



LCD Keypad Z-Wave Specification

Product: EVLCD

Baseline FW

Z-Wave: 4.5.2

EVLCD core: 0.0.31

History

Date	Rev	Description
6/17/11	H	Changed MFG ID to use Evolves Clarified METADATA Double Line character (CR)
5/19/11	G	Updated COMMAND_CLASS_SCREEN_ATTRIBUTES reference from CUSTOM METADATA (14) to CUSTOM METADATA (17) Corrected Config Parameter #16 supported language list Added verbiage for Z-Wave networks Changed Default Screen Type to Custom Metadata (17) Added Custom Button type 6, Scene On, BasicSet OFF
4/5/11	F	Added Factory Reset section
3/8/11	E	Changed to 4.5.2 release
1/13/10	D	New EVLCD1 Product ID "L2" for Metadata capable LCD1 Added METADATA CC Added RGB support and Config registers
12/1/10	C	General Updates Addition of extra LCD1 screens
6/25/10	B	Removed Group 17, Clarified Group 16 use Added Keypad Type definitions
6/1/09	A	First Draft

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Functional Overview

The system consists of LCD Keypads, Lighting devices, Drapery Relay controllers and Thermostats (All communicating over a Z-Wave network). Scenes will be the primary mechanism for activating various modes in the room. A provisioning tool will be used to do the initial node assignment and to then configure the various scenes using a predefined room template.

The LCD Keypads will act as a Scene Controller. Upon the pressing of a button, a Scene Activate, BasicSet or other Command will be sent out to the nodes predefined in a group's association list.

The Keypads scenes are configured using the Scene Controller Configuration command class. The Group ID will match the association group ID used when the Scene Activation Command Class is sent to the nodes in the group.

Z-Wave Network

The EVLCD keypads will be configured as a "Controller" in the Z-Wave environment. This will allow it to store more than the 5 routes a slave device does. The Z-Wave library will be the 4.5.2 release allowing the use of Explorer frames.

The Z-Wave Node Info frame is used to notify a network management device. If the EVLCD has not been included into a network, pressing any of the buttons will cause the Node Info frame to be sent out and go into a "learn" mode to be included into a network. If the EVLCD is part of a network, removing it from a network will involve accessing the Installer screen.

Language Selection Screen

The Language Selection Screen is accessed by pressing and holding the top and bottom buttons (left-most set of buttons on the EVLCD3).

Once in the Language screen pressing the top button will cycle through the various languages, pressing the bottom button ("Done") will exit. The Language screen will timeout and revert back to the main screen when there is 30 seconds of no button activity.

When exiting from the Language screen, the keypad will send a Configuration SET command to the other keypads in the network to change the Language type.

Installer Screen

The Installer Screen is accessed by pressing and holding the 1st button while powering up the keypad.

The Installer Screen will display current Z-Wave information including Node ID, Home ID and Z-Wave firmware revision.

Factory Reset

To restore the EVLCD to Factory Default Settings:

1. Navigate to the Installer Screen by pressing and holding the 1st button while powering up the keypad.
2. Select Keypad
3. Select Factory
4. Press the Yes button, EVLCD will restore to Factory Default Settings



DND (Privacy) and Housekeeping

The DND and Housekeeping indicators will be synchronized among the keypads using the INDICATOR command class. By default the indicators will both be inactive. Any keypad can change the state using the SET command (see COMMAND_CLASS_INDICATOR description).

Z-Wave® Installation

Z-Wave controllers from various manufacturers support the Z-Wave process of adding or removing a device from a network. The EVLCDx is a Z-Wave Controller and can only act as a secondary controller, and that another Z-Wave controller is required as the primary controller to setup and maintain the network.

A Z-Wave® network is a collection of Z-Wave® modules in a mesh type of network. Each Z-Wave® module, regardless of manufacturer, communicates with other modules within range to route and repeat the signals from one device to the next, this creates a highly reliable and robust transmission throughout the home. In addition, the network becomes stronger as more modules are added.

The following procedure will allow the EVLCDx to be included or removed from a Z-Wave network.

