Universal Douglas
Bluetooth® Commissioning and Room Control App

BTCC App

Field Manual

Table of Contents

Douglas Lighting Controls

1. GENERAL DESCRIPTION

The Universal Douglas **Bluetooth**® App for Commissioning and Room Control is available for iOS devices (iPod, iPhone) by download through the Apple App Store. The App provides users with an easy to use field tool for commissioning Universal Douglas Bluetooth Wireless system and included an end user App for controlling lights.

Commissionable Devices
- BT-PP20-B
- BT-8BTSW-U-A
- BT-8BTSW-3-A
- BT-4BTSW-U-A
- BT-4BTSW-3-A
- BT-DMSW-U-A
- BT-DMSW-3-A
- BT-WOR-A
- BT-IFS-A
- BT-LRT-A/B & BT-LWE-A
- BT-FMS-A
- BT-GTWY-A

Video Tutorials are available 24/7 here:

Lighting Controls BTCC Commissioning App Tutorial Videos

2. SYSTEM REQUIREMENTS

Programming Tool
A site dedicated iOS device is required to commission, configure, and store system parameters.
- iPod Gen 6 or newer with iOS 10.x or higher
- iPhone 6 or newer with iOS 10.x or higher

Before You Start
- A best practise is to use a dedicated iPod or iPhone as the projects system set-up device rather than a personal smartphone as the system settings stay with the Apple ID.
- When setting up the iOS device Apple ID, iCloud account, and network access, chose names carefully, record accurately, and store in a reliable location.
- Once a Fixture Controller & Sensor has been added to a network (associated), do not remove (disassociate) it before ensuring it is connected to, and communicating with, the system set-up device.

Universal Douglas iTunes BTCC Commissioning App

Douglas Lighting Controls

3. SYSTEM SETUP

Process
1. Download App
2. Select Set-up Network
3. Associate First Device, Setup Device and Room
4. Set Up Other Devices (Occupancy Sensor Last)
5. Select Room Control to Control a Room via App

Overview

Universal Douglas recommends using a project-dedicated device, not one which is used for personal and/or other company data and communications. Details on iCloud accounts, including instructions for setup, can be found at www.apple.com/icloud.

An iOS device with iCloud account is needed to download the App and to back up the system parameters on iCloud. Each iCloud account can have only one instance of the App, and the App can create and maintain only one database. A database stores the system parameters. The database is identified by the _Network Key_ and accessed using the _Admin Password_ (both values are entered during system set-up).

After an iOS device is configured with an iCloud account and the App downloaded, the system set-up process can begin. First, system parameters are entered. These include:

- Site Name
- Network Key
- Admin Password

Record this information accurately and store in a reliable location. These parameters are critical to accessing the system. A good method for recording this information is screen capture the network setup page. To take a screen shot, press and hold the ON/OFF button, then momentarily press the Home button. The screen capture will be saved as an image accessible via the Photos icon. The screen capture can then be emailed to a few people for recovery purposes. Again, it is very important to keep track of this data and of the iOS device itself.

Before You Begin: Layout your room and spaces

An Universal Douglas Bluetooth wireless network can have multiple rooms and each room can have up to eight lighting zones. Rooms and Zones are defined in the system set-up. Review your floor plans to find, and if needed, develop a room and zone plan.
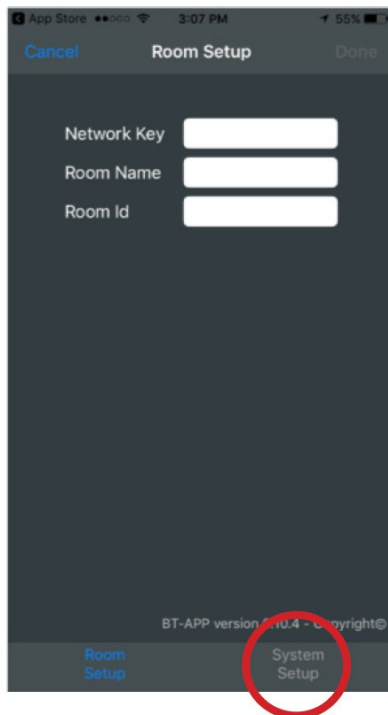
Douglas Lighting Controls

universaldouglas

3. SYSTEM SETUP

1. DOWNLOAD APP
- Visit the Apple App store and search for Universal Douglas
- Access Universal Douglas BTCC App

2. SYSTEM SETUP

1. Ensure your Smartphone's Bluetooth is **ON**
2. Open App
3. Select **System Setup** (bottom right)

4. Enter information – save this information – you will need it later. <u>It cannot be retrieved if lost or forgotten.</u>
   Tip: screen capture your System Setup > press and hold **Power**, *then press* **Home** *button*
5. Press **Done** (upper right)

Douglas Lighting Controls
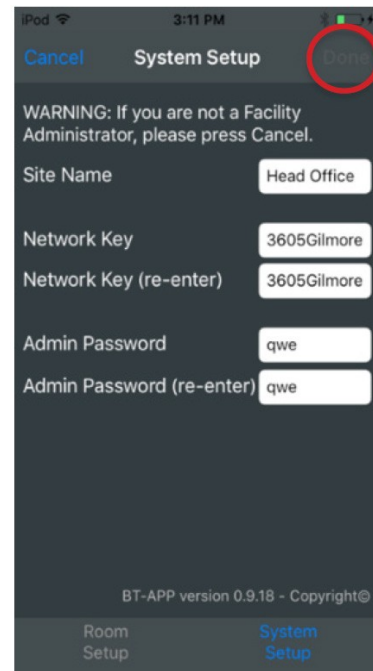
4. ASSOCIATING DEVICES

1. Press "**+**" to find unassociated devices
   *Tip: set up the Occupancy/Daylight sensors last*

2. Select device to be associated to network
3. Devices will identify themselves when selected:
   - Switches: Bottom LEDs will flash Orange
   - Sensor: LED will flash Orange
   - Controller: fixture(s) will flash and LED will flash Orange
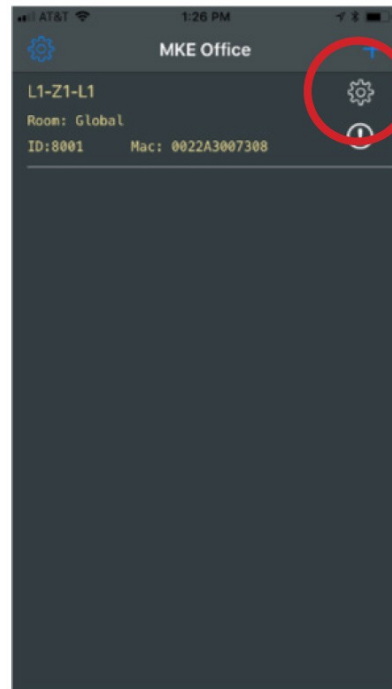4. Press **upload** icon to add device to room
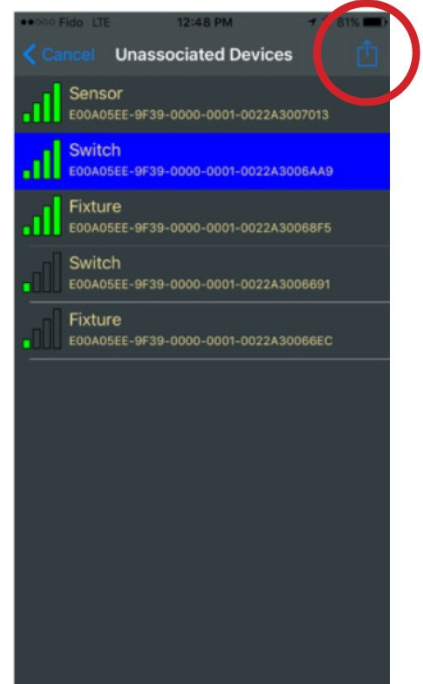
Douglas Lighting Controls

