

ExactLogic BACnet Communicating Thermostat EXL01625 Sequence Datasheet

Fan Coil with Modulatating H/C and PO-PC H/C



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DataSheet Rev 1.12.312/6.1 July 07, 2020





Operating Sequence

Standard Occupied

During normal occupied operation the display will show the current room temperature. The first press of either right pair of keys will show the current room setpoint. Additional presses will adjust the setpoint up or down by 0.5 degrees. The thermostat keypad will time out after 5 seconds without a key press, and the display will switch back to displaying the room temperature.

The left pair of keys allows for the adjustment of the fan speed. The current mode is shown with the first key press; additional key presses will show the adjustment to the mode. AV-62 is used to select the number of fan speeds, and AV-63 will show what speed the fan is currently set to. Refer to the table below for the values of AV-62 (Fan Mode Status) and AV-63 (Fan Speed Status)

AV-62	Mode		
0	AUTO Only		
1	AUTO-ON		
2	OFF-AUTO-ON		
3	OFF-1-2-AUTO		
4	OFF-1-2-3-AUTO		

AV-63	Fan Speed
0	OFF
1	Fan Speed 1
2	Fan Speed 2
3	Fan Speed 3
4	AUTO
5	ON

Internal/External Thermistor Control

The thermostat control sequence can use the internal thermistor or an external thermistor connected to AI-2. Setting BV-67 to OFF (default) the thermostat will use the internal thermistor. Setting BV-67 to ON the control sequence will use the external thermistor.

The current controlling temperature is located at AV-20. This value will be displayed on the LCD of the thermostat and should be used on any workstation displays.

Control Sequence - Fan Start

There are two modes that can be configured to start the fan via BV-69. When BV-69 is INACTIVE the fan will be started by schedule (BO-5), after hour's setback, or by a night heating/cooling call. When BV-69 is active the fan will start by the heating or cooling signals. There as a configurable setpoint for heating (AV-45) and cooling (AV-46) that can be used to determine at what percentage the fan should start.

Control Sequence – Heat / Cool

Heating and Cooling achieved using power open/close or two staged digital outputs or by modulating analog outputs, which are tied to the heating/cooling signals.

Standard Unoccupied

During unoccupied operation the thermostat will continue to display the room temperature. When in an unoccupied state pressing one of the right pair of keys will display a message indicating the thermostat is in night mode, preventing the setpoint from being adjusted. To adjust the room setpoint when unoccupied the thermostat must be set to night override.





Control Sequence

When in the unoccupied mode, the room will be controlled by the unoccupied cooling/heating setpoints. The fan and cooling/heating stages will operate the same as the occupied control sequence.

Vacancy

If a room is known to be vacant, vacant setpoints can be used to override the unoccupied setpoints. By setting BV-70, a room will be controlled by the vacant cooling/heating setpoints (AV-64/65).

Night Override

Set the night override by pressing one of the left pair of keys. The display will switch to allow the user to set the night override time. Additional presses of the keys will adjust the time up or down by 0.5 hour increments. The night override can be increased up to the override limit set at AV-73, the default is 5 hours. When the thermostat is in night override, the first press of one of the left pair of keys will display the override time remaining. Additional key presses will add/subtract 0.5 hours to the time that was remaining. When the timer reaches zero the thermostat will return to the unoccupied mode.

In the night override mode, the right pair of keys can be used to adjust the room setpoint. The thermostat keypad will time out after 5 seconds without a key press, and the display will switch back to displaying the room temperature.

The thermostat can be set to night override by writing a value to AV-74 through BACnet. The value can not exceed the night override limit set at AV-73. If the night override time is set higher than the limit, the night override timer will be set the limit. The night override limit default is 5 hours.

If the thermostat is commanded to the occupied mode while in night override, the override timer will be cleared to zero and the thermostat will enter the occupied mode.

Control Sequence

When the thermostat is in the override mode, the room will be controlled by the occupied cooling/heating setpoints. The fan and cooling/heating stages will operate the same as the occupied control sequence.

Note: There is no fan control in the override mode. The fan will run in the AUTO mode.

Humidity Option Card

With the humidity option card installed the Humidity Sensor can be enabled by setting AV-31 to 4. These settings will automatically provide the required voltage to power the sensor. The Humidity value is shown on AI-1 and will automatically be scaled.





Disabling of the Splash, Setup Menu, or Field Service Mode

When the thermostat is installed in a public location there may be times when the setup of the thermostat will need to be disabled to prevent tenants from changing the configuration while still giving them access to change the setpoints and control after hours modes. The following points have been added to allow this:

BV-57 = Setting ACTIVE will disable the "EXACTLOGIC" splash display after key presses

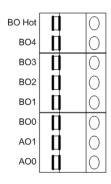
BV-58 = Setting ACTIVE will disable access to the Setup Menu where the Network/MAC/Baud Rate/etc are set

BV-59 = Setting ACTIVE will disable access to the Field Service Mode where Time/Schedule/Setpoints/etc are set





Installation



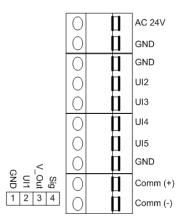


Fig. 4

*Note: Thermostat Common Relay point (BO Hot) usually 24VAC/DC or R

AC 24V	24VAC/DC Hot
	Neutral/Ground
GND	Neutral/Ground
UI2	Universal Input 2
	Universal Input 3
	Universal Input 4
UI5	Universal Input 5
	Neutral/Ground
Comm (+)	Network Positive Line
Comm (-)	Network Negative Line
BO Hot	. Com, 24VAC Hot for relays*
BO4	Relay 5 Output, 24VAC/DC
	Relay 4 Output, 24VAC/DC
BO2	Relay 3 Output, 24VAC/DC
	Relay 2 Output, 24VAC/DC
BO0	Relay 1 Output, 24VAC/DC
AO1	Analog Output 1, 0-10V
AO0	Analog Output 0, 0-10V
1	Neutral/Ground
2	Universal Input 1
3	Analog Output 2
4	Reserved

