

# DECT ULE-PIR

## WIRELESS PIR DETECTOR

CR-DU-PIR  
CR-DU-PIR-USA



ELECTRONIC ENGINEERING LTD.

### INSTALLATION INSTRUCTIONS P/N 7102110 REV. A (O.Z.)

## INTRODUCTION

This DECT ULE PIR detector is an advanced, fully supervised low-current wireless detector that includes a DECT ULE transceiver for reliable system operation.

This DECT ULE PIR detector includes APS mechanism for extending the battery lives (see below to learn more).

This DECT ULE PIR detector includes series of messages for full communication administration (Keep Alive, Tamper Status, Battery Status, Alert, Configuration, etc.) as well as test transmission signals.

## FEATURES

- DECT ULE RF protocol.
- Low current Technology.
- Powered by a single 3V Lithium battery.
- Battery life: up to 4 years.
- Frequency Band: All DECT Standard Bands.
- Tamper Open/Close transmission.
- Keep Alive transmission.
- Battery status transmission.
- Bi-Color LED indications for monitoring & Pairing.
- Range up to 500m on open space.
- Back Tamper.
- Remotely configurable.
- Motion Detection up to 12m.
- Friendly Pairing and Installation processes.

## OPERATION

This DECT ULE PIR detector transmits the following events data:

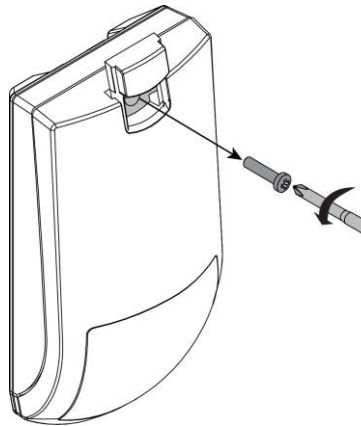
**KEEP ALIVE** – A periodical transmission indicating detector's presence. The time interval is configurable – the minimum value is 1 minute.

**ALARM** – Alarm transmission triggered by the device indicating Motion detection.

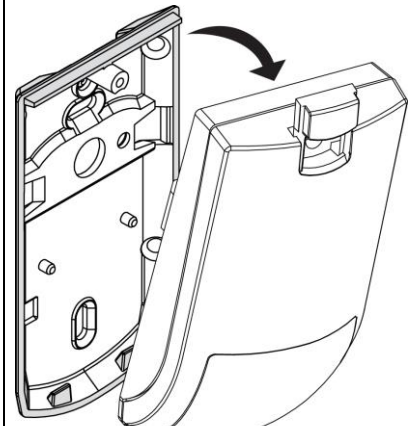
**LOW BAT** – Whenever the battery reaches a pre-set low level (~2.5V), a Battery Low signal will be sent. When Battery level drops below Cut Off level (~2.3V) the device will stop functioning and the Red LED will be constantly lighted On.

**TAMPER** – Whenever the cover is removed from Bracket or the device is tear off from the wall, a message will be transmitted with "Tamper ON" signal. When cover will be returned a "Tamper OFF" signal will be transmitted.

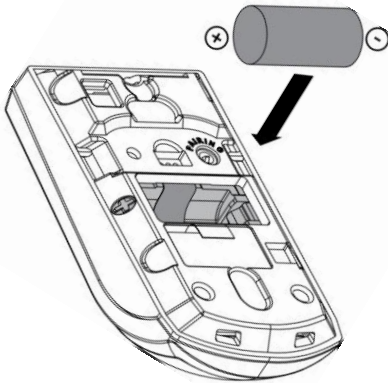
### FIGURE 1 – SEPARATE FROM BRACKET



### FIGURE 2 – SEPARATE FROM BRACKET



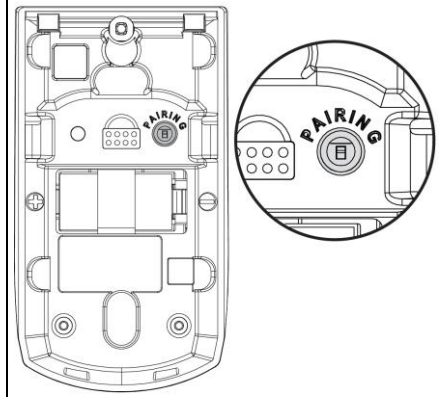
### FIGURE 3 - BATTERY PLACEMENT



## PAIRING PROCESS

1. Open the screw cover and unscrew the holding screw as shown in Figure 1.
2. Separate the device from the Bracket by tilting the front cover as shown in Figure 2.
3. Place a battery as instructed in Figure 3 and wait until the Red LED stops blinking.
4. Initiate the Base Station pairing process.
5. Initiate the PIR pairing process by pressing the pairing button for 5 seconds – the pairing button is shown in Figure 4. The Green LED will constantly turn On. When the Green LED starts blinking release the pairing button.
6. The device should register to the Base Station.
7. When registration process is successfully completed the Green LED will constantly light On for 3 seconds and then turn Off.
8. If registration process failed the Red LED will blink (remove the battery and run the pairing process again).

