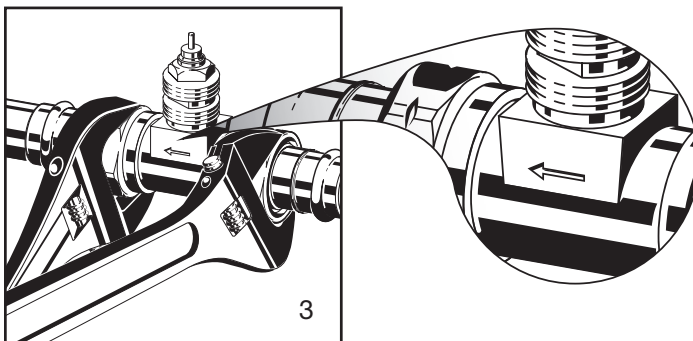
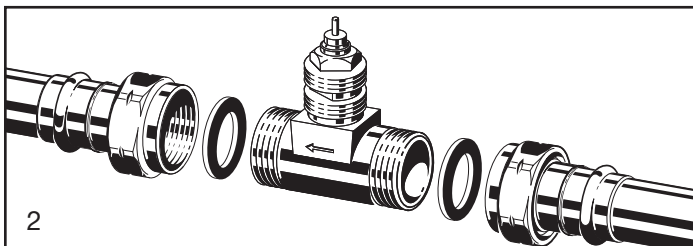
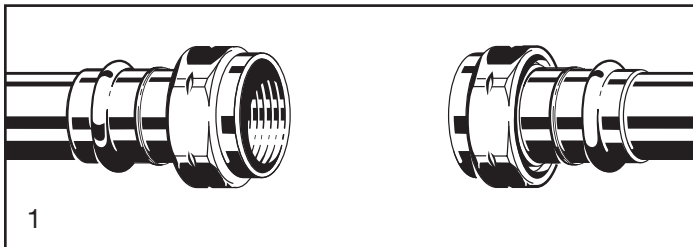
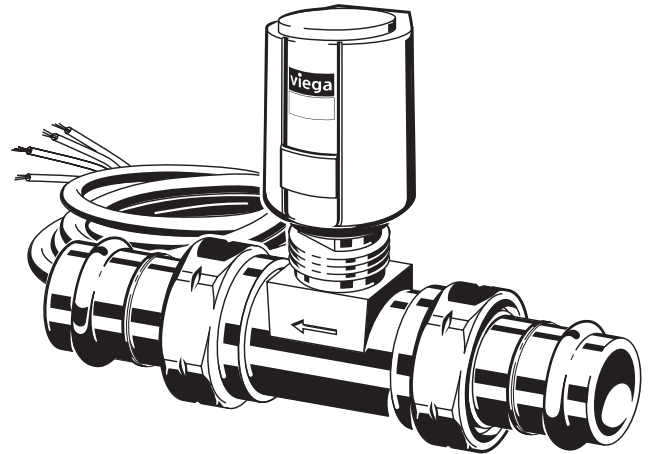


Product Instructions

viega

Viega® Zone Valve

Viega zone valves are used to control the flow of fluid within a hydronic heating or cooling system. They do so by opening when there is a thermostat demand, and closing when the demand has been met. Viega zone valves are available in ¾" and 1", with three different connection types, ProPress x ProPress, ProPress x PEX Press and solder x PEX Press. Installation instructions for each type can be found below.



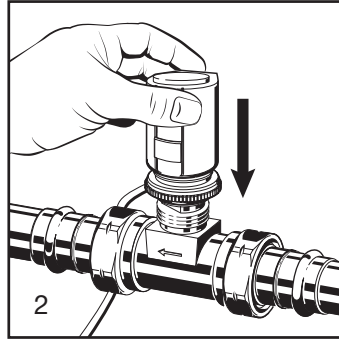
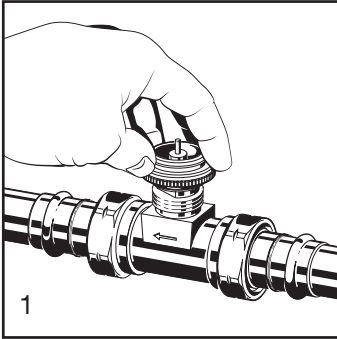
Part Number	Connection Type	Size
17230	Solder x PEX Press	¾"
17231	Solder x PEX Press	1"
17232	PP x PP	¾"
17233	PP x PP	1"
17234	PP x PEX Press	¾"
17235	PP x PEX Press	1"

Installation Instructions

1. Connect the tailpieces to the tubing, for actual instruction on how to make a solder, press or ProPress connection see pages 7, 8 or 9.
2. Insert the gasket in between the tailpiece and the zone valve body.
3. Tighten both tailpiece nuts onto the zone valve body. When installing the zone valve align the arrow on the valve body with the direction of flow.
4. Make sure to properly test the system once all connections are made. See page 9 for testing instructions.

