



A Simpler and Smarter Wireless Lighting Control Solution

Programming Guide

IR-TEC America, Inc.

590 W. Central Avenue

Brea CA 92821

TEL: 1-855-GOIRTEC

FAX: 1-714-255-1452

E-mail: info@irtec.com

OS-NET Programming Guide

Table of Contents

1. OS-NET INTRODUCTION	3
2. BASIC OPERATION	3
OPERATION NOTES	4
2.1 MAIN MENU	5
2.2 ON/OFF CONTROL	5
2.3 SETTING	5
2.4 UPLOAD	6
2.5 DOWNLOAD	6
3. SETTING	7
3.1 SETTING ITEMS	7
3.2 GROUP LINK SETTING	8
• EZ-GROUP	8
• ADVANCED	8
• UNGROUP	8
3.3 CREATING A NEW OS-NET NETWORK	9
3.4 ADDING MORE OS-NET DEVICES TO AN EXISTING NETWORK	9
3.5 DEVICE SETTING	9
• CONTROL	9
• AMBIENT LUX	11
• DELAY	11
• TIME OFF	11
• HIGH DIM	12
• LOW DIM/SmartDIM	12
• RAMP UP	12
• FADE DOWN	12
• VM-TB	12
• VM-TA	12
• SENSITIVITY	12
• BURN-IN	12
• TEST (10-MIN)	12
• LED INDICATOR	12
• DEFAULT	13
3.6 LOCK/UNLOCK	13
3.7 SAVE/RECALL	14
• SAVE AS	14
• RECALL	14
4. SETTING ACKNOWLEDGMENT INDICATION	15

OS-NET Programming Guide

1. OS-NET Introduction

Thank you for your interest in OS-NET, a simpler and smarter wireless lighting control solution developed by IR-TEC to enable sophisticated controls on every luminaire and lighting circuit. The OS-NET is also a wireless sensor mesh network simultaneously deployed through installing the OS-NET enabled luminaires and lighting circuits. The OS-NET enabled luminaire refers to the luminaire integrated with an OS-NET Sensor, and the OS-NET enabled lighting circuit refers to the power line electrically controlled by an OS-NET Sensor.

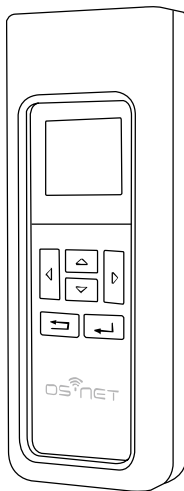
The OS-NET network is formed by a number of wirelessly connected OS-NET devices; mainly refer to the OS-NET Sensors (ONS) and the OS-NET Buttons (ONB). Each device not only provides its distinctive functionalities, but also operates as a node to transmit, receive, or forward wireless communication commands within network.







After installing an OS-NET enabled lighting system, every OS-NET device should be grouped and linked with the network to enable smart lighting control as desired via operating a SRP-281, a 2-way IR remote programmer exclusively designed for configuring OS-NET devices. This guide is prepared to help conduct all necessary configurations and settings correctly. Please read through all the contents prior to any programming operation.

2. Basic Operation

The SRP-281 is a handheld programming tool for you to configure the settings of OS-NET network and devices. In addition, it can also be used as a remote to manually turn on/off the OS-NET enabled lighting in individual/group basis.

Before operating the SRP-281, ensure that good batteries are correctly placed in the compartment. Press any button will activate the MAIN MENU for operating. 6 buttons are available for operation with distinctive functions described as below;

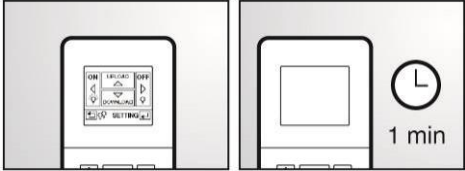
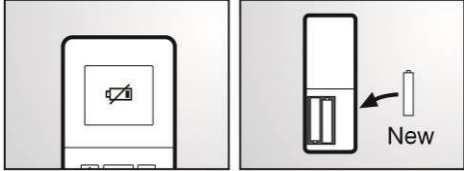
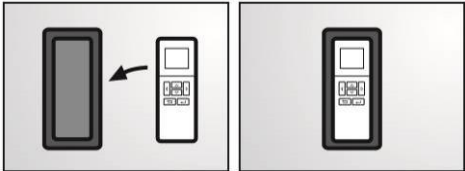
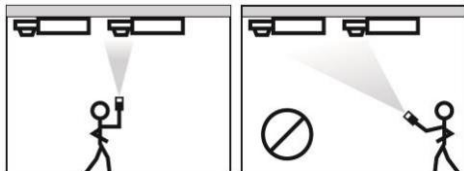
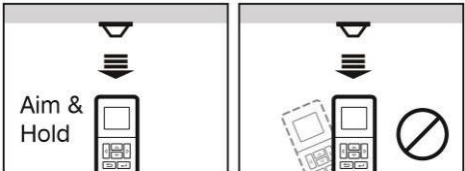
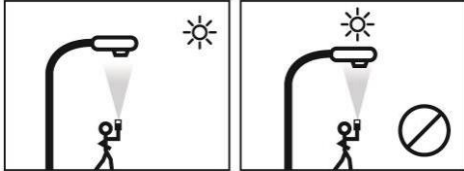

