



FA206DS

Frequency Agile® 900MHz Transmitter Passive InfraRed Motion Detector

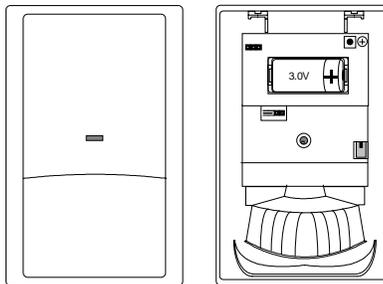
Installation Instructions 02154B

Overview:

The FA206DS is an Inovonics transmitter incorporating the Detection Systems DS-775RF PIR. The unit operates on a single 3.0V lithium battery (Duracell DL123A or equivalent).

Features:

- Inovonics' reliable 900 Megahertz *Frequency Agile*® radio link.
- Motion Analyzer II™ signal processing.
- 3 interchangeable coverage patterns available for special applications (optional).
- Internally pointable, field-replaceable mirrored optics.
- 5 mounting options permit flat wall, corner or hallway mounting, with swivel adjustments for aiming for nominal coverage.
- RFI Interference Immunity.



Specifications:

Dimensions:	3.75"W x 5.75"L x 2 .50"D
Operating temperature:	32°F to 120°F
Voltage:	3 VDC
Battery:	1 - 3.0V lithium (Duracell DL123A or equivalent) Note: Battery is always supervised
Broad coverage area:	50' x 50'
Barrier coverage area:	80' x 16'
Long Range coverage area:	120' x 10'
Mirror adjustment:	+2° to -18° vertical, +10° to -10° horizontal
Sensitivity adjustment:	Standard, Intermediate and High; jumper selectable
Test LED:	Externally visible LED (during walk test mode)

Important Notes

- ▲ These products are designed to be installed and maintained by professional security technicians.
- ▲ Products, unless specifically noted, are intended for indoor use.
- ▲ Manually test all products regularly.

▲ Installation:

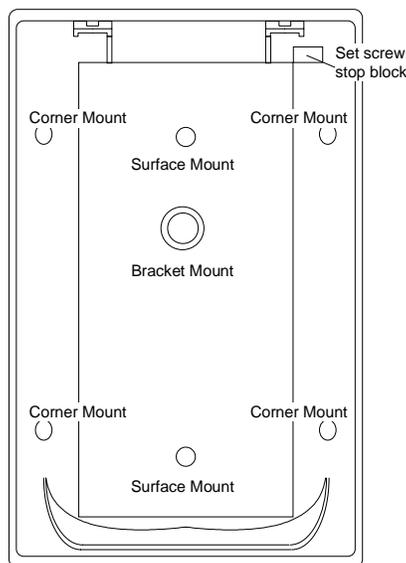
Mounting Note: Recommended mounting height range is 6'6" to 8'6". Recommended mounting height is 7'6" (2.25m).

General mounting advice:

- For best detection, locate the FA206DS so that intruders move **across** detection coverage patterns, rather than toward or away from the sensor.
- The mounting surface should be solid and vibration-free.
- Check areas for potential sources of false alarms. Remember that the sensor responds to quick changes in heat patterns within its coverage pattern. Avoid locating it where it is exposed to direct or reflected sunlight, or to objects which can be heated quickly by sunlight. Do not place the FA206DS looking at windows. Don't place it near heat or cold sources, like heater ducts or air conditioners, which might direct hot or cold air onto the sensor. Look for appliances such as space heaters which can rapidly heat up.
- Find out about normal use of the area. Are there pets? Might there be birds, for example, in a warehouse?
- When the sensor might detect users who enter the protected area through a delayed door, program the sensor as a "Follower" device.
- Make end-users aware of the location of the FA206DS and caution them about obstructing the coverage pattern when re-arranging furniture or stock.

Mounting Instructions:

The FA206DS may be mounted with or without the optional swivel or gimbal brackets. Without the brackets the unit may be attached to walls or corners through the back of the detector housing.



