



Lumina and Lumina Pro Lighting and Automation System

Quick-Start Installation Guide

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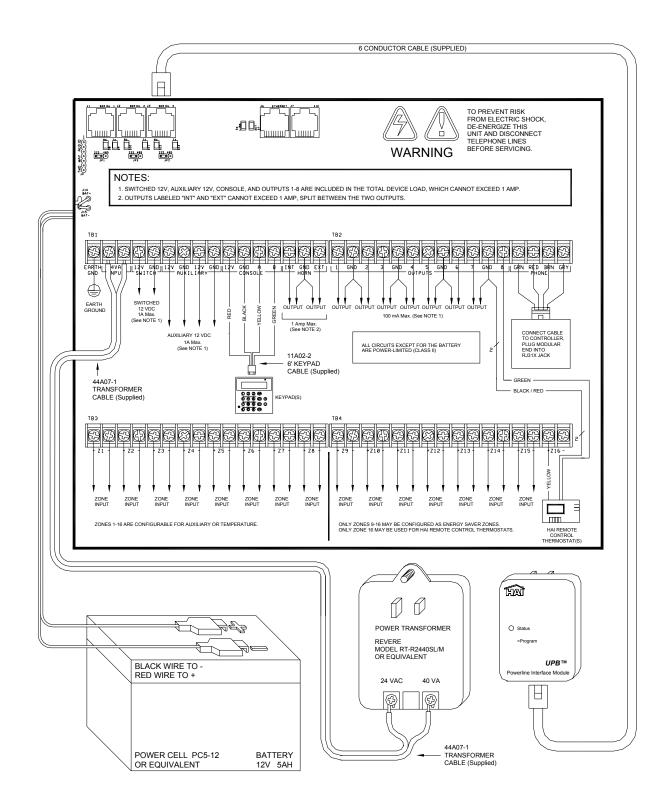
For complete operation and programming instructions, please download the following document(s) from the HAI web site:

44R00-1: Lumina Advanced Application Guide

44R00-2: Lumina Pro Advanced Application Guide

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PLANNING

Before you start, the Lumina system should be planned as follows:

- Thoroughly review Appendix A "Understanding HLC" for an overview of an HLC system.
- Complete the worksheet(s) in Appendix B "HLC Planner" to plan the lighting scheme for each room.
- Give consideration to where the controller will go. Remember that it needs a duplex receptacle not controlled by a switch, preferably on its own circuit, within 5 feet of the controller.

INSTALLATION

1) Install HLC Switches and Controllers

Install the HLC Dimmers and Switches, 6-Button Room Controllers, and 8-Button House Controllers according to the instructions that came with each device.

2) Install the HLC Phase Coupler

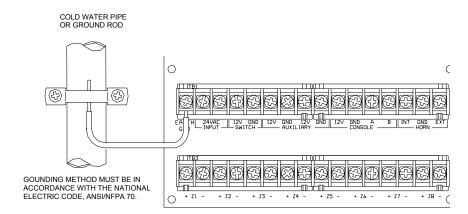
Install the supplied HLC Phase Coupler (P/N: 39A00-1) according to the instructions that came with the unit.

3) Mount the Lumina Enclosure

Mount the Lumina enclosure securely to the wall in the selected location using screws and wall anchors, as appropriate.

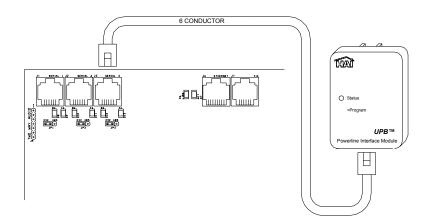
4) Ground the Lumina Controller

GROUND THE LUMINA CONTROLLER'S "EARTH GND" TERMINAL TO A COLD WATER PIPE OR TO A 4-FOOT GROUND ROD TO PRESERVE ITS BUILT-IN TRANSIENT PROTECTION. USE 14 GAUGE WIRE. TRANSIENT PROTECTION WILL NOT WORK IF THE CONTROLLER IS NOT PROPERLY GROUNDED.



5) Connect the Powerline Interface Module (PIM) to the Lumina

Locate the supplied PIM (P/N: 36A00-1). Plug the PIM into a 120 VAC outlet. Plug one end of the supplied 6-conductor modular cable into the connector marked "J3" (SERIAL 3) on the Lumina controller and plug the other end into the modular connector on the PIM as shown.

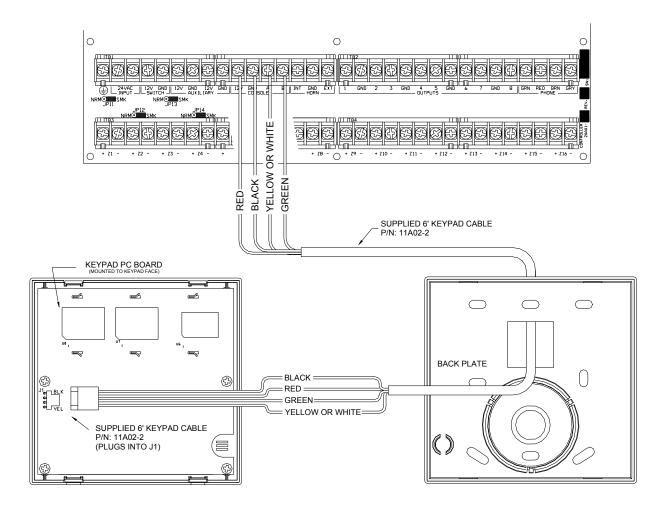


6) Install the Lumina Keypad

a) Connect the supplied keypad (P/N: 33A00-19) using the supplied 6' Keypad Cable (P/N: 11A02-2) as follows:

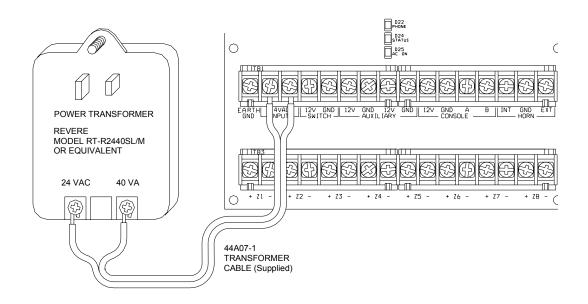
11A02-2 Cable	Lumina Controller
RED	CONSOLE 12V
BLACK	CONSOLE GND
YELLOW or WHITE	CONSOLE A
GREEN	CONSOLE B

- b) Remove the keypad from the back plate by gently prying the unit open with a screwdriver.
- c) Mount the back plate to the wall. Mounting holes are designed to fit on a single or double gang box, or directly to the wall.
- d) Plug the cable into the connector on the keypad Printed Circuit Board (J1) as shown.
- e) Snap the console face on to the back plate. Remove protective film from the LCD lens.