### FIGURE 4 - PAIRING



## SELECT MOUNTING LOCATION

Choose a location most likely to intercept an intruder. (Our recommendation is a corner installation). See Figure 6 - Detection Pattern. The detector is more sensitive detecting motion crossing the space in front of the detector then moving toward the detector.

Recommended mounting height – 1.9m-2.3m.

Avoid the following locations:

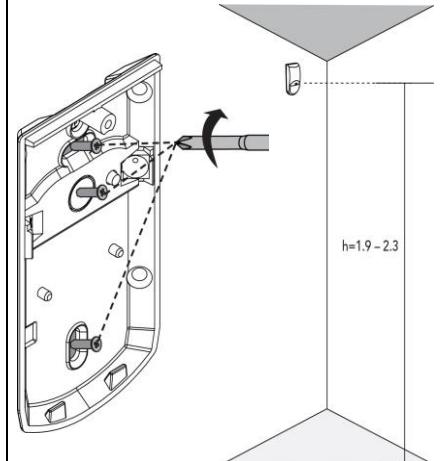
- Facing direct sunlight.
- Facing areas that may change temperature rapidly.
- Areas where there are air ducts or substantial airflows.

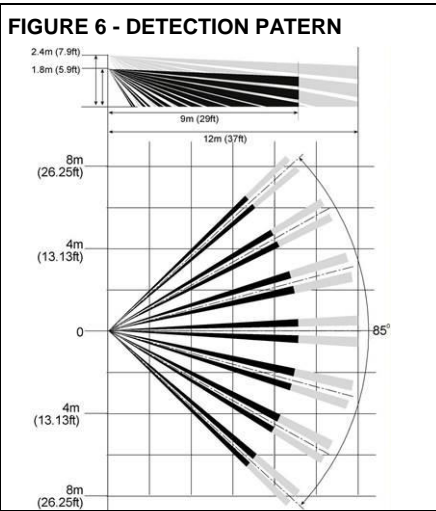
This device detect or performs better when provided with a constant and stable environment.

## MOUNTING THE DETECTOR

1. Open the screw cover and unscrew the holding screw as shown in Figure 1.
2. Separate the device from the Bracket by tilting the front cover as shown in Figure 2.
3. Mount the Bracket to the wall: place 3 screws and make sure you tighten the tamper screw - the middle screw.
4. For flat mounting on a wall use the middle 3 screws location as shown in Figure 5. For mounting in a 45 degrees position, use the 3 screws locations on the bracket's sides.
5. Place a battery as instructed in Figure 3 and wait until the Red LED stops blinking.
6. Initiate the Pairing process.
7. Place the device in the Bracket by inserting it back into appropriate position.
8. Fasten the holding screw and close the screw cover.

### FIGURE 5 - INSTALLATION





**TRANSMISSION TESTS**

**Tamper transmission test –**  
Changing the tamper switch state (by attaching / removing the device to / from the Bracket) will cause tamper transmissions. Verify receiving the indication on your Application / Base Station.

**Motion transmission test –**  
Waving hands or moving in front of the detector from one side to the other will cause Motion alert transmissions. Verify receiving the indication on your Application / Base Station. Pay attention that due to APS feature it is required waiting 2 minutes between 2 consecutive indications.

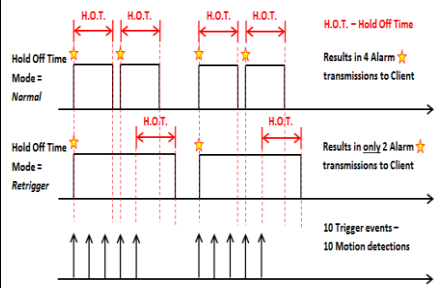
**Identification transmission test –**  
Use your Application / Base Station and send Identification Request to the device. The device will start blinking the Green & Red LEDs alternately – 5 times each LED starting with the Green LED.

**BATTERY REPLACEMENT**

1. Open the screw cover and unscrew the holding screw as shown in Figure 1.
2. Separate the device from the Bracket by tilting the front cover as shown in Figure 2.
3. Remove the in use battery from the device using the Red strip.
4. Return the Red strip to its location inside the battery holder and install the new battery in the correct polarity marking on the Red strip – as shown in Figure 3.
5. Wait until the Red LED stops blinking.
6. In case the device was paired to a Base Station the device should automatically register again to the same Base Station.
7. Place the device in the Bracket by inserting it back into appropriate position and validate receiving the Tamper Alert Off indication on your Application / Base Station.
8. Fasten the holding screw and close the screw cover.

**APS – AUTOMATIC POWER SAVE**

After the device will transmit Alarm On message a Hold Off Time prior will be started during which no additional Alarm transmission will be initiated. When the Hold Off Time prior will be elapsed the device will transmit Alarm Off message. Setting the Hold Off Mode to RETRIGGER will increase the Hold Off Time and will save more Battery.



