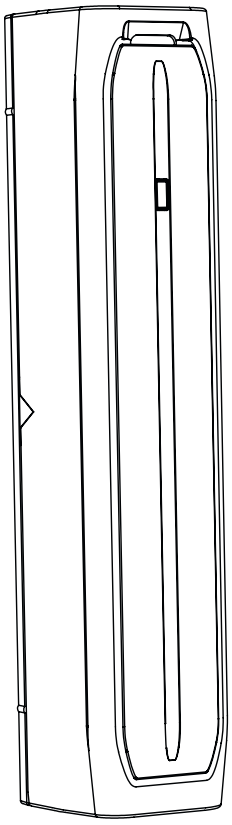
W-UZR-1

Installation instructions



Wireless Universal Zone Receiver Module

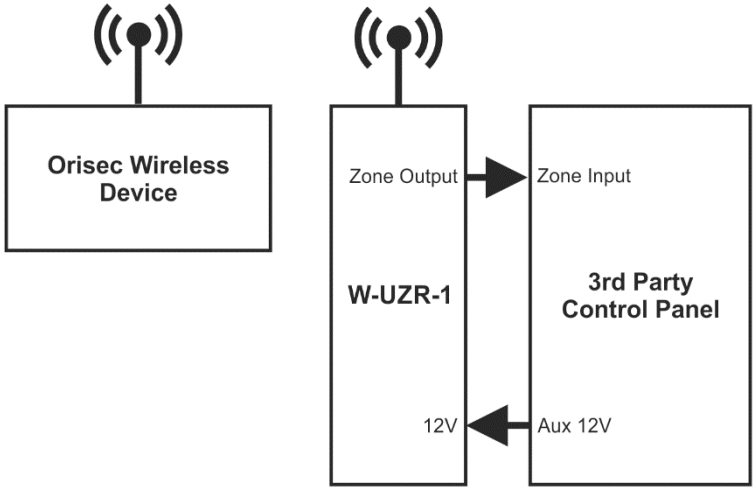
www.orisec.co.uk

Key Features

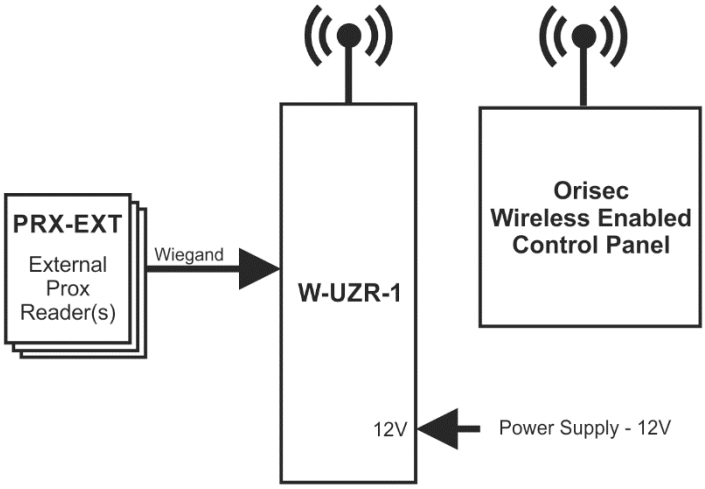
- Learn Orisec Wireless Device to 3rd Party Control Panels
- Supports Orisec Key Fobs, Detectors, External Sounders
- Supports Orisec Wireless Dual Technology Detectors*
- Programmable Zone Wiring
- Wiegand Interface for PRX-EXT
- Simple Enrolment
- 2 Way Wireless Communications
- Frequency Hopping Technology
- Grade 2
- White, Brown or Anthracite