Output Wiring

Output/Label Function - Modulating Function - Staged

BO0	Fan	Fan
BO1	Cooling Valve Open	Stage 1 Cooling
BO2	Cooling Valve Close	Stage 2 Cooling
BO3	Heating Valve Open	Stage 1 Heating
BO4	Heating Valve Close	Stage 2 Heating
AO0	Heating 0-10 Vdc 0-100%	Heating 0-10 Vdc 0-100%
AO1	Cooling 0-10 Vdc 0-100%	Cooling 0-10 Vdc 0-100%





Reserved BACnet Points

The following are points reserved by the thermostat for operation.

Analog Inputs

Instance	Object Name	Description	Read/Write	Default
AI-0	Space Temp	Reading of the internal thermistor in counts. 0-1024	R	variable
Al-1	Humidity	Reading from the Humidity sensor add-on card	R	variable
Al-2	Ext. Room Temp	Optional external room temperature input	R	variable
AI-3	Analog Input 03	Reading of the external input 3 in counts. 0-1024	R	variable
AI-4	Condensate Sensor	Condensate safety sensor	R	variable
AI-5	Analog Input 05	Reading of the external input 5 in counts. 0-1024	R	variable

Analog Outputs

Instance	Object Name	Description	Read/Write	Default
AO-0	Radiation	0-10V output for control of heating	R/W	0.0
AO-1	Cooling	0-10V output for control of cooling	R/W	0.0
AO-2	Analog Output 2	Variable 0-14VDC, 150mA output	R/W	0.0

Analog Values

Instance	Object Name	Description	Read/Write	Default
AV-0	Mode of Operation	The mode that the thermostat is currently in. 0 = Heat Mode 1 = Cool Mode 2 = Idle 3 = Afterhours 4 = Unoccupied Idle 5 = Unoccupied Heat Mode 6 = Unoccupied Cool Mode	R	4
AV-1	Analog Value 001			
AV-2	Analog Value 002			
AV-3	Analog Value 003			
AV-4	Current Htg SP	The setpoint that controls heating. If the room temperature goes below this setpoint the thermostat will enter heating mode.	R	60.0°F/16°C
AV-5	Current Clg SP	The setpoint that controls cooling. If the room temperature goes above this setpoint the thermostat will enter cooling mode.	R	80.0°F/27°C
AV-6	Heating SP	The setpoint used for heating during occupied mode. This setpoint is calculated by AV-66 (Current SP) – AV-70 (Heating Offset)	R	72.0°F/22.5°C
AV-7	Cooling SP	The setpoint used for cooling during occupied mode. This setpoint is calculated by AV-66 (Current SP) + AV-69 (Cooling Offset)	R	74.0°F/23.5°C
AV-8	Heat Signal (%)	Current heating signal as a percent	R	0%
AV-9	Cool Signal (%)	Current cooling signal as a percent	R	0%





AV-10	Analog Value 010			
AV-11	Analog Value 011			
AV-12	Analog Value 012			
AV-13	Analog Value 013			
AV-14	Analog Value 014			
AV-15	Analog Value 015			
AV-16	Analog Value 016			
AV-17	Analog Value 017			
AV-18	Analog Value 018			
AV-19	Analog Value 019			
AV-20	Room Temp	Selected from either AI-0 or AI-2. BV-67 is used for selection. This is the value displayed on the LCD of the thermostat and should be used to display the temperature on any workstation display.	R	variable
AV-21	Analog Value 021			
AV-22	Analog Value 022			
AV-23	Analog Value 023			
AV-24	Heating Valve % Open	The percentage open that the heating valve has been commanded.	R/W	0%
AV-25	Cooling Valve % Open	The percentage open that the cooling valve has been commanded.	R/W	0%
AV-26	Cooling Deviation	Number of degrees that the room temperature is away from the cooling setpoint	R	variable
AV-27	Heating Deviation	Number of degrees that the room temperature is away from the heating setpoint	R	variable
AV-28	Deviation from SP	Number of degrees that the room temperature is away from the room setpoint	R	variable
AV-29	Zone Scan	Numerical representation of the thermostats mode. 100 = full heat, -100 = full cool	R	0
AV-30	AI-0 Setup	Parameter used to set the input type. 0 = counts 1 = temperature 2 = 4-20mA 3 = 0-5V 4 = 0-10V 5 = pulse	R	1
AV-31	Al-1 Setup	See AV-30	R	0
AV-32	AI-2 Setup	See AV-30	R	0
AV-33	AI-3 Setup	See AV-30	R	0
AV-34	AI-4 Setup	See AV-30	R	0
AV-35	AI-5 Setup	See AV-30	R	0
AV-36	Analog Value 036		R/W	0
AV-37	Analog Value 037		R/W	100
AV-38	Analog Value 038		R/W	0
AV-39	Analog Value 039		R/W	100
AV-40	Analog Value 040		R/W	0
AV-41	Analog Value 041		R/W	100
AV-42	Analog Value 042		R/W	0
AV-43	Analog Value 043		R/W	100
AV-44	Analog Value 044			
AV-45	Heating % for Fan	The heating signal percentage that is required to command the fan ON.	R/W	10%