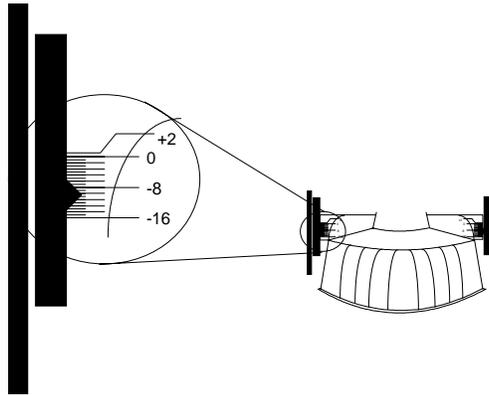
To mount the unit, first remove the cover by inserting a small screwdriver into the notch at the bottom of the cover and prying up. Next, remove the circuit board/mirror unit from the enclosure. Unscrew the set screw near the reset button enough to allow it to clear the stop block in the housing. Push the unit toward the top of the enclosure until it clears the four retainer tabs. Then lift the board/mirror unit out of the enclosure.

For surface or corner mounting, open two holes in the rear housing. Mark the location for the mounting screws, using the enclosure as a template. Pre-start the mounting screws. Firmly mount the detector. Replace the circuit board/mirror assembly.

Mirror Assembly Adjustment:

- Set Vertical angle based on the following table. The table indicates setting for mirror type, mounting height and desired range. Vertical angle calibration markings are on the mirror. Slide the mirror forward or back until the angle hash marks are in line with the markers on each side of the frame.

Mounting Height	Broad Mirror		Barrier Mirror		Long Range Mirror	
	30'(9m)	50'(15m)	50'(15m)	80'(25m)	80'(25m)	120'(36m)
6'6"(2m)	-6°	-3°	-3°	-2°	-2°	-1°
7'6"(2.3m)	-8°	-5°	-5°	-3°	-3°	-2°
8'6"(2.6m)	-9°	-6°	-6°	-4°	-4°	-2°



- Adjust Horizontal angle of the mirror assembly, if necessary. Rotate the assembly from side to side until aimed in the desired direction.
- After the unit has been programmed and installed, follow instructions for setup and walk testing the unit. Range and coverage can be adjusted by changing mirror angle setting.
- Optional accessories including the B328 Gimbal Mount and the B335 Low Profile Mount permit the FA206DS to be mounted in many locations and aimed to permit desired coverage.

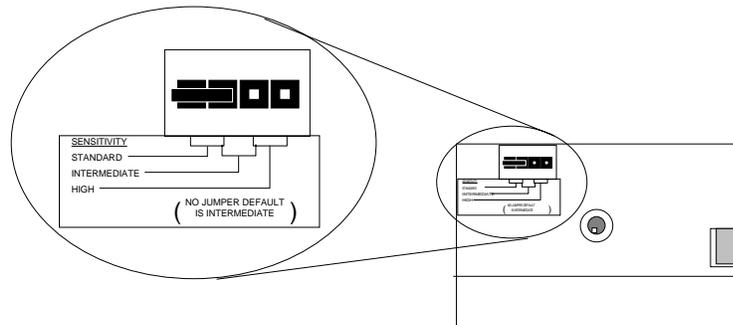
Sensitivity Mode Selection:

The FA206DS has three sensitivity mode settings. Use the following information to determine the recommended setting. The sensitivity mode is selected by placement of a jumper on the 4-pin sensitivity header.

