W2W Open Points and Properties

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Important changes are listed in **Document revision history** at the end of this document.

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Introduction

What is the W2W Open controller?

The Water-to-Water (W2W) Open (part #OPN-WSHPW2WM) controller may be used standalone, or as part of an i-Vu® system, or third-party BACnet-distributed control system. The W2W Open control is designed to heat or cool the load water and to maintain the leaving water or entering water at the control setpoint. Each W2W Open controller supports up to 4 stages of capacity and up to 3 compressor stages (with compressor status feedback). You can have controller slaves for equipment or systems with up to 8 stages of control.

On board DIP switches allow you to select the baud rate and choose one of the following protocols:

- BACnet MS/TP
- BACnet ARC156
- Modbus
- Johnson N2
- LonWorks

The Equipment Touch is a touchscreen device with a 4.3 in. color LCD display that you connect to the Rnet port of one of the following controllers to view or change its property values, schedule equipment, view trends and alarms, and more, without having to access the system's server.

You can use Carrier's Equipment Touch user interface with the W2W Open controller using the 5-pin J12 Access Port. See illustration below.

The W2W Open's application supports detailed color graphics, status, properties, alarms, trends, performance, configuration, and Help on the Equipment Touch. In addition, the W2W Open Startup Wizard has screens to facilitate the installation technician to initially configure the W2W Open.

For more details about the Equipment Touch, see the *Equipment Touch Installation and Setup Guide*.

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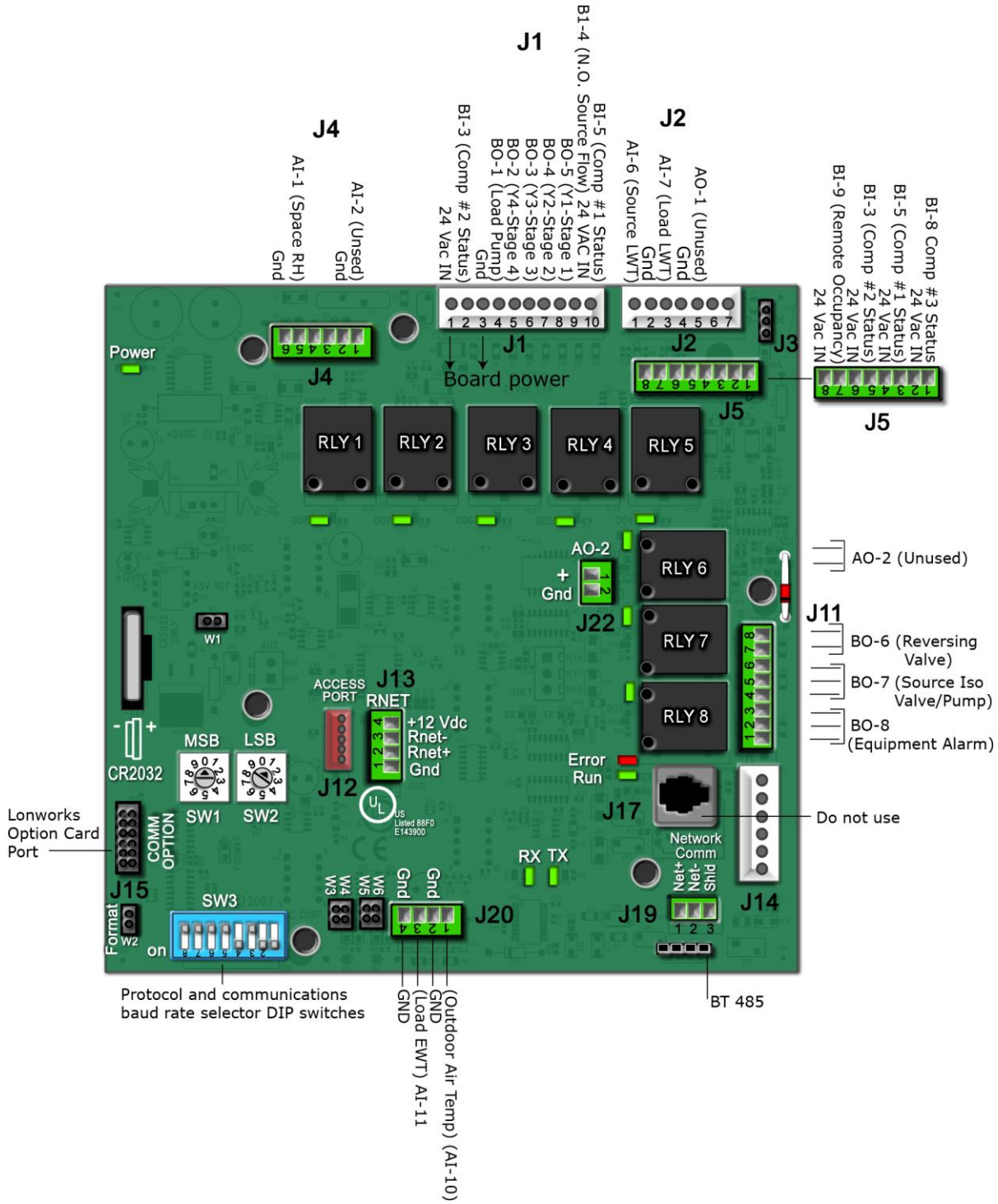

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Safety considerations & handling warning

WARNING

When you handle the W2W Open:

- Do not contaminate the printed circuit board with fingerprints, moisture, or any foreign material.
- Do not touch components or leads.
- Handle the board by its edges.
- Isolate from high voltage or electrostatic discharge.
- Ensure that you are properly grounded.

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Start-up

Use one of the following interfaces to start up, access information, read sensor values, and test the controller.

This interface...	Provides a...
Field Assistant application - Runs on a laptop that connects to controller's Local Access port [1]	Temporary interface
Equipment Touch device - Connects to controller's Rnet port [2]	Temporary or permanent interface
i-Vu® application Available for BACnet systems only	Permanent interface
System Touch device Available only for BACnet MS/TP systems. Wire to a BACnet MS/TP network connector and a 24 Vac power supply [3]	Temporary or permanent interface

[1] Requires a USB Link (Part #USB-L).
[2] See the *Equipment Touch Installation and Setup Guide* for detailed instructions.
[3] See the *System Touch Installation and Setup Guide* for detailed instructions.

CAUTION If multiple controllers share power but polarity was not maintained when they were wired, the difference between the controller's ground and the computer's AC power ground could damage the USB Link and the controller. If you are not sure of the wiring polarity, use a USB isolator between the computer and the USB Link. Purchase a USB isolator online from a third-party manufacturer.

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W2W Open Points/Properties

The following tables describe all of the possible settings for your controller on the WebCTRL® or Field Assistant **Properties** tab.

See *W2W Open Points/Properties on the Equipment Touch* (page 27) for the points and properties available on the Equipment Touch interface.