5. Enter Device Name
   TIP: use device type and location
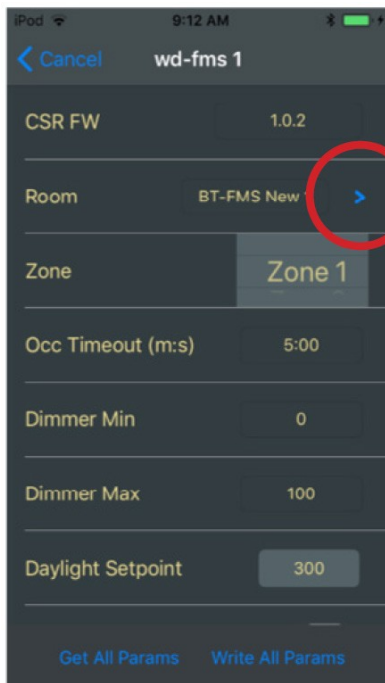   Note: Device Names are tested to avoid duplication
6. Press **OK**
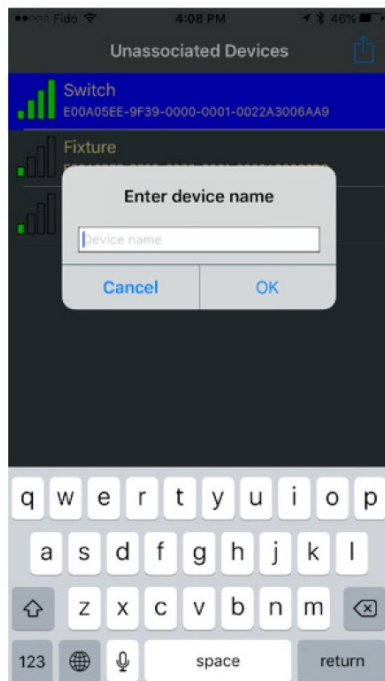
7. Device is now Associated and shown in list -> since the device has yet to be setup, Room is listed as **Global**
8. Press cog wheel to continue with device setup

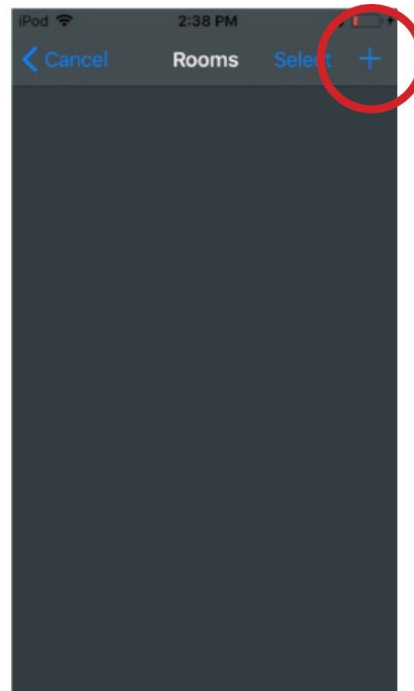

Douglas Lighting Controls

5. ROOM SETUP

1. Open the configuration of a device2. Press ">" to setup room
2. Press ">" to setup room

3. Press "**+**" to add Room
4. If rooms have already been created, they will be listed. If so, press the room you'd like press **Select**
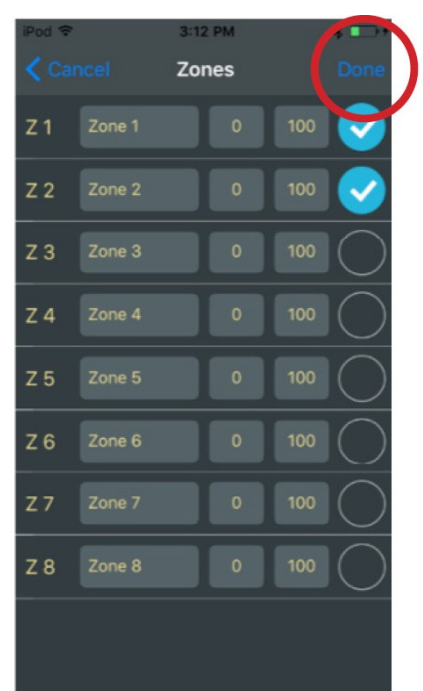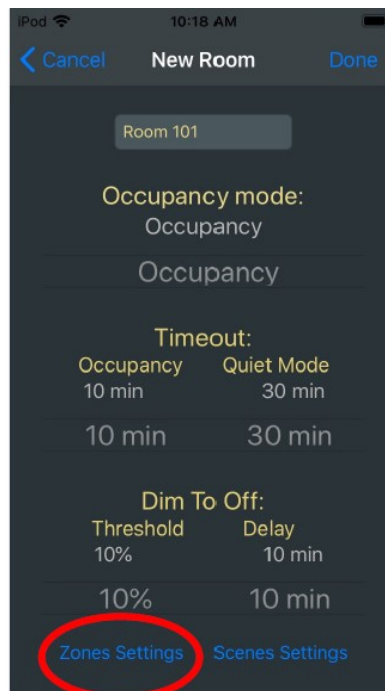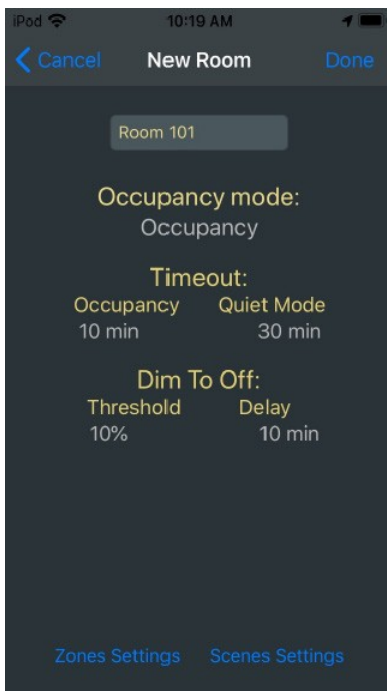
5. ROOM SETUP