AV-46 Cooling % for Fan AV-47 Filter Alarm SP AV-48 Heating Valve Deadband AV-48 Heating Valve Deadband AV-49 Heating Valve Deadband AV-49 Heating Valve Deadband AV-49 Heating Valve Deadband AV-50 Heating KP AV-51 Heating KP AV-52 Cooling KP AV-53 Cooling KP AV-53 Cooling KP AV-54 Pilter Alarm SP AV-55 Pilter Runtine AV-55 Cooling KP AV-56 Reserved AV-57 Filter Runtine AV-58 Reserved AV-59 Reserved AV-59 Reserved AV-50 Calibration Offset AV-50 Calibration Offset AV-61 Space Alarm AV-61 Space Alarm AV-61 Space Alarm Offset AV-62 # of Fan Speeds AV-62 # of Fan Speeds AV-63 Current Fan AV-63 Speed AV-64 Vacant Cooling SP AV-65 Vacant Heating OFF Average Stower vacant, the setpoint can be set below the unoccupied setpoint. AV-64 Vacant Cooling SP AV-65 Vacant Heating SP AV-66 Coulong SP AV-67 Occupied SP Low Limit AV-68 Clg Offset The amount of inverted coors setpoint used to accudate the Occupied SP Low Limit The amount of runtime hours for the filter AV-61 Space Alarm Offset AV-62 # of Fan Speeds AV-63 AV-64 Vacant Cooling SP AV-64 Vacant Cooling SP AV-65 Vacant Heating SP AV-66 Room Setpoint AV-66 Room Setpoint AV-67 Occupied SP Low Limit The maximum occupied room setpoint allowed The maximum occupied room setpoint used to Alace Rounting SP AV-68 Room Setpoint AV-69 Clg Offset The maximum occupied room setpoint allowed AV-69 Clg Offset AV-69 Clg Offset The offset from Room Setpoint used to accudate the Row The offset from Room Setpoint used to accudate the Rounce of Cooling SP AV-69 Clg Offset AV-69 Clg Offset The offset from Room Setpoint used to accudate the Rounce of Cooling SP AV-69 Clg Offset AV-69 Clg Offset The offset from Room Setpoint used to accudate the Rounce of Cooling SP AV-69 Clg Offset AV-69 Clg Offset AV-69 Clg Offset AV-69 Clg Offset The offset from Roo					
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AV-52 Cooling Kp Proportional constant for Cooling PI Loop R/W 12 AV-53 Cooling Ki Integral Constant for Cooling PI Loop R/W 1 AV-54 Cooling Valve Deadband The deadband used to determine when to open or close the damper Cooling Valve Motor Time The amount of time to open the damper from 0% open to 100% open The AV-55 Filter Runtime The amount of runtime hours for the filter Runtime AV-57 Fan Runtime The amount of runtime hours for the filter Runtime AV-58 Reserved The amount of runtime hours for the filter Runtime AV-58 Reserved The amount of runtime hours for the filter Runtime AV-59 Average Time Base Space Temp AV-60 Calibration Offset The Calibration offset over time. A large number will cause the room temperature to change slower over time. AV-60 Calibration Offset The Calibration offset for the internal thermistor. Runtime Offset The Calibration offset for the internal thermistor. Runtime Offset The Current Cooling/Heating SP is used to determine if the space is too warm/cold, and set an alarm if necessary. Select the number of fan speeds for a multispeed fan. AV-62 # of Fan Speeds Speed 1 = AUTO - ON 2 Off- AUTO - ON 3 Off-12-AUTO 4 = Off-12-AUTO 1	AV-51		Integral Constant for Heating PI Loop	R/W	1
AV-54 Cooling Valve Deadband Deadband Under Deadband Deadband Close the damper of Cooling Valve Motor Time The amount of time to open the damper from 0% open to 100% open to	AV-52			R/W	12
AV-55 Deadband close the damper RVW 3% S% Cooling Valve Motor Time AV-56 Filter Runtime The amount of time to open the damper from 0% open to 100% o	AV-53	Cooling Ki	Integral Constant for Cooling PI Loop	R/W	1
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AV-62 # of Fan Speeds fan.	AV-61		used to determine if the space is too warm/cold,	R/W	5.0°F/2.5°C
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Limit The minimum occupied room setpoint allowed R/W 55.0 F/13.0 C	AV-67	Limit	The maximum occupied room setpoint allowed.	R/W	85.0°F/30.0°C
	AV-68	-	The minimum occupied room setpoint allowed	R/W	55.0°F/13.0°C
	AV-69	Clg Offset		R/W	1.0°F/0.5°C





AV-70	Htg Offset	The offset from Room Setpoint used to calculate the Occupied Heating SP	R/W	1.0°F/0.5°C
AV-71	Unoccupied Clg SP	The cooling setpoint used when the thermostat is unoccupied.	R/W	80.0°F/27.0°C
AV-72	Unoccupied Htg SP	The heating setpoint used when the thermostat is unoccupied.	R/W	60.0°F/16.0°C
AV-73	After Hours Limit	The maximum hours the thermostat is allowed to run during afterhours time. Setting this will set the thermostat to occupied operation. (0-99.9 hrs)	R/W	5.0 hrs
AV-74	After Hours Timer	The current amount of afterhours time left.	R	0.0 hrs
AV-75	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-76	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-77	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-78	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-79	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-80	Reserved	This point is reserved for internal thermostat use and its value cannot be changed	R	0
AV-81	Motion OFF Delay	The amount of time to delay the ON->OFF transition of the motion sensor occupied command after no motion is detected	R/W	900 sec
AV-82	Analog Value 082			
AV-83	Analog Value 083			
AV-84	Analog Value 084			
	_			
AV-100	Analog Value 100	Internal thermistor display descriptor. The present value is automatically transferred. The AV description holds the descriptor to display.	R	variable
AV-101	Analog Value 101	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display.	R/W	
AV-102	Analog Value 102	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-103	Analog Value 103	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-104	Analog Value 104	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-105	Analog Value 105	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-106	Analog Value 106	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-107	Analog Value 107	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	