Status

Navigation: i-Vu® / Field Assistant: **Properties** > **Control Program** > **Status**

Point Name/Description	Range
Operating Mode – The controller's configured operating mode.	R: Single Unit Multi-unit Master Slave Unit
System Mode – The controller's current operating mode.	R: OFF Cooling Heating Test Start Delay Safety Shutdown Shutdown Pump Only
Equipment Alarm – Indicates the controller has an active alarm. See **Service Configuration** (page 11) for causes.	D: Normal R: Normal/Alarm
Compressor Capacity – Displays the equipment's calculated compressor capacity required to meet the load conditions.	R: 0 to 100%
Total System Cmpr Capacity – Displays all equipment's calculated compressor capacity when the control is configured as a **Multi-unit Master**. (Not displayed on **Single Unit** or **Slave controllers**.)	R: 0 to 100%
Leaving Load Water Temp – The current leaving load water temperature sensor's temperature.	R: -40 to 245°F
Leaving Water Temp Setpoint – Displays the current leaving load water temperature setpoint, including reset, where applicable when **Control Type** is set to **Lvg H2O Temp Ctrl** (leaving water temperature control).	R: 40 to 120°F
Entering Load Water Temp – Displays the entering load water temperature sensor or network variable's current value.	R: -40 to 245°F
Entering Water Temp Setpoint – Displays the current entering load water temperature setpoint, including reset, where applicable when **Control Type** is set to **Entr H2O Temp Ctrl** (entering water temperature control).	R: 40 to 120°F
SPT Temp – Displays an SPT temperature sensor or network variable's current value.	R: -40 to 245°F

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Point Name/Description	Range
External T1 Temp – Displays the **External T1 Temp** network variable's current value.	R: -50 to 150°F
Outdoor Air Temperature – Displays the outdoor air temperature sensor or network variable's current value.	R: -40 to 245°F
Space Relative Humidity – The relative humidity sensor or network variable's current value.	R: 0 to 100%
Load Water Pump – The **Load Water Pump** binary output's current commanded status.	D: Off R: Off/On
Source Water Pump / Isolation Valve – Displays the **Source Water Pump / Isolation Valve** binary output's current commanded status.	D: Off/Close R: Off/Close On/Open
Leaving Source Water Temp – Displays the **Leaving Source Water Temperature** sensor's current value.	R: -40 to 245°F
Entering Source Water Temp – Displays the current **Entering Source Water Temp** (calculated) or network variable.	R: -40 to 245°F
Shutdown – When **Active**, provides a means to stop heating and cooling in an orderly manner. All alarms are reset and current active alarms are displayed.	D: Inactive R: Inactive/Active

Unit Configuration

Navigation: i-Vu® / Field Assistant: **Properties** > **Control Program** > **Configuration** > **Unit Configuration**

Point Name/Description	Default/Range
Heat Enable – Enables or disables heating operation.	D: Enable R: Disable/Enable
Heating Lockout Temperature – Heating is inhibited above this outdoor air temperature.	D: 5°F R: -40 to 245°F
Heating Setpoint OA Reset – Enables **Hot Water Supply Setpoint** to reset, based on outdoor air temperature. If enabled, the heating setpoint resets if all of the following are true: • **Heat Enable** (**Unit Configuration**) is set to **Enable** • A valid outdoor air temperature is present • The control has not been configured for **Slave** operation (**Service Configuration**)	D: Disable R: Disable/Enable
OAT HW Supply Reset Low Limit – The outdoor air temperature that causes the **Hot Water Supply Setpoint** to reset to the highest temperature, when **Heating Setpoint OA Reset** is active.	D: 30°F R: 20 to 60°F

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Point Name/Description	Default/Range
OAT HW Supply Reset High Limit – The outdoor air temperature that causes the **Hot Water Supply Setpoint** to reset to the lowest temperature, when **Heating Setpoint OA Reset** is active. This value cannot be less than the configured **Heating Lockout Temperature**.	D: 60°F R: 30 to 60°F
Maximum OA HW Reset – The maximum amount of reset allowed for the **Hot Water Supply Setpoint**, when the **Heating Setpoint OA Reset** function is active.	D: 20°F R: 0 to 40°F
Cool Enable – Enables or disables cooling operation.	D: Enable R: Disable/Enable
Cooling Lockout Temperature – Cooling operation is disabled if outdoor air temperature is less than the **Cooling Lockout Temperature**. When **Heat Enable** is set to **Enable**, you cannot set this value less than the **Heating Lockout Temperature** plus 2° F.	D: 45°F R: 67 to 90°F
Cooling Setpoint OA Reset – Enables **Chilled Water Supply Setpoint** to reset, based on outdoor air temperature. If enabled, functions only if all of the following are true: • **Cool Enable** (**Unit Configuration**) is set to **Enable** • A valid outdoor air temperature is present • The control has not been configured for **Slave** operation (**Service Configuration**)	D: Disable R: Disable/Enable
OAT CHW Supply Reset Low Limit – The outdoor air temperature which causes the **Chilled Water Supply Setpoint** to reset to the highest temperature, when **Cooling Setpoint OA Reset** is active. The **OAT CHW Supply High Limit** cannot be less than the configured **Cooling Lockout Temperature**.	D: 70°F R: 65 to 85°F
OAT CHW Supply Reset High Limit – The outdoor air temperature which causes the **Chilled Water Supply Setpoint** to reset to the lowest temperature, when **Cooling Setpoint OA Reset** is active.	D: 90°F (32.2°C) R: 70 to 100°F
Maximum OA CHW Reset – The maximum reset value allowed for the **Chilled Water Supply Setpoint**, when the **Cooling Setpoint OA Reset** function is active.	D: 10°F R: 0 to 25°F
RH Cooling Setpoint Reset – Enables limit on the amount of outdoor air **Chilled Water Supply Setpoint** reset, based on relative humidity. Active only if all of the following are true: • **Cool Enable** (**Unit Configuration**) is set to **Enable** • **RH Cooling Setpoint Reset** is set to **Enable** • A valid outdoor air temperature is present • A valid relative humidity value is present	D: Disable R: Disable/Enable
Power Fail Restart Delay – How long the controller delays normal operation after the power is restored. Typically used to prevent excessive demand when recovering from a power failure.	D: 5 sec R: 0 to 600 secs
Occupancy Schedules – Enables or disables the occupancy schedule function.	D: Disable R: Disable/Enable
Sensor Calibration	
Space Temperature (T1) – The current space temperature.	R: -40 to 245°F

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Point Name/Description	Default/Range
Local Space Temp (T1) Calibration – A calibration offset value that allows you to adjust the local space temperature sensor to match a calibrated standard that is measuring the temperature in the same location.	D: 0°F R: -9.9 to 10°F
Leaving Load Water Temperature – The current leaving load water temperature.	R: -40 to 245°F
Lvg Load Wtr Temp Sensor Calibration – A calibration offset value to allow you to adjust the local leaving source water temperature sensor to match a calibrated standard measuring the temperature in the same location.	D: 0°F R: -9.9 to 10°F
Entering Load Water Temperature – The current entering load water temperature.	R: -40 to 245°F
Ent Load Wtr Temp Sensor Calibration – A calibration offset value that allows you to adjust the local entering load water temperature sensor to match a calibrated standard, measuring the temperature in the same location.	D: 0°F R: -9.9 to 10°F
Leaving Source Water Temperature – The current leaving source water temperature.	R: -40 to 245°F
Leaving Source Temp Sensor Calibration – A calibration offset value that allows you to adjust the local leaving source water temperature sensor to match a calibrated standard that is measuring the temperature in the same location.	D: 0°F R: -9.9 to 10°F
Outdoor Air Temperature – The current outdoor air temperature.	R: -40 to 245°F
Outdoor Air Temp Sensor Calibration – A calibration offset value you can adjust so the outdoor air temperature sensor matches a calibrated standard that measures the temperature in the same location.	D: 0°F R: -9.9 to 10°F
Space Relative Humidity – The current value of space relative humidity.	R: 0 to 100%
Space RH Sensor Calibration – A calibration offset value that allows you to adjust the space relative humidity sensor to match a calibrated standard that is measuring the humidity in the same location.	D: 0%rh R: -15 to 15%rh

Setpoints

Navigation: i-Vu® / Field Assistant: **Properties** > **Control Program** > **Configuration** > **Setpoints**

Point Name/Description	Range
Cooling Supply Water Temperature	
Chilled Water Supply Setpoint - The current chilled water supply setpoint and the base setpoint prior to any reset or demand limit functions.	D: 44°F R: 40 to 60°F
Heating Supply Water Temperature	
Hot Water Supply Setpoint - The current hot water supply setpoint and the base setpoint prior to any reset or demand limit functions.	D: 120°F R: 90 to 140°F