7) Connect the Power Transformer

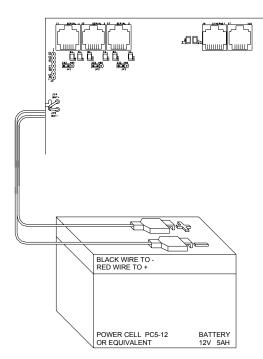
- a) Connect the supplied 24V, 40VA Power Transformer using the supplied Power Cable (P/N: 44A07-1).
- b) Plug the Power Transformer into a 120 VAC outlet.
 - The "AC ON" LED (D25) should illuminate.
 - Within one minute, the "STATUS" LED (D24) should begin blinking at a rate of 1 blink per second.



8) Connect the Battery

Unplug the Power Transformer to shut down the controller. Connect the black battery wire to the - (negative) battery terminal of the supplied battery. Connect the red battery wire to the + (positive) battery terminal. The controller should not start.

- a) Plug in the Power Transformer. The system should start.
- b) Unplug the Power Transformer. The system should continue to run on the battery (the "STATUS" LED will continue to flash).
- c) Plug the Power Transformer back in and secure it to the outlet.



BASIC OPERATION AND CONFIGURATION

The Lumina keypad is designed with everything that is necessary for you to operate and configure the Lumina lighting and automation system. Once the controller is powered up, the following is displayed on the Lumina keypad:

--:-- HOME SYSTEM OK

Display Menus

The system has been designed to be easy to operate. Whenever you press a key on the keypad, the top line of the display will indicate what you are doing. To the right of that is your selection or current setting. The bottom line will show a menu of your next options. To the lower right corner of the display is the direction arrow(s). Where possible, the up (\uparrow), down (\downarrow), and two-headed (\updownarrow) arrow characters are shown on the keypad display to indicate which arrow keys may be pressed at that time.

Main Menu

The main menu is entered from the top-level display by pressing the '#' key. This menu displays all of the functions that you can perform from the keypad. It is not necessary to display the main menu before selecting a function if the number for the desired menu item is known.

Error Beeps

If you press a key that is invalid for the function that you are doing, the keypad will beep 3 times, indicating that it is not a valid option. Look at the bottom line of the display to see what keys you can press next.

Trouble Beeps

The Lumina controller constantly checks the entire system for proper operation. If trouble is found, the trouble is displayed on the bottom line and the keypad will beep at the rate of two beeps per second to alert you to the trouble.

To silence the beeper, press the '*'key.

Confirmation Beep

When you have successfully completed a function, such as entering a program or changing a setup item, the keypad will beep once.

Cancel

If you wish to cancel a selection or return to the top-level display, press the '*' key. You may have to press it more than once, depending on how far into the function (menu) you are. Each time you cancel out of an operation, the keypad will beep once to indicate that you have canceled.

The '*' key is also used if you make a mistake while entering a number. For example, if you enter a 2 when you meant to enter a 3, press the '*' key to start over.

SETUP

The Setup menu is used to configure the system and to give text descriptions to all of the HLC lighting devices. To enter the Setup menu, from the top-level display or from the main menu, press the 9 (SETUP) key on the numeric keypad.

Upon entry to the Setup mode, you will first be prompted to enter a valid code:

```
SET UP
ENTER CODE:
```

Use the default code to enter the Setup mode (the default code is 1 1 1 1):

SET UP 1=CODES 2=TIME 3=PROG ↓ 4=DIAL 5=AREA 6=MISC 7=NAMES 8=VOICE ↑

Set the Time and Date

To set up time and date, from the Setup menu, press the 2 (TIME) key. You will be prompted to enter the new time and date. AM/PM must be specified for the time if that format is being used, otherwise the entered time should be 13:00-23:59.

TIME: HHMM ↑=AM ↓=PM DAYLIGHT SAVINGS TIME? 0=NO 1=YES

If Daylight Savings Time is currently being observed (between spring and fall), set this item to "Yes". If Daylight Savings Time is not currently being observed (between fall and spring) or is not observed in your geographic location, set this item to "No". This item is used to correctly calculate the times for sunrise and sunset. Once the time is set, the Lumina controller will automatically adjust the "time of day" each time daylight savings time begins and ends.

Next you are prompted to enter the date. If the current date is February 8, 2006, enter it as "0 2 0 8 0 6".

ENTER DATE: MMDDYY

Assign a Name to HLC Lighting Devices

Before naming HLC Dimmers, Switches, and 6-Button Room Controllers, you should have thoroughly reviewed Appendix A "Understanding HLC" and have completed the worksheet(s) in Appendix B "HLC Planner".

You should assign a name to the following HLC devices:

- Name the Room Controllers that resides on the 1st unit in each Room (i.e. Unit 1, 9, 17, 25, etc.)
- Name all of the Lighting Loads (Dimmers and Switches) in each Room

You should not assign a name to the following HLC devices:

- \varnothing Do not name Room Controllers that reside between the 2nd and 7th unit in a Room
- \varnothing Do not name House Controllers that reside on the 8th unit in a Room

You should assign a name to each HLC lighting device (as described above) before you configure it. Lumina has a list of names for you to select from. To name the HLC devices, from the Setup menu, press the 7 (NAMES) key:

Press the '#' key to display a list of names that are stored in the controller. Each name in the list is displayed on the bottom line of the display.

UNIT 1: Basement \downarrow

When using the list of names, the following should be observed:

- > The first item in the list is blank. This is used to delete an existing name for the respective Unit Number.
- > The list is in alphabetical order.
- Fighther the Unit Number is the 1st unit in a Room (i.e. Unit 1, 9, 17, 25, etc.), the list will start with Room names.
- > In the Unit Number is between the 2^{nd} and 8^{th} unit in a Room, the list will start with Lighting Load names.

Use the up arrow (\uparrow) and down arrow (\downarrow) keys to scroll through the list of available names for the device. When appropriate name appears, press the '#' key to select that name for the device. The name now appears next to the Unit designation:

UNIT 1:	Living Room
00-95	#=LIST ↓

Once the name is selected for the specified Unit, press the down arrow key to name the next unit.

