

SUPERSEDES: NEW

EFFECTIVE:10/11/24

Plant ID No. 9300-4101

OVERVIEW:

The “ZVC40X-5” refers to a model number where “X” represents the number of control zones. Model number “ZVC406-5” is used for reference in this document. The ZVC506-5 is a six zone switching relay that can have up to 6 thermostats connected and will operate up to 6 zone circulators, plus 2 auxiliary outputs (AUX) to control circulators in boiler and primary loops, for example.

The ZVC406-5 has a priority zone option, allowing zone 1 to operate and deactivate zones 2 through 6 during a priority call; this is ideal when using an indirect water heater.



The ZVC406-5 includes timing options for Post Purge, Pump Exercise and Priority Protection. The ZVC406-R-5 also includes an energy saving program that can adjust the temperature of a modulating-condensing boiler or conventional On/Off boiler to increase the comfort level and use less fuel, without the need to install an outdoor sensor. It also supports Outdoor Reset (Weather Compensation) when separately purchased outdoor sensor is connected (or separately purchased Plug-In Reset Control for standard ZVC406 model).

For information on the Taco Zone Valve Controls (ZVCs) including catalog, instruction sheets, submittal data sheets, and our highly praised Zone Controls Wiring Guide, scan the QR code below or visit www.TacoComfort.com.



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1. WARNINGS & SAFETY INFORMATION:

FCC Regulatory Statements

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the Federal Communication Commission (FCC) rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment causes harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by doing one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE: THE GRANTEE IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

RF Exposure Warning

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm during normal operation and must not be co-located or operating in conjunction with any other antenna or transmitter.

ISED Regulatory Statements

This device complies with ISED Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme avec ISED Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CAN ICES-3 (B)/NMB-3(B)

RF Exposure Information

This equipment complies with ISED RSS-102 radiation exposure limits set forth for an uncontrolled environment. This transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme avec ISED RSS-102 des limites d'exposition aux rayonnements définies pour un environnement non contrôlé. Cet émetteur doit être installé à au moins 20 cm de toute personne et ne doit pas être colocalisé ou fonctionner en association avec une autre antenne ou émetteur.

WARNING: Wiring connections must be made in accordance with all applicable electrical codes. Use copper wire only. 120 VAC wiring must have a minimum temperature rating of 90°C. Failure to follow these instructions can result in personal injury or death and/or property damage. 12-18 gauge wire recommended for 120 VAC connections, 14-22 gauge wire for thermostat connections, and 14-22 gauge wire for 24 VAC source connections. All 24 VAC field wiring terminations require SELV/Class 2 rated wire.

WARNING: Spare fuses consist of different amp ratings (1) 3AMP and (1) 6AMP. Be sure to replace a blown fuse with the correct fuse rating.

2. LOCATION & INSTALLATION:

Planning:

Included in Package:

ZVC40X-5 zone valve control

Quick Start Guide

2 Spare fuses attached to inner cover

ZVC40X-R-5 zone valve control also includes; Strap-on temperature sensor

Tools & Material Needed:

Small straight blade screwdriver

Screws or hardware for mounting

Phillips screwdriver

Electrical connectors for field wiring

Torpedo level

Low and live voltage wiring (per code)

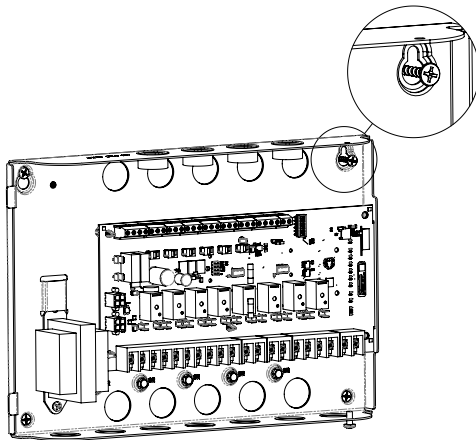
Wire strippers

Location:

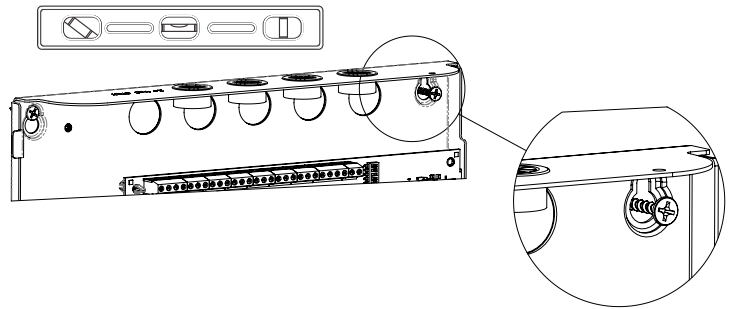
For indoor installation only. Do not mount to a surface that exceeds 104°F (40°C). The unit must be located in dry interior locations. Use only copper conductor supply wire suitable for at least 90° C. All circuits must have a common disconnect and be connected to the same pole of the disconnect. Product is not suitable for installation in hazardous locations.

Installation:

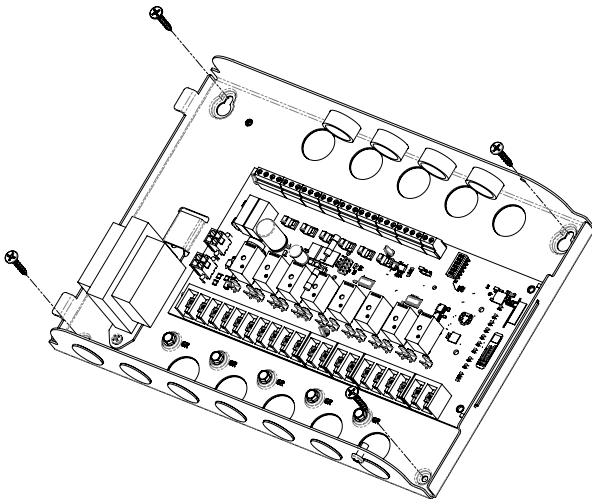
1. Hang the panel on a wall with one mounting screw.



2. Level the panel.



3. Install other 3 mounting screws.



3. OPERATION & DIP SWITCH SETTINGS:

General Operation: When any thermostat calls for heat, the appropriate zone valve is energized, and the yellow light goes on. When the zone valve is fully open, the red light goes on and energizes the boiler end switch relay and AUX circulator relay(s) (subject to dip switch settings).

Expansion Connections (Modbus): Set DIP switch (#1) to MASTER on the switching relay that is designated as the priority zone control. Set all other daisy chained zone controls to EXPANSION. Using thermostat wire (18-22 gauge) connect between terminals A, B, GND on the master control to the corresponding A, B, GND on the expansion zone control(s). Zone controls may be daisy chained up to 20 Taco zoning panels using any combination of SR and ZVC controls (120 zones if all are 6 zone panels).

	OFF	ON
1	MASTER	ON- EXPANSION
2	OFF	ON- ZONE 1 PRIORITY
3	OFF	ON- PRIMARY PUMP / AUX2
4	OFF	ON- POST PURGE
5	OFF	ON- PUMP EXERCISE
6	OFF	ON- TIME DELAY 2-W ZV

Modbus is an open protocol method used for transmitting information back and forth over serial lines between Zone Control equipment. This will allow for future expansion to the zone control portfolio and with other participating OEM's equipment.

Priority Operation: When the priority DIP switch (#2) is set to ON and the priority zone (zone 1) is actuated, all other zones will stop operation until priority zone is satisfied. When not switched to priority, all zones will operate independently. More adjustments are available when using the Taco Control mobile app.

Priority Protection Operation: If the priority zone calls continuously for more than one hour, power is returned to all the other zones, allowing each zone to function independently. Once the priority zone is satisfied, the control's auto-reset is activated, and the priority zone is again allowed to have priority for up to one hour starting from when it calls next.

Primary Pump Operation: When the DIP switch (#3) is set to OFF, the AUX PUMP 2 circulating pump output will energize when any zone calls for heat, except the priority zone. When the DIP switch is set to ON, the AUX PUMP 2 circulating pump output will energize when any zone calls for heat.

Post Purge Operation: When the DIP switch (#4) is set to ON, the AUX PUMP 3 (priority zone) circulating pump output will stay energized for 2 minutes after any zone thermostat or aquastat is satisfied, but not operate the boiler. More adjustments are available when using the Taco Control mobile app. Note: Post purge is only supported on controls designated as MASTER. Post purge is not supported on expansion controls.

Pump Exercise Operation: When the DIP switch (#5) is set to ON, the solid state timer cycles all the AUX circulating pump outputs that are attached to the Zone Valve Control to run for 30 seconds every 2 weeks. More adjustments are available when using the Taco Control mobile app. When using multiple Zone Valve Controls **only** the master control DIP switch (#5) should be set to ON.

Time Delay for Zone Valves without End Switches: When the DIP switch (#6) is set to ON, the boiler end switch relay(s) and AUX PUMP 1, AUX PUMP 2 and AUX PUMP 3 circulating pump outputs are delayed operating by 1 minute. When DIP switch (#6) is set to OFF, then either zone valve with an end switch or jumper between terminals 3 and 4 of zone output is required. More adjustments are available when using the Taco Control mobile app.