Product Instructions

viega



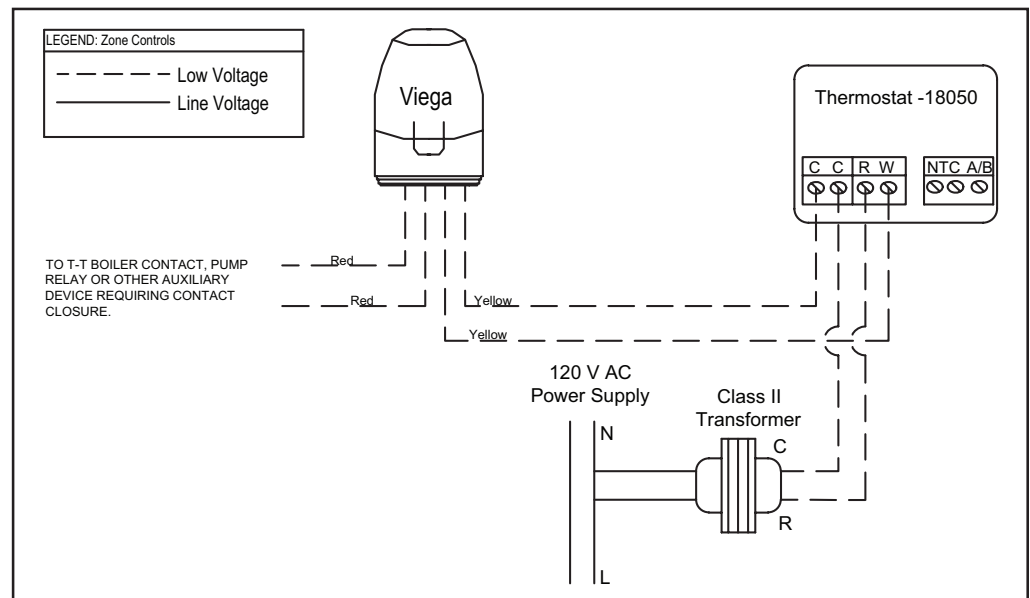
Mounting the powerhead to the zone valve

1. Connect the adapter ring to the zone valve, hand tighten only.
2. Place the powerhead over the adapter ring and push down firmly.

NOTE: To remove the powerhead push in on the square tab and pull up. With the powerhead separated from the zone valve, the zone valve will remain in the normally open position.

Wiring the zone valve powerhead to a Viega digital thermostat 18050

1. Connect a yellow wire from the zone valve powerhead to the C terminal on the digital thermostat.
2. Connect the other yellow wire from the zone valve powerhead to the W terminal on the thermostat.
3. The red wires can be connected to the boiler contact (TT), pump relay or other auxiliary device requiring contact closure.
4. Connect the C terminal from the transformer to the C terminal on the thermostat.
5. Connect the R terminal from the transformer to the R terminal on the thermostat.

