



Integrating LaunchPort AM.2 Sleeve Buttons w/ Lutron Systems

1.0 Overview

The LaunchPort, from Dana Innovations, consists of a Station and a Sleeve that allows the user to mount and charge an iPad anywhere in the residence. There are versions of the AM.2 which contain Clear Connect RF technology from Lutron, allowing seamless integration with Lutron Systems via 5 programmable buttons accessible on the sleeve along with the various mobile system control applications available for iOS leaving the end user with the ideal system control capabilities.

Table of Contents

1.0	Overview	1
2.0	HomeWorks QS Integration w/ LaunchPort Sleeve Buttons	3
2.1	Connecting LaunchPort Sleeve Buttons to the HomeWorks QS System.....	3
2.1.1	Wireless (RF) Link Connection.....	3
2.1.2	Wired (QS) Link Connection.....	4
2.2	Adding LaunchPort Sleeve Buttons to a HomeWorks QS Database	4
2.3	Programming LaunchPort Sleeve Buttons to Control a HomeWorks QS System.....	6
2.4	Programming LaunchPort Sleeve Buttons to Control 3 rd Party Equipment.....	7
2.5	Activating LaunchPort Sleeve Buttons to a HomeWorks QS System	8
3.0	RadioRA 2 Integration w/ LaunchPort Sleeve Buttons.....	9
3.1	Connecting LaunchPort Sleeve Buttons to the RadioRA 2 System.....	9
3.2	Adding LaunchPort Sleeve Buttons to a RadioRA 2 Database	9
3.3	Programming LaunchPort Sleeve Buttons to Control a RadioRA 2 System	11
3.4	Programming LaunchPort Sleeve Buttons to Control 3 rd Party Equipment.....	13
3.5	Activating LaunchPort Sleeve Buttons to a RadioRA 2 System	14
4.0	Caséta Wireless Smart Bridge Integration w/ LaunchPort Sleeve Buttons.....	15
4.1	Connecting LaunchPort Sleeve Buttons to the Smart Bridge	15
4.2	Associating LaunchPort Sleeve Buttons to a Smart Bridge.....	15
5.0	Grafik Eye QS Integration w/ LaunchPort Sleeve Buttons	17
5.1	Connecting LaunchPort Sleeve Buttons to the Grafik Eye QS	18
5.1.1	Wireless (RF) Link Connection.....	18
5.1.2	Wired (QS) Link Connection.....	18
5.2	Associating LaunchPort Sleeve Buttons to a Grafik Eye QS.....	19
6.0	Controlling Standalone Lutron Products	20
7.0	Appendix.....	21
	Appendix A – LaunchPort Button Mapping	21
	Appendix B – Clear Connect Frequency Changing for Systems with Multiple RF Links.....	22
	Appendix C – LaunchPort Sleeve Button Icon and Text Options	23

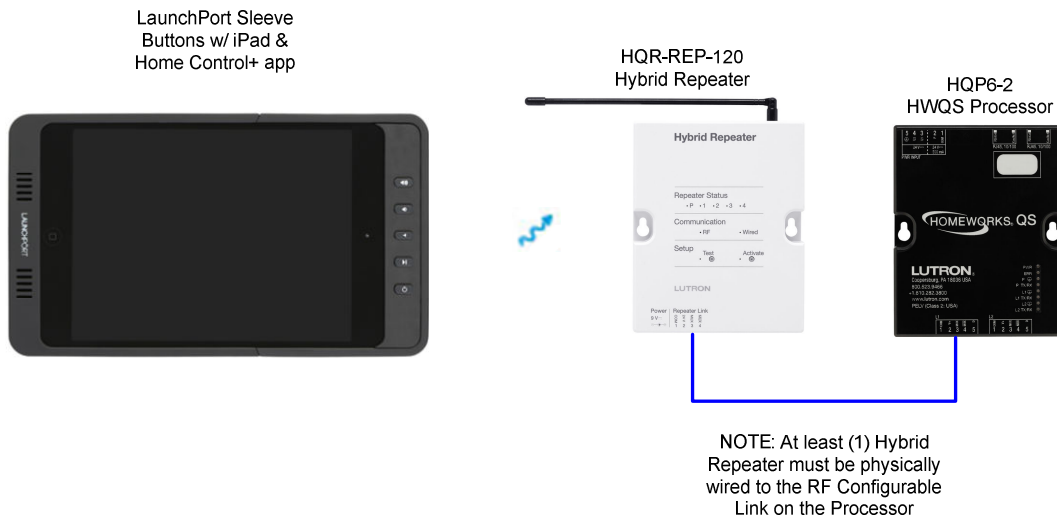
2.0 HomeWorks QS Integration w/ LaunchPort Sleeve Buttons

The LaunchPort Sleeve Buttons can communicate directly with a HomeWorks QS system, mapping to a 3 Button w/ Raise and Lower Pico Wireless Controller. The LaunchPort Sleeve Buttons can control any of the Assignable Items in the HomeWorks QS system as well as drive functionality within various 3rd party control systems.