AUX PUMP 1; DHW Recirc or System Circulator Output: The AUX PUMP 1 output is energized when any zone calls for heat and zone valve end switch is closed. When a DHW supply sensor is connected to Sensor Input terminals, then AUX PUMP 1 will energize a DHW recirculation pump using SmartPlus® logic. More adjustments are available when using the Taco Control mobile app.

AUX PUMP 2; Primary Circulator Output: The AUX PUMP 2 output follows DIP switch setting #3 listed above. More adjustments are available when using the Taco Control mobile app.

AUX PUMP 3; Priority Zone Circulator Output: The AUX PUMP 3 output is energized when zone 1 calls for heat and zone valve end switch is closed or zone 1 terminals 3 and 4 are jumpered. More adjustments are available when using the Taco Control mobile app.

SmartPlus Recirc Logic: SmartPlus® adds intelligence to your system by learning when hot water is used in the home. The pipe-mounted sensor records daily hot water usage patterns during the course of the week. Recorded data is used to automatically run the circulator at the same times the following week. So hot water is always available when it is needed. If usage pattern changes, the SmartPlus adjusts automatically.

“Smart” Mode (default mode): The SmartPlus logic will run in Pulse mode as described below for the first 7 days of operation. During the first 7 days, the SmartPlus logic monitors and records the home's hot water usage pattern. For the following 7 days, the SmartPlus logic will use the preceding week's usage pattern to cycle the pump during the recorded hot water usage times. This process of recording and repeating is continuous, and automatically adjusts the pump's “ON” times to match the household's usage pattern.

“Pulse” Mode: When set to Pulse mode, the SmartPlus logic will cycle the circulator pump “ON” for 5 minutes, then “OFF” for 10 minutes to maintain hot water at all faucets and taps. It will repeat the cycle continuously. More adjustments are available when using the Taco Control mobile app.

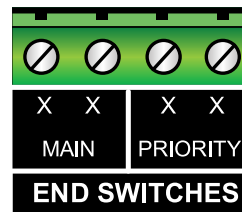
When a DHW supply sensor is connected to the Sensor Input terminals, AUX PUMP 1 output will now be designated for recirculation of DHW loop and activated in “Smart” mode based on DHW usage.

4. WIRING PROCEDURE:

End Switches (Low Voltage Dry Contacts):

Main - The main end switch closes when any zone thermostat calls for heat and connects to T-T on boiler operating control.

Priority - The priority end switch closes only when the priority zone thermostat or aquastat is calling for heat and connects to DHW T-T on boiler (optional).



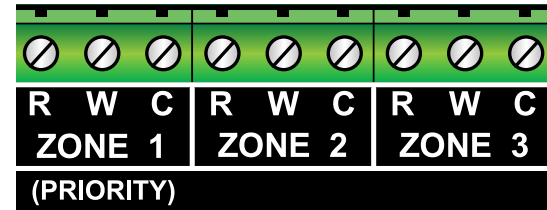
Thermostat Input (24 VAC):

R Hot side of transformer. Connect to **R** on thermostat.

W Switched **R** signal from thermostat. Connect to **W** on thermostat.

C Common side of transformer. Connect to **COM** on thermostat (optional).

Note: Some "Power Stealing" style thermostats may require a resistor between the W & C terminals; a 1000 Ohms 1/2 watt (or larger) have proved to work.



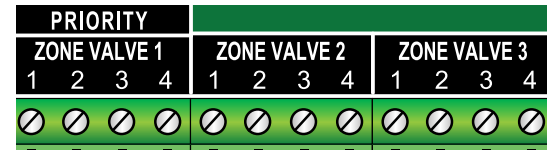
Zone Valve Connections (24 VAC):

1 Connect terminal 1 on ZVC to one of the motor connections on zone valve.

2 Connect terminal 2 on ZVC to the other motor connections on zone valve.

3 Connect terminal 3 on ZVC to one of the end switch connections on zone valve.

4 Connect terminal 4 on ZVC to the other end switch connections on zone valve.



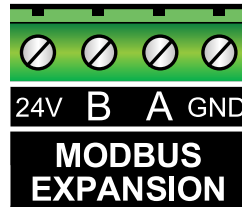
Expansion Connections: (optional)

A Connect A on Master zone control to A on all Expansion zone control(s).

B Connect B on Master zone control to B on all Expansion zone control(s).

G Connect GRD on Master zone control to GRD on all Expansion zone control(s).

24V Future use; no connection required.

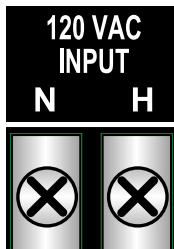


Power Input (120 VAC):

H Connect to 120 VAC Hot side of power supply to zone control.

N Connect to 120 VAC Neutral side of power supply to zone control.

G Connect ground wire to ground screws on base of zone control.

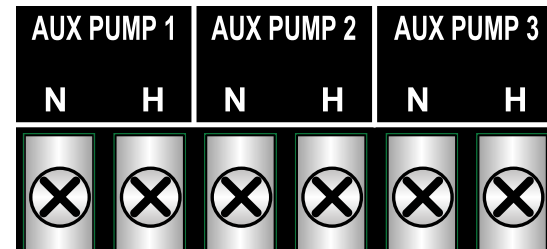


AUX PUMP 1; DHW Recirc or System Circulator Output (120 VAC):

H Connect the Hot output to Hot power input on circulator.

N Connect the Neutral output to Neutral power input on circulator.

G Connect ground wire to ground screws on base of zone control.



AUX PUMP 2; Primary Circulator Output (120 VAC):

H Connect the Hot output to Hot power input on circulator.

N Connect the Neutral output to Neutral power input on circulator.

G Connect ground wire to ground screws on base of zone control.

AUX PUMP 3; Priority Zone Circulator Output (120 VAC):

H Connect the Hot output to Hot power input on circulator.

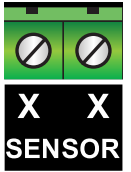
N Connect the Neutral output to Neutral power input on circulator.

G Connect ground wire to ground screws on base of zone control.

DHW Recirculation using SmartPlus Logic

SmartPlus Recirc Logic Sensor

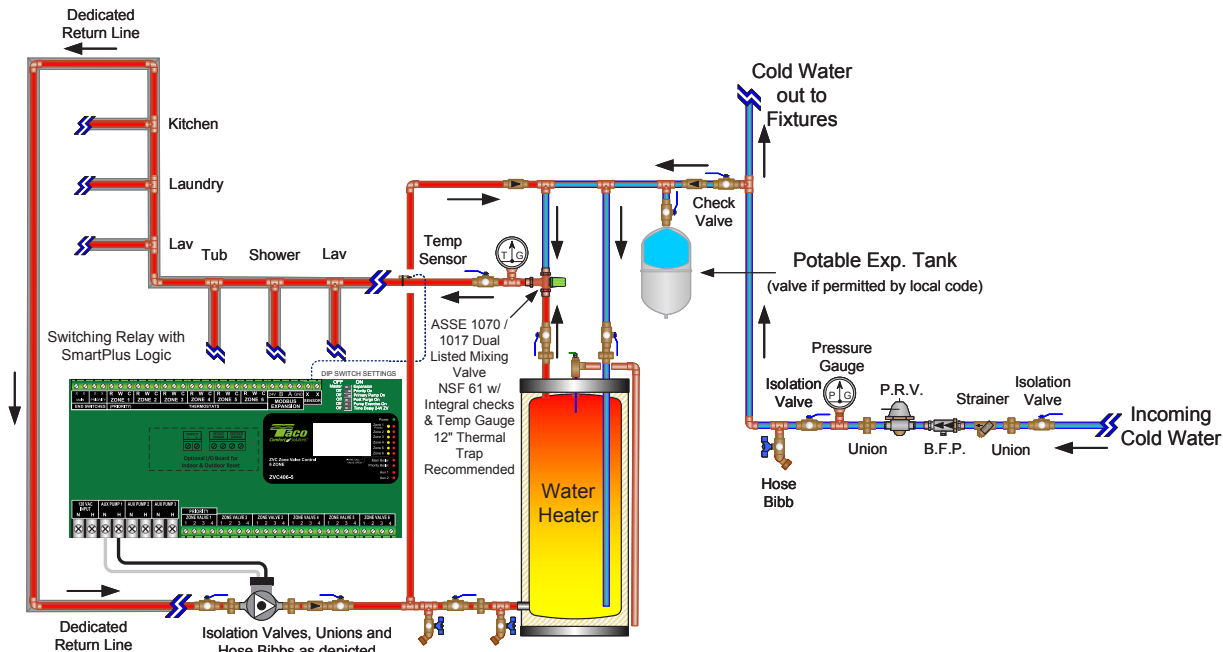
- Mount the strap-on sensor on domestic hot water supply pipe on water heater using wire tie or pipe clamp and insulate sensor with pipe insulation.
- The sensor must be strapped to metal piping. A short piece of copper or brass tube should be added into non metallic systems for sensor attachment. For best performance, the strap on sensor should be installed a minimum of 6 feet away from the DHW output but before the first fixture.
- Connect the strap-on sensor to the two terminals labeled Sensor Input Terminal on zone valve control.



