

### Commercial BACnet Thermostat Models:

**US4010/US4110\*** - Single-Stage RTU / Zoning Thermostat

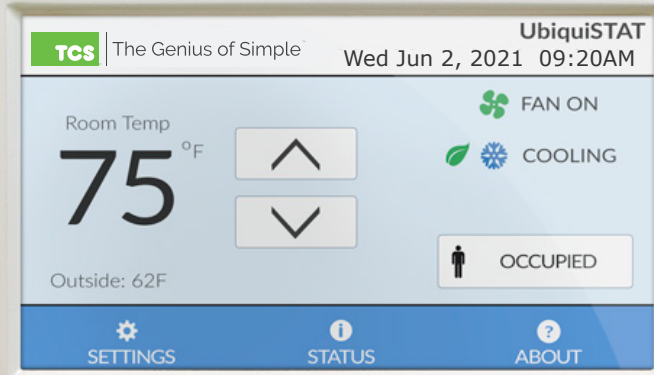
**US4020/US4120\*** - Multi-Stage RTU Thermostat

**US4040/US4140\*** - Advanced RTU Thermostat

**US4050/US4150\*** - Advanced Application Thermostat

\*Wi-Fi Model

The BACnet Explorer is an internal component of the UbiquiSTAT™ line of commercial thermostats. It is an advanced configuration tool that allows browsing and editing of most of the available settings in the UbiquiSTAT via the UbiquiSTAT's graphical interface. This guide provides detailed information on each screen within the Explorer.



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# BACnet Explorer Guide

## Description

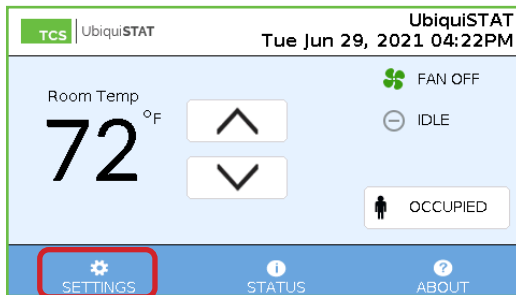
The BACnet Explorer is an advanced configuration tool built into the UbiquiSTAT line of commercial thermostats that allows browsing and editing of most of the available settings in the UbiquiSTAT, many of which are not available through the other user interface screens. The available configuration screens varies depending on the model of UbiquiSTAT.

Each Explorer screen shows a single property of a BACnet object. These same object properties can also be viewed over the network with BACnet network tools.

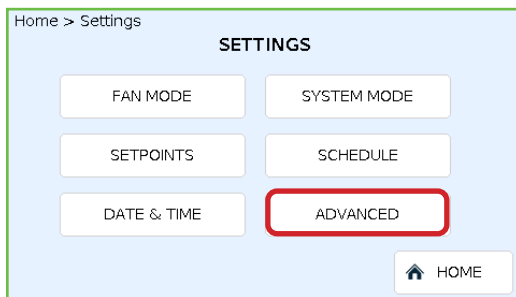
This BACnet Explorer Guide provides a brief summary of each BACnet Explorer screen and includes a handy reference to the screen location in order to quickly navigate via the screen selection buttons on the UbiquiSTAT.

## Accessing the Internal BACnet Explorer

1. On the main screen of the UbiquiSTAT, press on the SETTINGS icon.

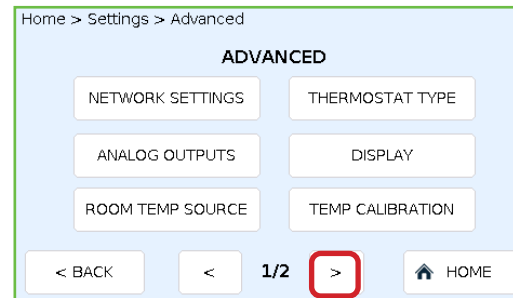


2. On the SETTINGS screen, press on the ADVANCED button.

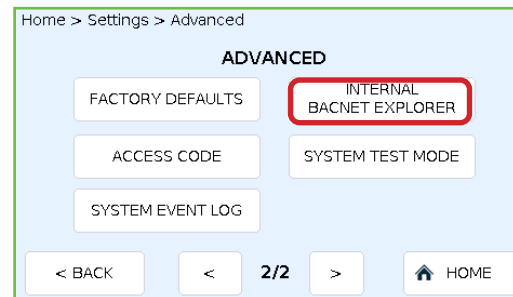


Objects that can be changed have an “Edit” button in the top left corner of the screen. Pressing the Edit button brings up an Edit screen appropriate for the property data type. The Edit screen contains a Load Default button, that when touched, loads the default value into the editor (but does not save the value). If the BACnet object is commandable and its present value is currently being commanded from the network, then the value field will include the text, “Network Override”.

3. On the ADVANCED screen (1/2), press on the > button.



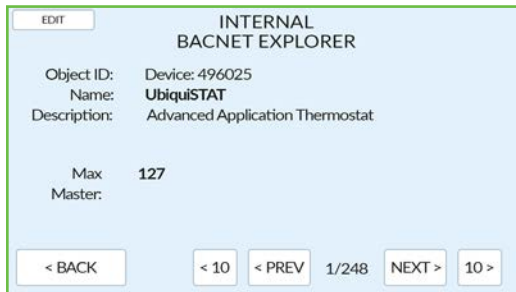
4. On the next ADVANCED screen (2/2), press on the INTERNAL BACNET EXPLORER button.



## Navigating the Internal BACnet Explorer

The following navigation tools and information allow efficient browsing:

- **Object ID:** This is shown at the top of each object's screen. This is used to locate the object when accessing it via the network.
- **Object Index:** Located between the <Prev and Next> buttons, the object index displays the current object's position relative to the total number of objects.
- **Edit Button:** When visible, allows editing object settings in the applicable screen.
- **<Prev/Next> Buttons:** Advances forward/backward one object at a time. Navigation wraps in both directions.
- **<10/10> Buttons:** Advances forward/backward 10 objects at a time. Navigation wraps in both directions.
- **Back Button:** Exits out of the Internal BACnet Explorer back to the Advanced (2/2) screen.



## Limitations

The Internal BACnet Explorer has the following limitations:

- Only the present value property of objects are shown (or editable), with the exception of the device object, which presents the Max Master MS/TP communication property. Therefore, properties such as the relay minimum on/off times and polarity are not accessible.
- Only properties that are part of the controller programming (stored in non-volatile memory) are editable. This excludes any objects that are commandable (or may be overridden) via the network.

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The table below defines each of the columns in the guide.