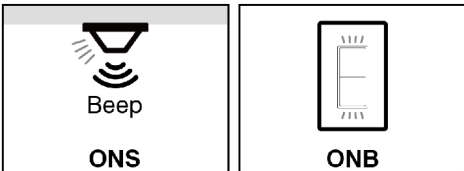


BUTTON	MAIN MENU	SETTING PAGE
	Enter into UPLOAD page	Move UP setting bar
	Enter into DOWNLOAD page	Move DOWN setting bar
	Turn ON the controlled light	Decrease the setting
	Turn OFF the controlled light	Increase the setting
	Enter into SETTING pages	Confirm the operation Upload the setting
	Swop individual/group on-off	Back to previous page

The contents of this guide are prepared according to the SRP-281 available at the time when the guide is created. Due to continuous product improvement efforts, certain contents may not be updated in time. Should you find any typo or incorrect contents, we would appreciate if you can report to info@irtec.com.

OS-NET Programming Guide







OPERATION NOTES

<p>The LCD will automatically shut off 1 minute after the last button operation to save the battery power. Pressing any button will activate the LCD.</p> 	<p>If low battery sign appears while activating the LCD, please replace with new batteries as soon as possible.</p> 
<p>The rubber sleeve not only protects the remote from falling, but also ensures better programming reliability. Always have the rubber sleeve on the remote.</p> 	<p>To avoid programming to the nearby sensor, always aim and hold the remote "right under the target sensor" while uploading.</p> 
<p>To ensure successful download, always aim the remote under the target sensor and hold until download completed. Do NOT remove during downloading.</p> 	<p>Strong light on the window of remote could affect remote operation. Avoid downloading the sensor with strong light nearby or direct sunlight from the back.</p> 
<p>Some setting operations may be inhibited if the network is locked. Ensure to unlock the network prior to setting change or adding new devices.</p> 	<p>The OS-NET Sensor will beep and blink the LED to acknowledge successful setting, and the OS-NET Button will blink the LED to acknowledge successful setting.</p> 

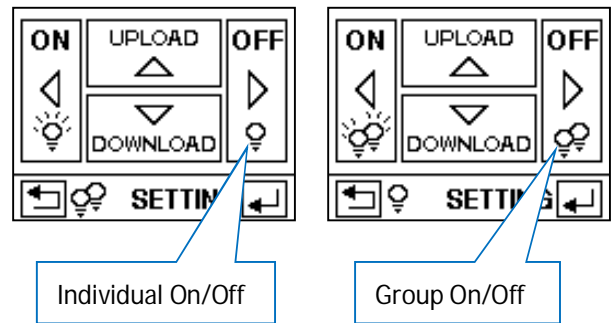
OS-NET Programming Guide

2.1 MAIN MENU




The main menu allows you to conduct basic operations as below;

- To enter into SETTING pages, press 
- To conduct UPLOAD operation, press 
- To conduct DOWNLOAD operation, press 
- To turn OFF the light, aim at the sensor and press 
- To turn ON the light*, aim at the sensor and press 
- To swop individual or group control, press 

*OS-NET will resume control after the delay time elapsed.
















2.2 ON/OFF CONTROL

Press the  /  button with remote aiming toward an OS-NET Sensor will turn ON/OFF the lights in individual or group basis. You may press the  button to swop the individual or group on/off control.

If a single-lamp (5) displays as the above left, it means that pressing the ON/OFF button will turn on/off only the lights physically controlled by the individual OS-NET Sensor. If a double-lamp (5 5) displays as the above right, it means that pressing the ON/OFF button will turn on/off all lighting groups of the OS-NET Sensor assigned.

