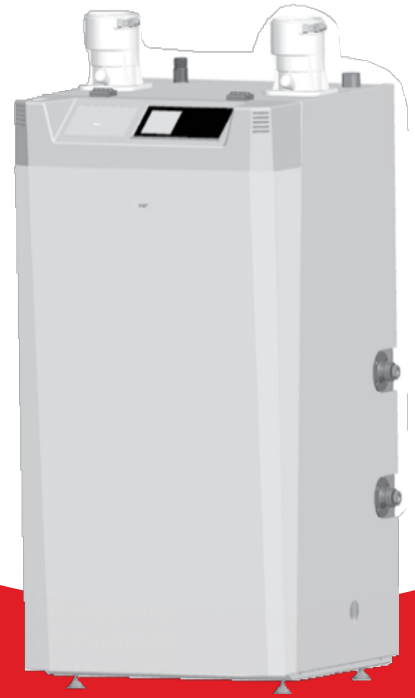


Application Guide



Instinct FSB

SOLO 110-155-199 & COMBI 155-199

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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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.

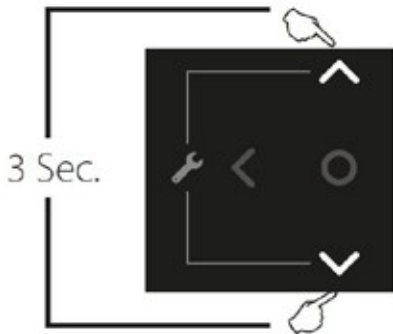


Fig. 1: Installer Button

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.

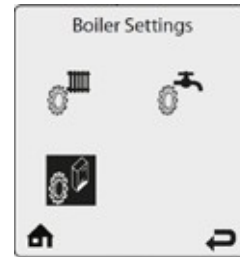


Fig. 4: Boiler Settings

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.

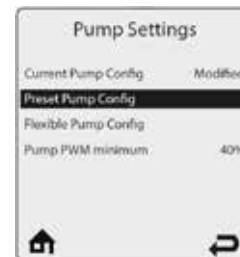


Fig. 6: Preset Pump Configuration

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 | CH1 Pump | CH2 Pump | DHW Pump |
|-------------------|-----------------------------|----------------------------------|----------------------|----------------------|-----------------|
| All Models | Instinct 1 | CH1 Call CH2 Call DHW Call | CH1 Call | CH2 Call | DHW Call |
| | Instinct 2 | CH1 Call CH2 Call DHW Call | CH1 Call CH2 Call | CH1 Call CH2 Call | DHW Call |
| | Instinct 3 | CH1 Call CH2 Call | CH1 Call | CH2 Call | DHW Call |
| | Instinct 4 | CH1 Call CH2 Call | CH1 Call CH2 Call | CH1 Call CH2 Call | DHW Call |
| Solo Models Only | Solo | CH1 Call CH2 Call | CH1 Call CH2 Call | | DHW Call |
| | Solo Instinct | CH1 Call CH2 Call DHW Call | CH1 Call | CH2 Call | DHW Call |
| Combi Models Only | Combi | CH1 Call CH2 Call DHW Call | CH1 Call CH2 Call | | DHW Call |
| | Combi Instinct | CH1 Call CH2 Call DHW Call | CH1 Call | CH2 Call | DHW Call |

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

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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. 8.

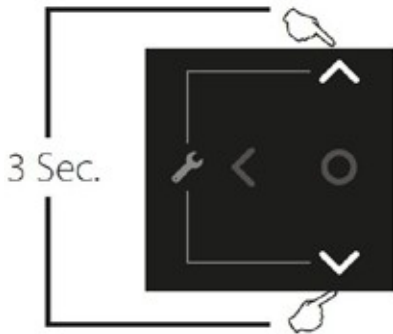


Fig. 8: Installer Button

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. 9: Installer Access Code

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



Fig. 10: CH & DHW Settings

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

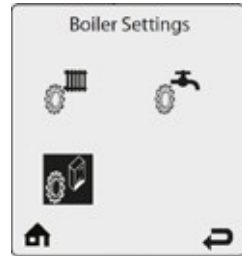


Fig. 11: Boiler Settings

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



Fig. 12: Pump Settings

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

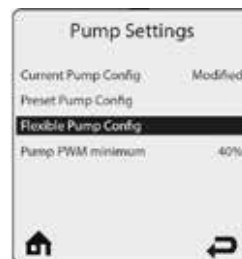


Fig. 13: Flexible Pump Config

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7. A list of 5 Flex Relays are clickable. These are the Boiler actions to be edited.

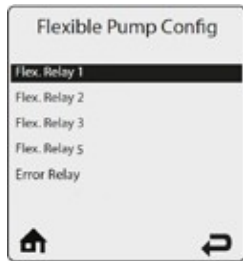


Fig. 14: Flex. Relays

- 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. 15 is set to turn on the pump wired to the CH1 terminal only for CH1 calls.