2.1 Connecting LaunchPort Sleeve Buttons to the HomeWorks QS System

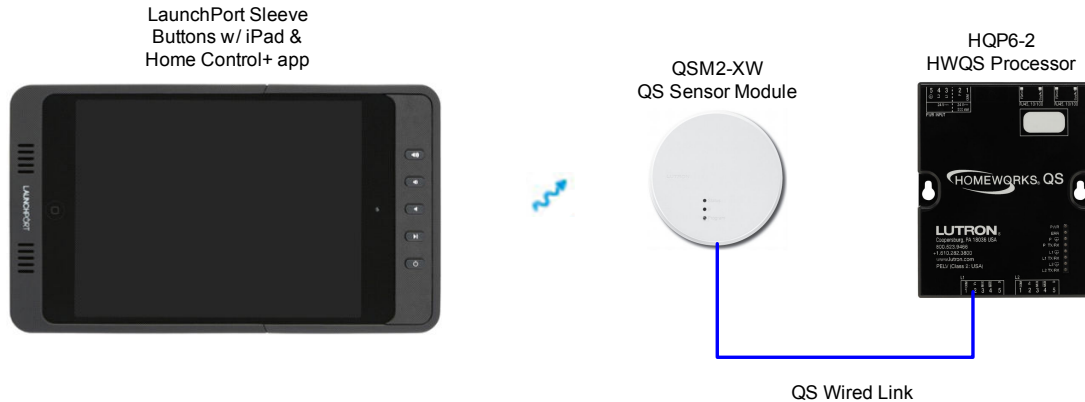
2.1.1 Wireless (RF) Link Connection

In this configuration, the LaunchPort Sleeve Buttons communicate to the HomeWorks QS processor by sending wireless data to a Hybrid Repeater which then passes the communication back to the Processor. Up to (4) Hybrid Repeaters can be utilized per RF Link. At least (1) Hybrid Repeater must be wired to the configurable link on the Processor. The LaunchPort Sleeve Buttons will count as (1) of the (95) non-Repeater/Processor devices on the RF Link. Refer to the Product Specification Submittals for more details on the hardware and wiring specifications.



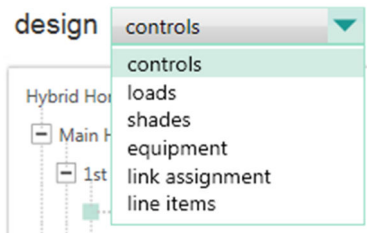
2.1.2 Wired (QS) Link Connection

In this configuration, the LaunchPort Sleeve Buttons communicate to the HomeWorks QS processor by sending wireless data to a QS Sensor Module (QSM) which then passes the communication back to the Processor over the QS Wired Link. The QSM takes up (1) of the available (99) addresses on the QS Link. Up to (10) can be addressed to a single QSM.



2.2 Adding LaunchPort Sleeve Buttons to a HomeWorks QS Database

In order to program the LaunchPort Sleeve Buttons via the HomeWorks QS programming software, a Pico Wireless Controller must be added, serving as the programming template for the sleeve. To start, go to **Design > Controls**.



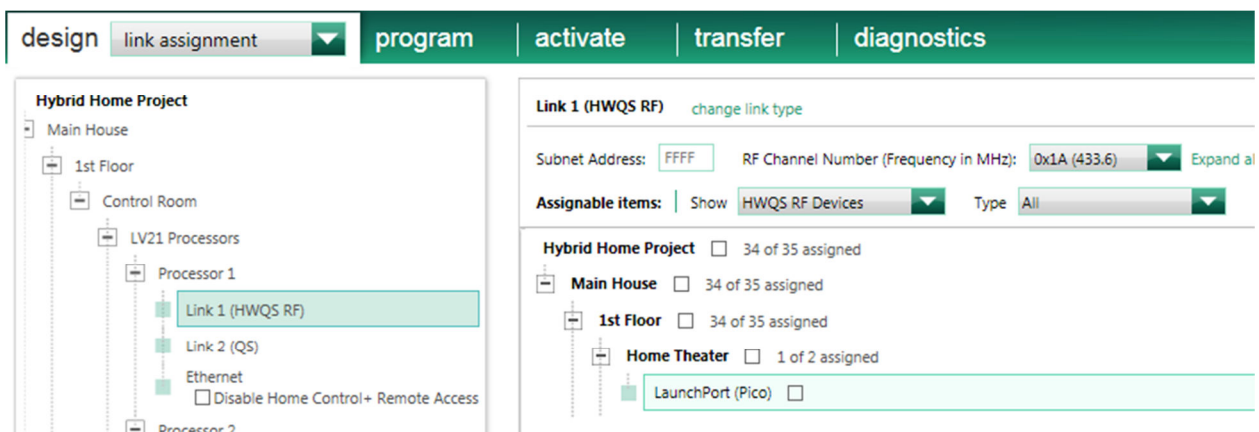
Select the desired room in which the LaunchPort Sleeve Buttons will be installed by clicking on the room name within the area tree.



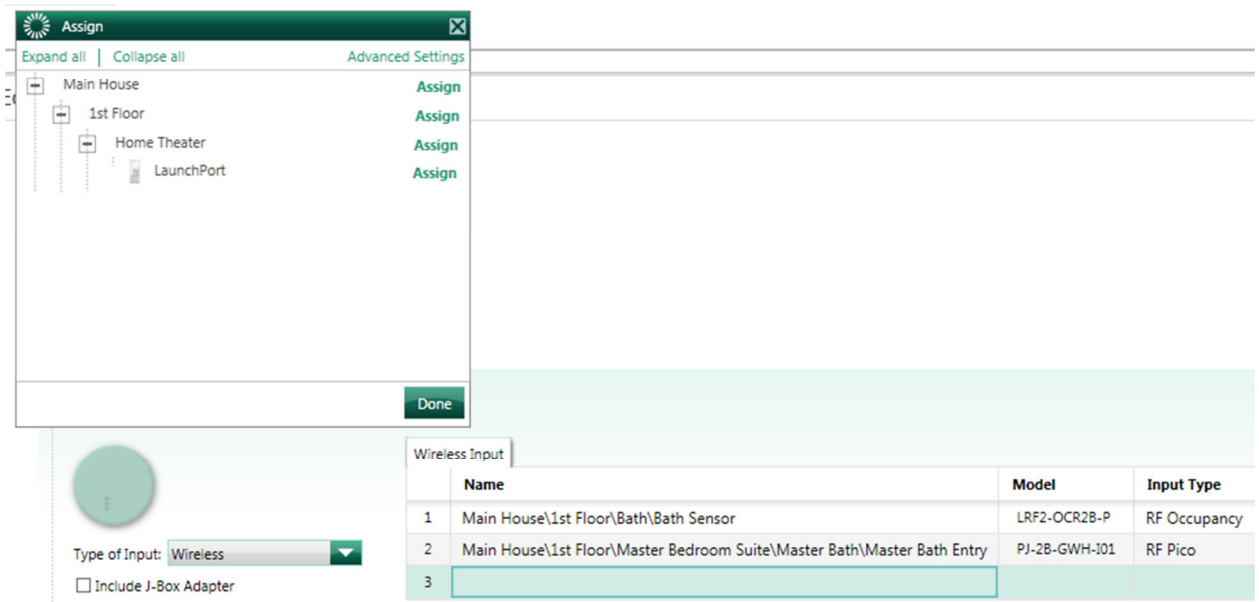
Add a Pico 3BRL to the selected area and provide an appropriate Device Location name. You may need to first add the Pico 3BRL to the Toolbox.