Inclusion: Including the keypad into an Existing Network:

1. **Set your primary controller to Include mode**, to add the keypad as a node on your network (see your controller's user manual for detailed instructions).
2. **If the EVLCDx Keypad is not installed (as shown on the screen when the keypad first powers up), Press the upper-leftmost keypad button when the main screen is displayed. The controller will indicate the keypad has been included into the network.**

Your controller will indicate the keypad was successfully added to its network (see your controller's user manual for details). Also you can check if the keypad was successfully added to the network by checking the ZHID (Home ID) and ZNID (Node ID) located in the **Z-Wave Info** screen. The **Z-Wave Info** screen is accessible by holding down the top keypad button while the keypad is powering up, releasing when the maintenance screen appears. ***Inclusion and exclusion are always done at normal transmit power mode.***

If your controller supports NWI, then you can optionally set the primary to NWI include mode. Please note that NWI inclusion mode does not end when you have included a new node. This allows multiple nodes to be included without having to physically go back to the controller to initiate the next inclusion. Therefore you must manually terminate NWI inclusion mode at the controller when you have finished including any new nodes to the network. Since intermediate included nodes will assist the inclusion process by routing messages, we recommend that nodes close to the primary controller be installed first, proceeding out in consecutive rings from the controller.

Note: Before adding the keypad to a Z-Wave Network, check that it does not already belong to one by viewing the Home and Zone ID's located in the **Z-Wave Info** screen. An un-configured keypad should show a Node ID of 1 and a random Home ID. Consult your controller's user manual for details on removing a device from a Z-Wave network.

Exclusion: Removing the keypad from a Network:

1. **Set your primary controller to Remove mode**, to remove the keypad as a node on your network (see your controller's user manual for detailed instructions).
2. **Remove keypad power**



3. **Hold down the top keypad button**
4. **Apply keypad power, continue to hold button until the maintenance screen appears**
5. **Select “Z-Wave”, “ZW Install”, “Add to Network”. The controller will indicate the keypad has been removed from the network.**

Exclusion: Removing the keypad from a Network:

6. **Set your primary controller to Remove mode, to remove the keypad as a node on your network (see your controller’s user manual for detailed instructions).**
7. **Remove keypad power**
8. **Hold down the top keypad button**
9. **Apply keypad power, continue to hold button until the maintenance screen appears**
10. **Select “Z-Wave”, “ZW Install”, “Add to Network”. The controller will indicate the keypad has been removed from the network.**



COMMAND CLASSES

Introduction

This document is for the advanced user who has knowledge of the Z-Wave™ Command Classes and is able to initiate Z-Wave commands programmatically. When the EVLCD sends a Node Info Report, it reports itself as a Static Controller device with:

GENERIC_TYPE_STATIC_CONTROLLER
SPECIFIC_TYPE_NOT_USED
BASIC_TYPE_STATIC_CONTROLLER

In addition to the mandatory command classes, it also supports:

- COMMAND_CLASS_BASIC
- COMMAND_CLASS_ASSOCIATION
- COMMAND_CLASS_CONFIGURATION
- COMMAND_CLASS_INDICATOR
- COMMAND_CLASS_MANUFACTURER_SPECIFIC
- COMMAND_CLASS_SCENE_ACTIVATION
- COMMAND_CLASS_SCENE_CONTROLLER_CONF
- COMMAND_CLASS_VERSION
- COMMAND_CLASS_SCREEN_ATTRIBUTES
- COMMAND_CLASS_SCREEN_MD
- COMMAND_CLASS_POWERLEVEL

COMMAND_CLASS_BASIC

not supported

COMMAND_CLASS_ASSOCIATION

The EVLCDx supports 16 groups and 30 associations in each group. The groups are broken down as follows:

EVLCD3

Groups 1-15 corresponds to keypad button/scenes 1-15

Group 16 – All the keypads in the system, used for setting Language options, DND/HK to all keypads.

EVLCD1/EVLCD2

Groups 1-5 corresponds to keypad button/scenes for buttons 1-5

Groups 6-10 corresponds to the “Off” button/scenes for buttons 1-5

Group 16 – All the keypads in the system, used for setting Language options, DND/HK to all keypads. OR if **Keypad Type** = CUSTOM METADATA, this will be the Indicator Group



COMMAND_CLASS_CONFIGURATION

There are configuration parameters accessible via the COMMAND_CLASS_CONFIGURATION.

