# ExactLogic BACnet Communicating Thermostat
# EXL01691 Sequence Datasheet

10-Stage Heat or Cool with Fan

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# 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 – Heat/Cool*

This is a 10-stage up/down sequence that can be used for heating and cooling applications.  BV-50 is used to determine if the output stages are being used for heating or cooling (BV-50 ACTIVE = Heat).  The setpoints to determine when a stage is added or subtracted are found at AV-40 through 43.  The number of stages is configurable from 0-10, and is set at AV-55.  In order for the stages to be available, the fan command must be on (BO-0), the unit must not be disabled (BV-66), and heating or cooling must be enabled (BV-5 or 6).  If any of 3 statuses are INACTIVE, zero (0) stages will be available.  There is also a delay for adding and subtracting stages.  This is to prevent the application from staging up or down too quickly.  The setpoints are configured at AV-50 and 51.  The fan will be commanded ACTIVE whenever there is more than one stage requested or BV-69 is set ACTIVE.  There is also a shutoff delay for the fan, which is set at AV-52.

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## Staging Output Commands

|  | BO-1 | BO-2 | BO-3 | BO-4 |
|---|---|---|---|---|
| Stage 1 | ON | OFF | OFF | OFF |
| Stage 2 | OFF | ON | OFF | OFF |
| Stage 3 | OFF | OFF | ON | OFF |
| Stage 4 | OFF | OFF | OFF | ON |
| Stage 5 | ON | OFF | OFF | ON |
| Stage 6 | OFF | ON | OFF | ON |
| Stage 7 | OFF | OFF | ON | ON |
| Stage 8 | ON | OFF | ON | ON |
| Stage 9 | OFF | ON | ON | ON |
| Stage 10 | ON | ON | ON | ON |

## *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 Overrride*

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 a night override by writing a value to AV-74 through BACnet.  The value cannot 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 to 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.

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## 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.

## *Motion/Humidity Option Card*

The Motion/Humidity Option Card can be used for Motion Only, Humidity Only, or Motion/Humidity together.  In order to use the Motion Sensor (either stand alone or with Humidity), BV-64 must be set to ACTIVE.  The Humidity Sensor can be enabled by setting AV-31 to 4.  These settings will automatically provide the required voltage to power the sensors.  The motion sensor status will show on BI-1.  Once the motion sensor does not sense motion, the delay at AV-81 is used to delay the ACTIVE to INACTIVE command to the Scheduled Occupied command at BO-5, priority array entry 10.  The Humidity value is shown on AI-1.  The Humidity Sensor will automatically be scaled by setting AV-31 to 4.

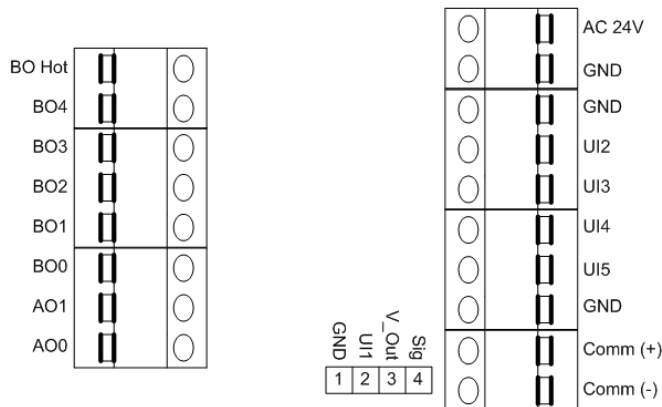## *Disabling of the Splash, Setup Menu, or Field Service Mode*

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

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# Installation



Fig. 4

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

AC 24V ........................................ 24VAC/DC Hot
GND ......................................... Neutral/Ground
GND ......................................... Neutral/Ground
UI2 .......................................... Universal Input 2
UI3 .......................................... Universal Input 3
UI4 .......................................... Universal Input 4
UI5 .......................................... Universal Input 5
GND ......................................... Neutral/Ground
Comm (+) .......................... Network Positive Line
Comm (-) ......................... Network Negative Line
BO Hot .................... Com, 24VAC Hot for relays*
BO4 ......................... Relay 5 Output, 24VAC/DC
BO3 ......................... Relay 4 Output, 24VAC/DC
BO2 ......................... Relay 3 Output, 24VAC/DC
BO1 ......................... 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 |
|---|---|
| BO0 | Fan Command |
| BO1 | Stage 1 Command |
| BO2 | Stage 2 Command |
| BO3 | Stage 3 Command |
| BO4 | Stage 4 Command |
| AO0 | |
| AO1 | |

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# Reserved BACnet Points

The following are points reserved by the thermostat for operation.