<b>Object ID</b>	The BACnet Object Identifier consists of both the object type and object instance number. The object type is abbreviated as follows:	
	<ul style="list-style-type: none"> <li>- AI: Analog Input</li> <li>- AO: Analog Output</li> <li>- AV: Analog Value</li> <li>- BI: Binary Input</li> <li>- BO: Binary Output</li> <li>- BV: Binary Value</li> </ul>	<ul style="list-style-type: none"> <li>- CAL: Calendar</li> <li>- CSV: Character String Value</li> <li>- FILE: File</li> <li>- MSV: Multi-State Value</li> <li>- PIV: Positive Integer Value</li> <li>- SCHED: Schedule</li> </ul>
<b>Name</b>	The name of the object (Name object property).	
<b>Description</b>	The description of the object (Description object property).	
<b>Default Value</b>	For objects that represent device programming and are stored persistently, the default value is the value assigned to the Present Value property when shipped from the factory or when factory defaults are loaded.	
<b>PV Access</b>	<p>Describes the read/write access permissions and physical storage location of the object's Present Value property, if applicable.</p> <ul style="list-style-type: none"> <li>- R/W: The Present Value property is readable and writable.</li> <li>- R: The Present Value property is read only.</li> <li>- RAM: The Present Value property is stored in RAM, and does not persist across a reset or loss of power.</li> <li>- NVM: The Present Value property is stored in Non-Volatile Memory (flash) and is retained across a reset or loss of power.</li> </ul>	
<b>Object Profile</b>	<p>The object profile to which this object conforms. The profile determines which optional properties and behaviors are implemented in the object. Objects with the same profile can be expected to have the same optional properties and behaviors. The three numbers in parentheses represent the value of the Object Profile property.</p> <p>See the UbiquiSTAT™ PICS document for a complete description of the various object profiles.</p>	
<b>Additional Information</b>	Lists any restrictions or possible state values that may be assigned to the Present Value property of the object.	
<b>Model/Screen Number</b>	This number represents the order the object appears in the device object list and the Internal BACnet Explorer screen and is cross-referenced by model number. It can be used for quick navigation to that screen.	

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
Device	UbiquiSTAT	Advanced Application Thermostat	-	-	Device - Basic (496-8-1)	-	1	1	1	1
BV-803	External Time Clock	Indicates occupancy mode as determined by some external device	-	R/W (RAM)	Commandable (496-5-2)	States: (1) Occupied, (0) Unoccupied	2	2	2	2
SCH-800	Occupancy Schedule	Schedule determining setpoints in active use	-	-	Basic (496-17-1)	-	3	3	3	3
CAL-801	Schedule Calendar	Calendar for use by the occupancy schedule	-	-	Basic (496-6-1)	-	4	4	4	4
MSV-40	Default Setpoint Pair	Setpoint pair used by occupied override and other features	(2) Occ A	R/W (NVM)	Basic (496-19-1)	States: (1) Unocc, (2) Occ A, (3) Occ B, (4) Occ C, (5) Occ D	5	5	5	5
MSV-41	Active Setpoint Pair	Active Setpoint Pair	-	R (RAM)	Basic (496-19-1)	States: (1) Unoccupied, (2) Occupied A, (3) Occupied B, (4) Occupied C, (5) Occupied D	6	6	6	6
AV-71	Active Cool Setpoint	Currently active cool setpoint	-	R/W (RAM)	Commandable (496-2-2)	Range: -40 to 160 Deg F	7	7	7	7
AV-70	Active Heat Setpoint	Currently active heat setpoint	-	R/W (RAM)	Commandable (496-2-2)	Range: -40 to 160 Deg F	8	8	8	8
AV-53	A Cool Setpoint	A Cool Setpoint	75 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	9	9	9	9
AV-52	A Heat Setpoint	A Heat Setpoint	70 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	10	10	10	10
AV-55	B Cool Setpoint	B Cool Setpoint	75 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	11	11	11	11
AV-54	B Heat Setpoint	B Heat Setpoint	70 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	12	12	12	12
AV-57	C Cool Setpoint	C Cool Setpoint	75 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	13	13	13	13

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
AV-56	C Heat Setpoint	C Heat Setpoint	70 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	14	14	14	14
AV-59	D Cool Setpoint	D Cool Setpoint	75 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	15	15	15	15
AV-58	D Heat Setpoint	D Heat Setpoint	70 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	16	16	16	16
AV-51	Unoccupied Cool Setpoint	Unoccupied Cool Setpoint	80 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	17	17	17	17
AV-50	Unoccupied Heat Setpoint	Unoccupied Heat Setpoint	60 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	18	18	18	18
AV-91	User Setpoint Adjust Limit	User Setpoint Adjust Limit	5 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 20 Deg F	19	19	19	19
MSV-94	User Setpoint Adjust Mode	User Setpoint Adjust Mode	(1) Hold	R/W (NVM)	Basic (496-19-1)	States: (1) Hold, (2) Timer	20	20	20	20
PIV-92	User Setpoint Adjust Timeout	User Setpoint Adjust Timeout	60 min	R/W (NVM)	Basic (496-48-1)	Range: 1 to 120 min	21	21	21	21
AV-90	User Setpoint Adjust	User Setpoint Adjust	-	R/W (RAM)	Basic (496-2-1)	Range: -20 to 20 Deg F	22	22	22	22
PIV-93	User Setpoint Adjust Timer	User Setpoint Adjust Timer	-	R (RAM)	Basic (496-48-1)	Range: 0 to 7200 sec	23	23	23	23
BV-950	Cool Stage 1 Enable	Cool Stage 1 Enable	(1) Enabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	24	24	24	24
AV-951	Cool Stage 1 Offset	Cool Stage 1 Offset	0 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	25	25	25	25
AV-952	Cool Stage 1 Differential	Cool Stage 1 Differential	1 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	26	26	26	26
PIV-953	Cool Stage 1 Next Stage Enable Delay	Delay before next stage is allowed to become active	120 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 3600 sec	27	27	27	27

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
BV-960	Cool Stage 2 Enable	Cool Stage 2 Enable	(1) Enabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	-	28	28	28
AV-961	Cool Stage 2 Offset	Cool Stage 2 Offset	1 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	-	29	29	29
AV-962	Cool Stage 2 Differential	Cool Stage 2 Differential	1 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	-	30	30	30
PIV-963	Cool Stage 2 Next Stage Enable Delay	Delay before next stage is allowed to become active	120 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 3600 sec	-	31	31	31
BV-970	Cool Stage 3 Enable	Cool Stage 3 Enable	(1) Enabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	-	32	32	32
AV-971	Cool Stage 3 Offset	Cool Stage 3 Offset	2 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	-	33	33	33
AV-972	Cool Stage 3 Differential	Cool Stage 3 Differential	1 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	-	34	34	34
PIV-973	Cool Stage 3 Next Stage Enable Delay	Delay before next stage is allowed to become active	120 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 3600 sec	-	35	35	35
BV-980	Cool Stage 4 Enable	Cool Stage 4 Enable	(1) Enabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	-	36	36	36
AV-981	Cool Stage 4 Offset	Cool Stage 4 Offset	3 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	-	37	37	37
AV-982	Cool Stage 4 Differential	Cool Stage 4 Differential	1 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	-	38	38	38
PIV-983	Cool Stage 4 Next Stage Enable Delay	Delay before next stage is allowed to become active	120 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 3600 sec	-	39	39	39
BV-900	Heat Stage 1 Enable	Heat Stage 1 Enable	(1) Enabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	28	40	40	40

