

FW2-PIRCAM

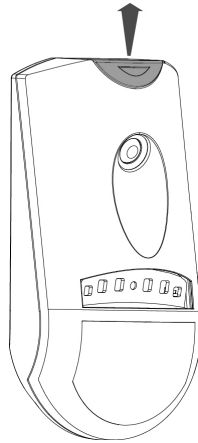
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**FREEWAVE™ WIRELESS PIRCAM
DETECTOR**



**INSTALLATION INSTRUCTIONS
P/N 7105088 REV. A**

FW2-PIRCAM



PIR CAMERA FEATURES

- Industry standard pet immune passive IR detection element
- Freewave2 advanced & secured RF protocol
- Low current Technology
- Tamper Open/Close transmission
- Supervision transmission
- Battery status send on every transmission
- Range up to 500m on open space.
- Unique ID number
- Front and back tamper.
- 110 degrees lens- mounted in factory
- Black/white CMOS camera with CIF resolution
- Optics for PIR and camera (90 degree PIR)
- 2 microcontrollers – DSP for image processing and communication processor.
- IR flashes for operating in low light conditions.
- Red indicator LED
- Wake up for listen RF mode – every 2 sec.

OPERATION

The Wireless PIRCAM detector transmits the following events data:

SUPERVISION - a periodical preprogrammed transmission. Indicates detector's presence.

SNAPSHOT IMAGES – a preprogrammed 1-5 images transmission on motion detection

ALARM - Alarm transmission triggered by PIR intrusion detection.

LOW BAT – Whenever the battery reaches a pre-set low level (~2.4V) Battery Low signal will be sent with the next scheduled message (Supervisor, Alarm, etc.).

TAMPER – Whenever the cover is removed or placed back, a message will be transmitted with "Tamper" signal.

FIG. 1 - REMOVAL OF FRONT COVER

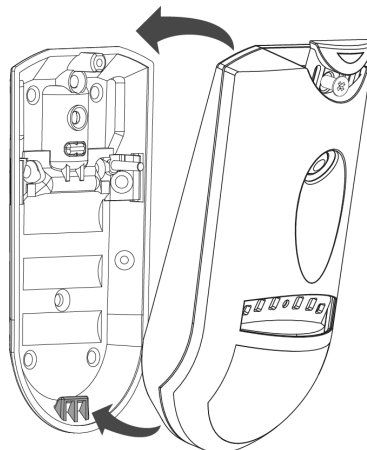


FIG. 2 -PIRCAM BASE INSTALLATION

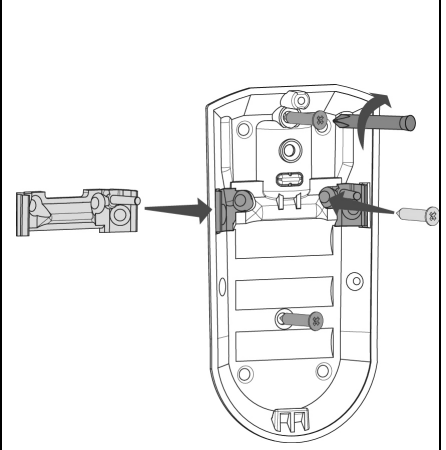
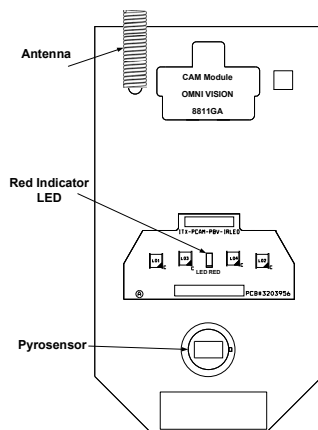


FIG. 3 - CIRCUIT LAYOUT



"LEARNING" & SETTING THE DETECTOR

This section describes and explains how to learn and set the configuration of PIRCAM with serenity.

3 options for PIRCAM learning:

1. By detector ID (the ID appears on the lower side of the barcode sticker attached to the back side of the PCB)
2. From installer programming mode (using detector tamper switch for learn process)
3. From EasySerenity PC application (refer to app manual).