AV-108	Analog Value 108	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-109	Analog Value 109	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-110	Analog Value 110	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-111	Analog Value 111	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	
AV-112	Analog Value 112	Display descriptor. Transfer the value to display to the present value. The AV description holds the descriptor to display	R/W	

Binary Inputs

Instance	Object Name	Description	Read/Write	Default
BI-0	Binary Input 00		R	
BI-1	Binary Input 01		R	
BI-2	Binary Input 02		R	
BI-3	Binary Input 03		R	
BI-4	Condensate Sensor	Optional condensate sensor input	R	
BI-5	Opt. Occupied Relay	Optional occupancy relay input	R	





Binary Outputs

Instance	Object Name	Description	Read/Write	Default
BO-0	Fan	Output for Fan Control	R/W	OFF
BO-1	Cooling Valve Open/Stage 1	Output to open the cooling valve or control stage 1	R/W	OFF
BO-2	Cooling Valve Close/Stage 2	Output to close the cooling valve or control stage 2	R/W	OFF
BO-3	Heating Valve Open/Stage 1	Output to open the heating valve or control stage 1	R/W	OFF
BO-4	Heating Valve Close/Stage 2	Output to close the heating valve or control stage 2	R/W	OFF
BO-5	Scheduled Occupied	Logical point only. Used for scheduling purposes. INACTIVE is unoccupied.	R/W	OFF

Binary Values

Instance	Object Name	Description	Read/Write	Default
BV-0	Bad Room Sensor	Alarm for a bad internal thermistor	R	OFF
BV-1	H/C Mode	Sequence point to show analog heating or cooling. OFF = Cooling ON = Heat	R	OFF
BV-2	Binary Value 002			
BV-3	Binary Value 003			
BV-4	Binary Value 004			
BV-5	Binary Value 005			
BV-6	Binary Value 006			
BV-7	Binary Value 007			
BV-8	Binary Value 008			
BV-9	Space Alarm Delay	Delay used to prevent a space alarm after receiving an occupied command. The delay is 7200 sec	R/W	OFF
BV-10	Program Status	Used to determine if the sequence was loaded correctly on a BACnet Restore or power up.	R	OFF
BV-11	Binary Value 011			
BV-12	Binary Value 012			
BV-13	Binary Value 013			
BV-14	Unoccupied Heating Request	Unoccupied heating request	R	OFF
BV-15	Unoccupied Cooling Request	Unoccupied cooling request	R	OFF
BV-16	Unoccupied Heating Status	Unoccupied heating request command	R	OFF
BV-17	Unoccupied Cooling Status	Unoccupied cooling request command	R	OFF
BV-18	Binary Value 018			
BV-19	Binary Value 019			
BV-20	Binary Value 020			
BV-21	Binary Value 021			
BV-22	Too Warm Status	Status of the Too Warm Alarm before checking the Space Alarm Delay	R	OFF