Delete a Unit Name

If you remove a device, move a device to a different location, or program a device into an incorrect location, you should delete the existing name for the respective Unit Number.

To delete an existing name, from the Setup menu, press the 7 (NAMES) key. Use the up arrow (\uparrow) and down arrow (\downarrow) keys to scroll through the list of existing names. When the Unit Number or name appears that you wish to delete, press the ' # ' key:

UNIT 7:	Table Lamp
00-95	#=LIST ↓

Press the '#' key to display a list of names that are stored in the controller. The first name is actually blank:

UNIT 7: Table Lamp \downarrow

Simply press the '#' key to delete the name.

UNIT 7:		
00-95	#=LIST ↓	

CONFIGURING HLC DEVICES

Before configuring HLC Dimmers and Switches, 6-Button Room Controllers, and 8-Button House Controllers, you should have thoroughly reviewed Appendix A "Understanding HLC" and have completed the worksheet(s) in Appendix B "HLC Planner".

When configuring HLC devices using the Lumina keypad, you can configure the device by selecting the name of the device from the list of named units, or by entering the Unit Number of the device followed by the ' # ' key.

Note: The following steps will guide you through configuring all named devices first. Then, it will guide you through configuring unnamed devices.

Using the worksheet(s) in Appendix B, configure each device as follows:

STEP 1

On the Lumina keypad, from the top-level display, press 6 (STATUS), and then press 1 (CTRL). The first named unit is displayed:

Living Room STATUS: OFF

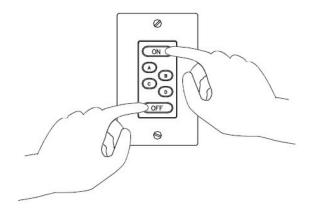
STEP 2

Configuring Room Controllers

If the named unit is a Room Controller, go to the specified HAI UPB[™] 6-Button Room Controller and put it in Setup mode as follows:

Room Controller Setup

Step	Operation
1	Press and hold the "ON" and "OFF" pushbuttons simultaneously for at least 3 seconds.
2	All of the LED indicators will blink to indicate that the HAI UPB TM 6-Button Room Controller is in Setup Mode.
	Note: The HAI 6-Button Room Controller will automatically exit Setup mode after 5 minutes. To manually exit Setup mode, press and hold the "ON" and "OFF" pushbuttons simultaneously for at least 3 seconds.



Back at the Lumina keypad, press '##'. The display shows:

CONFIGURE Living Room STARTING

The display will provide you with step-by-step configuration status. When complete, the display shows:

CONFIGURE Living Room COMPLETED

Once completed, press the '*' key to return to the Status display.

STEP 3

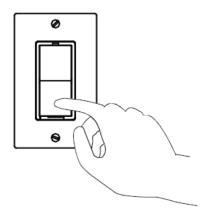
Press the down arrow to display the next named device.

Configuring Lighting Loads

If the named unit that is displayed is a Lighting Load (i.e. Dimmer or Switch), go to the specified HAI UPBTM Wall Dimmer or Switch and put it in Setup mode as follows:

Lighting Load Setup

Step	Operation
1	Tap the rocker switch quickly 5 times.
2	The HAI UPB [™] Wall Dimmer or Switch will flash the lighting load one time and blink its LED blue to indicate that it is in Setup Mode.
	Note: The switch will automatically exit Setup mode after 5 minutes. To manually exit Setup mode, tap the switch quickly 2 times.



Back at the Lumina keypad, press '##'. The display shows:

CONFIGURE -Cans STARTING

The display will provide you with step-by-step configuration status. When complete, the display shows:

CONFIGURE -Cans COMPLETED

Once completed, press the '*' key to return to the Status display.

STEP 4

Press the down arrow to display the next named device.

Using the worksheet(s) as a guide, configure all named units as described in Step 2 and Step 3.

STEP 5

Configure Unnamed Room Controllers

Room Controllers that reside between the 2nd and 7th unit in a Room should be unnamed. To configure a Room Controller between the 2nd and 7th unit in a Room, enter its Unit Number followed by the '#' key.

Put the Room Controller into Setup mode as descried under "Room Controller Setup" in Step 2.

Back at the Lumina keypad, press '##'. The display shows:

CONFIGURE UNIT 2 STARTING

The display will provide you with step-by-step configuration status. When complete, the display shows:

CONFIGURE UNIT 2 COMPLETED

Once completed, press the '*' key to return to the Status display. Repeat Step 5 for each unnamed Room Controller.

STEP 6

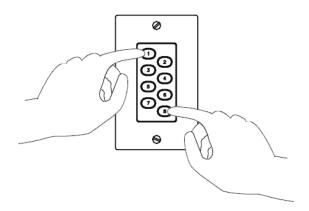
Configure Unnamed House Controllers

House Controllers that reside on the 8th unit in a Room should be unnamed. To configure a House Controller on the 8th unit in a Room, enter its Unit Number followed by the '#' key.

Go to the specified HAI UPB[™] 8-Button House Controller and put it in Setup mode as follows:

House Controller Setup

Step	Operation
1	Press and hold the "1" and "8" pushbuttons simultaneously for at least 3 seconds.
2	All of the LED indicators will blink to indicate that the HAI UPB [™] 8-Button House Controller is in Setup Mode.
	Note: The HAI 8-Button House Controller will automatically exit Setup mode after 5 minutes. To manually exit Setup mode, press and hold the "1" and "8" pushbuttons simultaneously for at least 3 seconds.



Back at the Lumina keypad, press '##'. The display shows:

CONFIGURE UNIT 8 STARTING

The display will provide you with step-by-step configuration status. When complete, the display shows:

CONFIGURE UNIT 8 COMPLETED

Once completed, press the '*' key to return to the Status display. Repeat Step 6 for each unnamed House Controller.

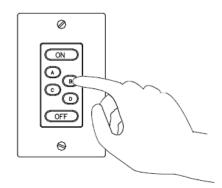
Configuring Lighting Scenes in a Room

Each HLC device in a room can store up to four different preset lighting scenes (Scenes A-D) and one "On" Scene (preset lighting levels for each device when the room is turned on).

