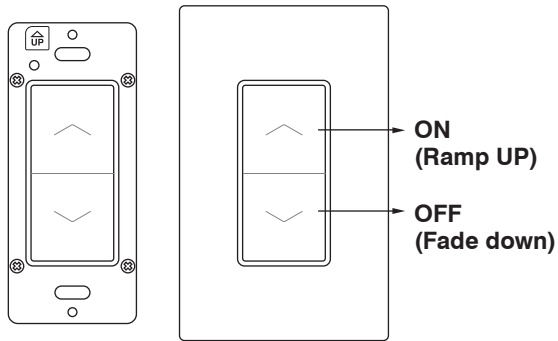




## ON-PBD-705 series

Line Voltage OS-NET Button

### INSTALLATION INSTRUCTIONS



Indoor dry location use only  
Utilisation a L'interieur Uniquement

#### WARNING & CAUTION

- Risk of Electrical Shock – Turn off the power at circuit breaker before installing or servicing.
- This device should be installed by a qualified electrician in accordance with electrical codes and regulations.
- Install the device at least 1 ft. away from any occupant.

#### AVERTISSEMENT & PRUDENCE

- Risque de choc électrique - Débranchez l'alimentation avant l'entretien.
- Installer et utiliser ce dispositif conformément aux codes et règlements électriques.

Industry Canada statement: IC: 22993-705WS4WP401

This device complies with ISED's licence-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

### OVERVIEW

The ON-PBD-705 series is an optional device of IR-TEC's OS-NET wireless mesh network solution designed to replace an existing wall switch/dimmer and broadcast manual on/off/dim control commands to the lighting group assigned.

This sleek, low profile device can be mounted into a standard NEMA wall box, operated by line voltage power, and provide wireless control required by users. Each ON-PBD-705 can be assigned to control up to 4 lighting groups via a 2-way handheld remote programmer.

A screwless snap-on Decora wall plate is supplied to create a modern, high-end appearance for all spaces. By grouping the ON-PBD-705 with OS-NET sensors, you can effortlessly achieve an energy-efficient, code-compliant smart lighting control through a state-of-the-art wireless sensor mesh network with manual controls capability for presentation or special event.

#### Federal Communication Commission Interference Statement FCC ID: NRIWS470500

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

#### Radiation Exposure Statement:

The product comply with the FCC portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

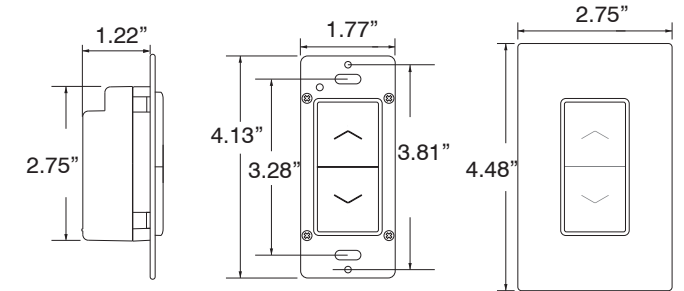
#### Radiation Exposure Statement:

The product comply with the Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

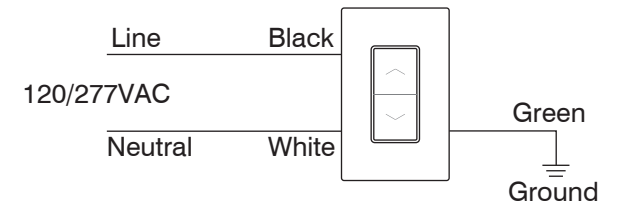
#### Déclaration d'exposition aux radiations:

Le produit est conforme aux limites d'exposition pour les appareils portables RF pour les Etats-Unis et le Canada établies pour un environnement non contrôlé. Le produit est sûr pour un fonctionnement tel que décrit dans ce manuel. La réduction aux expositions RF peut être augmentée si l'appareil peut être conservé aussi loin que possible du corps de l'utilisateur ou que le dispositif est réglé sur la puissance de sortie la plus faible si une telle fonction est disponible.

### DIMENSIONS



### WIRING DIAGRAM

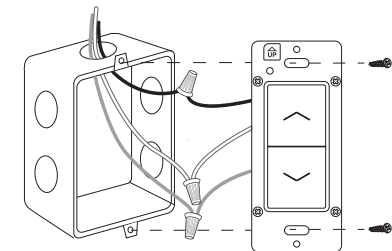


### INSTALLATION

1. Lead the wires and strip the insulation with proper length for connecting.
2. Connect the wires with the device according to the wiring diagram shown above.

**NOTE:** The ON-PBD-705 requires connecting neutral wire for operation. To replace the existing wall switch with no neutral wire, you may substitute the switched line wire for the neutral of lighting in accordance with electrical codes and regulations.

3. Carefully set the wires and mount the device into the wall box with screws provided.



**NOTE:** Do NOT mount the device upside down.



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This product may be covered by one or more U.S. patents or patent applications. Please visit [www.irtec.com](http://www.irtec.com) for more information.



## CONFIGURATION

After complete the installation, each OS-NET Button should be grouped and linked with the OS-NET network to enable group control. An ungrouped OS-NET Button is functionless.

Programming Guide



**NOTE:** For the first time configuration, please learn the basic operation of SRP-281 from the OS-NET Programming Guide.