Setup Room Parameters

1. Enter Room Name
2. Occupancy Mode
    - Occupancy (Auto ON/Auto OFF)
    - Vacancy (Manual ON/Auto OFF)
    - Partial ON (Auto ON to 50% / Auto OFF)
    - Partial OFF (Auto ON to 100% / Auto to 50%)
    - None (to use as daylight sensor only)
      Note: BT-PP20-A does not support Partial OFF
3. Set Timeouts
    a. Occupancy
        (15s, 5m,10m, 20m, 30m, 45m)
    b. Quiet Mode
        (30s, 30m, 60m, 120m, 150m, 180m)
4. Dim To OFF (via Daylight Harvesting)
    a. Threshold: 1%-40%
    b. Delay: 1-60 minutes

Zone Settings

1. Edit the Zones by selecting "ZONES SETTINGS" in the Edit Room page
2. Press the circle in the rightmost column to enable selected zones
    - Asshownbelow,uptoeight(8)zones(Z1throughZ8)canbedefinedinaroom
      Note: multiple controllers (BT-PP20), and therefore multiple fixtures, can be assigned to the same ZONE
    - Zones can be named by selecting name field
    - Dimming Min. & Max. levels (Low & High trims) can be adjusted
1. Press Done to return to the edit room page

Douglas Lighting Controls

universaldouglas

5. ROOM SETUP

Scene Setup

1. Edit the Scene (Presets) by selecting "SCENES SETTINGS" in the Edit Room page
2. Press the circle in the rightmost column to enable selected scene
    - As shown below, up to six (6) scenes (Scene 1 through Scene 8) can be defined in a room
    - Scenes can be named by selecting the name field
    - To customize a scene by selecting the "Config" next to the scene you want to adjust.
3. Press Done to return to the edit room page
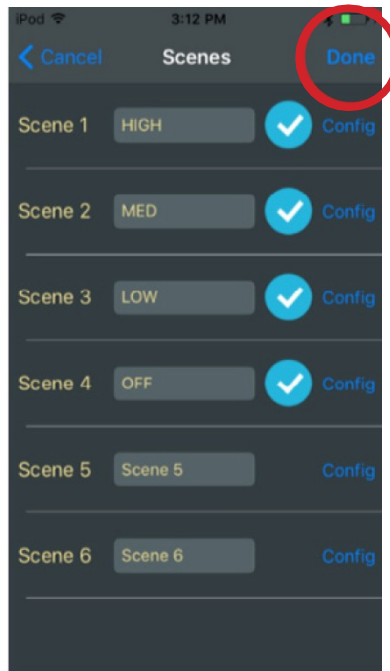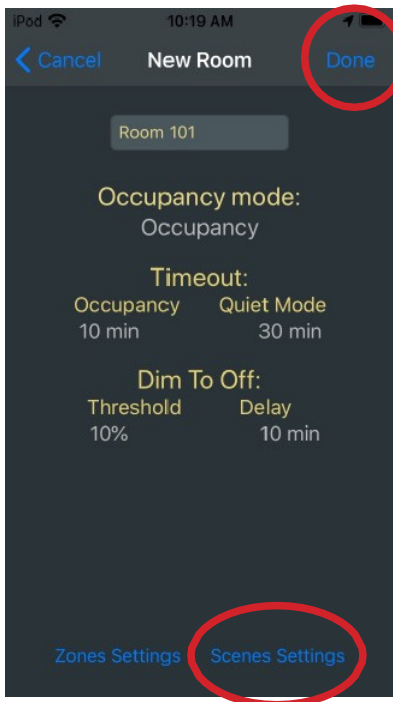
Scenes Settings

1. Set SCENE by activating the desired ZONE (1-8) and adjusting the Zone's DIM Level Slider and ON/OFF button
2. Press **Done**
3. Repeat for other **SCENES**
4. **Done > Done > Done** to return to Device setup page
5. Complete Device setup

Douglas Lighting Controls
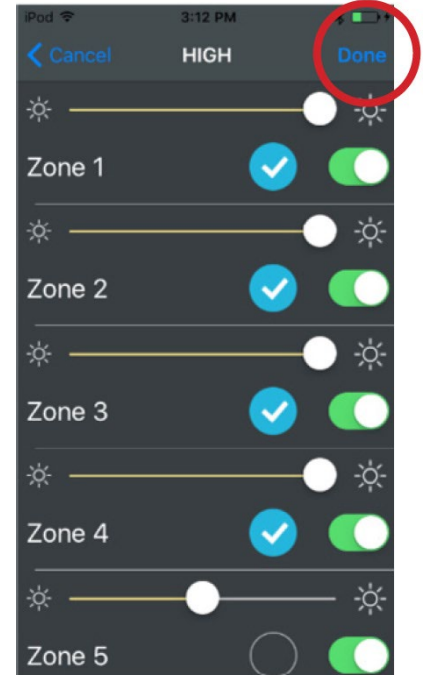
6. DEVICE SETUP

Setup: Load Controller (BT-PP20-B)

After adding the device to a room, continue with device setup. Parameters shown in a gray boxes are editable per device, other parameters are shown for information purpose based on the room configurations.
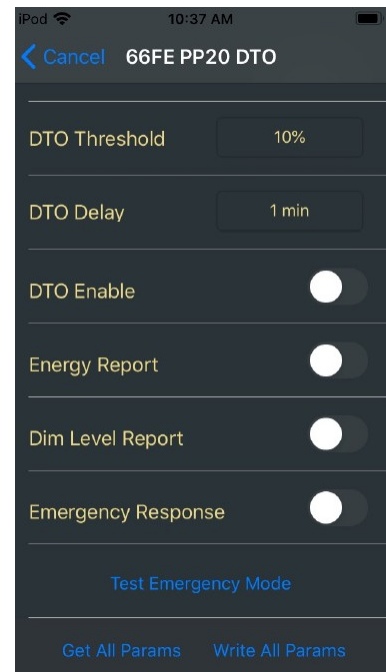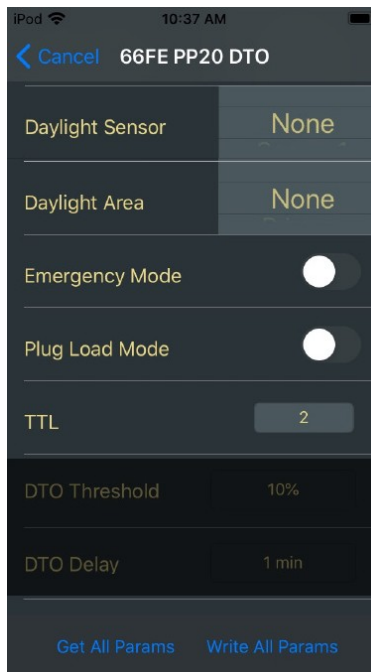
1. Zone: Select the zone the load is a member of (1 to 8 or as labeled in Room Setup)
2. Daylight Sensor: Select the Daylight sensor that should effect the fixture
   • None - Fixture is not in a daylit zone
   • Sensor 1 - Fixtures is in the Primary or Sec Daylit Zone
   • Sensor 2 - Fixtures is in the Primary or Sec Daylit Zone
   Note: Some spaces have multiple daylight sources such as Skylights
3. Daylight Area: None/Primary/Secondary
4. Emergency (UL924) Mode: If the BT-PP20 is controlling emergency lights, when normal power devices in the room fail, the lights will turn ON Full bright. *Note: if this is enabled, it cannot be used as an Emergency responder.
5. Plug Load Mode: Turn ON if the BT-PP20-B is used for receptacle loads. This allows auto-on regardless of Occupancy Mode type.