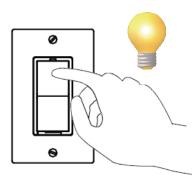
To set a lighting scene using a Room Controller:

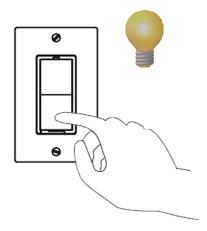
Each lighting scene can also be set or easily changed using the pushbuttons on the HAI UPB[™] 6-Button Room Controller, as follows:

1) Press the desired pushbutton on the HAI UPBTM 6-Button Room Controller to activate the current scene (preset lighting level) in each of the HLC devices.

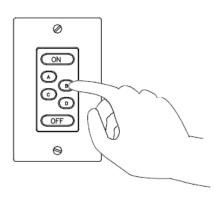


2) Adjust all of the HLC devices in the room to the desired lighting levels. The desired lighting levels may be set manually at the switch by pressing the top of the paddle to brighten the light or the bottom of the paddle to dim the light.





3) Press the pushbutton on the HAI UPB[™] 6-Button Room Controller five (5) times quickly.

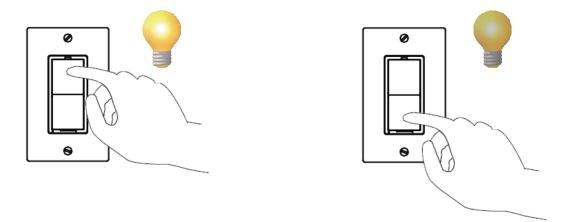


4) Each UPBTM Wall Switch Dimmer will flash its lighting load one time to indicate that the new level has been configured.

Whenever the scene command is transmitted, by pressing the Scene Button (A-D) on the Room Controller, each HLC device in the specified room will brighten or fade to its preset level for the selected scene.

To set a lighting scene using the Lumina keypad:

1) Adjust all of the HLC devices in the room to the desired lighting levels. The desired lighting levels may be set manually at the switch by pressing the top of the paddle to brighten the light or the bottom of the paddle to dim the light.

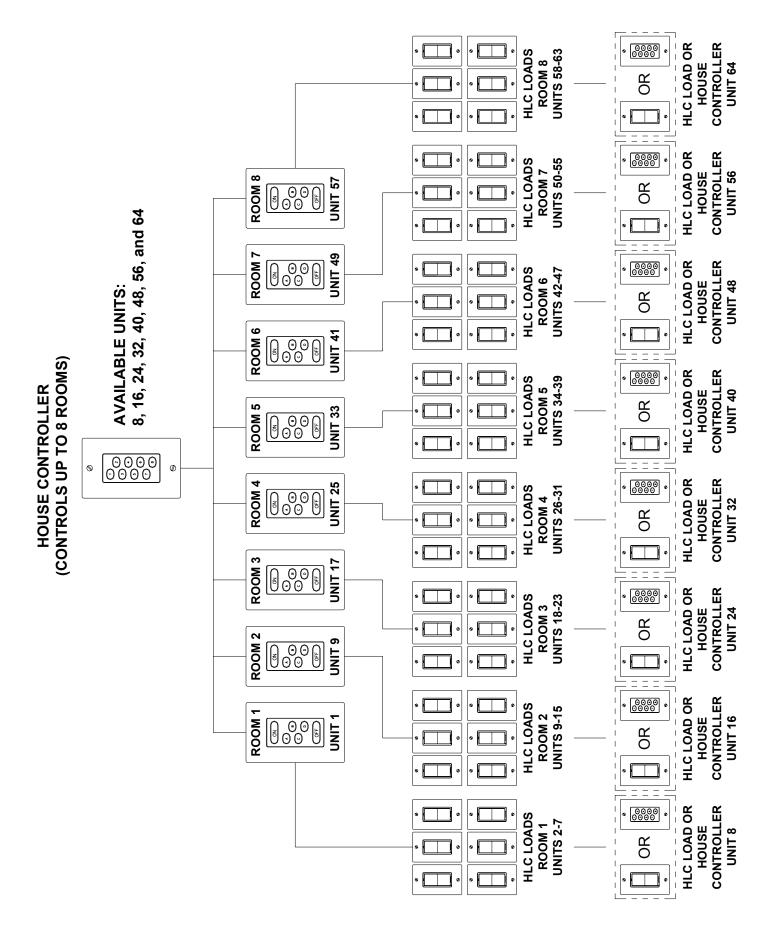


- 2) After the desired lighting levels are set, from the top-level display or from the main menu, press the 1 (CTRL) key on the Lumina keypad.
- 3) Lumina will display the first named unit in that list. Use the down arrow key to scroll through the list. Press the '#' key to select the desired room.
- 4) Press the 6 (SET) key followed by 1 (On Scene) or 2-5 (Scene A-D) to save the new "light levels" for each device in the selected room.

```
Living Room SET
1=ON 2-5=A-D
```

Whenever the scene command is transmitted each HLC device in the specified room will brighten or fade to its preset level for the selected scene.

APPENDIX A – UNDERSTANDING HLC



APPENDIX A – UNDERSTANDING HLC

HLC OVERVIEW

HAI Lighting Control (HLC) combines HAI UPBTM Wall Switches, Dimmers, and Modules, HAI UPBTM Room Controllers, and HAI UPBTM House Controllers to create lighting scenes that set the proper mood and ambiance for various activities throughout a home.

HLC format is a defined structure for configuring, programming, and operating all the HLC lighting devices in a home.

Room Controllers control up to 7 lighting loads in a room. House Controllers control up to 8 Rooms of HLC lighting.

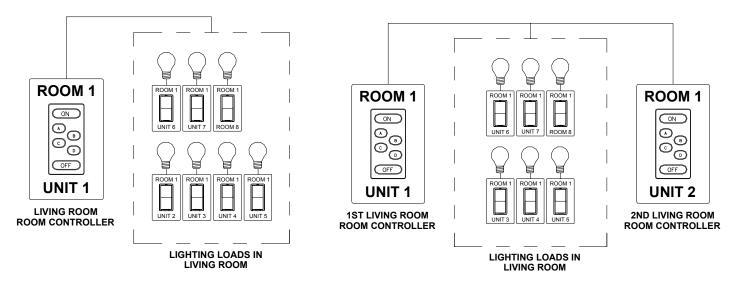
HAI manufactured UPB[™] devices (collectively referred to as HLC devices) are configured using the Lumina keypad.