Option 1: Insert the Detector ID manually

- Step 1. Verify detector's ID number.
Step 2. Enter to install programming mode (P>>installer code>>E).
Step 3. Go to learn radio zone level (P177E).
Step 4. Select the required zone number (+/- keys).
Step 5. Insert the ID digits use the keypad keys.
Step 6. Click the enter key for save.
Step 7. Verify "complete" message on LCD display which indicate detector has been learned.

SETTING THE DETECTOR – cont.

Step 8. Insert all 3 batteries in the detector back side and verify the front LED is flashing approximately 30 sec and stable for 2 sec at the end of the installation process, and close the back cover.

Step 9. In case of detector tamper alarm after the previous process, please restore the alarm with the user code (e.g. user code>>E)

Step 10. Set the PIRCAM configurations parameters accordingly by command P181E of the new learned detector and click the enter key for save.

Step 11. Click the ESC/EXIT key 3 times and then click the enter key for save and exit from installer programming mode.

Note: The detector is registered and ready for use

Option 2: From Installer Programming Mode

Step 1. Login to installer programming mode P>>installer code>>E.

SETTING THE DETECTOR – CONT.

- Step 2. Go to learn radio zone level (P177E).
Step 3. Select the required zone number (+/-keys).
Step 4. Press the enter key to start the learn radio zone process.
Step 5. While the learn process is running and beeping insert all batteries to the detector battery location at the detector back side and close the back cover.
Step 6. Verify "complete" message on LCD display which indicate detector has been learned.
Step 7. In case of detector tamper alarm after the previous process, please restore the alarm with the user code (e.g. user code>>E)
Step 8. Set the PIRCAM configurations parameters accordingly by command P181E of the new learned detector and click the enter key for save.
Step 9. Click the ESC/EXIT key 3 times and then click the enter key for save and exit from installer programming mode.

Note: The detector is ready for use

RSSI – RF SIGNAL INDICATION

The FREEWAVE2 control panel has "RF Signal Strength Indication" (RSSI) for each transceiver in order to help the installer to define the best location for the detector from RF perspective.

The indication value is between 1 and 100, where 100 is the best RF received signal. If the RSSI indication value is less than 30, it is a sign for a weak RF link and it is recommended to find a better installation for the FW2-PIRCAM.

NOTES:

Supported only on selected Crow CP.

SELECT MOUNTING LOCATION

Choose a location most likely to intercept an intruder. (Our recommendation is a corner installation). See detection pattern. The detector detects motion crossing the beam; it is more sensitive detecting motion crossing the beams then moving toward the detector.

Recommended mounting height – 1.8m-2.4m.

AVOID THE FOLLOWING LOCATIONS

Facing direct sunlight.

Facing areas that may change temperature rapidly.

Areas where there are air ducts or substantial airflows.

The FW2-PIRCAM performs better when provided with a constant and stable environment.

MOUNTING THE DETECTOR

1. To remove the front cover, unscrew the holding screw and pull out the cover by tilting from bottom out.
2. Mount the detector base: place 4 screws and make sure you tighten the tamper screw (the middle screw) easily, so the back tamper switch will press the switch successfully when PCB is placed back - over winding may result in false mechanical adaptation and lack of tamper press.
3. Place the CR123A BAT confirming the correct polarity.
4. Place the cover by inserting it back into appropriate position and tilting bottom side in.
5. Fasten the holding screw.

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WALK TEST

Walk test mode can be activated remotely from selected alarm systems by entering to the walk test mode or it can be activated locally by the approximating a magnet for 1 sec and removing it, the LED will blink red follows by green 6 times, Transmission will activate on the every detection. During walk test mode green led will blink to indicate device is in walk test mode. The test mode period is 2 min if activated locally by magnet and up to 15 min if activated remotely. At the end of the test mode the LED's will blink red & green fast 6 times to indicate the end of the Test.

