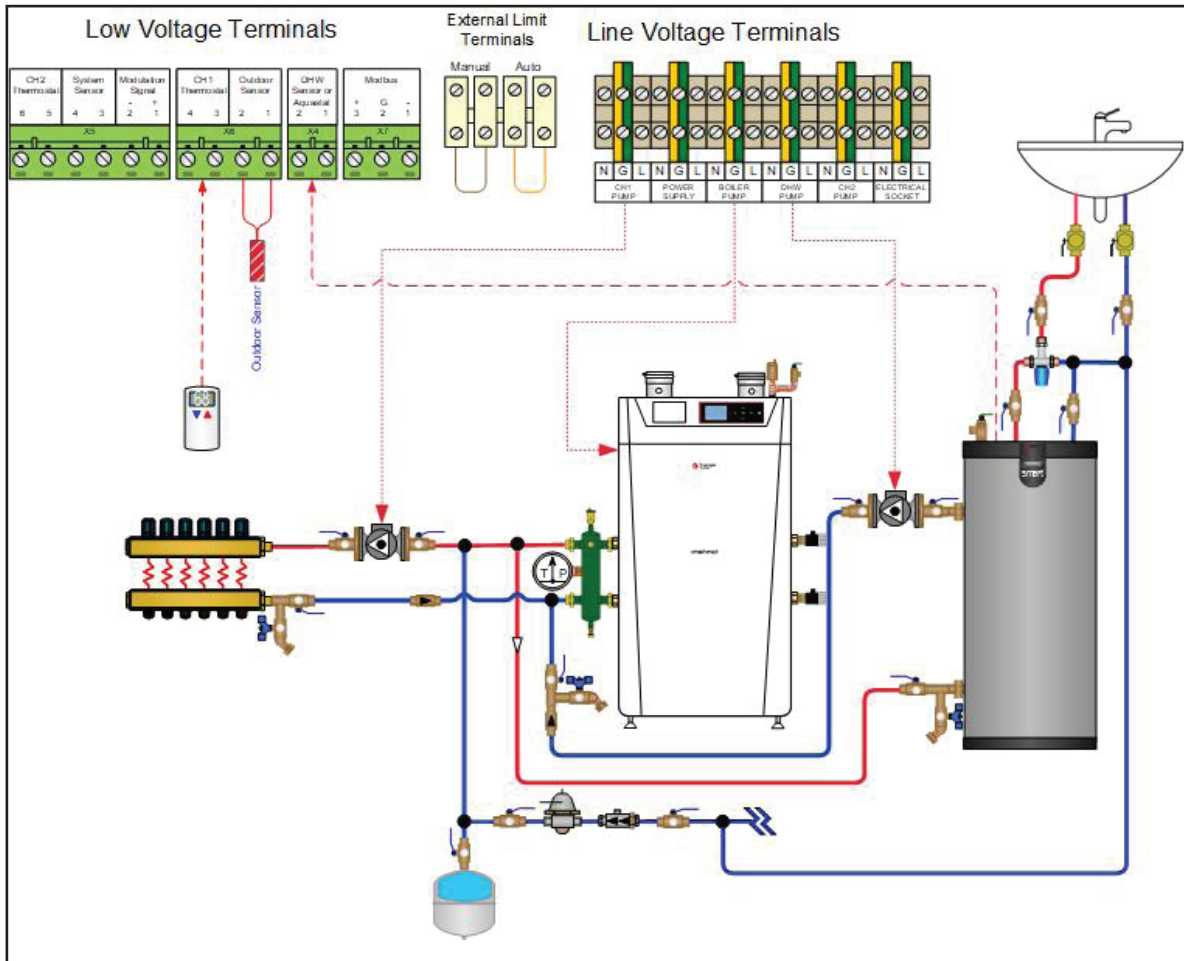


Fig. 23: Instinct Solo - Single Zone with Circulator

#### NOTICE

Layout is shown with separate Circulator and check valve. If using a circulator with internal check valve, the corresponding check valve is unnecessary.