Fig. 15: Flex. Relay 1 Settings



Fig. 16: 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

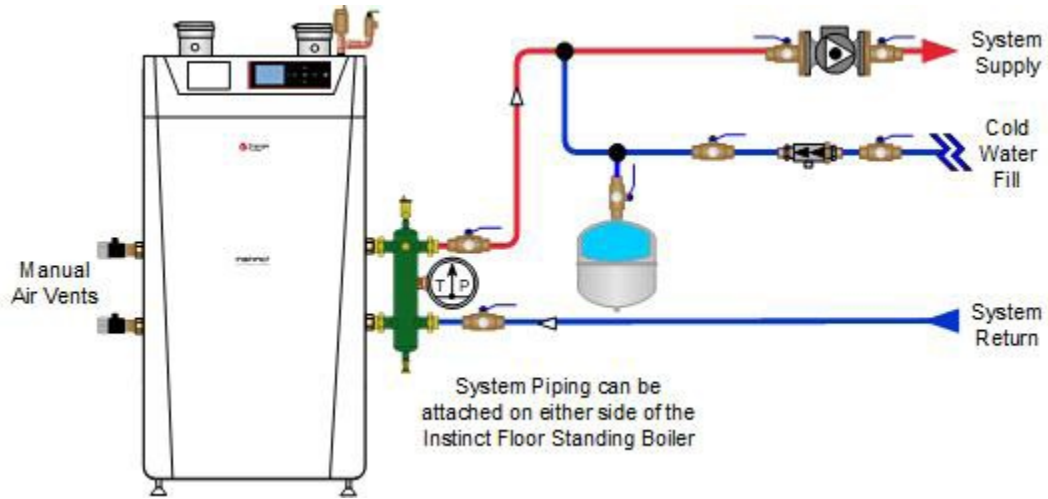


Fig. 17: Instinct Solo Near Boiler Piping with Closely Spaced Tees

Instinct 1 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 |

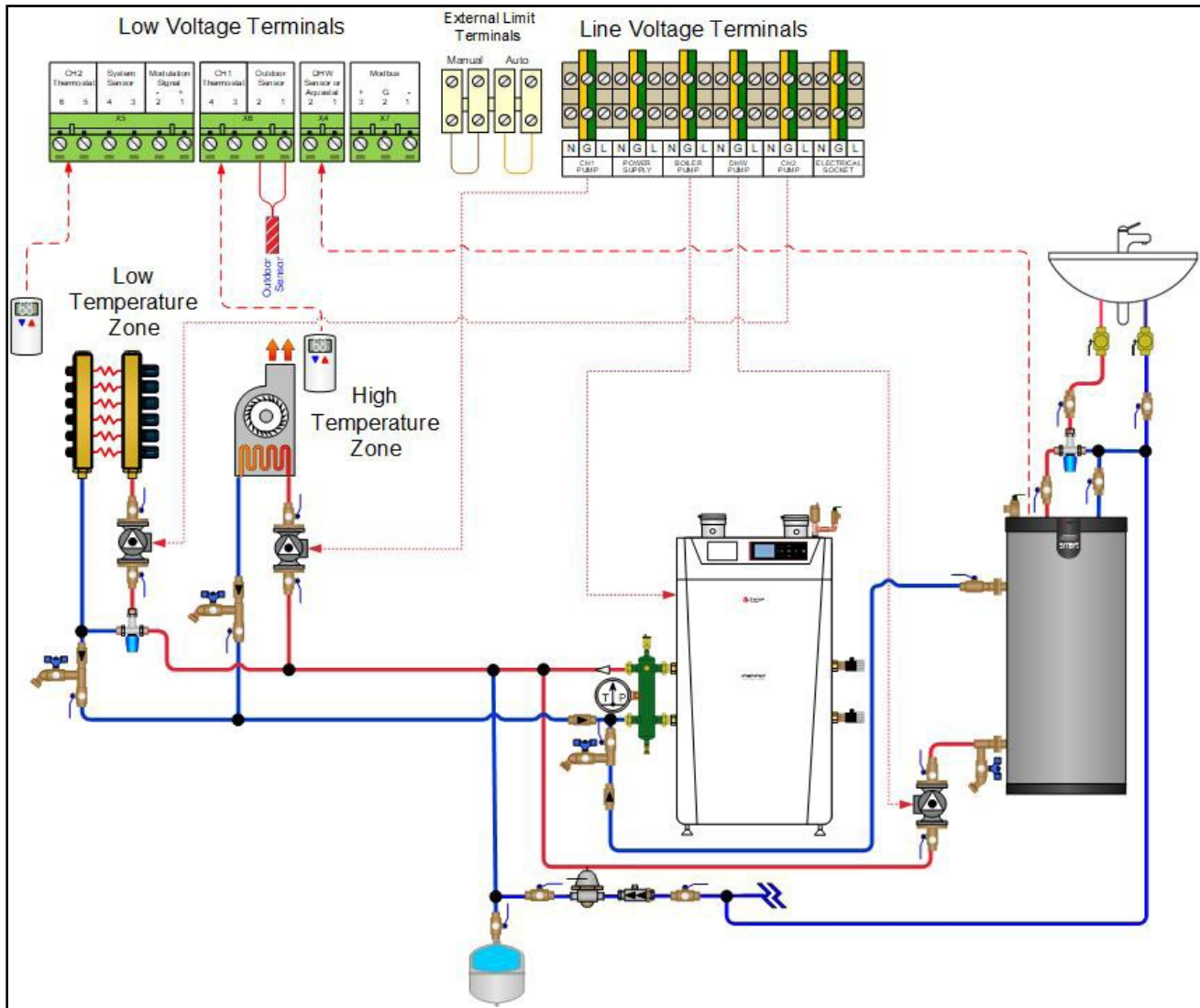


Fig. 18: Instinct Solo - Multiple Temperature Zones with Circulators - Domestic Piping Alternate

NOTICE

Piping layout is shown with a Hydraulic Separator. Closely spaced tees and an air separator can be used as shown in Fig. 17 on page 7.