* Requires "Armed" output on Control Panel

System Overview



Mode 1: Universal Zone Receiver Configuration

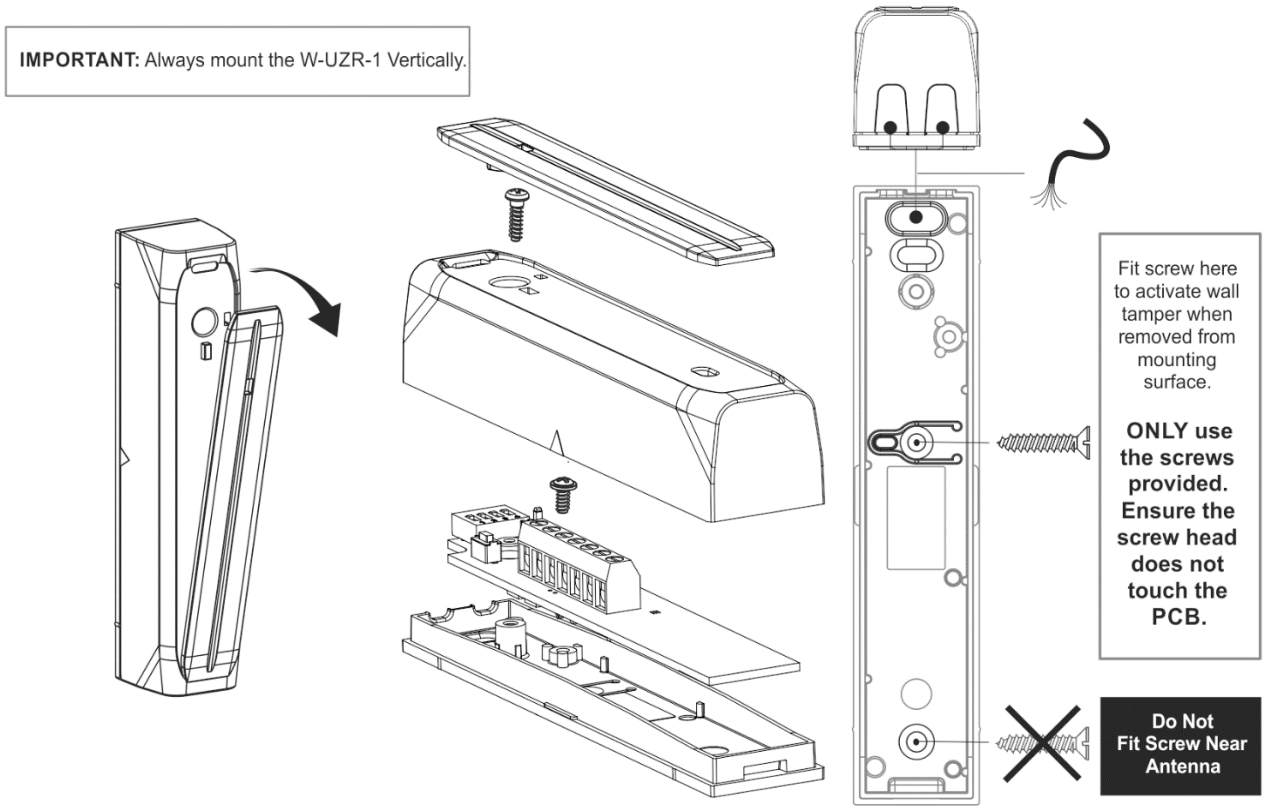


Mode 2: Wireless Wiegand Configuration

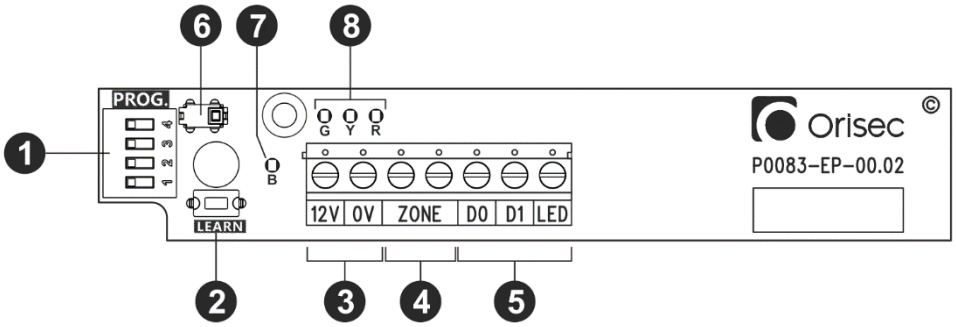
Compatible Orisec Wireless Devices

W-IR-100	W-XD1	W-SD-MC-C
W-IR-100-PET	W-XD1-DT	W-MC-C
W-QD-100	W-XD2	W-ACC-C
W-IR-200	W-XD2-DT	W-PA
W-IR-200-PET	W-XD4	EXT-PRX
W-QD-200	W-XD4-DT	W-ES-X20 (All Variants)
W-DT-300	W-SD	W-INT-CS
W-DT-300-PET	W-SD-MC	W-KF2
W-360-QD	W-SD-C	WKF4