Configuration Parameter #	Description	Length (bytes)	R/W capability	Default Value	Notes
1	Button 1 Type	1	R/W	0	0x00 = Scene Control momentary 0x01 = Scene Control toggle 0x02 = BASICSET Toggle 0x03 = n/a 0x04 = Privacy * 0x05 = HouseKeeping ** 0x06 = Scene Control/BASICSET toggle***
2	Button 2 Type	1	R/W	0	0x00 = Scene Control momentary 0x01 = Scene Control toggle 0x02 = BASICSET Toggle 0x03 = Stat (Setpoint Up) 0x04 = Privacy * 0x05 = HouseKeeping ** 0x06 = Scene Control/BASICSET toggle***
3	Button 3 Type	1	R/W	0	0x00 = Scene Control momentary 0x01 = Scene Control toggle 0x02 = BASICSET Toggle 0x03 = Stat (Temperature) 0x04 = Privacy * 0x05 = HouseKeeping ** 0x06 = Scene Control/BASICSET toggle***
4	Button 4 Type	1	R/W	0	0x00 = Scene Control momentary 0x01 = Scene Control toggle 0x02 = BASICSET Toggle 0x03 = Stat (Setpoint Down) 0x04 = Privacy * 0x05 = HouseKeeping ** 0x06 = Scene Control/BASICSET toggle***
5	Button 5 Type	1	R/W	0	0x00 = Scene Control momentary 0x01 = Scene Control toggle 0x02 = BASICSET Toggle 0x03 = n/a 0x04 = Privacy * 0x05 = HouseKeeping ** 0x06 = Scene Control/BASICSET toggle***
6	Button 6 Type	1	R	0	EVLCD3 only
7	Button 7 Type	1	R	0	EVLCD3 only
8	Button 8 Type	1	R	0	EVLCD3 only
9	Button 9 Type	1	R	0	EVLCD3 only
10	Button 10 Type	1	R	0	EVLCD3 only
11	Button 11 Type	1	R	0	EVLCD3 only
12	Button 12 Type	1	R	0	EVLCD3 only
13	Button 13 Type	1	R	0	EVLCD3 only
14	Button 14 Type	1	R	0	EVLCD3 only
15	Button 15 Type	1	R	0	EVLCD3 only
16	Language	1	R/W	1	1. English 2. Spanish



Configuration Parameter #	Description	Length (bytes)	R/W capability	Default Value	Notes
					3. Chinese 4. German 5. French 6. Italian 7. Punjabi
17	Keypad Type	1	R/W	17	1 = ENTRY2GANG 2 = RESORTROOMWALL 3 = RESORTROOM3GANGTABLE 4 = SLIVINGROOMLEFT 5 = SLIVINGROOMRIGHT 6 = SLIVINGROOM3GANG 7 = SBEDROOM1GANG 8 = SBEDROOM1GANGTABLE 9 = SBEDROOM3GANGTABLE 10 = DRAPECONTROL1GANG 11 = VANITYBATH1GANG 12 = SONOSTA1GANG 13 = INATPENN1GANG 14 = TYPE14 15 = LOWELL1 16 = LOWELL2 17 = CUSTOM METADATA 18 = CES3DEMO (see appendix for Keypad types)
18	reserved	1	R/W	0	
19	reserved	1	R		
20	Display Timeout	1	R/W	15	Seconds
21	Backlight ON Level	1	R/W	15	Range 1-20
22	Backlight OFF Level	1	R/W	0	Range 1-20
23	Button ON Level	1	R/W	15	Range 1-20
24	Button OFF Level	1	R/W	0	Range 1-20
25	LCD Contrast	1	R/W	14	Range 5-20
26	Screen Orientation	1	R/W	0	0 = Normal, 1 = Rotated 180
27	Network Update	1	R/W	0	Range 0-60 (seconds) When loaded, LCD will trigger a Network Update after timeout
28	Reserved				
29	Red Backlight ON Level	1	R/W	100	0-100
30	Blue Backlight ON Level	1	R/W	100	0-100
31	Green Backlight ON Level	1	R/W	100	0-100
32	RGB Demo Mode	1	R/W	0	0=off, 1=on Scrolls through RGB levels

