

# 32 Zone Wireless Receiver

Model:RP432EW4000A



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Complies with: EN 50131-3; EN 50131-5-3  
Grade 2 Class II

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### RED Compliance Statement :

Hereby, RISCO Group declares that this equipment is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. For the CE Declaration of Conformity please refer to our website: www.riscogroup.com.

### RISCO Group Limited Warranty

RISCO Group and its subsidiaries and affiliates ("Seller") warrants its products to be free from defects in materials and workmanship under normal use for 24 months from the date of production. Because Seller does not install or connect the product and because the product may be used in conjunction with products not manufactured by the Seller, Seller cannot guarantee the performance of the security system which uses this product. Seller's obligation and liability under this warranty is expressly limited to repairing and replacing, at Seller's option, within a reasonable time after the date of delivery, any product not meeting the specifications. Seller makes no other warranty, expressed or implied, and makes no warranty of merchantability or of fitness for any particular purpose. In no case shall seller be liable for any consequential or incidental damages for breach of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever.

Seller's obligation under this warranty shall not include any transportation charges or costs of installation or any liability for direct, indirect, or consequential damages or delay.

Seller does not represent that its product may not be compromised or circumvented; that the product will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; or that the product will in all cases provide adequate warning or protection. Buyer understands that a properly installed and maintained alarm may only reduce the risk of burglary, robbery or fire without warning, but is not insurance or a guarantee that such event will not occur or that there will be no personal injury or property loss as a result thereof.

Consequently seller shall have no liability for any personal injury, property damage or loss based on a claim that the product fails to give warning. However, if seller is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, seller's maximum liability shall not exceed the purchase price of the product, which shall be complete and exclusive remedy against seller.

No employee or representative of Seller is authorized to change this warranty in any way or grant any other warranty.

**WARNING:** This product should be tested at least once a week.

## ENGLISH

### Introduction

The LightSYS 2-Way Wireless Expander is a flexible unit that can be used either as a wireless expander when connected to the LightSYS security panel or as a stand-alone receiver, with support for up to 200 keyfobs and 2 outputs.

### Main features

- Support for RISCO's range of 2-Way wireless sounders, slim keypads, 8-button keyfobs and detectors
- Up to 4 2-Way wireless slim keypads
- Up to 32 supervised wireless zones (bus mode)
- Up to 16 multi-function keyfobs (bus mode)
- Up to 200 stand alone keyfobs (bus and stand-alone modes)
- Two utility outputs
- Rolling code technology
- Signal jamming detection
- Threshold-level calibration
- Tamper detection
- Transmitter supervision low battery detection
- Nominal center frequency: 868.65MHz or 433.92MHz or 915MHz
- Can be installed inside or outside the LightSYS main enclosure
- Up to two WL Expanders per LightSYS system

### Installation

The WL Expander can be mounted as a separate unit with its own plastic housing or as PCB inside the LightSYS main polycarbonate enclosure. For mounting the expander inside the LightSYS enclosure refer to the LightSYS installation manual.

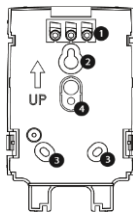
### Mounting considerations

When installed in its plastic housing: • Do not install the WL Expander close to metal objects and RF generating devices such as TV sets or computers. • Mount the expander at a height of at least 1.5 m (5 ft) above the floor. • Mount the expander relatively close and central to the transmitter locations.

### Wall Mounting

Figure 1 – Rear Panel

1. Screw cap
2. Upper mounting hole
3. Lower mounting holes (optional)
4. Wall tamper hole



1. Separate the mounting bracket from the main unit.
2. Use the mounting bracket as a marking template.
3. Tear off screw caps, as needed for covering front screw hole.
4. Mount the bracket to the wall.