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Point Name/Description	Range
Relative Humidity	
Occ Relative Humidity Setpoint – The control setpoint used during occupied periods.	D: 60%rh R: 0 to 100%rh
Heating Demand Limit	
Demand Level 1 Heat Adj – The number of degrees the **Hot Water Supply Setpoint** reduces when receiving a **Demand Limit** level 1 signal.	D: 3°F R: 0 to 10°F
Demand Limit 2 Heat Adj – The number of degrees the **Hot Water Supply Setpoint** reduces when receiving a **Demand Limit Level** level 2 signal.	D: 5°F R: 0 to 10°F
Demand Limit 3 Heat Adj – The number of degrees the **Hot Water Supply Setpoint** reduces when receiving a **Demand Limit** level 3 signal.	D: 7°F R: 0 to 10°F
Cooling Demand Limit	
Demand Level 1 Cool Adj – The **Chilled Water Supply Setpoint** increases by this number of degrees when receiving a **Demand Limit** level 1 signal.	D: 3°F R: 0 to 10°F
Demand Level 2 Cool Adj – The **Chilled Water Supply Setpoint** increases by this number of degrees when receiving a **Demand Limit** level 2 signal.	D: 3°F R: 0 to 10°F
Demand Level 3 Cool Adj – The **Chilled Water Supply Setpoint** increases by this number of degrees when receiving a **Demand Limit** level 3 signal.	D: 4°F R: 0 to 10°F

Alarm Configuration

Navigation: i-Vu® / Field Assistant: **Properties** > **Control Program** > **Configuration** > **Alarm Configuration**

Point Name/Description	Range
Leaving Load Water Temperature Alarm	
Low Leaving Load Water Temp Alarm Limit – The **Leaving Load Water Temp** must drop below this value to generate a **Leaving Load Water Temperature Alarm**. There is a fixed hysteresis of 2Δ°F for return to normal. **NOTE** This value should be set to at least 4°F below the configured cooling setpoint.	D: 42°F R: 0 to 60°F
High Leaving Load Water Temp Alarm Limit – The **Leaving Load Water Temp** must exceed this value to generate a **Leaving Load Water Temperature Alarm**. There is a fixed hysteresis of 2Δ°F for return to normal. **NOTE** This value should be set to at least 10°F above the configured cooling setpoint.	D: 125°F R: 120 to 160°F

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Point Name/Description	Range
Entering Load Water Temperature Alarm	
Low Entering Load Water Temp Alarm Limit – The **Entering Load Water Temp** must drop below this value to generate an **Entering Load Water Temperature Alarm**. There is a fixed hysteresis of 2Δ°F for return to normal.	D: 42°F R: 0 to 60°F
High Entering Load Water Temp Alarm Limit – The **Entering Load Water Temp** must exceed this value to generate an **Entering Load Water Temperature Alarm**. There is a fixed hysteresis of 2Δ°F for return to normal.	D: 125°F R: 120 to 160°F
Outdoor Air Temperature Alarm	
Low OAT Alarm Limit – The **Outdoor Air Temperature** must drop below this value to generate an **Outdoor Air Temp Alarm**. There is a fixed hysteresis of 1Δ°F (.5Δ°C) for return to normal.	D: -65°F R: -65 to 245°F
High OAT Alarm Limit – The **Outdoor Air Temperature** must exceed this value to generate an **Outdoor Air Temp Alarm**. There is a fixed hysteresis of 1Δ°F (.5Δ°C) for return to normal.	D: 245°F R: -65 to 245°F
Space Humidity Alarm	
Occupied High RH Alarm Limit – The relative humidity sensor must exceed this value to generate a **Space Relative Humidity** alarm in the occupied mode if **RH Cooling Setpoint Reset (Unit Configuration)** is set to **Enable**. There is a fixed hysteresis of 5%rh for return to normal.k	D: 100%rh R: 0 to 100%rh
Alarm Delay (min/%RH) – Determines the amount of delay before an occupied RH alarm is generated when the controller transitions to the occupied mode. The delay time equals this value multiplied by the difference between the sensor RH value and the occupied RH setpoint plus 15 minutes.	D: 5 minutes R:
Unocc High RH Alarm Limit – The value that the relative humidity sensor must exceed to generate a **Space Humidity Alarm** in the unoccupied mode if **RH Control** is set to **Enable**. There is a fixed hysteresis of 5%rh for return to normal.	D: 100%rh R: 0 to 100%rh

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Service Configuration

Navigation: i-Vu® / Field Assistant: **Properties** > **Control Program** > **Configuration** > **Service Configuration**

Point Name/Description	Default/Range
Unit Size - Nominal Capacity – Used to define the size of the equipment shown on the Graphics page.	D: 6 ton R: 1 to 150 ton
Operation Type – Defines whether the control operates as a Master or Slave, in a multi-unit system. **NOTE** There is no selection for a Slave unit, as it is. Set to **Single/Slave Unit** to enable automatic communication with its designated Master.	D: Single/Slave Unit R: Single/Slave Unit Multi-unit Master
Control Type – Defines whether the control monitors and uses **Leaving Load Water Temperature** or **Entering Load Water Temperature** to control this equipment. **NOTE** If set to **Entr H2O Temp Ctrl**, a valid entering load water temperature sensor or Network sensor value must be present, otherwise the control automatically uses leaving load water temperature for control.	D: Lvg H2O Temp Ctrl R: Lvg H2O Temp Ctrl Entr H2O Temp Ctrl
Control Mode Selection – Select one of the following modes to control the device: **Manual Heat** – The equipment operates as a heating source only **Manual Cool** – The equipment operates as a cooling source only **OAT** – The equipment transitions between a heating and cooling source, as determined by the outdoor air temperature **SPT** – The equipment transitions between a heating and cooling source, as determined by an SPT temperature sensor **System T1 Temp** – The equipment transitions between a heating and cooling source, as determined by a networked temperature variable	D: Manual Cool R: Manual Heat Manual Cool OAT SPT System T1 Temp
Operation Type – Defines whether the control operates as a Master or Slave, in a multi-unit system. **NOTE** There is no selection for a Slave unit, as it is. Set to **Single/Slave Unit** to enable automatic communication with its designated Master.	R: Single/Slave Unit
Total Controlled Stages – Defines the total number of system compressor stages when the control is configured as a **Multi-unit Master**. System compressor stages are the total number of compressor stages controlled by both the multi-unit Master and its associated Slaves. **Configuration** > **Service Configuration** > **Operation Type** must be set to **Multi-unit Master**.	D: Two Stage R: One Stage Two Stage Three Stage Four Stage Five Stage Six Stage Seven Stage Eight Stage

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Point Name/Description	Default/Range
System Stage # Assigned to Y1 – The stage number assigned to this controller's Y1 binary output, when the control is configured as a Slave in a multi-unit system. **Configuration** > **Service Configuration** > **Operation Type** must be set to **Single/Slave Unit** and valid communications established between the Slave and its associated Master controller.	D: 3 R: 0 to 8
Compressor Stages – The number of stages of compression.	D: Two Stage R: One Stage Two Stage Three Stage Four Stage
Refrigeration circuits – The number of separate refrigeration circuits in multi-compressor units.	D: Single R: Single Dual
Stage Number of 2nd Compressor – Configures the stage number assigned by the controller to a second compressor for the locally installed equipment. For example, on a heat pump with 2 compressors, each equipped with unloaders, the second compressor would be stage 3.	D: N/A R: N/A Two Three Four
Stage Number of 3rd Compressor – Configures the stage number assigned by the controller to a third compressor for the locally installed equipment. For example, on a heat pump with 3 single-stage compressors, the third compressor would be stage 3.	D: N/A R: N/A Two Three Four
Reversing Valve Type – The reversing valve's signal output type. **O** - A call for cooling energizes the reversing valve **B** - A call for cooling energizes the reversing valve	D: O R: O/B
Cool PID – This BACnet Object calculates the amount of capacity required to satisfy the **Chilled Water Supply Setpoint** and allows access to the control loop's tuning parameters. **NOTE** The following default values should be changed only by a technician trained in PID Loop algorithms. Action direct Update Interval 0:30 (mm:ss) Proportional 25 Integral 5.0 Derivative 0 Deadband 0 Bias 0	