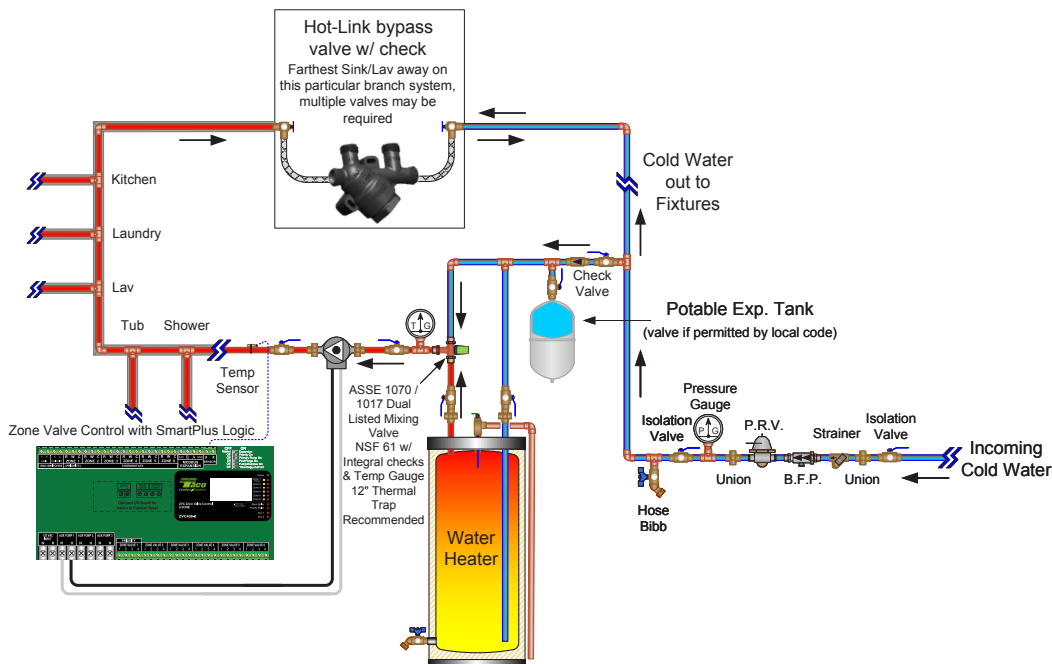
SmartPlus Recirc Pump Power

- Wire Hot and Neutral from Recirc Pump to Hot and Neutral of AUX PUMP 1 output.

Dedicated Return Line Piping Diagram



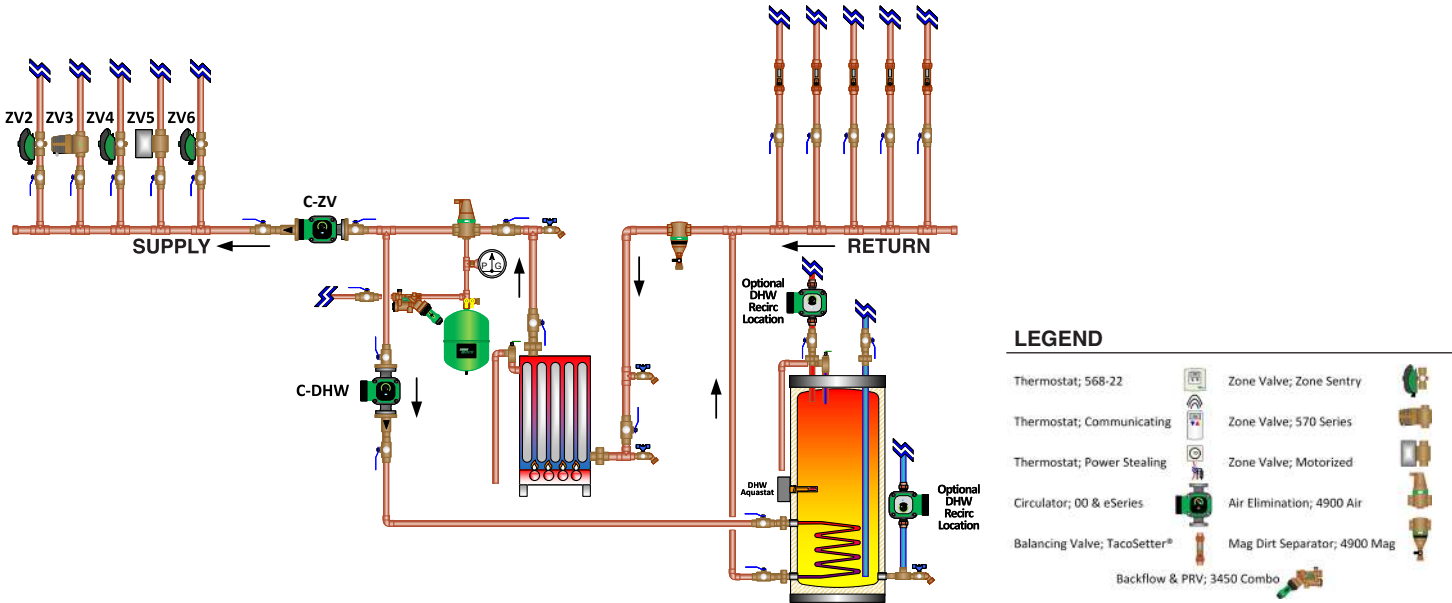
Hot-Link® Valve or Crossover Style Valve Piping Diagram



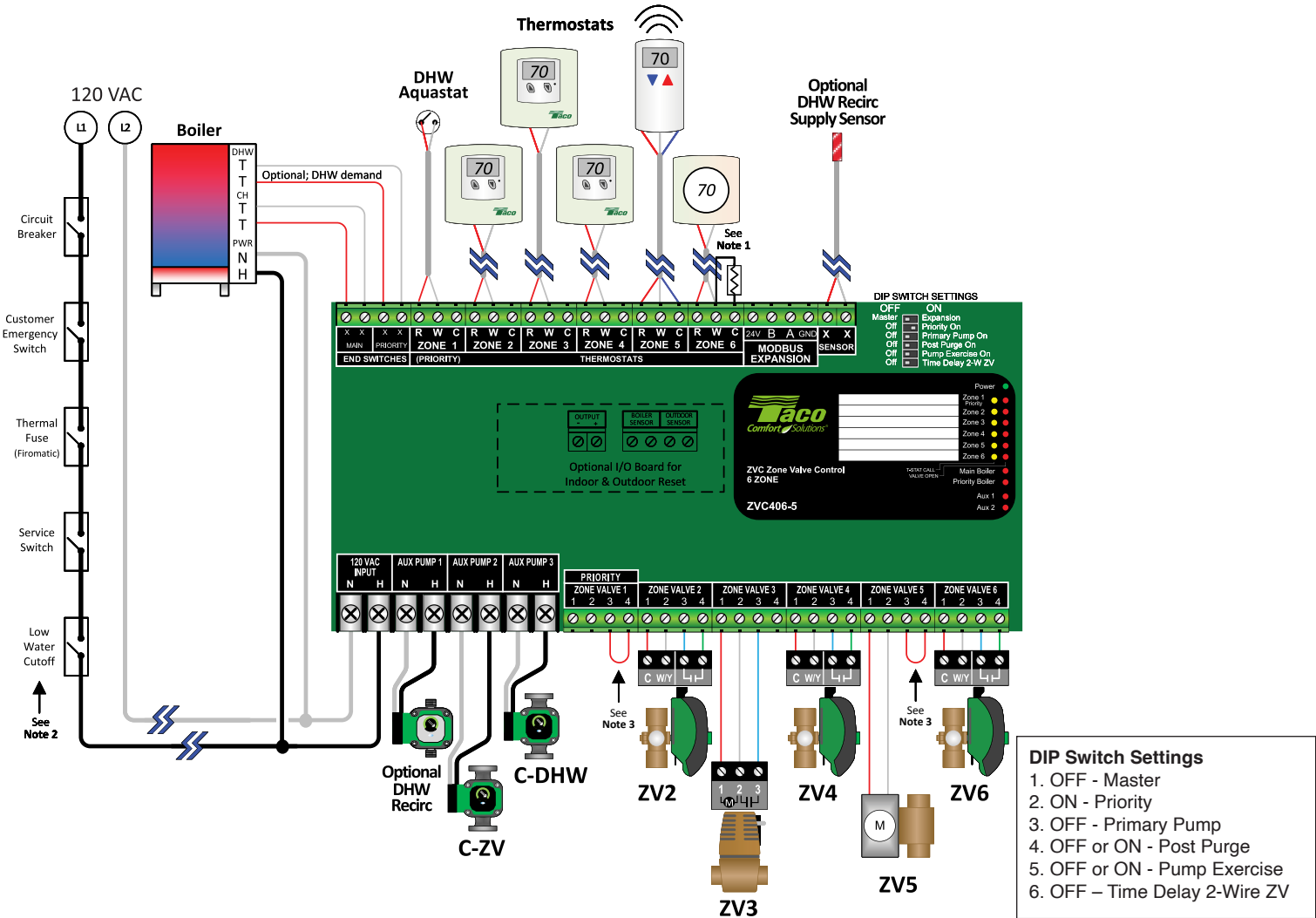
5. PRODUCT & APPLICATIONS DIAGRAMS:

PA01V – ZVC406-5 with 5 Zone Valves & Indirect DHW; Supply & Return Headers

Mechanical Diagram



Electrical Diagram



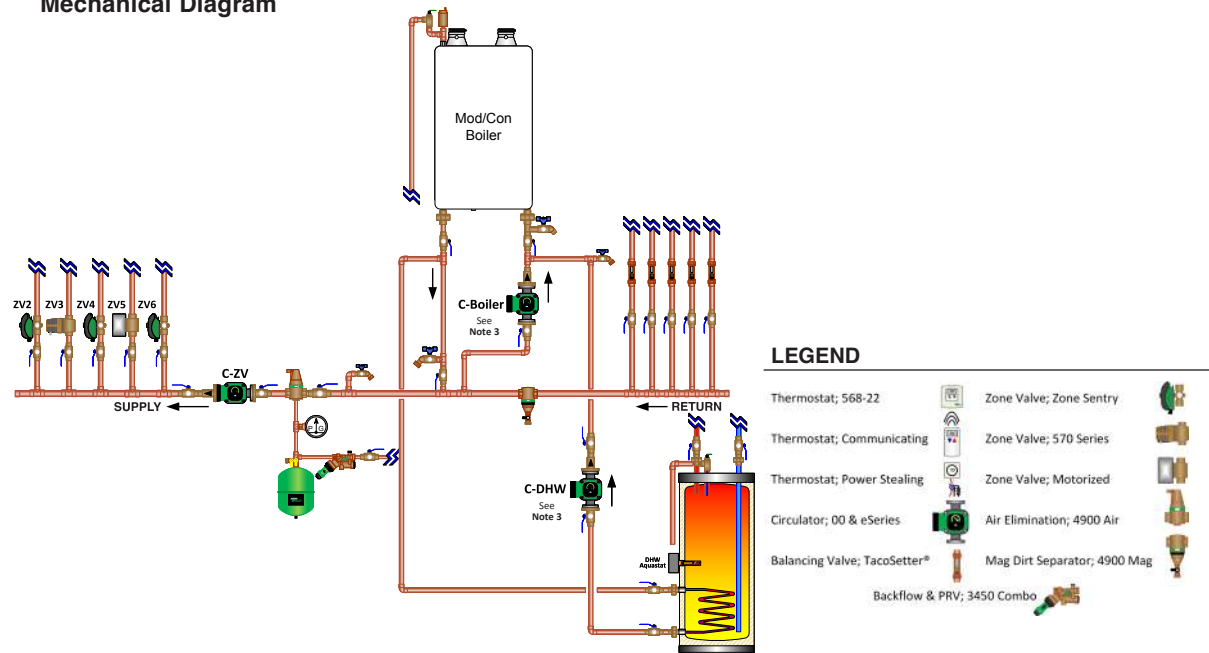
Note 1: Some "Power Stealing" style thermostats may require a resistor between the W & C terminals; a 1000 Ohms 1/2 watt (or larger) have proved to work.

Note 2: Ensure load of zone control, circulator(s) & boiler do not exceed LWCO rating.

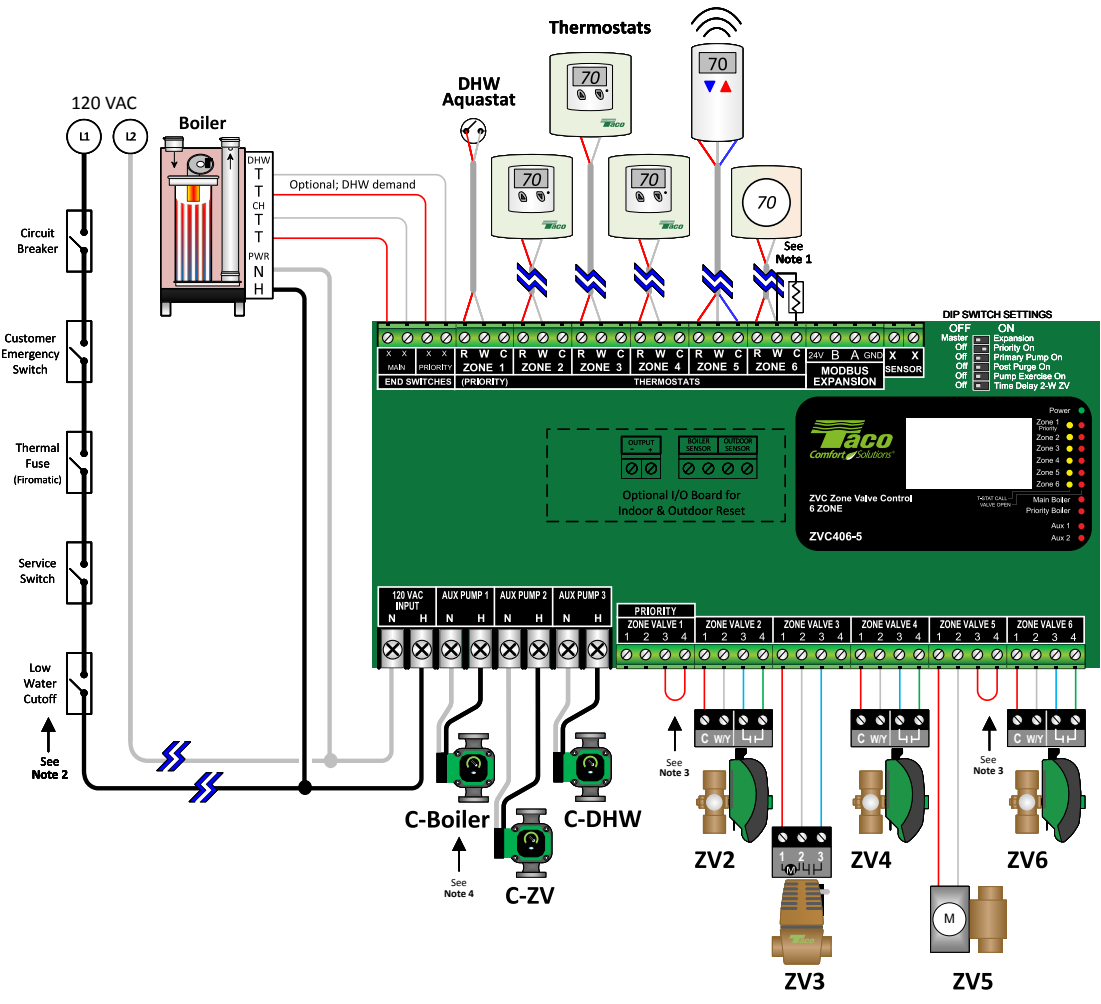
Note 3: If a 2 wire zone valve or no zone valve is used on individual zones then jumper 3 and 4 of that zone in order for the control outputs to activate.

Conceptual Sketches Only, refer to individual manufacturer's installation instructions for additional details. Local codes shall prevail.