2.3 SETTING










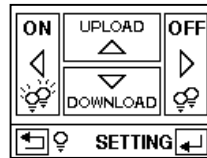
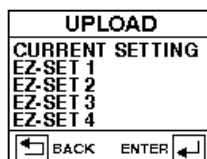

The SETTING pages allow you to setup/change the settings of OS-NET devices, including group link, device control, save/recall, and lock/unlock. The following are general instructions for SETTING operation. More details are available in section 3.

Operation Instructions	Displays
<ol style="list-style-type: none"> 1. Press  to enter into SETTING pages from MAIN MENU. 2. Press  or  to select the setting option and press  to enter. GROUP LINK (Group the device and link to the network) DEVICE (Set how the sensor will control the connected light) LOCK/UNLOCK (Lock/unlock the network) SAVE/RECALL (Save/recall the control settings) 3. Press  or  to select the setting item, press  to enter. Press  or  to select the desired parameter. 4. After all items are selected, aim the remote at the target device and press  to upload the setting data. 5. If you want other sensors to have identical setting, just aim at the sensor and press  to duplicate the setting. 	<ol style="list-style-type: none"> 1. MAIN MENU  2. SETTING options 
<p>NOTE: To setup newly installed OS-NET sensors, complete the GROUP LINK setting for all sensors first. Then execute the DEVICE control settings via GROUP-SET to save time.</p> <p>NOTE: It may take several seconds to complete data transmission, please aim and hold the remote right under the sensor while uploading.</p>	

OS-NET Programming Guide







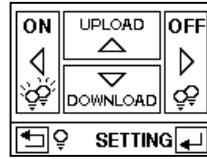


2.4 UPLOAD

The UPLOAD function allows you to configure sensor settings via simple remote operation. You may select the CURRENT SETTING or an EZ-SET profile for uploading to a specific OS-NET Sensor.

Operation Instructions	Displays
<ol style="list-style-type: none"> Press  to enter into UPLOAD pages from MAIN MENU with options below; CURRENT SETTING (Upload the current settings of the remote) EZ-SET 1 (Upload the EZ-SET 1 profile stored in the remote) EZ-SET 2 (Upload the EZ-SET 2 profile stored in the remote) EZ-SET 3 (Upload the EZ-SET 3 profile stored in the remote) EZ-SET 4 (Upload the EZ-SET 4 profile stored in the remote) Press  or  to select the profile for uploading. Press  to enter into next page with below options; GROUP LINK (Upload the group setting) DEVICE (Upload the device control setting) BOTH (Upload both the group and device control settings) Press  or  to select the data for uploading. Press  to confirm. Aim the remote at the target sensor and press  to upload the data. The remote will display UPLOAD OK following with a successful upload. If UPLOAD FAIL displays, press  to try again. 	<ol style="list-style-type: none"> MAIN MENU  UPLOAD pages   <p>NOTE: GROUP-SET is not available for UPLOAD operation, so you can only upload the setting to one sensor at a time. NOTE: It may take several seconds to complete data transmission, please aim and hold the remote while uploading.</p>

2.5 DOWNLOAD

The DOWNLOAD function allows you to read many data, including group member, device setting, current dim level, and current lux, from an installed sensor while you can also obtain basic information of the remote and network. The following are general instructions for DOWNLOAD operation.

Operation Instructions	Displays
<ol style="list-style-type: none"> Press  to enter into DOWNLOAD pages from MAIN MENU with below options GROUP INFO (Download the group info of target sensor) DEVICE SETTING (Download the control setting of target sensor) CURRENT DIM (Download the current dim level of target sensor) CURRENT LUX (Download the current lux level of target sensor) REMOTE INFO (Download the device info of the remote) DEVICE INFO (Download the device info of target sensor or button) NETWORK INFO (Download the network info of target sensor) Press  or  to select the download option, press  to confirm. Aim the remote at the target device (excl. REMOTE INFO) and press  to download the data. The remote will display DOWNLOAD OK follow with a successful download. If DOWNLOAD FAIL displays, press  to try again. 	<ol style="list-style-type: none"> MAIN MENU  DOWNLOAD pages   <p>NOTE: Downloaded data of GROUP INFO and DEVICE SETTING will be displayed on the respective pages. NOTE: It takes several seconds to complete data transmission, please aim and hold the remote while downloading.</p>

OS-NET Programming Guide

3. Setting


3.1 SETTING ITEMS

The table below highlights all setting items of the SRP-281. Due to distinctive functionality, most setting items and options are not applicable for OS-NET Button. The remote will display N/A to indicate not-applicable settings.

