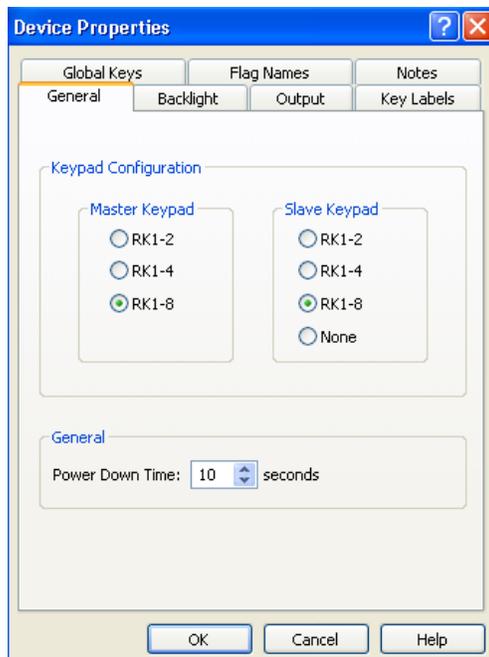


## Technical Support Department Technical Bulletin

# RK-1+ Keypad 2-Way Programming

## Device Properties:

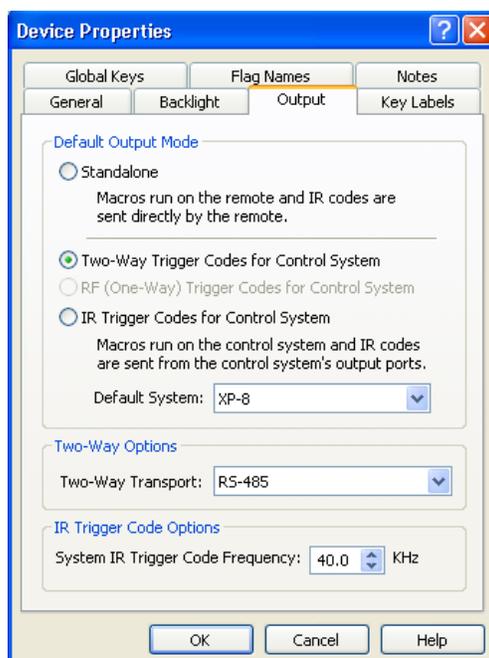


After adding an RK-1+ to an Integration Designer system file, right click on the RK-1+ in the system workspace and go to Device Properties.

The **General** tab allows the programmer to specify type of RK-1+ that will be used (2, 4 or 8 button) and whether there will be a Master/Slave setup using two RK-1+ keypads.

Both Master and Slave keypads are defined in the Master keypad properties. The Slave keypad is never directly programmed. The Slave gets direction from the Master when programmed.

Note: If only one keypad (Master) is used, set Slave to "None".



When programming to receive feedback, select "Two-Way Trigger Codes for Control System" from the **Output** tab.

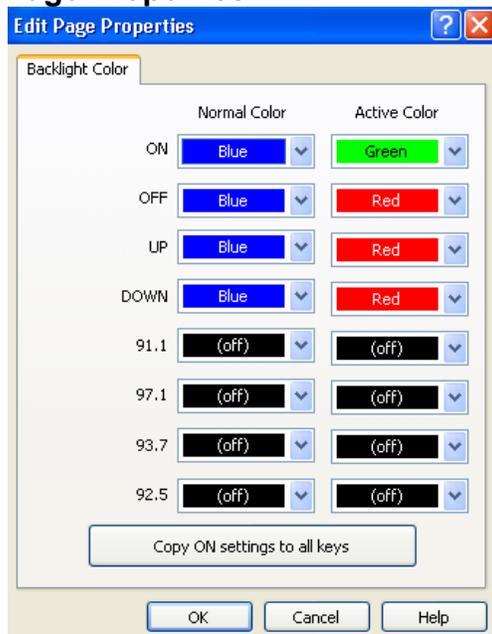
**Two-Way Transport** will default to RS-485 (via the Control Port on the back of the RK-1+).

## Device Properties, Continued:



The **Key Labels** tab allows the programmer to label buttons for easier programming. The dropdown arrow displays a list of label options that matches the pre-printed labels included with the RK-1+ kit. If you don't wish to use a label name from the list, you can also type a name in each field (which will appear in red).

