Programming Guide for

4000 Series Switches (WSW-45xx & WSD-45xx)

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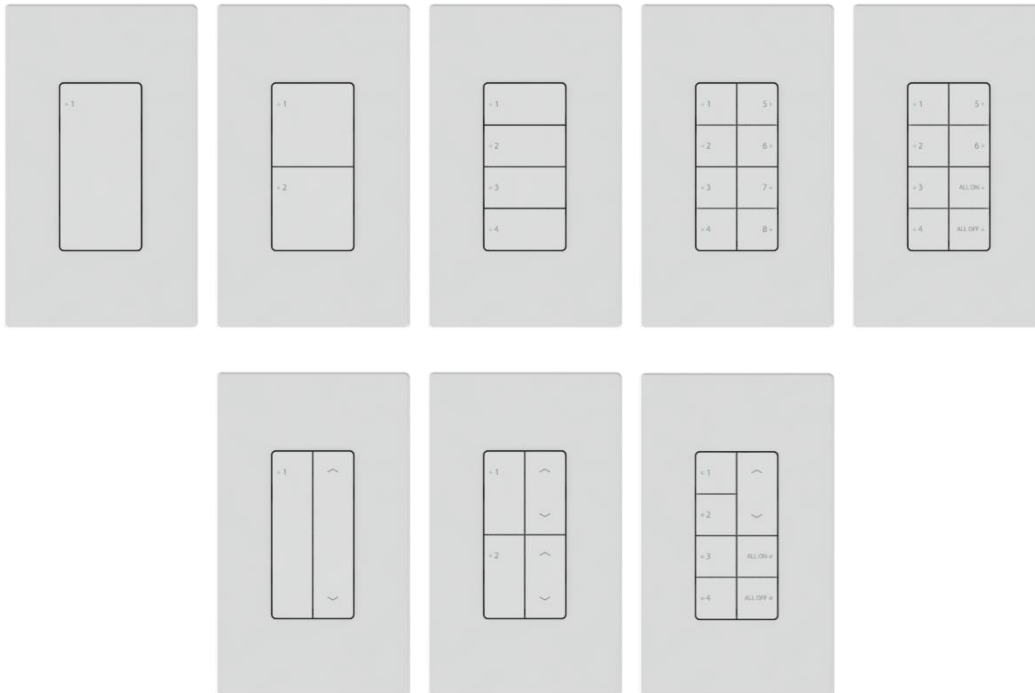
4000 Series Sensors (WxRxDG1-BPR-N)

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1. General Description

The UniversalDouglas Dialog® 4000 series switches and sensors can be programmed with an iOS 11+ (iPod & iPhone) or an Android OS 10+ app, these are available in their App stores (Apple App Store & Android Play Store). The App provides users with an easy-to-use field tool for commissioning Dialog® devices in the field.

Using the app and NFC, simply "Tap" the face of the wall station to bring up its programming to adjust any of its settings. Alternatively, the app will search the local area and list the connectable devices. When connected, the settings for the device will be displayed. Each station and button allows for custom labeling that will be used by the Tap-to-Control App.

Programmable Devices:

✓ WSW-4511
✓ WSW-4512
✓ WSW-4514
✓ WSW-4516
✓ WSW-4518
✓ WSD-4501
✓ WSD-4502
✓ WSD-4504
✓ WxRxDG1-BPR-N

With a network key, all settings are secured from tampering. If an end-user is setup with the network key, they will be able to use the "Tap-to-Control" to create a connection to the switch for touchless control.

When opening the app for the first time you can enter a new key for your devices. If the devices were configured by the factory the network key can be scanned using the QR code input on the App. The pre-configured sites QR code can be found on the front cover of the Submittal or Installation Package.

This code is the same code that can be inputted into to the "Tap-to-Control" app allowing you to control the switch station from your personal phone.

Apple Devices		Android Devices	
Operating System:	iOS 11.x or higher	**Operating System:**	Android OS 10.x or higher
Devices:	iPod Touch Gen 6 or newer iPhone 6 or newer	**Devices:**	All Phone
Tap-to-Control & NFC:	iPhone 7 or newer	**Tap-to-Control & NFC:**	NFC Enabled Phones

Dialog® 4000 Programmer

Dialog® 4000 Programmer

Dialog® 4000 Tap-to-Control

Dialog® 4000 Tap-to-Control

2. Quick Start – Dialog® 4000 Programmer

Dialog® 4000 Programmer

iOS   Android

1. Download the "Dialog® 4000 Programmer" app on to your device
2. Identify if your device is un-configured vs pre-configured
   a. If un-configured, create a new 6-digit network key for your project.
      Please keep it in a safe and memorable location.
   b. If pre-configured, scan the QR code on the submittal or installation package.
3. The app will now search for near by devices.
4. Identify physically the device you would like to configure.
   a. You can "Attention" a switch or sensor on the list to flash their LEDs to locate the correct one.
   b. If your device has NFC, hit "NFC Tap" and tap your device to the switch or sensor.
5. Once the device is identified its configuration parameters will be displayed with their current settings.
6. When done, push "Write" to commit the changes to the device.
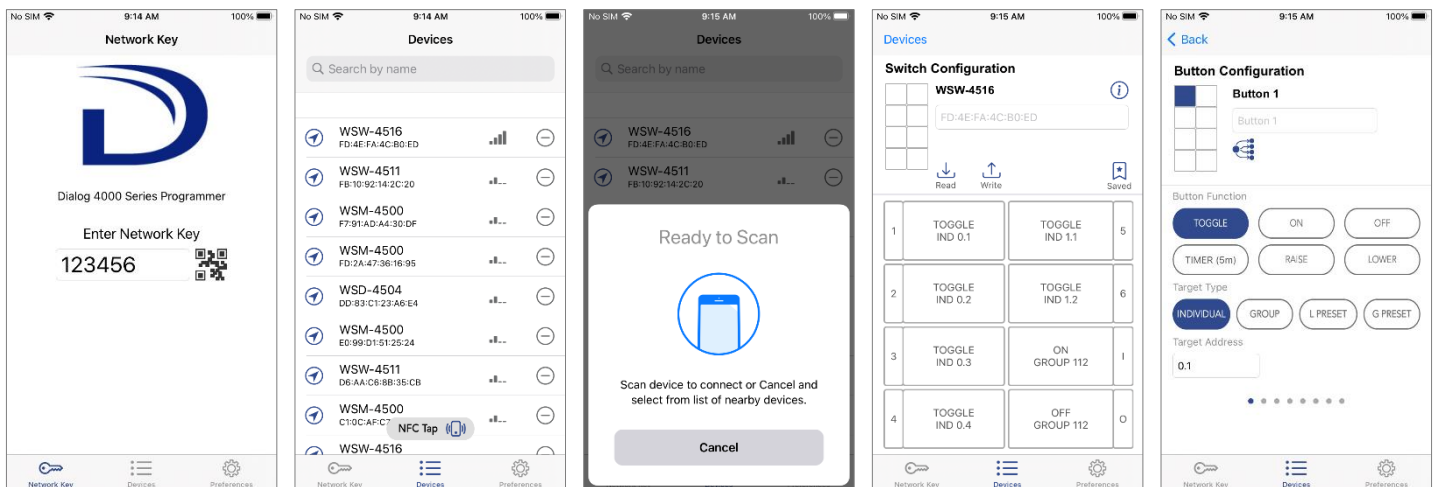
3. Quick Start – Dialog® 4000 Tap-to-Control