Setting	Item	Brief Description	ONS	ONB
GROUP LINK	EZ-GROUP	Easy group assignment to all OS-NET devices	√	√
	ADVANCED	Setting special control, such as pre-lighting or directional guide lighting	√	√
	UNGROUP	Disengage the device from the network connected	√	√
DEVICE	INDIV-SET	To set the sensing control scheme in individual basis	√	
	GROUP-SET	To set the grouped sensors with same control schemes and parameters	√	
	CONTROL	Available sensing control schemes of OS-NET sensor	√	
	AMBIENT LUX	Thresholds of ambient light level for OS-NET sensor to execute control	√	
	DELAY	Time that the sensor will turn off or fade down the controlled light after the area is vacated.	√	
	TIME OFF	Time that sensor will keep the light at low dim level after the DELAY time elapsed. Only available with the OSLATO control.	√	
	HIGH DIM	The output level set to control the light during occupancy, or when ambient light is lower than the threshold if daylight sensing control scheme is selected.	√	
	LOW DIM/ SmartDIM	Low dim is the output level set to dim the light when space is vacant. This setting will become SmartDIM bar if SmartDIM control is selected.	√	
	RAMP UP	The speed of lighting output increase.	√	
	FADE DOWN	The speed of lighting output decrease.	√	
	VM-TB	Time duration BEFORE Virtual Midnight. Only available if DSVM is selected.	√	
	VM-TA	Time duration AFTER Virtual Midnight. Only available if DSVM is selected.	√	
	SENSITIVITY	Occupancy sensing sensitivity. To disable the occupancy sensing capability, select OFF.	√	
	ON DELAY	Delay time to turn on the load after detecting the presence of occupant. This setting is reserved for HVAC control, N/A for lighting.		
	BURN-IN	Time duration for burn-in test. To conduct the burn-in test with uncertain duration, select MANUAL.	√	
	TEST	Sensor will control the light as the scheme set, but with 10 seconds delay. Automatic exit to resume normal control after 10 minutes.	√	
	LED INDICATOR	Enable or disable the LED indicator of OS-NET devices.	√	√
	DEFAULT	Resume factory default settings of the REMOTE or DEVICE.	√	
LOCK/ UNLOCK	LOCK	Close the network to inhibit OS-NET setting change.	√	√
	UNLOCK	Open the network to allow OS-NET setting change.	√	√
	AUTO LOCK	Automatically lock the network 12 hours after created.	√	√
SAVE/ RECALL	SAVE AS	Save the settings as an EZ-SET profile for future use.	√	
	RECALL	Recall an EZ-SET profile saved in the remote.	√	




OS-NET Programming Guide

3.2 GROUP LINK setting

GROUP LINK is a fundamental setting for all OS-NET devices of an OS-NET enabled lighting system. Every OS-NET device must be assigned to a group to link up the network. To conduct GROUP LINK setting, press  from MAIN MENU and select the GROUP LINK to enter the setting pages. Three options are available for selection.


● EZ-GROUP

EZ-GROUP setting allows you to quickly group and link the OS-NET devices to the network. Most group controls can be achieved by EZ-GROUP setting. Follow the procedures below to conduct EZ-GROUP setting;

1. After entering the EZ-GROUP page, you can see 4 lines of MBR OF GRP (Member of Group) for group number assignment. Each line represents a member of group to be assigned for the device.
2. Press  or  to select the group number (001-250) to be assigned for the target device. If the target sensor is a member of multiple groups, you should also select the group number for the 2nd, 3rd or 4th line.
3. Aim at the target sensor and press  to upload the grouping data while also linking up the network.

NOTE: The grouping sensor will blink its LED in **BLUE** and **GREEN** intermittently while linking up the network and eventually display in **GREEN** to indicate successful network linkage.

Changing Group

To change the group assignment of a specific device, enter the EZ-GROUP page and select the NEW group number(s) to be assigned, aim at the target device and press  to upload the grouping data. The sensor will switch on and off the connected light two times to acknowledge the group change.






● ADVANCED

Although most group controls can be achieved by EZ-GROUP setting, some specific spaces may require sophisticated group control. This would require the ADVANCED setting.

Example of special group control: When Zone A is occupied, the lighting of Zone A and B should be activated. But when Zone B is occupied, only the lighting of Zone B are required to be activated.