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

Instinct 1 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 |

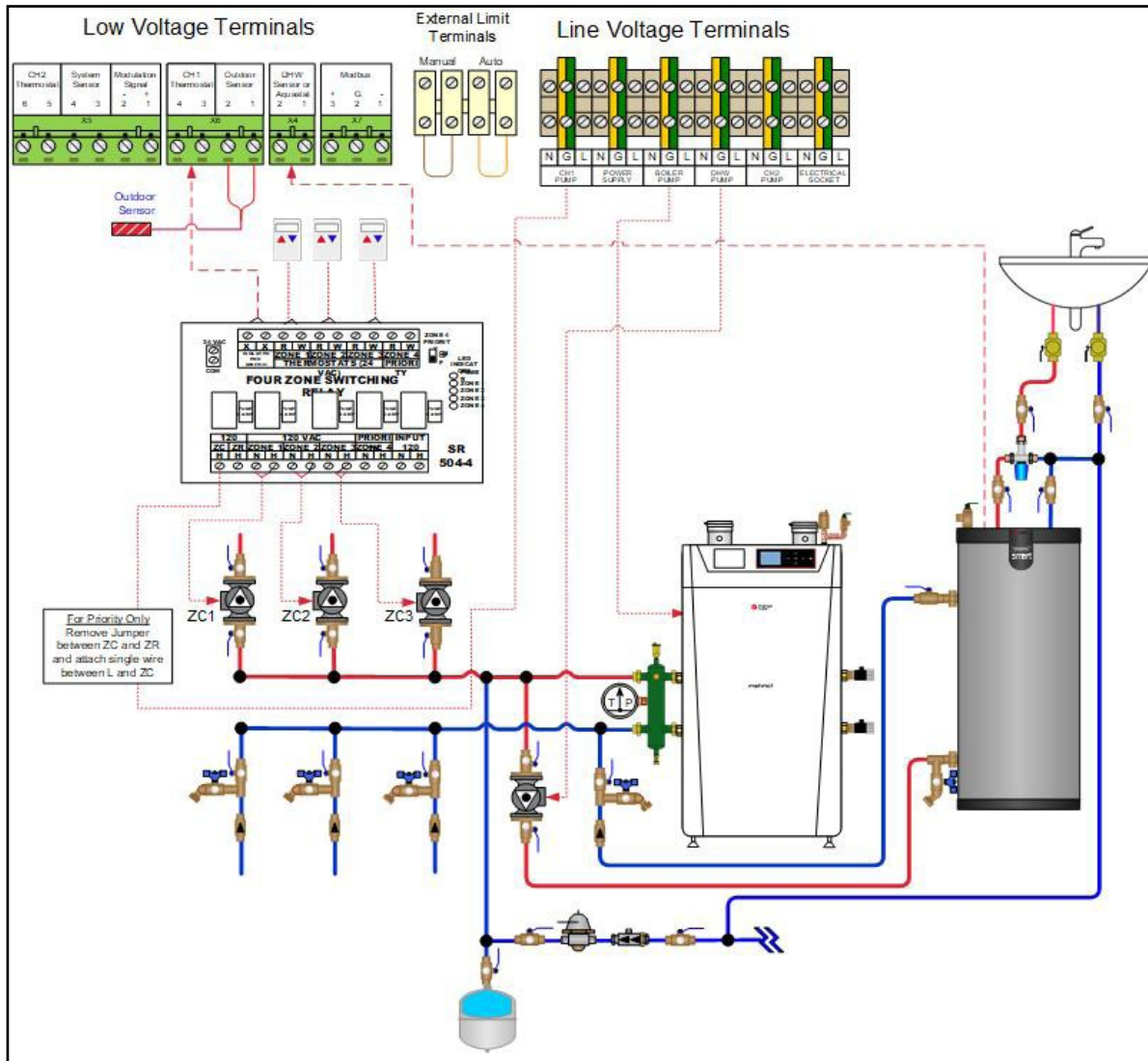


Fig. 19: Instinct Solo - Multiple Zones with Circulators

NOTICE

Piping layout is shown with a Hydraulic Separator. Closely spaced tees and an air separator can be used as shown in Fig. 17 on page 7.

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

Instinct 2 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 |

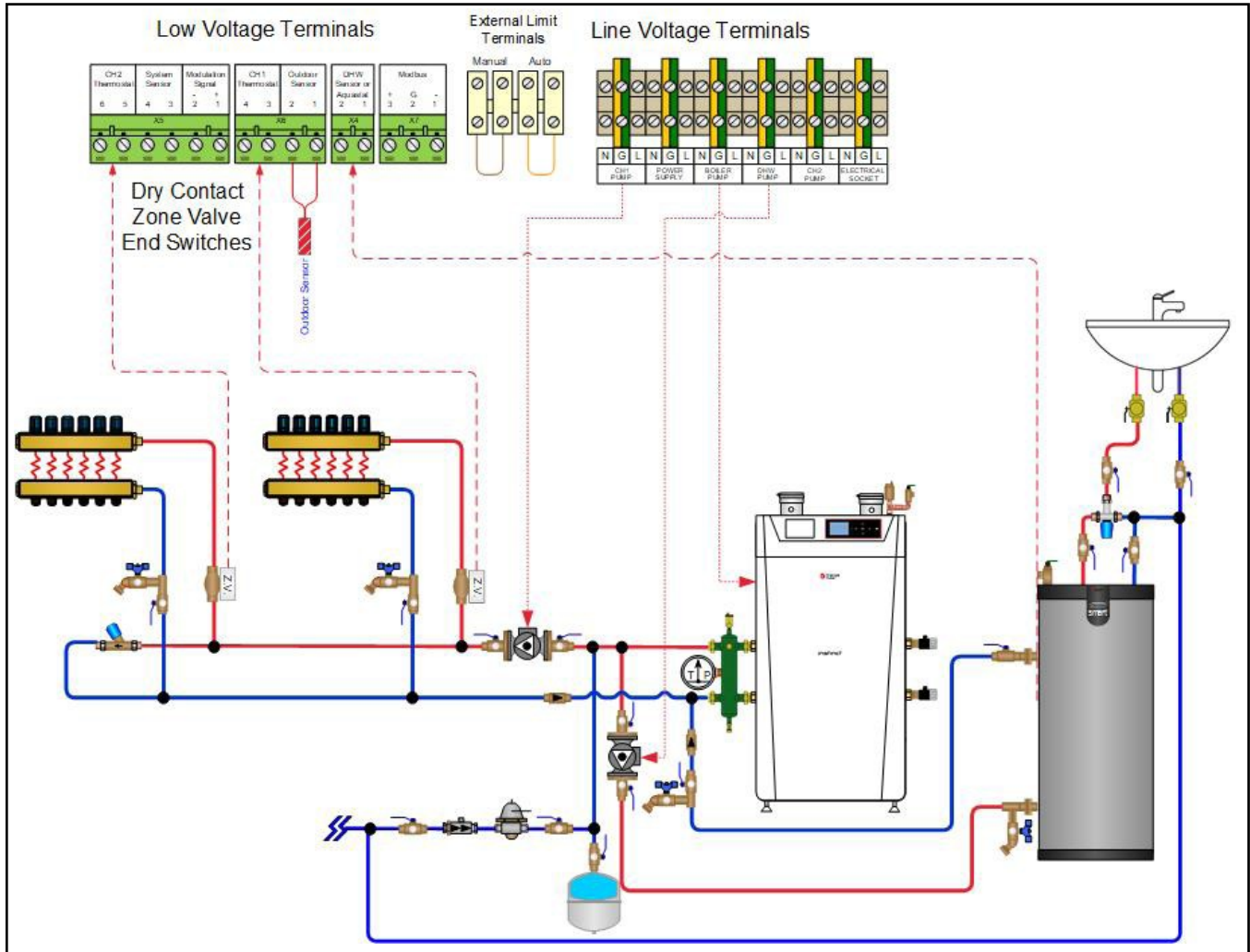


Fig. 20: Instinct Solo - Piping with Zone Valves

NOTICE

Piping layout is shown with a Hydraulic Separator. Closely spaced tees and an air separator can be used as shown in Fig. 17 on page 7.