If the Sleeve Buttons are going to communicate to the HomeWorks QS system via the RF Link, as shown in **Section 2.1.1**, the Pico placeholder must be link assigned to the appropriate RF link. Go to **Design > Link Assignment** to associate the Pico.

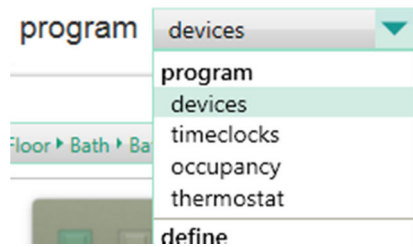


If the Sleeve Buttons are going to communicate to the HomeWorks QS system via the QS Link (through a QSM), as shown in **Section 2.1.2**, the Pico placeholder must be assigned to the appropriate QSM device. Find the QSM and assign the Pico by going to **Design > Equipment**.

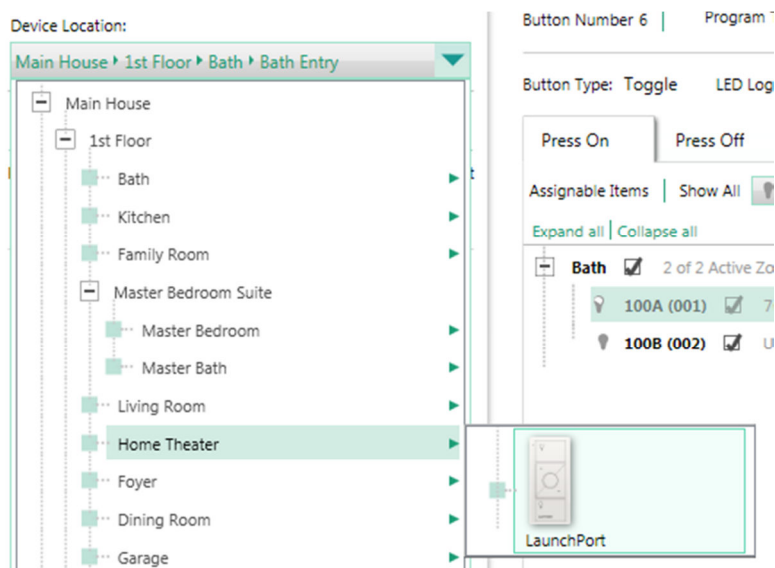


2.3 Programming LaunchPort Sleeve Buttons to Control a HomeWorks QS System

Programming the actions of the LaunchPort Sleeve Buttons requires that the appropriate actions be programmed to the Pico 3BRL placeholder, added in **Section 2.2**. Go to **Program > Devices**.



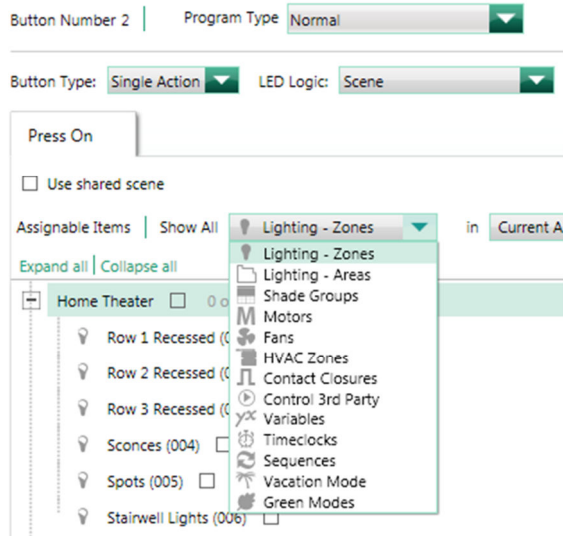
Use the Device Location drop-down menu to select the area where the Pico 3BRL has been placed and click on the Pico 3BRL image to **select the control** in the pop-up window.



On the left-side of the screen will be a larger image of the Pico 3BRL. Click on the button that you would like to program. The currently selected button will be shaded green.



To the right will be options to configure the Program Type, Button Type, and LED Logic. As a result of the buttons not having LED status indication, buttons are typically programmed as Single Action with Scene LED logic. The buttons can be assigned any Program Type (Normal, Single Variable, or Conditional) and can be program to control any Assignable Item in the database.



Note: Make sure that the proper button mapping is being followed in order to assign the appropriate actions to Sleeve Buttons. The orientation of the Sleeve Buttons on the wall will determine the button mapping in the programming software. See section **Appendix A in Section 7.0**.

2.4 Programming LaunchPort Sleeve Buttons to Control 3rd Party Equipment

The LaunchPort Sleeve Buttons can be configured to control 3rd party equipment as well as Lutron products. There are two ways to typically accomplish this: send outbound strings of communication to the 3rd party devices using the Control 3rd Party feature of the HomeWorks QS software or by using Lutron's Integration Protocol to allow the 3rd party system to understand Lutron system commands. Many 3rd party manufacturers have drivers already written to allow easier integration between Lutron and their system.

In either case, the HomeWorks QS Processor would connect into the Local Area Network that the 3rd party equipment is connected to. If the 3rd party equipment communicates primarily via RS-232 serial communication, a serial to Ethernet converter is recommended to allow the 3rd party system to communicate into the Local Area Network.

There are two primary ways in which the buttons could activate functions in the 3rd party system. One way would be to send a command, built into the database via a Control 3rd Party device.

These commands appear in the Assignable Items drop down when programming devices, sensors, or timeclocks.