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Point Name/Description	Default/Range
Heat PID – This BACnet Object calculates the amount of capacity required to satisfy the **Hot Water Supply Setpoint** and allows access to the control loop's tuning parameters. **NOTE** The following default values should be changed only by a technician trained in PID Loop algorithms. Action: reverse Update Interval: 0:30 (mm:ss) Proportional: 25 Integral: 5.0 Derivative: 0 Deadband: 0 Bias: 0	
Occ Contact Normal Logic State – Specifies the type of contact at input #9 for the normal or unoccupied state.	D: Open R: Open/Closed
Min Source Water Temp Heating – Determines the minimum source water temperature before the unit starts heating.	D: 60°F R: 10 to 60°
Max Source Water Temp Heating – Determines the maximum source water temperature before the unit starts heating.	D: 80°F R: 65 to 110°F
Min Source Water Temp Cooling – Determines the minimum source water temperature before the unit starts cooling.	D: 60°F R: 30 to 60°
Max Source Water Temp Cooling – Determines the maximum source water temperature before the unit starts cooling.	D: 95°F R: 85 to 120°F
Source Water Flow Control Device – Configures the controller for the type of equipment used to control flow source waterside.	D: Valve R: Valve Pump
Isolation Valve Type – Configures the controller for the type of installed (load water) isolation valve.	D: NC R: NC (normally closed) NO (normally open)
Source Pump/Valve Off Delay – Configures the amount of time (in seconds) that the source water isolation valve remains open after heating or cooling stops.	D: 45 secs R: 0 to 180 secs
Load Pump Off Delay –Configures the amount of time (in seconds) that the load pump runs when the unit transitions to unoccupied mode or is otherwise shutdown.	D: 45 secs R: 0 to 180 secs
Equipment Alarm Lamp Output Initiators	
Master Comm Fail Alarm – When set to **Enable**, if communications between a Slave unit that has previously established communications with its Multi-Unit Master, fails to receive communications, the controller initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Disable R: Enable/Disable
SrcW Linkage Failure Alarm – When set to **Enable**, allows a Source Water Linkage failure to initiate an Equipment Alarm and energize the **Alarm Lamp** binary output.	D: Enable R: Enable/Disable

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Point Name/Description	Default/Range
Water Flow Failure Alarm – When set to **Enable**, loss of flow on source water or load water initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Enable R: Enable/Disable
Compressor Alarm – When set to **Enable**, any Compressor Alarm indicated by the controller also initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Enable R: Enable/Disable
Lvg Load Water Temp Alarm – When set to **Enable**, any Leaving Load Water Temperature Alarm indicated by the controller also initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Enable R: Enable/Disable
Lvg Load Wtr Sensor Fail Alarm – When set to **Enable**, any Leaving Load Water Sensor Failure Alarm indicated by the controller also initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Enable R: Enable/Disable
Ent Load Water Temp Alarm – When set to **Enable**, any Entering Load Water Temperature Alarm indicated by the controller also initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Enable R: Enable/Disable
Ent Load Wtr Sensor Fail Alarm – When set to **Enable**, any Entering Load Water Sensor Failure Alarm indicated by the controller also initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Enable R: Enable/Disable
Lvg Source Water Temp Alarm – When set to **Enable**, any Leaving Source Water Temperature Alarm indicated by the controller also initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Enable R: Enable/Disable
Lvg Source Wtr Sensor Fail Alarm – When set to **Enable**, a Leaving Source Water Sensor Failure Alarm indicated by the controller also initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Enable R: Enable/Disable
NW Ent Source Water Temp Fail Alarm – When set to **Enable**, if the network value of the entering source water temperature is no longer valid or stops communicating, the controller initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Disable R: Enable/Disable
OA Temperature Alarm – When set to **Enable**, any Outdoor Air Temperature Alarm indicated by the controller also initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Enable R: Enable/Disable
OA Sensor Failure Alarm – When set to **Enable**, an Outdoor Air Temperature Sensor Failure Alarm indicated by the controller also initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Enable R: Enable/Disable
SPT/T1 Failure Alarm – When set to **Enable**, an SPT Sensor Failure Alarm or System T1 Sensor Alarm indicated by the controller initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output. To determine the alarm origin, select **SPT** or **System T1 Temp** for the **Control Mode Selection**.	D: Enable R: Enable/Disable
ZS Configuration Fault – When set to **Enable**, a configured ZS Sensor's failure initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Enable R: Enable/Disable
High RH Alarm – When set to **Enable**, a High Space Relative Humidity Alarm indicated by the controller also initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Enable R: Enable/Disable
RH Sensor Fail Alarm – When set to **Enable**, a Relative Humidity Sensor Failure Alarm indicated by the controller also initiates an **Equipment Alarm** and energizes the **Alarm Lamp** binary output.	D: Enable R: Enable/Disable
WS Battery Alarm — Indicates if the wireless battery is below the alarm limit.	D: Disable R: Enable/Disable

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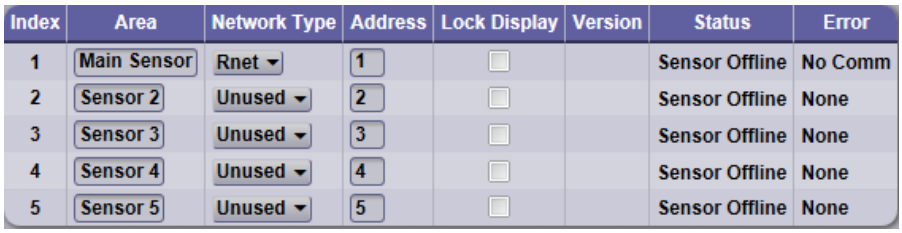
Point Name/Description	Default/Range
WS Signal Alarm — Indicates if the wireless signal strength is below the alarm limit.	D: Disable R: Enable/Disable

Sensor Binder / Zone Temp **Ctrl+click** on the name of these properties to access the microblock popup **Properties** page > **Details** tab. See below for instructions on configuring your ZS or wireless sensors. See the microblock Help for more detailed explanations.	
Sensor Binder - Use the **Associated Sensors** table to configure the Rnet to use additional ZS or wireless sensors.  • **Network Type** - Set to **Rnet** • **Address** - Enter the DIP switch settings that are on the additional ZS sensors (up to 5 total) or RnetID assigned to each wireless sensor in SensorBuilder • **Lock Display** - Check to make the sensor display-only	D: **(Index)** - (1) **Network Type** - Rnet **Address** - 1

Index	Area	Network Type	Address	Lock Display	Version	Status	Error
1	Main Sensor	Rnet	1			Sensor Offline	No Comm
2	Sensor 2	Unused	2			Sensor Offline	None
3	Sensor 3	Unused	3			Sensor Offline	None
4	Sensor 4	Unused	4			Sensor Offline	None
5	Sensor 5	Unused	5			Sensor Offline	None

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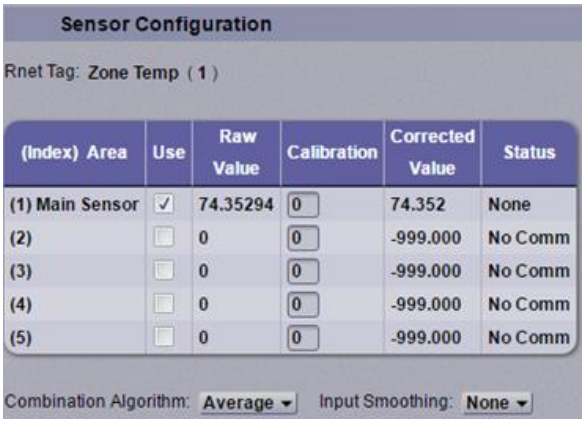
Zone Temp - Configure additional ZS or wireless temperature sensors used on the W2W Open.  • **Use** - Check to include ZS or wireless sensors' value in the **Combined Algorithm** (**Average** is the default). • **Raw Value** - Displays sensed temperature for each ZS or wireless temperature sensor's address • **Calibration** - If needed, enter value to adjust the **Corrected Value** from the **Raw Value**, in order to calibrate an individual ZS or wireless sensor's sensed value. • **Combination Algorithm** - Use **Average**, **Maximum**, or **Minimum** zone temperature to calculate the **Corrected Value** for temperature control.	D: **(Index) Area** - (1) Main Sensor **Use -** checked **Calibration** - 0 **Combination Algorithm** - Average **Input Smoothing** - None **Show on Sensors** - Calculated Value **Display Resolution** - 1 **COV Increment** - .1