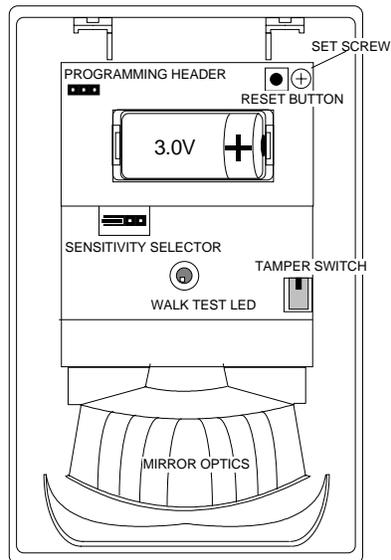
STANDARD SENSITIVITY: This setting is recommended of Broad Coverage patterns. It tolerates extreme environment changes. It is not recommended for Long Range or Barrier mirror patterns. The FA206DS is shipped in Standard Sensitivity Mode.

INTERMEDIATE SENSITIVITY: This setting is recommended for Long Range or Barrier pattern coverage, or for any location where an intruder is expected to cover only a small portion of the protected area. It tolerates normal environmental changes.

HIGH SENSITIVITY: This setting gives fastest response to intruder signals. It is used in quiet environments where thermal and illumination transients are not anticipated.



Programming the FA206DS:



Program contacts: N/C
Typical battery life: 2 years
Battery type: 3.0V lithium
Sleep after trip: 180 seconds

Programming the transmitter:

1. Remove the FA206DS cover.
2. Insert battery as shown.
3. Enter programming mode for the programming device, using the above recommendations as a guideline. Connect the programming cable between the transmitter and the programming device.
4. Press the transmitter reset button.
5. When programming is complete, disconnect the programming cable and replace the FA206DS cover.

Note: The FA206DS retains programming data in non-volatile memory. It does not require re-programming after loss of power. Install a new battery and press the reset button to re-initialize the transmitter and restore programming.

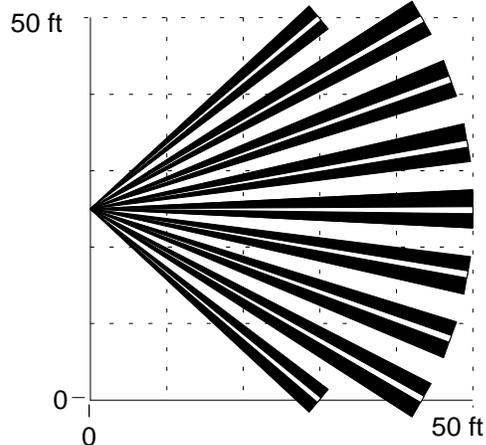
Walk test: To allow easy setup after installation, a timed Walk Test Mode is available. When the cover is removed, the tamper switch indicates a tamper violation and starts a timed walk test mode. When the walk test mode is enabled, any valid alarm is indicated by the walk test LED and an RF transmission. Note the LED will remain continuously on as long as the cover is off and the unit is tripped. After approximately 110 seconds of inactivity, the walk test mode ends and the unit returns to its normal mode of operation. During the last 20 seconds of walk test mode, the LED will flash to indicate that the walk test mode is ending. Any valid alarm signal which occurs before the last flash of the LED will restart the walk test timer and extend the walk test mode. Edges of detector coverage are determined by activation of the LED. Walk test across the coverage pattern from both directions to determine coverage boundaries. If desired coverage is not achieved, try re-aiming the mirrored optics.

Operation: The FA206DS extends battery life by "going to sleep" for 3 minutes after transmission of an alarm. At the end of the sleep period, the FA206DS will trip immediately if it still detects motion. Continuous motion in the area covered will result in an alarm transmission and restoral approximately every 3 minutes. The LED is never on in this mode.

Zone patterns for standard and optional mirror optics:

Selection of appropriate mirror and mounting hardware lets the FA206DS be customized for any site. Following are descriptions of coverage patterns for the 3 mirrors available.