The other option is to not assign any items to the button in the programming software and having the 3rd party system monitor network traffic for a command which would signify a button press or release. When a Sleeve Button is pressed, a command similar to the following will be sent out which the 3rd party system can subsequently listen to and react from: **#DEVICE,X,Y,Z** where

X = the integration ID of the Pico (acting as the LaunchPort placeholder)

Y = the component number of the button being pressed

Z = 3 (press) or 4 (release)

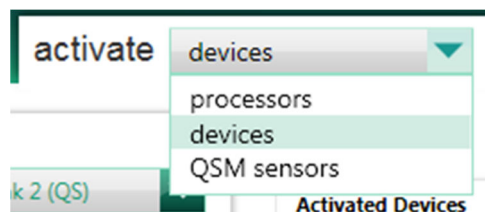
Most drivers will require the Component Number and Integration ID for all devices that it is to control. This information can be found in the Integration Report, built into the programming software.

Refer to the application note titled “Integration with Ethernet and RS-232 Devices” for further information. This application note can be found on the HomeWorks QS Resource site under **Technical Information > HWQS > HWQS App Notes/FAQs:**

<http://resi.lutron.com/Portals/3/Support/App%20Notes%20-%20FAQs/HWQS/HWQS%20RS-232%20Ethernet%20Integration%20-%20Rev%20C.pdf>

2.5 Activating LaunchPort Sleeve Buttons to a HomeWorks QS System

The process of activating the Sleeve Buttons to the HomeWorks QS system is the same as activating a Pico to the system. First, use the Activate tab drop down menu to select either Devices or QSM Sensors. Sleeve Buttons communicating via an RF Link can be found as a Pico Keypad in Devices. Choose QSM Sensors when the Sleeve Buttons communicate to the QSM and Wired Link.



To activate a Pico to either link type, the “Off” button will need to be held for a approximately 6-10 seconds. Refer to **Appendix A** in **Section 5.0** to determine which of the Sleeve Buttons maps to the Pico “Off” button.

3.0 RadioRA 2 Integration w/ LaunchPort Sleeve Buttons

The LaunchPort Sleeve Buttons can communicate directly with a RadioRA 2 system. Mapping to a 3 Button w/ Raise and Lower Pico Wireless Controller, the LaunchPort Sleeve Buttons can control lights and shades in the RadioRA 2 system as well as drive functionality within various 3rd party control systems.

3.1 Connecting LaunchPort Sleeve Buttons to the RadioRA 2 System

The LaunchPort Sleeve Buttons communicate to the RadioRA 2 system by sending wireless data to the Main Repeater or any Auxiliary Repeater connected to the Main Repeater. Up to (4) Auxiliary Repeaters can be utilized per Main Repeater with a maximum of (2) Main Repeaters allowed per RadioRA 2 system. Each Main Repeater can support up to (95) non-Repeater devices. The Sleeve Buttons will count as (1) of the (95) non-Repeater devices allowed. Refer to the Product Specification Submittals for more details on the hardware and wiring specifications.

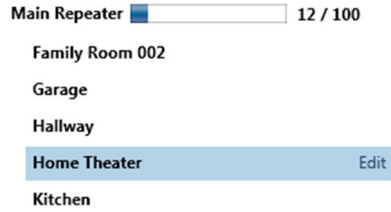


3.2 Adding LaunchPort Sleeve Buttons to a RadioRA 2 Database

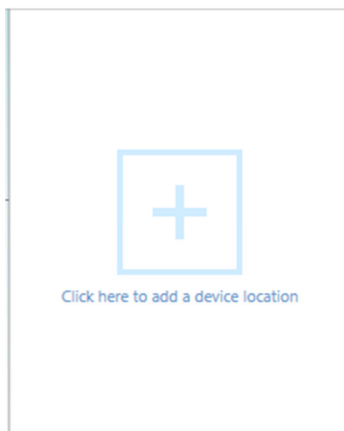
In order to program the LaunchPort Sleeve Buttons via the RadioRA 2 programming software, a Pico Wireless Controller must be added, serving as the programming template for the Sleeve Buttons. To start, go to the **Design** tab.



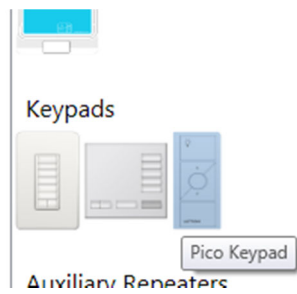
Select the desired room in which the Sleeve Buttons will be installed by clicking on the room name within the room list.



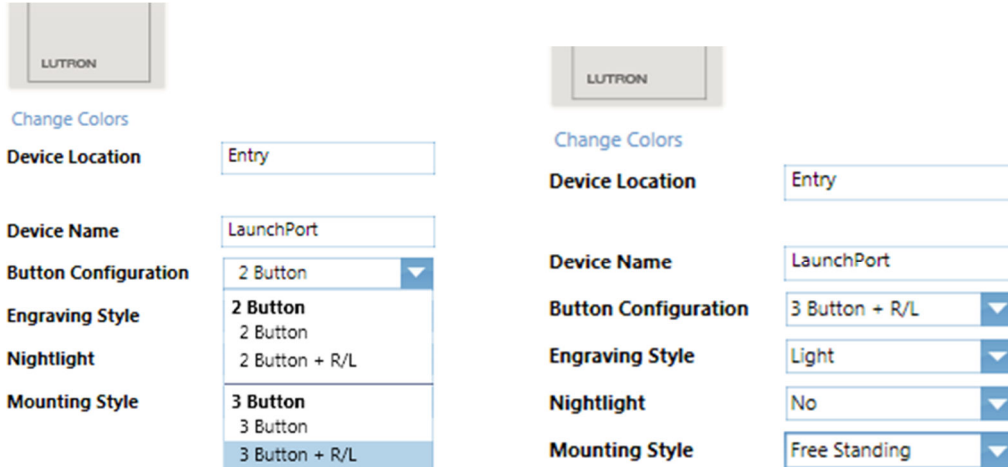
Click on the “+” to add a new Device Location within the room.



Click on the image of the Pico Wireless Controller within the Keypads category of Available Devices.



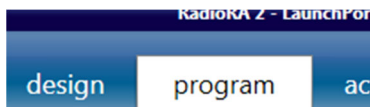
In the middle of the Add New Device window, enter the various parameters for the device. Be sure to select the Mounting Style as “3 Button + R/L,” “No” for Nightlight, and “Free Standing” as the Mounting Style. This will ensure that the correct model number is chosen and that no unnecessary additional gear will be added to the Bill of Materials.