**Reserved**

**Reserved**

**REGULATORY APPROVALS**

This DECT ULE PIR detector conforms to the essential requirements set out by:

- RTTE directive: 1999/5/EC
- EMC directive: 2004/108/EC
- Low Voltage directive: 2006/95/EC
- RoHS directive: 2011/65/EU

Harmonized Standards applicable to this products are:

- EN301406
- EN301489-6
- EN301489-1
- EN61000-6-3
- EN60950-1
- EN50581



**TECHNICAL SPECIFICATIONS**

RF Protocol	DECT ULE
Modulation Type	GFSK
Frequency	1880–1900 MHz - Europe 1920–1930 MHz - USA/Canada
Event Transmission	Alarm, Tamper, Keep Alive, Battery status.
Detection Method	Infra-Red
Range in open space	>500m
Battery	Lithium. 3V Type: CR123A Size: 2/3A
Battery life	4 years @ APS mode
Current Consumptions:	
Standby	11µA
Average	26µA
Maximum (TX)	250mA
Low Battery	2.5VDC
Cut Off Battery	2.3VDC
Transmit Power (Typ.):	23dBm (EURO), 20dBm (USA)
Tamper Switch	Back Tamper
Operating temperature	-10°C to +55°C
Dimensions	113mm x 61mm x 38mm
Weight	95 gr.
Weight (inc. battery)	110 gr.

**CAUTION !!!**

**RISK OF EXPLOSION IF BATTERY IS REPLACED BY DIFFERENT TYPE / MODEL.**  
**DISPOSE USED BATTERIES ACCORDING TO ITS INSTRUCTIONS**

*The battery must be replaced by 3V Lithium battery Size 2/3A Models such as:*  
**1. VARTA CR123A  
2. GP CR123A**

**CROW ELECTRONIC ENGINEERING LTD. ("Crow") - WARRANTY POLICY CERTIFICATE**

This Warranty Certificate is given in favor of the purchaser (hereunder the "Purchaser") purchasing the products directly from Crow or from its authorized distributor.

Crow warrants these products to be free from defects in materials and workmanship under normal use and service for a period of 24 months from the last day of the week and year whose numbers are printed on the printed circuit board inside these products (hereunder the "Warranty Period"). Subject to the provisions of this Warranty Certificate, during the Warranty Period, Crow undertakes, at its sole discretion and subject to Crow's procedures, as such procedures are from time to time, to repair or replace, free of charge for materials and/or labor, products proved to be defective in materials or workmanship under normal use and service. Repaired products shall be warranted for the remainder of the original Warranty Period. All transportation costs and in-transit risk of loss or damage related, directly or indirectly, to products returned to Crow for repair or replacement shall be borne solely by the Purchaser.

Crow's warranty under this Warranty Certificate does not cover products that is defective (or shall become defective) due to: (a) alteration of the products (or any part thereof) by anyone other than Crow; (b) accident, abuse, negligence, or improper maintenance; (c) failure caused by a product which Crow did not provide; (d) failure caused by software or hardware which Crow did not provide; (e) use or storage other than in accordance with Crow's specified operating and storage instructions.

There are no warranties, expressed or implied, of merchantability or fitness of the products for a particular purpose or otherwise, which extend beyond the description on the face hereof.

This limited Warranty Certificate is the Purchaser's sole and exclusive remedy against Crow and Crow's sole and exclusive liability toward the Purchaser in connection with the products, including without limitation - for defects or malfunctions of the products. This Warranty Certificate replaces all other warranties and liabilities, whether oral, written, (non-mandatory) statutory, contractual, in tort or otherwise.

In no case shall Crow be liable to anyone for any consequential or incidental damages (inclusive of loss of profit, and whether occasioned by negligence of the Crow or any third party on its behalf) for breach of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever. Crow does not represent that these products can not be compromised or circumvented; that these products will prevent any person injury or property loss or damage by burglary, robbery, fire or otherwise; or that these products will in all cases provide adequate warning or protection.

Purchaser understands that a properly installed and maintained product may in some cases reduce the risk of burglary, fire, robbery or other events occurring without providing an alarm, but it is not insurance or a guarantee that such will not occur or that there will be no personal injury or property loss or damage as a result.

Consequently, Crow shall have no liability for any personal injury; property damage or any other loss based on claim that these products failed to give any warning.

If Crow is held liable, whether directly or indirectly, for any loss or damage with regards to these products, regardless of cause or origin, Crow's maximum liability shall not in any case exceed the purchase price of these products, which shall be the complete and exclusive remedy against Crow.

**CROW ELECTRONIC ENGINEERING LTD.**

12 Kineret St.  
Airport City, 70100 Israel  
Tel. +972 3 9726000  
Fax. +972 3 9726001  
sales@crow.co.il  
support@crow.co.il  
[www.thecrowgroup.com](http://www.thecrowgroup.com)

**CROW LATIN AMERICA USA INC.**

7200 NW 19 st.  
Suite 307  
Miami FI 33126, USA  
Tel. +305 513 4001  
Fax. +305 513 4005  
rejane@crowlatinamerica.com  
[www.crowlatinamerica.com](http://www.crowlatinamerica.com)