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Instinct 1 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 |

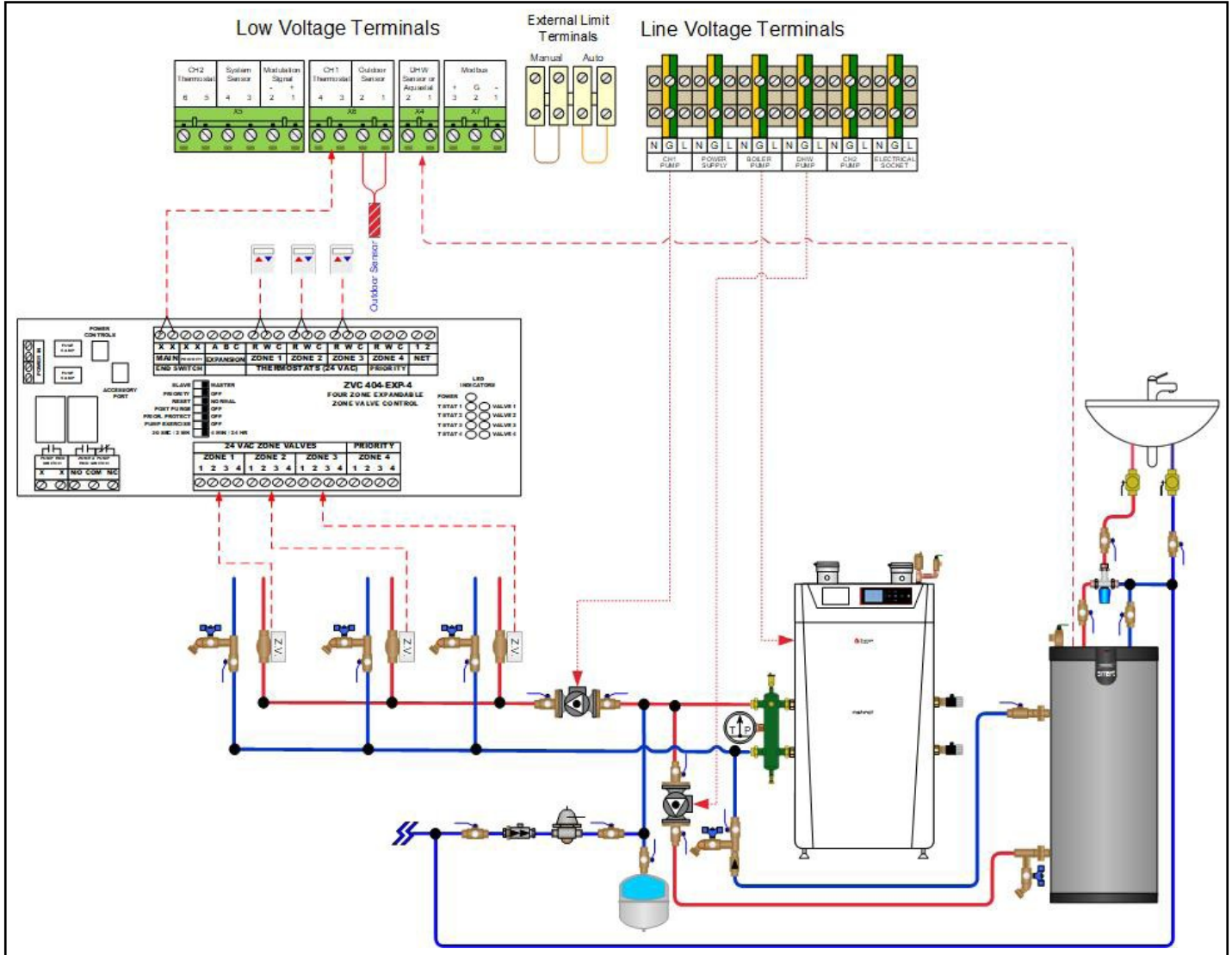


Fig. 21: Instinct Solo - Piping with Zone Valves and Zone Valve Control Panel

NOTICE

Piping layout is shown with a Hydraulic Separator. Closely spaced tees and an air separator can be used as shown in Fig. 17 on page 7.