Mechanical Diagram



Electrical Diagram

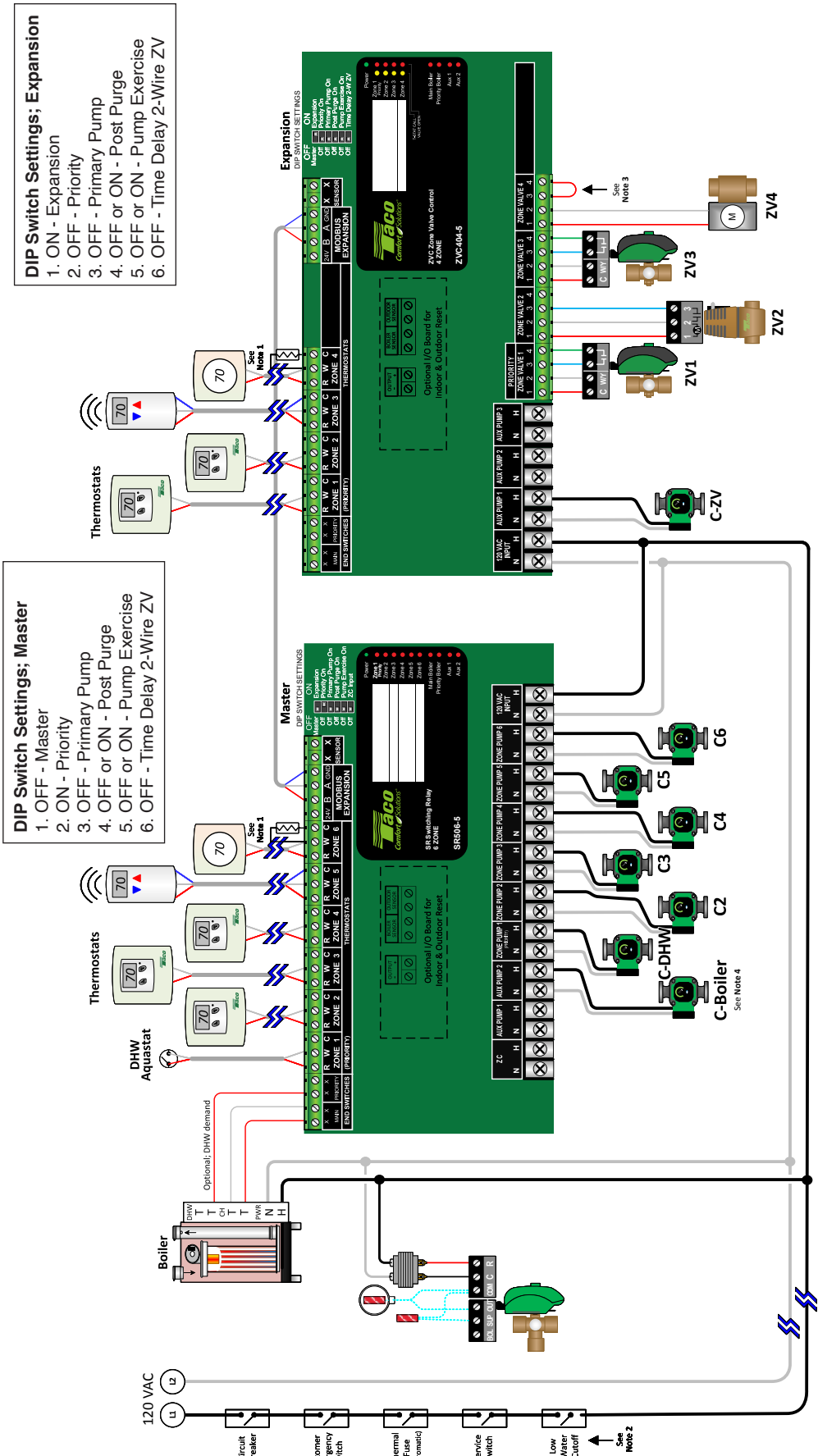


Note 1: Some "Power Stealing" style thermostats may require a resistor between the W & C terminals; a 1000 Ohms 1/2 watt (or larger) have proved to work.
Note 2: Ensure load of zone control, circulator(s) & boiler do not exceed LWCO rating.
Note 3: If a 2 wire zone valve or no zone valve is used on individual zones then jumper 3 and 4 of that zone in order for the control outputs to activate.
Note 4: Follow boiler manufactures recommendations on powering of boiler loop circulator. Some boilers require this circulator to be wired to the boiler operating control.

8 Conceptual Sketches Only, refer to individual manufacturer's installation instructions for additional details. Local codes shall prevail.

PA03V – High & Low Temperature Zones + Indirect DHW; Primary/Secondary

Electrical Diagram



Note 1: Some "Power Stealing" style thermostats may require a resistor between the W & C terminals; a 1000 Ohms 1/2 watt (or larger) have proved to work.

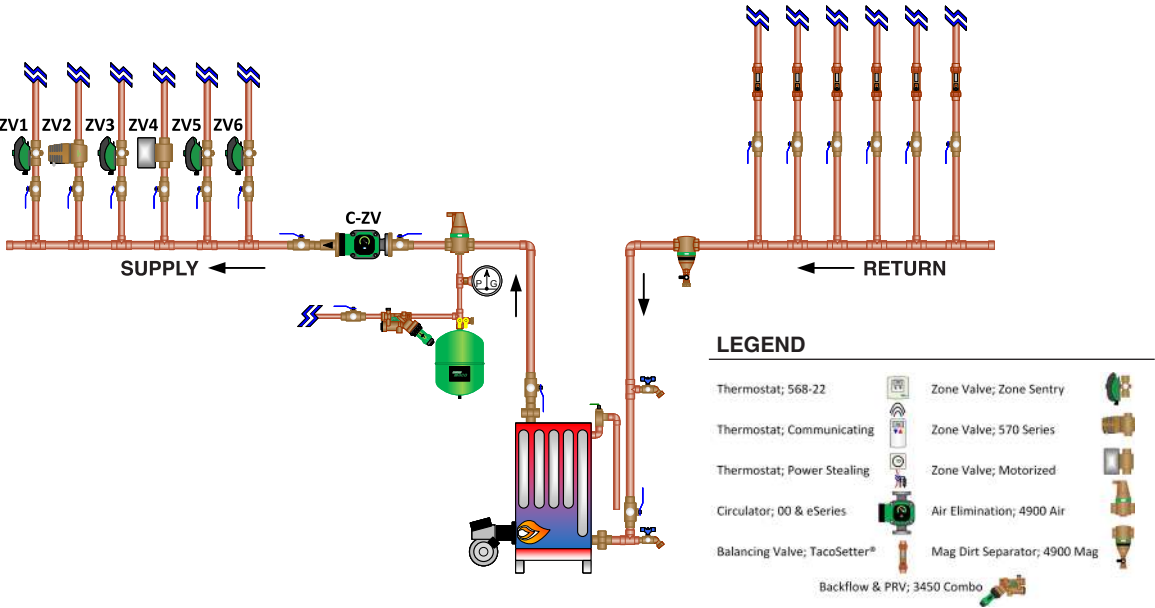
Note 2: Ensure load of zone control, circulator(s) & boiler do not exceed LWCO rating.

Note 3: If a 2 wire zone valve or no zone valve is used on individual zones then jumper 3 and 4 of that zone in order for the control outputs to activate.

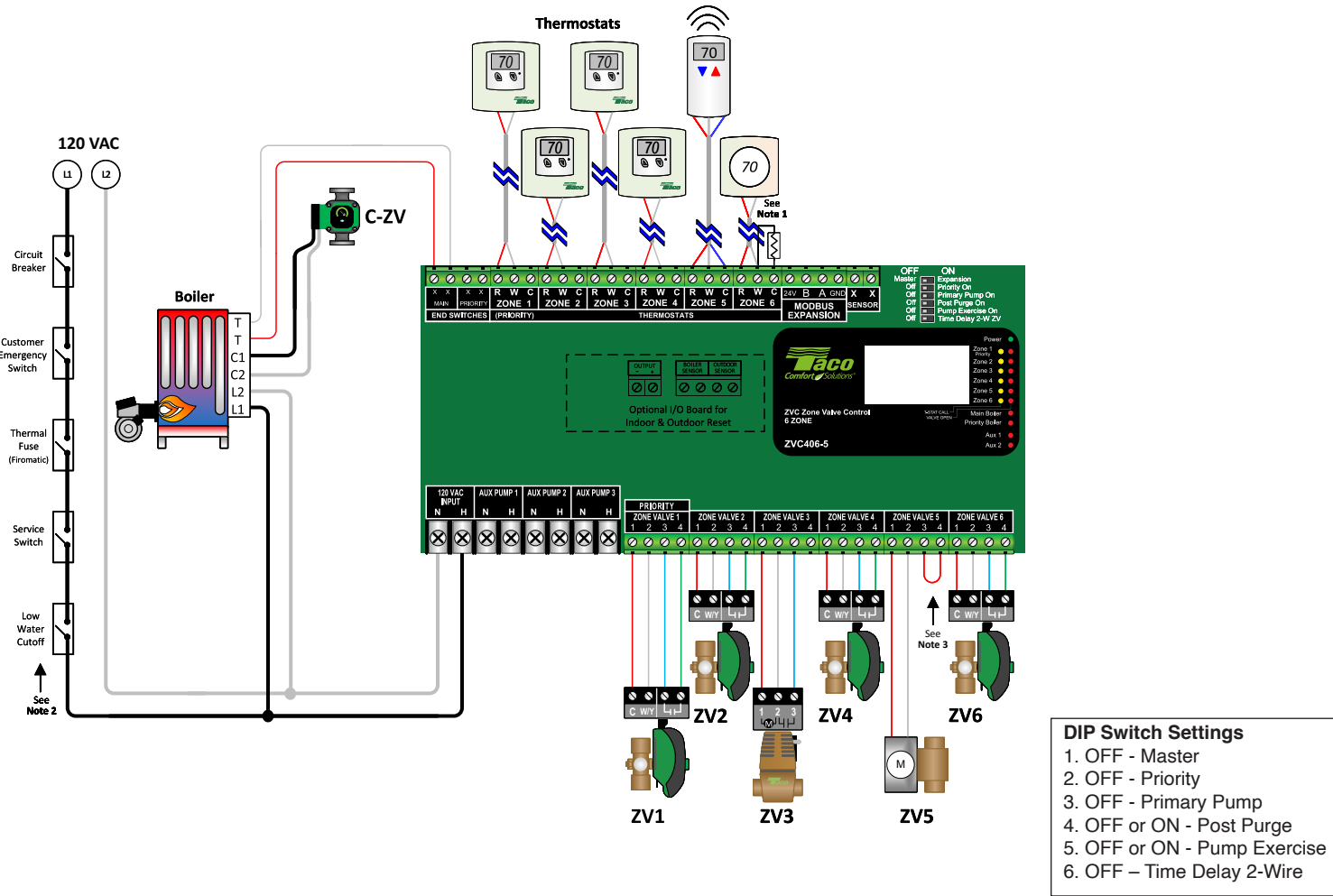
Note 4: Follow boiler manufactures recommendations on powering of boiler loop circulator. Some boilers require this circulator to be wired to the boiler operating control. Conceptual Sketches Only, refer to individual manufacturer's installation instructions for additional details. Local codes shall prevail.