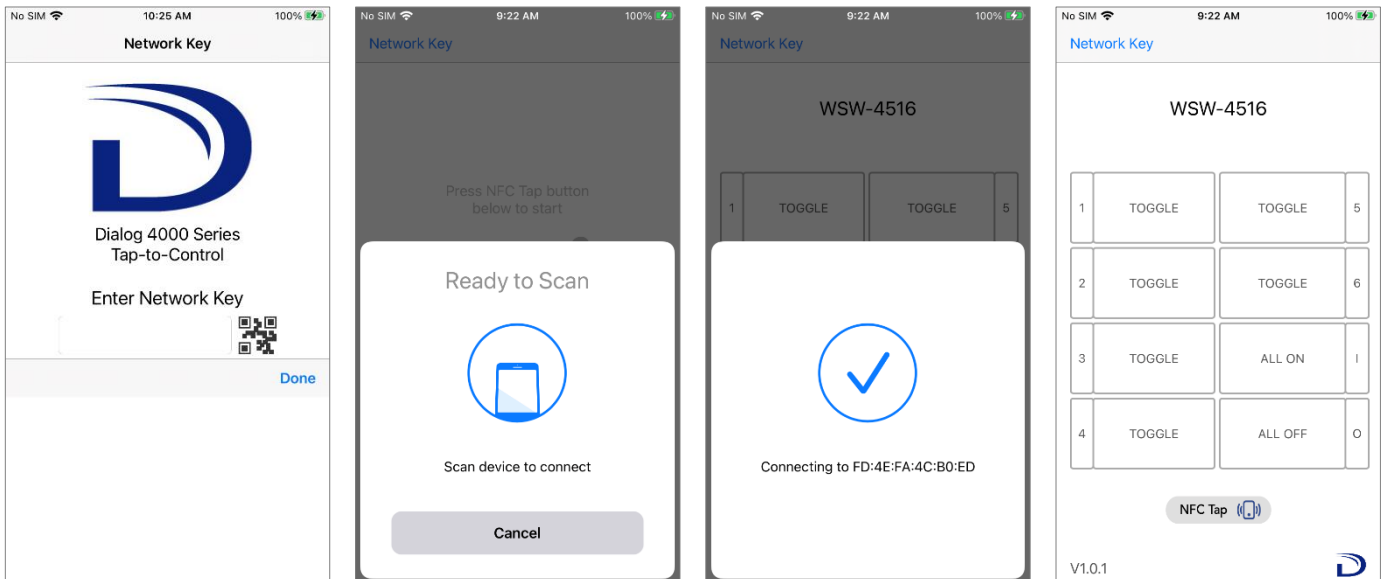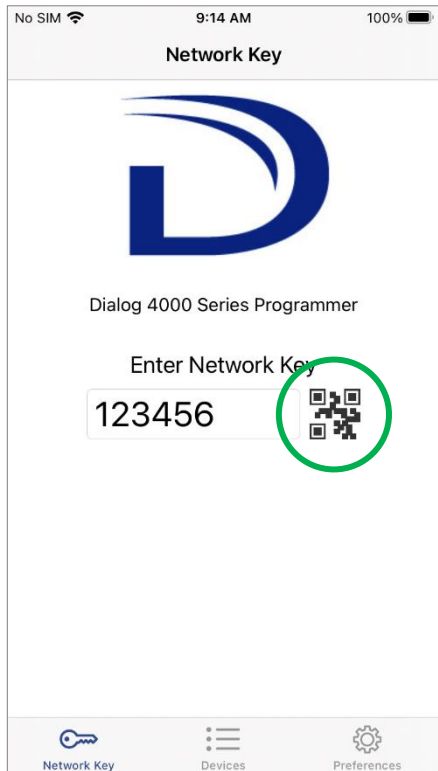**Dialog® 4000 Tap-to-Control**

iOS   Android

1. Download the "Dialog® 4000 Tap-to-control" app on to your NFC enabled device
2. Obtain the Network Key from the system owner by either two ways.
    a. Manually entering it.
    b. Scan the QR code on the submittal or installation package.
3. Tap your device on the switch station you wish to control.
4. You should now visually see a digital representation of the switch station on-screen.
5. Tap the button to actuate the lights as if you are pushing the physical button.

4. Network Key

The network key is used for the device security, **please keep it in a safe and memorable location**. This network key is used to allow a Dialog® 4000 programming or Tap-to-control app to manipulate the system.

You can manually enter the network key if you have it saved, or you can utilize the QR code reader to obtain it from the front page of the submittals or installation package on pre-programmed projects.

* To reset the network key, push and hold the reset button for 10 seconds. The reset button on the switch is only accessible after you remove the wall plate and it is located on the right side below the keypad. On the sensors, you must remove the cover plate and it is located on the face.