Instinct 1 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 |

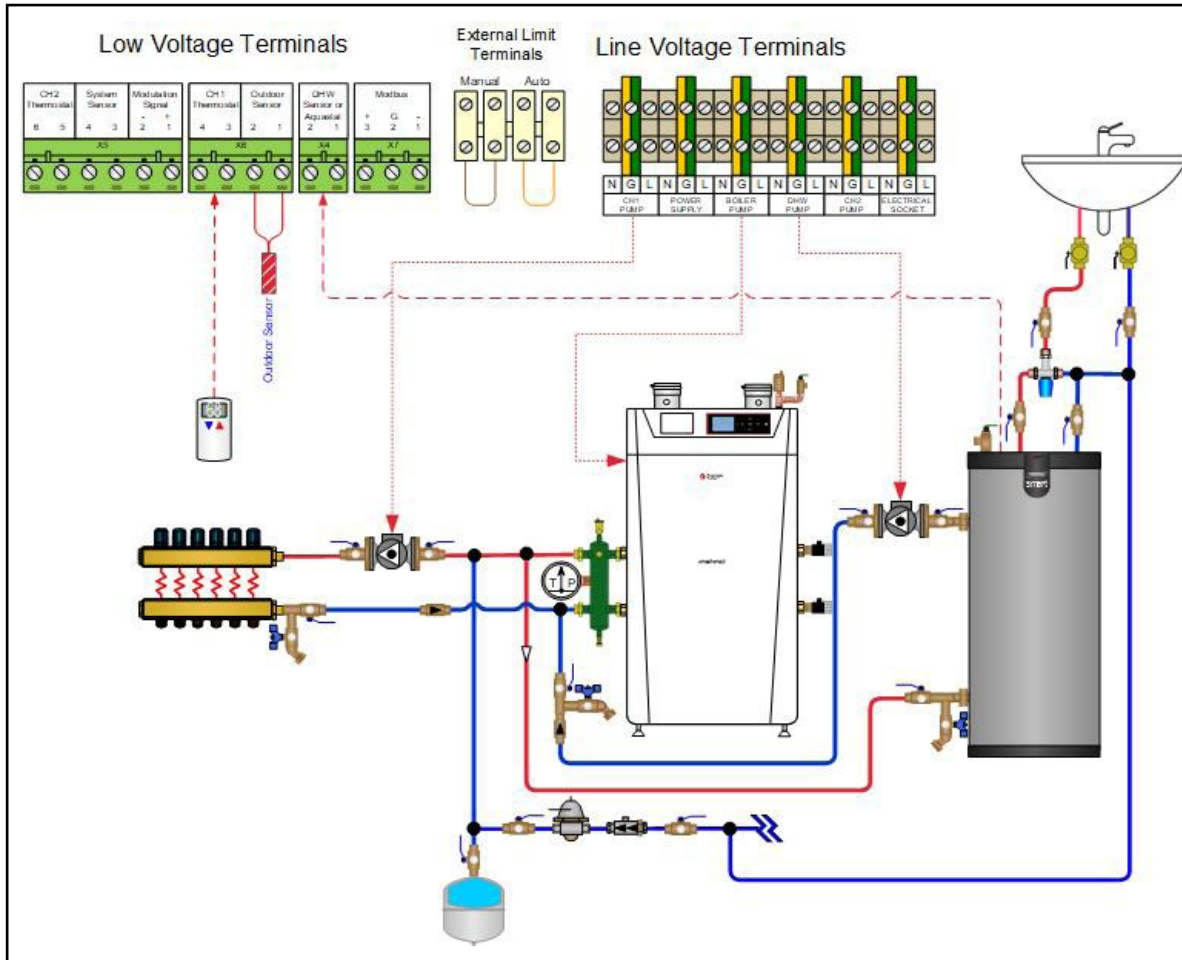


Fig. 22: Instinct Solo - Single Zone with Circulator

NOTICE

Piping layout is shown with a Hydraulic Separator. Closely spaced tees and an air separator can be used as shown in Fig. 17 on page 7.