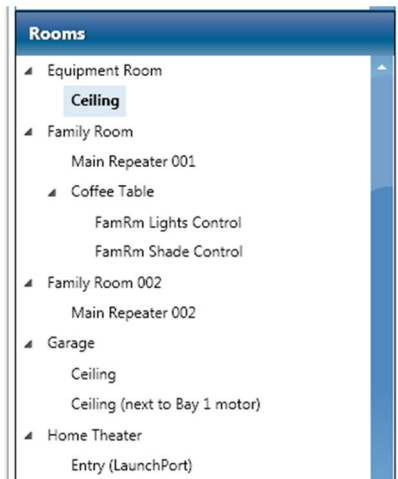
Click on **Done** in the lower right corner of the Add New Device window to finish adding the Pico placeholder to the database.

3.3 Programming LaunchPort Sleeve Buttons to Control a RadioRA 2 System

Programming the actions of the LaunchPort Sleeve Buttons requires that the appropriate actions be programmed to the Pico 3BRL placeholder, added in **Section 3.2**. Go to the **Program** tab.



Use the Selected Device Location drop-down menu and locate the room where the Pico 3BRL has been placed. Click on the device name of the Pico 3BRL.



On the left-side of the screen will be a larger image of the Pico 3BRL. Click on the button that you would like to program. The currently selected button will be shaded blue.

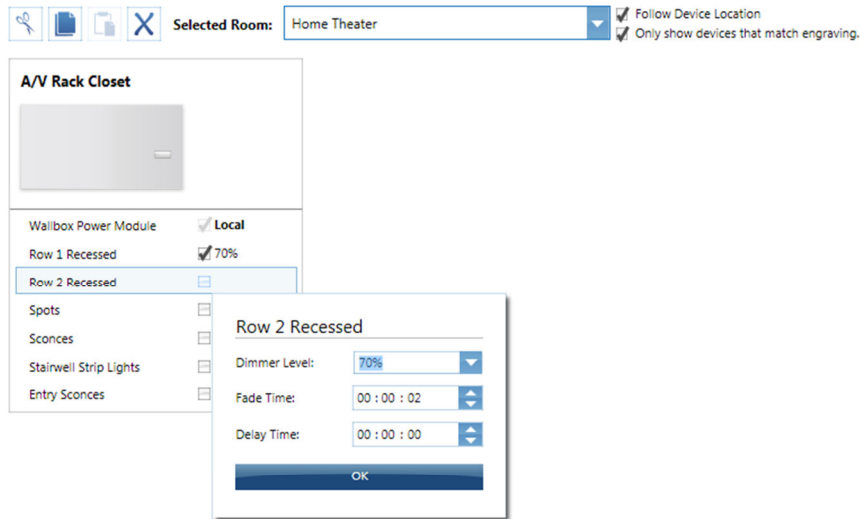


To the right will be a drop down menu to select a room. This drop down menu is used to locate the zones that you would like the Pico button to control. In order to allow the programming of lights and shades to the same Pico Wireless Control, uncheck the box for “Only show devices that match engraving.”



Note: When controlling Lutron equipment, the Raise and Lower buttons of a Pico controller, in RadioRA 2, can only be used for the Raise and Lower functions. Only devices that support raising and lowering (dimming zones and shades) can be controlled by these buttons.

Once a room has been selected, assign the loads and configure the levels, fade times, and delay times for each zone using the check box for each device, the pop up window (hover over the check box for it to appear), and the table at the bottom of the screen showing the currently assigned loads.



Programmed Item Name	Level	Fade	Delay
Home Theater > Row 1 Recessed	70%	00:00:02	00:00:00

Note: Make sure that the proper button mapping is being followed in order to assign the appropriate actions to Sleeve Buttons. The orientation of the Sleeve Buttons on the wall will determine the button mapping in the programming software. See section **Appendix A** in **Section 7.0**.

3.4 Programming LaunchPort Sleeve Buttons to Control 3rd Party Equipment

The LaunchPort Sleeve Buttons can be configured to control 3rd party equipment as well as Lutron products by using Lutron’s Integration Protocol to allow the 3rd party system to understand Lutron system commands. Many 3rd party manufacturers have drivers already written to allow easier integration between Lutron and their system.

The RadioRA 2 Main Repeater would connect into the Local Area Network that the 3rd party equipment is connected to. If the 3rd party equipment communicates primarily via RS-232 serial communication, a serial to Ethernet converter could be used to allow the 3rd party system to communicate into the Local Area Network or a direct serial connection can be made to the RS-232 port on the Main Repeater.

The 3rd party system can monitor network traffic for a command which would signify a button press or release. When a Sleeve Button is pressed, a command similar to the following will be sent out which the 3rd party system can subsequently listen to and react from: **#DEVICE,X,Y,Z** where

X = the integration ID of the Pico (acting as the LaunchPort Sleeve Buttons placeholder)

Y = the component number of the button being pressed

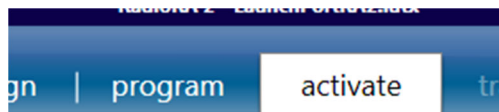
Z = 3 (press) or 4 (release)

Most drivers will require the Component Number and Integration ID for all devices that it is to control. This information can be found in the Integration Report, built into the programming software.

On an installation which does require LaunchPort Sleeve Buttons functionality, but does not currently require Lutron product, a Main Repeater and one device, such as a 15A plug in switch (RR-15APS) is all that would be needed and is the most cost effective method for using the sleeve buttons for 3rd party control without the need for a full Lutron system.

3.5 Activating LaunchPort Sleeve Buttons to a RadioRA 2 System

The process of activating the LaunchPort Sleeve Buttons to the RadioRA 2 system is the same as activating a Pico to the system.



To activate a Pico to either link type, the “Off” button will need to be held for a approximately 6-10 seconds. Refer to **Appendix A** in **Section 5.0** to determine which LaunchPort Sleeve Button maps to the Pico “Off” button.