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
AV-901	Heat Stage 1 Offset	Heat Stage 1 Offset	0 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	29	41	41	41
AV-902	Heat Stage 1 Differential	Heat Stage 1 Differential	1 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	30	42	42	42
PIV-903	Heat Stage 1 Next Stage Enable Delay	Delay before next stage is allowed to become active	120 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 3600 sec	31	43	43	43
BV-910	Heat Stage 2 Enable	Heat Stage 2 Enable	(1) Enabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	32	44	44	44
AV-911	Heat Stage 2 Offset	Heat Stage 2 Offset	1 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	33	45	45	45
AV-912	Heat Stage 2 Differential	Heat Stage 2 Differential	1 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	34	46	46	46
PIV-913	Heat Stage 2 Next Stage Enable Delay	Delay before next stage is allowed to become active	120 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 3600 sec	35	47	47	47
BV-920	Heat Stage 3 Enable	Heat Stage 3 Enable	(1) Enabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	-	48	48	48
AV-921	Heat Stage 3 Offset	Heat Stage 3 Offset	2 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	-	49	49	49
AV-922	Heat Stage 3 Differential	Heat Stage 3 Differential	1 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	-	50	50	50
PIV-923	Heat Stage 3 Next Stage Enable Delay	Delay before next stage is allowed to become active	120 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 3600 sec	-	51	51	51
BV-930	Heat Stage 4 Enable	Heat Stage 4 Enable	(1) Enabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	-	52	52	52
AV-931	Heat Stage 4 Offset	Heat Stage 4 Offset	3 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	-	53	53	53



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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
AV-932	Heat Stage 4 Differential	Heat Stage 4 Differential	1 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	-	54	54	54
PIV-933	Heat Stage 4 Next Stage Enable Delay	Delay before next stage is allowed to become active	120 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 3600 sec	-	55	55	55
AV-1003	Cool Error	Amount of cooling needed. A value of 0 indicates cooling satisfied	-	R (RAM)	Control Error (496-2-4)	Range: 0 to 400 Deg F	36	56	56	56
AV-1002	Heat Error	Amount of heating needed. A value of 0 indicates heating satisfied	-	R (RAM)	Control Error (496-2-4)	Range: 0 to 400 Deg F	37	57	57	57
BV-850	P+I Enable	Enables P+I feature on relay stage control	(0) Disabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	38	58	58	58
PIV-851	P+I Rate	Rate of the I component in Seconds/Degree, decrease for faster response	300 sec	R/W (NVM)	Basic (496-48-1)	Range: 1 to 3600 sec	39	59	59	59
AV-820	Smart Recovery Cool Rate	Rate at which the Smart Recovery adjusts the cooling setpoint in Degrees/Hour, prior to occupied	4 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 20 Deg F	40	60	60	60
AV-821	Smart Recovery Heat Rate	Rate at which the Smart Recovery adjusts the heating setpoint in Degrees/Hour, prior to occupied	4 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 20 Deg F	41	61	61	61
AV-822	Smart Recovery Cool Delta	Current adjustment applied to cooling by Smart Recovery	-	R (RAM)	Basic (496-2-1)	Range: 0 to 200 Deg F	42	62	62	62
AV-823	Smart Recovery Heat Delta	Current adjustment applied to heating by Smart Recovery	-	R (RAM)	Basic (496-2-1)	Range: 0 to 200 Deg F	43	63	63	63

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
BV-824	Smart Recovery A Enable	Smart Recovery A Enable	(0) Disabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	44	64	64	64
BV-825	Smart Recovery B Enable	Smart Recovery B Enable	(0) Disabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	45	65	65	65
BV-826	Smart Recovery C Enable	Smart Recovery C Enable	(0) Disabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	46	66	66	66
BV-827	Smart Recovery D Enable	Smart Recovery D Enable	(0) Disabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	47	67	67	67
MSV-1100	Active Fan Mode	Active Fan Mode	-	R (RAM)	Basic (496-19-1)	States: (1) Auto, (2) On, (3) Cool, (4) Auto + Re-circ	48	68	68	68
MSV-1101	Occupied Fan Mode	Occupied Fan Mode	(1) Auto	R/W (NVM)	Basic (496-19-1)	States: (1) Auto, (2) On, (3) Cool, (4) Auto + Re-circ	49	69	69	69
MSV-1102	Unoccupied Fan Mode	Unoccupied Fan Mode	(1) Auto	R/W (NVM)	Basic (496-19-1)	States: (1) Auto, (2) On, (3) Cool, (4) Auto + Re-circ	50	70	70	70
PIV-1105	Fan Post-Conditioning Runtime for Heat	How long the fan runs after all heat stages become inactive	60 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 3600 sec	51	71	71	71
PIV-1106	Fan Post-Conditioning Runtime for Cool	How long the fan runs after all cool stages become inactive	60 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 3600 sec	52	72	72	72
BV-1110	Fan Proving Input Status	Fan Proving Input Status	-	R/W (RAM)	Commandable (496-5-2)	States: (1) Active, (0) Inactive	53	73	73	73
BV-1111	Fan Proving Failure Status	Indicates whether the fan has failed proving. Write to inactive to reset fan proving	-	R/W (RAM)	Basic (496-5-1)	States: (1) Failed, (0) Ok	54	74	74	74
PIV-1112	Fan Proving Delay	Delay after fan is activated before proving is performed	30 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 600 sec	55	75	75	75

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
PIV-1113	Fan Proving Recovery Attempts	Fan Proving Recovery Attempts	-	R/W (NVM)	Basic (496-48-1)	Range: 0 to 10	56	76	76	76
PIV-1114	Fan Proving Recovery Delay	Delay between each recovery attempt after a proving failure	600 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 43200 sec	57	77	77	77
PIV-1115	Fan Recirc Period	Period over which the recirculation is calculated	20 min	R/W (NVM)	Basic (496-48-1)	Range: 10 to 60 min	58	78	78	78
PIV-1116	Fan Recirc Occupied Percentage	Minimum duty cycle for fan recirculation when occupied	5.00%	R/W (NVM)	Basic (496-48-1)	Range: 0 to 100%	59	79	79	79
PIV-1117	Fan Recirc Unoccupied Percentage	Minimum duty cycle for fan recirculation when unoccupied	0.00%	R/W (NVM)	Basic (496-48-1)	Range: 0 to 100%	60	80	80	80
MSV-1001	Thermostat Type	Thermostat Type	(1) Conventional	R/W (NVM)	Basic (496-19-1)	States: (1) Conventional, (2) Heat Pump	61	81	81	81
MSV-1000	System Mode	System Mode	(2) Auto	R/W (NVM)	Basic (496-19-1)	States: (1) Off, (2) Auto, (3) Heat, (4) Cool, (5) Emergency Heat, (6) Off + Fan Recirc	62	82	82	82
MSV-1005	Active System Mode	System mode used by control, network commandable. Program using MSV-1000	-	R/W (RAM)	Commandable (496-19-2)	States: (1) Off, (2) Auto, (3) Heat, (4) Cool, (5) Emergency Heat, (6) Off + Fan Recirc	63	83	83	83
PIV-1010	Power-Up Delay	Delay after power-up before any control is performed	10 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 3600 sec	64	84	84	84
PIV-1011	Reversing Valve Delay	Delay between reversing valve changing state and compressor running	30 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 120 sec	65	85	85	85