## Page Properties



The RK-1+ can have multiple pages, allowing the buttons to deliver different commands/macros and display different backlight colors, depending on the page it is currently on. Each button has a “Normal Color” (color at idle) and “Active Color” (color when pressed).

To access the **Page Properties**, go to the page you wish to edit, click the Page tab at the top of Integration Designer and click on Page Properties. Alternatively, you can right click on the space between the buttons on the RK-1+.

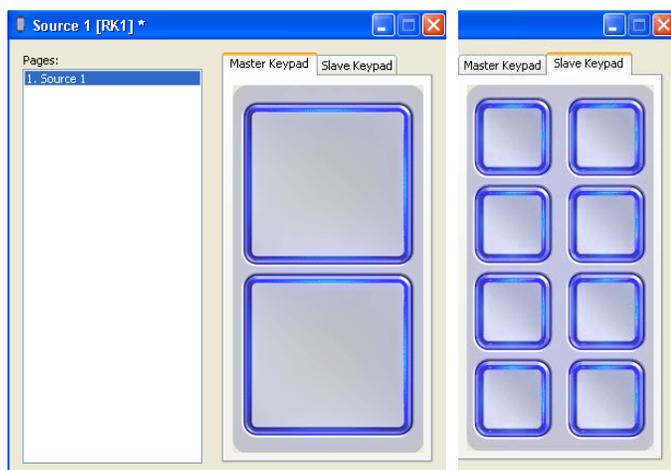
In this example, the bottom four buttons are being turned off for this page. They can be active on a different page if desired.

## Connections:

The **Control Port** (RJ45) on the RK-1+ connects to a CB-4 or CB-8 connecting block. This provides power, ground, IR signal, and RS-485 (for two-way transport only) connections to the RTI processor. The **Master/Slave** port is to connect a slave RK-1+ to the primary (Master) keypad only. Do not connect the Master/Slave port to the connecting block. Use straight-through termination (568A/568B) for connectors. See manual for additional information.

# Programming:

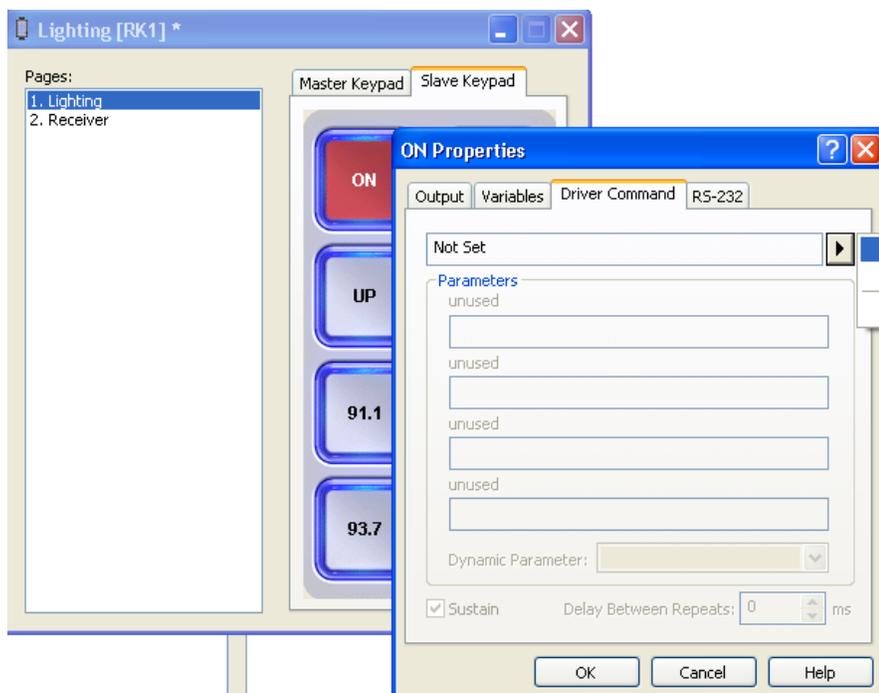
This example illustrates programming two RK-1+ in-wall controllers in a Master/Slave configuration with a two-way enabled processor.



**Note:** Though two RK-1's are used, only one is shown in the Integration Designer **System Workspace**, with tabs for Master and Slave keypads.