4.0 Caséta Wireless Smart Bridge Integration w/ LaunchPort Sleeve Buttons

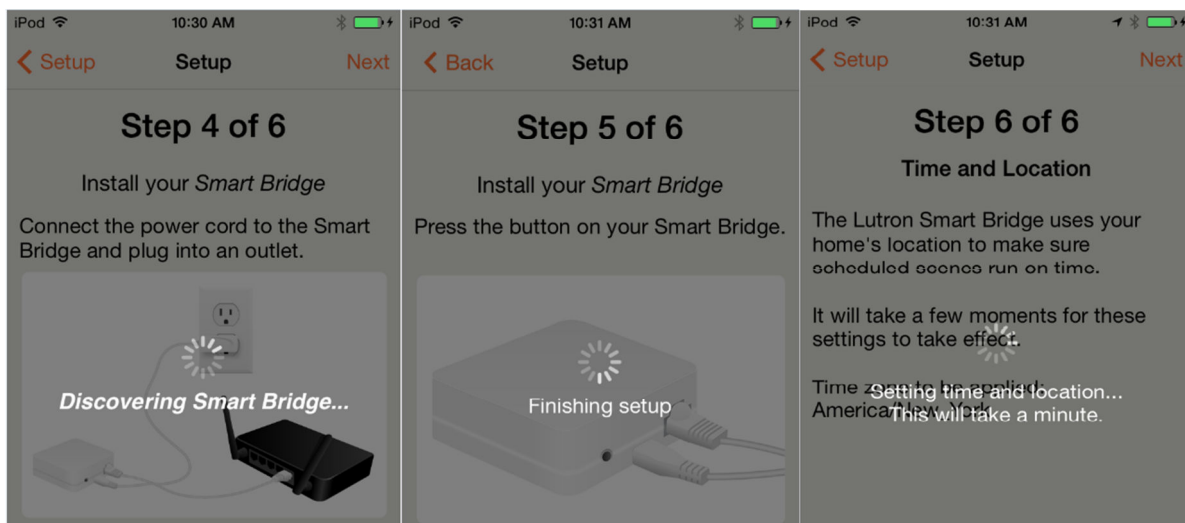
4.1 Connecting LaunchPort Sleeve Buttons to the Smart Bridge

The LaunchPort Sleeve Buttons can communicate to the Caséta Wireless system by sending wireless data to the Smart Bridge. The Sleeve Buttons can also be assigned directly to Caséta Wireless dimmers, switches, and window treatment solutions. For more information on non-Smart Bridge setup, refer to **Section 6.0**.

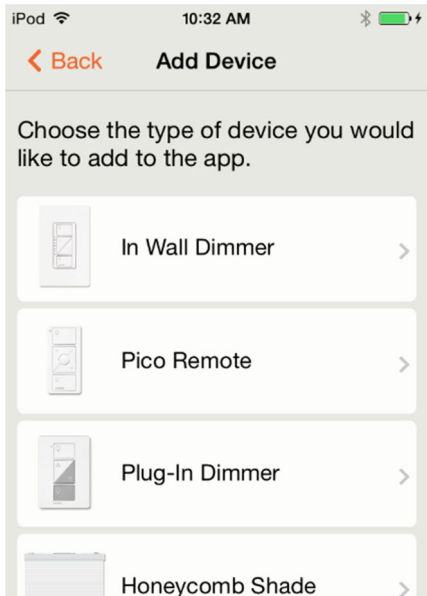


4.2 Associating LaunchPort Sleeve Buttons to a Smart Bridge

In order to program the LaunchPort Sleeve Buttons via the Caséta Wireless mobile app, a Pico Wireless Controller must be added, serving as the programming template for the Sleeve Buttons. To start, first complete the initial setup of the Smart Bridge as directed by the app.



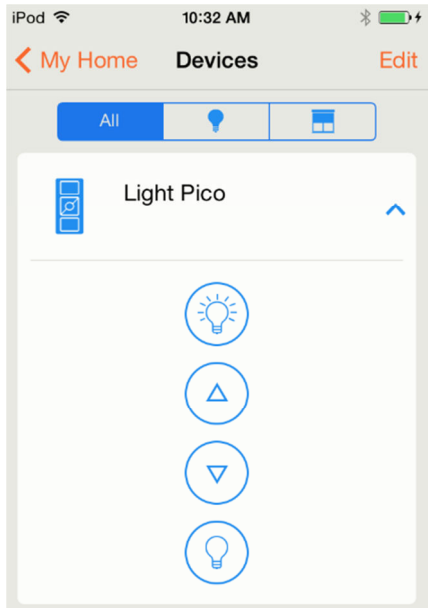
The next step is to add the Pico Remote that will serve as the Sleeve Buttons placeholder. Select Pico Remote from the Add Device screen.



Once the Pico Remote has been chosen, the app will show how to add a Pico Remote to the Smart Bridge. Ensure that the proper Sleeve Button is being pressed and held. For more information on the button mapping of the Sleeve Buttons, based on its orientation on the wall, refer to **Appendix A**.



Once the Pico has been added to the Smart Bridge, loads can be assigned to the Sleeve Buttons and controlled either through the app, pictured below, or locally on the Sleeve Buttons.



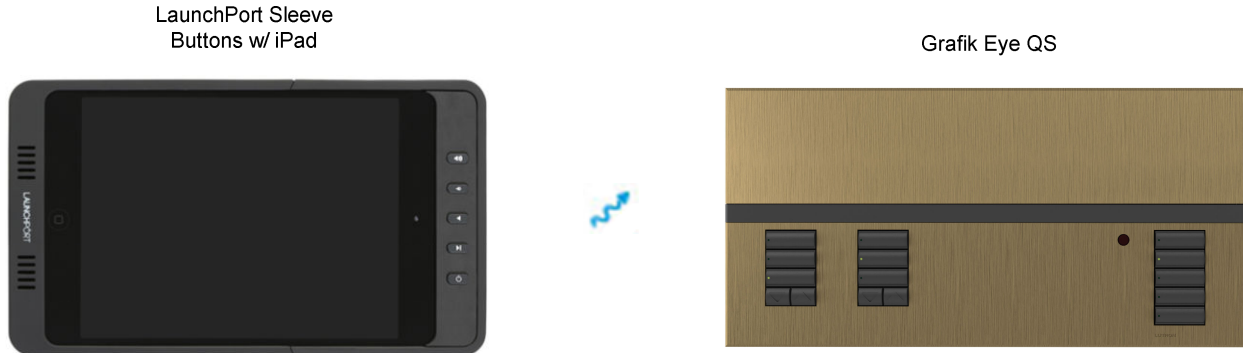
5.0 Grafik Eye QS Integration w/ LaunchPort Sleeve Buttons

