

# Troubleshooting Guide

## 30XV

### 303V, 304V, 305V and 306V

#### System Pump Not Turning On

- The system pump is turned on when a call is received at a zone
- Is the call coming into the zone box?
- Is there 120VAC at the L&N for system pump? If so check the downstream equipment
- Is the zone valve end switch set properly for type of valve

#### 2 vs 3 and 4 Wire Valves

- Some valves have end switches that close when the valve is fully open
- The 30XV has end switch inputs to look at the feedback signal
- When the zone valve end switch is in the on position the system pump will not turn on until the signal is received to prevent dead heading the pump

#### 30XV Not Seeing the Call

- Power down the unit
- Mark all the thermostat and valve wires
- Disconnect the thermostats, pumps and valves
- Power up the unit
- Put a jumper between R&W for the zone and see if zone lights up
- If you see the zone light up check stat, wall wiring etc 30XP is receiving the call

#### Thermostats Good Check Valves

- With all the stats connected start by connecting the stat for zone 1
- Turn on the heat for zone 1
- Look for 24VAC at the motor outputs
- If it does you may have a valve with a short. Make note, remove wires and repeat for zone 2, 3 etc.
- When you know which zones cause the issue check the field wiring and valve for shorts.

#### WARNING

As with any electrical product, care should be taken to guard against potential risks, including electric shock or personal injury.

#### Multiple Valves on a Single Zone

- Connect 1 at a time to the output to see which valve is causing the issue
- If the individual valves are good the combined load may exceed the 30XV output
- One option is to send the 24VAC out to a relay like the 003 and use that to switch a separate source of 24VAC
- Another option is to jumper the W to another zone and have each zone open a single valve

#### Other Valve Issues

- Another issue is that some valves will have a big inrush or starting current but a lower operating current. If the inrush exceeds the ratings use a relay to switch the high current load
- This most commonly shows as the system powering down when a heat call is made and then it comes back on
- Send the 24VAC out to a relay like the 003 and use that to switch a separate source of 24VAC
- If a valve is stuck open and there is no call mark and remove the wires for the valve. Use a voltmeter to check for 24VAC between the motor terminals. It's possible the contact is welded closed from an overload

All specifications are subject to change without notice

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