WS Signal Strength % — Displays radio signal strength of the wireless space temperature sensor. If there are multiple wireless sensors, it displays the lowest value.	R:	_%
WS Battery Strength % — Displays charge strength indicated on the wireless space temperature sensor. If there are multiple wireless sensors, it displays the lowest value.	R:	_%
System T1 Temperature – The network space temperature value that the controller is using for control (if applicable).	D: R:	-999.00°F N/A
System Space RH – The network relative humidity value that the controller is using for control (if applicable).	D: R:	-999.00% N/A
System Outdoor Air Temperature – Allows the outdoor air temperature value to be network readable when enabled. Requires controller be equipped with an outdoor air temperature sensor.	D: R:	-999.00°F N/A
System Leaving Load Water Temp – The system leaving load water temperature received from the network input to this controller.	D: R:	-999.00°F N/A
System Entering Load Water Temp – The system entering load water temperature received from the network input to this controller.	D: R:	-999.00°F N/A

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System Entering Source Water Temp – The system entering source water temperature received from the network input to this controller.	D: R:	-999.00°F N/A
System Source Water Flow Status – The system source water flow status received from the network input to this controller.	D: R:	No Flow No Flow / Flow Ok
System Load Water Flow Status – The system load water flow status received from the network input to this controller.	D: R:	No Flow No Flow / Flow Ok
System Cool Demand Level – The system cool demand level being received over the network.	D: R:	0 0 to 3
System Heat Demand Level – The system heat demand level being received over the network.	D: R:	0 0 to 3
System Occupancy – The status of the **System Occupancy** network point.	D: R:	Unoccupied Unoccupied/Occupied
Service Test		
Service Test – Enable to stop automatic control so you can test the controller's outputs. Automatically resets to **Disable** after 1 hour.	D: R:	Disable Disable/Enable
Isolation Valve Test – Enable to energize the controller's **Isolation Valve** output. **Service Test** must be set to **Enable**.	D: R:	Disable Disable/Enable
Isolation Valve Binary Output – Current status of **Isolation Valve** Binary output (BBV).	R:	On/Off
Water Pump Test – Enable to start the controller's **Load Water Pump** output. **Service Test** must be set to **Enable**.	D: R:	Disable Disable/Enable
Water Pump Binary Output – Current status of **Load Water Pump** Binary Output (BBV).	R:	On/Off
Compressor Test – Enable to test compressor cooling and heating operation. Compressor Test starts each of the configured stages in sequence for cooling, sets the reversing valve for heating, and stages down again in reverse sequence, reducing capacity until all stages are stopped. Each step will operate for 1 minute. **Service Test** must be set to **Enable**.	D: R:	Disable Disable/Enable
Configured Stages – Current number of configured compressor stages.	R:	One Stage Two Stages Three Stages Four Stages
Compressor Mode – Current compressor mode.	R:	Heat/Cool
Y1 Stage 1 – Displays the Y1 output's current status.	R:	On/Off
Y2 Stage 2 – Displays the Y2 output's current status.	R:	On/Off
Y3 Stage 3 – Displays the Y3 output's current status.	R:	On/Off
Y4 Stage 4 – Displays the Y4 output's current status.	R:	On/Off

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Reversing Valve Output – The current status of the reversing valve on the local controller.	R:	On/Off
Alarm Indicator Test – Enable to start the controller's **Alarm Indicator Lamp** output. **Service Test** must be set to **Enable**.	D: R:	Disable Disable/Enable
Alarm Indicator Binary Output – Displays Alarm Output's current status.	R:	On/Off

Maintenance

Navigation: i-Vu® / Field Assistant: **Properties** > **Control Program** > **Maintenance**

Point Name/Description Unit	Default/Range
Effective Heat Setpoint – The current **Hot Water Supply Setpoint**. May include offsets resulting from **OA Reset** or **Demand Limit**.	R: -40 to 245°F
Effective Cool Setpoint – The current **Chilled Water Supply Setpoint**. May include offsets resulting from **OA/RH Reset** or **Demand Limit**.	R: -40 to 245°F
Controling Point – Displays the point used to control this equipment.	R: Lvg Load Water Temp Entr Load Water Temp
Active Compressor Stages – The number of compressor stages currently operating.	R: 0 to 4
Changeover Timeguard – Displays the current state of the timeguard, which restricts the operational changeover between heating and cooling, or vice versa.	R: Inactive/Active
Reversing Valve – The current status of the reversing valve on the local controller.	R: De-energized Energized
Leaving Load Water Temp Source – The source of the **Leaving Load Water Temp** value. States: • **N/A** - No sensor value associated with this device • **Local** - A physical sensor is wired and connected to the appropriate input channel of this controller • **Network** - A network sensor value provided to this controller • **Linkage** - The sensor value from a linked device, obtained through air or water linkage • **Locked Value** - The controller's sensor input is manually locked to a specific value	R: N/A Local Network Linkage Locked Value

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Point Name/Description	Default/Range
Entering Load Water Temp Source – The source of the **Entering Load Water Temp** value. States: • **N/A** - No sensor value associated with this device • **Local** - A physical sensor is wired and connected to the appropriate input channel of this controller • **Network** - A network sensor value provided to this controller • **Linkage** - The sensor value from a linked device, obtained through air or water linkage • **Locked Value** - The controller's sensor input is manually locked to a specific value	R: N/A Local Network Linkage Locked Value
Leaving Source Water Temp Source – The source of the **Leaving Source Water Temp** value. States: • **N/A** - No sensor value associated with this device • **Local** - A physical sensor is wired and connected to the appropriate input channel of this controller • **Network** - A network sensor value provided to this controller • **Linkage** - The sensor value from a linked device, obtained through air or water linkage • **Locked Value** - The controller's sensor input is manually locked to a specific value	R: N/A Local Network Linkage Locked Value
Entering Source Water Temp Source – The source of the **Entering Source Water Temp** value. States: • **N/A** - No sensor value associated with this device • **Local** - A physical sensor is wired and connected to the appropriate input channel of this controller • **Network** - A network sensor value provided to this controller • **Linkage** - The sensor value from a linked device, obtained through air or water linkage • **Locked Value** - The controller's sensor input is manually locked to a specific value	R: N/A Local Network Linkage Locked Value
SPT Source – the source of the **SPT Temp** value. States: • **N/A** - No sensor value associated with this device • **Local** - A physical sensor is wired and connected to the appropriate input channel of this controller • **Network** - A network sensor value provided to this controller • **Linkage** - The sensor value from a linked device, obtained through air or water linkage • **Locked Value** - The controller's sensor input is manually locked to a specific value	R: N/A Local Network Linkage Locked Value
System T1 Sensor – The status of the system T1 sensor. States: • **N/A** - No sensor associated with this device • **Active -** System T1 sensor is active	R: N/A Active