### Analog Inputs

| Instance | Object Name | Description | Read/Write | Default |
|---|---|---|---|---|
| AI-0 | Room Temp | Reading of the internal thermistor. | R | variable |
| AI-1 | Humidity | Reading from the Humidity sensor add-on card | R | variable |
| AI-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 | Analog Input 04 | Reading of the external input 4 in counts. 0-1024 | 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 | Analog Output 0 | Variable 0-10VDC | R/W | 0.0 |
| AO-1 | Analog Output 1 | Variable 0-10VDC | 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.<br>0 = Heat Mode<br>1 = Cool Mode<br>2 = Idle<br>3 = Afterhours<br>4 = Unoccupied Idle<br>5 = Unoccupied Heat Mode<br>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 | 80.0$^\circ$F |
| 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 | 60.0$^\circ$F |
| 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$^\circ$F |
| 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$^\circ$F |

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| AV-8 | Analog Value 008 | | | |
|---|---|---|---|---|
| AV-9 | Analog Value 009 | | | |
| AV-10 | Analog Value 010 | | | |
| AV-11 | Analog Value 012 | | | |
| 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 | Analog Value 024 | | | |
| AV-25 | # of Stages Requested | The number of stages that are being requested ny the program | R | 0 |
| AV-26 | Stages Available | This is the number of stages that are currently available to be commanded | R | 0 |
| AV-27 | Analog Value 027 | | | |
| AV-28 | Analog Value 028 | | | |
| AV-29 | Analog Value 029 | | | |
| AV-30 | AI-0 Setup | Parameter used to set the input type. <br> 0 = counts <br> 1 = temperature <br> 2 = 4-20mA <br> 3 = 0-5V <br> 4 = 0-10V <br> 5 = pulse | R | 1 |
| AV-31 | AI-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 | | | |
| AV-37 | Analog Value 037 | | | |
| AV-38 | Analog Value 038 | | | |
| AV-39 | Analog Value 039 | | | |
| AV-40 | Heat Stage Up Step | Number of degrees above the Current Heating Setpoint (AV-4) to trigger a Heat Stage Add Request (BV-30) | R/W | 5.0°F |
| AV-41 | Heat Stage Down Step | Number of degrees below the Current Heating Setpoint (AV-4) to trigger a Heat Stage Subtract Request (BV-31) | R/W | 5.0°F |
| AV-42 | Cool Stage Up Step | Number of degrees above the Current Cooling Setpoint (AV-5) to trigger a Cool Stage Add Request (BV-32) | R/W | 5.0°F |

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| AV-43 | Cool Stage Down Step | Number of degrees above the Current Cooling Setpoint (AV-5) to trigger a Cool Stage Subtract Request (BV-33) | R/W | 5.0°F |
|-------|----------------------|------------------------------------------------------------------------------------------------------------|-----|-------|
| AV-44 | Analog Value 044 | | | |
| AV-45 | Analog Value 045 | | | |
| AV-46 | Analog Value 046 | | | |
| AV-47 | Analog Value 047 | | | |
| AV-48 | Analog Value 048 | | | |
| AV-49 | Analog Value 049 | | | |
| AV-50 | Stage Add Delay | Time delay before a stage add request can be added | R/W | 150 sec |
| AV-51 | Stage Subtract Delay | Time delay before a stage subtract request can be subtracted | R/W | 30 sec |
| AV-52 | Fan Shutoff Delay | Time delay before the fan will shut off when no stages are requested | R/W | 180 sec |
| AV-53 | Analog Value 053 | | | |
| AV-54 | Analog Value 054 | | | |
| AV-55 | Stages Available SP | The number of stages available for the application to use | R/W | 4 |
| AV-56 | Analog Value 056 | | | |
| AV-57 | Analog Value 057 | | | |
| AV-58 | Reserved | This point is reserved for internal thermostat use and its value cannot be changed | | |
| AV-59 | Pseudo Ave Time Base | Factor used to average the room temperature. A small number will allow the room temperature to change faster over time. A large number will cause the room temperature to change slower over time. | R | 100 |
| AV-60 | Calibration Offset | The calibration offset for the internal thermistor. | R | variable |
| AV-61 | Space Alarm Offset | This offset +/- the Current Cooling/Heating SP is used to determine if the space is too warm/cold, and set an alarm if necessary. | R/W | 5.0°F |
| AV-62 | # of Fan Speeds | Select the number of fan speeds for a multispeed fan.<br>0 = Auto Only<br>1 = AUTO - ON<br>2 = Off - AUTO - ON<br>3 = Off-1-2-AUTO<br>4 = Off-1-2-3-AUTO | R/W | 0 |
| AV-63 | Current Fan Speed | The fan speed the thermostat is currently running.<br>0 = OFF<br>1 = Fan Speed 1<br>2 = Fan Speed 2<br>3 = Fan Speed 3<br>4 = AUTO<br>5 = ON | R | 4 |
| AV-64 | Vacant Clg SP | Used in Hotel Mode. When a room is known vacant, the setpoint can be set below the unoccupied setpoint. | R/W | 85.0°F |
| AV-65 | Vacant Htg SP | Used in Hotel Mode. When a room is known vacant, the setpoint can be set below the unoccupied setpoint. | R/W | 55.0°F |
| AV-66 | Room Setpoint | The occupied room setpoint | R/W | 73.0°F |