Installation



PCB Layout



1. Program menu selection switch
2. Wireless learn, and program option select switch
3. Power supply input 12V DC.
4. Zone output to 3rd Party Control Panel (Wiring type is programmable)
5. Wiegand and wireless control interface.
6. Lid Tamper
7. Main Status LED – Blue: Healthy, Off: Device Alarm/Tamper, Flashing: Device Fault/Low Battery
8. Program mode options and device status LEDs:

   Healthy: ●
   Alarm: ●
   Tamper: ● ●
   Fault: ●

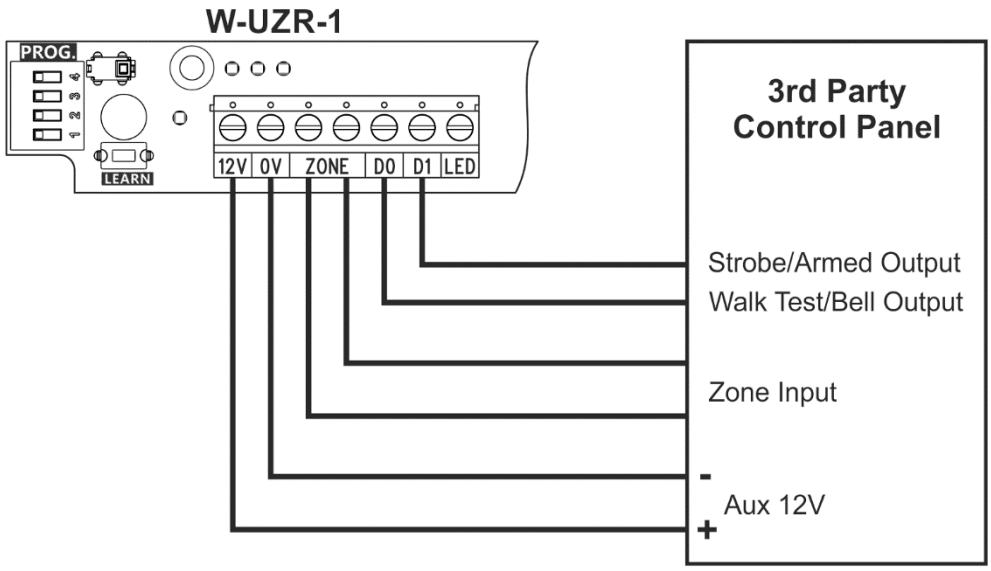
Learning an Orisec Wireless Device

Ensure the W-UZR-1 is powered from a suitable power source. An Orisec Wireless device is then learnt onto the W-UZR-1 as follows:

1. Select the "Device Learn Mode" by setting all DIP switches to menu 10 (all switches set to on)
2. The program mode option LEDs will light green if no device is learnt
3. Press the "Learn" button or the "Disarm" key on Wireless device for 1 second.
4. The program mode option LEDs should now light red to indicate a device has been learnt.

Mode 1: Connections to 3rd Party Control Panels

The W-UZR-1 is connected to 3rd party control panels as shown. Please refer to the manufacturer's installation manual for more information.



Zone Output

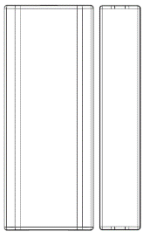
The Zone output on the W-UZR-1 is connected to the zone input on the 3rd party control panel. The zone output wiring type must be programmed to match the zone wiring type of the control panel. For example, if the control panel zone input uses EOL 1K/1K/3K then the zone output must be programmed the same, see menu option 1 in the Program Options section.

D0 and D1 Inputs

Depending on the wireless device that has been learnt, you may require the use of the D0 and D1 inputs for additional control of the wireless device, see menu option 9 in the Program Options section.