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
MSV-1004	System State	System State	-	R (RAM)	Basic (496-19-1)	States: (1) System Off, (2) Disabled, (3) Idle, (4) Heating, (5) Cooling, (6) Heating Lockout, (7) Cooling Lockout	66	86	86	86
MSV-700	Occupancy State	Occupancy State	-	R/W (RAM)	Commandable (496-19-2)	States: (1) Unoccupied, (2) Occupied	67	87	87	87
MSV-701	Occupancy Override Mode	Allows user to override occupancy state	(3) Unoccupied Only	R/W (NVM)	Basic (496-19-1)	States: (1) Disabled, (2) Enabled, (3) Unoccupied Only	68	88	88	88
PIV-703	Occupancy State Override Time	Duration of timed occupancy state override	180 min	R/W (NVM)	Basic (496-48-1)	Range: 0 to 10080 min	69	89	89	89
PIV-704	Occupied Transition Delay	Delay before scheduled transition to occupied occupancy state	0 sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 3600 sec	70	90	90	90
MSV-705	Occupancy Override State	Occupancy Override State	-	R (RAM)	Basic (496-19-1)	States: (1) OFF, (2) ON (Timed), (3) ON (Hold)	71	91	91	91
PIV-706	Occupancy Override Timer	Time remaining when override timer is active	-	R (RAM)	Basic (496-48-1)	Range: 0 to 604800 sec	72	92	92	92
BV-707	Momentary Occupancy Override	Momentary Occupancy Override	-	R/W (RAM)	Commandable (496-5-2)	States: (1) Active, (0) Inactive	73	93	93	93
BV-708	External Occupancy Override	Continuous override to occupied occupancy state	-	R/W (RAM)	Commandable (496-5-2)	States: (1) Active, (0) Inactive	74	94	94	94
AI-100	Internal Sensor Input	Built-in temperature input, includes user calibration	-	R (RAM)	Digital Temp Input (496-0-1)	Range: -40 to 160 Deg F	75	95	95	95
AV-110	Internal Sensor User Calibration	Built-in temperature user calibration	0 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -20 to 20 Deg F	76	96	96	96
AI-101	T1 RTD Input	T1 terminal RTD temperature input, includes user calibration	-	R (RAM)	RTD Input (496-0-2)	Range: -40 to 160 Deg F	77	97	97	97

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
AV-111	T1 RTD User Calibration	T1 RTD User Calibration	0 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -20 to 20 Deg F	78	98	98	98
AI-102	T2 RTD Input	T2 terminal RTD temperature input, includes user calibration	-	R (RAM)	RTD Input (496-0-2)	Range: -40 to 160 Deg F	79	99	99	99
AV-112	T2 RTD User Calibration	T2 RTD User Calibration	0 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -20 to 20 Deg F	80	100	100	100
AI-103	T3 RTD Input	T3 terminal RTD temperature input, includes user calibration	-	R (RAM)	RTD Input (496-0-2)	Range: -40 to 160 Deg F	81	101	101	101
AV-113	T3 RTD User Calibration	T3 RTD User Calibration	0 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -20 to 20 Deg F	82	102	102	102
AI-151	AI1	Analog Input 1	-	R (RAM)	Ammeter Input (496-0-3)	Range: 0 to 20 mA	-	-	103	103
MSV-170	AI1 Input Range	AI1 Input Range	(1) 4 - 20 mA	R/W (NVM)	Basic (496-19-1)	States: (1) 4 - 20 mA, (2) 0 - 20 mA	-	-	104	104
AV-161	AI1 Scaled Min	AI1 Scaled Min	-	R/W (NVM)	Basic (496-2-1)	Range: -1e+06 to 1e+06	-	-	105	105
AV-162	AI1 Scaled Max	AI1 Scaled Max	-	R/W (NVM)	Basic (496-2-1)	Range: -1e+06 to 1e+06	-	-	106	106
AV-181	AI1 Scaled	Analog Input 1 in engineering units	-	R (RAM)	Ammeter Scaled (496-2-3)	Range: 0 to 100%	-	-	107	107
AI-152	AI2	Analog Input 2	-	R (RAM)	Ammeter Input (496-0-3)	Range: 0 to 20 mA	-	-	-	108
MSV-171	AI2 Input Range	AI2 Input Range	(1) 4 - 20 mA	R/W (NVM)	Basic (496-19-1)	States: (1) 4 - 20 mA, (2) 0 - 20 mA	-	-	-	109
AV-163	AI2 Scaled Min	AI2 Scaled Min	-	R/W (NVM)	Basic (496-2-1)	Range: -1e+06 to 1e+06	-	-	-	110
AV-164	AI2 Scaled Max	AI2 Scaled Max	-	R/W (NVM)	Basic (496-2-1)	Range: -1e+06 to 1e+06	-	-	-	111
AV-182	AI2 Scaled	Analog Input 2 in engineering units	-	R (RAM)	Ammeter Scaled (496-2-3)	Range: 0 to 100%	-	-	-	112

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
MSV-120	Space Temperature Source	Space Temperature Source	(1) Internal Temperature	R/W (NVM)	Basic (496-19-1)	States: (1) Internal Temperature, (2) T1, (3) T1 & Internal Temp. Averaging	83	103	108	113
AV-129	Space Temperature Averaging Weight	Weight given to the Internal Temperature when averaging	50.00%	R/W (NVM)	Basic (496-2-1)	Range: 0 to 100%	84	104	109	114
MSV-121	Mixed Air Temperature Source	Mixed Air Temperature Source	(1) None	R/W (NVM)	Basic (496-19-1)	States: (1) None, (2) T1	-	-	110	115
MSV-122	Space Carbon Dioxide Source	Space Carbon Dioxide Source	(1) None	R/W (NVM)	Basic (496-19-1)	States: (1) None, (2) AI1, (3) AI2	-	-	111	116
MSV-123	Space Relative Humidity Source	Space Relative Humidity Source	(1) None	R/W (NVM)	Basic (496-19-1)	States: (1) None, (2) AI1, (3) AI2	-	-	111	117
AV-130	Space Temperature	Space Temperature	-	R/W (RAM)	Commandable (496-2-2)	Range: -40 to 160 Deg F	85	105	112	118
AV-131	Discharge Air Temperature	Discharge Air Temperature	-	R/W (RAM)	Commandable (496-2-2)	Range: -40 to 160 Deg F	86	106	113	119
AV-132	Outdoor Air Temperature	Outdoor Air Temperature	-	R/W (RAM)	Commandable (496-2-2)	Range: -40 to 160 Deg F	87	107	114	120
AV-133	Mixed Air Temperature	Mixed Air Temperature	-	R/W (RAM)	Commandable (496-2-2)	Range: -40 to 160 Deg F	-	-	115	121
AV-134	Space Carbon Dioxide	Space Carbon Dioxide	-	R/W (RAM)	Commandable (496-2-2)	Range: 0 to 10000 ppm	-	-	116	122
AV-135	Space Relative Humidity	Space Relative Humidity	-	R/W (RAM)	Commandable (496-2-2)	Range: 0 to 100% RH	-	-	-	123
BI-251	DI1	Digital Input 1	-	R (RAM)	Digital Input (496-3-1)	States: (1) On, (0) Off	88	108	117	124