The group control of OS-NET Sensors is actually a combined operation of TRANSMITTING and RECEIVING groups. To achieve the above control, you can use EZ-GROUP to setup the OS-NET Sensors of Zone A and Zone B with respective group numbers. Then use the ADVANCED setting to change the number of TRANSMITTING or RECEIVING group of zone sensors. You can either add the group number of Zone B to the TRANSMITTING group of Zone A sensors, or add group number of Zone A to the RECEIVING group of Zone B sensors.

● UNGROUP

The UNGROUP setting can be used to off-link a specific OS-NET device from the connected network. Ungrouping an OS-NET device may be needed if the device has been mistakenly connected to the neighboring network. To ungroup an OS-NET device, select the UNGROUP under the GROUP LINK page, and press  to enter the UNGROUPING page. Press  or  to select YES and press  to confirm UNGROUPING. Aim toward the target device and press  again to ungroup.

NOTE: An ungrouped OS-NET Sensor can still control the connected lights in standalone basis as set, but an ungrouped OS-NET Button is functionless.

OS-NET Programming Guide

3.3 Creating a new OS-NET network

After installing the OS-NET enabled lighting system, a new OS-NET network should be created to link all devices to enable the group control. Follow the instructions below to create a new OS-NET network.

1. Ensure the field is free of open (unlocked) OS-NET network. See the NOTE below.
2. Assign the 1st OS-NET Sensor to its group (ex. 001). The LED indicator will blink from BLUE to GREEN and continue for a period of time. Please note that 001 is just an example, you can use any appropriate group number.
3. Assign the 2nd OS-NET Sensor to the same group (ex. 001) within 1 minute. The LED's of two sensors shall blink in BLUE and GREEN intermittently. If both sensors eventually display in GREEN, it means that an OS-NET network is created successfully.

NOTE: To verify if the field is clear of other OS-NET network, you can select a newly installed OS-NET Sensor and test with a temporary EZ-GROUP setting. Wait and observe the sensor LED after uploading the group setting data. If the sensor LED eventually turns to BLUE after the network linking process completed, it means that the field is clear. If the LED eventually displays in GREEN, it means that the field has an open OS-NET. Execute the UNGROUP process to off-link the testing sensor from the connected network to prevent cross-network group control which is normally undesired.

3.4 Adding more OS-NET devices to an existing network

To link more OS-NET devices to an existing network, you can continue to group the other OS-NET devices via EZ-GROUP setting. After the grouping command is duly received, the device will blink its LED while scanning for an open OS-NET and link up automatically. Continue grouping all other devices and then conduct the DEVICE control settings as required.

3.5 DEVICE setting

DEVICE setting is to configure how an OS-NET Sensor will control the connected lights. The network connected OS-NET Sensors can be configured in individual or group basis.

Setting an individual sensor

Select the INDIV-SET after entering the DEVICE setting page. Select the desired control scheme and parameters page by page and upload the settings to the target sensor. A single lamp sign (☺) will display at the upper right corner of all pages to indicate the settings are for individual sensor.

Setting all sensors in group basis

Select the GROUP-SET after entering the DEVICE setting page. Select the desired control scheme and parameters page by page and upload the settings to an OS-NET Sensor, all other sensors of the group will control the connected lights in the same scheme and parameters. A double lamp sign (☺☺) will display at the upper right corner of all pages to indicate the settings are for grouped sensors.

The following items are available for setting the OS-NET Sensors.

● CONTROL

Every OS-NET Sensor can be set to provide different sensing control schemes to the connected light, including typical on/off switching, bi-level or continuous dimming based on occupancy, vacancy and daylight sensing control strategies. Following table highlights all control schemes available for the OS-NET Sensor.