About Rooms

Each "room" of HLC lighting consists of 8 consecutive unit numbers, starting at Unit 1 (i.e. Room 1 = Units 1-8, Room 2 = Units 9-16, Room 3 = Units 17-24, etc.). Each room can consist of a maximum of 8 HLC devices, configured as follows:

- ▶ Up to 7 HAI UPBTM Wall Switches, Dimmers, and/or Modules (for controlling up to 7 lighting loads in a room or area)
- > 1 or more Room Controllers (set a scene in a room, turn the room on and off, and dim and brighten the room)
- ▶ 1 House Controller (for controlling up to 8 rooms of HLC lighting)

The first unit number in each room (i.e. 1, 9, 17, 25, etc.) is reserved for controlling the room; this is where the Room Controller will reside. The name for this unit should reflect the room name (e.g. Living Room, Kitchen, Great Room, Theater, etc.). HLC Wall Switches, Dimmers, or Modules cannot be programmed to these unit numbers. If one or more Room Controllers are used, the first Room Controller should be set to the first unit number in the group (i.e. Unit 1 – Room 1); additional Room Controllers can be used by setting each to any other unused unit number in the group between the 2^{nd} and 7^{th} unit number (i.e. Unit 2-7 – Room 1).



About Room Controllers

The HAI UPBTM 6-Button Room Controller allows for lighting control of a room where HAI UPBTM Wall Switches, Dimmers, and Modules have been installed. From a Room Controller the room can be turned off (all loads in the group are turned off), turned on (all loads in the group are turned on), brightened (all loads are brightened from their current level), dimmed (all loads are dimmed from their current level), or set to one of 4 lighting scenes (A-D).

Room Controller LED Indicators

When the room is turned on, the LED indicator behind the "On" button is illuminated and all others are turned off. When the room is turned off, the LED indicator behind the "Off" button is illuminated and all others are turned off. When the room is brightened, the LED indicator behind the "On" is illuminated and all others are turned off. When the room is dimmed, the LED indicator that is currently illuminated stays on. When the room is set to a lighting scene (A-D), the LED indicator behind the respective scene letter is illuminated and all others are turned off.

APPENDIX A – UNDERSTANDING HLC

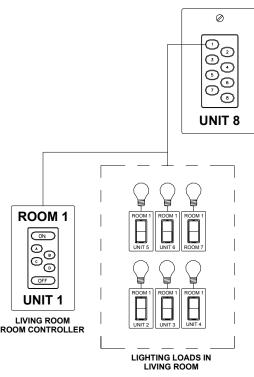
The Lumina controller keeps track of the exact status of each unit even when a lighting scene is initiated by the Room Controller. Room Controllers also keep track of when individual switches in a room are turned on and off. When all of the lighting loads in a room are turned off, the "Off" indicator is illuminated. If any of the lighting loads in a room are turned on at an HAI UPB[™] Wall Switch or Dimmer, the "On" indicator will illuminate and the "Off" indicator is turned off. Likewise, if the "On" indicator or one of the scene indicators is illuminated, and then all of the lighting loads are turned off at HAI UPB[™] Wall Switches, the "Off" indicator will illuminate and any others are turned off.

About House Controllers

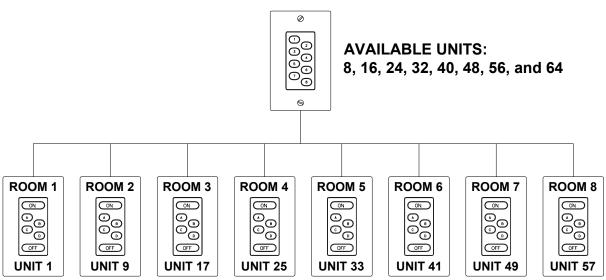
Each HAI UPB[™] 8-Button House Controller allows for controlling all 8 rooms of lighting where HAI UPB[™] Wall Switches, Dimmers, and Modules have been installed.

Each button on the House Controller is used to toggle all of the lights in the respective room on and off. When the room is turned on, the LED indicator behind the respective button is illuminated and all of the lights in the room are turned on. When the room is turned off, the LED indicator behind the respective button is turned off and all of the lights in the room are turned off. If a lighting load in the respective room is turned on, the LED indicator behind the button is illuminated. When all lighting loads in the respective room are turned off, the LED indicator behind the button is turned off.

Each House Controller controls 8 consecutive rooms (i.e. Room 1-8, Room 9-16, Room 17-24, and Room 25-31). To configure a House Controller to control a group of 8 rooms, it must be set to the last unit number in one of the respective rooms. For example, a House Controller set to Unit 8, 16, 24, 32, 40, 48, 56, or 64 can be used to control Rooms 1-8. This allows you to have up to 8 House Controllers throughout the house that control Rooms 1-8.



HOUSE CONTROLLER (CONTROLS UP TO 8 ROOMS)



When used with Lumina Pro, House Controllers for Rooms 9-16, 17-24, and 25-31 are configured in a similar manner. For example:

- Unit 72, 80, 88, 96, 104, 112, 120, and 128 can be used to control Rooms 9-16.
- Unit 136, 144, 152, 160, 168, 176, 784, and 192 can be used to control Rooms 17-24.
- Unit 200, 208, 216, 224, 232, 240, and 248 can be used to control Rooms 25-31.

APPENDIX B – HLC PLANNER

It is very important to plan each Room by filling in the worksheets for each Room.

When filling in the worksheet, put a check in the box under "HLC Device Type" for each unit in the room, then:

You should assign a name to the following HLC devices:

- ▶ Room Controllers that resides on the 1st unit in each Room (i.e. Unit 1, 9, 17, 25, etc.)
- Lighting Loads (Dimmers and Switches) in each Room

You should not assign a name to the following HLC devices:

- \varnothing Room Controllers that reside between the 2nd and 7th unit in a Room
- \varnothing House Controllers that reside on the 8th unit in a Room

Lumina can have up to 8 Rooms and Lumina Pro can have up to 31 Rooms.

In this example, Room 1 is the Living Room. The Living Room consists of 2 Room Controllers (one at each entry into the Living Room), 5 Lighting Loads, and 1 House Controller (which controls up to 8 Rooms).