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
MSV-261	DI1 Mode	Digital Input 1 Mode	(1) Monitor	R/W (NVM)	Basic (496-19-1)	States: (1) Monitor, (2) Filter Service, (3) Service, (4) Fan Proving, (5) Economizer Enable, (6) AquaStat, (7) Momentary Occupancy Override, (8) External Occupancy Override, (9) External Time Clock, (10) Setpoint Setback	89	109	118	125
BI-252	DI2	Digital Input 2	-	R (RAM)	Digital Input (496-3-1)	States: (1) On, (0) Off	90	110	119	126
MSV-262	DI2 Mode	Digital Input 2 Mode	(1) Monitor	R/W (NVM)	Basic (496-19-1)	States: (1) Monitor, (2) Filter Service, (3) Service, (4) Fan Proving, (5) Economizer Enable, (6) AquaStat, (7) Momentary Occupancy Override, (8) External Occupancy Override, (9) External Time Clock, (10) Setpoint Setback	91	111	120	127
BI-253	DI3	Digital Input 3	-	R (RAM)	Digital Input (496-3-1)	States: (1) On, (0) Off	92	112	121	128
MSV-263	DI3 Mode	Digital Input 3 Mode	(1) Monitor	R/W (NVM)	Basic (496-19-1)	States: (1) Monitor, (2) Filter Service, (3) Service, (4) Fan Proving, (5) Economizer Enable, (6) AquaStat, (7) Momentary Occupancy Override, (8) External Occupancy Override, (9) External Time Clock, (10) Setpoint Setback	93	113	122	129
BO-301	W1	Heat 1 / Auxiliary Heat 1 relay	-	R/W (RAM)	Relay (496-4-1)	States: (1) On, (0) Off	94	114	123	130
BO-302	W2	Heat 2 / Auxiliary Heat 2 relay	-	R/W (RAM)	Relay (496-4-1)	States: (1) On, (0) Off	-	115	124	131
BO-303	Y1	Cool 1 / Compressor 1 relay	-	R/W (RAM)	Relay (496-4-1)	States: (1) On, (0) Off	95	116	125	132
BO-304	Y2	Cool 2 / Compressor 2 relay	-	R/W (RAM)	Relay (496-4-1)	States: (1) On, (0) Off	-	117	126	133

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
BO-305	G	Fan relay	-	R/W (RAM)	Relay (496-4-1)	States: (1) On, (0) Off	96	118	127	134
BO-306	B/O	Heat pump reversing valve relay, additional stages	-	R/W (RAM)	Relay (496-4-1)	States: (1) On, (0) Off	97	119	128	135
MSV-316	B/O Mode	B/O relay mode	(1) Off	R/W (NVM)	Basic (496-19-1)	States: (1) Off, (2) Reversing Valve, (3) Heat Stage 3, (4) Cool Stage 3, (5) Heat Stage 4, (6) Cool Stage 4	98	120	129	136
BO-307	TC	Time clock output relay, additional stages	-	R/W (RAM)	Relay (496-4-1)	States: (1) On, (0) Off	99	121	130	137
MSV-317	TC Mode	TC relay mode	(1) Off	R/W (NVM)	Basic (496-19-1)	States: (1) Off, (2) Time Clock, (3) Heat Stage 3, (4) Cool Stage 3, (5) Heat Stage 4, (6) Cool Stage 4	100	122	131	138
AO-200	A01	Analog Output 1	-	R/W (RAM)	Current Generator (496-1-1)	Range: 0 to 20 mA	101	-	132	139
AV-240	A01 Percentage	Analog Output 1 percentage	-	R/W (RAM)	Commandable (496-2-2)	Range: 0 to 100%	102	-	133	140
MSV-210	A01 Mode	Analog Output 1 mode	(1) Off	R/W (NVM)	Basic (496-19-1)	States: (1) Off, (2) Heat/Cool/Aquastat, (3) OA Damper, (4) Midpoint	103	-	134	141
MSV-220	A01 Action	Analog Output 1 action	(1) Direct	R/W (NVM)	Basic (496-19-1)	States: (1) Direct, (2) Reverse	104	-	135	142
MSV-230	A01 Range	Analog Output 1 range	(1) 4 - 20 mA	R/W (NVM)	Basic (496-19-1)	States: (1) 4 - 20 mA, (2) 0 - 20 mA	105	-	136	143
AO-201	A02	Analog Output 2	-	R/W (RAM)	Current Generator (496-1-1)	Range: 0 to 20 mA	106	-	-	144
AV-241	A02 Percentage	Analog Output 2 percentage	-	R/W (RAM)	Commandable (496-2-2)	Range: 0 to 100%	107	-	-	145
MSV-211	A02 Mode	Analog Output 2 mode	(1) Off	R/W (NVM)	Basic (496-19-1)	States: (1) Off, (2) Heat/Cool/Aquastat, (3) OA Damper, (4) Midpoint	108	-	-	146
MSV-221	A02 Action	Analog Output 2 action	(1) Direct	R/W (NVM)	Basic (496-19-1)	States: (1) Direct, (2) Reverse	109	-	-	147



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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
MSV-231	A02 Range	Analog Output 2 range	(1) 4 - 20 mA	R/W (NVM)	Basic (496-19-1)	States: (1) 4 - 20 mA, (2) 0 - 20 mA	110	-	-	148
MSV-1400	A01 H/C/A Mode	Analog Output 1 Heat/Cool/Aquastat Mode	(1) Heat	R/W (NVM)	Basic (496-19-1)	States: (1) Heat, (2) Cool, (3) Aquastat	111	-	-	149
AV-1410	A01 H/C/A Min Position	Analog Output 1 Heat/Cool/Aquastat minimum position	0.00%	R/W (NVM)	Basic (496-2-1)	Range: 0 to 100%	112	-	-	150
AV-1420	A01 H/C/A Max Position	Analog Output 1 Heat/Cool/Aquastat maximum position	100.00%	R/W (NVM)	Basic (496-2-1)	Range: 0 to 100%	113	-	-	151
MSV-1430	A01 H/C/A Unoccupied Mode	Analog Output 1 Heat/Cool/Aquastat unoccupied mode	(1) Modulate	R/W (NVM)	Basic (496-19-1)	States: (1) Modulate, (2) Fixed	114	-	-	152
AV-1440	A01 H/C/A Unoccupied Fixed Output	Analog Output 1 Heat/Cool/Aquastat unoccupied fixed output	100.00%	R/W (NVM)	Basic (496-2-1)	Range: 0 to 100%	115	-	-	153
MSV-1401	A02 H/C/A Mode	Analog Output 2 Heat/Cool/Aquastat Mode	(1) Heat	R/W (NVM)	Basic (496-19-1)	States: (1) Heat, (2) Cool, (3) Aquastat	116	-	-	154
AV-1411	A02 H/C/A Min Position	Analog Output 2 Heat/Cool/Aquastat minimum position	0.00%	R/W (NVM)	Basic (496-2-1)	Range: 0 to 100%	117	-	-	155
AV-1421	A02 H/C/A Max Position	Analog Output 2 Heat/Cool/Aquastat maximum position	100.00%	R/W (NVM)	Basic (496-2-1)	Range: 0 to 100%	118	-	-	156
MSV-1431	A02 H/C/A Unoccupied Mode	Analog Output 2 Heat/Cool/Aquastat unoccupied mode	(1) Modulate	R/W (NVM)	Basic (496-19-1)	States: (1) Modulate, (2) Fixed	119	-	-	157
AV-1441	A02 H/C/A Unoccupied Fixed Output	Analog Output 2 Heat/Cool/Aquastat unoccupied fixed output	100.00%	R/W (NVM)	Basic (496-2-1)	Range: 0 to 100%	120	-	-	158

