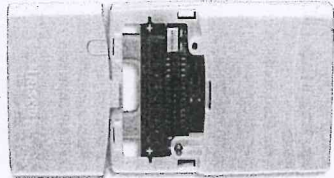


2-Way Wireless Expander

Espansione Radio Bidirezionale

Model / Modello: RP432EW



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Creating Security Solutions™
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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 keyfobs, 8-button keyfobs and detectors
- Up to 4 2-Way wireless slim keyfobs
- 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: 868.65 MHz or 433.92 MHz
- 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.

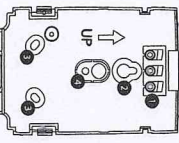
Mounting considerations

- 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

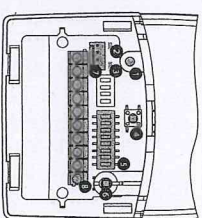
1. Screw cap
2. Upper mounting hole
3. Lower mounting holes (optional)
4. Wall tamper hole



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 VEL	Data bus connection (Not for SA mode)
BUS GRN	Data bus connection (Not for SA mode)
Relay 1 N.O.	Relay 1 N.O.
Relay 1 C.O.M.	Relay 1 C.O.M.
Relay 1 N.C.	Relay 1 N.C.
Relay 2 N.O.	Relay 2 N.O.
Relay 2 C.O.M.	Relay 2 C.O.M.
Relay 2 N.C.	Relay 2 N.C.

Notes:
1. The maximum wire run permitted is 300 meters (1,000 feet) for the total bus wiring regardless of the wiring gauges used.
2. When closing the cover use a screw cap located on the rear side to cover the closing screw.

Bus Mode (SW8 in Off position)

Dipswitch Settings

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

LEDs Indication

LED	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:

If the WL Expander is installed inside the LightSYS enclosure the **Bypass Tamper** must be defined as **Yes**.

4. Allocate the relay outputs of the expander as an output expander (UO2) to the system (Programming menu - Quick key [7 > 2 > 03])
5. Calibrate the expander (Programming menu - Quick key [7 > 2 > 2])
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	SW1	SW2	Receiver operation mode:
	ON	OFF	Mode
	OFF	OFF	Normal mode
	ON	OFF	Program mode
	OFF	ON	Restore to manufacturer settings
	ON	ON	Delete keyfobs



SW7 Changing output keys control in the keyfobs
Off: Changing UO process is disabled
On: Changing UO process is 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 Quick flash: Delete mode	
WL Comm (GREEN)	One Pulse: Confirmation during program mode Flash: In communication	

Note:

To switch from bus mode to stand-alone mode, unplug the system, 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 lights steadily.
3. When finished, Green LED lights steadily for confirmation.

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:

No wireless accessories will be erased

Setting Relay Pulses/Attached

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 Pulses/Attached

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 SW1 ON, SW2 OFF.
 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.
 5. Set SW7 Off.