5. Device List

Once the network key is selected the app will search out and populate a list of devices in range. It will sort the list based on signal strength to help you find the device within the room you are presently in.

Tap to "Attention" the device for confirmation of physical location

Pull down to refresh

Tap to initiate the "NFC Tap" to configure a particular device

Tap to select this device to configure

Signal Strength

Indicates if it has been commissioned or not

Alert Icon may be visible if a device needed to be examined

When you initiate "NFC Tap", use your phone's NFC Receiver by placing it close to the middle of the switch station to identify and connect to it.

Examples:

Typically, the iPhone NFC receiver is near the top.

Most Android phone have it in the middle.
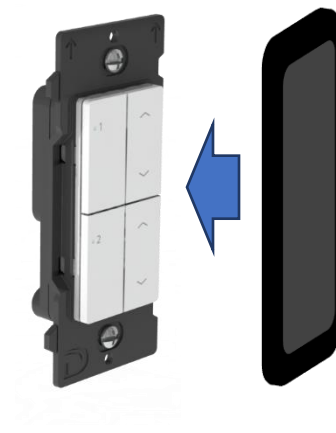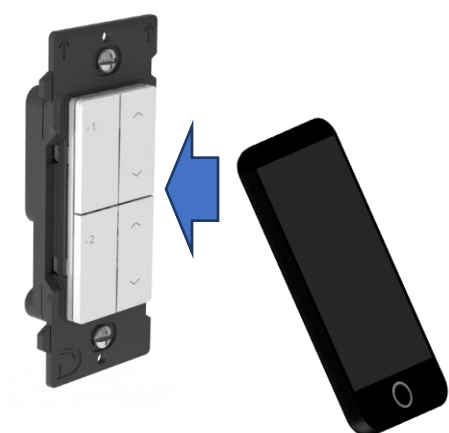
6. Device Screen

The devices screen will show you a representation of the device along with its current settings. The device can optionally be named, as well as each individual button. These labels are helpful when identifying the device and utilized in the Tap-to-Control App.

Read	"Read" will disregard any changes made and reload the actual configurations from the device.
Write	"Write" will commit any changes made to the device.
Saved	"Save" button is used to save the settings so that they can be recalled when duplicating devices.

Device Representation

Diagnostic info

Device Name

*if blank will show the MAC address

Tap to program this individual button

Application Preferences

To Network Key Screen

To Devices Screen

Switch Configuration

WSW-4516

FD:4E:FA:4C:B0:ED

1	TOGGLE IND 0.1	TOGGLE IND 1.1	5
2	TOGGLE IND 0.2	TOGGLE IND 1.2	6
3	TOGGLE IND 0.3	ON GROUP 112	I
4	TOGGLE IND 0.4	OFF GROUP 112	O

Network Key   Devices   Preferences

7. Switch Configuring (WSW-45xx)

The Dialog® wall stations are designed to give you flexibility to fit any design. The switch station can optionally be named, as well as each individual button. These labels are helpful when identifying the device and utilized in the Tap-to-Control App. When programming a specific button, you can quickly navigate to adjacent buttons by swiping left or right. The image in the top right will indicate which button you are programming.

The buttons can be programmed for ON only, OFF only, toggle, raise, lower and preset activation with varying target types. In addition, they have a built-in timer function to countdown to OFF upon turning ON. Select the appropriate target address for the button to actuate based on how your Dialog-based system is configured.

	Individual	Group	Local Preset	Global Preset
ON/OFF/Toggle	0.1 - 63.4	1 - 128	1 - 500	1 - 512
Raise / Lower	0.1 - 63.4	1 - 128		
Timer	0.1 - 63.4	1 - 128	1 - 500	1 - 512
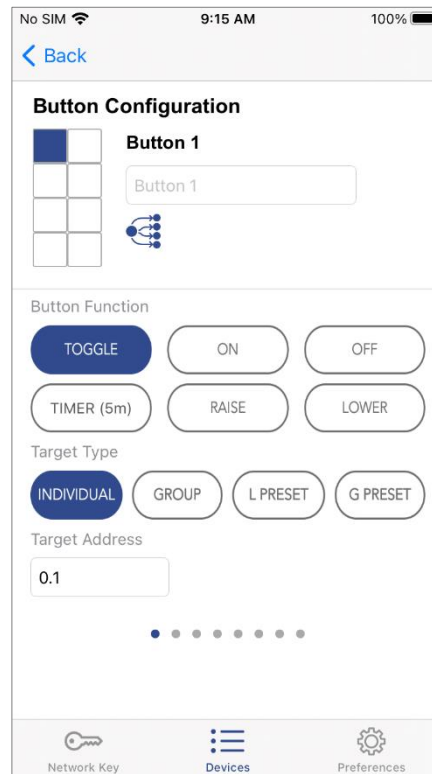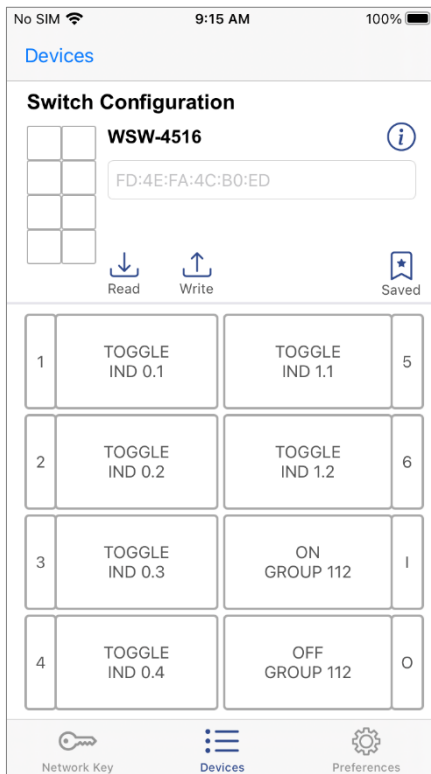
This icon is "Auto-Fill" it will appear on Button #1. Use this to is it will take the configurations from the first button and apply it to subsequent buttons, while incrementing the "Target address".
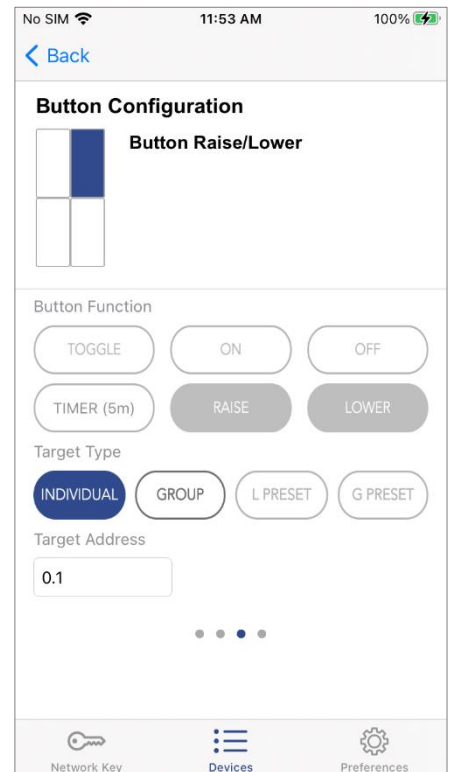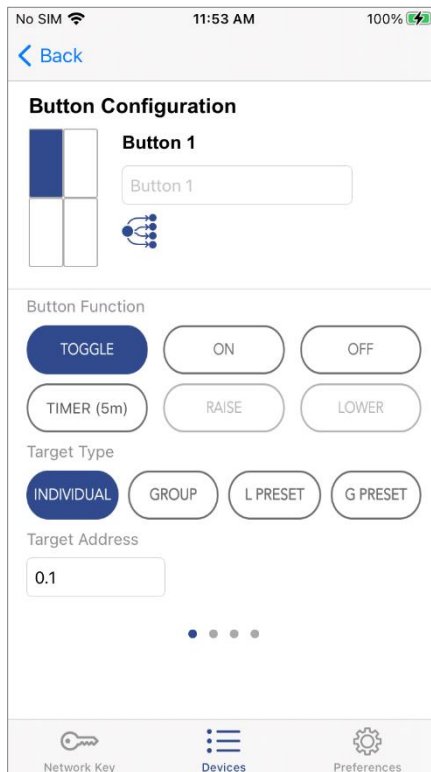
8. Dimmer Configuring (WSD-4501 / 4502)