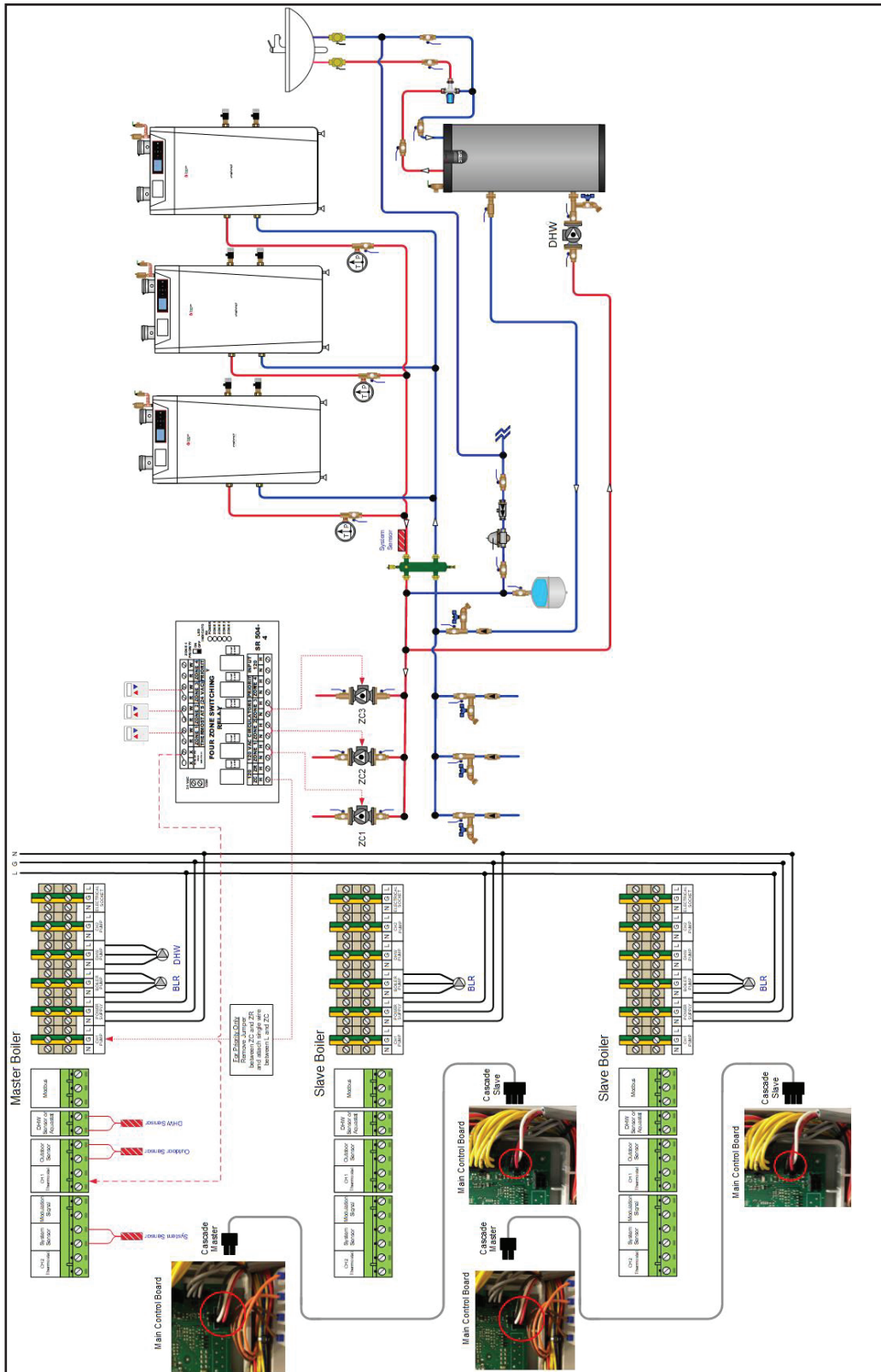


Fig. 24: Instinct Solo - Cascade Layout

## 4. Instinct Combi Piping Diagrams

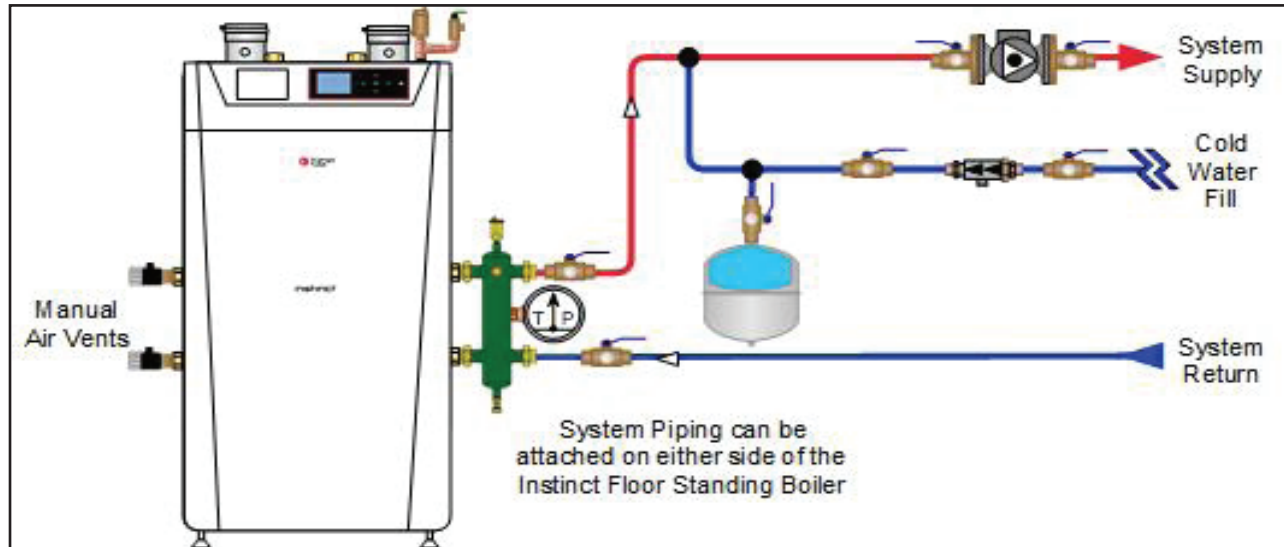


Fig. 25: Instinct Combi Near Boiler Piping with Hydraulic Separator

### Preset B Pump Configuration

Heat Call	Boiler Pump	CH1 Pump	CH2 Pump	DHW Pump
CH1	ON	ON	OFF	OFF
CH2	ON	OFF	ON	OFF
DHW	ON	OFF	OFF	ON