ROOM 1: Living Room				
Unit	Unit Number	HLC D	evice Type	Name
1st	Unit 1	🗹 Room Controller		Living Room
2nd	Unit 2	Lighting Load	🗹 Room Controller	
3rd	Unit 3	🗹 Lighting Load	🗌 Room Controller	-Cans
4th	Unit 4	🗹 Lighting Load	🗌 Room Controller	-Chandelier
5th	Unit 5	🗹 Lighting Load	🛛 Room Controller	-Sconce
6th	Unit 6	🗹 Lighting Load	🛛 Room Controller	-Spot Lights
7th	Unit 7	🗹 Lighting Load	🗌 Room Controller	-Table Lamp
8th	Unit 8	Lighting Load	🗹 House Controller	

Room 2 is the Kitchen. The Kitchen consists of 1 Room Controller and 7 Lighting Loads.

ROO	ROOM 2: Kitchen					
Unit	Unit Number	HLC D	evice Type	Name		
1st	Unit 1	🗹 Room Controller		Kitchen		
2nd	Unit 2	🗹 Lighting Load	🛛 Room Controller	-Breakfast		
3rd	Unit 3	🗹 Lighting Load	🛛 Room Controller	-Cans		
4th	Unit 4	🗹 Lighting Load	🛛 Room Controller	-Cabinets		
5th	Unit 5	🗹 Lighting Load	🛛 Room Controller	-Sink		
6th	Unit 6	🗹 Lighting Load	🛛 Room Controller	-Island		
7th	Unit 7	🗹 Lighting Load	🛛 Room Controller	-Ovrhd Lghts (Overhead Lights)		
8th	Unit 8	🗹 Lighting Load	🛛 House Controller	-Perm Lights (Perimeter Lights)		

ROO	ROOM 1:				
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 1	🛛 Room Controller			
2nd	Unit 2	Lighting Load	🛛 Room Controller		
3rd	Unit 3	Lighting Load	🛛 Room Controller		
4th	Unit 4	Lighting Load	🛛 Room Controller		
5th	Unit 5	Lighting Load	🛛 Room Controller		
6th	Unit 6	Lighting Load	🛛 Room Controller		
7th	Unit 7	Lighting Load	🛛 Room Controller		
8th	Unit 8	Lighting Load	☐ House Controller		

ROOM 2:

Unit	Unit Number	HLC D	evice Type	Name
1st	Unit 9	🛛 Room Controller		
2nd	Unit 10	Lighting Load	🛛 Room Controller	
3rd	Unit 11	Lighting Load	🛛 Room Controller	
4th	Unit 12	Lighting Load	🗌 Room Controller	
5th	Unit 13	Lighting Load	🛛 Room Controller	
6th	Unit 14	Lighting Load	🛛 Room Controller	
7th	Unit 15	Lighting Load	🛛 Room Controller	
8th	Unit 16	Lighting Load	🛛 House Controller	

ROO	ROOM 3:				
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 17	🛛 Room Controller			
2nd	Unit 18	Lighting Load	🗌 Room Controller		
3rd	Unit 19	Lighting Load	🛛 Room Controller		
4th	Unit 20	Lighting Load	🛛 Room Controller		
5th	Unit 21	Lighting Load	🗌 Room Controller		
6th	Unit 22	Lighting Load	🛛 Room Controller		
7th	Unit 23	□ Lighting Load	🛛 Room Controller		
8th	Unit 24	Lighting Load	🛛 House Controller		

ROO	ROOM 4:					
Unit	Unit Number	HLC D	evice Type	Name		
1st	Unit 25	🛛 Room Controller				
2nd	Unit 26	Lighting Load	🛛 Room Controller			
3rd	Unit 27	Lighting Load	🛛 Room Controller			
4th	Unit 28	Lighting Load	🛛 Room Controller			
5th	Unit 29	Lighting Load	🛛 Room Controller			
6th	Unit 30	Lighting Load	🛛 Room Controller			
7th	Unit 31	Lighting Load	🛛 Room Controller			
8th	Unit 32	Lighting Load	☐ House Controller			

ROO	ROOM 5:				
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 33	🛛 Room Controller			
2nd	Unit 34	Lighting Load	🛛 Room Controller		
3rd	Unit 35	Lighting Load	🛛 Room Controller		
4th	Unit 36	Lighting Load	🛛 Room Controller		
5th	Unit 37	Lighting Load	🛛 Room Controller		
6th	Unit 38	Lighting Load	🛛 Room Controller		
7th	Unit 39	Lighting Load	🗌 Room Controller		
8th	Unit 40	Lighting Load	☐ House Controller		

ROOM 6:

NOO					
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 41	🛛 Room Controller			
2nd	Unit 42	Lighting Load	🛛 Room Controller		
3rd	Unit 43	Lighting Load	🗌 Room Controller		
4th	Unit 44	Lighting Load	🗌 Room Controller		
5th	Unit 45	Lighting Load	🛛 Room Controller		
6th	Unit 46	Lighting Load	🛛 Room Controller		
7th	Unit 47	Lighting Load	🛛 Room Controller		
8th	Unit 48	Lighting Load	🛛 House Controller		

ROO	ROOM 7:					
Unit	Unit Number	HLC D	evice Type	Name		
1st	Unit 49	🛛 Room Controller				
2nd	Unit 50	Lighting Load	🗌 Room Controller			
3rd	Unit 51	Lighting Load	🛛 Room Controller			
4th	Unit 52	Lighting Load	🛛 Room Controller			
5th	Unit 53	Lighting Load	🛛 Room Controller			
6th	Unit 54	Lighting Load	🛛 Room Controller			
7th	Unit 55	Lighting Load	🛛 Room Controller			
8th	Unit 56	Lighting Load	🛛 House Controller			

ROO	ROOM 8:					
Unit	Unit Number	HLC D	evice Type	Name		
1st	Unit 57	🛛 Room Controller				
2nd	Unit 58	Lighting Load	🛛 Room Controller			
3rd	Unit 59	Lighting Load	🛛 Room Controller			
4th	Unit 60	Lighting Load	🛛 Room Controller			
5th	Unit 61	Lighting Load	🛛 Room Controller			
6th	Unit 62	Lighting Load	🛛 Room Controller			
7th	Unit 63	Lighting Load	🛛 Room Controller			
8th	Unit 64	Lighting Load	□ House Controller			

ROO	ROOM 9:				
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 65	🛛 Room Controller			
2nd	Unit 66	Lighting Load	🛛 Room Controller		
3rd	Unit 67	Lighting Load	🛛 Room Controller		
4th	Unit 68	Lighting Load	🛛 Room Controller		
5th	Unit 69	Lighting Load	🛛 Room Controller		
6th	Unit 70	Lighting Load	🛛 Room Controller		
7th	Unit 71	Lighting Load	🗌 Room Controller		
8th	Unit 72	Lighting Load	□ House Controller		