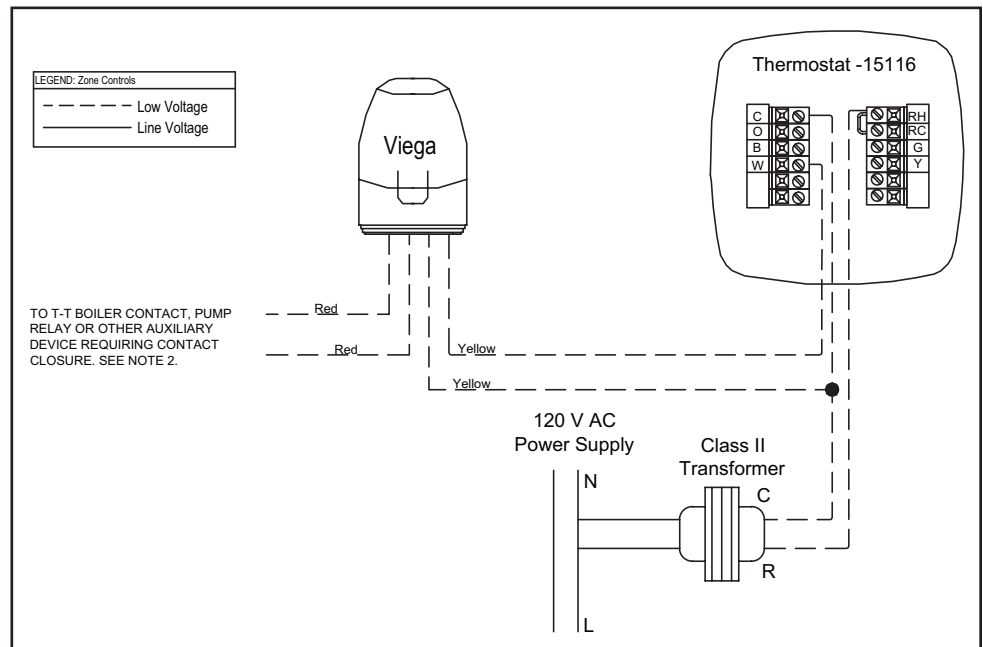


Product Instructions

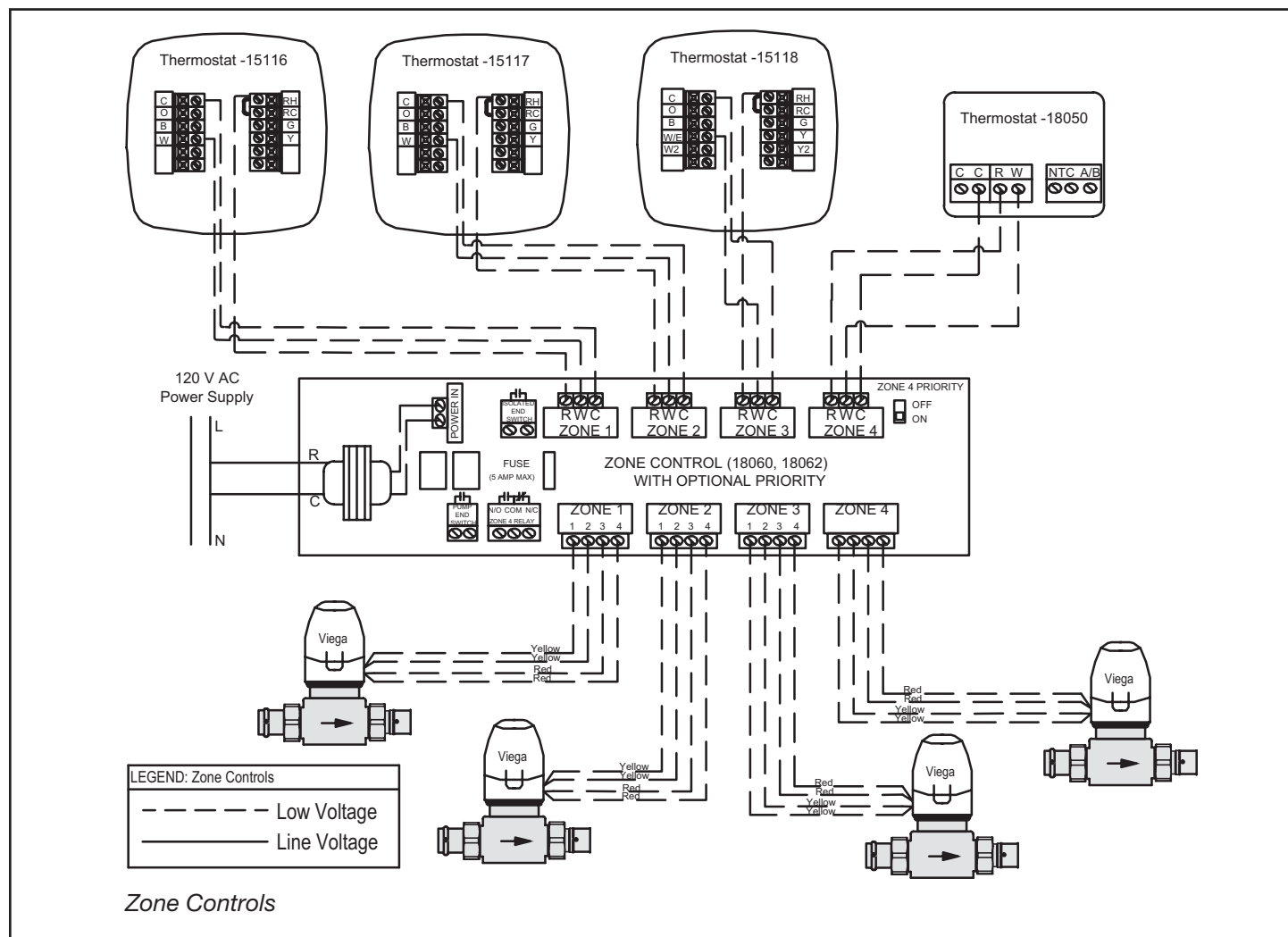
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Wiring the zone valve to a Viega digital thermostat 15116, 15117, 15118