BV-23					
BV-24 Space 10 Walfrith Alarm	BV-23	Too Cool Status	Space Alarm Delay	R	OFF
BV-26 Binary Value 026 BV-27 Binary Value 027 BV-28 Filter Alarm BV-29 Condensation Alarm Enable BV-30 Condensation Alarm Enable BV-31 Condensation Alarm Mo/NC BV-31 Condensation BV-32 Select BV-33 Condensate Alarm BV-33 Condensate Alarm BV-33 Condensate Alarm BV-33 Select BV-33 Select BV-33 Select BV-34 Binary Value 034 BV-35 Binary Value 035 BV-36 Binary Value 035 BV-37 Binary Value 038 BV-38 Binary Value 038 BV-39 Binary Value 038 BV-39 Binary Value 038 BV-30 Cocupied Status BV-40 Opt. Start Warmup BV-41 Opt. Start Warmup BV-42 Opt. Start Cooldown BV-44 After Hours Status BV-44 After Hours Status BV-45 Reserved BV-46 Binary Value 046 BV-47 Binary Value 047 BV-48 Binary Value 048 BV-49 Update BV-49 Update BV-40 OFF BV-50 Staged Heating Select BV-40 Binary Value 048 BV-40 BV-41 Bl tor Occupancy BV-44 Binary Value 046 BV-47 Binary Value 046 BV-47 Binary Value 047 BV-48 Binary Value 048 BV-49 Update BV-49 Update BV-40 DF Bill bir Occupancy BV-50 Bill bir Occupancy BV-51 Bill bor Occupancy BV-52 Bill bir DV-52 Bill bird DV-54 Bill bird Bird Bird Bird Bird Bird Bird Bird B	BV-24		Room Set point (AV-66) + Space Alarm Offset	R	OFF
BV-27 Binary Value 027 BV-28 Filter Alarm Filter Alarm BV-29 Condensation Alarm Enable Alarm Enable Alarm Enable BV-30 Condensation Alarm Enable BV-30 Condensation Alarm No/NC BV-31 Condensate Alarm Condensation Alarm SV-30 Open when On or Normally Closed when Off Select Swod. Floating Point / Power Open/close Select Gr BO-3 & BO-4. ON-Depen/Close For BO-3 & BO-4. ON-Depen/Close Select Gr BO-3 & BO-4. ON-Depen/Close Select Swod. Floating Point / Power Open/close For BO-3 & BO-4. ON-Depen/Close Select Swod. Floating Point / Power Open/close For BO-3 & BO-4. ON-Depen/Close For BO-1 & BO-2. ON-Depen/Close For BO-3 & Bo-4. ON-Depen/Close For BO-1 & BO-2. ON-Depen/Close For BO-3 & Bo-4. ON-Depen/Close For BO-1 & BO-2. ON-Depen/Close For BO-3 & Bo-4. ON-Depen/Close For BO-1 & BO-2. ON-Depen/Close For BO-3 & Bo-4. ON-Depen/Close For BO-1 & BO-2. ON-Depen/Cl	BV-25		Room Set point (AV-66) - Space Alarm Offset	R	OFF
BV-28 Filter Alarm BV-29 Condensation Alarm Enable BV-30 Condensation Alarm NO/NC BV-31 Condensation Alarm NO/NC BV-32 Select Cooling Type Selects Mod. Floating Point / Power Open/close for BO-1 & BO-2. ON=Open/Close BV-33 Cooling Type Selects Mod. Floating Point / Power Open/close for BO-1 & BO-2. ON=Open/Close BV-34 Binary Value 034 BV-35 Binary Value 035 BV-36 Binary Value 035 BV-37 Binary Value 035 BV-39 Binary Value 039 BV-40 Occupied Status BV-41 Opt. Start Warmup BV-41 Opt. Start Cooldown BV-42 Opt. Start Cooldown BV-43 Occ Set point Mode BV-43 Occ Set point Mode BV-44 After Hours Status BV-44 After Hours Status BV-45 Reserved BV-46 Binary Value 046 BV-47 BV-48 Binary Value 048 BV-48 Binary Value 048 BV-49 Update BV-49 Update BV-40 DR Start Warmup BV-40 BV-41 DR Start Warmup BV-41 BV-42 Reserved BV-43 Reserved BV-44 After Hours Status BV-45 BInary Value 046 BV-46 Binary Value 046 BV-47 BV-48 Binary Value 048 BV-49 Update BV-49 Update BV-40 BI Binary Value 048 BV-40 BI Binary Value 048 BV-41 BV-42 BI BI Binary Value 048 BV-43 BI Binary Value 048 BV-44 BI	BV-26	Binary Value 026			
BV-29 Condensation Alarm Enable BV-30 Condensation Alarm Enable BV-30 Condensation Alarm Enable BV-31 Condensation Alarm NoVINC Open when On or Normally Closed when Off Select Mod. Floating Point / Power Open/close Select for BO-3 & BO-4. ONE-Open/Close Select for BO-1 & BO-2. ONE-Open/Close Select for BO-1 & BO-2. ONE-Open/Close Select Selec	BV-27	Binary Value 027			
BV-29 Alarm Enable	BV-28	Filter Alarm		R	OFF
BV-31	BV-29		Turning on enables condensation alarm	R/W	OFF
BV-32 Select South Floating Point / Power Open/close for BO-3 & BO-4. ON=Open/Close for BO-3 & BO-4. ON=Open/Close Select South Floating Point / Power Open/close Select South Floating Point / Power Open/close Select South Floating Point / Power Open/close R/W OFF Select South Floating Point / Power Open/close R/W OFF Select South Floating Point / Power Open/close R/W OFF Select South Floating Point / Power Open/close R/W OFF Select South Floating Point / Power Open/close R/W OFF Select South Floating Point / Power Open/close R/W OFF Select South Floating Point / Power Open/close R/W OFF Select South Floating Point / Power Open/close R/W OFF Select South Floating Point / Power Open/close R/W OFF Select Select Select South Floating Point / Power Open/close R/W OFF Select Select Select South Floating Point / Power Open/close R/W OFF Select Select Select South Floating Point / Power Open/close R/W OFF Select Select Select South Select Select Select South Select Select Select Select South Select Select Select South Select Select Select Select Select South Select				R	OFF
BV-32 Select for BO-3 & BO-4. ON=Open/Close BV-33 Cooling Type Selects Mod. Floating Point / Power Open/close BV-34 Binary Value 034 BV-35 Binary Value 035 BV-36 Binary Value 036 BV-37 Binary Value 037 BV-38 Binary Value 039 BV-39 Binary Value 039 BV-40 Occupied Status of this point switches the thermostat is in Occupied Setpoint Mode or After Hours Mode. BV-41 Opt. Start Warmup BV-42 Opt. Start Cooldown BV-43 Occ Set point Mode BV-43 Occ Set point Mode BV-44 After Hours Status BV-44 After Hours Status BV-45 Reserved BV-46 Binary Value 046 BV-47 Binary Value 048 BV-49 Update Descriptors BV-40 RI for Occupancy V BI for Occupancy V BI for Occupancy V BV B	BV-31			R	OFF
BV-33 Select for BO-1 & BO-2. ON=Open/Close R/W OFF BV-34 Binary Value 034 BV-35 Binary Value 035 BV-36 Binary Value 036 BV-37 Binary Value 037 BV-38 Binary Value 039 BV-40 Occupied Status The status of this point switches the thermostat is in Occupied Setpoint Mode or After Hours Mode. BV-41 Opt. Start Warmup Opt. Start Warmup Cooldown Command has been sent to the thermostat. When ON the thermostat will switch to occupied settings. BV-42 Opt. Start Cooldown A Warmup command has been sent to the thermostat. When ON the thermostat will switch to occupied settings. BV-43 Occ Set point Mode or After Hours Mode. BV-44 After Hours Status The thermostat has been commanded occupied via BO-5, or a Warmup/Cooldown command has been sent via BV-41/BV-42. BV-45 Reserved Reserved Settings. Reserved for thermostat will switch to occupied settings. BV-45 Reserved When ON the thermostat will switch to occupied settings. Reserved for thermostat will switch to occupied settings. Reserved for thermostat use only. Do not write to this point. BV-48 Binary Value 046 BV-49 Update Update When ON descriptor changes are sent to the thermostats LCD, this point will auto reset to OFF. O-50% heating signal will use the radiation as stage 1 heat. Staged Heating Select Solonom Compancy OPF	BV-32			R/W	OFF