Note: the boiler is set up in this configuration out of the box

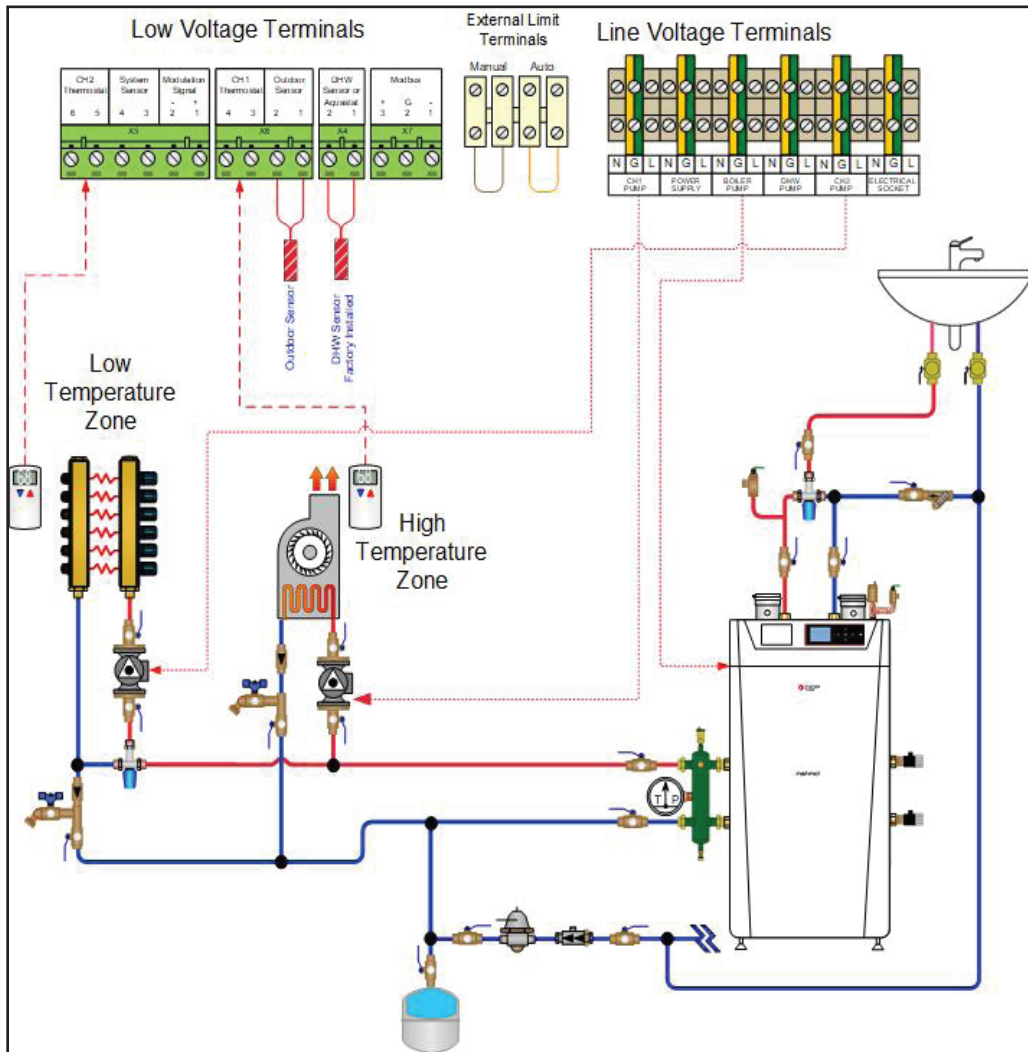


Fig. 26: Instinct Combi - Multiple Temperature Zones with Circulators

#### NOTICE

Layout is shown with separate Circulator and check valve. If using a circulator with internal check valve, the corresponding check valve is unnecessary.

## Preset B Pump Configuration

Heat Call	Boiler Pump	CH1 Pump	CH2 Pump	DHW Pump
CH1	ON	ON	OFF	OFF
CH2	ON	OFF	ON	OFF
DHW	ON	OFF	OFF	ON