## Adding Driver Commands:

Option 1: Adding driver commands through **Button Properties**:



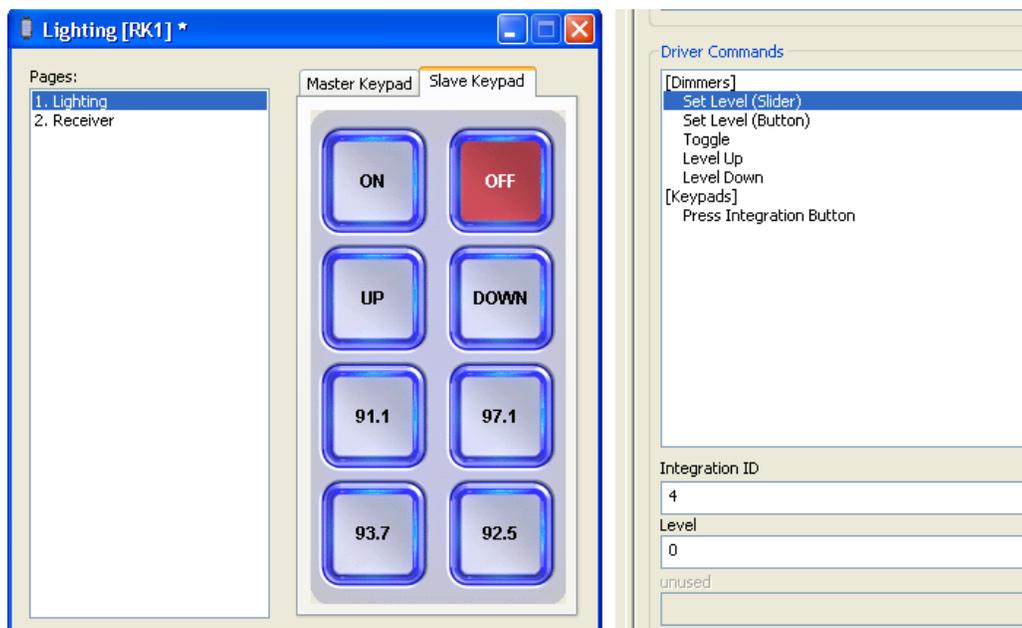
Right click on the desired button and select **Edit Properties**. The **Button Properties** window will open.

Navigate to the **Driver Command** tab, click on the command arrow and scroll to the desired driver command.

Driver commands may have multiple parameters (up to 4) that will need to be defined. Ex. Lutron – keypad button press parameters include: Lutron Keypad, Button, Link and Processor numbers.