## CREATE A NEW OS-NET NETWORK

**NOTE:** You may skip this section and start grouping the device if the target network has been created.

To create a new OS-NET network, you can use EZ-GROUP to group two OS-NET devices with the same group within 1 minute. More details are available from the OS-NET Programming Guide.

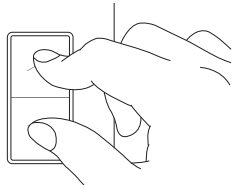
## INITIAL GROUPING

Every installed OS-NET Button should be assigned with its controlled group(s) to enable group control. For an ungrouped OS-NET Button, please follow the instructions below for initial grouping.

### 1. Enter Configuration Mode

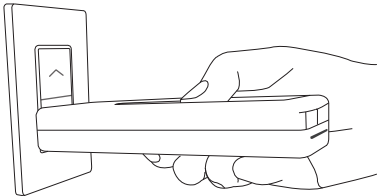
Press and hold the **UPPER** and **LOWER** parts of the button for more than 3 seconds to enter the configuration mode. The LED indicator of OS-NET Button will blink twice per second in BLUE (ungrouped).

Press and hold for more than 3 seconds.



### 2. Assign to the group(s)

Conduct EZ-GROUP process and assign to the group(s) via the OS-NET Remote Programmer (SRP-281) as below shown. Refer to the EZ-GROUP instructions of Programming Guide for more details.



Hold the remote close to the OS-NET Button as shown to conduct grouping.

**NOTE:** The button will automatically exit configuration mode after grouping successfully. If grouping fails, the button will remain in the configuration mode for another 90 seconds. If no configuration has been conducted within 90 seconds, the OS-NET Button will automatically exit configuration mode.

To exit configuration mode manually, press and hold the **UPPER** and **LOWER** parts of button for more than 3 seconds.

## CHANGE GROUP

To change the group assignment of an OS-NET Button, follow the instructions below;

### 1. Enter Configuration Mode

Press and hold the **UPPER** and **LOWER** parts of the button for more than 3 seconds to enter the configuration mode. The LED indicator of OS-NET Button will blink twice per second in GREEN (grouped).

### 2. Change to the new group(s)

Input the new group number(s) on the EZ-GROUP setting page. Assign the OS-NET Button to the new group(s) in the same was as INITIAL GROUPING.

## DEVICE ACKNOWLEDGEMENT

The OS-NET Button will acknowledge setting success or failure with different indications by device LED.

DEVICE LED	ACKNOWLEDGEMENT	REMARKS
Slow blinking (once per 2 seconds) in BLUE.	The button is unlinked.	IR communication disabled.
Blinks twice per second in BLUE.	The button is in configuration mode but not grouped.	IR communication enabled. Device will exit configuration mode after 90 seconds if no configuration is performed.
Blinks irregularly in BLUE or GREEN.	Receiving commands from the remote.	GREEN means the device is network linked. BLUE means the device is unlinked.
Fast blinking in GREEN and BLUE intermittently.	Scanning for an open network and linking.	Fast blinking only appears during network linking.
Lit for 2 seconds in GREEN.	Grouping completed.	Exit configuration mode automatically.
Blinks twice per second in GREEN.	The button is linked and in configuration mode.	Device will exit configuration mode after 90 seconds if no configuration is performed.

## OPERATION

A short press at upper/lower part of the button will transmit a command to turn on/off the lighting of groups assigned. Press and hold at upper/lower part of the button will increase/decrease the output level of grouped lighting respectively.

### 1. Turn On the light

A SHORT press ( $\leq 0.5$  second) at the UPPER part of button will transmit a command to turn on the grouped lighting. Light will stay on as long as the grouped sensor(s) detects the occupancy, and the grouped sensor will resume control after the area is vacated.

### 2. Turn Off the light

A SHORT press ( $\leq 0.5$  second) at the LOWER part of button will transmit a command to turn off the grouped lighting. The grouped sensor will resume control after the delay time elapsed.

### 3. Ramp up the light

A LONG press ( $\geq 0.5$  second) at the UPPER part of button will enter into dimming adjustment mode to increase the output level of grouped lighting. Intermittent press on the button during dimming control mode will adjust the output level step by step. The device will exit from dimming adjustment mode 2 seconds after the last button operation.

### 4. Fade down the light

A LONG press ( $\geq 0.5$  second) at the LOWER part of button will enter into dimming adjustment mode to decrease the output level of grouped lighting. Intermittent press on the button during dimming control mode will adjust the output level step by step. The device will exit from dimming adjustment mode 2 seconds after the last button operation.

**NOTE:** After changing the dim level, allow the LED bar to turn off before trying to switch on/off.

When the OS-NET Button is in configuration mode, all operation through the button will be void.

## SPECIFICATIONS

Power voltage	120/277VAC, 50/60 Hz
Wireless protocol	Modified Zigbee Light Link (ZLL)
Radio frequency	2.4 GHz
Radio range	Typical 50 ft. @ indoor
Radio Power output	2.27 dBm
Op. humidity	Max 95% non-condensation
Op. temperature	14°F ~ 122°F (-10°C ~ 50°C)
Dimensions	4.13"H x 1.77"W x 1.65"D (w/mounting plate)

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