1. Connect a yellow wire from the zone valve powerhead to the C terminal on the digital thermostat.
2. Connect the other yellow wire from the zone valve powerhead to the W terminal on the thermostat. This terminal is labeled W/E on thermostat part number 15118.
3. The red wires can be connected to the boiler contact (TT), pump relay or other auxiliary device requiring contact closure.
4. Connect the C terminal from the transformer to the C terminal on the thermostat.
5. Connect the R terminal from the transformer to the RH terminal on the thermostat.



Wiring the zone valve to the zone control

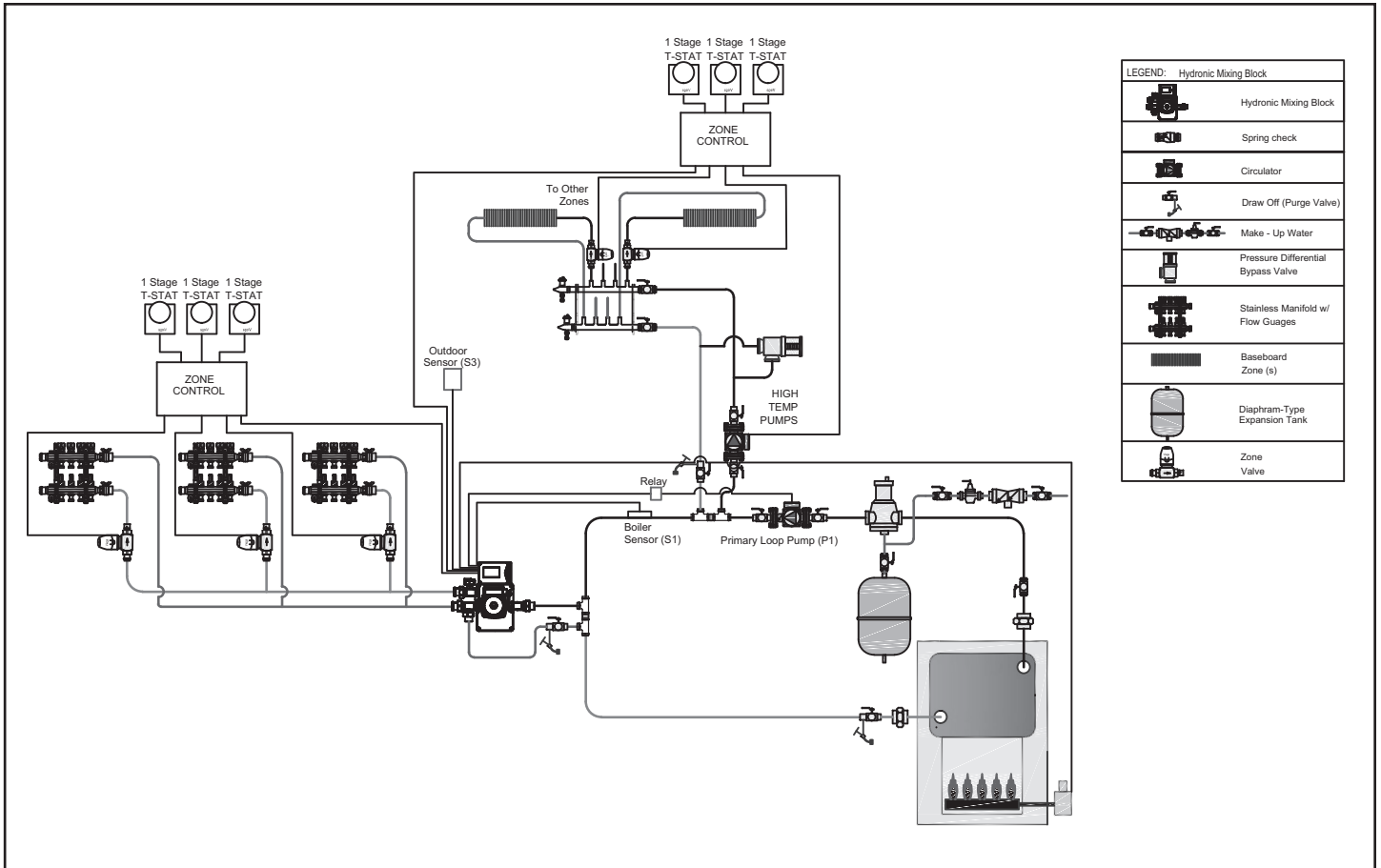


1. Connect a yellow wire from the zone valve powerhead to terminal 1 on the zone control.
2. Connect the other yellow wire from the zone valve powerhead to terminal 2 on the zone control.
3. Remove and discard the jumper installed between terminal 3 and 4.
4. Connect a red wire from the zone valve powerhead to terminal 3 on the zone control.
5. Connect the other red wire from the zone valve powerhead to terminal 4 on the zone control.