The Dialog® dimmer stations are designed to give you flexibility to fit any design. The switch station can optionally be named, as well as each individual button. These labels are helpful when identifying the device and utilized in the Tap-to-Control App. When programming a specific button, you can quickly navigate to adjacent buttons by swiping left or right. The image in the top right will indicate which button you are programming.

The buttons can be programmed for ON only, OFF only, toggle, and preset activation with varying target types. In addition, they have a built-in timer function to countdown to OFF upon turning ON. Select the appropriate target address for the button to actuate based on how your Dialog-based system is configured.

	Individual	Group	Local Preset	Global Preset
ON/OFF/Toggle	0.1 - 63.4	1 - 128	1 - 500	1 - 512
Raise / Lower*	0.1 - 63.4	1 - 128		
Timer	0.1 - 63.4	1 - 128	1 - 500	1 - 512
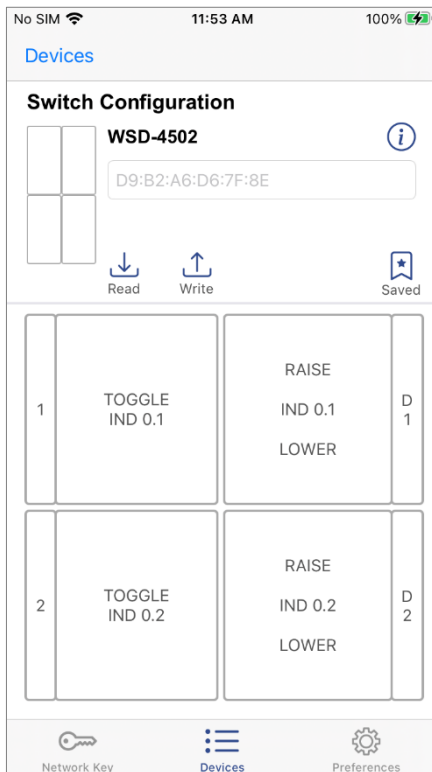
This icon is "Auto-Fill" it will appear on Button #1. The feature it provides is it will take the configurations from the first button and apply it to subsequent buttons, while incrementing the "Target address".

* The Raise & Lower buttons have a single target and are function locked to Raise & Lower an individual target or group or dimmers.

* The ON/OFF buttons are not allowed to be assigned as Raise or Lower.

9. Smart Dimming Configuring (WSD-4504)

The Dialog® dimmer stations are designed to give you flexibility to fit any design. The switch station can optionally be named, as well as each individual button. These labels are helpful when identifying the device and utilized in the Tap-to-Control App. When programming a specific button, you can quickly navigate to adjacent buttons by swiping left or right. The image in the top right will indicate which button you are programming.

The buttons can be programmed for various functions based on Smart-Zone dimming configuration with varying target types. In addition, they have a built-in timer function to countdown to OFF upon turning ON. Select the appropriate target address for the button to actuate based off how your Dialog-based system is configured.

	Individual	Group	Local Preset	Global Preset
ON/OFF/Toggle	0.1 - 63.4	1 - 128	1 - 500	1 - 512
Raise / Lower*	0.1 - 63.4	1 - 128		
Timer	0.1 - 63.4	1 - 128	1 - 500	1 - 512

The WSD-4504 has an additional feature "Smart-Zone Dimming", this allows you to configure the switch station to independently control 4 dimming targets in a single gang.