OS-NET Programming Guide

Scheme	Status	Day*	Night*	Description
ON/OFF	Vacant	OFF	OFF	Lighting will be inhibited when the ambient light level is higher than the set threshold, regardless of occupancy or vacancy. When the ambient light level is lower than the set threshold, the controlled light will be turned on automatically once the sensor detects the presence of occupant, and turned off after the delay time elapsed. NOTE: This is a typical occupancy sensing control scheme can be used with dimmable or non-dimmable lighting, but not HID.
	Occupied	ON/OFF	ON	
OSO	Vacant	Low Dim	Low Dim	When space is vacant, the lights will be maintained at Low Dim level. Whenever space is occupied, lighting output will be increased to High Dim level or continuously regulated to maintain within the pre-set range by SmartDIM control. NOTE: This is an occupancy sensing control scheme can be applied in areas that require 24-hour lighting. Do NOT use with non-dimmable lighting.
	Occupied	High Dim/ SmartDIM	High Dim/ SmartDIM	
OSLA	Vacant	OFF	Low Dim	Lighting will be inhibited if the ambient light level is higher than the set threshold, regardless of occupancy or vacancy. When the ambient light level is lower than the set threshold, the sensor will automatically control the light at Low Dim level. When sensor detects the presence of an occupant, lighting output will be increased to the High Dim level or continuously regulated within the pre-set range by SmartDIM control. After the delay time elapsed, lighting output will be reduced to Low Dim level or shut off if the ambient light is higher than the set threshold. NOTE: This is an occupancy sensing control scheme can be applied in spaces that require automatic lighting whenever ambient light level is lower than the set threshold. Do NOT use with non-dimmable lighting.
	Occupied	OFF	High Dim/ SmartDIM	
OSLATO	Vacant	OFF	OFF	Lighting will be inhibited if the ambient light level is higher than the set threshold, regardless of occupancy or vacancy. When the ambient light level is lower than the set threshold, and any sensor detects the presence of occupant, lighting output will be increased to High Dim level or continuously regulated to maintain overall lighting level within the pre-set range by SmartDIM control. After the delay time elapsed, lighting output will be reduced to Low Dim level for a period of TIME OFF delay before shut off. NOTE: This is an occupancy sensing control scheme can be applied in spaces that require maintaining Low Dim lighting for a period of time before shutting off. This scheme requires dimmable lighting to enable dimming control. If lighting is non-dimmable, the controlled lights will be shut off after the TIME OFF delay elapsed.
	Occupied	OFF	High Dim/ SmartDIM & Low Dim	
DSVM	Vacant	OFF	High Dim/ SmartDIM & Low Dim	Lighting will be inhibited if the ambient light level is higher than the set threshold. When the ambient light level is lower than the set threshold, the sensor will turn the light to High Dim level or continuously regulate the output to maintain overall lighting level within the pre-set range by SmartDIM control. Lighting output will be reduced to Low Dim level from a certain time before virtual midnight to a certain time after. NOTE: This is a daylight sensing control scheme can be applied in spaces that require automatically dimming the light to a low level between a certain time before and after virtual midnight. This scheme requires dimmable lighting to enable dimming control. If lighting is non-dimmable, the controlled lighting will remain full on whenever the ambient light level is lower than the set threshold.
	Occupied	OFF	High Dim/ SmartDIM & Low Dim	

*Day/Night refers to the condition when ambient light level is higher/lower than the threshold set.

OS-NET Programming Guide

Scheme	Status	Day*	Night*	Description
DSC	Vacant	OFF	High Dim/ SmartDIM	<p>The sensor will automatically turn on the light to High Dim level or continuously regulate the output to maintain overall lighting level within the pre-set range by SmartDIM control when the ambient light level is lower than the set threshold, and automatically turn off the light when the ambient light level is higher than the set threshold.</p> <p>NOTE: This is a daylight sensing control scheme can be applied in spaces that require automatic lighting whenever the ambient light is lower than the set threshold.</p> <p>This scheme requires dimmable lighting to enable dimming control. If lighting is non-dimmable, all lights will remain full on whenever ambient light level is lower than the threshold.</p>
	Occupied	OFF	High Dim/ SmartDIM	
VSC	Vacant	OFF	OFF	<p>The occupant would have to press the OS-NET Button to turn on the lighting group assigned. The sensor will control the lights at High Dim level or continuously regulate the output to maintain overall lighting level within the pre-set range by SmartDIM control. The sensor will control the connected lighting as per OSLATO.</p> <p>NOTE: This is a vacancy sensing control scheme can be applied in spaces that require users to manually turn on the light, and have the sensor turn off automatically.</p> <p>This scheme requires dimmable lighting to enable dimming control. If lighting is non-dimmable, the controlled lighting will be shut off after the TIME OFF delay elapsed.</p>
	Occupied	Manual ON	Manual ON	
OSB	Vacant	OFF	OFF/ Low Dim	<p>Lighting will be inhibited if the ambient light level is higher than the set threshold, regardless of occupancy or vacancy. When the ambient light level is lower than the set threshold and the first occupant is detected by a grouped sensor, the output of sensor connected light will be increased to High Dim level or continuously regulated within the pre-set range by SmartDIM control during occupancy, and the unoccupied areas of entire lighting group will brighten up to Low Dim level as background light. The entire lighting group turns off after the last person leaves and delay time elapsed.</p> <p>NOTE: This is an advanced occupancy sensing control scheme can be applied in open offices to provide background light level before the area of entire lighting group is vacant.</p> <p>Do NOT use this scheme to control non-dimmable lighting.</p>
	Occupied	OFF	High Dim/ SmartDIM	
OFF	Vacant	OFF	OFF	<p>Once this scheme is set, all OS-NET controlled lighting will remain off until another scheme is selected.</p> <p>NOTE: This is a manual control scheme can be used when you need the light to be off for a certain period of time.</p>
	Occupied	OFF	OFF	