Applications Examples

The diagrams below show some typical examples:

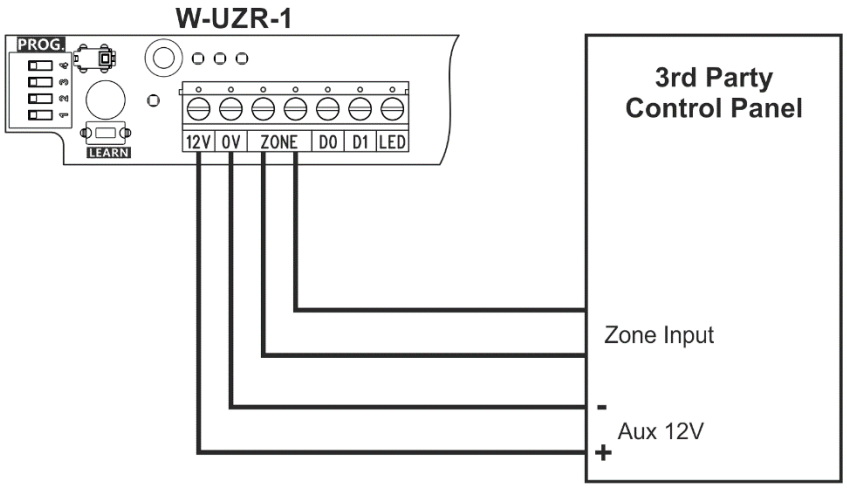


W-MC-C

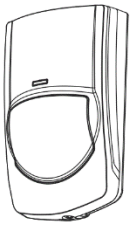
System Configuration

Menu 1: Zone Output Wiring programmed as “Normally Closed”.
Menu 9: LED Control programmed as “Off” .

Battery life is extended as the LED is disabled.
Alarm & Tamper are all signalled via Normally Closed output.
Fault/Low Battery is indicated by the main status LED.



Simple Wireless Detector

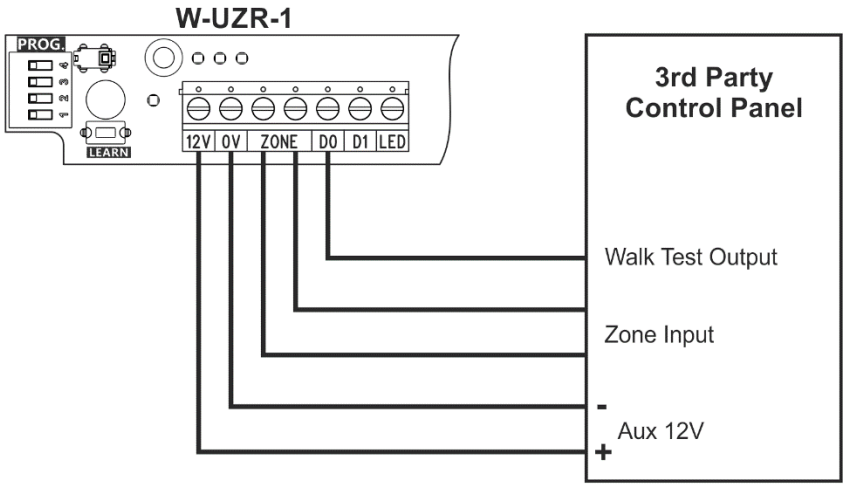


W-IR-100

System Configuration

Menu 1: Zone Output Wiring programmed as “2K2/4K7/2K2” (Triple EOL).
Menu 9: LED Control programmed as “D0/D1Control”.

Battery life is extended as the LED is only enabled in walk test.
Alarm, Tamper & Fault are all signalled via the Triple EOL output.



Wireless Detector with LED Control

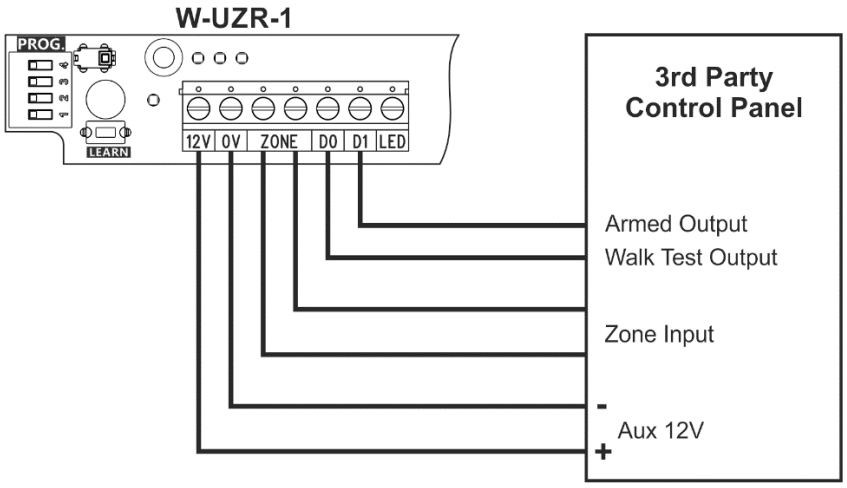
For **Dual Technology Detectors** connect an “Armed Output” on the Control Panel to D1 on the W-UZR-1 as shown below:

W-DT-300

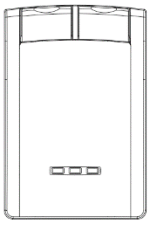
System Configuration

Menu 1: Zone Output Wiring programmed as “2K2/4K7/2K2” (Triple EOL).
Menu 9: LED Control programmed as “D0/D1Control”.

Battery life is extended as the LED is only enabled in walk test and Microwave is only enabled when the system is armed.
Alarm, Tamper & Fault are all signalled via the Triple EOL output.



Wireless Detector with LED & Microwave Control

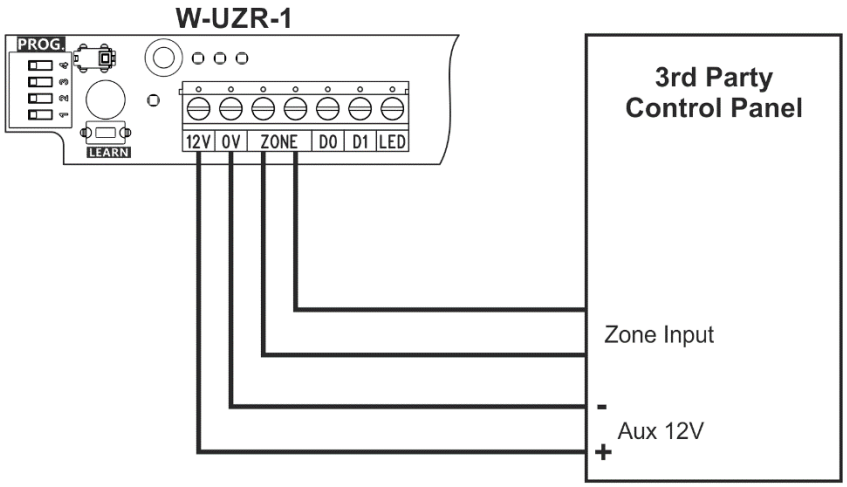


W-PA

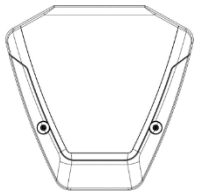
System Configuration

Menu 1: Zone Output Wiring programmed as “2K2/4K7/2K2” (Triple EOL)
Menu 9: LED Control programmed as “On”
Zone Input should be configured as “Panic Alarm”.

Alarm, Tamper & Fault are all signalled via the Triple EOL output



Wireless Panic Alarm

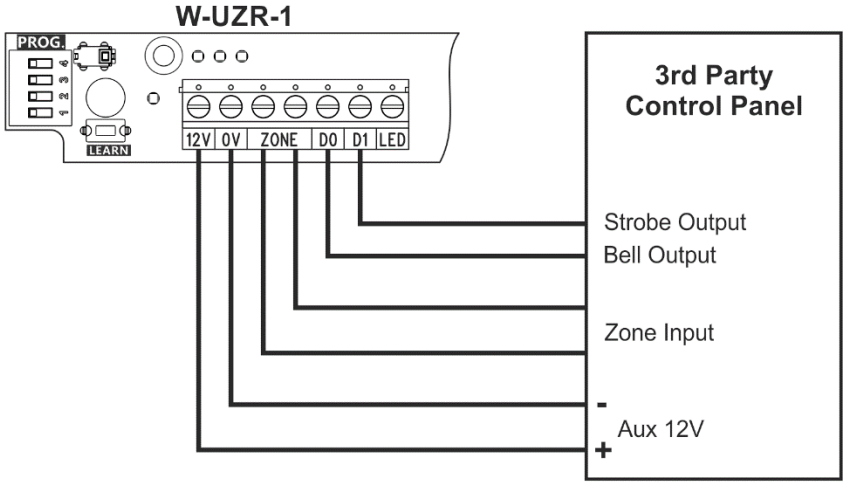


W-ES-120

System Configuration

Menu 1: Zone Output Wiring programmed as “2K2/4K7/2K2” (Triple EOL).
Menu 8: Comfort LEDs programmed as “Off”.
Zone Input should be configured as “Aux Tamper”.