Product Instructions

viega

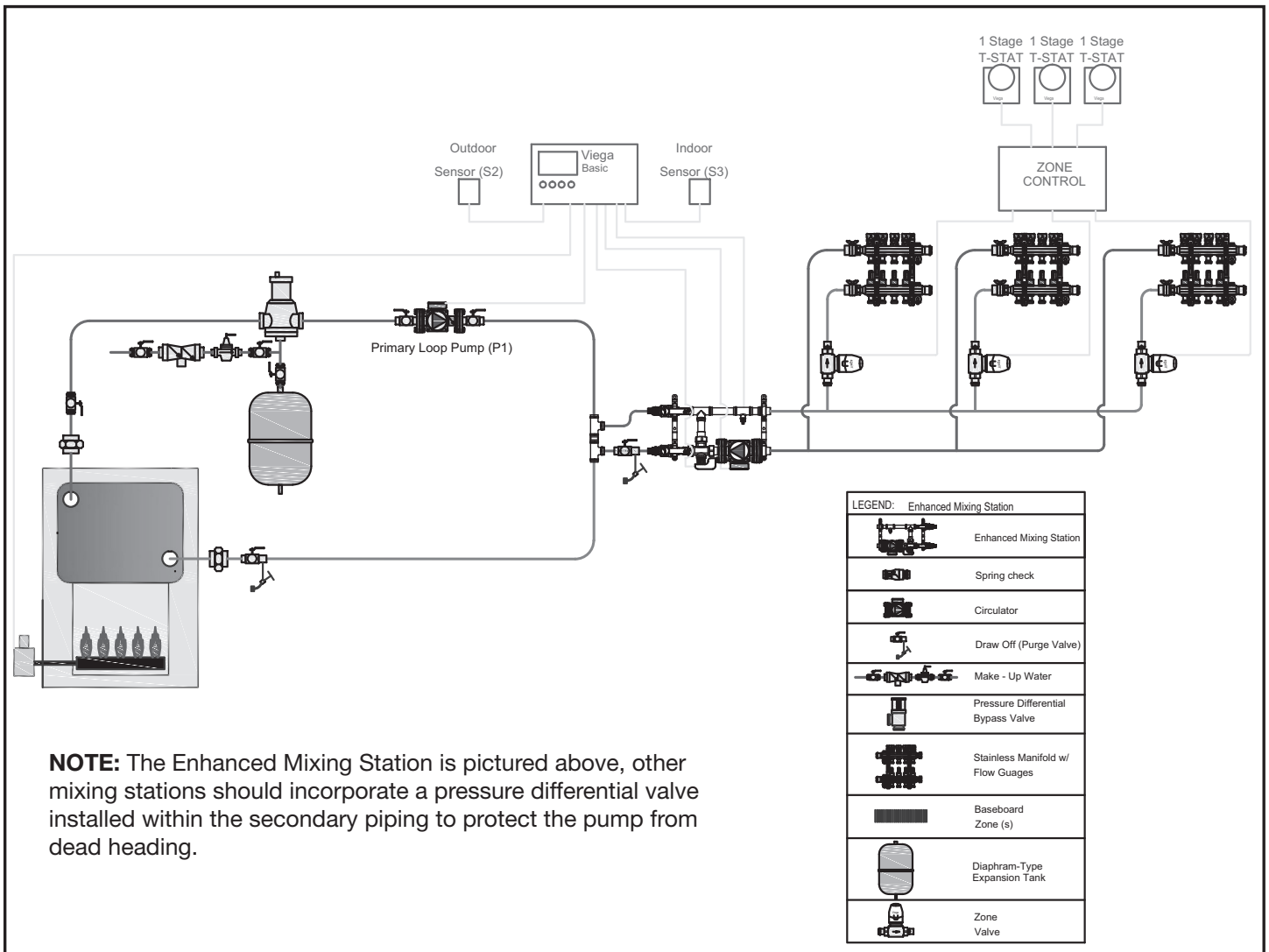
Piping the zone valve



Product Instructions

viega

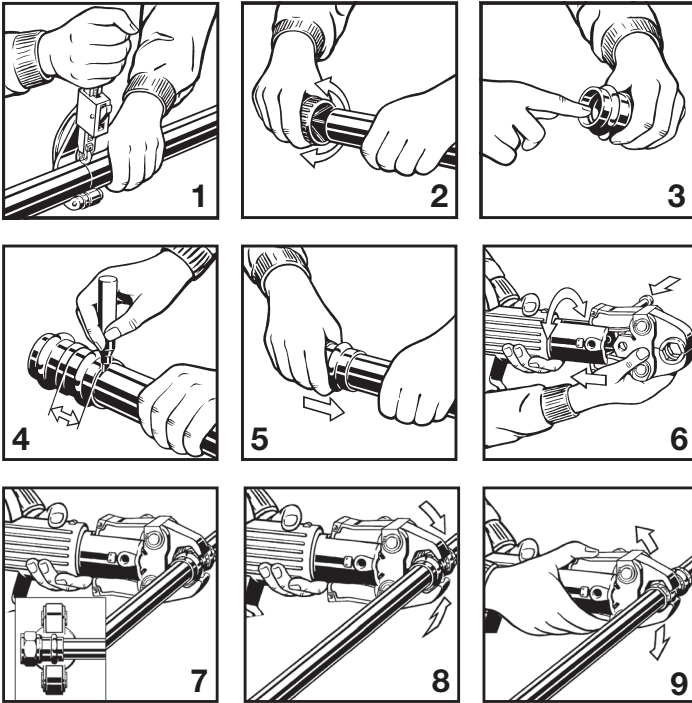
Piping the zone valve (continued)



Product Instructions

viega

Making a ProPress connection



⚠ WARNING

Read and understand all instructions for installing Viega ProPress fittings. Failure to follow all instructions may result in extensive property damage, serious injury or death.

1. Cut copper tubing at right angles using displacement type cutter or fine-toothed steel saw.
2. Remove burr from inside and outside of tubing to prevent cutting sealing element.
3. Check seal for correct fit. Do not use oils or lubricants.
4. Mark proper insertion depth as indicated by the Viega ProPress Insertion Depth Chart. Improper insertion depth may result in improper seal.
5. While turning slightly, slide press fitting onto tubing to the marked depth. Note: End of tubing must contact stop.
6. Insert appropriate Viega jaw into the pressing tool and push in holding pin until it locks in place.
7. Open the jaw and place at right angles on the fitting. Visually check insertion depth using mark on tubing.
8. Start pressing process and hold the trigger until the jaw has engaged the fitting.
9. After pressing, the jaw can be opened again.
10. Make sure to properly test the system once all connections are made. See page 9 for testing instructions