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Point Name/Description	Default/Range
Outdoor Air Temperature Source – The source of the **Outdoor Air Temperature** value. States: • **N/A** - No sensor value associated with this device • **Local** - A physical sensor is wired and connected to the appropriate input channel of this controller • **Network** - A network sensor value provided to this controller • **Linkage** - The sensor value from a linked device, obtained through air or water linkage • **Locked Value** - The controller's sensor input is manually locked to a specific value	R: N/A Local Network Linkage Locked Value
Relative Humidity Source – The source of the **Space Relative Humidity** value. States: • **N/A** - No sensor value associated with this device • **Local** - A physical sensor is wired and connected to the appropriate input channel of this controller • **Network** - A network sensor value provided to this controller • **Linkage** - The sensor value from a linked device, obtained through air or water linkage • **Locked Value** - The controller's sensor input is manually locked to a specific value	R: N/A Local Network Linkage Locked Value
Occupancy	
Occupancy Status – The controller's occupancy status.	R: Unoccupied/Occupied
BAS On/Off – Determines the controller's occupancy state and can be set over the network by another device or third party BAS. Options: • **Inactive** – Occupancy is determined by a configured schedule **Occupied** – The controller is always in the occupied mode **Unoccupied** – The controller is always in the unoccupied mode	D: Occupied R: Inactive Occupied Unoccupied
Schedules – The Schedule object's current status in the controller.	R: Unoccupied/Occupied
Occupancy Contact – The **Remote Occupancy Contact** input's current status.	R: Inactive Active Occupied
Global Occupancy – The **System Occupancy** network input's current state.	R: Inactive Active Occupied
Reset	
Heating Supply Setpoint Reset – The **Hot Water Supply Setpoint's** current reset method.	R: Inactive OAT Reset Demand Limit
Calculated OA Htg Reset – The amount of reset applied to the **Hot Water Supply Setpoint** when **OAT Reset** or **Demand Limit** are active.	R: 0 to 40°F

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Point Name/Description	Default/Range
Cooling Supply Setpoint Reset – The **Chilled Water Supply Setpoint's** current reset method.	R: Inactive OAT Reset Demand Limit
Calculated OA Clg Reset – The amount of reset applied to the **Chilled Water Supply Setpoint** when **OAT Reset**, **RH Override**, or **Demand Limit** are active.	R: 0 to 25°F
Calculated RH Clg Reset – The amount the **Calculated OA Clg Reset** is reduced when the **Space Relative Humidity** exceeds the **Occ Relative Humidity Setpoint**. Applies to the **Chilled Water Supply Setpoint** only.	R: 0 to -25°F
Demand Limit	
System Cooling Demand Level – The current system cooling demand level used by this control. **NOTE** Not shown if current level is **0**.	R: 0 to 3
System Heating Demand Level – The current system heating demand level used by this control. **NOTE** Not shown if current level is **0**.	R: 0 to 3

Alarms

Navigation: i-Vu® / Field Assistant: **Properties** > **Control Program** > **Alarms**

Point Name/Description	Default/Range
Equipment Alarm – Indicates an alarm when any point, which is specified to initiate an **Equipment Alarm** and energize the **Alarm Lamp** binary output, is currently in alarm.	R: Normal/Alarm
Compressor Status – Indicates an alarm when any **Compressor Alarm** is active.	R: Normal/Alarm
Compressor 1 – Indicates an alarm when the compressor stage 1 commanded output and status feedback input do not match after a 6-minute (not adjustable) time delay.	R: Normal/Alarm
Compressor 2 – Indicates an alarm when the compressor stage 2 commanded output and status feedback input do not match after a 6-minute (not adjustable) time delay .	R: Normal/Alarm
Compressor 3 – Indicates an alarm when the compressor stage 3 commanded output and status feedback input do not match after a 6-minute (not adjustable) time delay.	R: Normal/Alarm
Safety – Indicated 24 Vac is not applied to J1-9. N.O. Source Flow switch indicates no flow (if flow switch is installed).	R: Normal/Alarm
Communication with Master – If communications between a Slave unit, that has previously established communications with its Multi-Unit Master, fails to receive communications, the controller initiates a Communications with Master alarm after a delay of approximately 60 seconds.	R: Normal/Alarm
SPT Sensor – Displays only if SPT sensor fails to transmit information after having successfully communicated.	R: Normal/Alarm

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Point Name/Description	Default/Range
Wireless Battery Strength Alarm – Indicates one of the configured wireless space temperature sensors is displaying low charge strength.	R: Normal/Alarm
Wireless Signal Strength Alarm – Indicates one of the configured wireless space temperature sensors is displaying low radio signal strength.	R: Normal/Alarm
ZS/WS Sensor Configuration– Indicates if the ZS or wireless zone temperature sensor is not configured correctly.	R: Normal/Alarm
System T1 Sensor – Indicates if the SPT space temperature sensor is no longer communicating.	R: Normal/Alarm
Leaving Load Water Temperature – Indicates an alarm if the **Leaving Load Water Temp** falls below the low, or exceeds the high, alarm limits.	R: Normal/Alarm
Leaving Load Water Temp Sensor – Indicates an alarm if the leaving load water temperature sensor fails.	R: Normal/Alarm
Entering Load Water Temperature– Indicates an alarm if the **Entering Load Water Temp** falls below the low, or exceeds the high, alarm limits.	R: Normal/Alarm
Entering Load Water Temp Sensor– Indicates an alarm if the **Entering Load Water Temp** sensor falls below the low, or exceeds the high, alarm limits.	R: Normal/Alarm
Source Water Temperature – Indicates an alarm if the **Source Water Temp** falls below the minimum, or exceeds the maximum heating or cooling limits.	R: Normal/Alarm
Leaving Source Water Temp Sensor – Indicates an alarm if the **Leaving Source Water Temp** sensor fails.	R: Normal/Alarm
System Entering Source Water Temp Fail – Indicates an alarm if the network **Entering Source Water Temp** sensor fails.	R: Normal/Alarm
Outdoor Air Temperature – Indicates an alarm if the outdoor air temperature falls exceeds the high or low alarm limits.	R: Normal/Alarm
Outdoor Air Temp Sensor – Indicates an alarm if the outdoor air temperature sensor fails.	R: Normal/Alarm
Space Relative Humidity – Indicates if the relative humidity exceeds the high RH alarm limit.	R: Normal/Alarm
Space Relative Humidity Sensor – Indicates that a valid space relative humidity sensor or sensor value is no longer available to the controller.	R: Normal/Alarm
Source Water Linkage – Monitors the Source Water Linkage status and if it fails to be updated from the Loop controller, then a Source Water Linkage alarm is generated. There is a 6 minute alarm delay to prevent false alarms. **NOTE** You can reset this alarm only by re-establishing Linkage and correcting the condition that caused the Linkage failure, or by momentarily setting the Shutdown point to Active.	R: Normal/Alarm
Source Water Flow – The control generates a Source Water Flow failure alarm after approximately 60 seconds, indicating a loss of source water flow.	R: Normal/Alarm
Source Water Flow Comm – Available if System Source Water Flow Status is configured to support System Source Water Valve/Pump Status. The control generates a Source Water Flow Comm failure alarm after approximately 5 minutes, indicating a loss of communication with the network port.	R: Normal/Alarm
Load Water Flow – The control generates a Load Water Flow failure alarm after approximately 60 seconds indicating a loss of load water flow.	R: Normal/Alarm
Load Water Flow Comm – Generates an alarm if the load pumps are not operating or the network is not receiving a status signal.	R: Normal/Alarm

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Linkage

Navigation: i-Vu® / Field Assistant: **Properties** > **Control Program** > **Linkage**

Point Name/Description	Range
Waterside Linkage	
Waterside Linkage Collector – Set the **Number of Providers** to the total number of controllers in the linked system. When configured, the controller can collect information from other WSHP Open controllers.	D: 1 R: 1 to 64
Waterside Linkage Provider – Allows access to configuration of a water linkage system and to the Provider's details. Enter the MS/TP **Network Number** and MAC **Address** of the controller that runs the Loop Pump Monitor control program. **Network Number** **Address** **NOTE** If you change the **Network Number** or **Address**, you must use the i-Vu® application or Field Assistant to cycle power to the controller for the changes to take effect.	 D: 0 R: 0 to 65,534 D: 0 R: 0 to 99
Source Water Linkage – If **Active**, the controller is part of a linked system. If **Not Active**, the controller is a stand-alone device.	R: Active/Not Active
Loop Pump Request – Set to 1 if this WSHP requires the source water loop to operate.	R: 0/1
Loop Pump Status – The actual state of the source water loop pump(s).	R: Off/On
Heat Request – Set to 1 if this WSHP is required to operate in a heating mode.	R: 0/1
Cool Request – Set to 1 if this WSHP is required to operate in a cooling mode.	R: 0/1
Water Loop Temp – Displays the actual temperature of the source water leaving the plant and entering this WSHP.	R: -56 to 245°F
Outdoor Air Temp – Displays the outdoor air temperature being sent to this W2W Open through **Source Water Linkage**. A value of -999°F indicates the value is unavailable.	R: -999° F -56 to 245°F

I/O Points

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The values shown on the **I/O Points Properties** page are the raw values at the I/O objects and may not match values shown on status displays that are affected by control program logic.

i-Vu users logged in as **Power User** and above are able to edit various parameters associated with the input channels and the display names for all channels.

