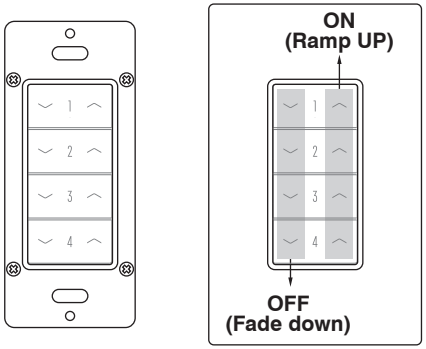
ON-PBD-708 series

Line Voltage 4-Channel OS-NET Button

INSTALLATION INSTRUCTIONS



Indoor dry location use only
Utilisation a L'interieur Uniquement

APPLICABLE REMOTE (order separately)

Model	Description	Remarks
SRP-281	OS-NET Remote Programmer	Full functionality

⚠ 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: 22993-708WS7WP401

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-708 is a 4-channel wireless button switch and dimmer for OS-NET wireless lighting control solution. This line voltage powered device can be mounted into a standard NEMA wall box to provide wireless manual on/off and dimming control to comply with the requirements from the latest energy codes.

The ON-PBD-708 can be easily connected with an OS-NET wireless mesh network formed by a number of OS-NET devices by a 2-way handheld remote programmer (SRP-281). Total 4 channel buttons can be individually configured to control 1 to 4 lighting groups as required. A short press at RIGHT (⌒) part of the button will turn ON, and LEFT (⌣) will turn OFF the lighting groups assigned to the channel. Press and hold at RIGHT (⌒) part of the button to ramp up, and LEFT (⌣) to fade down the lighting output of the group(s) assigned.

With this wireless control device, you can effortlessly achieve an energy-efficient, code-compliant smart lighting control through a state-of-the-art wireless sensor mesh network with manual control capability.

Federal Communication Commission Interference Statement FCC ID: NRIWS770800

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.

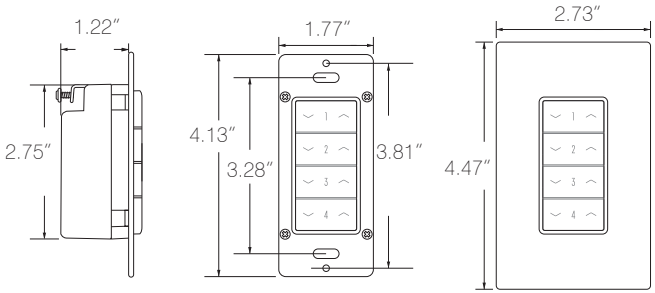
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

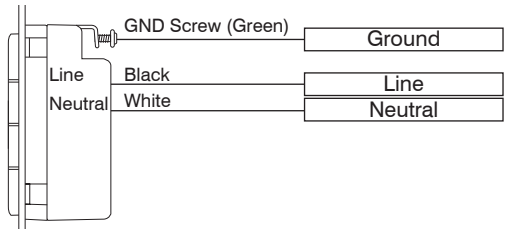
Radiation Exposure Statement:
This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment.
This equipment should be installed and operated with greater than 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:
Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé.
Cet équipement doit être installé et utilisé à plus de 20cm entre le radiateur et votre corps.

DIMENSIONS

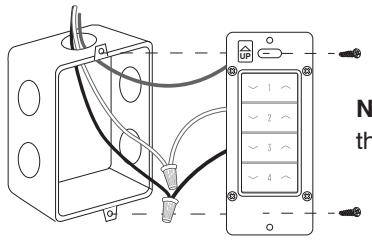


WIRING DIAGRAM



NOTE: This device requires neutral wire connection. For the wall box without neutral, the wire of "switched line" may be lead to connect with the "neutral" of lighting power instead. Consult with qualified electrician for code compliant.

INSTALLATION



NOTE: Do NOT mount the button upside down.

1. Lead the wires and strip the insulation with proper length of conductor for connecting.
2. Connect the wires to the device according to the wiring diagram shown.
3. Carefully set the wires and mount the device into the wall box with screws provided.

   NOTE: Ensure to place the device at least at 1.5m (5 ft.) away from any Wi-Fi router as they can mask or delay signals.

www.irtec.com P/N: 058-70800-003 Printed in Taiwan
This product may be covered by one or more U.S. patents or patent applications.
Please visit www.irtec.com for more information.

CONFIGURATION

After installed, each OS-NET Button should be grouped and linked with the same OS-NET network to enable manual control of grouped lighting. **An "ungrouped" OS-NET Button is functionless.**

Programming Guide

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

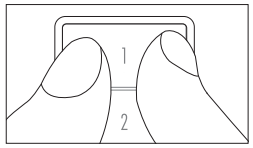
Creating a New OS-NET Network

To create a new OS-NET network, ensure no other "open" OS-NET at site. Use the EZ-GROUP function to assign two "ungrouped" devices with the same group within 1 minute.
NOTE: If the target network already existed and unlocked, skip this section and start adding the device to the network.