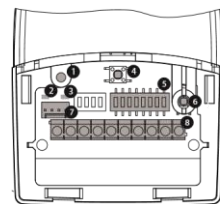


Figure 2 – WL Expander Layout (Cover Off)

1. Optional screw hole (used to fasten front and back covers)
2. Red LED
3. Green LED
4. Prog button
5. DIP switch
6. Box tamper
7. Bus Connector
8. Terminal block

Terminal (left to right)	Description
AUX Red	+13.8V power VDC. (In bus connection, connect to AUX on the LightSYS)
Com BLK	Black 0V common. (In bus connection, connect to COM on the LightSYS)



BUS YEL	Data bus connection (Not for SA mode)
BUS GRN	Data bus connection (Not for SA mode)
Relay 1 N.O.	12VDC @ 1A max Dry Contact Relays
Relay 1 COM	
Relay 1 N.C.	
Relay 2 N.O.	12VDC @ 1A max Dry Contact Relays
Relay 2 COM	
Relay 2 N.C.	

### Notes:

- 1 maximum wire run permitted is 300 meters (1,000 feet) total bus wiring regardless of the wiring gauge used.
- 2 n closing the cover use a screw cap located on the rear to cover the closing screw

### Bus Mode

(SW8 in OFF position)

### Dipswitch Settings

SW1- SW3	Three switches to set ID of the WL Expander.
SW4 – SW6	Three switches to set ID of the output expander.
SW7	UO expander Enable/Disable <b>Off:</b> Disable <b>On:</b> Enable
SW8	Operational mod <b>Off:</b> Bus mode <b>On:</b> Stand-alone mode

### LEDs Indication

LED	Condition	Description
<b>Power / Bus Communication (RED)</b>	Bus communication between the LightSYS and the WL Expander <b>Steady:</b> Bus Communication OK <b>Flash:</b> In Prog Mode OR Bus Communication trouble	
<b>WL Comm (GREEN)</b>	Communication between a WL device and the WL Expander <b>Steady:</b> Bus Communication OK <b>Flash:</b> Bus Communication trouble	

### Programming Steps in the LightSYS

The following instructions define the main programming steps for performing wireless expansion to the LightSYS using the expander. Two expanders can be allocated to the LightSYS. For full programming instructions refer to the LightSYS full installation manual.

1. Define the expander ID using switches [1]-[3]. The expander ID is set to 1 by default
2. Define the output expander ID using switches [4]-[6]

3. Allocate the WL expander to the system (Programming menu - Quick key [7 > 1 > 2 > 05])

### Note:

If VL Expander is installed inside the LightSYS enclosure the **s Tamper** must be defined as **Yes**

4. Allocate the relay outputs of the expander as an output expander (UO02) to the system (Programming menu - Quick key [7 > 1 > 2 > 03])
5. Calibrate the expander (Programming menu - Quick key [7 > 2 > 1])
6. Allocate wireless device (Programming menu - Quick key [7 > 2 > 2])
7. Perform communication test between the expander and the device (Main menu > Maintenance > Wireless Test)
8. Set the WL device parameters (Zones: Quick key 2 > 1, Keyfobs - Quick key 8 > 2) and the outputs parameters (Quick key 3)



### Stand Alone Mode (SW8 in ON position)

When the expander is set to Stand Alone mode it can support 200 keyfobs that can control its 2 outputs. Each output is controlled by a dedicated button. **Dipswitch Settings**

SW1 + SW2	Receiver operation mode:		
SW1	SW2	Mode	
OFF	OFF	Normal mode	
ON	OFF	Program mode	
OFF	ON	Restore to manufacturer settings	
ON	ON	Delete keyfobs	
SW3	Relay 1 / 2 <b>Off:</b> Relay 1 <b>On:</b> Relay 2		
SW4	Used to define the Relays operation <b>Off:</b> Pulsed <b>On:</b> Latched		
SW5	Setting pulse duration <b>Off:</b> Pulsed counter is off <b>On:</b> Pulsed counter is on		
SW6	Relay Fail secure / Relay fail safe <b>Off:</b> Fail secure: Relay will not change state while power is lost <b>On:</b> Fail safe: Relay will change state while power is lost.		
SW7	Changing output keys control in the keyfobs <b>Off:</b> Changing UO process in disabled <b>On:</b> Changing UO process in activated		
SW8*	Receiver mode <b>Off:</b> Bus mode <b>On:</b> Stand alone mode	* Receiver mode changes only after powering the receiver	

### Leds Indication

LED	Condition	Description
<b>Power / Bus Communication (RED)</b>	Receiver mode <b>Steady on:</b> Normal mode <b>Slow flash:</b> Learn mode = assign device <b>Quick flash:</b> Delete mode	
<b>WL Comm (GREEN)</b>	<b>One Pulse:</b> Confirmation during program mode <b>Flash:</b> In communication	


### Programming

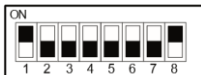
### Note:

Switch from bus mode to stand-alone mode, unplug the unit, set SW8 ON, then plug-in again.