Note: the boiler is set up in this configuration out of the box

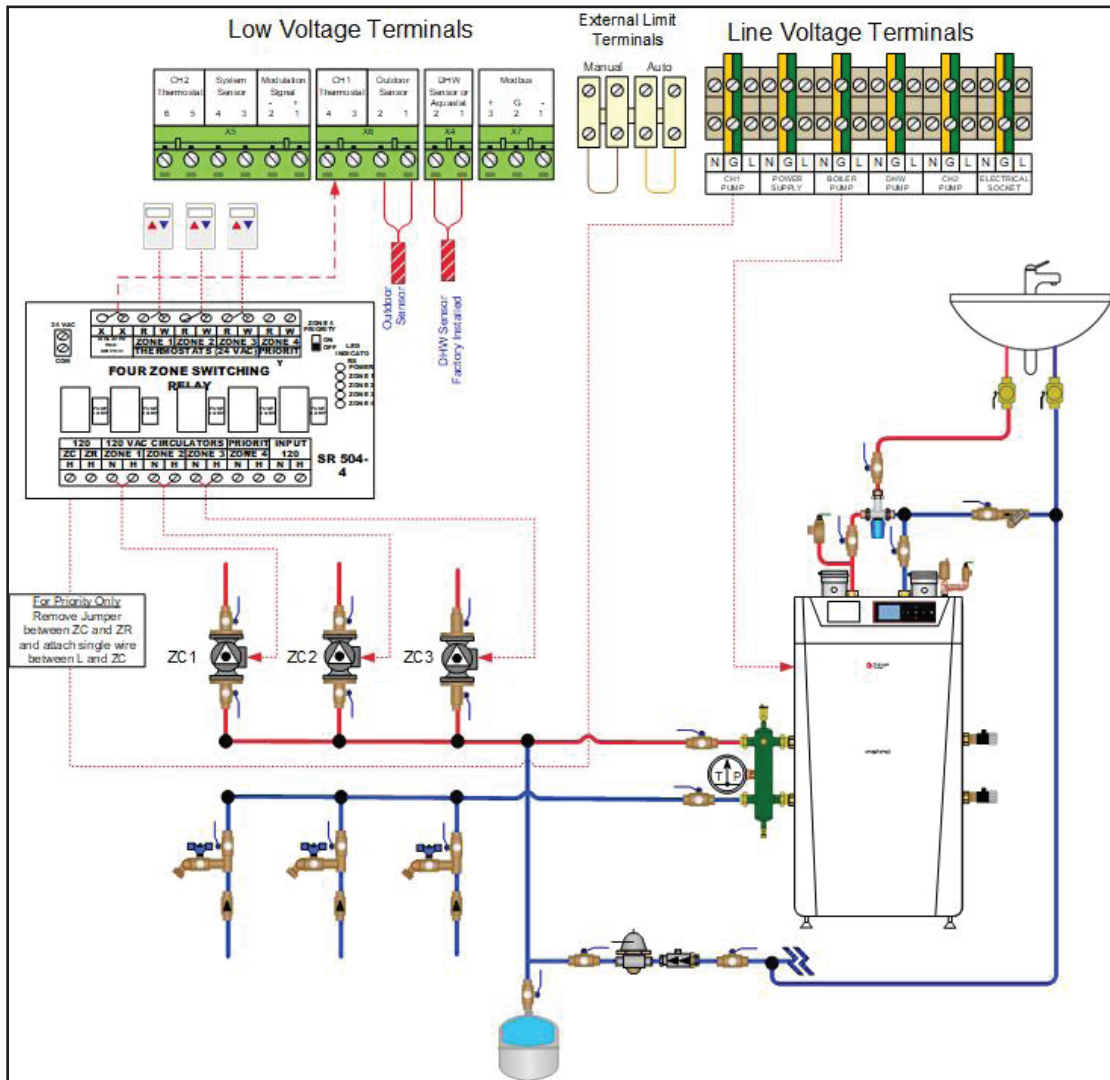


Fig. 27: Instinct Combi - Multiple Zones with Circulators

### NOTICE

Layout is shown with separate Circulator and check valve. If using a circulator with internal check valve, the corresponding check valve is unnecessary.



### Preset B Pump Configuration

Heat Call	Boiler Pump	CH1 Pump	CH2 Pump	DHW Pump
CH1	ON	ON	OFF	OFF
CH2	ON	OFF	ON	OFF
DHW	ON	OFF	OFF	ON