We strongly recommend that you leave these parameters at their defaults. The W2W Open is not programmable controller. I/O can only be used for the purpose designed in the equipment control program. Modifying these parameters may result in unpredictable equipment control.

Navigation: i-Vu® / Field Assistant: **Properties** > **I/O Points**

WARNINGS

- Do not change the **Value**, **Offset/Polarity**, **Exp:Num**, **I/O Type**, **Sensor/Actuator Type**, **Min/Max**, or **Resolution** I/O configuration parameter for the points listed below. Changing these parameters could cause improper control and/or equipment damage.
- Use extreme caution if locking a point as this may also cause improper control and/or equipment damage.

Point Name/Description		
RH Sensor - The current milliamp signal of the controller's **RH** input.	R:	0 to 20 mA
Lvg Source Water Temp – The value of the controller's leaving source water temperature sensor input, prior to any operator-configured **Calibration Offset**.	R:	-56 to 245°F
Lvg Load Water Temp – The value of the controller's leaving load water temperature sensor input, prior to any operator-configured **Calibration Offset**.	R:	-56 to 245°F
OAT Sensor – The value of the controller's outdoor air temperature sensor input, prior to any operator-configured **Calibration Offset**.	R:	-56 to 245°F
Ent Load Water Temp – The value of the controller's entering load water temperature sensor input, prior to any operator-configured **Calibration Offset**.	R:	-56 to 245°F
WS Battery Strength % — Displays charge strength indicated on the wireless space temperature sensor. If there are multiple wireless sensors, it displays the lowest value.	R:	__%
WS Signal Strength % — Displays radio signal strength of the wireless space temperature sensor. If there are multiple wireless sensors, it displays the lowest value.	R:	__%
Zone Temp – The value provided by the controller's ZS or wireless sensor (if present). See details below. **NOTE** ZS Standard and Carrier wireless Standard sensors only.	R:	__°F/C

ZS/WS Sensors		
W2W Open supports the ZS or wireless sensor Standard model only. Sensor configurations on the microblock's **Properties** > **Details** tab are listed below for **Zone Temp**.		
Default Value – The value that outputs when communication of all enabled sensors fails or during sensor startup. The default value is used for each sensor's corrected value in the WebCTRL® system when the **Valid?** output is False (**Off**).	D: R:	-999 -999 to 999

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Sensor Configuration table • **(Index) Area** – The Index number corresponds to the sensors defined in **Configuration** > **Service Configuration** > **Sensor Binder**. (Ctrl+click the property name. See Service Configuration.)	D: (1) Main ZS/WS Sensor R: (1) to (5)
• **Use** – Check **Enable** for each sensor that you want to include in the combination algorithm used to determine the output value.	D: Enabled index (1) R: checked or unchecked
• **Calibration** – If needed, enter a **Calculated Value** by adding the **Calibration** to the **Raw Value** for each ZS or wireless sensor.	D: 0 to 10
Combination Algorithm – If using more than one ZS or wireless sensor, select how the enabled sensors' values are to be combined to determine the output value. When the calculation is performed, only sensors with a valid value will be included.	D: Average R: Average Maximum Minimum
Input Smoothing – If the raw value from the sensor changes frequently, you can select one of the following options to send out an average of several readings on the output wire. • **None** - The raw value • **Minimum** - The average of the last 2 readings • **Medium** - The average of the last 5 readings • **Maximum** - The average of the last 9 readings	D: Medium R: None Minimum Medium Maximum
Show on sensors – Select **Local Value** to have each enabled sensor display its individual sensed value, or **Calculated Value** to have each sensor display the value determined by the **Combination Algorithm**.	D: Calculated Value R: Calculated Value Local Value
Display Resolution – Defines the resolution of the value to be displayed on the sensor. For example, 1 displays only integers (e.g., 74) and 0.5 displays values to the nearest 0.5 (e.g., 74.5).	D: 1 R: 1000 100 10 1 0.5 0.1 0.01 0.001
COV Increment – To reduce Rnet traffic, you can force the microblock to update its output only when the sensed value changes by more than the COV Increment.	D: .1 R: 0 to 100

Compressor 2 Status – The compressor 2 status contact input's current value.	R:	Off/On
Safety Chain – Status of normally closed flow switch, if used.	R:	Open/ 24 Vac present
Compressor 1 Status – The compressor 1 status contact input's current value.	R:	Off/On
Compressor 3 Status – The compressor 3 status contact input's current value.	R:	Off/On

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Remote Occupancy Contact – The remote occupancy contact input's current state.	R:	Closed /Open
Load Pump – The load pump binary output's current state.	R:	Off/On
Y4 – The Y4 (stage 4) valve binary output's current state.	R:	Off/On
Y3 – The Y3 (stage 3) valve binary output's current state.	R:	Off/On
Y2 – The Y2 (stage 2) valve binary output's current state.	R:	Off/On
Y1 – The Y1 (stage 1) valve binary output's current state.	R:	Off/On
O/B – The reversing valve binary output's current state.	R:	Off/On
Source Water Pump/Iso Valve – The source water isolation valve binary output's current state.	R:	Off/On
Alarm Lamp – The alarm lamp output's current state.	R:	Off/On

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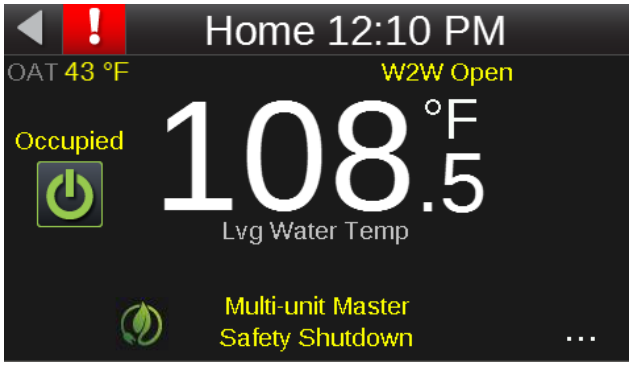
W2W Open Points/Properties on the Equipment Touch

NOTE Engineering units shown in this document in the defaults and ranges are strictly for reference. You must enter an integer only.

Navigation screens

Screen Names	Display	Details
Standby	 Not an interactive screen. Touch anywhere to advance to **Home** screen.	Screen displays after the **Inactivity Timer** expires (default is 5 minutes). Displays: • Leaving load water temperature • Mode - Operating, System, Economizer • Occupancy • Outdoor air temp, if applicable
Home	 Click ... on the right to navigate to **Snapshot** screen.	Displays: • Leaving load water temperature • Mode - Operating, System, Economizer • Occupancy • Outdoor air temp, if applicable • <<should this be OAT as below? he said outside..>>