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
MSV-1450	Aquastat Mode	Aquastat method for determining whether to heat or cool	(1) Analog	R/W (NVM)	Basic (496-19-1)	States: (1) Analog, (2) Digital	121	-	-	159
AV-1451	Aquastat Analog Setpoint	Setpoint used by analog aquastat mode	75 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	122	-	-	160
BV-1452	Aquastat Digital Control	Aquastat Digital Control	-	R/W (RAM)	Commandable (496-5-2)	States: (1) Heat, (0) Cool	123	-	-	161
AV-1600	Heat Analog Output	Heat Analog Output	-	R (RAM)	Basic (496-2-1)	Range: 0 to 100%	124	-	-	162
AV-1601	Cool Analog Output	Cool Analog Output	-	R (RAM)	Basic (496-2-1)	Range: 0 to 100%	125	-	-	163
AV-1610	Heat Prop Band	Proportional band for modulating heat	5 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	126	-	-	164
AV-1611	Cool Prop Band	Proportional band for modulating cool	5 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	127	-	-	165
AV-1602	AO Heat Setpoint Offset	Offset subtracted from the heat setpoint for modulating control	0 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 25 Deg F	128	-	-	166
AV-1603	AO Cool Setpoint Offset	Offset added to the cool setpoint for modulating control	0 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 25 Deg F	129	-	-	167
BV-1604	Heat Discharge Reset Enable	Heat Discharge Reset Enable	(0) Disabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	130	-	-	168
AV-1606	Heat Discharge Reset Ratio	Heat Discharge Reset Ratio	-	R/W (NVM)	Basic (496-2-1)	Range: 0 to 10	131	-	-	169
AV-1608	Heat Discharge Reset Base Setpoint	Heat Discharge Reset Base Setpoint	75 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	132	-	-	170

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
AV-1612	Heat Discharge Reset Active Setpoint	Heat Discharge Reset Active Setpoint	-	R (RAM)	Basic (496-2-1)	Range: -40 to 160 Deg F	133	-	-	171
BV-1605	Cool Discharge Reset Enable	Cool Discharge Reset Enable	(0) Disabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	134	-	-	172
AV-1607	Cool Discharge Reset Ratio	Cool Discharge Reset Ratio	-	R/W (NVM)	Basic (496-2-1)	Range: 0 to 10	135	-	-	173
AV-1609	Cool Discharge Reset Base Setpoint	Cool Discharge Reset Base Setpoint	60 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	136	-	-	174
AV-1613	Cool Discharge Reset Active Setpoint	Cool Discharge Reset Active Setpoint	-	R (RAM)	Basic (496-2-1)	Range: -40 to 160 Deg F	137	-	-	175
MSV-1622	Heat Discharge Tempering Mode	Heat Discharge Tempering Mode	(1) Off	R/W (NVM)	Basic (496-19-1)	States: (1) Off, (2) On, (3) Occupied Only	138	-	-	176
AV-1620	Heat Discharge Tempering Setpoint	Heat Discharge Tempering Setpoint	60 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	139	-	-	177
AV-1624	Heat Discharge Tempering Prop Band	Proportional band for heat discharge tempering	10 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	140	-	-	178
AV-1626	Heat Discharge Tempering Output	Heat Discharge Tempering Output	-	R (RAM)	Basic (496-2-1)	Range: 0 to 100%	141	-	-	179
MSV-1623	Cool Discharge Tempering Mode	Cool Discharge Tempering Mode	(1) Off	R/W (NVM)	Basic (496-19-1)	States: (1) Off, (2) On, (3) Occupied Only	142	-	-	180
AV-1621	Cool Discharge Tempering Setpoint	Cool Discharge Tempering Setpoint	80 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	143	-	-	181

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
AV-1625	Cool Discharge Tempering Prop Band	Proportional band used by cool discharge tempering	10 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	144	-	-	182
AV-1627	Cool Discharge Tempering Output	Cool Discharge Tempering Output	-	R (RAM)	Basic (496-2-1)	Range: 0 to 100%	145	-	-	183
AV-1500	Outdoor Damper Min Position	Outdoor Damper Min Position	0.00%	R/W (NVM)	Basic (496-2-1)	Range: 0 to 100%	-	-	137	184
MSV-1501	Outdoor Damper Control Source	Outdoor Damper Control Source	(1) Discharge Air	R/W (NVM)	Basic (496-19-1)	States: (1) Discharge Air, (2) Mixed Air	-	-	138	185
AV-1510	Economizer Output	Economizer Output	-	R (RAM)	Basic (496-2-1)	Range: 0 to 100%	-	-	139	186
MSV-1511	Economizer Mode	Determines when economizer is activated	(3) Drybulb Setpoint	R/W (NVM)	Basic (496-19-1)	States: (1) Off, (2) Digital Input, (3) Drybulb Setpoint, (4) Drybulb Compare	-	-	140	187
AV-1512	Economizer Setpoint	Economizer Setpoint	55 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	-	-	141	188
AV-1513	Economizer Prop Band	Proportional band for economizer	10 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	-	-	142	189
AV-1514	Economizer OA Drybulb Setpoint	Economizer Outdoor Drybulb Setpoint	60 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	-	-	143	190
AV-1515	Economizer OA Drybulb Compare Delta	Difference between outdoor and space temperature before economizer is activated	10 Deg F	R/W (NVM)	Basic (496-2-1)	Range: 0 to 50 Deg F	-	-	144	191
BV-1516	Economizer Unoccupied Enable	Economizer Unoccupied Enable	(0) Disabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	-	-	145	192
BV-1517	Economizer DI Enable	Economizer enable for Digital Input economizer mode	-	R/W (RAM)	Commandable (496-5-2)	States: (1) Enabled, (0) Disabled	-	-	146	193

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
BV-1518	Economizer Free Cooling Available	Indicates economizer can provide cooling	-	R (RAM)	Basic (496-5-1)	States: (1) True, (0) False	-	-	147	194
BV-1519	Economizer Enabled	Indicates economizer is currently providing cooling	-	R (RAM)	Basic (496-5-1)	States: (1) True, (0) False	-	-	148	195
AV-1530	Demand Ventilation Output	Demand Ventilation Output	-	R (RAM)	Basic (496-2-1)	Range: 0 to 100%	-	-	149	196
BV-1531	Demand Ventilation Enable	Demand Ventilation Enable	(0) Disabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	-	-	150	197
AV-1532	Demand Ventilation Setpoint	Demand ventilation CO2 setpoint	900 ppm	R/W (NVM)	Basic (496-2-1)	Range: 0 to 1000 ppm	-	-	151	198
AV-1533	Demand Ventilation Prop Band	Demand ventilation CO2 proportional band	200 ppm	R/W (NVM)	Basic (496-2-1)	Range: 0 to 1000 ppm	-	-	152	199
BV-1534	Demand Ventilation LL Override Enable	Allows demand ventilation to override discharge air low limit	(1) Enabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	-	-	153	200
AV-1540	OA Damper Discharge Air LL Output	OA Damper Discharge Air Low Limit Output	-	R (RAM)	Basic (496-2-1)	Range: 0 to 100%	-	-	154	201
BV-1541	OA Damper Discharge Air LL Enable	OA Damper Discharge Air Low Limit Enable	(1) Enabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	-	-	155	202
AV-1542	OA Damper Discharge Air LL Setpoint	Setpoint at which the OA damper is fully closed	40 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	-	-	156	203
AV-1550	Pre-occ Purge Output	Pre-occupancy Purge Output	-	R (RAM)	Basic (496-2-1)	Range: 0 to 100%	-	-	157	204