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REGULATORY APPROVALS

Environmental parameters

- Class II
- Operating temperature -10°C - 55°C
- Relative humidity – RH 85% non-condensed

Device Standard Compliance

- EN 50130-4:2011
- EN 61000-6-3:2007 + amendments
- EN 301 489-3 V1.4.1
- EN 300 220-2 V2.4.1
- EN 60950-1:2006 + amendments
- EN 50131 series

Manufacturing Standards Compliance

- ISO 9001:2000
- 2002/95/EC RoHS

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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 12 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.

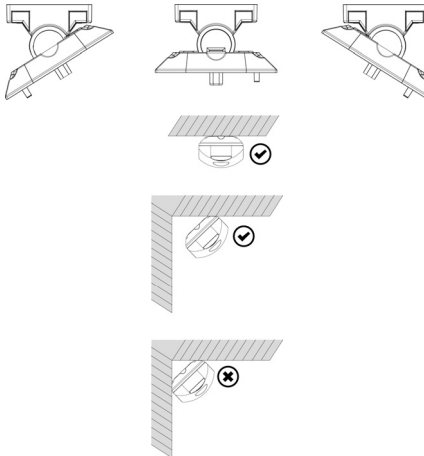
In no case shall Crow be liable to anyone for any consequential or incidental damages (inclusive of loss of profit, and whether occasioned by negligence of the Crow or any third party on its behalf) for breach of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever. 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.

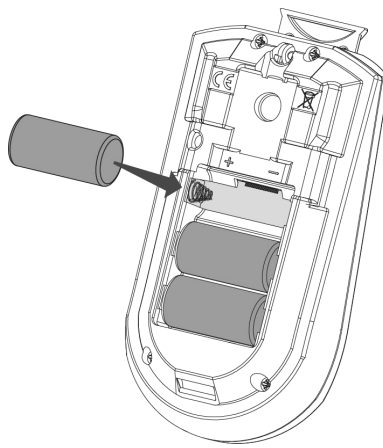
If Crow is held liable, whether directly or indirectly, for any loss or damage with regards to these products, regardless of cause or origin, Crow's maximum liability shall not in any case exceed the purchase price of these products, which shall be the complete and exclusive remedy against Crow.

INSTALLATION LOCATION



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BATTERY REPLACEMENT



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TECHNICAL SPECIFICATIONS

Data Protocol – FW2
 Modulation Type – GFSK
 Frequency – 433.92MHz/868.35MHz/916.5MHz
 Identification- 24Bit
 Event Transmission – Supervision, Alarm, Tamper, Picture
 Detection Method- Passive Infra-red
 Range in open space – 12m
 Battery – Three 3V Lithium battery CR123
 Battery life expectancy - up to 5 years
 Low Battery - 2.45V
 Current Consumptions:
 Average - 87µA
 Receive mode – 24mA
 Transmit mode – 38mA
 Transmit power - ~ 8dBm
 Tamper Switch - Yes
 Camera Module-
 Type: OV7955
 Output format- VGA(DV)
 Active array size: 672 x 492
 Optical Size: 1/3 6"
 Night Visibility: 0 Lux
 Dimensions – 129.5H X 67.4W X 52L
 Weight (inc. battery) – 200gr

TRANSMISSION TESTS

Tamper transmission test.

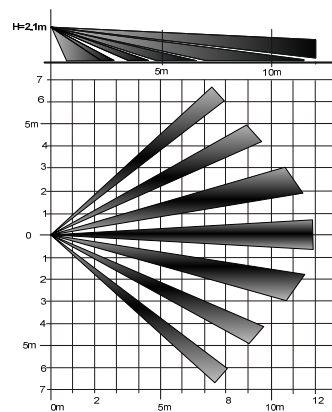
Change of the tamper switch state will cause tamper transmissions. Verify it on the control panel indications.

Communication signal test.

Check the RF Communication quality (RSSI). Special indication at the control panel that displays continuously the received RF signal quality.

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DETECTION PATTERN



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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

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**These instructions supersede all previous
 issues in circulation prior to July 2014.**