The LaunchPort Sleeve Buttons can communicate directly with a Grafik Eye QS. Mimicking a 3 Button w/ Raise and Lower Pico Wireless Controller, the LaunchPort Sleeve Buttons can control lights and shades tied to the Grafik Eye QS. A QSE-CI-NWK-E, Ethernet and RS232 Interface, can be used to enable 3rd party integration with the Grafik Eye QS solution. The Grafik Eye QS is ideal for single room applications such as home theaters, residentially, and conference or meeting rooms commercially.

5.1 Connecting LaunchPort Sleeve Buttons to the Grafik Eye QS

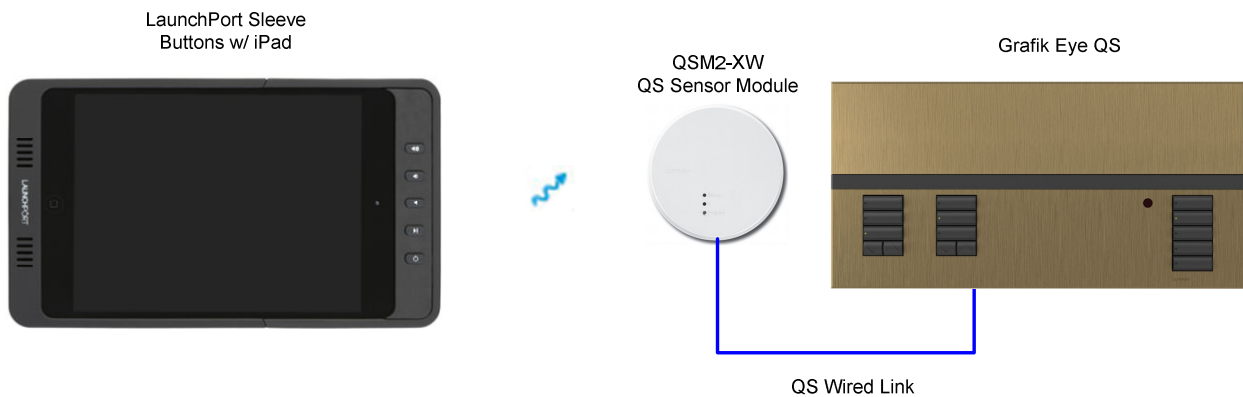
5.1.1 Wireless (RF) Link Connection

The LaunchPort Sleeve Buttons communicate to the Grafik Eye QS by sending wireless data directly to the Grafik Eye QS Main unit. Refer to the Product Specification Submittal for more details on the hardware and wiring specifications.



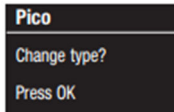
5.1.2 Wired (QS) Link Connection

In this configuration, the LaunchPort Sleeve Buttons communicate to the Grafik Eye QS processor by sending wireless data to a QS Sensor Module (QSM) which then passes the communication back to the Grafik Eye QS over the QS Wired Link. Refer to the Product Specification Submittal for more details on the hardware and wiring specifications.



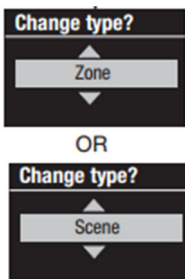
5.2 Associating LaunchPort Sleeve Buttons to a Grafik Eye QS

In order to program the LaunchPort Sleeve Buttons to the Grafik Eye QS, the Sleeve Buttons must be associated to the Grafik Eye QS, either as a Scene controller or a Zone controller. To start, ensure that the wireless mode of the Grafik Eye QS is **Enabled**. On the Sleeve Buttons, hold down the top and bottom buttons of the column for 3 seconds. The LCD display of the Grafik Eye QS will display Pico and ask if the type (zone or scene) of the Pico must change. Press ok on the Grafik Eye QS.

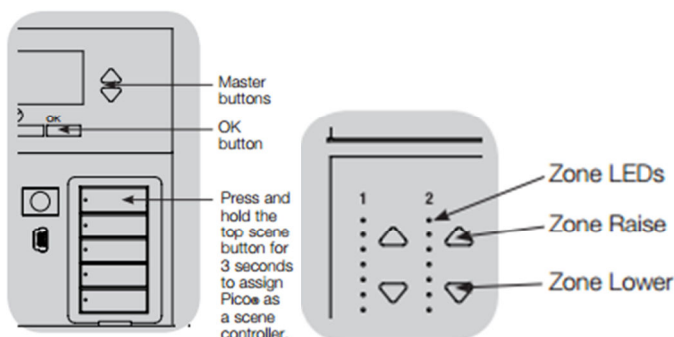


Choose either Zone or Scene. Sleeve Buttons setup to control Scenes will activate the Scenes of the Grafik Eye QS. For Sleeve Buttons oriented to the right of the iPad, the top button will control Scene 1, the center button will control Scene 16, and the bottom button will control the Off Scene.

If zone is chosen, the top button will send all assigned zones to 100%, bottom button send all zones to 0%, and the middle button will send all zones to a defined preset value assigned by setting each individual zones to a specific level using the local zone raise/lower buttons on the Grafik Eye QS. Once the level is set, hold the 2nd and 4th buttons of the Sleeve Buttons to assign the zone and set the preset level.



Pressing and holding the top and bottom Sleeve Buttons for 3 seconds will back the Sleeve Buttons out of programming mode. Refer to the below illustrations for Grafik Eye QS button legends and refer to **Appendix A** for more information on Sleeve Buttons and Pico mapping.