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
BV-1551	Pre-occ Purge Enable	Pre-occupancy Purge Enable	(0) Disabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	-	-	158	205
AV-1552	Pre-occ Purge OA Damper Position	Pre-occupancy Purge OA Damper Position	25.00%	R/W (NVM)	Basic (496-2-1)	Range: 0 to 100%	-	-	159	206
PIV-1553	Pre-occ Purge Duration	Duration prior to occupied occupancy state when feature is active	60 min	R/W (NVM)	Basic (496-48-1)	Range: 0 to 240 min	-	-	160	207
AV-1700	Midpoint Bias	Percent of output allocated to heating for midpoint control.	50.00%	R/W (NVM)	Basic (496-2-1)	Range: 0 to 100%	146	-	-	208
BSV-1120	Limit and Lockout Status	Limit and Lockout Status	-	R (RAM)	Basic (496-39-1)	Bits: (1) OA Lockout Heat, (2) OA Lockout Cool, (3) DA Limit Heat, (4) DA Limit Cool, (5) LL Changeover	147	123	161	209
BV-1130	Outdoor Air Lockout Enable	Outdoor Air Lockout Enable	(0) Disabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	148	124	162	210
AV-1132	Outdoor Air Lockout Cool Setpoint	Mechanical cooling is not allowed when outdoor air is below this value	55 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	149	125	163	211
AV-1131	Outdoor Air Lockout Heat Setpoint	Heating is not allowed when outdoor air is above this value	70 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	150	126	164	212
BV-1140	Discharge Air Limit Enable	Discharge Air Limit Enable	(0) Disabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	151	127	165	213
AV-1142	Discharge Air Limit Cool Setpoint	Cooling is not allowed when discharge air is below this value	40 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	152	128	166	214
AV-1141	Discharge Air Limit Heat Setpoint	Heating is not allowed when discharge air is above this value	140 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	153	129	167	215
BV-1150	Low Limit Changeover Enable	Outdoor air low limit changeover enable (heat pump only)	(0) Disabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	154	130	168	216

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
AV-1151	Low Limit Changeover Setpoint	Compressors are disabled below this outdoor air setpoint (heat pump only)	20 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	155	131	169	217
BV-1250	DI Setpoint Setback State	DI Setpoint Setback State	-	R/W (RAM)	Commandable (496-5-2)	States: (1) Active, (0) Inactive	156	132	170	218
BV-1251	DI Setpoint Setback Input	DI Setpoint Setback Input	-	R (RAM)	Commandable (496-48-1)	States: (1) Active, (0) Inactive	157	133	171	219
PIV-1252	DI Setpoint Setback Start Delay	Duration setback must remain active before setback state becomes active	60 Sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 3600 Sec	158	134	172	220
PIV-1253	DI Setpoint Setback Minimum On Time	DI Setpoint Setback Minimum On Time	60 Sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 3600 Sec	159	135	173	221
AV-1254	DI Setpoint Setback Value	Amount to setback the heating and cooling setpoints	2 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -25 to 25 Deg F	160	136	174	222
BSV-1200	Service Status	Service Status	-	R (RAM)	Basic (496-39-1)	Bits: (1) Check Filter, (2) Fan Proving, (3) Discharge Limit Low, (4) Discharge Limit High, (5) DI1 Service, (6) DI2 Service, (7) DI3 Service	161	137	175	223
CSV-1210	DI1 Service Status Custom Message	DI1 Service Status Custom Message	-	R/W (NVM)	Basic (496-40-1)	-	162	138	176	224
CSV-1211	DI2 Service Status Custom Message	DI2 Service Status Custom Message	-	R/W (NVM)	Basic (496-40-1)	-	163	139	177	225
CSV-1212	DI3 Service Status Custom Message	DI3 Service Status Custom Message	-	R/W (NVM)	Basic (496-40-1)	-	164	140	178	226

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
PIV-401	Command Override Timeout	Commands at priority 10 are automatically relinquished after this time	600 Sec	R/W (NVM)	Basic (496-48-1)	Range: 0 to 604800 Sec	165	141	179	227
BV-802	Daylight Saving Time Enable	Daylight Saving Time Enable	(1) Enabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled,(0) Disabled	166	142	180	228
PIV-603	RS-485 Address	RS-485 Address	0	R/W (NVM)	Basic (496-48-1)	Range: 0 to 127	167	143	181	229
MSV-601	RS-485 Baud Rate	RS-485 Baud Rate	(3) 38,400	R/W (NVM)	Basic (496-19-1)	States: (1) 9,600, (2) 19,200, (3) 38,400, (4) 57,600, (5) 76,800, (6) 15,200	168	144	182	230
MSV-602	RS-485 Mode	Communication Protocol used on the RS- 485 bus	(2) BACnet MS/TP	R/W (NVM)	Basic (496-19-1)	States: (1) TCSbus, (2) BACnet MS/TP	169	145	183	231
BV-1800	Residential Mode Enable	Residential Mode Enable	(0) Disabled	R/W (NVM)	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	170	146	184	232
MSV-1801	Residential Mode Setpoint Source	Residential Mode Setpoint Source	(1) Schedule	R/W (NVM)	Basic (496-19-1)	States: (1) Schedule, (2) Hold	171	147	185	233
AV-1802	Residential Mode Hold Heat Setpoint	Residential Mode Hold Heat Setpoint	70 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	172	148	186	234
AV-1803	Residential Mode Hold Cool Setpoint	Residential Mode Hold Cool Setpoint	75 Deg F	R/W (NVM)	Basic (496-2-1)	Range: -40 to 160 Deg F	173	149	187	235
PIV-501	User Access Code	Access code required to change settings at thermostat. Set 0 to disable	-	R/W (NVM)	Basic (496-48-1)	Range: 0 to 9999	174	150	188	236
MSV-502	Display Clock Format (12/24 hour)	Time format shown on local display	(1) 12 Hour	R/W (NVM)	Basic (496-19-1)	States: (1) 12 Hour, (2) 24 Hour	175	151	189	237
MSV-503	Display Units (F/C)	Temperature units on local display	(1) Fahrenheit	R/W (NVM)	Basic (496-19-1)	States: (1) Fahrenheit, (2) Celsius	176	152	190	238