   Scroll down for more items

6. TTL: 2 - This value may be adjusted by a certified technician
7. DTO Enable: When enabled, the CLC will use the DTO values to turn the lights OFF when the threshold is reached.
8. Energy Report: When enabled, the energy data will be broadcast for the BT-GTWY-A and CheckLight.
9. Dim Level Report: When enabled, the dimming data will be broadcast for the BT-GTWY-A.
10. Emergency Response: When enabled, this device will be part of the UL924 detection network. General practice is to turn on 3 items in each room.
11. Test Emergency Mode: If the Emergency Mode is Enabled and the parameters have been written to the device, then activating "Test Emergency Mode" will turn on the connected fixture for 30 seconds to full brightness. See the EMERGENCY (UL924) MODE OPERATION & TEST section for additional details about testing Emergency Mode devices.

Note: For Dim to Off by CLC to work the devices must be in the "Primary" daylighting Zone and not be enabled as a "Plug Load".

To complete your configuration, press 'Write All Parameters' to Save to the device, then '< Cancel' to go back to 'Associated Device List'

Setup: **Dimmer Switch (BT-DMSW-x-A)**

After adding the device to a room, continue with device setup. Parameters shown in a gray boxes are editable per device, other parameters are shown for information purpose based on the room configurations.

1. Zone: Select the zone the dimmer switch is to control
    (1 to 8 or as labeled in Room Setup)
2. Daylight Sensor: Select the Daylight sensor that should effect the switch indicator
    •   None - Fixture is not in a daylit zone
    •   Sensor 1 - Fixtures is in the Primary or Sec Daylit Zone
    •   Sensor 2 - Fixtures is in the Primary or Sec Daylit Zone
        Note: Some spaces have multiple daylight sources such as Skylights

    Scroll down for more items

3. TTL: 2 - This value may be adjusted by a certified technician

To complete your configuration, press 'Write All Parameters' to Save to the device, then '< Cancel' to go back to 'Associated Device List'

Douglas Lighting Controls
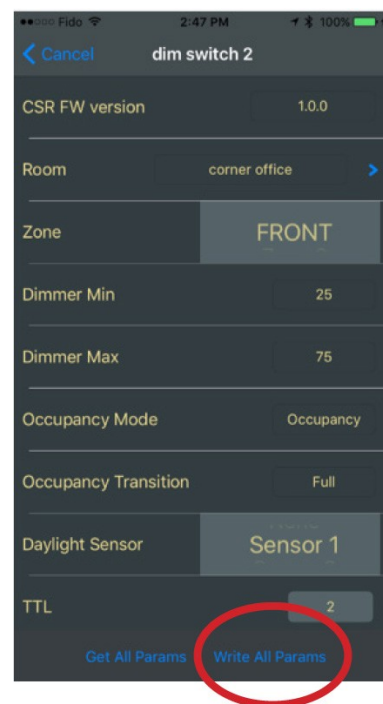
Setup: **4-Button Switch (BT-4BTSW-x-A)**

After adding the device to a room, continue with device setup. Parameters shown in a gray boxes are editable per device, other parameters are shown for information purpose based on the room configurations.

The screen is laid out to represent the 4-buttons on the physical switch. Select a button to configure it's action.

To complete your configuration, press 'Write All Parameters' to Save to the device, then '< Cancel' to go back to 'Associated Device List'

Each button can select 1 action:
* Zone Functions (shown in icons)
  * DIM UP
  * DIM DOWN
  * ON ONLY
  * OFF ONLY
  * TOGGLE
* Room Defined Presets
* Quiet Mode ON or Quiet Mode OFF
  When activated Quiet Mode ignores the occupancy sensors for a defined period of time.
* None

Douglas Lighting Controls

6. DEVICE SETUP

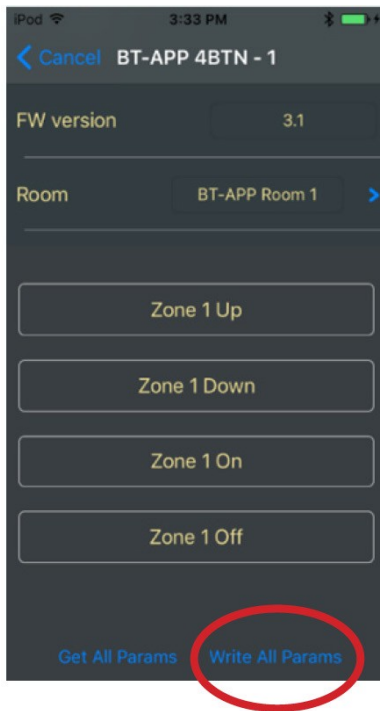## Setup: **8-Button Switch (BT-8BTSW-x-A)**

After adding the device to a room, continue with device setup. Parameters shown in a gray boxes are editable per device, other parameters are shown for information purpose based on the room configurations.

The screen is laid out to represent the 4-buttons on the physical switch. Select a button to configure it's action.

