

FW-P200 PET

**FREEWAVE™ WIRELESS PIR
WITH PET IMMUNITY UP TO 20 Kg**



CROW
ELECTRONIC ENGINEERING LTD.
INSTALLATION INSTRUCTIONS
P/N 7101406 REV.A A.Y.

OPERATION

The Wireless PIR transmits the following events data:

SUPERVISION - a periodical transmission. Every 12-14 min indicates detector's presence.

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 message (Supervision, Alarm, etc).

TAMPER - Whenever the FW-P200 PET cover is removed or the unit's cover is put back, a message will be transmitted with "Tamper" signal.

APS

The unique APS (Automatic Power Saver) function built in the detector enables a battery life span up to four years. The detector will transmit only when

MOUNTING THE DETECTOR

- To remove the front cover, insert a flat screwdriver in the slot between the front and the bottom above the holding screw hole and push gently, until the front cover is disengaged and the opening click is heard.(Fig. 1)
- Remove the PC board.
- Break out the desired holes for proper installation.(Fig. 2)
- Mount the detector base to the wall, corner or ceiling with the necessary number of screws and the suitable bracket.
- Reinstall the PC board, set it as low as possible - till PCB stoppers.
- Before battery replacement capacitors discharge must be done - use flat screwdriver to make momentary short circuit for JP2 pins.(Fig. 3)
- Install battery in the battery holder according polarity.

INTRODUCTION

The FW-P200 PET is an advanced, fully supervised low-current wireless PIR that includes a FreeWave transmitter. Both transmitter and detector circuits are powered by long life Lithium battery.

Each FW-P200 PET has a unique ID code (This code is impossible to reproduce). Compatible FreeWave receivers are designed to "learn" specific IDs and respond only to them.

Following detection, FW-P200 PET triggers the on-board transmitter that transmits its specific FreeWave ID followed by an alarm signal and status designators for battery condition. If detector cover is removed Tamper Event triggers the on-board transmitter.

Alarm and other data are forwarded to the alarm control panel. A periodic test transmission for supervision purpose takes place automatically once in 12-14 min. The receiver is informed that

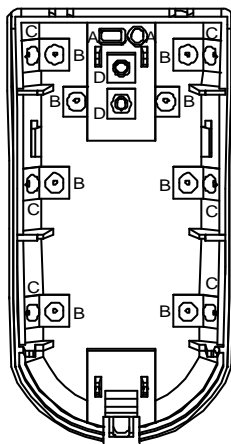
SELECT MOUNTING LOCATION

Select the mounting location so that an intruder will cross the beams of the selected pattern. As the detector is a wireless transmitter, and in order to take full advantage from PIR sophisticated operation, do not install the detector in areas where large metal objects could interfere the transmission of signals. It is also advisable to avoid following locations:

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

The FW-P200 PET performs better when provided with a constant and stable environment.

FIG. 2 - KNOCKOUT HOLES



The FW-P200 PET has unique Alarm Power Saver (APS) mechanism that enables transmitter activation only 2 min after the last movement has been detected.

The FW-P200 PET provides *pet immunity* up to 20Kg (45lbs). Pet active below 1m (3 ft).

FEATURES

- State-of-the-art wireless security system
- Low current ASIC PIR Technology
- Powered by a 3Volt Lithium battery
- Battery life : up to 4 years
- Built in Automatic Power Saver (APS)
- Frequency Band: 868MHz,433MHz
- Low Battery condition signal transmission
- Test mode for PIR coverage and RF signal.
- Range up to 1 km at free space.
- Height installation calibration free (1.5m - 3.6m).
- Unique ID number

FIG. 1 - REMOVAL OF FRONT COVER

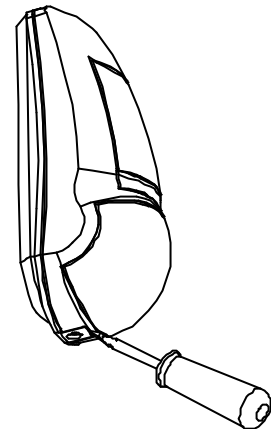
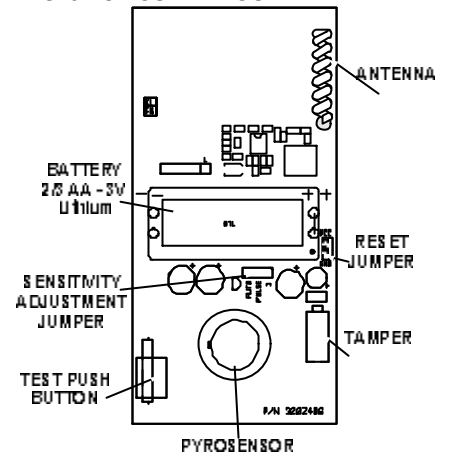


FIG. 3 - CIRCUIT LAYOUT



TEST PUSH BUTTON

Push Button is located at the lower left side of the detector. This button (switch) is used to activate the walk and RF transmission test of the FW-P200 PET detector.

WALK TEST

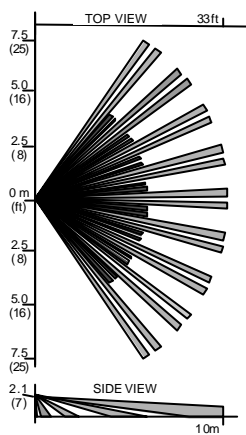
Press Push Button for a short time (less than 1 second) – this activates the device (IR detection only, without RF transmission) for 1min, making walk tests possible.