Smart-Zone Dimming Disabled

When disabled, the left side of the switch station is programmed similarly to a WSW-4514 (with the exceptions of Raise/Lower), while the right side is a WSD-4501. This allows you to build a preset station with a master dimmer.
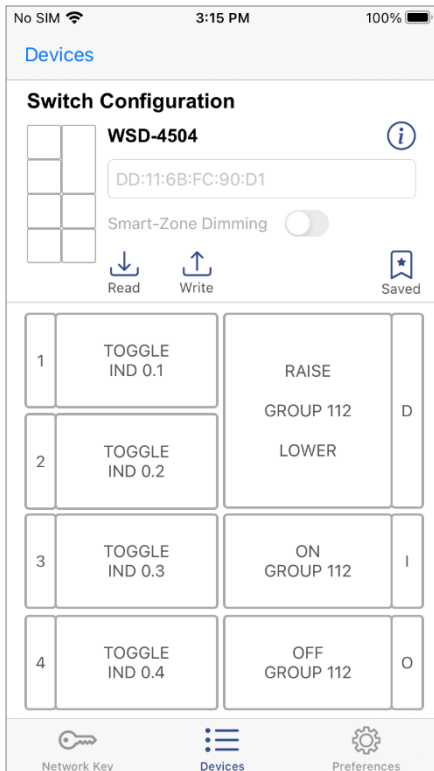
Smart-Zone Dimming Enabled

When enabled, you can select the target for the TOGGLE (ON/OFF) and dimming targets for each of the 4 selector buttons and the ALL ON/OFF. When you are operating the switch station the "Zone" button will toggle the lights and assign the associated target to the Raise/Lower buttons.
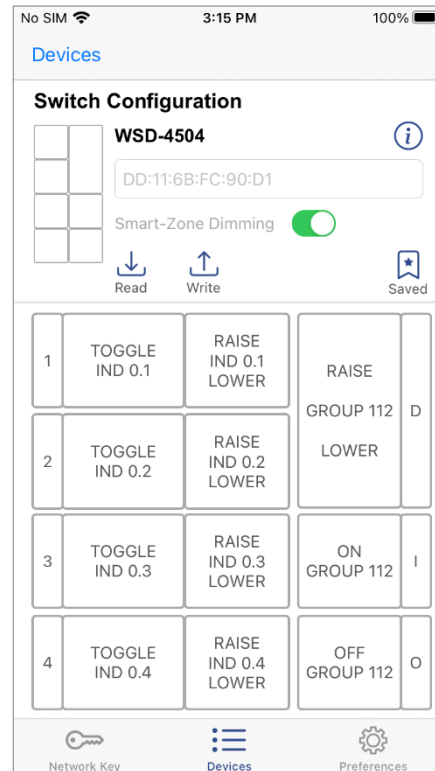
10. Timer Switch Configuring

The 4000 series switch stations have a built-in timer feature that allows you to turn the lights ON and after a set amount of time the lights will turn OFF. The default is 5 minutes, which is adjustable in the app preferences. 30 seconds before the lights turn off the status LED will blink to warn you the lights are about to go off, you can extend the time by pushing the button.
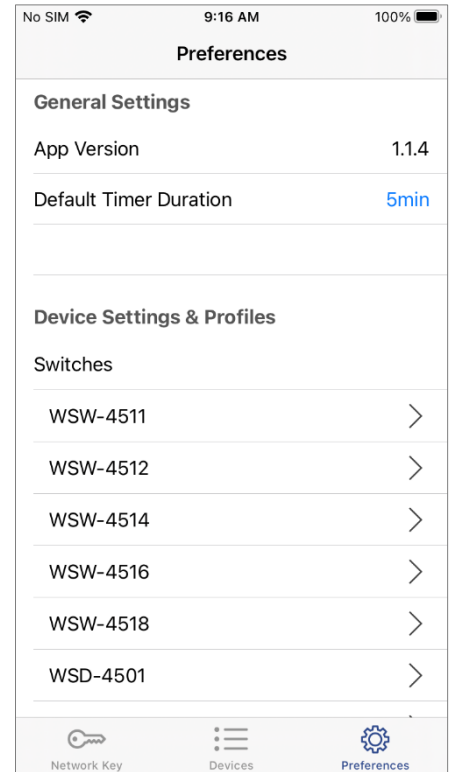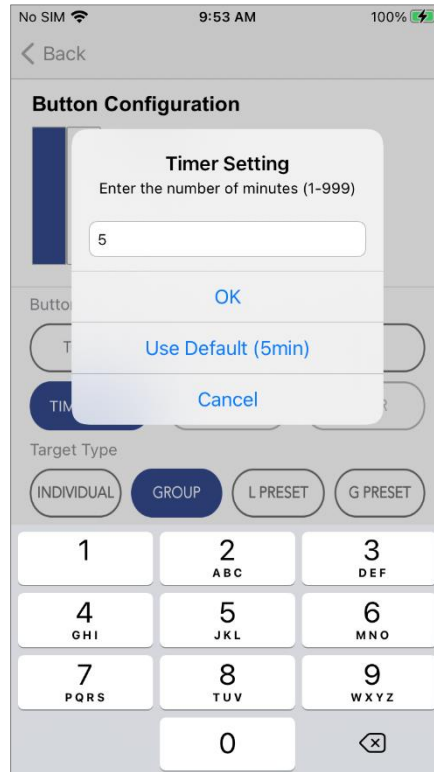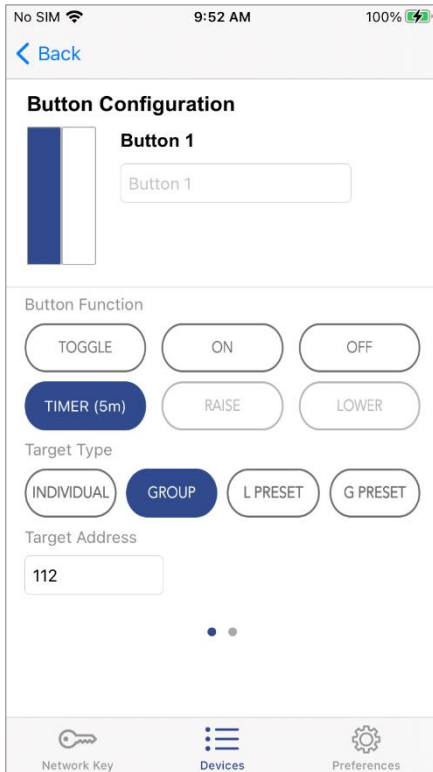
11. Sensor Configuring

The Dialog® WOR Sensors are designed to give you flexibility to fit any design. The sensor can optionally be named for ease of identification. When programming a specific function, you can quickly navigate to adjacent pages by swiping left or right. The sensor is both an Occupancy and Daylight sensor giving you greater functionality in a single form factor.