To complete your configuration, press 'Write All Parameters' to Save to the device, then '< Cancel' to go back to 'Associated Device List'

Each button can select 1 action:
- Zone Functions (shown in icons)
  - DIM UP
  - DIM DOWN
  - ON ONLY
  - OFF ONLY
  - TOGGLE
- Room Defined Presets
- Quiet Mode ON or Quiet Mode OFF
  When activated Quiet Mode ignores the occupancy sensors for a defined period of time.
- None

Douglas Lighting Controls

6. DEVICE SETUP

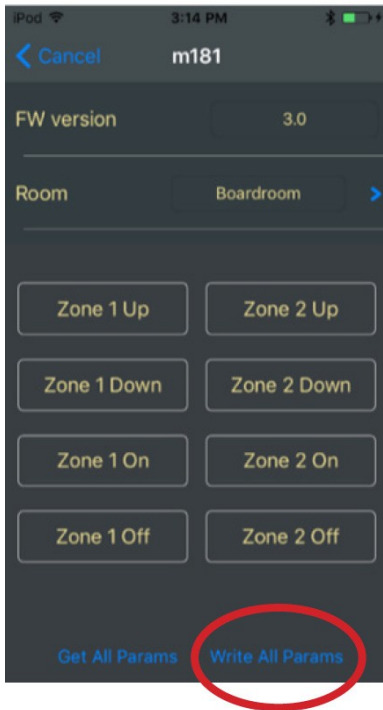## Setup: **Occupancy Daylight Sensor (BT-WOR-A)**

After adding the device to a room, continue with device setup. Parameters shown in a gray boxes are editable per device, other parameters are shown for information purpose based on the room configurations.
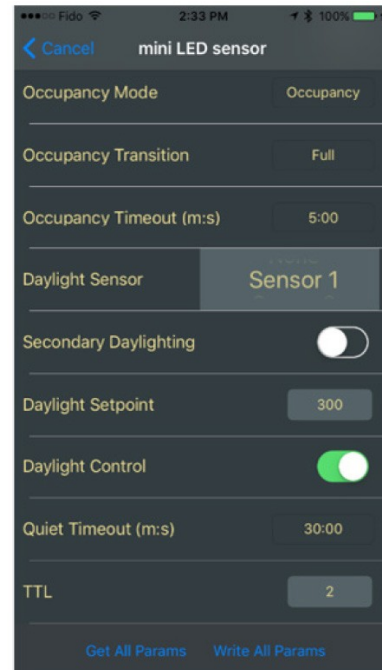
1. Occupancy Zone: Select the zone the sensor is to control (1 to 8, ALL or as labeled in Room Setup)
2. Secondary Occupancy Enable: When enabled the sensor will look for a 30 second ping from the users Room Control App to additionally indicate occupancy.
3. Daylight Sensor: Select the Daylight sensor that should effect the fixture
   - None - Used as an Occupancy sensor only
   - Sensor 1 - First Daylit area in the room
   - Sensor 2 - Second Daylit area in the room
   Note: Some spaces have multiple daylight sources such as Skylights

   Scroll down for more items

4. Secondary Daylighting Enable: When enabled, the sensor will broadcast a scaled dimming value for a secondary daylighting zone farther from the source.
5. Daylight Setpoint (Lux): Default 300
6. Daylight Control Enable
7. TTL: 2 - This value may be adjusted by a certified technician

To complete your configuration, press 'Write All Parameters' to Save to the device, then '< Cancel' to go back to 'Associated Device List'


Douglas Lighting Controls

Setup: **Intelligent Fixture™ Sensor (BT-IFS-A)**

After adding the device to a room, continue with device setup. Parameters shown in a gray boxes are editable per device, other parameters are shown for information purpose based on the room configurations.

1. Zone (CH1): Select the zone the load is a member of (1 to 8 or as labeled in Room Setup)
2. CCT Zone (CH2): Select the zone the load is a member of (1 to 8 or as labeled in Room Setup)
3. Occupancy Zone: Select the zone the sensor is to control (1 to 8, ALL or as labeled in Room Setup)
4. Secondary Occupancy Enable: When enabled the sensor will look for a 30 second ping from the users Room Control App to additionally indicate occupancy.

    Scroll down for more items
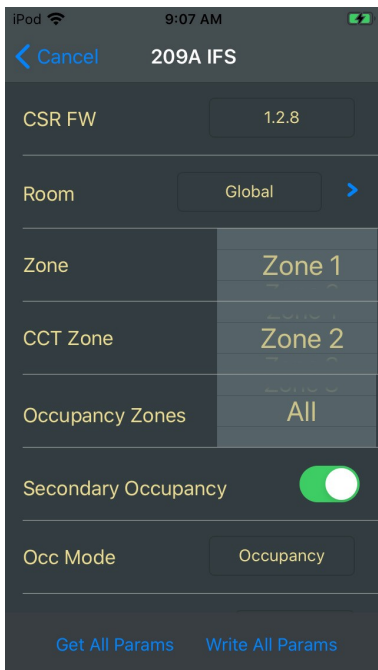
5. Daylight Sensor: Select the Daylight sensor that should effect the fixture
    • None - Used as an Occupancy sensor only
    • Self
    • Sensor 1 - First Daylit area in the room
    • Sensor 2 - Second Daylit area in the room
    Note: Some spaces have multiple daylight sources such as Skylights
    *If this IFS isn't used as a daylight sensor, this value is used to identify which Daylight sensor to listening to.
6. Daylight Area: This is to identify if the IFS is in the primary or secondary daylighting zone.
7. Secondary Daylighting Enable: When enabled, the sensor will broadcast a scaled dimming value for a secondary daylighting zone farther from the source.
8. Daylight Setpoint (Lux): Default 300
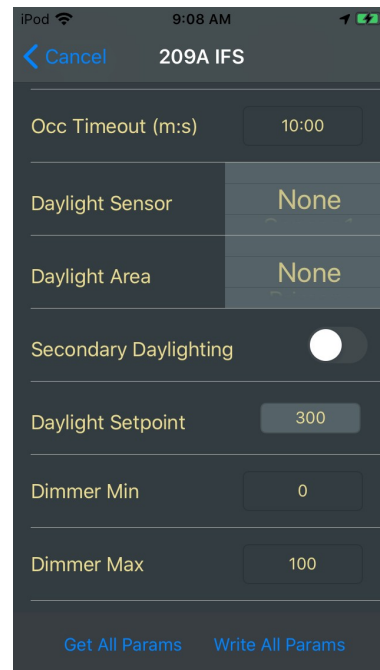
    Scroll down for more items

Douglas Lighting Controls

6. DEVICE SETUP

Setup: Intelligent Fixture™ Sensor (BT-IFS-A)

9. Daylight Control Enable: When enabled, the IFS broadcasts it's photocell commands with the address set in item #4. When disabled the IFS will listen to the sensor with address from item #4.
10. TX Power Level: Default 7.
11. TTL: 2 - This value may be adjusted by a certified technician

   Scroll down for more items

12. iBeacon Enable: When enabled, the IFS will broadcast it's iBeacon for IoT Location services. For more information about iBeacons please see www.ibeacon.com.
   • iBeacon Interval
   • iBeacon Major Value
   • iBeacon Minor Value
   • iBeacon UUID
   • iBeacon Power Level

   Note: 'TX Power Level' should be set to 0 when iBeacon is enabled.

   Scroll down for more items

13. Dim Level Report Enable: Optionally enabled to send Dimming data to a BT-GTWY-A
14. Temp Level Report Enable: Optionally enabled to send Temperature data to a BT-GTWY-A
15. Emergency Response Enable: When enabled, this device will be part of the UL924 detection network. General practice is to turn on 3 devices in each room.