### Enrolling Keyfobs

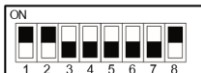
1. Set SW1 ON, SW2 OFF.
2. Press **Prog** button shortly. Red LED flashes slowly.

- Press the keyfob  key. Green LED lights steadily for confirmation.
- Repeat steps 2-3 to assign additional keyfobs.
- Press **Prog** to exit this mode.



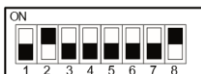
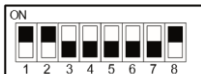
#### Deleting A Single Keyfob

- Set SW1 and SW2 ON.
- Press **Prog** button shortly. Red LED flashes slowly.
- Press the keyfob  key. The Green LED lights steadily for confirmation.
- Repeat steps 2-3 to delete additional keyfobs.



#### Deleting All Keyfobs

- Set SW1 and SW2 ON.
- Press **Prog** button for 5 seconds. Red LED lights steadily.
- When finished, Green LED lights steadily for confirmation.



#### Restoring to manufacturer default

- Set SW1 OFF, SW2 ON.
- Press **Prog** button shortly. Red LED flashes slowly.
- When finished, green LED lights steadily for confirmation.

#### Note:

Unless accessories will be erased.

#### Setting Relay Pulsed /

- Latched**
- Set SW1 ON, SW2 OFF.
  - Using SW3 select relay 1 (OFF) or relay 2 (ON).
  - Using SW4 select latched (ON) or pulsed (OFF).
  - Press **Prog** button for 5 seconds to change relay status. Green LED lights steadily for confirmation.
  - Repeat steps 2-4 for the second relay.

#### Setting Relay Pulse Duration

- Set SW1 ON, SW2 OFF.
- Using SW3 select relay 1 (OFF) or relay 2 (ON).
- Set SW4 OFF (pulsed).
- Set SW5 ON. The system is ready to start a counter for a pulse (5 minutes maximum).
- Press **Prog** button to start the timer. Red LED flashes slowly. Press **Prog** button again to stop the timer. Green LED lights steadily for confirmation.
- Set SW5 Off.
- Repeat steps 4-7 for the other relay.

**Changing Buttons for Outputs on the 4-Button Keyfob** By default, button 3 (small round key) of the keyfob controls output 1 and button 4 (egg shape) controls output 2. This can be changed for all the keyfobs that are already assigned to the WL Expander.

- Set SW1 ON, SW2 OFF.
- Set SW7 On.
- Press **Prog** button for 5 seconds. Red LED lights steadily.



- This will replace button 3 to button 1 and button 4 to button 2. Green LED lights steadily for confirmation.
- Set SW7 Off.

<b>Size:</b>	125.5 X 78 X 25.5 mm (4.94 X 3.07 X 1 inch)
<b>Frequency:</b>	RP432EW8 – 868.65 MHz RP432EW4 – 433.92 MHz RP432EW9 – 915 MHz

#### FCC ID:JE4RP432EW9

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.
- Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

#### FCC Note

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 on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Technical specification	
<b>Operating Voltage:</b>	13V +/- 10%
<b>Current consumption:</b>	Typical: 40 mA; max 65mA
<b>RF immunity:</b>	According to EN50130-3
<b>Range (L.O.S):</b>	300 meters
<b>Relay outputs:</b>	12VDC @ 1A max Dry Contact Relays
<b>Operating temperature:</b>	0°C to 49°C (32°F to 120°F)
<b>Storage temperature:</b>	-20°C to 60°C (-4°F to 140°F)