* Only 1 button can be defined as a Privacy Button

** Only 1 button can be defined as a Housekeeping Button



*** Sends Scene command to association group when un-inverted, sends BASIC_SET OFF to association group when inverted



COMMAND_CLASS_INDICATOR

It is used to indicate the state of each of the 5 pushbuttons. If the screen area associated with the button is not-inverted, the bit value will be 0. If the screen area is inverted or highlighted, the bit value will be 1.

Upon a change to a “toggle” type of button, the Indicator Report command will be sent to all the nodes in Association Group 16. The least significant bit of the “Value” field will correspond to pushbutton 1, the next most bit pushbutton 2 and so forth.

If the button is defined as a Housekeeping or Privacy type of button, it is used to indicate the state of the Privacy or Housekeeping status indications. Upon a change in the Privacy or Housekeeping status on any of the keypads, the Indicator Set command will be sent to all the keypads in Association Group 16. The least significant bit of the “Value” field will be the Privacy indicator; the next most bit will be the Housekeeping Indicator.

SET: An EVLCD receiving a SET command will invert/un-invert the screen area based on the corresponding bit value

- Privacy will use bit 0x01
- Housekeeping will use bit 0x02
- Pushbutton 1 will use bit 0x04
- Pushbutton 2 will use bit 0x08
- Pushbutton 3 will use bit 0x10
- Pushbutton 4 will use bit 0x20
- Pushbutton 5 will use bit 0x40

GET:

Return the INDICATOR REPORT

REPORT: An EVLCD will send a REPORT whenever the buttons screen area is changed

- Privacy will use bit 0x01
- Housekeeping will use bit 0x02
- Pushbutton 1 will use bit 0x04
- Pushbutton 2 will use bit 0x08
- Pushbutton 3 will use bit 0x10
- Pushbutton 4 will use bit 0x20
- Pushbutton 5 will use bit 0x40

COMMAND_CLASS_MANUFACTURER_SPECIFIC

Send MANUFACTURER_SPECIFIC_GET. The return message will contain the following:

Manufacturer ID: 0113,
Product Type ID: “EV”

EVLCD1 Product ID: “L1”
EVLCD1 Enhanced Product ID: “L2” // EVLCD1 that supports METADATA
EVLCD3 Product ID: “L3”
EVLCD2 Product ID: “D2”



COMMAND_CLASS_SCENE_ACTIVATION

The Scene Activation is used to launch a particular scene in the Zwave ecosystem. The Scene must have been previously setup in the devices using the Scene Actuator Configuration Set command. The Scene Activation command is sent using a Multicast frame followed by the individual Singlecast frames.

SET:

Scene ID range is 1-255
Dimming Duration will used stored value

GET: N/A

REPORT N/A

COMMAND_CLASS_SCENE_CONTROLLER_CONFIG

The Scene Controller Configuration Command Class is used to configure scenes in the EVLCD keypads.

SET:

EVLCD3: Group ID range is 1-15
EVLCD1: Group ID range is 1-10 (1-5 ON Scene, 6-10 OFF Scene)

Scene ID range is 1-255 (0 == Disabled)
Dimming Duration

GET:

EVLCD3: Group ID range is 1-15
EVLCD1: Group ID range is 1-10 (1-5 ON Scene, 6-10 OFF Scene)

REPORT:

EVLCD3: Group ID range is 1-15
EVLCD1: Group ID range is 1-10 (1-5 ON Scene, 6-10 OFF Scene)

Scene ID range is 1-255
Dimming Duration

COMMAND_CLASS_VERSION

Send VERSION_GET. The returned message is:

Application Version is the Z-Wave™ processor code version
Application Sub Version is the EVLCD processor code version

COMMAND_CLASS_THERMOSTAT_SETPOINT

The EVLCD accepts setpoint reports from thermostats and will use the value for the thermostat function of the EVLCD. Note: Thermostats must be associated with the EVLCD(s) for the setpoint information to be sent to the EVLCD.