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

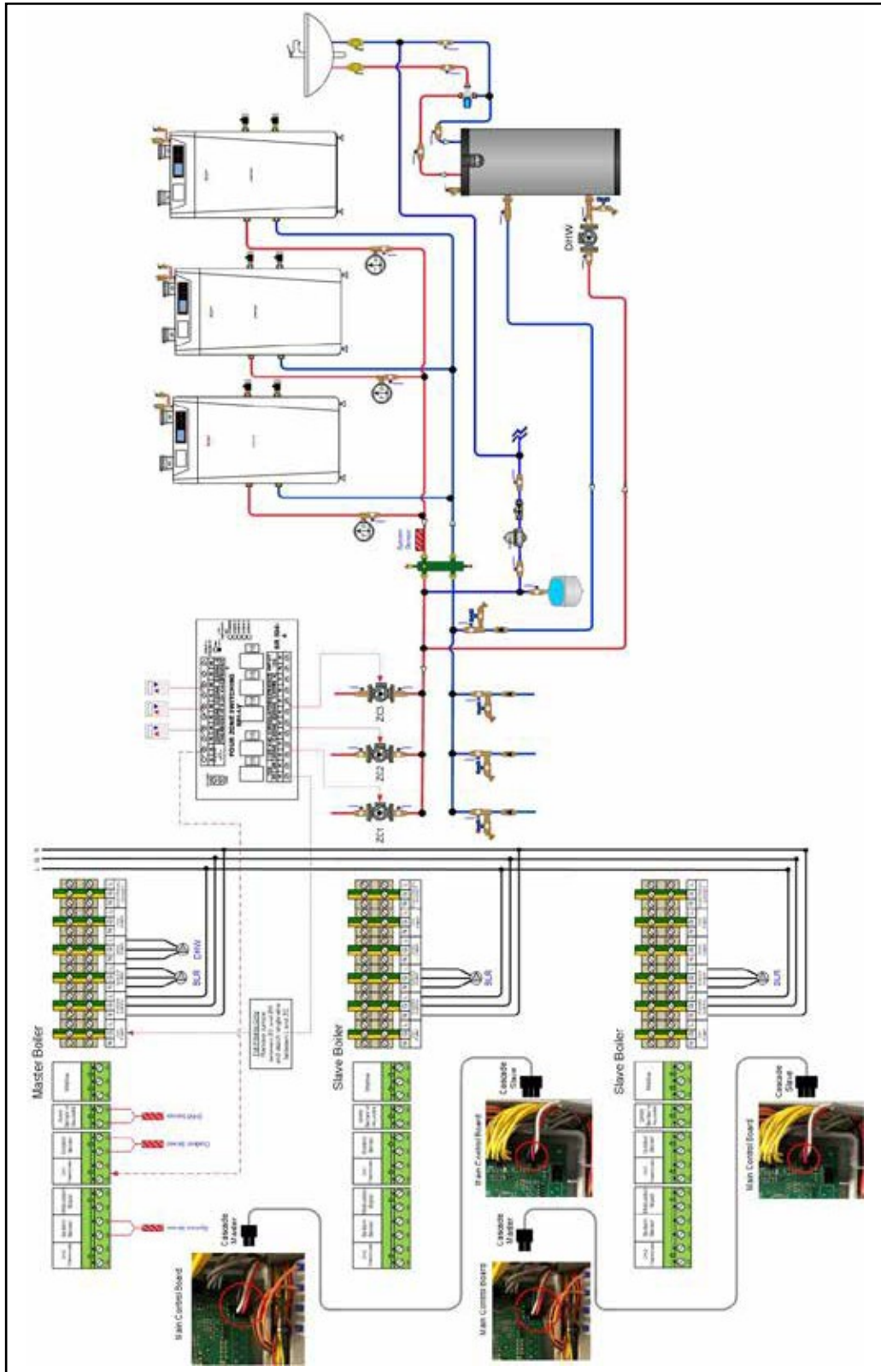


Fig. 23: Instinct Solo - Cascade Layout

Instinct 1 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 |

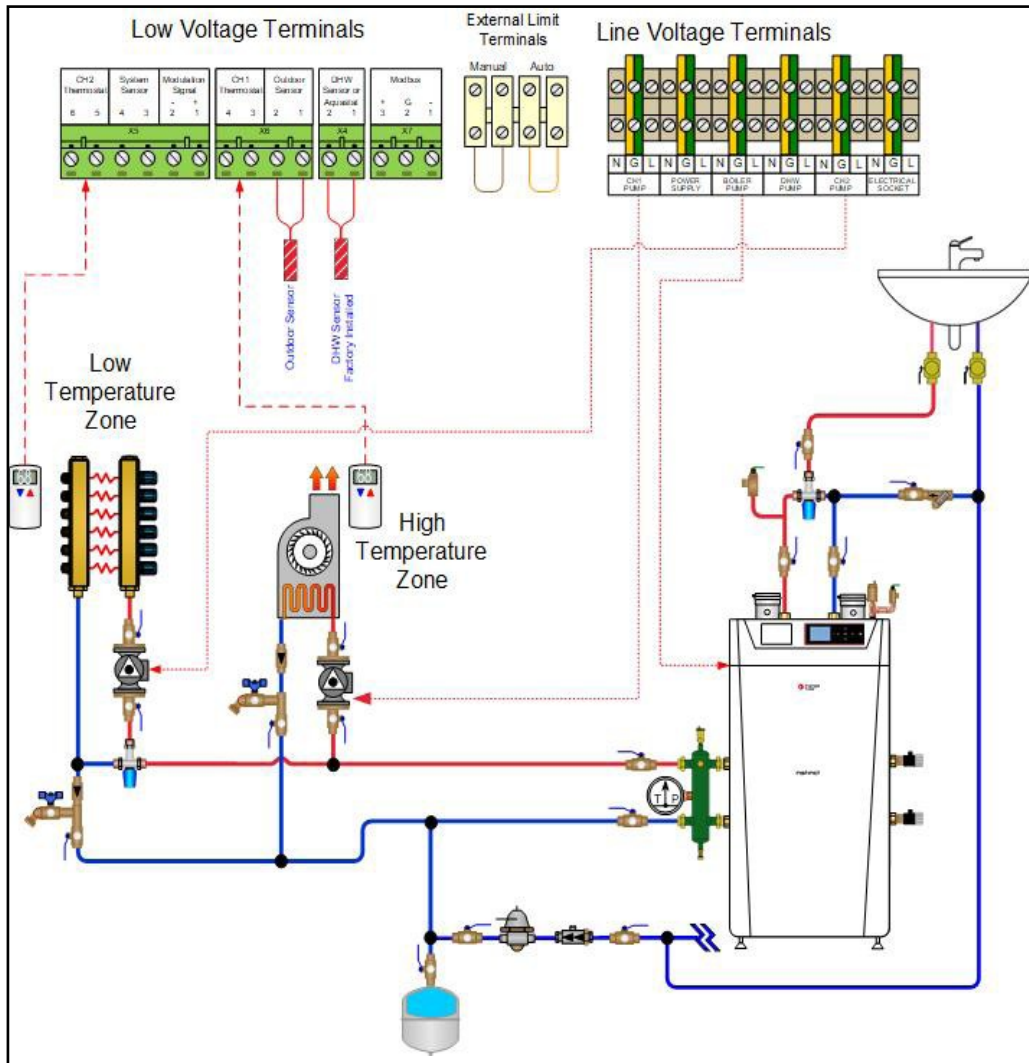


Fig. 25: Instinct Combi - Multiple Temperature Zones with Circulators

NOTICE

Piping layout is shown with a Hydraulic Separator. The Timesaver manifold (INSRKIT84) and air separator can be used as shown in Fig. 24 on page 14.

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

Instinct 1 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 |

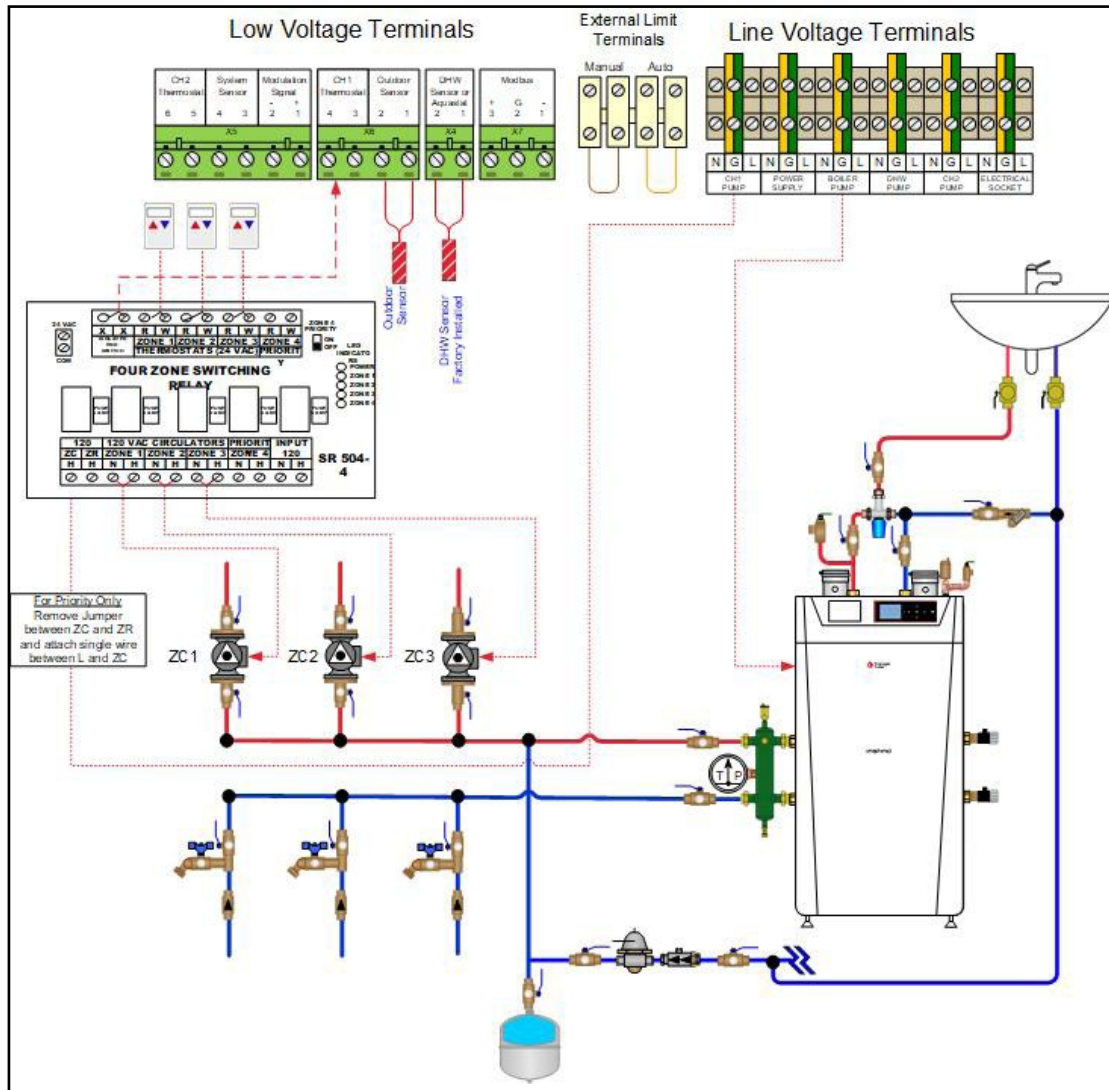


Fig. 26: Instinct Combi - Multiple Zones with Circulators

NOTICE

Piping layout is shown with a Hydraulic Separator. The Timesaver manifold (INSRKIT84) and air separator can be used as shown in Fig. 24 on page 14.