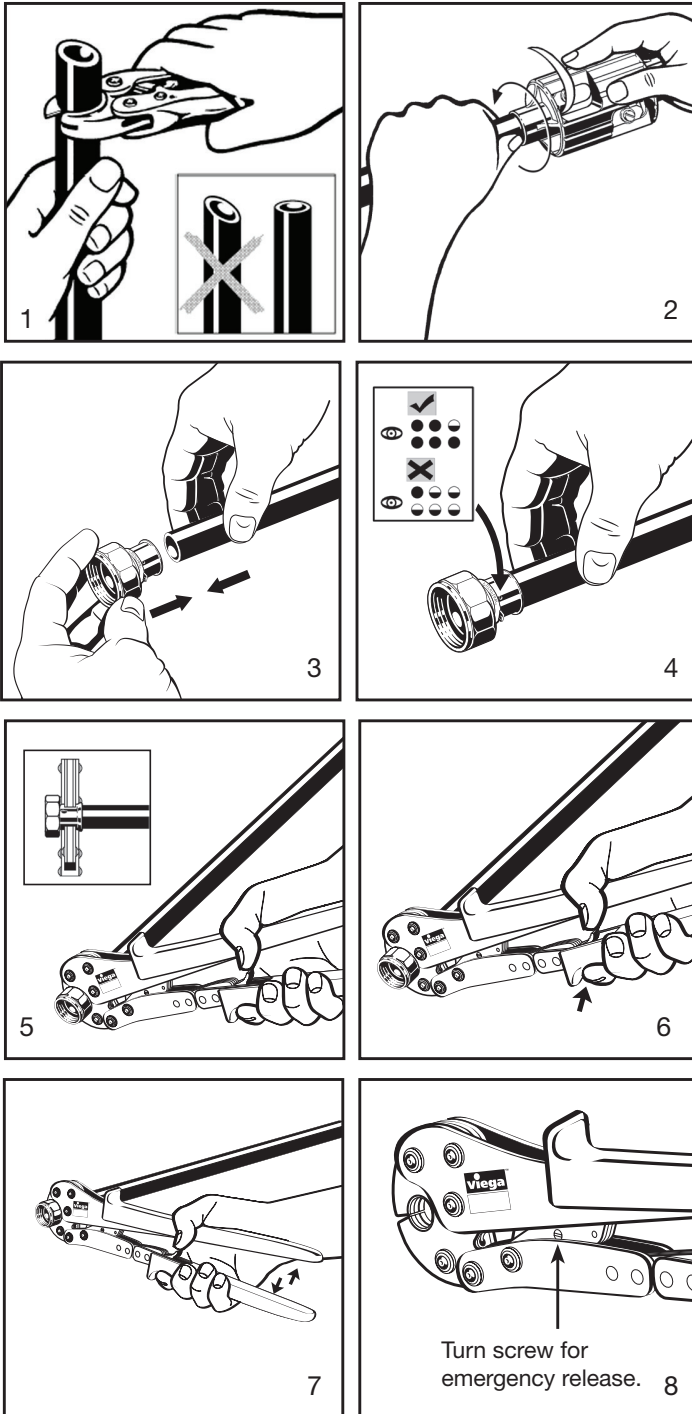
Viega ProPress Insertion Depth Chart

Tube Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Insertion Depth	3/4"	7/8"	7/8"	1"	1 7/16"	1 9/16"

Product Instructions

viega

Making a PEX Press connection



1. Square off tubing to proper length. Uneven, jagged or irregular cuts will produce unsatisfactory connections.
2. If using FostaPEX tubing, insert into prep tool, push and turn until no resistance is felt. If using ViegaPEX Barrier tubing, continue to step 3.
3. Insert PEX Press fitting with attached sleeve into tubing and engage fully.
4. Ensure full tubing insertion at view holes in attached press sleeve. Full insertion means tubing must be completely visible in at least two view holes and partially visible in the one.
5. Position press tool perpendicular over Press Sleeve and close tool jaws to engage ratchet.
NOTE: It may be necessary to rotate the locator ring to avoid interference between the ring and tool.
6. Close handles, using trigger to reduce grip span if desired.
7. Extend handle and continue ratcheting until automatic tool release occurs at proper compression force.
8. **Warning:** The connection is not leakproof when the tool has been opened by emergency release.

Product Instructions

viega

Tailpiece soldering

1. Cut the copper tubing cleanly with a tubing cutter.
2. Ream and de-burr the cut tubing.
3. Clean the inside of the tailpiece solder cup and the outside of the copper tubing with a fitting brush and emery cloth.
4. Brush an even layer of flux over the copper tubing and within the tailpiece solder cup.
5. Insert the tubing into the solder cup until the copper tubing seats fully, wipe off excess flux.
6. Heat the joint with a torch, moving the flame back and forth on the tailpiece to heat evenly. Hold the solder against the joint on the opposite side of the flame until it melts. Run the solder 360° around the tubing, the joint should appear full all the way around. Avoid over-feeding the joint with solder. The amount of solder required is equivalent to the diameter of copper tubing being soldered.
7. Allow the soldered connections to cool before connecting to the zone valve body.