BV-34 Binary Value 034 BV-35 Binary Value 035 BV-36 Binary Value 036 BV-37 Binary Value 037 BV-38 Binary Value 039 Binary Value 041 Occupied Settings. ON when the thermostat is in Occupied Setpoint Mode or After Hours Mode. BV-41 Opt. Start Warmup Command has been sent to the thermostat. When ON the thermostat will switch to occupied settings. BV-42 Opt. Start Cooldown Command has been sent to the thermostat. When ON the thermostat will switch to occupied settings. BV-43 Occ Set point Mode Value 046 BV-44 After Hours Status When ON the thermostat will switch to occupied settings. BV-44 After Hours Status When ON the thermostat will switch to occupied settings. BV-45 Reserved Reserved Fremostat use only. Do not write to this point. BV-48 Binary Value 046 BV-47 Binary Value 047 BV-48 Binary Value 048 Binary	BV-33			R/W	OFF
BV-35 Binary Value 035 BV-36 Binary Value 037 BV-38 Binary Value 038 BV-39 Binary Value 039 BV-40 Occupied Status BV-41 Opt. Start Warmup Opt. Start Warmup Opt. Start Cooldown BV-42 Opt. Start Cooldown BV-43 Occupied Setpoint Mode or After Hours Mode. A Warmup command has been sent to the thermostat will switch to occupied settings. A Cooldown command has been sent to the thermostat. When ON the thermostat will switch to occupied settings. A Cooldown command has been sent to the thermostat. When ON the thermostat will switch to occupied settings. A Cooldown command has been sent to the thermostat will switch to occupied settings. A Cooldown command has been sent to the thermostat will switch to occupied settings. The thermostat has been commanded occupied via BV-41/BV-42. The thermostat has been set to after hours mode. When ON the thermostat will switch to occupied settings. BV-45 Reserved Reserved for thermostat use only. Do not write to this point. BV-48 Binary Value 046 BV-49 Update Update Descriptor changes are sent to the Descriptors thermostats LCD, this point will auto reset to OFF. Staged Heating Select Staged Heating Select BV-51 Biter Occurancy ON = BI will be used to indicate zone occupancy ON = BI will be used to indicate zone occupancy	BV-34				
BV-36 Binary Value 036 BV-37 Binary Value 038 BV-39 Binary Value 039 BV-40 Occupied Status BV-40 Occupied Status Opt. Start Warmup Opt. Start Cooldown BV-42 Opt. Start Cooldown BV-43 Opt. Start Cooldown BV-44 After Hours Status BV-44 After Hours Status BV-45 Reserved BV-46 Binary Value 046 BV-47 Binary Value 048 BV-49 Descriptors BV-49 Descriptors BV-40 Opt. Start Start Cooldown Command has been sent to the thermostat. When ON the thermostat will switch to occupied settings. BV-46 Binary Value 046 BV-47 Binary Value 048 BV-48 BV-49 Descriptors BV-49 BV-49 Descriptors BV-40 Descriptors BV-40 Descriptors BV-41 BV-42 Descriptors BV-44 Descriptors BV-45 BV-46 Binary Value 048 BV-47 Binary Value 048 BV-48 Binary Value 048 BV-49 Descriptors BV-49 Descriptors BV-40 Descriptors BV-41 BV-42 Descriptors BV-43 Descriptors BV-44 Descriptors BV-45 Descriptors BV-46 Descriptors BV-47 Binary Value 048 BV-48 Binary Value 048 BV-49 Descriptors BV-49 Descriptors BV-40 Descriptors BV-40 Descriptors BV-41 BV-42 Descriptors BV-43 Descriptors BV-44 Descriptors BV-45 Descriptors BV-46 Descriptors BV-47 Binary Value 048 BV-49 Descriptors BV-49 Descriptors BV-40 Descriptors BV-40 Descriptors BV-40 Descriptors BV-40 Descriptors BV-40 Descriptor Descriptors BV-40 Descriptor Descriptors BV-40 Descriptors BV-40 Descriptors BV-40 Descriptor Descriptors BV-40 Descriptor		-			
BV-37 Binary Value 037 BV-38 Binary Value 038 BV-39 Binary Value 039 BV-40 Occupied Status BV-41 Opt. Start Warmup BV-42 Opt. Start Cooldown BV-43 Occ Set point Mode BV-44 After Hours Status BV-44 After Hours Status BV-45 Reserved BV-46 Binary Value 046 BV-47 Binary Value 048 BV-48 BV-49 Update Descriptors BV-49 BV-49 BV-49 Staged Heating Select BV-40 BV-40 BV-40 Opt. Start Coolom When On descriptor changes are sent to the thermostat will switch to be the thermostat will switch to be the thermostat will switch to occupied settings. BV-46 BV-47 Binary Value 046 BV-48 BV-49 BV-49 BV-49 BV-49 BV-49 BV-49 BV-49 BV-49 BV-40 BV		-			
BV-38 Binary Value 038 BV-39 Binary Value 039 BV-40 Occupied Status The status of this point switches the thermostats occupancy settings. ON when the thermostat is in Occupied Setpoint Mode or After Hours Mode. A Warmup command has been sent to the thermostat. When ON the thermostat will switch to occupied settings. BV-41 Opt. Start Warmup BV-42 Opt. Start Cooldown Occ Set point Mode BV-43 Occ Set point Mode BV-44 After Hours Status BV-45 Reserved BV-46 Binary Value 046 BV-47 Binary Value 047 BV-48 Binary Value 048 BV-49 Update Descriptors BV-49 DS After Hours Status BV-40 Staged Heating Select BV-50 Staged Heating Select BV-51 BI for Occupancy The status of this point switches the thermostats is noccupied settings. OFF The thermostat. When ON the thermostat will switch to occupied via BO-5, or a Warmup/Cooldown command has been sent via BV-41/BV-42. The thermostat has been commanded occupied via BO-5, or a Warmup/Cooldown command has been sent via BV-41/BV-42. The thermostat has been set to after hours mode. When ON the thermostat will switch to occupied settings. Reserved for thermostat use only. Do not write to this point. BV-40 Binary Value 046 BV-41 Binary Value 047 BV-48 Binary Value 048 BV-49 Update Descriptors thermostat LCD, this point will auto reset to OFF. O-50% heating signal will use the radiation as stage 1 heat. Solect ON = BI will be used to indicate zone occupancy ON = BI will be used to indicate zone occupancy		-			