Note: the boiler is set up in this configuration out of the box

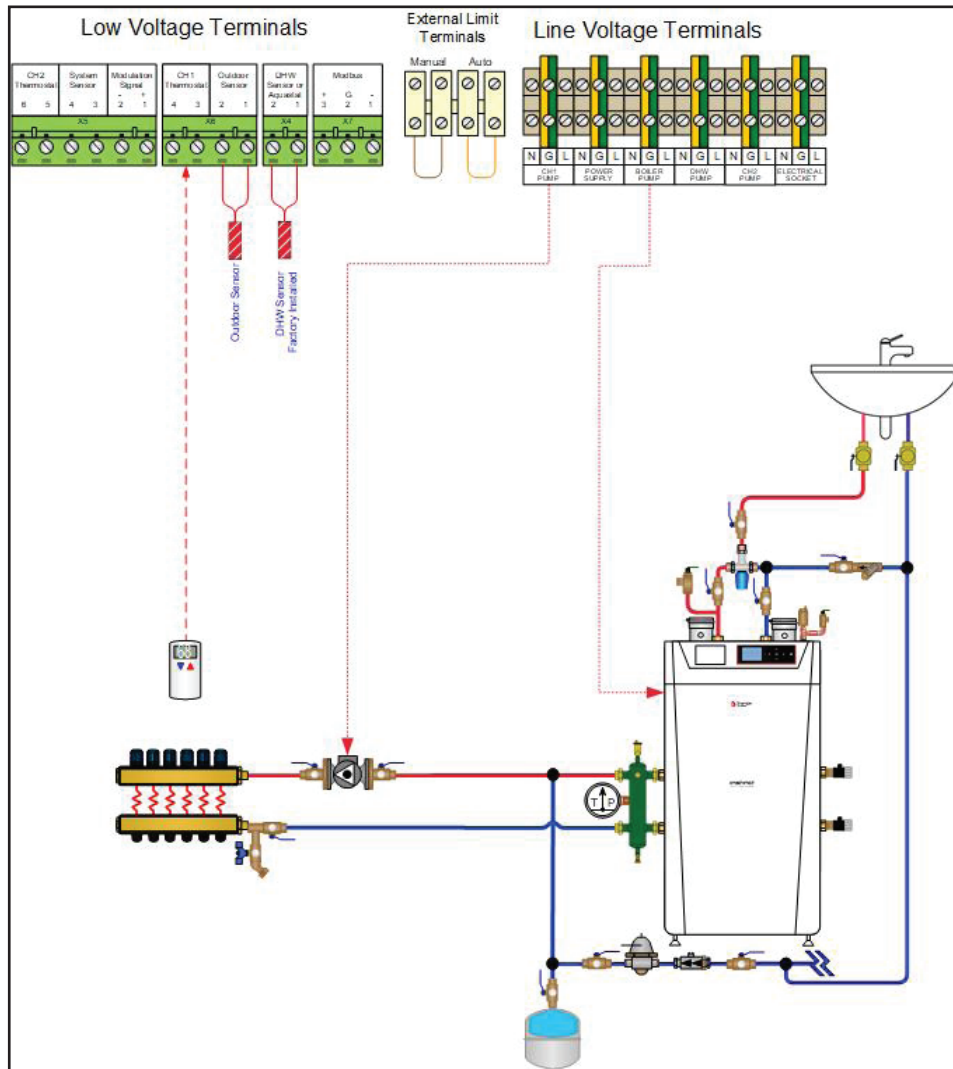


Fig. 28: Instinct Combi - Single Zones with Circulator

#### NOTICE

Layout is shown with separate Circulator and check valve. If using a circulator with internal check valve, the corresponding check valve is unnecessary.

### Preset A or D Pump Configuration

Heat Call	Boiler Pump	CH1 Pump	CH2 Pump	DHW Pump
CH1	ON	ON	ON	OFF
CH2	ON	ON	ON	OFF
DHW	ON	OFF	OFF	ON