Battery life is extended as the Comfort LEDs are disabled.
Alarm, Tamper & Fault are all signalled via the Triple EOL output.



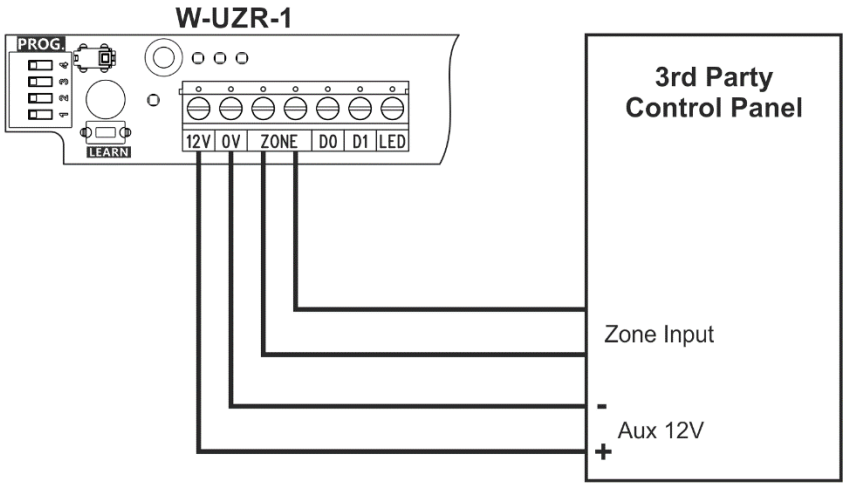
Wireless External Sounder

W-KF4

System Configuration

Menu 1: Zone Output Wiring programmed as “Normally Closed”
Zone input programmed as Keyswitch (Closed = Disarmed; Open = Armed).

Low Battery is indicated by the main status LED.



Arm/Disarm with Keyfob

Program Options

The W-UZR-1 has the following menu options:

0: Normal Operation/PRX-EXT

Use this option to learn the W-UZR-1 to any Orisec wireless enabled control panel when using the external proximity reader PRX-EXT (Mode 2).

1: Zone Output Wiring

Use this option to configure the zone output wiring type. The table below shows what options are available and how each event is reported to the 3rd party control panel:

Wiring Type	Wireless Device Status			
	Healthy	Alarm	Tamper	Low Batt/Fault*
Normally Closed	Closed Circuit	Open Circuit	Open Circuit	Open Circuit
2K2/4K7/2K2	2K2	6K9	Open Circuit	4K4
4K7/6K8/12K	4K7	11K5	Open Circuit	16K7
2K2/4K7/6K8	2K2	6K9	Open Circuit	9K0
1K0/1K0/3K0	1K0	1K0	Open Circuit	4K0
8K2/8K2/8K2	4K1	8K2	Open Circuit	12K3

* If the "D0/D1 Control" option is enabled in menu 9, low battery and fault events are only signalled when system is disarmed (D1=12V). If the "D0/D1 Control" option is not enabled, low battery and fault events are always signalled except for the "Normally Closed" wiring option.

2: Poll Time

Use this option to configure the polling time of the wireless device. If the device fails to poll, a fault condition is generated by the W-UZR-1.

3: OK Time

Use this option to control how long the wireless device must remain in a healthy state before a new alarm event is signalled to W-UZR-1.

4: Contact 1 & Contact 2

Use this option to enable or disable Contact 1 and Contact 2 inputs for wireless devices that support this feature.

5: Reed Switch

Use this option to enable or disable the reed switch for wireless devices that support this feature.

6: Vibration Sensor

Use this option to enable or disable the vibration sensor for wireless devices that support this feature.

7: Tamper Switches

Use this option to configure how tamper events are signalled back to the 3rd party control panel.