BV-39 Binary Value 039 BV-40 Occupied Status The status of this point switches the thermostats occupancy settings. ON when the thermostat is in Occupied Setpoint Mode or After Hours Mode. BV-41 Opt. Start Warmup Opt. Start Warmup Cooldown Command has been sent to the thermostat. When ON the thermostat will switch to occupied settings. BV-42 Opt. Start Cooldown Command has been sent to the thermostat. When ON the thermostat will switch to occupied settings. BV-43 Occ Set point Mode Occupied Settings. BV-44 After Hours Status The thermostat has been commanded occupied via BO-5, or a Warmup/Cooldown command has been sent via BV-41/BV-42. BV-44 After Hours Status The thermostat has been set to after hours mode. When ON the thermostat will switch to occupied settings. BV-45 Reserved Reserved for thermostat use only. Do not write to this point. BV-46 Binary Value 046 BV-47 Binary Value 047 BV-48 Binary Value 048 Update Descriptors thermostat Status Stage 1 heat. BV-49 BV-49 Staged Heating Select Select Sol-100% heating signal will use the heating value as stage 2 heat. BV-50 BV-51 BI for Occupancy ON = BI will be used to indicate zone occupancy RW OFF		-			
BV-40 Occupied Status The status of this point switches the thermostats occupancy settings. ON when the thermostat is in Occupied Setpoint Mode or After Hours Mode. A Warmup command has been sent to the thermostat. When ON the thermostat will switch to occupied settings. BV-42 Opt. Start Cooldown BV-43 Occ Set point Mode BV-44 Occ Set point Mode BV-45 Reserved BV-46 Binary Value 046 BV-47 Binary Value 048 BV-49 BV-49 Sect Set Point BV-49 Select BV-40 Start Cooldown BV-41 Start Cooldown BV-42 Opt. Start Cooldown A Cooldown command has been sent to the thermostat will switch to occupied settings. The thermostat has been commanded occupied via BO-5, or a Warmup/Cooldown command has been sent via BV-41/BV-42. The thermostat has been set to after hours mode. When ON the thermostat will switch to occupied settings. BV-45 Reserved BV-46 Binary Value 046 BV-47 Binary Value 047 BV-48 Binary Value 047 BV-48 BV-49 Descriptors BV-49 Descriptors Staged Heating Select BV-50 NH eating signal will use the radiation as stage 1 heat. So-100% heating signal will use the heating value as stage 2 heat. BV-51 BI for Occupancy DESCRIPTION OFF OFF OFF A Cooldown command has been sent to the thermostat use only. Do not write to this point. R OFF BV-46 Binary Value 046 BV-47 BV-48 Binary Value 047 BV-48 BV-49 BV-49 BV-49 BV-49 BV-40 BV-4		-			
BV-41 Opt. Start Warmup BV-42 Opt. Start Cooldown BV-42 Opt. Start Cooldown BV-43 Occ Set point Mode BV-44 After Hours Status BV-45 Reserved BV-46 Binary Value 046 BV-47 Binary Value 047 BV-48 Binary Value 047 BV-49 Staged Heating BV-49 BV-49 Staged Heating BV-49 Staged Heating BV-50 Staged Heating BV-50 Staged Heating BV-51 BI for Occupancy A Cooldown Command has been sent to the thermostat will switch to occupied settings. A Cooldown Command has been sent to the thermostat will switch to occupied via BO-5, or a Warmup/Cooldown command has been sent via BV-41/BV-42. The thermostat has been commanded occupied via BO-5, or a Warmup/Cooldown command has been sent via BV-41/BV-42. The thermostat has been commanded occupied via BO-5, or a Warmup/Cooldown command has been sent via BV-41/BV-42. The thermostat has been commanded occupied via BO-5, or a Warmup/Cooldown command has been sent via BV-41/BV-42. The thermostat has been sent to after hours mode. When ON the thermostat will switch to occupied R OFF When ON the thermostat use only. Do not write to R BV-46 Binary Value 046 BV-47 Binary Value 047 BV-48 Binary Value 048 BV-50 Staged Heating Select ON = BI will be used to indicate zone occupancy ON = BI will be used to indicate zone occupancy ON = BI will be used to indicate zone occupancy			occupancy settings. ON when the thermostat is	R	OFF
BV-42 Opt. Start Cooldown	BV-41	Opt. Start Warmup	A Warmup command has been sent to the thermostat. When ON the thermostat will switch	R/W	OFF
BV-43	BV-42		A Cooldown command has been sent to the thermostat. When ON the thermostat will switch	R/W	OFF
BV-44 After Hours Status When ON the thermostat will switch to occupied settings. BV-45 Reserved Reserved for thermostat use only. Do not write to this point. BV-46 Binary Value 046 BV-47 Binary Value 047 BV-48 Binary Value 048 Update Descriptors Thermostats LCD, this point will auto reset to OFF. BV-50 Staged Heating Select Select Solution Stage 1 heat. BV-51 BI for Occupancy ON = BI will be used to indicate zone occupancy R/W OFF	BV-43		via BO-5, or a Warmup/Cooldown command has	R	OFF
BV-45 Reserved this point. BV-46 Binary Value 046 BV-47 Binary Value 047 BV-48 Binary Value 048 BV-49 Update Descriptors When ON descriptor changes are sent to the thermostats LCD, this point will auto reset to OFF. O-50% heating signal will use the radiation as stage 1 heat. Select So-100% heating signal will use the heating value as stage 2 heat. BV-51 BI for Occupancy ON = BI will be used to indicate zone occupancy	BV-44	After Hours Status	When ON the thermostat will switch to occupied settings.	R	OFF
BV-47 Binary Value 047 BV-48 Binary Value 048 BV-49 Update Descriptors When ON descriptor changes are sent to the thermostats LCD, this point will auto reset to OFF. O-50% heating signal will use the radiation as stage 1 heat. Select So-100% heating signal will use the heating value as stage 2 heat. ON = BI will be used to indicate zone occupancy R/W OFF	BV-45	Reserved	•	R	
BV-48 Binary Value 048 BV-49 Update		,			
BV-49 Update Descriptors When ON descriptor changes are sent to the thermostats LCD, this point will auto reset to OFF. O-50% heating signal will use the radiation as stage 1 heat. Select Staged Heating Select So-100% heating signal will use the heating value as stage 2 heat. ON = BI will be used to indicate zone occupancy OFF		,			
BV-49 Descriptors thermostats LCD, this point will auto reset to OFF. 0-50% heating signal will use the radiation as stage 1 heat. Select Select Solution Staged Heating Select Solution Solution Solution Staged Heating Solution Solutio	BV-48	•			
BV-50 Staged Heating Stage 1 heat. Select 50-100% heating signal will use the heating value as stage 2 heat. BV-51 BL for Occupancy ON = BI will be used to indicate zone occupancy OFF	BV-49	•	thermostats LCD, this point will auto reset to OFF.	R/W	OFF
	BV-50		stage 1 heat. 50-100% heating signal will use the heating value as stage 2 heat.	R/W	OFF
	BV-51	BI for Occupancy		R/W	OFF