SET:

```
level = SETPOINT_HEATING1; // Setpoint number  
level2 = FC_FAHRENHEIT; // 1 byte format  
value1 = setpoint_value;
```



GET: N/A

REPORT

Thermostat setpoint value

COMMAND_CLASS_MULTILEVEL_SENSOR

The EVLCD accepts MultiLevel Sensor (temperature) reports from thermostats and will use the value for the thermostat function of the EVLCD. Note: Thermostats must be associated with the EVLCD(s) for the temperature information to be sent to the EVLCD.

SET:

N/A

GET: N/A

REPORT

Thermostat temperature value



COMMAND_CLASS_SCREEN_ATTRIBUTES Version 1

The Screen Attributes command is used to retrieve the screen attributes from the EVLCD1.

SET:

N/A

GET: EVLCD will send a GET upon powerup if the **keypad type** configuration parameter is CUSTOM METADATA (17).

REPORT

7	6	5	4	3	2	1	0
COMMAND_CLASS_SCREEN_ATTRIBUTES							
SCREEN_ATTRIBUTES_REPORT							
Reserved 000				Number of Lines 00101 (5)			
Number of Chars per line 16							
Size of line Buffer 16							
Numerical Presentation 00000001							
				xxxxxx1 Supports Ascii codes xxxxxx1x Supports Ascii and extended codes xxxxx1xx Supports Unicode xxxx1xxx Supports Ascii and Player codes			

COMMAND_CLASS_SCREEN_META_DATA Version 1

The Screen Meta Data command is used to write custom text to the screen.

GET:

REPORT

7	6	5	4	3	2	1	0
COMMAND_CLASS_SCREEN_MD							
SCREEN_MD_REPORT							
More Data	Reserved 0	Screen Settings 0 – Clear 1 – Scroll Down 2 – Scroll Up 7 – Do not change content			Char. Presentation 0 – Standard Ascii Codes		
Line Settings A 0 – Chars written in std font 1 – Chars written highlighted 2 – Chars written in larger font			Clear A 0, 1	Line Number A 0 = Button Area 1 1 = Button Area 2 2 = Button Area 3			



		3 = Button Area 4 4 = Button Area 5
Character Position A		
Number of Characters A		
Char 1, A		
...		
Char N, A		
Line Settings B 0 – Chars written in std font 1 – Chars written highlighted 2 – Chars written in larger font	Clear B 0, 1	Line Number B 0 = Button Area 1 1 = Button Area 2 2 = Button Area 3 3 = Button Area 4 4 = Button Area 5
Character Position B		
Number of Characters B		
Char 1, B		
...		
Char N, B		

Notes:

1. Text is always centered within the LCD display
2. Double lines can be assigned to a given button by using the CR (0x0d) as a linefeed. It will default to the smaller font when using double lines

COMMAND_CLASS_POWER_LEVEL



Appendix

Keypad Types

ENTRY2GANG

What it Says	What it Does
All On	<ul style="list-style-type: none"> • Turns ON / Activates all lights in Guest Room • Opens Guest Room Drapes & Sheers • Activates HVAC to Occupied
All Off	<ul style="list-style-type: none"> • Turns OFF all Guest Room Lights • Closes Guest Room Drapes & Sheers • Sets HVAC to Un-Occupied
Mood	<ul style="list-style-type: none"> • Sets ALL Room lights to 40%
Do Not Disturb	<ul style="list-style-type: none"> • Activates DND Indicator on Doorbell Station • Activates DND Indicator on All Keypads • Disables Doorbell Button • Disables House Keeping Indication on System
House Keeping	<ul style="list-style-type: none"> • Activates House Keeping Indicator on Doorbell Station • Activates House Keeping Indicator on All Keypads • Disables DND Indication on System