*Day/Night refers to the condition when ambient light level is higher/lower than the threshold set.

● AMBIENT LUX

AMBIENT LUX represents various thresholds of ambient light level for the OS-NET Sensor to execute the daylight harvesting control. The higher the lux value is, the brighter the ambient light level. DISABLE means disabling the ambient light sensor that will allow the OS-NET Sensor to execute the control regardless of the ambient light level. CURRENT means to set the current ambient light level as the day/night threshold.

● DELAY

DELAY represents the time that OS-NET Sensor will turn off or dim the light to a low level after the area is vacated.

● TIME OFF

TIME OFF represents the time that OS-NET Sensor will keep the light at low dim level after the DELAY time elapsed. TIME OFF setting is only available with OSLATO control.

OS-NET Programming Guide

● HIGH DIM

HIGH DIM setting is to set the output level (in %) of connected lighting during occupancy, or when ambient light level is lower than the threshold if daylight sensing control is set. For StepDIM control, 8 levels ranging from 50% to 100% can be selected. If SmartDIM is set, the sensor will continuously dim the lighting output to maintain the overall area lighting level within the preset range.

● LOW DIM/SmartDIM

LOW DIM setting is to set the output level (in %) of connected lighting during vacancy. The sensor will regulate the lighting output at the set level. Setting the LOW DIM at 0 means light full off during vacancy. The LOW DIM setting will become a SmartDIM setting bar if the sensor is set with SmartDIM control. The LOW DIM level under SmartDIM control will be 50% of the SmartDIM level.

● RAMP UP

RAMP UP represents the speed of lighting output will be increased when sensor detects the presence of occupant. 3 options (INSTANT/SOFT/SLOW) are available for selection.

● FADE DOWN

FADE DOWN represents the speed of lighting output will be decreased by the Sensor. 3 options (INSTANT/SOFT/SLOW) are available for selection.

● VM-TB

VM-TB is to set the time period BEFORE Virtual Midnight. This setting is available only if DSVM control is set.

● VM-TA

VM-TA is to set the time period AFTER Virtual Midnight. This setting is available only if DSVM control is set.

● SENSITIVITY

SENSITIVITY is for setting the occupancy sensing sensitivity of OS-NET Sensor. For typical low bay applications, LOW sensitivity can be set to eliminate false-on triggering. For high bay applications, NORMAL or HIGH can be set to enhance the motion sensing capability.

For the areas contain with interference source for occupancy sensor, you may disable the occupancy sensing capability of local sensor by setting the SENSITIVITY OFF. For the sensor with occupancy sensing capability disabled, it will require the OCC signals from other sensors of the group to execute the control as programmed.

● BURN-IN

BURN-IN setting is to conduct a test on all connected lightings with full on for a period of time set (in hours) or manually control to start and stop the test by the remote.

● TEST (10-MIN)



A 10-minute TEST mode can be initiated for you to verify how the OS-NET Sensor will control the lights with a shorten delay (10 seconds). The sensor will automatically resume to normal control after 10 minutes. You may also exit from TEST mode anytime by giving the STOP command to the sensor.

● LED INDICATOR

This setting allows you to enable/disable the LED indicator of OS-NET device which is factory set as enabled.

OS-NET Programming Guide

● DEFAULT

DEFAULT allows you to resume factory default settings for the REMOTE or DEVICE if necessary. To resume factory default for an OS-NET Sensor, select DEVICE and press  while aiming the remote toward the target sensor. To resume factory default for the SRP-281 remote programmer, just select REMOTE and press .

3.6 LOCK/UNLOCK

To prevent unauthorized setting changes of OS-NET devices and ensure the independence of an existing OS-NET network, you should lock the network after completing the all settings.

LOCK is to close the network to inhibit most setting changes on the installed OS-NET devices.