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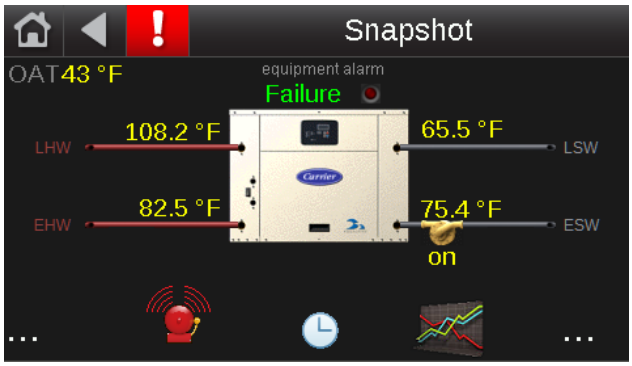
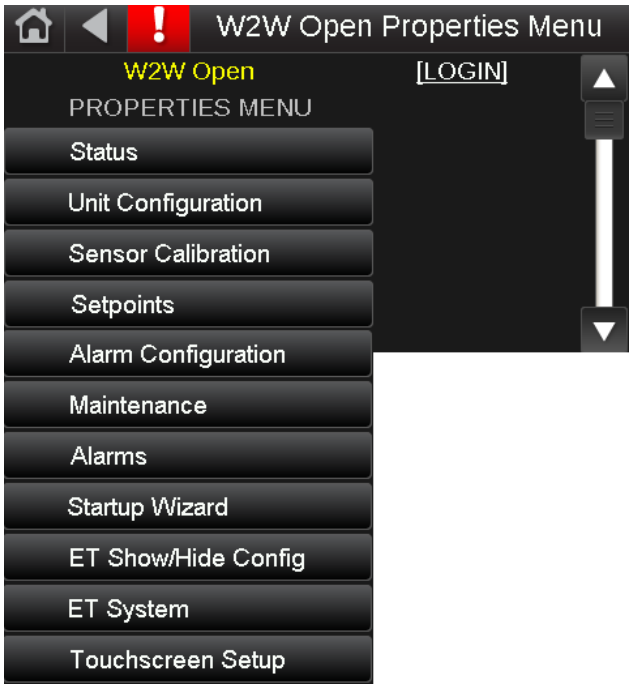
Screen Names	Display	Details
Snapshot	 Back to the **Home** screen - click ... on the left Forward to W2W Open **Properties Menu** screen - click ... on the right	Navigates to: • Equipment alarm indicator • LSW Temp, ESW Temp, LLW Temp, ELW Temp, if applicable • Source pump status • Source Iso valve status • OAT, if available and allowed • W2W Open alarms, if present • Filter Navigates to: • Alarm status • Schedules • Trends
Properties		Navigates to **Property** pages Login with one of the following passwords: ○ User level - type `user` ○ Admin level - type `admin` ○ Factory level - type `Touch` **NOTE** Only the buttons that are authorized for a specific password level are visible.

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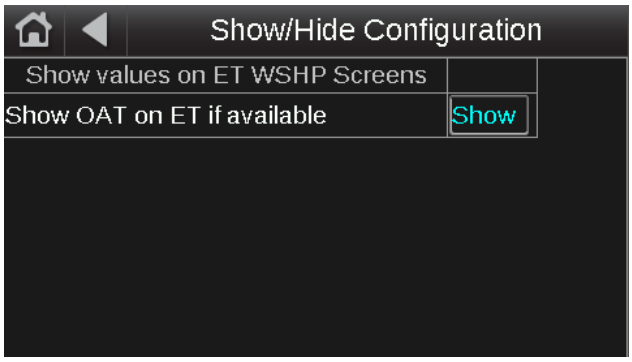
Screen Names	Display	Details
Show/Hide Configuration		Configure Show/Hide conditions for values on the following screens: • Standby • Home • Snapshot **NOTE** Only displayed for the Factory or Admin password. (See above.)

Startup Wizard

Navigation: Equipment Touch: **Startup Wizard**

Point Name/Description	Default/Range
Unit Size Nominal Cap – Used to define the size of the equipment shown on the Graphics page.	D: 6 ton R: 1 to 150 ton
Control Mode Selection – Select one of the following modes to control the device: **Manual Heat** – The equipment operates as a heating source only **Manual Cool** – The equipment operates as a cooling source only **OAT** – The equipment transitions between a heating and cooling source, as determined by the outdoor air temperature **SPT** – The equipment transitions between a heating and cooling source, as determined by an SPT temperature sensor • **System T1 Temp** – The equipment transitions between a heating and cooling source, as determined by a networked temperature variable	D: Manual Cool R: Manual Heat Manual Cool OAT SPT System T1 Temp
Total Controlled Stages – Defines the total number of system compressor stages when the control is configured as a **Multi-unit Master**. System compressor stages are the total number of compressor stages controlled by both the multi-unit Master and its associated Slaves. **Configuration** > **Service Configuration** > **Operation Type** must be set to **Multi-unit Master**.	D: Two Stage R: One Stage Two Stage Three Stage Four Stage Five Stage Six Stage Seven Stage Eight Stage

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Point Name/Description	Default/Range
System Stage # Assigned to Y1 – The stage number assigned to this controller's Y1 binary output, when the control is configured as a Slave in a multi-unit system. **Configuration** > **Service Configuration** > **Operation Type** must be set to **Single/Slave Unit** and valid communications established between the Slave and its associated Master controller.	D: 3 R: 0 to 8
Compressor Stages – The number of stages of compression.	D: Two Stage R: One Stage Two Stage Three Stage Four Stage
Refrigeration circuits – The number of separate refrigeration circuits in multi-compressor units.	D: Single R: Single Dual
Stage Number of 2nd Compressor – Configures the stage number assigned by the controller to a second compressor for the locally installed equipment. For example, on a heat pump with 2 compressors, each equipped with unloaders, the second compressor would be stage 3.	D: N/A R: N/A Two Three Four
Stage Number of 3rd Compressor – Configures the stage number assigned by the controller to a third compressor for the locally installed equipment. For example, on a heat pump with 3 single-stage compressors, the third compressor would be stage 3.	D: N/A R: N/A Two Three Four
Reversing Valve Type – The reversing valve's signal output type. • **O** - A call for cooling energizes the reversing valve • **B** - A call for cooling energizes the reversing valve	D: O R: O/B
Occ Contact Normal Logic State – Specifies the type of contact at input #9 for the normal or unoccupied state.	D: Open R: Open/Closed
Min Src H2O Temp Heating – Determines the minimum source water temperature before the unit starts heating.	D: 60°F R: 10 to 60°
Max Src H2O Temp Heating – Determines the maximum source water temperature before the unit starts heating.	D: 80°F R: 65 to 110°F
Min Src H2O Temp Cooling – Determines the minimum source water temperature before the unit starts cooling.	D: 60°F R: 30 to 60°
Max Src H2O Temp Cooling – Determines the maximum source water temperature before the unit starts cooling.	D: 95°F R: 85 to 120°F
Src H2O Flow Ctrl Device – Configures the controller for the type of equipment used to control flow source waterside.	D: Valve R: Valve Pump
Isolation Valve Type – Configures the controller for the type of installed (load water) isolation valve.	D: NC R: NC (normally closed) NO (normally open)

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Point Name/Description	Default/Range
Max OA HW Reset – The maximum amount of reset allowed for the **Hot Water Supply Setpoint**, when the **Heating Setpoint OA Reset** function is active.	D: 20°F R: 0 to 40°F
Max OA CHW Reset – The maximum amount of reset allowed for the **Chilled Water Supply Setpoint**, when the **Cooling Setpoint OA Reset** function is active.	D: 10°F R: 0 to 25°F
RH Cooling Setpoint Reset – Enables limit on the amount of outdoor air **Chilled Water Supply Setpoint** reset, based on relative humidity. Active only if all of the following are true: • **Cool Enable** (**Unit Configuration**) is set to **Enable** • **RH Cooling Setpoint Reset** is set to **Enable** • A valid outdoor air temperature is present • A valid relative humidity value is present	D: Disable R: Disable/Enable

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Document revision history

Important changes to this document are listed below. Minor changes such as typographical or formatting errors are not listed.

Date	Topic	Change description	Code*
1/9/18	Points and Properties	Support for wireless sensors added	C-AE-D
2/29/16	Start-up	Added USB Link wiring caution	C-TS-RD-E-JH
1/12/16	Setpoints	Corrected Demand Level 1 Cool Adj, Demand Level 2 Cool Adj, and Demand Level 3 Cool Adj to all say increases instead of reduces.	C-D
	W2W Open Points/Properties	Corrected Properties path to the Control Program tab from Equipment tab	C-D
3/10/15	W2W Open Points/Properties	Updated to remove all BACview reference Added ZS Sensor and Equipment Touch support Condenser Water is now referred to as Source Water	C-AE-BR-O

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