GUESTROOMWALL

What it Says	What it Does
All On	<ul style="list-style-type: none"> • Turns ON / Activates all lights in Guest Room
All Off	<ul style="list-style-type: none"> • Turns OFF all Bedroom Lights • Does not affect Bathroom Lights
Mood	<ul style="list-style-type: none"> • Sets ALL Bedroom lights to 40%
Lamps	<ul style="list-style-type: none"> • Turns ON Bedroom Lamps
Night Lite	<ul style="list-style-type: none"> • Turns ON Bathroom Night Light • Turns OFF all Guest Room Lights

GUESTROOMTABLE
TOP

What it Says	What it Does
All On	<ul style="list-style-type: none"> • Turns ON / Activates all Guest Room Lights
All Off	<ul style="list-style-type: none"> • Turns OFF all Lights in the Entire Guest Room • Turns OFF Bathroom Lights
Mood	<ul style="list-style-type: none"> • Turns ON all Bedroom Lights to 40%
Lamps	<ul style="list-style-type: none"> • Turns ON Bedroom Lamps
Night Lite	<ul style="list-style-type: none"> • Turns ON Bathroom Night Light • Turns OFF all other Guest Room Lights
Do Not Disturb	<ul style="list-style-type: none"> • Activates DND Indicator on Doorbell Station • Activates DND Indicator on All Keypads • Disables Doorbell Button • Disables House Keeping Indication on System
Up Arrow	<ul style="list-style-type: none"> • Raises Heating / Cooling Set Point
----	<ul style="list-style-type: none"> • Middle Button Not Used
Down Arrow	<ul style="list-style-type: none"> • Lowers Heating / Cooling Set Point
House Keeping	<ul style="list-style-type: none"> • Activates House Keeping Indicator on Doorbell Station • Activates House Keeping Indicator on All Keypads • Disables DND Indication on System
Drapes Open	<ul style="list-style-type: none"> • Momentary Press: Opens Bedroom Drapes Fully • Press and Hold: Opens Drapes, Stops on Button Release
Drapes Closed	<ul style="list-style-type: none"> • Momentary Press: Closes Bedroom Drapes Fully • Press and Hold: Closes Drapes, Stops on Button Release
Stop	<ul style="list-style-type: none"> • Stops Drapes or Sheers Travel, Open or Closed
Sheers Open	<ul style="list-style-type: none"> • Momentary Press: Opens Bedroom Sheers Fully • Press and Hold: Opens Sheers, Stops on Button Release
Sheers Closed	<ul style="list-style-type: none"> • Momentary Press: Closes Bedroom Sheers Fully • Press and Hold: Closes Sheers, Stops on Button Release



LIVINGROOM
LEFT

All On	<ul style="list-style-type: none"> • Turns ON all Living Room Lights
All Off	<ul style="list-style-type: none"> • Turns OFF all Living Room Lights
Mood	<ul style="list-style-type: none"> • Sets Living Room lights to 40% • Turns OFF all non-dimmables
Ceiling	<ul style="list-style-type: none"> • Turns ON all Living Room Ceiling Lights • Turns OFF Perimeter Lights • Ignores Lamps
Perimeter	<ul style="list-style-type: none"> • Turns ON all Living Room Perimeter / Art Lights • Turns OFF Ceiling Lights • Ignores Lamps

LIVINGROOM
RIGHT

What it Says	What it Does
All On	<ul style="list-style-type: none"> • Turns ON all Living Room Lights
All Off	<ul style="list-style-type: none"> • Turns OFF all Living Room Lights
Mood	<ul style="list-style-type: none"> • Sets Living Room lights to 40% • Turns OFF all non-dimmables
Ceiling	<ul style="list-style-type: none"> • Turns ON all Living Room Ceiling Lights • Turns OFF Perimeter Lights • Ignores Lamps
Perimeter	<ul style="list-style-type: none"> • Turns ON all Living Room Perimeter / Art Lights • Turns OFF Ceiling Lights • Ignores Lamps