The occupancy sensor can be configured for the functions of Occupancy, Vacancy, Partial ON, and Partial OFF. In addition, each mode can add the additional feature called "Prolong". This feature allows you to select an ON action (typically a preset dimming level) for a second occupancy timer. If motion is detected during prolong, it will return to the occupied state; if the sensor is setup for Vacancy, it will dwell at the Prolong light level but reset the timer.

Select the appropriate target address for the sensor to actuate based on how your Dialog-based system is configured.

	Individual	Group	Local Preset	Global Preset
Max Sensor per Address	3	16	9	1
Occupancy ON	0.1 - 63.4	1 - 127	1 - 500	1 - 512
Prolong ON	0.1 - 63.4	1 - 127	1 - 500	1 - 512
Vacancy OFF	0.1 - 63.4	1 - 127	1 - 500*	1 - 512*

*For Output List Presets, the OFF signal recalls the programmed scene

The daylight sensor transmits digitally to the controller (WLC-4150 or WRC-42xx) the photometric data. Within the controller, the Constant Light Controller (CLC) decides how the lights are to respond to the light level.

For the daylight sensor addressing:

Daylight Sensor	Local Photo	Global Photo
Connected to a WLC-4150	1 - 64	1 - 64
Connected to a WRC-42xx	1 - 4	1 - 4

Main Screen:
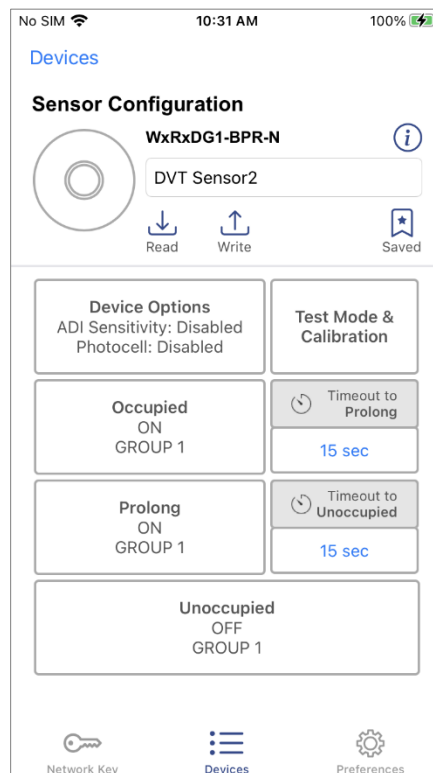
Timer Selections:

o   15 seconds
o   30 seconds
o   2 minutes**
o   5 minutes
o   10 minutes*
o   15 minutes
o   20 minutes
o   30 minutes
o   60 minutes

  * default occupancy timer
 ** default prolong timer

universal douglas

Function and Target Screens:

Screen 1 — Occupancy

No SIM 10:31 AM 100%

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Sensor Configuration
Occupancy

Occupancy Mode
[Occupancy (Auto ON)] [Vacancy (Manual ON)]

Target Type
[INDIVIDUAL] [GROUP] [L PRESET] [G PRESET]

Target Address
[1]

Network Key | Devices | Preferences

Screen 2 — Prolong

No SIM 10:31 AM 100%

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Sensor Configuration
Prolong

Function
[ON] [NOT ACTIVE]