ALARM TRANSMISSION TEST

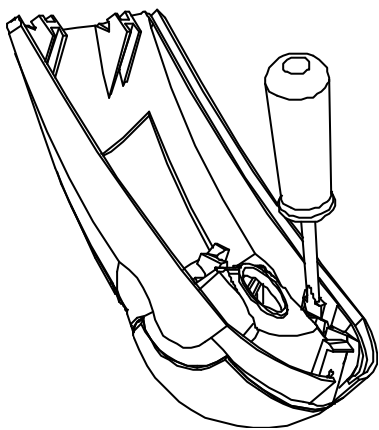
Pressing Push Button for at least 2.0 sec enables the alarm transmission test feature, which activates 11 transmission signals at 6 sec intervals (total test time about 1 min). Please check, that the receiver unit indicates 11 events.

This test enables to activate the alarm transmission immediately, and bypass the APS 2 minutes limitation.

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FIG. 4 - WIDE ANGLE PET LENS

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FIG. 5 - REPLACING THE LENS

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TECHNICAL SPECIFICATIONS

Data Protocol	FreeWave
Modulation Type	FSK (1 Frequency)
Frequency band	868MHz / 433MHz
Identification	Unique ID serial number – 24 bit
Event Transmission	Alarm, Tamper, Test, Supervision, Low Bat
Supervision Timing	12–14 minutes (randomly)
Detection Method	Dual Element PIR (ASIC Based)
Detection Speed	0.3 – 1.5 m/sec
Lens Type	Spherical Hard Lens
Range in open space	up to 1km
Environment Condition	Jumper for Normal or Harsh selection
Battery	Lithium, 3V Type: xx123 Size: 2/3AA
Current Consumption	
Standby	~10 µA
Transmission	~16 mA
Power Saving	APS (Automatic Power Saver)
Installer Test Modes	LED Indicator (RF & Optic) Walk test & Alarm transmission test
Operating temperature	
Range	-10°C to +50°C
Dimensions	137mm x 70mm x 53mm
Weight (inc. battery)	120 g
Standards	FCC Part 15 and ETS 300-220

To check this function it is necessary to verify that the FREEWAVE control panel display shows

Zone # X Open

X- Zone number from which the message received.

Tamper transmission test.

Change of the tamper switch state will cause tamper transmissions. Verify on the FREEWAVE control panel that display shows

Trouble Zone #

Transmission range test.

By Alarm transmission test (Pressing Push Button for more than 2.0 sec) it's enable to check the RF transmission quality (RSSI). Special indication at the control panel displays

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BATTERY

A 3 V lithium battery powers the unit. Thanks to the exclusive APS (Automatic Power Saver) characteristics, the battery provides up to 4 years of continuous operation (depending on the amount of alarms).

If the battery reaches a factory preset low level, the LOW BATTERY signal will be sent and from this moment the detector remains operational for another 30 days giving enough time to replace the 3V lithium battery.

The battery must be replaced by Size 2/3 CR 17345V Lithium battery 3V Models as: DL123A DURACELL Inc CR123A SANYO Etc CR123A GP

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REPLACING THE LENS

1. Remove the front cover by inserting a flat screwdriver in the appropriate slot.
2. Using a small flat screwdriver, press on left or right side of the installed lens that will then pop out from its side right and left holding pins.
3. Select the desired lens and hold it while making sure its upper holding pin is pointed upwards.
4. Snap the lens to its place by pressing again from outside of the front cover until a click is heard, confirming the new lens is tightly inserted. See fig. 5.
5. Replace front cover.

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CROW LIMITED WARRANTY

(Crow) warrants this product to be free from defects in materials and workmanship under normal use and service for a period of one year from the last day of the week and year whose numbers are printed on the printed circuit board inside this product.

Crow's obligation is limited to repairing or replacing this product, at its option, free of charge for materials or labor, if it is proved to be defective in materials or workmanship under normal use and service. Crow shall have no obligation under this Limited Warranty or otherwise if the product is altered or improperly repaired or serviced by anyone other than Crow.

There are no warranties, expressed or implied, of merchantability or fitness for a particular purpose or otherwise, which extend beyond the description on the face hereof. In no case shall Crow be liable to anyone for any consequential or incidental damages for breach of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever, even if the loss or damage is caused by Crow's own negligence or fault.

Crow does not represent that this product can not be compromised or circumvented; that this product will prevent any person injury or property loss or damage by burglary, robbery, fire or otherwise; or that this product will in all cases provide adequate warning or protection. Purchaser understands that a properly installed and maintained product can only reduce the risk of burglary, 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 this product failed to give any warning. However, if Crow is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, Crow's maximum liability shall not in any case exceed the purchase price of this product, which shall be the complete and exclusive remedy against Crow.

LENSES-INTERCHANGEABLE HARD TYPE SPHERICAL LENSES PATTERNS

COVERAGE ANIMAL ALLEY, 105°

TOTAL DETECTION ZONES 52°

- 18 long range
- 16 intermediate
- 10 short range
- 6 nearest range.

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BATTERY REPLACEMENT

- Remove the front cover by inserting a flat screwdriver in the appropriate slot.
- Take out the old battery.
- Before battery replacement capacitors discharge must be done. **Use flat screwdriver to make momentary short circuit on JP2 pins. (see Fig.3)**
- Install a new battery according polarity.

CAUTION !!!

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING

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This device complies with:

European Council Directive EMC

89/336/EEC

EN50130-4

EN301489

EN300220

EN50081.

SAFETY 73/23/EEC

EN60950 (ITE)

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These instructions supersede all previous issues in circulation prior to January 2003.