ROOM 10:

NOU					
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 73	🛛 Room Controller			
2nd	Unit 74	Lighting Load	🛛 Room Controller		
3rd	Unit 75	Lighting Load	🛛 Room Controller		
4th	Unit 76	Lighting Load	🗌 Room Controller		
5th	Unit 77	Lighting Load	🛛 Room Controller		
6th	Unit 78	Lighting Load	🛛 Room Controller		
7th	Unit 79	Lighting Load	🛛 Room Controller		
8th	Unit 80	Lighting Load	🛛 House Controller		

ROO	ROOM 11:					
Unit	Unit Number	HLC D	evice Type	Name		
1st	Unit 81	🛛 Room Controller				
2nd	Unit 82	Lighting Load	🗌 Room Controller			
3rd	Unit 83	Lighting Load	🛛 Room Controller			
4th	Unit 84	Lighting Load	🛛 Room Controller			
5th	Unit 85	Lighting Load	🛛 Room Controller			
6th	Unit 86	Lighting Load	🛛 Room Controller			
7th	Unit 87	Lighting Load	🛛 Room Controller			
8th	Unit 88	Lighting Load	🛛 House Controller			

ROO	ROOM 12:					
Unit	Unit Number	HLC D	evice Type	Name		
1st	Unit 89	🛛 Room Controller				
2nd	Unit 90	Lighting Load	🛛 Room Controller			
3rd	Unit 91	Lighting Load	🛛 Room Controller			
4th	Unit 92	Lighting Load	🛛 Room Controller			
5th	Unit 93	Lighting Load	🛛 Room Controller			
6th	Unit 94	Lighting Load	🛛 Room Controller			
7th	Unit 95	Lighting Load	🛛 Room Controller			
8th	Unit 96	Lighting Load	☐ House Controller			

ROO	ROOM 13:				
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 97	🛛 Room Controller			
2nd	Unit 98	Lighting Load	🛛 Room Controller		
3rd	Unit 99	Lighting Load	🗌 Room Controller		
4th	Unit 100	Lighting Load	🛛 Room Controller		
5th	Unit 101	Lighting Load	🛛 Room Controller		
6th	Unit 102	Lighting Load	🛛 Room Controller		
7th	Unit 103	Lighting Load	🛛 Room Controller		
8th	Unit 104	Lighting Load	☐ House Controller		

ROOM 14:

NOU					
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 105	🛛 Room Controller			
2nd	Unit 106	Lighting Load	🛛 Room Controller		
3rd	Unit 107	Lighting Load	🛛 Room Controller		
4th	Unit 108	Lighting Load	🗌 Room Controller		
5th	Unit 109	Lighting Load	🛛 Room Controller		
6th	Unit 110	Lighting Load	🛛 Room Controller		
7th	Unit 111	Lighting Load	🗌 Room Controller		
8th	Unit 112	Lighting Load	☐ House Controller		

ROO	ROOM 15:					
Unit	Unit Number	HLC D	evice Type	Name		
1st	Unit 113	🛛 Room Controller				
2nd	Unit 114	Lighting Load	🗌 Room Controller			
3rd	Unit 115	Lighting Load	🛛 Room Controller			
4th	Unit 116	Lighting Load	🛛 Room Controller			
5th	Unit 117	Lighting Load	🛛 Room Controller			
6th	Unit 118	Lighting Load	🛛 Room Controller			
7th	Unit 119	Lighting Load	🛛 Room Controller			
8th	Unit 120	Lighting Load	🛛 House Controller			

ROO	ROOM 16:					
Unit	Unit Number	HLC D	evice Type	Name		
1st	Unit 121	🛛 Room Controller				
2nd	Unit 122	Lighting Load	🛛 Room Controller			
3rd	Unit 123	Lighting Load	🗌 Room Controller			
4th	Unit 124	Lighting Load	🛛 Room Controller			
5th	Unit 125	Lighting Load	🛛 Room Controller			
6th	Unit 126	Lighting Load	🛛 Room Controller			
7th	Unit 127	Lighting Load	🛛 Room Controller			
8th	Unit 128	Lighting Load	□ House Controller			

ROO	ROOM 17:				
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 129	🛛 Room Controller			
2nd	Unit 130	Lighting Load	🛛 Room Controller		
3rd	Unit 131	Lighting Load	🛛 Room Controller		
4th	Unit 132	Lighting Load	🛛 Room Controller		
5th	Unit 133	Lighting Load	🛛 Room Controller		
6th	Unit 134	Lighting Load	🗌 Room Controller		
7th	Unit 135	Lighting Load	🛛 Room Controller		
8th	Unit 136	Lighting Load	□ House Controller		

ROOM 18:

Unit	Unit Number	HLC D	evice Type	Name
1st	Unit 137	🛛 Room Controller		
2nd	Unit 138	Lighting Load	🛛 Room Controller	
3rd	Unit 139	Lighting Load	🗌 Room Controller	
4th	Unit 140	Lighting Load	🗌 Room Controller	
5th	Unit 141	Lighting Load	🛛 Room Controller	
6th	Unit 142	Lighting Load	🛛 Room Controller	
7th	Unit 143	Lighting Load	🛛 Room Controller	
8th	Unit 144	Lighting Load	□ House Controller	

ROOM 19:					
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 145	🛛 Room Controller			
2nd	Unit 146	Lighting Load	🗌 Room Controller		
3rd	Unit 147	Lighting Load	🛛 Room Controller		
4th	Unit 148	Lighting Load	🛛 Room Controller		
5th	Unit 149	Lighting Load	🛛 Room Controller		
6th	Unit 150	Lighting Load	🛛 Room Controller		
7th	Unit 151	Lighting Load	🛛 Room Controller		
8th	Unit 152	Lighting Load	🛛 House Controller		

ROO	ROOM 20:					
Unit	Unit Number	HLC D	evice Type	Name		
1st	Unit 153	🛛 Room Controller				
2nd	Unit 154	Lighting Load	🛛 Room Controller			
3rd	Unit 155	Lighting Load	🗌 Room Controller			
4th	Unit 156	Lighting Load	🛛 Room Controller			
5th	Unit 157	Lighting Load	🛛 Room Controller			
6th	Unit 158	Lighting Load	🛛 Room Controller			
7th	Unit 159	Lighting Load	🛛 Room Controller			
8th	Unit 160	Lighting Load	□ House Controller			