PA04V – Boiler with Tankless Coil; Supply & Return Headers

Mechanical Diagram



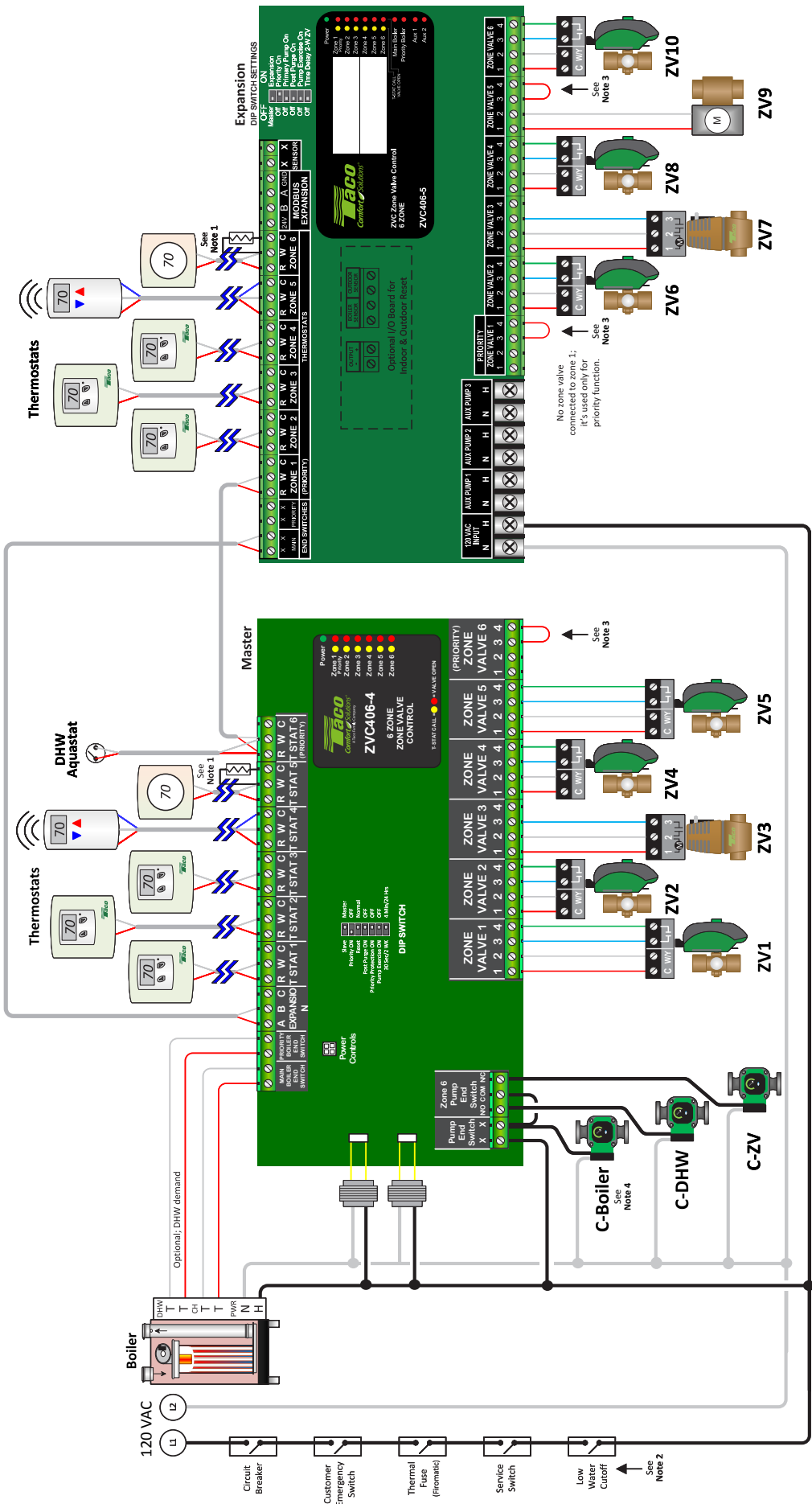
Electrical Diagram



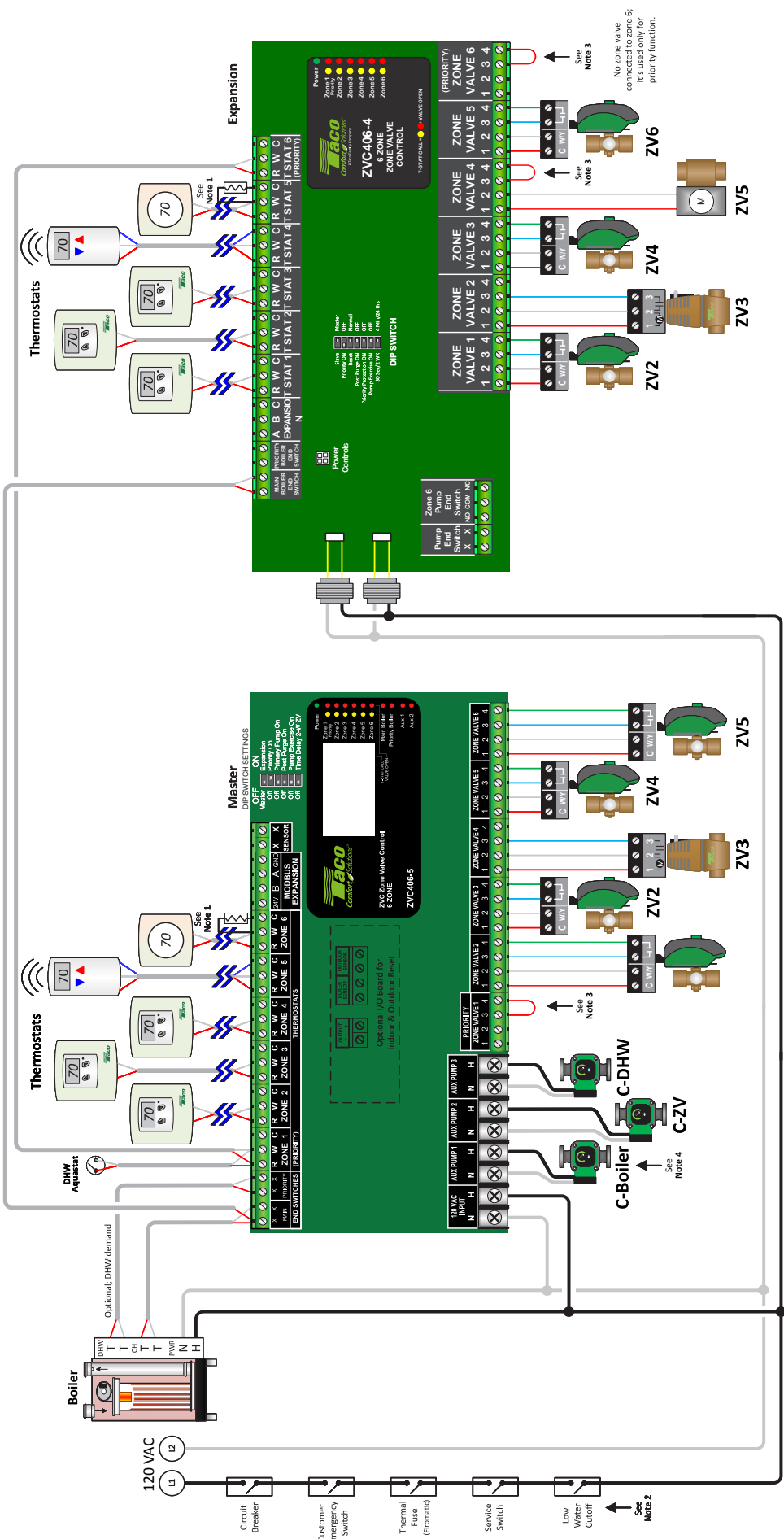
Note 1: Some "Power Stealing" style thermostats may require a resistor between the W & C terminals; a 1000 Ohms 1/2 watt (or larger) have proved to work.
Note 2: Ensure load of zone control, circulator(s) & boiler do not exceed LWCO rating.
Note 3: If a 2 wire zone valve or no zone valve is used on individual zones then jumper 3 and 4 of that zone in order for the control outputs to activate.