UNLOCK is to open the network to allow setting changes on the installed OS-NET devices.

AUTO LOCK is a self-activated network protection that will automatically lock the network in 12 hours after it is created. The AUTO LOCK can be enabled to prevent accidental linkage by neighboring network in case of forgetting to lock the network after setting completed.

NOTE

1. A locked network still allows certain remote control operations, including Light ON, Light OFF, TEST, BURN-IN, current lux/dim and network data reading.
2. If setting the whole network requires more than 12 hours, and you cannot be sure about if any other OS-NET will be established within the field before settings complete, please enable the AUTO LOCK.

To LOCK an OS-NET network

1. Enter the LOCK/UNLOCK page and select LOCK.
2. Pointing the remote to an OS-NET device and press ENTER.

To UNLOCK an OS-NET network

1. Enter the LOCK/UNLOCK page and select UNLOCK.
2. Pointing the remote to an OS-NET device and press ENTER.

To enable AUTO LOCK

1. Enter the LOCK/UNLOCK page and select AUTO LOCK.
2. Press enter and select ENABLED.
3. Pointing the remote to an OS-NET device and press ENTER.

OS-NET Programming Guide

3.7 SAVE/RECALL

SAVE is to store a specific control scheme with preferred parameters as an EZ-SET profile in the remote for future use. RECALL is to recall the DEFAULT setting of a specific OS-NET device or an existing EZ-SET profile stored in the remote for uploading to the OS-NET Sensor.

NOTE: SAVE/RECALL is a remote operation that can be done without being at site.

● SAVE AS

To save the current settings as a new EZ-SET profile

1. Enter the SETTING page and navigate to the setting item.
2. Press or to select the desired parameter.
3. Continue setting on all other items as required.
4. Enter the SAVE AS page and select an EZ-SET profile (1-4) to be saved.
5. Press to save the settings as a new EZ-SET profile.

● RECALL

This operation allows you to recall the factory DEFAULT settings of an installed OS-NET Sensor or an EZ-SET profile to setup other OS-NET Sensors with identical parameters or certain parameters changed. The parameters of selected profile will be displayed on the respective setting pages for your review. Following table highlights the factory preset parameters of EZ-SET profiles.

Factory preset parameters of EZ-SET profiles

PROFILE	EZ-SET 1	EZ-SET 2	EZ-SET 3	EZ-SET 4
CONTROL	ON/OFF	OSO	OSLA	OSLATO
AMBIENT LUX	20	N/A	200	DISABLED
DELAY	5 MIN	3 MIN	10 MIN	5 MIN
TIME OFF	N/A	N/A	N/A	10 MIN
HIGH DIM	N/A	70%	70%	SmartDIM
LOW DIM	N/A	30%	30%	-
RAMP UP	N/A	SOFT	INSTANT	SOFT
FADE DOWN	N/A	SOFT	SLOW	SLOW
SENSITIVITY	HIGH	NORMAL	NORMAL	NORMAL

OS-NET Programming Guide

4. Setting Acknowledgment Indication

The OS-NET devices will acknowledge setting status with different indications by device LED and connected lights.

OS-NET Sensor

INDICATION	ACKNOWLEDGEMENT	REMARKS
Sensor LED fast blinking in GREEN and BLUE.	Sensor is scanning and linking to the network.	The fast blinking (on and off per 0.2 second) only appears during network linking.
Sensor LED blinks twice every 2-second in GREEN or BLUE.	The sensor detects occupant's motion.	GREEN means the sensor is network linked. BLUE means the sensor is unlinked.
Sensor LED blinks twice every 2-second for 5 minutes, and then 15-second after power applied.	The sensor is set with daylight sensing control. (DSVM or DSC)	GREEN means the sensor is network linked. BLUE means the sensor is unlinked.
Sensor short beeps twice.	Receiving a single setting or control command.	
Sensor beeps one long and two short. The connected lights on and off 2 times.	Multiple setting data (ex. grouping upload) UPLOAD successful.	
The connected lights on and off 2 times.	<ol style="list-style-type: none"> Factory default setting resumed. SmartDIM setting completed. 	

OS-NET Button

INDICATION	ACKNOWLEDGEMENT	REMARKS
Device LED blinking	Receiving commands from remote	
Device LED lit for 2 seconds	Grouping completed	
Device LED slow blinking	The device is unlinked	One flash per second
Device LED fast blinking	The device is scanning and linking to the network.	On and Off for every 0.2 second
Device LED blinks twice per second	Network linkage fail	