Target Type
[INDIVIDUAL] [GROUP] [L PRESET] [G PRESET]
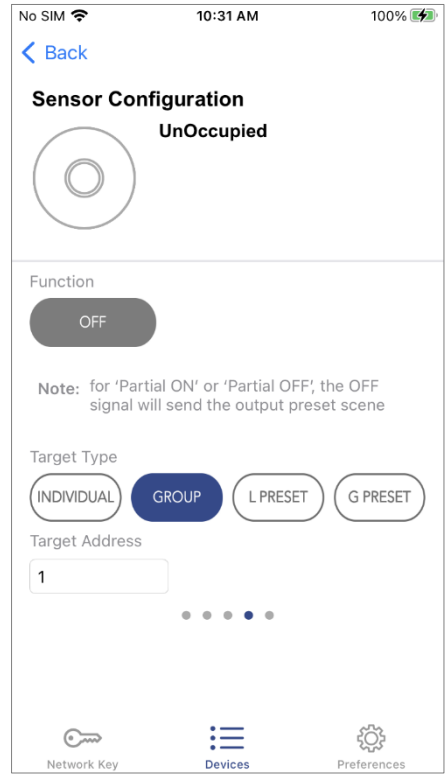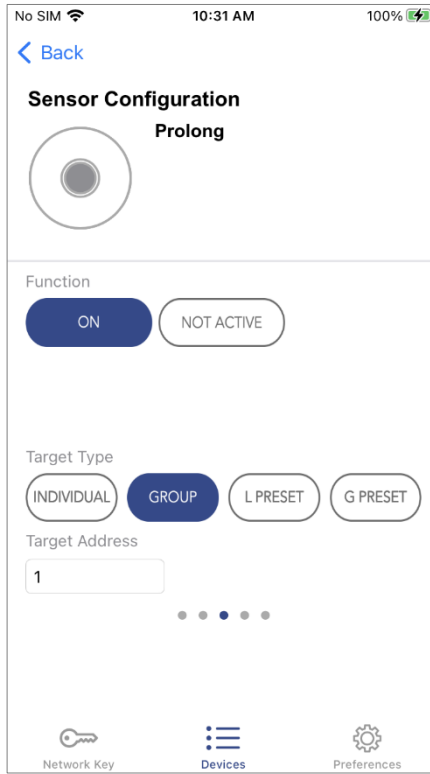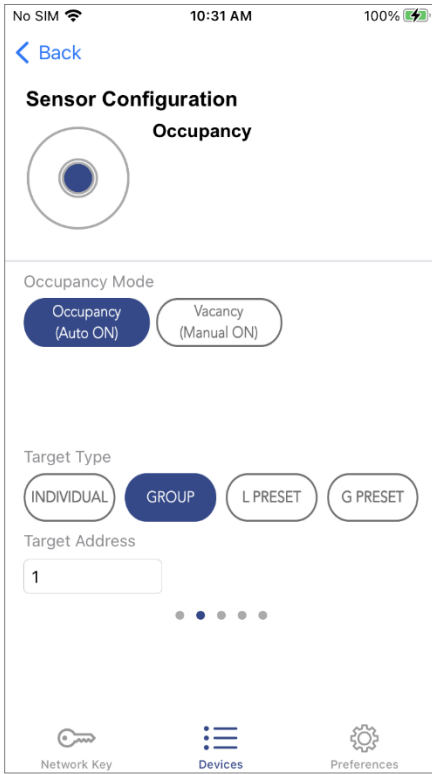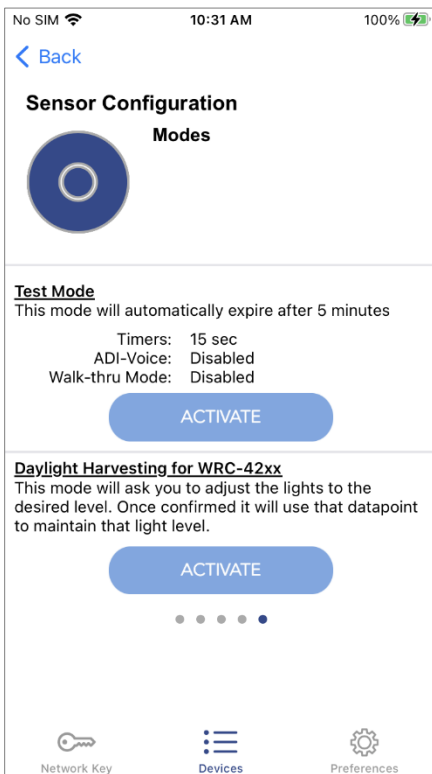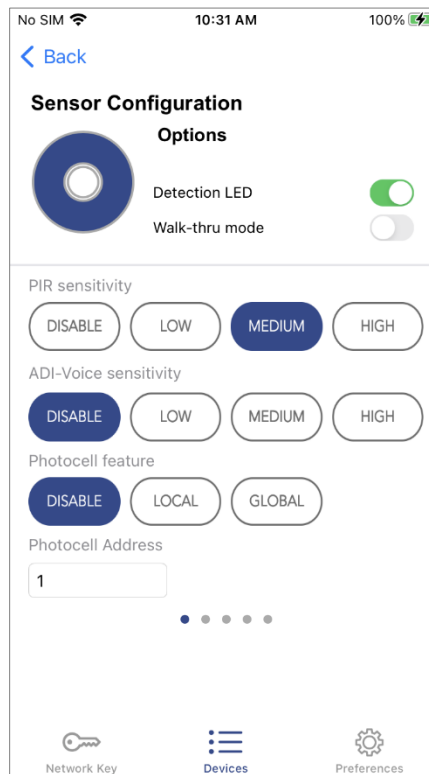
Target Address
[1]

Network Key | Devices | Preferences

Screen 3 — UnOccupied

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Sensor Configuration
UnOccupied

Function
[OFF]

Note: for 'Partial ON' or 'Partial OFF', the OFF signal will send the output preset scene

Target Type
[INDIVIDUAL] [GROUP] [L PRESET] [G PRESET]

Target Address
[1]

Network Key | Devices | Preferences

Test Mode & CLC Calibration:

No SIM 10:31 AM 100%

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Sensor Configuration
Modes

Test Mode
This mode will automatically expire after 5 minutes

Timers: 15 sec
ADI-Voice: Disabled
Walk-thru Mode: Disabled

[ACTIVATE]

Daylight Harvesting for WRC-42xx
This mode will ask you to adjust the lights to the desired level. Once confirmed it will use that datapoint to maintain that light level.

[ACTIVATE]

Network Key | Devices | Preferences

Options:

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Sensor Configuration
Options

Detection LED [●——]
Walk-thru mode [——○]

PIR sensitivity
[DISABLE] [LOW] [MEDIUM] [HIGH]

ADI-Voice sensitivity
[DISABLE] [LOW] [MEDIUM] [HIGH]

Photocell feature
[DISABLE] [LOCAL] [GLOBAL]

Photocell Address
[1]