6.0 Controlling Standalone Lutron Products

PJ2-3BRL Pico Wireless controllers are capable of controlling Lutron products that do not require a processor. As a result of having similar functionality, so are the LaunchPort Sleeve Buttons. These products include the following:

- Serena and Triathlon Shading Solutions
- Maestro Wireless dimmers
- Grafik Eye QS
- Caséta Wireless dimmers
- RadioRA 2 dimmers
- HomeWorks QS dimmers

In these applications, the Clear Connect wireless communication is direct from the transmitter to the dimmer or shade. The association and programming processes are executed through simple button presses and holds.

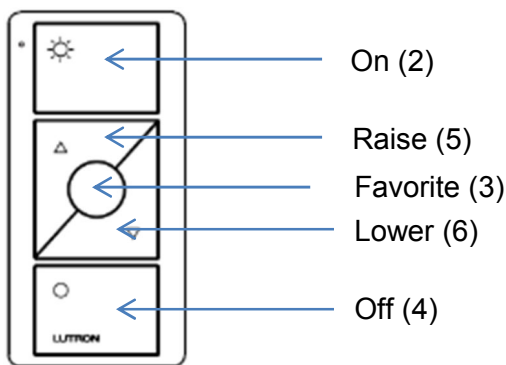
For more information on these processes for Shading Solutions, Maestro Wireless, RadioRA 2, and HomeWorks, refer to the Installation Instructions page for Pico Wireless Controls on www.lutron.com.

For more information on these processes for Caséta Wireless, refer to www.casetawireless.com.

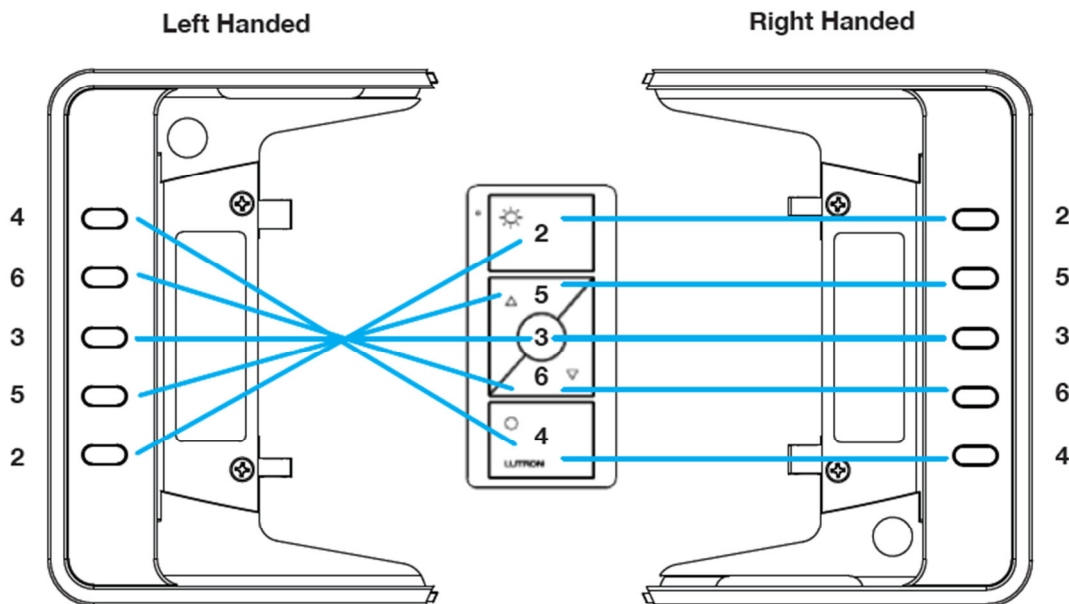
7.0 Appendix

Appendix A – LaunchPort Button Mapping

LaunchPort Sleeve Buttons map to the buttons of a PJ2-3BRL model number of Pico Wireless Controller. LaunchPort Sleeve Buttons can be mounted such that they are oriented on the right or the left of the iPad. It is important to consider the mounting when programming the system as the button mapping changes in relation to the sleeve button position. Below is the button topology of a PJ2-3BRL and serves as a legend to the table and image below which illustrate the appropriate button mapping to the LaunchPort Sleeve Buttons.



Notice that when the buttons are oriented to the left of the iPad, the mapping is reversed or upside-down. This is important to understand in order to program the appropriate functionality to the correct button in the Lutron programming software.



Appendix B – Clear Connect Frequency Changing for Systems with Multiple RF Links

In RadioRA 2 systems with two Main Repeaters or in HomeWorks QS systems with multiple RF Links, there may be a need to change the frequency (RF channel) of the product so that it can communicate to the system. This is because every RF link communicates at a different frequency and because the LaunchPort Sleeve Buttons are acting as a transmitter only. Unlike unassigned Lutron RF dimmers or keypads which can channel scan and identify an RF Link in Activation mode, in any of the 15 available channels, the LaunchPort Sleeve Buttons cannot receive or listen to these commands and must be forced to a different frequency.

For more information on these processes in a HomeWorks QS system, refer to the “One-Way Transmitter Frequency Change Procedures” application note on the Resource Site:

<http://resi.lutron.com/Portals/3/Support/App%20Notes%20-%20FAQs/HWQS/HWQS%20OWT%20Device%20Freq%20Change%20Procedure%20Rev%200A.pdf>

For more information on these processes in a RadioRA 2 system, refer to the “RadioRA 2 One-Way Transmitter Frequency Change Procedures” application note on myLutron:

<http://www.lutron.com/PasswordProtectedDocumentLibrary/OWT%20Device%20Freq%20Change%20Procedure%20for%20Multi-Channel%20Systems%20revision%20E.pdf>

Appendix C – LaunchPort Sleeve Button Icon and Text Options

There are 35 button icon and text options available for the LaunchPort Sleeve Buttons. The icons and texts can be correlated, through software, to the appropriate intuitive function. The five icons used by default are numbered 1 through 5. Below are the 30 alternative options.



Example applications:

	Lutron HWQS System	Lutron RA2 System	Lutron + Savant	Other Control System w/ Limited Lutron Hardware
Button 1				
Button 2		RAISE		
Button 3		PARTY		
Button 4		LOWER		
Button 5				