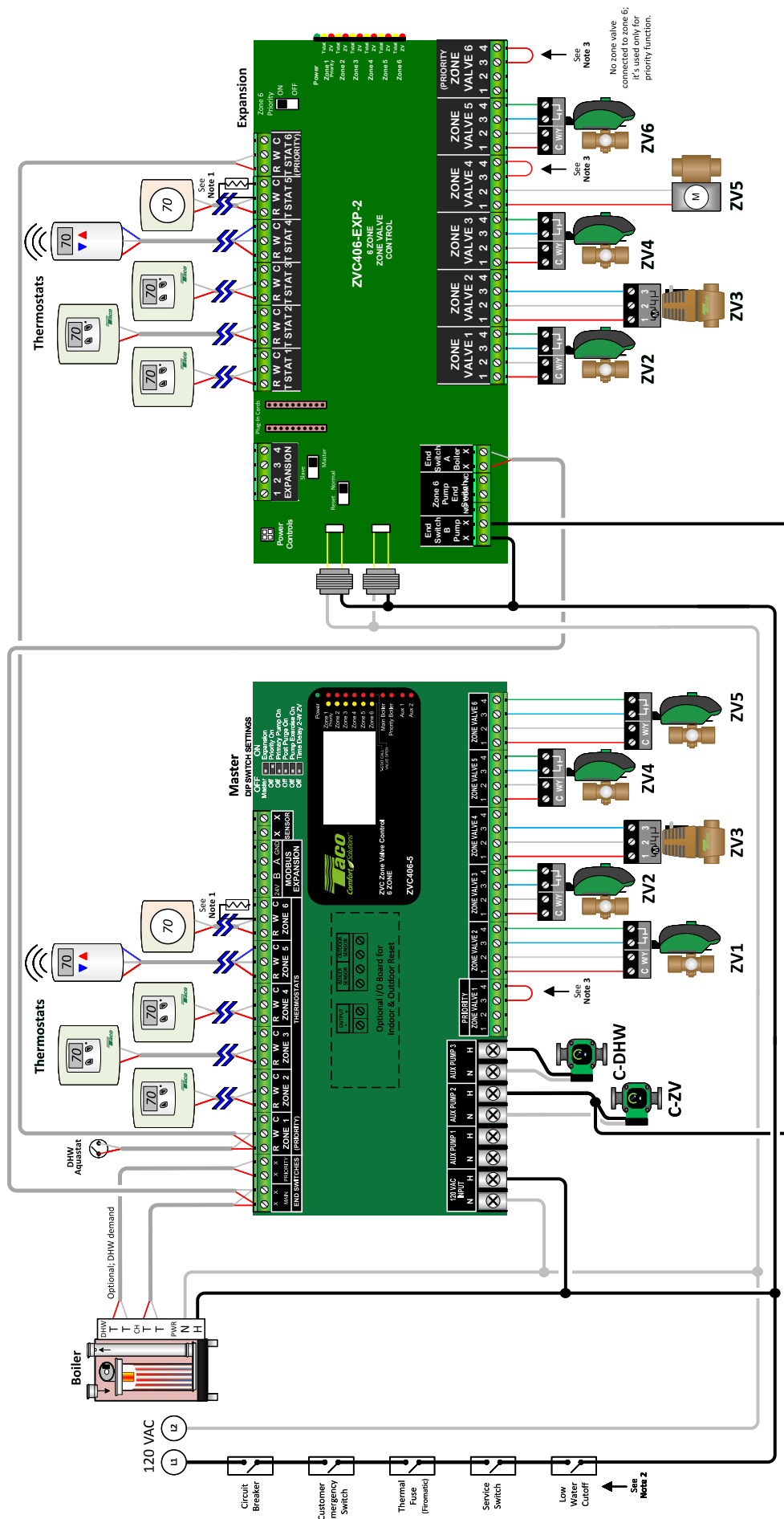
10 Conceptual Sketches Only, refer to individual manufacturer's installation instructions for additional details. Local codes shall prevail.

Electrical Diagram



Electrical Diagram





Note 1: Some "Power Stealing" style thermostats may require a resistor between the W & C terminals; a 1000 Ohms 1/2 watt (or larger) have proved to work.

Note 2: Ensure load of zone control, circulator(s) & boiler do not exceed LWCO rating.

Note 3: If a 2 wire zone valve or no zone valve is used on individual zones then jumper 3 and 4 of that zone in order for the control outputs to activate. Conceptual Sketches Only, refer to individual manufacturer's installation instructions for additional details. Local codes shall prevail.

6. RESET CONTROL SETUP & WIRING (OPTIONAL)

Boiler Reset Types: The ZVC406-R-5 includes two types of boiler reset control logic (or separately purchased Plug-in Reset Control for Standard ZVC406-5 model):

Indoor Reset Control (Load Reset) uses the thermostat cycling information to determine the supply water temperature. Thermostat short cycling often suggests that the supply water temperature is too high, while prolonged cycles typically indicate that the water temperature is too low.

Outdoor Reset Control (Sensor purchased separately) (Weather Compensation) uses an outdoor sensor to compare it against the reset ratio (configured by installer) to determine the appropriate supply water temperature.

General Operation: When any thermostat calls for heat, the appropriate zone valve is energized, and the yellow light goes on. When the zone valve is fully open, the red light goes on and energizes the circulator relay(s). The boiler end switch relay and modulating output will be controlled by the reset algorithm; or either based on indoor thermostat operation or on outdoor temperature.

Control Setup: The Taco Control mobile app is required to set type of reset control and parameters to operate.

Wiring of Reset Control:

Make all sensor and analog output connections to the small Plug-In Reset Control on ZVC406-R-5.

Sensor Connections:

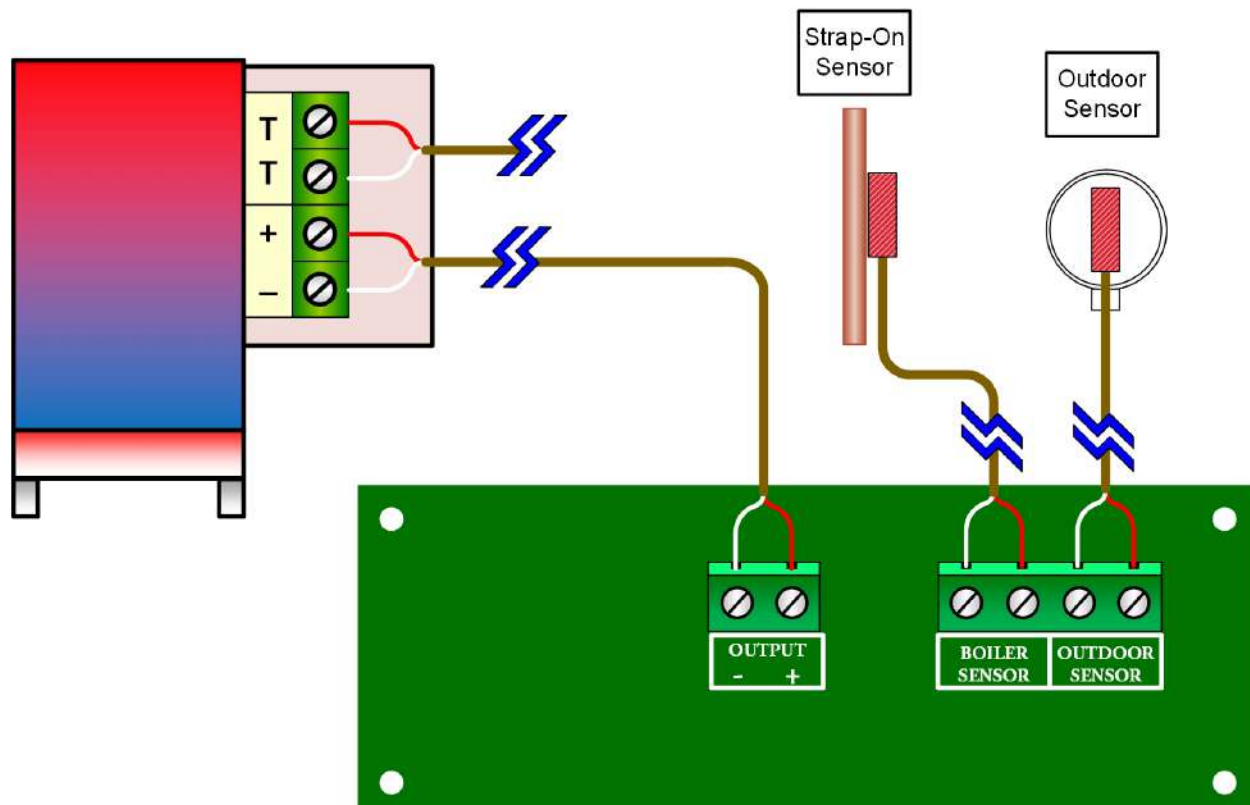
Boiler Sensor: A boiler supply sensor is required for either indoor or outdoor reset. Mount the provided strap-on sensor to the supply piping of the boiler, and wire it to the Boiler Sensor terminal block on the zone control.