## Adding Driver Commands, Continued:

### Option 2: Adding driver commands from **Library Browser**:

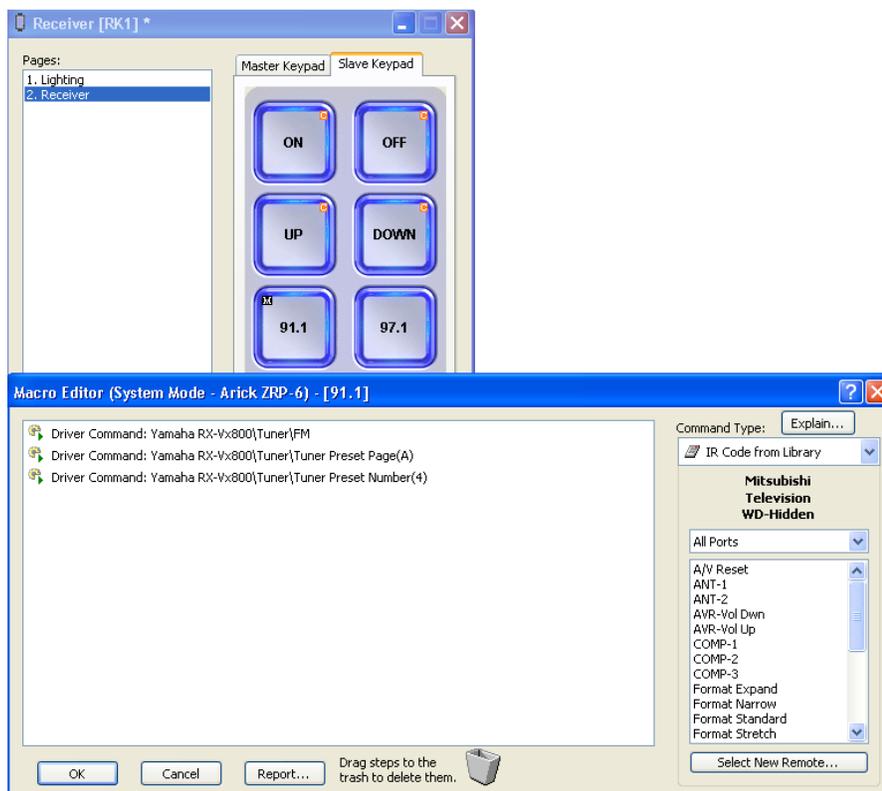


Select the “**Drivers**” tab in the **Library Browser** and select the desired driver from the **Driver** field at the top of the Browser.

Select the command that will be used and fill in the parameters, if applicable.

Drag and drop the command onto the appropriate button. An orange “C” will indicate the command was placed successfully.

### Adding driver commands in a Macro:



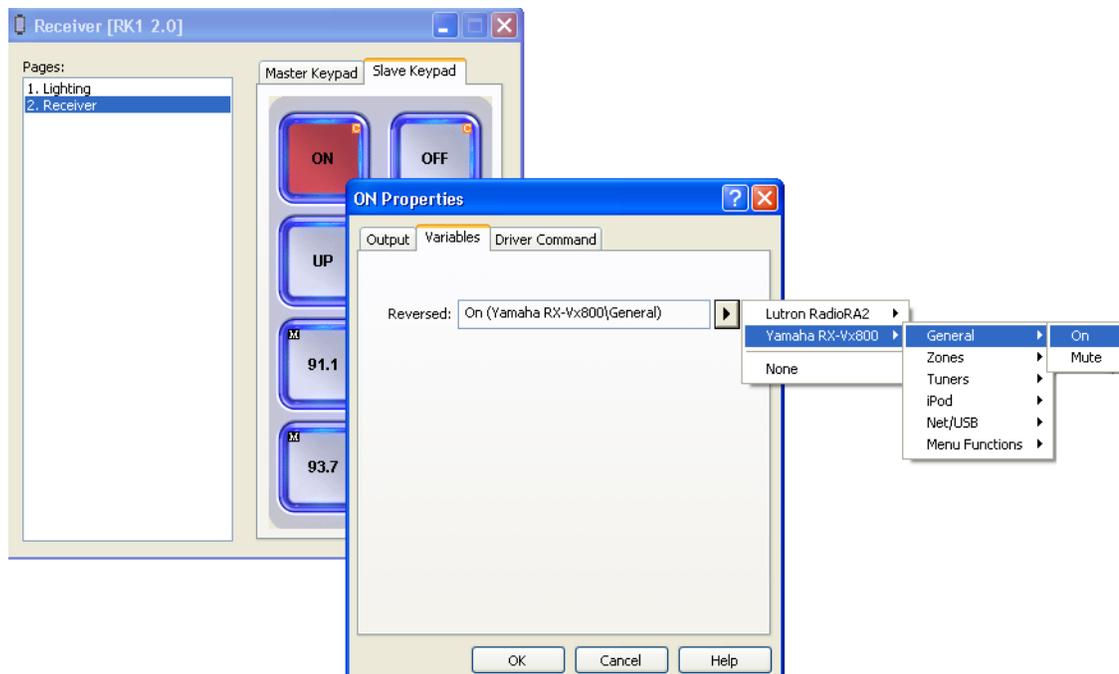
To create a macro, right click on the button and click on “create macro”. Driver commands may be used within macros, by selecting the **Driver Command** option from the Command Type dropdown in the **Macro Editor**.

Driver Commands, IR Codes, and RS-232 one-way strings may all be used in a single macro.

## Programming, Continued:

### Two-way Feedback:

As a hard buttoned keypad, the RK-1+ can provide feedback from devices only as Reversed (pressed) button states, changing button color to indicate status.



Reversed state variables may be assigned through **Button Properties**, as shown above, or by dragging a Reversed state button variable onto the button from the **Library Browser**. Ensure that normal (unpressed) and active (pressed) colors have been established in **Page Properties**.

### Two-way Feedback:

The **Page Link** command in the **Macro Editor** allows the RK-1+ to change pages locally. In addition, it is possible to initiate page links on other in-wall controllers in the system (button Output Properties must be set to "Two-way trigger codes for control system").