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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
MSV-504	Display Brightness	Backlight brightness on local display	(3) High	R/W (NVM)	Basic (496-19-1)	States: (1) Low, (2) Medium, (3) High	177	153	191	239
MSV-505	Display Banner Mode	Information shown in top-right corner of local display	(1) Date & Time and Name	R/W (NVM)	Basic (496-19-1)	State: (1) Date & Time and Name, (2) Date & Time Only	178	154	192	240
MSV-507	Display Branding Mode	Controls brand information on display	(2) TCS	R/W (NVM)	Basic (496-19-1)	State: (1) None, (2) TCS, (3) Custom	179	155	193	241
CSV-506	Display Info Text	Optional text shown on local display. Automatically cleared after Command Override Timeout	-	R/W (NVM)	Basic (496-40-1)	-	180	156	194	242
CSV-508	Display About Text	Text shown on About screen when in Custom Branding mode	-	R/W (NVM)	Basic (496-40-1)	-	181	157	195	243
BV-2012	WiFi Enable	Allows the WiFi feature to be disabled if not in use	-	R/W (NVM)	Basic (496-40-1)	States: (1) Enabled, (0) Disabled	182*	158*	196*	244*
MSV-2010	WiFi Status	Current status of the WiFi connection	(13) Disabled	R, NVM	Basic (496-19-1)	(1) Unknown, (2) Connected, (3) Initializing, (4) Initialized, (5) Disconnecting, (6) Not Configured, (7) Key Invalid, (8) Join Failed, (9) Authenticating, (10) Obtaining DHCP, (11) Configuring Sockets, (12) Scanning for SSID, (13) Disabled	183*	159*	197*	245*
PIV-2011	Signal Strength	Signal strength as measured by the radio	-	R, NVM	Basic (496-19-1)	Larger numbers are better	184*	160*	198*	246*
CSV-2000	IP Address	Current or last known IPv4 address in dotted notation	0.0.0.0	R/W, NVM	Basic (496-40-1)	Write only if Static Addressing	185*	161*	199*	247*
CSV-2001	IP Subnet Mask	Current or last known IPv4 subnet mask address in dotted notation	0.0.0.0	R/W, NVM	Basic (496-40-1)	Write only if Static Addressing	186*	162*	200*	248*

\*Models 4110, 4120, 4140, 4150 only

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
CSV-2002	IP Gateway Address	Current or last known IPv4 gateway address in dotted notation	0.0.0.0	R/W, NVM	Basic (496-40-1)	Write only if Static Addressing	187*	163*	201*	249*
CSV-2009	IP DNS Address	Current or last known IPv4 DNS address in dotted notation	0.0.0.0	R/W, NVM	Basic (496-40-1)	Write only if Static Addressing	188*	164*	202*	250*
PIV-2003	IP BACnet Port	Current port used for BACnet/IP traffic	47808	R/W, NVM	Basic (496-48-1)	Range: 47808 - 47823	189*	165*	203*	251*
CSV-2004	IP Name	Name presented by device on network	-	R/W, NVM	Basic (496-40-1)	-	190*	166*	204*	252*
MSV-2005	IP Address Mode	IP Address Mode	DHCP (1)	R/W, NVM	Basic (496-19-1)	States: (1) DHCP, (2) Static	191*	167*	205*	253*
CSV-2006	WiFi SSID	WiFi Network SSID	-	R/W, NVM	Basic (496-40-1)	-	192*	168*	206*	254*
CSV-2007	WiFi Passphrase	WiFi Network Passphrase	-	W, NVM	Basic (496-40-1)	-	193*	169*	207*	255*
MSV-2008	WiFi Security Mode	WiFi Security Mode	(1) None	R/W, NVM	Basic (496-19-1)	State: (1) None, (2) WPA, (3) WPA2, (4) WEP	194*	170*	208*	256*
CSV-2013	MAC Address	MAC Address in hyphen notation	-	R/W, NVM	Basic (496-40-1)	-	195*	171*	209*	257*
PIV-2014	WiFi Reset Interval	Interval in Hours to wait between resetting the WiFi interface.	12	R/W, NVM	Basic (496-48-1)	Range 0 to 48 Hours	196*	172*	210*	258*
BV-2017	Foreign Device Registration Enable	Turn on foreign device registration functionality	(0) Disabled	R/W, NVM	Basic (496-5-1)	State: (1) Enabled, (0) Disabled	197*	173*	211*	259*
CSV-2015	IP Address of BBMD	IPv4 address of BBMD, in dotted notation	-	R/W, NVM	Basic (496-40-1)	-	198*	174*	212*	260*
PIV-2016	Foreign Device Registration TTL	Interval in seconds that will be requested as TTL with BBMD	1800 sec	R/W, NVM	Basic (496-48-1)	Range: 30 to 65534 Seconds	199*	175*	213*	261*

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Object ID	Name	Description	Default Value	PV Access	Object Profile	Additional Information	Model/Screen Number			
							4010	4020	4040	4050
							4110	4120	4140	4150
FILE-1300	Firmware Upgrade File	Firmware Upgrade File	-	R/W, NVM	Dataflash (496-10-1)	-	182 200	158 176	196 214	244 262
FILE-1301	Factory Settings File	Factory Settings File	-	R/W, NVM	Dataflash (496-10-2)	-	183 201	159 177	197 215	245 263
FILE-1302	User Settings File	User settings for backup and restore	-	R/W, NVM	Dataflash (496-10-2)	-	184 202	160 178	198 216	246 264
FILE-1303	Operation Statistics File	Operation Statistics File	-	R/W, NVM	Dataflash (496-10-2)	-	185 203	161 179	199 217	247 265
FILE-1304	User Image File	User Image File	-	R/W, NVM	Dataflash (496-10-1)	-	186 204	162 180	200 218	248 266
FILE-1320	Diagnostic Log File	Diagnostic Log File	-	R/W, NVM	Basic (496-10-3)	-	187 205	163 181	201 219	249 267
IV-3000	IV Example Object	IV Example Object	0	R/W, NVM	Basic (496-45-2)	Range: -100 to 100	188 206	164 182	202 220	250 268
PIV-3001	PIV Object Example	PIV Object Example	0	R/W, NVM	Basic (496-45-2)	-	189 207	165 183	203 221	251 269
MSV-318	Y1 Mode	Heat Stage 2 in Conventional Mode	(1) Cool Stage 1	R/W, NVM	Basic (496-19-1)	State: (1) Cool Stage 1, (2) Heat Stage 2	190 208	-	-	-
AO-3002	AO Example Object	AO Example Object	-	R/W (RAM)	Current Generator (496-1-1)	Range: 0 - 20 mA	-	166 184	-	-
BV-509	Status Screen Access Code Enable	Access Code PIV:501 required to change Status Screens at the thermostat. Set to 0 to Disable.	(0) Disabled	R/W, NVM	Basic (496-5-1)	States: (1) Enabled, (0) Disabled	191 209	167 185	204 222	252 270
MSV-499	Home Screen Input Source	Home Screen Input Source	Outside	R/W, NVM	Basic (496-19-1)	State: (1) None, (2) Outside, (3) Discharge, (4) Mixed, (5) Humidity, (6) CO <sup>2</sup>	192 210	168 186	205 223	253 271

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