Outdoor Sensor: An outdoor sensor (purchased separately) is required when utilizing the outdoor reset function. Mount the Taco outdoor sensor P# 9300-2052RP on north side of building and wire to Outdoor Sensor terminal block on zone control.

Boiler Connections:

Modulating Output: Most Mod-Con boilers have an input for an external modulating signal (0-10 vdc or 4-20 ma) to control boiler. Connect the modulating output to appropriate input terminals on boiler; noting that the polarity is correct. Some Mod-Con boilers also require a T T call for heat to activate boiler. In this case, wire the Main Boiler End Switch to T T input on boiler.

Dry Contact End Switch: ON/OFF boilers are controlled by the Main Boiler End Switch on zone control. Wire the Main Boiler End Switch to T T input on boiler.



7. TROUBLE SHOOTING & FAQS

For your convenience, the Taco Tech Support team is available Mon-Fri 8am-5pm EST. Just call 401-942-8000 for help.

Problem: Digital thermostats do not work correctly when connected to a zone valve control.

Solution: Some thermostats are a "Power Stealing" type which means they are powered by the switching relay with just 2 wires (R & W). A resistor may be needed in order to have the thermostat work properly. This resistor should be placed between the W & C (common) terminals of the switching relay. If the thermostat manufacturer does not supply a resistor, a 1000 ohm ½ watt resistor has proven to work with most.

Problem: No heat in a zone or room of building.

Solution: LED diagnostic lights will help find a component that is not working properly. The green LED should always be on, indicating that power is connected and the fuse is good. When there is a call for heat, the yellow LED will come on indicating power to the zone valve. This indicates the thermostat is working correctly. When the zone valve fully opens and its end switch makes contact, the red LED will come on, the boiler turns on and a circulator will start if connected to the zone control.

Trouble Shooting Sensors:

As in any troubleshooting procedure, it is important to isolate a problem as much as possible before proceeding. The blinking error LED light greatly simplifies troubleshooting of the ZVC40X-R-5. If you suspect a wiring fault, return to section 4 and carefully check all external wiring and wiring connections.

Sensor Errors:

- If an outdoor sensor fault occurs, the ZVC40X-R-5 will assume a fixed outdoor temperature of 32°F (0°C) and will target the appropriate supply water temperature. The Main Boiler light will blink indicating the outdoor sensor error.
- If a boiler sensor fault occurs, the ZVC40X-R-5 turns the boiler output off and the Priority Boiler light will blink indicating the boiler supply sensor error.

Sensor Error Handling		
Sensor	Shorted Sensor	Open Sensor
Boiler Sensor	Flash once Main Boiler LED	Flash twice Main Boiler LED
Outdoor Sensor	Flash once Priority Boiler LED	Flash twice Priority Boiler LED
Universal Sensor (Recirc)	Flash once AUX PUMP 1 LED	Flash twice AUX PUMP 1 LED

Testing the Sensors:

A good quality test meter capable of measuring up to 5,000 kΩ (1 k = 1000 Ω) is required to measure the sensor resistance. In addition to this, the actual temperature must be measured with either a good quality digital thermometer, or, if a thermometer is not available, a second sensor can be placed alongside the one to be tested and the readings compared. First, measure the temperature using the thermometer and then measure the resistance of the sensor at the control. The wires from the sensor must not be connected to the control while the test is performed. Using the chart below, estimate the temperature measured by the sensor. The sensor and thermometer readings should be close. If the test meter reads a very high resistance, there may be a broken wire, a poor wiring connection or a defective sensor. If the resistance is very low, the wiring may be shorted, there may be moisture in the sensor, or the sensor may be defective. To test for a defective sensor, measure the resistance directly at the sensor location.

Temperature			Resistance			Temperature			Resistance			Temperature			Resistance			Temperature			Resistance		
°F	°C	Ω	°F	°C	Ω	°F	°C	Ω	°F	°C	Ω	°F	°C	Ω	°F	°C	Ω	°F	°C	Ω	°F	°C	Ω
-30	-34	234,196	30	-1	34,558	90	32	7,334	150	66	2,045	-20	-29	165,180	40	4	26,099	100	38	5,828	160	71	1,689
-10	-23	118,018	50	10	19,900	110	43	4,665	170	77	1,403	0	-18	85,362	60	16	15,311	120	49	3,760	180	82	1,172
10	-12	62,465	70	21	11,883	130	54	3,050	190	88	983	20	-7	46,218	80	27	9,299	140	60	2,490	200	93	829

8. FUSE REPLACEMENT:

Fuses are replaceable; 2 spare fuses are attached to inside of front cover.

WARNING: Spare fuses consist of different amp ratings (1) 3AMP and (1) 6AMP. Be sure to replace a blown fuse with the correct fuse rating.

9. SPECIFICATIONS:

Power and Electrical Ratings:

Power Supply: 120 VAC $\pm 10\%$, 60Hz, 20A

Zone Valve Output Rating: 24 VAC, 1A

AUX(s) Pump Output Rating:
120 VAC, 1/6 HP

Boiler End Switch Contact Rating:
24 VAC, 1A,

Expansion Terminals: Low voltage, 3-wire polarity-sensitive, digital communications that links other Switching Relays (SR-5), Zone Valve Controls (ZVC-5) and other Modbus equipment.

Electrical Terminals (Line Voltage):

Wire Range: 12–18AWG

Torque Screws: 7.0 lbs-in. Max.

Electrical Terminals (Low Voltage):

Wire Range: 14–22AWG

Torque Screws: 3.5 lbs-in. Max.

Transformer Rating:

3 & 4 zone; 1 @ 40 VA, 24 VAC Class II
5 & 6 zone; 2 @ 40 VA, 24 VAC Class II

Environmental Ratings:

Ambient Temperature Rating:
32°F to 104°F (0°C to 40°C)

Operating Humidity Range (% RH):
5 to 90% RH, noncondensing

Sensor Temperature Rating:
-58°F to 230°F (-50°C to 110°C)

DIP Switch Timing Settings:

Post Purge: 2 minutes; adjustable with Taco Control mobile app

Pump Exercise: 30 seconds per 2 weeks of space heating inactivity; adjustable with Taco Control before mobile app

Thermostat Compatibility: Compatible with most mechanical, battery operated, power-stealing (power-robbing), hardwired and “Smart” thermostats.

Temperature Sensor: 10K ohm NTC thermistor at 77°F (25°C) $\pm 0.5^\circ\text{F}$ ($\pm 0.3^\circ\text{C}$), $\beta = 3892$. Lead length: up to 500 ft. (150 m) using 18 AWG or larger wire.

Dimensions (HxWxD): 12.58 x 8.44 x 2.66 in.
(31.95 x 21.44 x 6.76 cm) approximate

Weight: 6.16 lb. (2.79 kg)

Approvals: UL, FCC, ISED



Boiler Modulating Output Rating:

0-10 VDC Mode; 500 Ω min impedance

4-20 mA Mode; 1k Ω max impedance

(With Plug-In Reset Control)

10. ACCESSORIES & REPLACEMENT PARTS

Item	Part Number
Strap-on sensor for boiler reset control or SmartPlus logic	9300-4168RP
Outdoor sensor for outdoor boiler reset and smart pump exercise	9300-2052RP
Circulator output fuses; slow blow, 6 amp, 2AG (5mm X 15mm)	SR6A-001RP
Fast Blow, 3 amp 2AG (5mm X 15mm)	SR3A-001RP
Transformer; 40 VA at 24 VAC with connectors to plug into board	9300-4163RP
Plug-In Reset Control board and strap-on temperature sensor.	PC800-5
PC700's adaptor (Allows PC700, PC702 and PC705 to work with new zone controls)	9300-4166RP
Power Stealing thermostat resistor 1000 OHM, 0.5 Watt	SRTR-001RP

11. WARRANTY

Taco, Inc. will repair or replace without charge (at the company's option) any product or part which is proven defective under normal use within three (3) years from the date code.

In order to obtain service under this warranty, it is the responsibility of the purchaser to promptly notify the local Taco stocking distributor or Taco in writing and promptly deliver the subject product or part, delivery prepaid, to the stocking distributor. For assistance on warranty returns, the purchaser may either contact the local Taco stocking distributor or Taco. If the subject product or part contains no defect as covered in this warranty, the purchaser will be billed for parts and labor charges in effect at time of factory examination and repair.

Any Taco product or part not installed or operated in conformity with Taco instructions or which has been subject to misuse, misapplication, the addition of petroleum-based fluids or certain chemical additives to the systems, or other abuse, will not be covered by this warranty.

If in doubt as to whether a particular substance is suitable for use with a Taco product or part, or for any application restrictions, consult the applicable Taco instruction sheets or contact Taco at [401-942-8000].

Taco reserves the right to provide replacement products and parts which are substantially similar in design and functionally equivalent to the defective product or part. Taco reserves the right to make changes in details of design, construction, or arrangement of materials of its products without notification.

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This warranty gives the purchaser specific rights, and the purchaser may have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts or on the exclusion of incidental or consequential damages, so these limitations or exclusions may not apply to you.



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