

## Mutually Exclusive Buttons for KeypadLinc

**DevNote: Example of setting up a KeypadLinc in a “radio button” configuration.**

This devnote provides an example of how to configure buttons on a KeypadLinc to act like a set of radio buttons (i.e. where each button turns on mutually exclusive of the others), and how to setup the device links for the buttons.

Example:

Given the following devices:

- 19.32.E6 - KeypadLinc Dimmer
- 19.9E.4E - OutletLinc Relay
- 18.19.41 - SwitchLinc Dimmer

Below are the commands to configure buttons #3 and #4 on the KeypadLinc as radio buttons, where button #3 controls the OutletLinc and button #4 controls the SwitchLinc.

Note: There are separate on-mask and off-mask registers for each keypad button. In this scenario, both the on-mask and the off-mask must be set for each button in the radio-button group. The on-mask configures the other buttons that follow a specified button. The off-mask specifies to turn off the buttons that follow the specified button. A mask of 4 corresponds to button #3, and a mask of 8 corresponds to button #4.

### Step 1. Set button #3's on-mask to 8.

```
TX: 02 62 19 32 E6 1F 2E 00 03 02 08 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 C5
RX: 02 62 19 32 E6 1F 2E 00 03 02 08 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 C5 06
RX: 02 50 19 32 E6 19 76 27 2B 2E 00
```

Note: This instructs button #4 to follow button #3.

### Step 2. Set button #3's off-mask to 8.

```
TX: 02 62 19 32 E6 1F 2E 00 03 03 08 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 C4
RX: 02 62 19 32 E6 1F 2E 00 03 03 08 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 C4 06
RX: 02 50 19 32 E6 19 76 27 2B 2E 00
```

Note: This instructs button #4 to turn off as it follows button #3.

### Step 3. Set button #4's on-mask to 4.

```
TX: 02 62 19 32 E6 1F 2E 00 04 02 04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 C8
RX: 02 62 19 32 E6 1F 2E 00 04 02 04 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 C8 06
RX: 02 50 19 32 E6 19 76 27 2B 2E 00
```

Note: This instructs button #3 to follow button #4.

**Step 4. Set button #4's off-mask to 4.**

TX: 02 62 19 32 E6 1F 2E 00 04 03 04 00 00 00 00 00 00 00 00 00 C7

RX: 02 62 19 32 E6 1F 2E 00 04 03 04 00 00 00 00 00 00 00 00 00 C7 06

RX: 02 50 19 32 E6 19 76 27 2B 2E 00

Note This instructs button #3 to turn off as it follows button #4.

Add the following links to control the OutletLinc and SwitchLinc from the desired buttons.

**Step 5. Configure button #3 to turn the OutletLinc on and off by linking 19.32.E6 as the controller to 19.9E.4E as the responder in group #3.**

**Step 6. Configure button #4 to turn the SwitchLinc on and off by linking 19.32.E6 as the controller to 18.19.41 as the responder in group #4.**

Additional "off only" links are required to turn devices off when the buttons are turned off. Without this set of links, the devices will not turn off when another button in the radio group is pressed.

**Step 7. Configure keypad button #3 to turns the SwitchLinc off only by linking 19.32.E6 as the controller to 18.19.41 as the responder in group #3, setting data1 to 0 in the responder link.**

**Step 8. Configure keypad button #4 to turn the OutletLinc off only by linking 19.32.E6 as the controller to 19.9E.4E as the responder in group #4, setting data1 to 0 in the responder link.**