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

Instinct 1 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 |

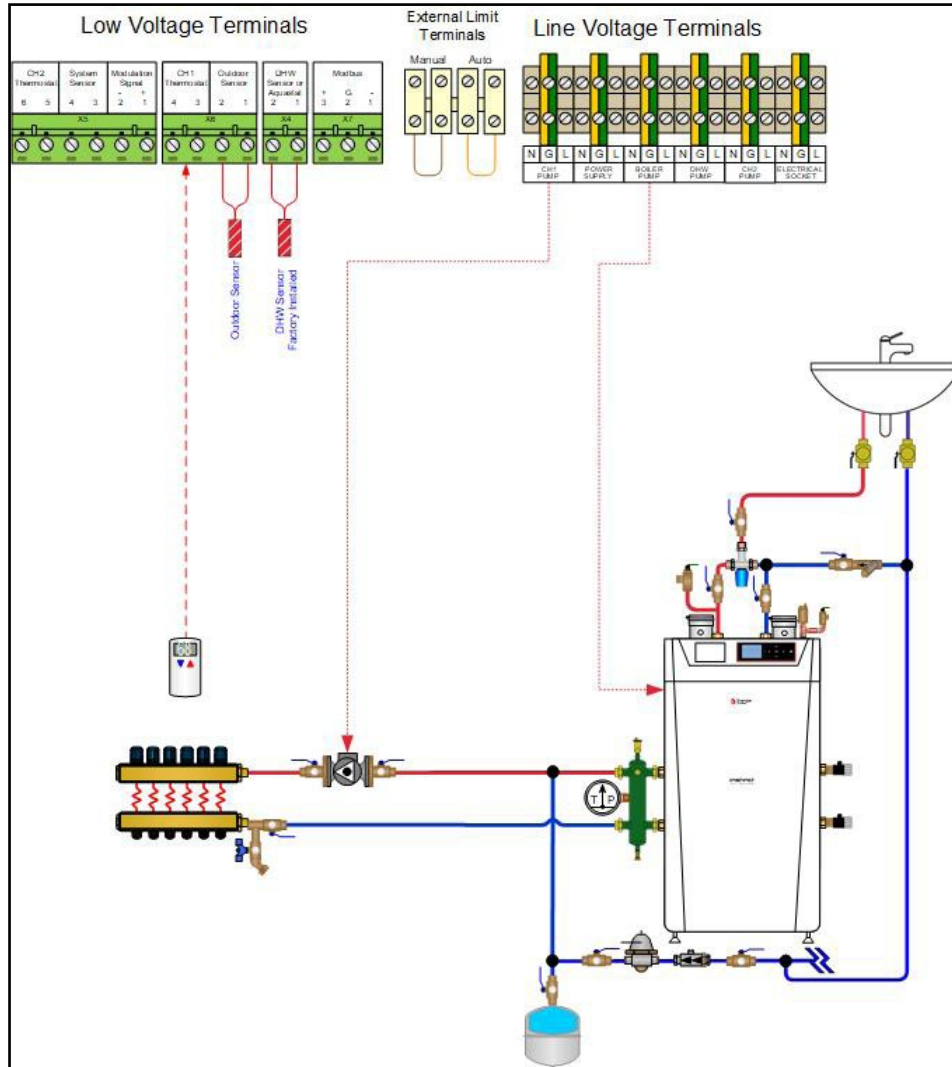


Fig. 27: Instinct Combi - Single Zones with Circulator

NOTICE

Piping layout is shown with a Hydraulic Separator. The Timesaver manifold (INSRKIT84) and air separator can be used as shown in Fig. 24 on page 14.