   To complete your configuration, press 'Write All Parameters' to Save to the device, then '< Cancel' to go back to 'Associated Device List'


Douglas Lighting Controls
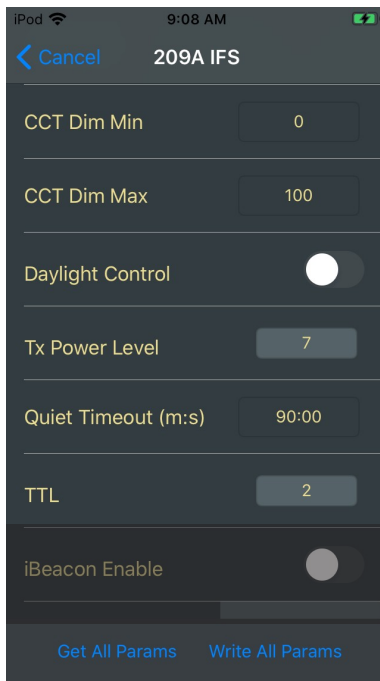
6. DEVICE SETUP

Setup: Intelligent Fixture™ Controller (BT-IFC-A)

After adding the device to a room, continue with device setup. Parameters shown in a gray boxes are editable per device, other parameters are shown for information purpose based on the room configurations.

1. Zone (CH1): Select the zone the load is a member of (1 to 8 or as labeled in Room Setup)
2. CCT Zone (CH2): Select the zone the load is a member of (1 to 8 or as labeled in Room Setup)
3. Daylight Sensor: Select the Daylight sensor that should effect the fixture
    •   None - Used as an Occupancy sensor only
    •   Sensor 1 - First Daylit area in the room
    •   Sensor 2 - Second Daylit area in the room
    Note: Some spaces have multiple daylight sources such as Skylights
4. Daylight Area: This is to identify if the IFC is in the primary or secondary daylighting zone.

    Scroll down for more items
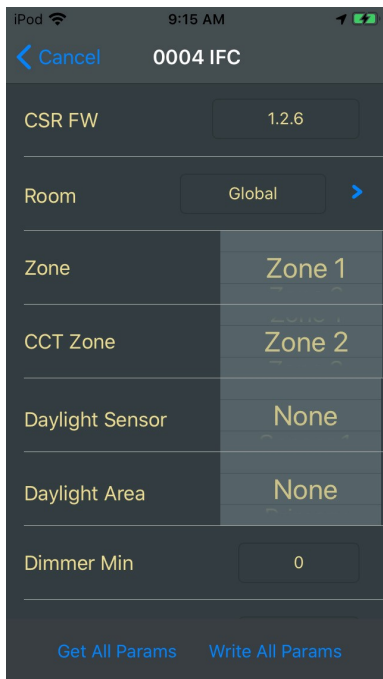
5. Emergency (UL924) Mode: If the IFC is controlling emergency lights, when normal power devices in the room fail, the lights will turn ON Full bright.
    *Note: if this is enabled, it cannot be used as an Emergency responder.
6. TX Power Level: Default 7
7. TTL: 2 - This value may be adjusted by a certified technician

    Scroll down for more items
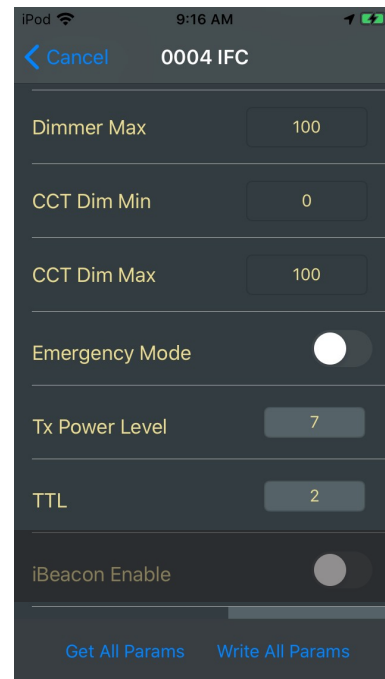
6. DEVICE SETUP

Setup: Intelligent Fixture™ Controller (BT-IFC-A)

8. iBeacon Enable: When enabled, the IFS will broadcast it's iBeacon for IoT Location services. For more information about iBeacons please see www.ibeacon.com.
   - iBeacon Interval
   - iBeacon Major Value
   - iBeacon Minor Value
   - iBeacon UUID
   - iBeacon Power Level

   Note: 'TX Power Level' should be set to 0 when iBeacon is enabled.

   Scroll down for more items

9. Dim Level Report Enable: Optionally enabled to send Dimming data to a BT-GTWY-A.
10. Emergency Response Enable: When enabled, this device will be part of the UL924 detection network. General practice is to turn on 3 items in each room.

    Note: If this is enabled, it cannot operate in Emergency Mode.
11. Test Emergency Mode: If the Emergency Mode is Enabled and the parameters have been written to the device, then activating "Test Emergency Mode" will turn on the connected fixture for 30 seconds to full brightness. See the EMERGENCY (UL924) MODE OPERATION & TEST section for additional details about testing Emergency Mode devices.

    To complete your configuration, press 'Write All Parameters' to Save to the device, then '< Cancel' to go back to 'Associated Device List'

Douglas Lighting Controls

universal douglas
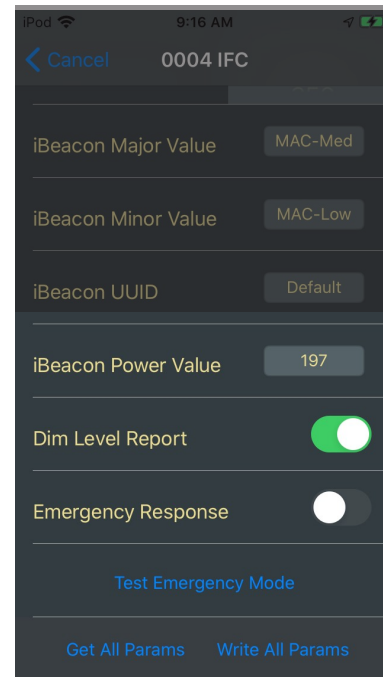
6. DEVICE SETUP

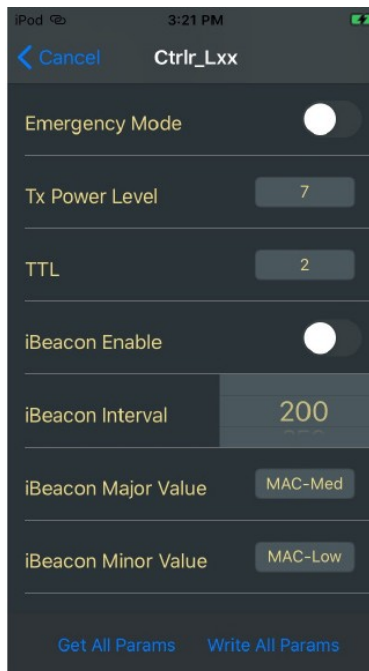## Setup: **Retrofit Fixture Controller (BT-LRT-A/B & BT-LWE-A)**

After adding the device to a room, continue with device setup. Parameters shown in a gray boxes are editable per device, other parameters are shown for information purpose based on the room configurations.