ROO	ROOM 21:				
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 161	🛛 Room Controller			
2nd	Unit 162	Lighting Load	🛛 Room Controller		
3rd	Unit 163	Lighting Load	🛛 Room Controller		
4th	Unit 164	Lighting Load	🛛 Room Controller		
5th	Unit 165	Lighting Load	🛛 Room Controller		
6th	Unit 166	Lighting Load	🛛 Room Controller		
7th	Unit 167	Lighting Load	🛛 Room Controller		
8th	Unit 168	Lighting Load	☐ House Controller		

ROOM 22:

noo					
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 169	🛛 Room Controller			
2nd	Unit 170	Lighting Load	🛛 Room Controller		
3rd	Unit 171	Lighting Load	🗌 Room Controller		
4th	Unit 172	Lighting Load	🗌 Room Controller		
5th	Unit 173	Lighting Load	🛛 Room Controller		
6th	Unit 174	Lighting Load	🛛 Room Controller		
7th	Unit 175	Lighting Load	🗌 Room Controller		
8th	Unit 176	Lighting Load	🛛 House Controller		

ROO	ROOM 23:					
Unit	Unit Number	HLC D	evice Type	Name		
1st	Unit 177	🛛 Room Controller				
2nd	Unit 178	Lighting Load	🗌 Room Controller			
3rd	Unit 179	Lighting Load	🛛 Room Controller			
4th	Unit 180	Lighting Load	🛛 Room Controller			
5th	Unit 181	Lighting Load	🛛 Room Controller			
6th	Unit 182	Lighting Load	🛛 Room Controller			
7th	Unit 183	Lighting Load	🛛 Room Controller			
8th	Unit 184	Lighting Load	🛛 House Controller			

ROO	ROOM 24:					
Unit	Unit Number	HLC D	evice Type	Name		
1st	Unit 185	🛛 Room Controller				
2nd	Unit 186	Lighting Load	🛛 Room Controller			
3rd	Unit 187	Lighting Load	🗌 Room Controller			
4th	Unit 188	Lighting Load	🛛 Room Controller			
5th	Unit 189	Lighting Load	🛛 Room Controller			
6th	Unit 190	Lighting Load	🛛 Room Controller			
7th	Unit 191	Lighting Load	🗌 Room Controller			
8th	Unit 192	Lighting Load	□ House Controller			

ROO	ROOM 25:				
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 193	🛛 Room Controller			
2nd	Unit 194	Lighting Load	🛛 Room Controller		
3rd	Unit 195	Lighting Load	🛛 Room Controller		
4th	Unit 196	Lighting Load	🛛 Room Controller		
5th	Unit 197	Lighting Load	🛛 Room Controller		
6th	Unit 198	Lighting Load	🗌 Room Controller		
7th	Unit 199	Lighting Load	🛛 Room Controller		
8th	Unit 200	Lighting Load	☐ House Controller		

ROOM 26:

ROO					
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 201	🛛 Room Controller			
2nd	Unit 202	Lighting Load	🛛 Room Controller		
3rd	Unit 203	Lighting Load	🛛 Room Controller		
4th	Unit 204	Lighting Load	🗌 Room Controller		
5th	Unit 205	Lighting Load	🛛 Room Controller		
6th	Unit 206	Lighting Load	🛛 Room Controller		
7th	Unit 207	Lighting Load	🛛 Room Controller		
8th	Unit 208	Lighting Load	□ House Controller		

ROO	ROOM 27:				
Unit	Unit Number	HLC D	evice Type	Name	
1st	Unit 209	🛛 Room Controller			
2nd	Unit 210	Lighting Load	🛛 Room Controller		
3rd	Unit 211	Lighting Load	🛛 Room Controller		
4th	Unit 212	Lighting Load	🛛 Room Controller		
5th	Unit 213	Lighting Load	🛛 Room Controller		
6th	Unit 214	Lighting Load	🛛 Room Controller		
7th	Unit 215	Lighting Load	🛛 Room Controller		
8th	Unit 216	Lighting Load	House Controller		

ROOM 28:					
Unit	Unit Number	HLC Device Type		Name	
1st	Unit 217	□ Room Controller			
2nd	Unit 218	Lighting Load	🛛 Room Controller		
3rd	Unit 219	Lighting Load	🗌 Room Controller		
4th	Unit 220	Lighting Load	🛛 Room Controller		
5th	Unit 221	Lighting Load	🛛 Room Controller		
6th	Unit 222	Lighting Load	🛛 Room Controller		
7th	Unit 223	Lighting Load	🗌 Room Controller		
8th	Unit 224	Lighting Load	☐ House Controller		

ROOM 29:				
Unit	Unit Number	HLC Device Type		Name
1st	Unit 225	Room Controller		
2nd	Unit 226	Lighting Load	🛛 Room Controller	
3rd	Unit 227	Lighting Load	🛛 Room Controller	
4th	Unit 228	Lighting Load	🛛 Room Controller	
5th	Unit 229	Lighting Load	🛛 Room Controller	
6th	Unit 230	Lighting Load	🛛 Room Controller	
7th	Unit 231	Lighting Load	🛛 Room Controller	
8th	Unit 232	Lighting Load	🛛 House Controller	

ROOM 30:

KOOM 50.				
Unit	Unit Number	HLC Device Type		Name
1st	Unit 233	Room Controller		
2nd	Unit 234	Lighting Load	🛛 Room Controller	
3rd	Unit 235	Lighting Load	🛛 Room Controller	
4th	Unit 236	Lighting Load	🗌 Room Controller	
5th	Unit 237	Lighting Load	🛛 Room Controller	
6th	Unit 238	Lighting Load	🛛 Room Controller	
7th	Unit 239	Lighting Load	🛛 Room Controller	
8th	Unit 240	Lighting Load	🛛 House Controller	

ROOM 31:					
Unit	Unit Number	HLC Device Type		Name	
1st	Unit 241	Room Controller			
2nd	Unit 242	Lighting Load	🗌 Room Controller		
3rd	Unit 243	Lighting Load	🛛 Room Controller		
4th	Unit 244	Lighting Load	🛛 Room Controller		
5th	Unit 245	Lighting Load	🗌 Room Controller		
6th	Unit 246	Lighting Load	🛛 Room Controller		
7th	Unit 247	Lighting Load	🛛 Room Controller		
8th	Unit 248	Lighting Load	🛛 House Controller		