8: Wiegand Mode/Comfort LEDs

Use this option to configure the Wiegand format when using the W-UZR-1 to output Wiegand protocol. Alternatively use this option to control the comfort LEDs on a wireless external sounder.

9: LED Control & D0/D1 Inputs

Use this option to control the operation of the status LEDs and the D0/D1 inputs. When the option is programmed as "D0/D1 Control", the D0 and D1 inputs control the following:

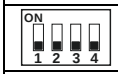
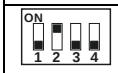
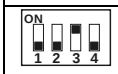
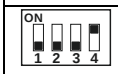
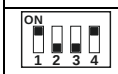
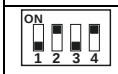
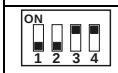
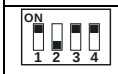
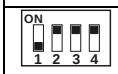
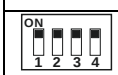
Device Type	D0	D1
Detectors	When D0 input is at 0V the status LED on the wireless device is enabled. This input should be connected to a switched -ve output that is active during Walk Test.	When D1 input is at 0V the microwave on the wireless device is enabled. The signalling of low battery and faults are also disabled. This input should be connected to a switched -ve output that is active when the system is armed.
Sounders	D0 is used to activate the sounder, Connect D0 to the control panel bell output.	D1 is used to activate the strobe, connect D1 to the control panel strobe output.

10: Device Learn Mode

Use this option to learn one of the supported wireless devices into the W-UZR-1.

Program Menu Selection and Options

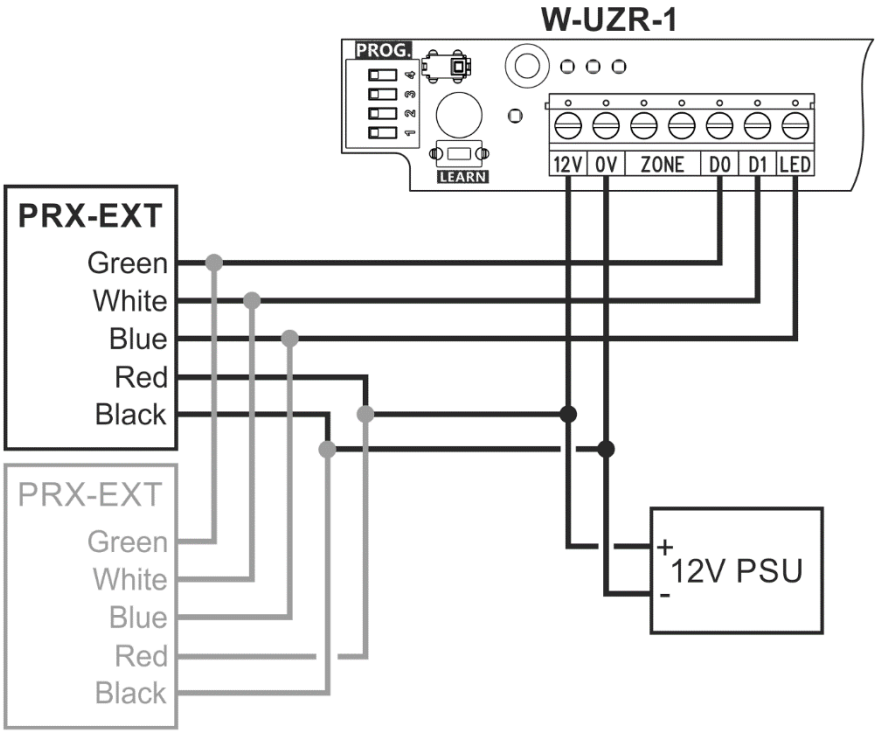
The 1 x 4-way bit switch (menu) is used to select the desired programming menu. Once the menu is selected the three status LED's indicate the current setting. The "Learn" button is then used to change the selected menu options:

Select	Menu	Options (Default setting show in Bold)
	0: Normal Operation/PRX-EXT	Learn W-UZR-1 to Orisec System (Wiegand)
	1: Zone Output Wiring	Normally Closed: **2K2/4K7/2K2:** 4K7/6K8/12K: 2K2/4K7/6K8: 1K0/1K0/3K0: 8K2/8K2/8K2:
	2: Poll Time	5 Minutes: 10 Minutes: 20 Minutes: 30 Minutes: 60 Minutes: 90 Minutes: **20 Minutes (Low Battery Warnings Only):**
	3: OK Time	**0 Seconds:** 5 Seconds: 10 Seconds: 20 Seconds: 30 Seconds: 60 Seconds:
	4: Contact 1 & Contact 2	Disabled: **Con 1 & Con 2 Enabled:** Con 1 Only: Con 2 Only: Con 1 Inverted Only: Con 1 Inverted & Con 2:
	5: Reed Switch	Disabled: **Enabled:**
	6: Vibration Sensor	Disabled: **Enabled:**
	7: Tamper Switches	Disabled: **Detector & Receiver enabled:** Receiver enabled only: Detector enabled only:
	8: Wiegand Mode/ Comfort LEDs	**26 BIT:** 34 BIT: Comfort LEDs Off: Comfort LEDs On:
	9: LED Control & D0/D1 Control	**Off:** On: D0/D1 Control:
	10: Device Learn Mode	No Wireless Device Learnt: Wireless Device Learnt:

Mode 2: External Proximity Reader PRX-EXT

One or more PRX-EXT can be connected to the W-UZR-1 to provide wireless connectivity of the external proximity reader(s) to a wireless enabled Orisec control panel. Once connected the system can be armed and disarmed using Orisec Proximity tags.

The Connection details for the PRX-EXT are shown below:



Learning the W-UZR-1 onto the Control Panel

Ensure the W-UZR-1 is powered from a suitable power source and menu 0 is selected (all switches off). The W-UZR-1 is then learnt onto the control panel as follows:

- Enter engineering mode
- Select "Setup Wireless Zones"
- Navigate to an available zone
- Scroll down to "Learn"
- Press the "Learn" button on the W-UZR-1 for 1 second.

Note

The W-UZR-1 cannot be used to learn proximity tags onto the system. Proximity tags must be learnt via the remote keypad or onboard keypad (if applicable).

Defaulting the W-UZR-1

To reset the W-UZR-1 to the factory defaults, simply apply power whilst holding down the “Learn” button to clear any wireless association and reset the program options.

Warranty

The Orisec W-UZR-1 is guaranteed against defects in material or faulty workmanship for a period of 2 years from the date of purchase.

Disclaimer: Orisec will not accept any liability based on a claim that the Orisec W-UZR-1 failed to perform correctly as it is a component part of an installation and not a complete intruder alarm system.

Regulatory

WEEE Directive: 2012/19/EU Compliant: This symbol indicates that according to local laws and regulations, this product should not be disposed of as municipal/household waste. Instead, it should be disposed of at the appropriate collection points designated for the recycling of electrical and electronic equipment or returned to Orisec upon purchase of new replacement products.

RoHS RoHS Directive: 2011/65/EU Compliant:

Orisec declares that this product complies with and conforms to RoHS legislation that it does not contain more than the agreed levels of: Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent chromium (Cr6+), Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE)

Specification

Supply Voltage:	12V DC
Current Consumption:	27mA,
Zone Output:	Programmable
Frequency:	868.65 MHz and 869.15 MHz
Typical Wireless Range:	> 150m line of sight
Dimensions (whd) mm:	25 x 123 x 29
Housing Thickness:	2.5mm
Product Weight:	50g
Packed Weight:	60g
Operating Temperature:	-20°C to +55°C
Storage Temperature:	-35°C to 60°C
Maximum Humidity:	95% non-condensing
Maintenance:	Annual Installer Check

Standards and Approvals

Security

PD6662:2017,

EN 50131-3:2009

EN 50131-5-3:2017

Grade 2, Class II

EMC / False Alarm Immunity

EMC Immunity:	EN 50130-4:2011
	+A1:2014
	EN 301 489-3 V1.6.1
Radiated Immunity:	80MHz to 2.7GHz
Electrostatic Discharge:	+/- 8kV
Fast Transient Immunity:	2kV
Radiated Emissions:	EN 55032:2015
	EN 300 220-2 V2.3.2

Conforms to European Union (EU) Electro-Magnetic Compatibility (EMC) Directive 2014/30/EU EMC Environment: Residential / Commercial / Light Industrial / Industrial

Conforms to RE Directive 2014/53/EU

www.orisec.co.uk

UK Based Technical Support
t: +44 (0) 1706 398740
e: support@orisec.co.uk

INS148