1. Zone: Select the zone the load is a member of (1 to 8 or as labeled in Room Setup)
2. Daylight Sensor: Select the Daylight sensor that should effect the fixture
   • None - Fixture is not in a daylit zone
   • Sensor 1 - Fixtures is in the Primary or Sec Daylit Zone
   • Sensor 2 - Fixtures is in the Primary or Sec Daylit Zone
   Note: Some spaces have multiple daylight sources such as Skylights
3. Daylight Area: None/Primary/Secondary
4. Emergency (UL924) Mode: If the BT-PP20 is controlling emergency lights, when normal power devices in the room fail, the lights will turn ON Full bright. *Note: if this is enabled, it cannot be used as an Emergency responder.
5. TX Power Level: Default 7

   Scroll down for more items

6. iBeacon Enable: When enabled, the FMS will broadcast it's iBeacon for IoT Location services. For more information about iBeacons please see www.ibeacon.com.
• iBeacon Interval
• iBeacon Major Value
• iBeacon Minor Value
• iBeacon UUID
• iBeacon Power Level
   Note: 'TX Power Level' should be set to 0 when iBeacon is enabled.
7. Dim Level Report: When enabled, the dimming data will be broadcast for the BT-GTWY-A.
8. Emergency Response: When enabled, this device will be part of the UL924 detection network. General practice is to turn on 3 items in each room.
9. Test Emergency Mode: If the Emergency Mode is Enabled and the parameters have been written to the device, then activating "Test Emergency Mode" will turn on the connected fixture for 30 seconds to full brightness. See the EMERGENCY (UL924) MODE OPERATION & TEST section for additional details about testing Emergency Mode devices.

To complete your configuration, press 'Write All Parameters' to Save to the device, then '< Cancel' to go back to 'Associated Device List'

Douglas Lighting Controls

universal douglas

Setup: **Fixture Mounted Sensor (BT-FMS-A)**

After adding the device to a room, continue with device setup. Parameters shown in a gray boxes are editable per device, other parameters are shown for information purpose based on the room configurations.

1. Zone (CH1): Select the zone the load is a member of (1 to 8 or as labeled in Room Setup)
2. Occupancy Zone: Select the zone the sensor is to control (1 to 8, All, None, or as labeled in Room Setup)
3. Secondary Occupancy Enable: When enabled the sensor will look for a 30 second ping from the users Room Control App to additionally indicate occupancy.

Scroll down for more items

4. Daylight Sensor: Select the Daylight sensor that should effect the fixture
   • None - Used as an Occupancy sensor only
   • Self
   • Sensor 1 - First Daylit area in the room
   • Sensor 2 - Second Daylit area in the room
   Note: Some spaces have multiple daylight sources such as Skylights
   *If this FMS isn't used as a daylight sensor, this value is used to identify which Daylight sensor to listening to.
5. Daylight Area: This is to identify if the FMS is in the primary or secondary daylighting zone.
6. Secondary Daylighting Enable: When enabled, the sensor will broadcast a scaled dimming value for a secondary daylighting zone farther from the source.
7. Daylight Setpoint (Lux): Default 300

Scroll down for more items

Douglas Lighting Controls

6. DEVICE SETUP

Setup: **Fixture Mounted Sensor (BT-FMS-A)**

8. Daylight Control Enable: When enabled, the FMS broadcasts it's photocell commands with the address set in item #4. When disabled the FMS will listen to the sensor with address from item #4.
9. TX Power Level: Default 7.
10. TTL: 2 - This value may be adjusted by a certified technician

    Scroll down for more items

11. iBeacon Enable: When enabled, the FMS will broadcast it's iBeacon for IoT Location services. For more information about iBeacons please see www.ibeacon.com.
- iBeacon Interval
- iBeacon Major Value
- iBeacon Minor Value
- iBeacon UUID
- iBeacon Power Level

    Note: 'TX Power Level' should be set to 0 when iBeacon is enabled.

    Scroll down for more items

12. Dim Level Report Enable: Optionally enabled to send Dimming data to a BT-GTWY-A.
13. Emergency Response Enable: When enabled, this device will be part of the UL924 detection network. General practice is to turn on 3 devices in each room.
14. Instant ON: When enabled, the device will react based on motion, regardless of overridden state or occupancy timeout.

    To complete your configuration, press 'Write All Parameters' to Save to the device, then '< Cancel' to go back to 'Associated Device List'
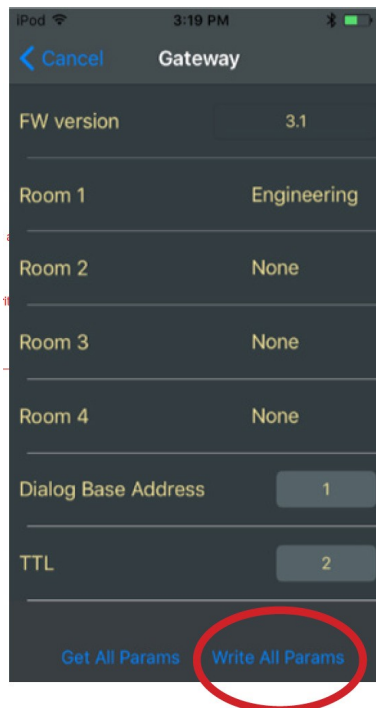
Douglas Lighting Controls
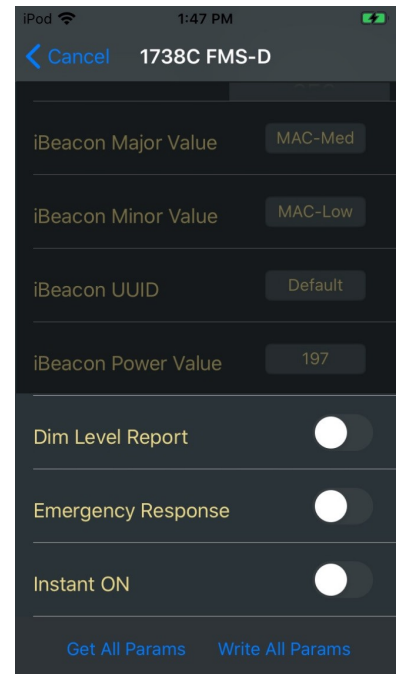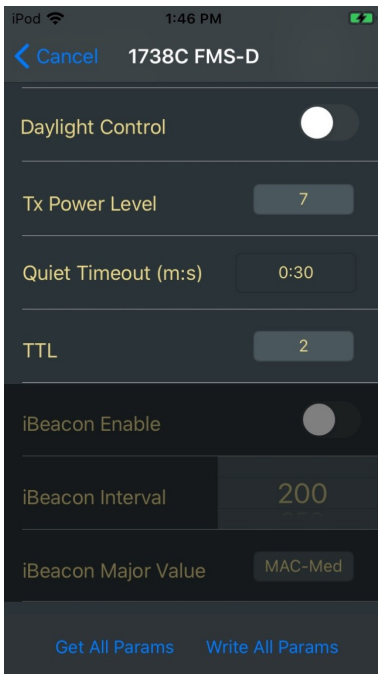
6. DEVICE SETUP

Setup: **Dialog BT Gateway (BT-GTWY-A)**

After adding the device to a room, continue with device setup. Parameters shown in a gray boxes are editable per device, other parameters are shown for information purpose based on the room configurations.