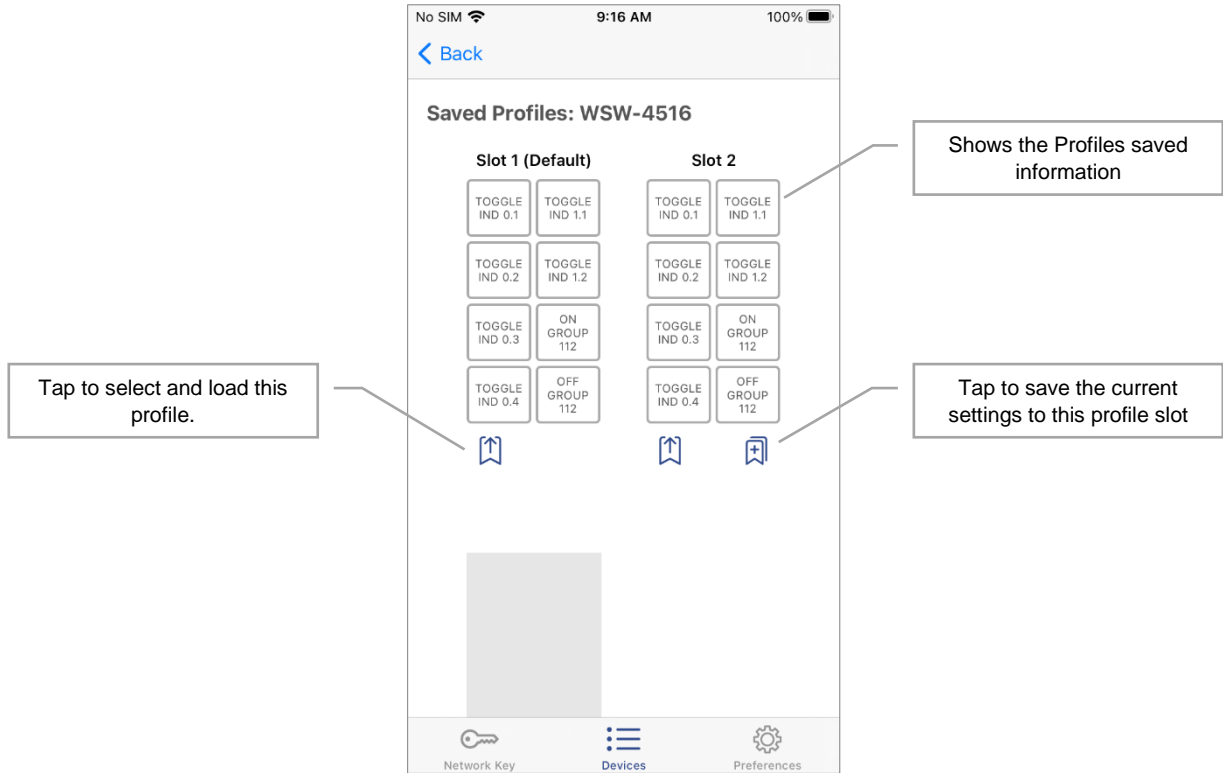Network Key | Devices | Preferences

Walk Thru Mode:

Upon entry, the lights will turn ON. If no additional occupancy detection occurs after the first 30 seconds, it will turn the lights OFF after 3 minutes. Prolong is ignored.

If motion is detected between 30 seconds and 3 minutes, it will default to the configured timer and prolong setting.

This adds additional measure to save additional energy when lights are only required momentarily.

12. Saving and Recalling Profiles

The app can save multiple profiles for each switch or sensor type. This feature will help deploy similarly configured rooms quickly and efficiently. Each profile will save the configurations for the function, target, and target type for each button. The saved profile can then be recalled when configuring another switch or sensor.

Shows the Profiles saved information

Tap to select and load this profile.

Tap to save the current settings to this profile slot

13. Preferences

The preferences screen allows you to:

1. View the current app version
2. Select default timers
3. View/edit/delete individual custom profiles.
4. Delete all custom profiles under "Manage Profiles".
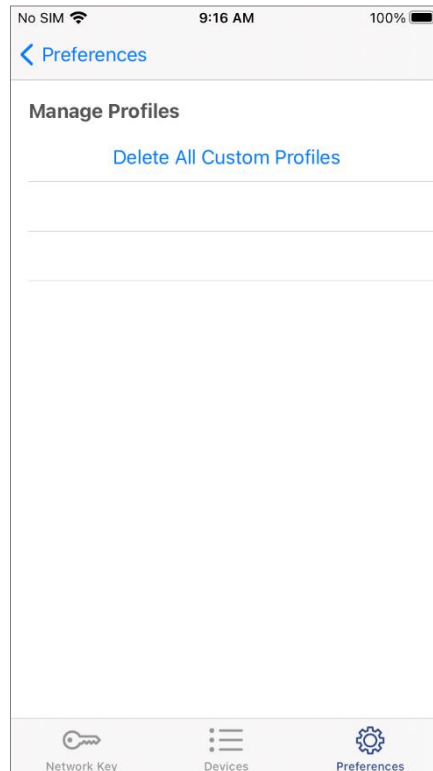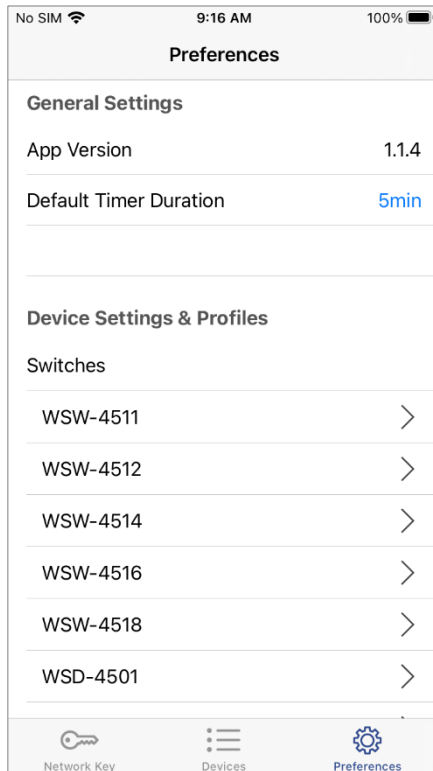
14. App Details

Apple Devices		**Android Devices**	
Operating System:	iOS 11.x or higher	**Operating System:**	Android OS 10.x or higher
Devices:	iPod Touch Gen 6 or newer iPhone 6 or newer	**Devices:**	All Phone
Tap-to-Control & NFC:	iPhone 7 or newer	**Tap-to-Control & NFC:**	NFC Enabled Phones
Permissions:	Bluetooth NFC (if available) Location Services Camera (for QR Code)	**Permissions:**	Bluetooth NFC (if available) Location Services Camera (for QR code)

Dialog® 4000 Programmer

Dialog® 4000 Tap-to-Control

Dialog® 4000 Programmer

Dialog® 4000 Tap-to-Control

To ensure proper operation of the app please make sure the Bluetooth, Location services, and NFC (if available) are enabled in your device settings and when prompted that you give the application permission to access these hardware features. If you do not, the App will not be able to locate and populate the 'Devices List' and it will be **blank**.
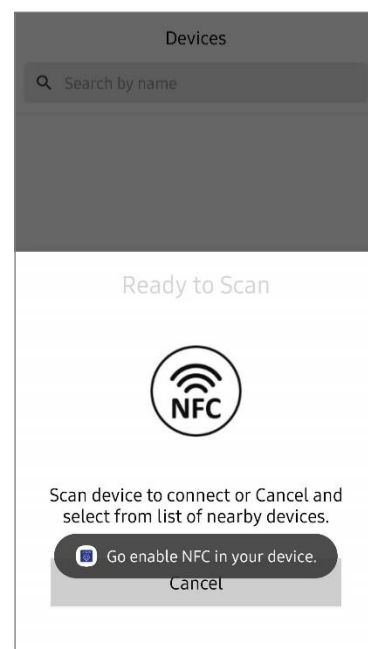
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