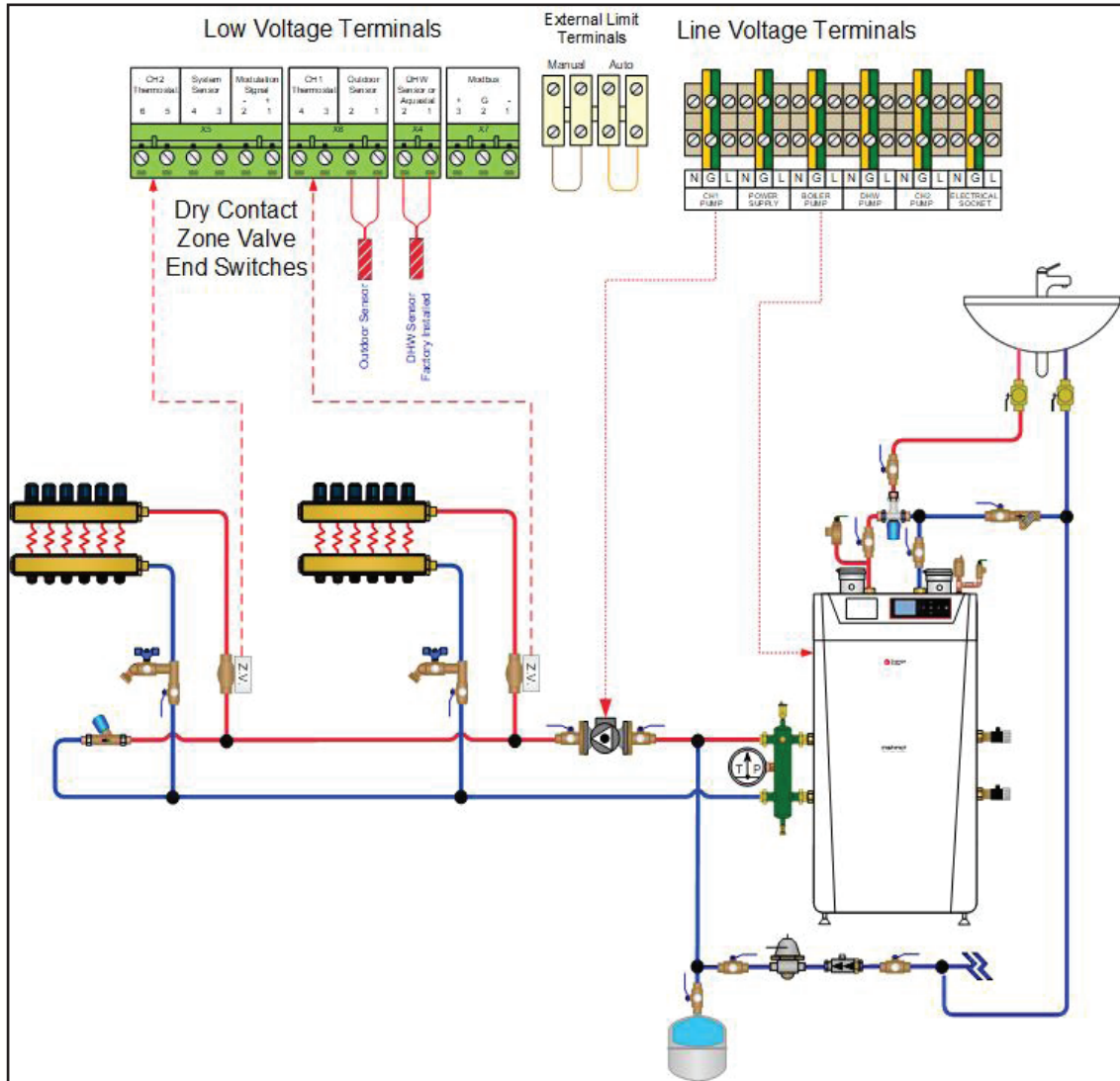


Fig. 29: Instinct Combi - Multiple Zones with Zone Valves

### Preset B Pump Configuration

Heat Call	Boiler Pump	CH1 Pump	CH2 Pump	DHW Pump
CH1	ON	ON	OFF	OFF
CH2	ON	OFF	ON	OFF
DHW	ON	OFF	OFF	ON