1. Rooms 1-4: Select the Rooms you would like to Gateway to monitor
2. Dialog Base Address: This is the starting Dialog address for items monitored by this gateway. For each room it uses ups 2 major Dialog addresses.
3. TTL: 2 - This value may be adjusted by a certified technician

To complete your configuration, press 'Write All Parameters' to Save to the device, then '< Cancel' to go back to 'Associated Device List'

Douglas Lighting Controls

EMERGENCY (UL924) MODE OPERATION

The BT-PP20-A/B, BT-IFC-A, BT-LRT-A/B, & BT-LWE-A can be configured to act as an UL924 Emergency Lighting controller which turns on its connected fixture at full brightness when failure of normal power is detected. Normal power failure is detected by the Emergency Mode device requesting a response from device in the room enabled with Emergency Response that are on normal power; If there is no response the emergency state is initiated.

Due to the nature of the functionality, Emergency Mode and Emergency Response is mutually exclusive. See example of the warning below.

EMERGENCY MODE TEST PROCEEDURE

The Emergency Mode operation can be tested using the iOS mobile device (e.g. iPod Touch) that was used to commission the device with the Universal Douglas BTCC App (BTCC).

To test Emergency operation, perform the following steps:
1. Ensure the emergency circuit is connected to the fixture controlled by the device and is energized.
2. Use a Universal Douglas Bluetooth switch to turn OFF the device, or use the BTCC "Room Setup" tab on the commissioning mobile device to access control of the device and turn it OFF.
3. Use the BTCC "System Setup" tab on the commissioning mobile device to navigate to the commissioned devices list and select the settings cogwheel for the device to test.
4. In the settings page for the device, select the "Test Emergency Mode" button on the bottom of the setting page. The device will turn on to 100% brightness for approximately 30 seconds. Following the 30 second test, the fixture will remain ON and return to its previous dimming state. The device will resume normal operation, e.g. responding to occupancy and switch control.
5. Use the "Cancel" button in the upper left corner to exit the device Settings page WITHOUT writing the configuration parameters.
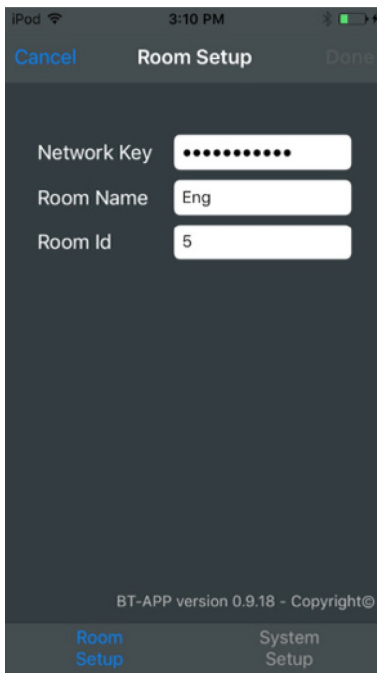

Douglas Lighting Controls
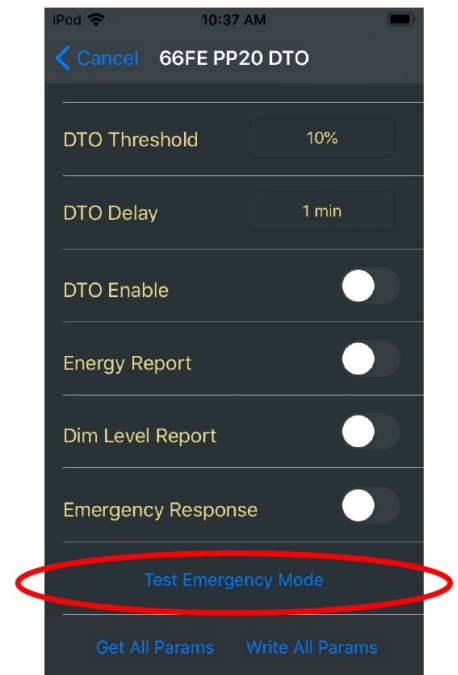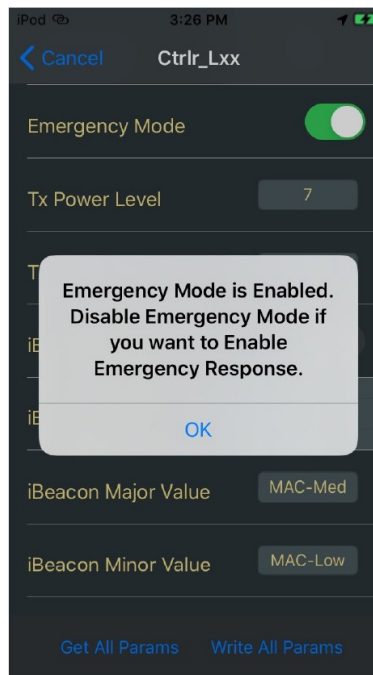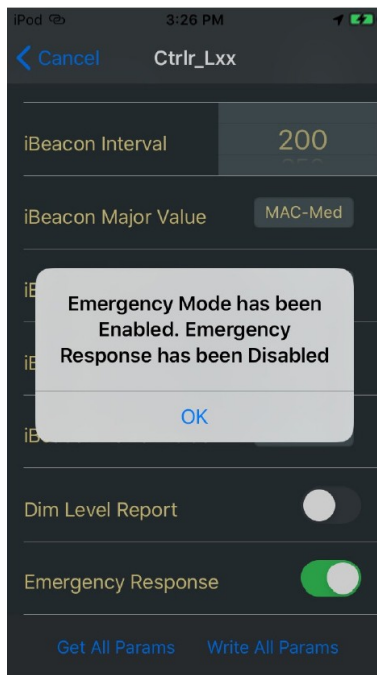
8. SETUP ROOM CONTROL

Setup: **Room Control**

1. See office or Building Manager for parameters
2. Enter parameters
3. Press DONE

- Control zones 1-4 in the room
- Control 4 pre-defined Preset in the room (High, Medium, Low, and OFF)

universaldouglas

More than lighting. Solutions.

Your Universaldouglas representative:

LIT#: AT-APP-FM031122

Douglas Lighting Controls