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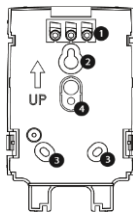
1. Separate the mounting bracket from the main unit.
2. Use the mounting bracket as a marking template.
3. Tear off screw caps, as needed for covering front screw hole.
4. Mount the bracket to the wall.
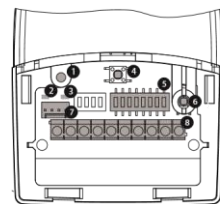
Wiring the WL Expander

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.	
Relay 1 COM	
Relay 1 N.C.	12VDC @ 1A max Dry Contact Relays
Relay 2 N.O.	
Relay 2 COM	
Relay 2 N.C.	12VDC @ 1A max Dry Contact Relays

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 **Off:** Disable **On:** Enable
SW8	Operational mod **Off:** Bus mode **On:** Stand-alone mode

LEDs Indication

LED	Condition	Description
Power / Bus Communication (RED)	Bus communication between the LightSYS and the WL Expander **Steady:** Bus Communication OK **Flash:** In Prog Mode OR Bus Communication trouble	
WL Comm (GREEN)	Communication between a WL device and the WL Expander **Steady:** Bus Communication OK **Flash:** 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:
WL 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 **Off:** Relay 1 **On:** Relay 2		
SW4	Used to define the Relays operation **Off:** Pulsed **On:** Latched		
SW5	Setting pulse duration **Off:** Pulsed counter is off **On:** Pulsed counter is on		
SW6	Relay Fail secure / Relay fail safe **Off:** Fail secure: Relay will not change state while power is lost **On:** Fail safe: Relay will change state while power is lost.		
SW7	Changing output keys control in the keyfobs **Off:** Changing UO process in disabled **On:** Changing UO process in activated		
SW8*	Receiver mode **Off:** Bus mode **On:** Stand alone mode	* Receiver mode changes only after powering the receiver	

Leds Indication

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

Programming
Note:
itch from bus mode to stand-alone mode, unplug the n, set SW8 ON, then plug-in again.
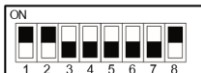
Enrolling Keyfobs
1. Set SW1 ON, SW2 OFF.
2. Press **Prog** button shortly. Red LED flashes slowly.

3. Press the keyfob 🔒 key. Green
   LED lights steadily for confirmation.
4. Repeat steps 2-3 to assign
   additional keyfobs.
5. Press **Prog** to exit this mode.
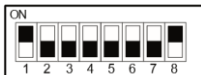
Deleting A Single Keyfob
1. Set SW1 and SW2 ON.
2. Press **Prog** button shortly.   Red
   LED flashes slowly.
3. Press the keyfob 🔒 key. The Green
   LED lights steadily for
   confirmation.
4. Repeat steps 2-3 to delete
   additional keyfobs.

Deleting All Keyfobs
1. Set SW1 and SW2 ON.
2. Press **Prog** button for 5 seconds.
   Red LED lights steadily.
3. When finished, Green LED lights
   steadily for confirmation.
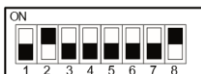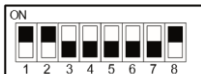
Restoring to manufacturer default
1. Set SW1 OFF, SW2 ON.
2. Press **Prog** button shortly.   Red LED flashes slowly.
3. When finished, green LED lights steadily for confirmation.

> **Note:**
>
> eless accessories will be erased.

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

Setting Relay Pulse Duration
1. Set SW1 ON, SW2 OFF.
2. Using SW3 select relay 1 (OFF) or relay 2 (ON).
3. Set SW4 OFF (pulsed).
4. Set SW5 ON. The system is ready to start a counter for a pulse
   (5 minutes maximum).
5. Press **Prog** button to start the timer. Red LED flashes slowly. 6.
   Press **Prog** button again to stop the timer. Green LED lights
   steadily for confirmation.
7. Set SW5 Off.
8. 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.
1. Set SW1 ON, SW2 OFF.
2. Set SW7 On.
3. Press **Prog** button for 5 seconds.
   Red LED lights steadily.
4. This will replace button 3 to button 1 and button 4 to button 2.
   Green LED lights steadily for confirmation.
5. Set SW7 Off.

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

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