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

Instinct 2 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 |

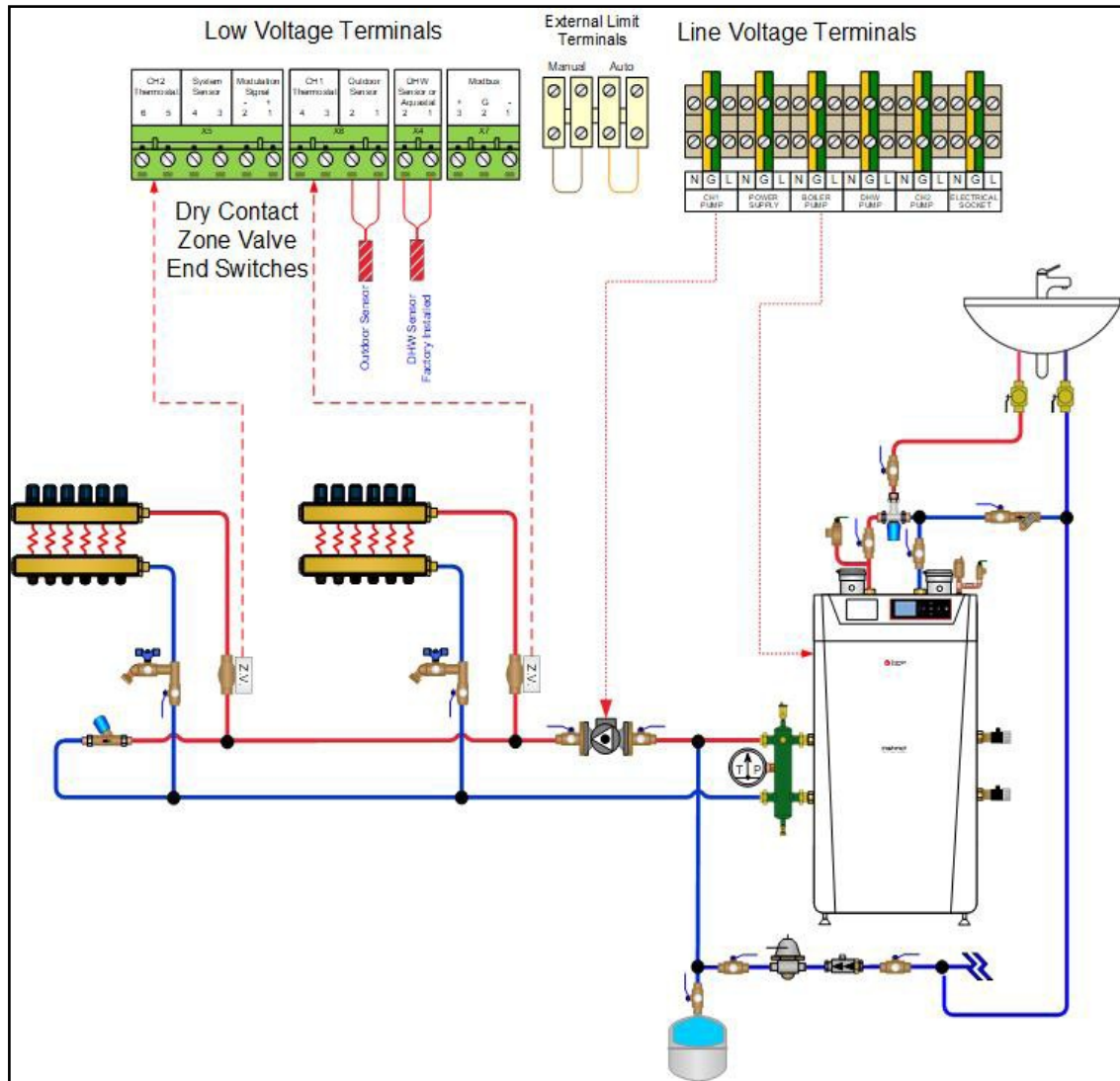


Fig. 28: Instinct Combi - Multiple Zones with Zone Valves

NOTICE

Piping layout is shown with a Hydraulic Separator. The Timesaver manifold (INSRKIT84) and air separator can be used as shown in Fig. 24 on page 14.

Instinct 1 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 |

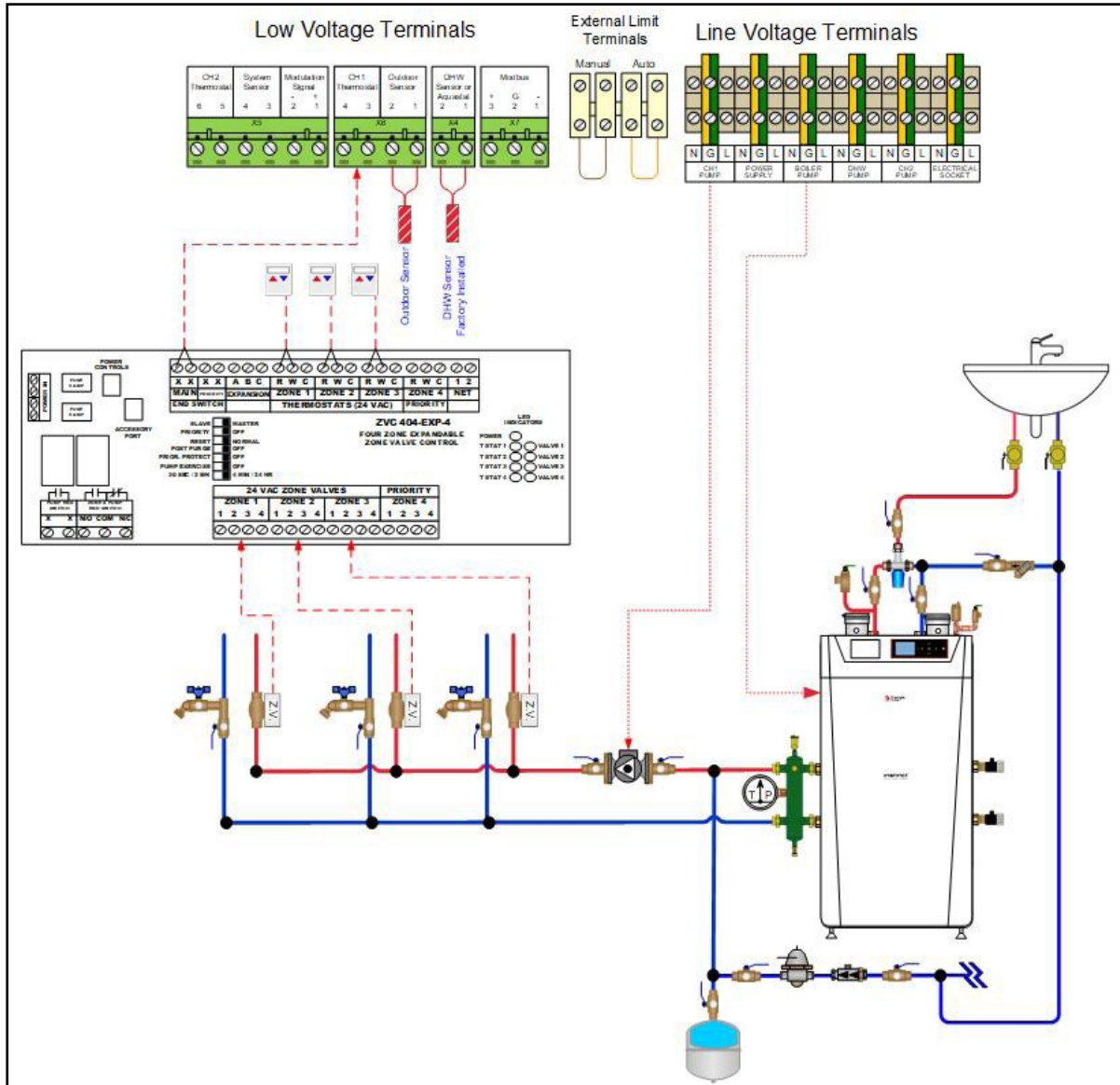


Fig. 29: Instinct Combi - Multiple Zones with Zone Valves and Zone Valve Control Panel

NOTICE

Piping layout is shown with a Hydraulic Separator. The Timesaver manifold (INSRKIT84) and air separator can be used as shown in Fig. 24 on page 14.



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