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| AV-67 | Occupied SP Hi Limit | The maximum occupied room setpoint allowed. | R/W | 85.0°F |
|---|---|---|---|---|
| AV-68 | Occupied SP Lo Limit | The minimum occupied room setpoint allowed | R/W | 55.0°F |
| AV-69 | Clg Offset | The offset from Room Setpoint used to calculate the Occupied Cooling SP | R/W | 1.0°F |
| AV-70 | Htg Offset | The offset from Room Setpoint used to calculate the Occupied Heating SP | R/W | 1.0°F |
| AV-71 | Unoccupied Clg SP | The cooling setpoint used when the thermostat is unoccupied. | R/W | 80.0°F |
| AV-72 | Unoccupied Htg SP | The heating setpoint used when the thermostat is unoccupied. | R/W | 60.0°F |
| 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 | |

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| | | | | |
|---|---|---|---|---|
| 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 | Outside Air 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 | Motion | Motion sensor status from the add-on card | R | |
| BI-2 | Binary Input 02 | | R | |
| BI-3 | Binary Input 03 | | R | |
| BI-4 | Binary Input 04 | | R | |
| BI-5 | Opt. Occupied Relay | Optional occupancy relay input | R | |

**Binary Outputs**

| Instance | Object Name | Description | Read/Write | Default |
|---|---|---|---|---|
| BO-0 | Fan Command | Fan command output | R/W | OFF |
| BO-1 | Stage 1 Command | Stage 1 command output | R/W | OFF |
| BO-2 | Stage 2 Command | Stage 2 command output | R/W | OFF |
| BO-3 | Stage 3 Command | Stage 3 command output | R/W | OFF |
| BO-4 | Stage 4 Command | Stage 4 command output | R/W | OFF |
| BO-5 | Scheduled Occupied | Logical point only.  Used for scheduling purposes. INACTIVE is unoccupied. | R/W | OFF |

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**Binary Values**

| Instance | Object Name | Description | Read/Write | Default |
|---|---|---|---|---|
| BV-0 | Bad Sensor Alarm | Alarm for a bad internal thermistor | R | OFF |
| BV-1 | Binary Value 001 | | | |
| BV-2 | Binary Value 002 | | | |
| BV-3 | Binary Value 003 | | | |
| BV-4 | Binary Value 004 | | | |
| BV-5 | Heat Enabled | Must be written to to allow heating | R/W | OFF |
| BV-6 | Cool Enabled | Must be written to to allow cooling | R/W | OFF |
| 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 | 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 | Binary Value 014 | | | |
| BV-15 | Add Stage Set | Stage add is set (After delay AV-50) | R | OFF |
| BV-16 | Subtract Stage Set | Stage subtract is set (After delay AV-51) | R | OFF |
| BV-17 | Binary Value 017 | | | |
| BV-18 | Binary Value 018 | | | |
| BV-19 | Binary Value 019 | | | |
| BV-20 | Stages Requested | When no stages are calling this point is used to reset the fan command to INACTIVE | R | OFF |
| 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 | Too Cool Status | Status of the Too Warm Alarm before checking the Space Alarm Delay | R | OFF |
| BV-24 | Space To Warm Alarm | The space temperature has been below the Room Set point (AV-66) – Space Alarm Offset (AV-61) for at least 7200 seconds. | R | OFF |
| BV-25 | Space To Cool Alarm | The space temperature has been above the Room Set point (AV-66) + Space Alarm Offset (AV-61) for at least 7200 seconds. | R | OFF |
| BV-26 | Binary Value 026 | | | |
| BV-27 | Binary Value 027 | | | |
| BV-28 | Binary Value 028 | | | |
| BV-29 | Binary Value 029 | | | |
| BV-30 | Heat Stage Add Request | Request to add one stage of heating | R | OFF |
| BV-31 | Heat Stage Subtract Request | Request to subtract one stage of heating | R | OFF |
| BV-32 | Cool Stage Add Request | Request to add one stage of cooling | R | OFF |
| BV-33 | Cool Stage Subtract Request | Request to subtract one stage of cooling | R | OFF |