LIVINGROOM
3GANG

What it Says	What it Does
All On	<ul style="list-style-type: none"> • Turns ON all Living Room Lights
All Off	<ul style="list-style-type: none"> • Turns OFF all Living Room Lights
Mood	<ul style="list-style-type: none"> • Sets Living Room lights to 40% • Turns OFF all non-dimmables
Ceiling	<ul style="list-style-type: none"> • Turns ON all Living Room Ceiling Lights • Turns OFF Perimeter Lights • Ignores Lamps
Cinema	<ul style="list-style-type: none"> • Sets Living Room Perimeter / Art Lights to 40% • Turns OFF Ceiling Lights • Closes Drapes • Ignores Lamps
Do Not Disturb	<ul style="list-style-type: none"> • Activates DND Indicator on Doorbell Station • Activates DND Indicator on All Keypads • Disables Doorbell Button • Disables House Keeping Indication on System
Up Arrow	<ul style="list-style-type: none"> • Raises Heating / Cooling Set Point on Living Room HVACs
----	<ul style="list-style-type: none"> • Middle Button Not Used
Down Arrow	<ul style="list-style-type: none"> • Lowers Heating / Cooling Set Point on Living Room HVACs
House Keeping	<ul style="list-style-type: none"> • Activates House Keeping Indicator on Doorbell Station • Activates House Keeping Indicator on All Keypads • Disables DND Indication on System
Drapes Open	<ul style="list-style-type: none"> • Momentary Press: Opens Living Room Drapes Fully • Press and Hold: Opens Drapes, Stops on Button Release
Drapes Closed	<ul style="list-style-type: none"> • Momentary Press: Closes Living Room Drapes Fully • Press and Hold: Closes Drapes, Stops on Button Release
Stop	<ul style="list-style-type: none"> • Stops Drapes or Sheers Travel, Open or Closed
Sheers Open	<ul style="list-style-type: none"> • Momentary Press: Opens Living Room Sheers Fully • Press and Hold: Opens Sheers, Stops on Button Release
Sheers Closed	<ul style="list-style-type: none"> • Momentary Press: Closes Living Room Sheers Fully • Press and Hold: Closes Sheers, Stops on Button Release



**BEDROOM
1GANG**

What it Says	What it Does
All On	<ul style="list-style-type: none"> • Turns ON / Activates all lights in Bedroom • Opens Bedroom Drapes & Sheers
All Off	<ul style="list-style-type: none"> • Turns OFF all Bedroom Lights • Turns OFF all Bathroom Lights • Closes ALL Bedroom Drapes & Sheers
Mood	<ul style="list-style-type: none"> • Sets ALL Bedroom lights to 40% • Turns OFF all non-dimmables in Bedroom
Lamps	<ul style="list-style-type: none"> • Turns ON Bedroom Lamps • Turns OFF other Bedroom Lights
Night Lite	<ul style="list-style-type: none"> • Turns ON Bathroom Night Light • Turns OFF all Bedroom Lights

**BEDROOM
1GANGTABLE**

What it Says	What it Does
All On	<ul style="list-style-type: none"> • Turns ON / Activates all Bedroom Lights
Up Arrow	<ul style="list-style-type: none"> • Raises Heating / Cooling Set Point on Bedroom HVAC
----	<ul style="list-style-type: none"> • Middle Button Not Used
Down Arrow	<ul style="list-style-type: none"> • Lowers Heating / Cooling Set Point on Bedroom HVAC
All Off	<ul style="list-style-type: none"> • Turns OFF all Lights in the Bedroom • Turns OFF all Lights in the Bathroom