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BV-52	Binary Value 052			
BV-53	Binary Value 053			
BV-54	Binary Value 054			
BV-55	Binary Value 055			
BV-56	Binary Value 056			
BV-57	Disable Splash	When ACTIVE, the "EXACTLOGIC" splash will	R/W	OFF
DV-37	Disable opiasii	not show after key presses	17/77	011
	Disable Setup	When ACTIVE, there will be no access to the		
BV-58	Menu	Setup Menu where the Network/MAC/Baud Rate	R/W	OFF
	IVICITO	is set		
		When ACTIVE, there will be not access to the		
BV-59	Disable FSM Menu	Field Service Mode where the	R/W	OFF
		Time/Schedule/Point Access is set		
BV-60	Binary Value 060			
BV-61	Binary Value 061			
BV-62	Binary Value 062			
BV-63	Binary Value 063			
BV-64	Enable Motion	When ACTIVE, the power to the Motion add-on	R/W	OFF
DV-04	Enable Motion	card is set to the proper voltage	FC/VV	OFF
BV-65	Binary Value 065			
BV-66	Binary Value 066			
		When OFF, the internal thermistor is selected for		
D\/ 67	Room Temp	the control sequence. When ON, an external	DAM	OFF
BV-67	Select	thermistor attached to AI-2 is selected for control	R/W	OFF
		of the sequence		
BV-68	Backlight Off/On	When ON the LCD backlight will remain on.	R/W	OFF
		Controls if the fan will cycle on by heating/cooling		
BV-69	Fan Op Mode	signal or by schedule.	R/W	OFF
	·	OFF = Schedule, ON = H/C Signal		
BV-70	Room Vacant	When ON the thermostat will run on Vacant	R/W	OFF
DV-70	Status	Heating/Cooling setpoints, AV-64/AV-65.	FC/ V V	OFF
		Sets the thermostat to display temperatures in		
BV-71	C/F	Celsius or Fahrenheit. This point is set through	R	ON
		the setup menu. ON = F, OFF = C		
BV-72	Binary Value 072			
BV-73	Binary Value 073			
BV-74	Hotal Mada	This point is reserved for internal thermostat use	В	OFF
DV-74	Hotel Mode	and its value cannot be changed	R	OFF
BV-100	Binary Value 100	Enable internal thermistor descriptor	R/W	ON
BV-101	Binary Value 101	Enable descriptor	R/W	OFF
BV-102	Binary Value 102	Enable descriptor	R/W	OFF
BV-103	Binary Value 103	Enable descriptor	R/W	OFF
BV-104	Binary Value 104	Enable descriptor	R/W	OFF
BV-105	Binary Value 105	Enable descriptor	R/W	OFF
BV-106	Binary Value 106	Enable descriptor	R/W	OFF
BV-107	Binary Value 107	Enable descriptor	R/W	OFF
BV-108	Binary Value 108	Enable descriptor	R/W	OFF
BV-109	Binary Value 109	Enable descriptor	R/W	OFF
BV-110	Binary Value 110	Enable descriptor	R/W	OFF
BV-111	Binary Value 111	Enable descriptor	R/W	OFF
BV-112	Binary Value 112	Enable outside air descriptor	R/W	OFF
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