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| BV-34 | Add Stage Request | Request to add one stage. Request for heating/cooling is based on BV-50 | R | OFF |
|---|---|---|---|---|
| BV-35 | Subtract Stage Request | Request to subtract one stage. Request for heating/cooling is based on BV-50 | R | OFF |
| BV-36 | Binary Value 036 | | | |
| BV-37 | Binary Value 037 | | | |
| 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. | R | OFF |
| BV-41 | Opt. Start Warmup | A Warmup command has been sent to the thermostat.  When ON the thermostat will switch to occupied settings. | R/W | OFF |
| BV-42 | Opt. Start Cooldown | A Cooldown command has been sent to the thermostat.  When ON the thermostat will switch to occupied settings. | R/W | OFF |
| BV-43 | Occ Set point Mode | The thermostat has been commanded occupied via BO-5, or a Warmup/Cooldown command has been sent via BV-41/BV-42. | R | OFF |
| BV-44 | After Hours Status | The thermostat has been set to after hours mode. When ON the thermostat will switch to occupied settings. | R | OFF |
| BV-45 | Reserved | This point is reserved for internal thermostat use and its value cannot be changed | | OFF |
| 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. | R/W | OFF |
| BV-50 | Stages for Heat/Cool | Determines whether the stages will be commanded for heat or cool.  (ON= Heat) | | |
| BV-51 | BI for Occupancy | ON = BI-5 will be used to indicate occupancy OFF = BI-5 is not used for occupancy | R/W | OFF |
| 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 not show after key presses | R/W | OFF |
| BV-58 | Disable Setup Menu | When ACTIVE, there will be no access to the Setup Menu where the Network/MAC/Baud Rate is set | R/W | OFF |
| BV-59 | Disable FSM Menu | When ACTIVE, there will be not access to the Field Service Mode where the Time/Schedule/Point Access is set | R/W | OFF |
| BV-60 | Binary Value 060 | | | |
| BV-61 | Binary Value 061 | | | |
| BV-62 | Binary Value 062 | | | |
| BV-63 | Binary Value 063 | | | |

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| BV-64 | Enable Motion | When ACTIVE, the power to the Motion add-on card is set to the proper voltage | R/W | OFF |
|---|---|---|---|---|
| BV-65 | Binary Value 065 | | | |
| BV-66 | Disable Unit | When ON this point will disable and lockout all analog and binary outputs. | R/W | OFF |
| BV-67 | Room Temp Select | When OFF, the internal thermistor is selected for the control sequence. When ON, an external thermistor attached to AI-1 is selected for control of the sequence | R/W | OFF |
| BV-68 | Backlight Off/On | When ON the LCD backlight will remain on | R/W | OFF |
| BV-69 | Fan Op Mode | Controls if the fan will cycle or run continuously. OFF = Cycle, ON = Continuous, BV-40 must also be ON. | R/W | OFF |
| BV-70 | Room Vacant Status | When ON the thermostat will run on Vacant Heating/Cooling setpoints, AV-64/AV-65. | R/W | OFF |
| BV-71 | C/F | Sets the thermostat to display temperatures in Celsius or Fahrenheit. This point is set through the setup menu. ON = F, OFF = C | R | ON |
| BV-72 | Binary Value 072 | | | |
| BV-73 | Binary Value 073 | | | |
| BV-74 | Hotel Mode | Determines how the thermostats occupancy is set. OFF = RTU Mode, ie schedule ON = Hotel Mode, ie motion sensors | R/W | 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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