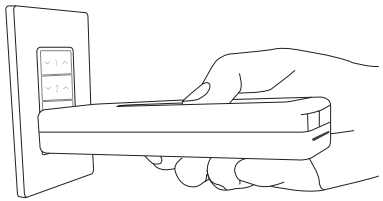
Adding the Button to an Existed Network

To add an installed OS-NET Button to an existed network, ensure that the target network is **UNLOCKED**. Follow the operation instructions below;

1. Enter into Configuration Mode
Press the **LEFT** and **RIGHT** parts of the button (ex. channel 1) and hold for more than 3 seconds to enter the Configuration Mode. The LED of respective button will blink 2 times per second in **BLUE**.



2. Assign group(s) to the channel
Conduct EZ-GROUP process and assign group(s) to the respective channel via the OS-NET Remote Programmer (SRP-281) as below shown. Refer to the EZ-GROUP instructions of Programming Guide for more details. The LED of respective button will blink in BLUE and GREEN alternately while linking with network. The LED will light in GREEN for 2 seconds to indicate grouping success. To continue assigning group(s) to other channels, repeat step 1 and 2 on the respective channel buttons.



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

NOTE: The button will automatically exit Configuration Mode after a successful grouping. If grouping fails, the LED will blink twice per second in BLUE and the button will stay in the Configuration Mode for another 90 seconds. If no configuration conducted within 90 seconds, the device will exit the Configuration Mode.
To exit Configuration Mode manually, press the LEFT and RIGHT parts of the channel button and hold for more than 3 seconds.

Changing Group Assignment

To change the group(s) already assigned to a channel, ensure the network is UNLOCKED and operate as instructed below;

Press the LEFT and RIGHT parts of the channel button and hold for more than 3 seconds to enter the Configuration Mode. The LED of the button will blink 2 times per second in GREEN.

Input the new group number(s) on the EZ-GROUP setting page of the remote. Repeat "Assign group(s) to the channel".

Resume Factory Default

1. To resume factory default, enter into the Configuration Mode via any channel button.
2. Get an OS-NET Remote (SRP-281) and enter to SETTING > DEVICE > INDIV-SET > DEFAULT.
3. Select DEVICE and press ENTER to reset the network and group settings for the device.

NOTE: The device LED will indicate in BLUE after resume factory default.

DEVICE ACKNOWLEDGEMENT

The device will acknowledge setting results with different LED indications as below.

Device led	Acknowledgement	Remarks
All LEDs blink in BLUE once per 2 seconds	The device is UNLINKED.	IR communication is DISABLED.
The LED of selected channel blinks in BLUE or GREEN twice per second.	The selected channel is in configuration mode. Blue means the device is unlinked, GREEN means the device is networked.	IR communication ENABLED. If the LED of other channel lit in GREEN, it means that channel has been grouped.
The LED of selected channel blinks in BLUE or GREEN irregularly.	The device is receiving commands from the remote.	BLUE means the device is unlinked, GREEN means the device is network linked.
All LEDs are in GREEN and BLUE alternately.	The device is scanning for an open network and linking.	Fast blinking only appears during network linking.
The LED of selected channel lit in GREEN for 2 seconds. .	Grouping and network linking completed.	Exit configuration mode automatically.
The LED of selected channel lit in BLUE for 2 seconds.	Factory default completed.	

OPERATIONS

1. Turn On the light
A SHORT press (≤0.5 second) at the RIGHT part of the channel button will transmit a command to turn ON the grouped lighting. Light will stay on as long as any of the grouped sensor(s) detects occupancy. Grouped sensor(s) will resume control after the area is vacated.

2. Turn Off the light
A SHORT press (≤0.5 second) at the LEFT part of the channel button will transmit a command to turn OFF the grouped lighting. Grouped sensor will resume control after the delay time elapsed.

3. Ramp up the light
A LONG press (≧0.5 second) and hold at the RIGHT part of the channel button will enter into dimming mode and ramp up the grouped lighting output to maximum 100%. Intermittent press on the button during dimming mode will step up the output level gradually. The device will exit from dimming mode 2 seconds after the last button operation.

4. Fade down the light
A LONG press (≧0.5 second) and hold at the LEFT part of the channel button will enter into dimming mode and fade down the grouped lighting output to 10% and OFF. Intermittent press on the button during dimming mode will step down the output level gradually. 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 of the device to exit from dimming mode.

SPECIFICATIONS

Power voltage	120/277VAC, 50/60 Hz
Wireless protocol	Modified Zigbee Light Link (ZLL)
Radio frequency	2405 - 2475MHz
Radio range	Typical *50 ft. @indoor
Radio power output	4.69 dBm
Control channel	4
Control group	1-4 per channel
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)

*Actual radio range may differ depending on environmental conditions. Always do a site survey to understand existing Wi-Fi usage.