Note: the boiler is set up in this configuration out of the box

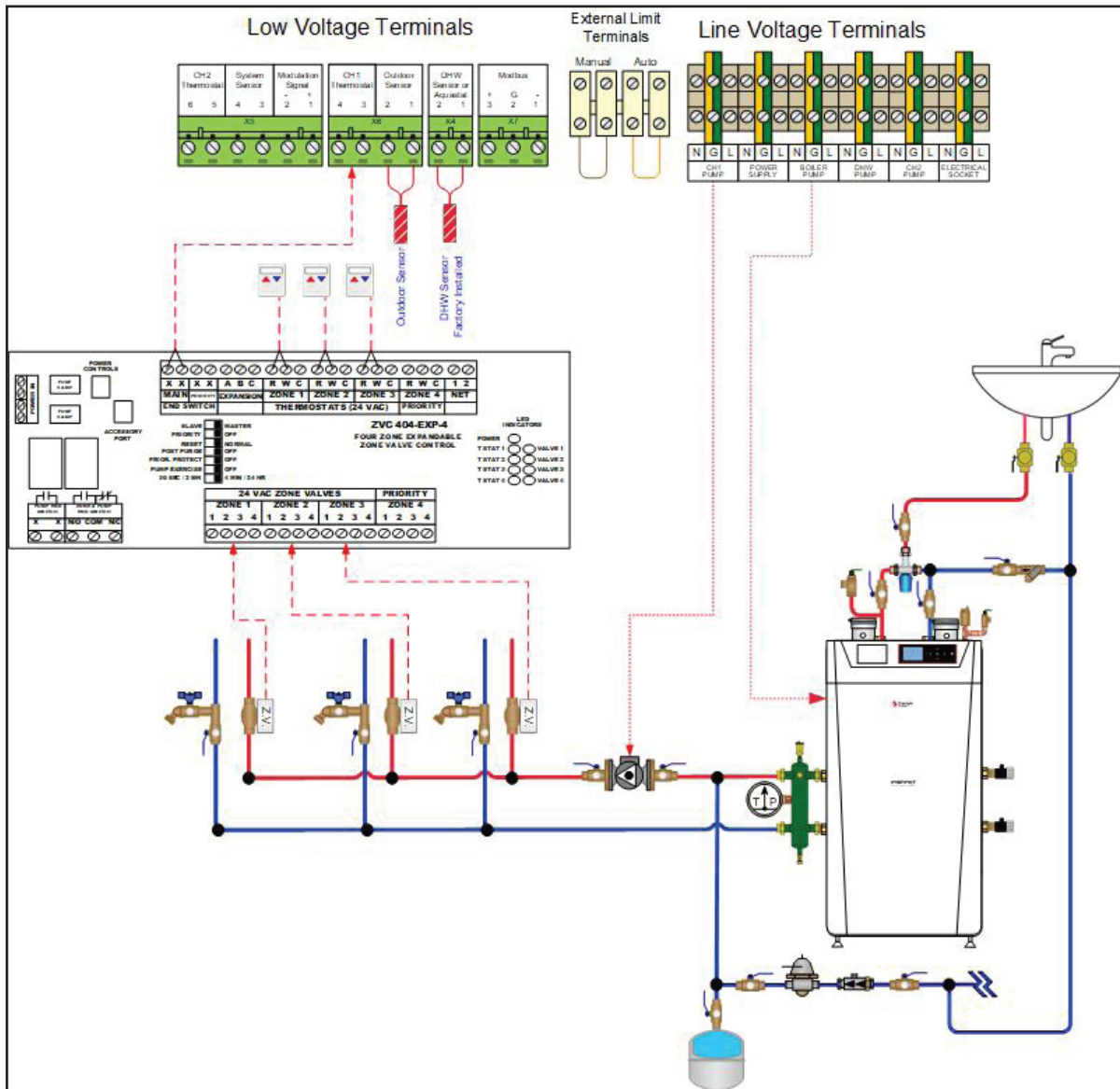


Fig. 30: Instinct Combi - Multiple Zones with Zone Valves and Zone Valve Control Panel



**Triangle Tube** - 1240 Forest Parkway, Suite 100, West Deptford NJ 08066  
Tel: (856) 228 8881 - Fax: (856) 228 3584 - E-mail: [info@triangletube.com](mailto:info@triangletube.com)