**BEDROOM
3GANGTABLE**

What it Says	What it Does
All On	<ul style="list-style-type: none"> • Turns ON / Activates all Bedroom Lights
All Off	<ul style="list-style-type: none"> • Turns OFF all Lights in the Entire Suite
Mood	<ul style="list-style-type: none"> • Turns ON all Bedroom Lights to 40% • Turns OFF all other Bedroom Lights
Lamps	<ul style="list-style-type: none"> • Turns ON Bedroom Lamps
Night Lite	<ul style="list-style-type: none"> • Turns ON Bathroom Night Light • Turns OFF all other Bedroom Lights
Do Not Disturb	<ul style="list-style-type: none"> • Activates DND Indicator on Doorbell Station • Activates DND Indicator on All Keypads • Disables Doorbell Button • Disables House Keeping Indication on System
Up Arrow	<ul style="list-style-type: none"> • Raises Heating / Cooling Set Point
----	<ul style="list-style-type: none"> • Middle Button Not Used
Down Arrow	<ul style="list-style-type: none"> • Lowers Heating / Cooling Set Point
House Keeping	<ul style="list-style-type: none"> • Activates House Keeping Indicator on Doorbell Station • Activates House Keeping Indicator on All Keypads • Disables DND Indication on System
Drapes Open	<ul style="list-style-type: none"> • Momentary Press: Opens Bedroom Drapes Fully • Press and Hold: Opens Drapes, Stops on Button Release
Drapes Closed	<ul style="list-style-type: none"> • Momentary Press: Closes Bedroom Drapes Fully • Press and Hold: Closes Drapes, Stops on Button Release
Stop	<ul style="list-style-type: none"> • Stops Drapes or Sheers Travel, Open or Closed
Sheers Open	<ul style="list-style-type: none"> • Momentary Press: Opens Bedroom Sheers Fully • Press and Hold: Opens Sheers, Stops on Button Release
Sheers Closed	<ul style="list-style-type: none"> • Momentary Press: Closes Bedroom Sheers Fully • Press and Hold: Closes Sheers, Stops on Button Release



VANITYBATH
1GANG

What it Says	What it Does
Vanity	• Sends Scene Activate to nodes in Group 1
Shower	• Sends Scene Activate to nodes in Group 2
Nightlight	• Sends Scene Activate to nodes in Group 3
All On	• Sends Scene Activate to nodes in Group 4
All Off	• Sends Scene Activate to nodes in Group 5

SONOSTA
1GANG

What it Says	What it Does
Entry	• Toggles Basic Set to nodes in Group 1
Sconce	• Toggles Basic Set to nodes in Group 2
Bed Left	• Toggles Basic Set to nodes in Group 3
Bed Right	• Toggles Basic Set to nodes in Group 4
GoodNight	• Sends Scene Activate to nodes in Group 5

INATPENN
1GANG

What it Says	What it Does
Vanity	• Toggles Basic Set to nodes in Group 1
Shower	• Toggles Basic Set to nodes in Group 2
Nightlight	• Toggles Basic Set to nodes in Group 3
All On	• Sends Scene Activate to nodes in Group 4
All Off	• Sends Scene Activate to nodes in Group 5

TYPE14
1GANG

What it Says	What it Does
Entry	• Toggles Basic Set to nodes in Group 1
Kitchen	• Toggles Basic Set to nodes in Group 2
LivingRoom	• Toggles Basic Set to nodes in Group 3
BedRoom	• Toggles Basic Set to nodes in Group 4
Master Off	• Sends Scene Activate to nodes in Group 5

LOWELL1
1GANG

What it Says	What it Does
Welcome	• Sends Scene Activate to nodes in Group 1
Overhead	• Toggles Basic Set to nodes in Group 2
Bedroom	• Toggles Basic Set to nodes in Group 3
Privacy	<ul style="list-style-type: none"> • Activates DND Indicator on Doorbell Station • Activates DND Indicator on All Keypads • Disables Doorbell Button • Disables House Keeping Indication on System
All Off	• Sends Scene Activate to nodes in Group 5

LOWELL2
1GANG

What it Says	What it Does
Lights	• Sends Scene Activate to nodes in Group 1
Up Arrow	• Raises Heating / Cooling Set Point
Temperature	• Middle Button Not Used
Down Arrow	• Lowers Heating / Cooling Set Point
Privacy	<ul style="list-style-type: none"> • Activates DND Indicator on Doorbell Station • Activates DND Indicator on All Keypads • Disables Doorbell Button • Disables House Keeping Indication on System



CES3 DEMO
1GANG

What it Says	What it Does
Morning	<ul style="list-style-type: none">• Sends Scene Activate to nodes in Group 1
Day	<ul style="list-style-type: none">• Sends Scene Activate to nodes in Group 2
Evening	<ul style="list-style-type: none">• Sends Scene Activate to nodes in Group 3
Night	<ul style="list-style-type: none">• Sends Scene Activate to nodes in Group 4
Sleep	<ul style="list-style-type: none">• Sends Scene Activate to nodes in Group 5