Testing

Leak Testing with Smart Connect®

Unpressed connections are located by pressurizing the system with air or water. When testing with water the proper pressure range is 15 psi to 85 psi maximum. Leak testing with air can be dangerous at high pressures. When testing with compressed air the proper pressure range is ½ psi to 45 psi maximum. Following a successful leak test, the system may be pressure tested as specified in the next section.

Testing the system

The heating or cooling system that the zone valve is installed into must be tested before it is commissioned. Air or water may be used as the test medium. The following procedure is recommended by Viega. Check the local building codes for compliance or additional test requirements.

- Do not use water as a test medium in situations where it may freeze.
- Check that all connections are tight and properly sealed.
- Make sure all valves are in the open position to test the integrity of the entire system.
- Connect manifold pressurization kit (part # 21210) to the manifold(s).
- Pressurize the system to not less than 100 psi or 1.5 times the working pressure.
- After initial pressurization, ensure pressure has not dropped after 20 minutes. Fluctuations may occur due to temperature fluctuations and tubing expansion. If a drop has occurred add pressure to the system.
- Carry out test for a minimum of one hour.
- For leak detection, original Palmolive dishwashing soap may be used. (Use ratio of two oz. soap to one gal. water).
- If this is a radiant or snowmelt system pressure must be maintained during the pour and floor covering installation.
- Once system is deemed leak-free the concrete pour and/or flooring finishes may be applied.

Product Instructions

viega

On/off indicator

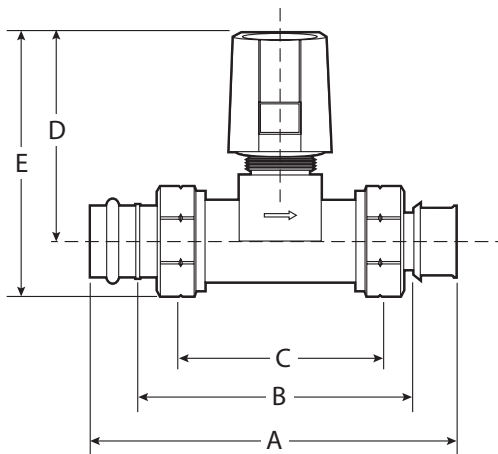
The zone valve powerhead has a cylinder on the top that will raise and expose blue when the valve is open. You will be unable to see any blue when the valve is in its normal closed position.

Initially-open function

The zone valve is delivered in the open position. This allows for easier installations and also allows for the installer to pressure and flow test each circuit before connection the power. This function is disengaged automatically after the first 6 minutes of powered use.

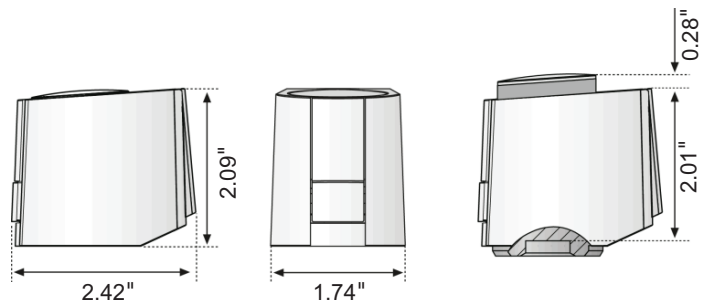
Technical Data:

Voltage:	24 Volts
Max inrush current:	300 mA, for 2 minutes
Operating power:	1w
Closing/opening time:	Approximately 3 minutes
Max pressure differential:	50 psi
Cv rating ¾" valve:	4.0
Cv rating 1" valve:	8.5
Fluid temperature:	32°-212°F
Stem travel:	4mm
Actuating force:	21 lbs
Body material:	Low zinc bronze, alloy C84400



Zone Valve Dimensions

Part Number	Description	A	B	C	D	E
17230	¾" Solder x PEX Press	4.70"	3.25"	2.50"	3.60"	4.25"
17231	1" Solder x PEX Press	6.25"	4.60"	3.60"	3.75"	4.60"
17232	¾" PP X PP	5.60"	3.80"	2.50"	3.60"	4.25"
17233	1" PP X PP	6.86"	5.20"	3.60"	3.75"	4.60"
17234	¾" PP X PEX Press	5.10"	3.80"	2.50"	3.60"	4.25"
17235	1" PP X PEX Press	6.62"	5.28"	3.60"	3.75"	4.60"



Dimensions

Installation Height

This document subject to updates. For the most current Viega technical literature please visit www.viega.us.
Click Services -> Click Electronic Literature Downloads -> Select Product Line -> Select Desired Document

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