Broad Coverage: Top View



Broad Coverage: Side View



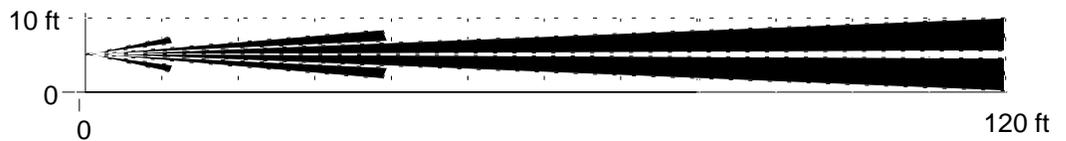
Barrier Coverage: Top View



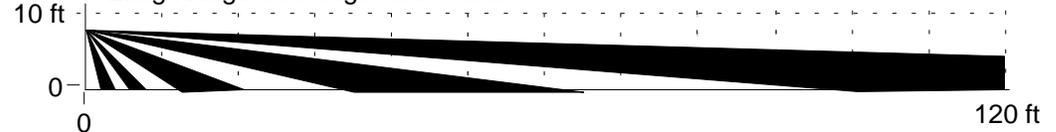
Barrier Coverage: Side View



Long Range Coverage: Top View



Long Range Coverage: Side View



Warranty & Disclaimer

Inovonics Wireless Corporation ("Inovonics") warrants its products ("Product" or "Products") to conform to its own specifications and to be free of defects in materials and workmanship under normal use for a period of twenty-four (24) months from the date of manufacture. Within the warranty period Inovonics will repair or replace, at its option, all or any part of the warranted product. Inovonics will not be responsible for dismantling and/or reinstallation charges. To exercise the warranty, the User ("User", "Installer" or "Consumer") must be given a Return Material Authorization ("RMA") Number by Inovonics. Details of shipment will be arranged at that time.

This warranty does not apply in cases of improper installation, misuse, failure to follow installation and operating instructions, alteration, abuse, accident or tampering, and repair by anyone other than Inovonics.

This warranty is exclusive and expressly in lieu of all other warranties, obligations or liabilities, whether written, oral, express, or implied, including any warranty of merchantability or fitness for a particular purpose. Inovonics will not be liable to anyone for any consequential or incidental damages for breach of this warranty or any other warranties.

This warranty will not be modified, varied or extended. Inovonics does not authorize any person to act on its behalf to modify, vary or extend this warranty. This warranty will apply to Inovonics Products only. All other products, accessories or attachments used in conjunction with Inovonics equipment, including batteries, will be covered solely by their own warranty, if any. Inovonics will not be liable for any direct, incidental or consequential damage or loss whatsoever, caused by the malfunction of Product due to products, accessories, or attachments of other manufacturers, including batteries, used in conjunction with Inovonics Products.

This warranty does not warrant the replacement of batteries that are used to power Inovonics Products.

The User recognizes that a properly installed and maintained security system may only reduce the risk of events such as burglary, robbery, personal injury and fire. It does not insure or guarantee that there will be no death, personal damage and/or damage to property as a result. **Inovonics does not claim that the Product may not be compromised and/or circumvented, or that the Product will prevent any death, personal and/or bodily injury and/or damage to property resulting from burglary, robbery, fire or otherwise, or that the Product will in all cases provide adequate warning or protection.**

Inovonics shall have no liability for any death, injury or damage, however incurred, based on a claim that Inovonics Products failed to function. However, if Inovonics is held liable, directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, Inovonics' maximum liability will not in any case exceed the purchase price of the Product, which will be fixed as liquidated damages and not as a penalty, and will be the complete and exclusive remedy against Inovonics.



Warning: The User should follow all installation, operation and maintenance instructions. The User is strongly advised to conduct Product and systems tests at least once each week. Changes in environmental conditions, electric or electronic disruptions and tampering, may cause the Product to not perform as expected.



Warning: Inovonics warrants its Product to the User. The User is responsible for exercising all due prudence and taking necessary precautions for the safety and protection of lives and property wherever Inovonics Products are installed. Inovonics strongly advises the User to program Products to be supervised whenever used in applications affecting life safety. Users are warned that unsupervised devices are subject to undetected failure due to malfunction, battery failure, tampering, or changes in environment.

Additional products from *Inovonics* include:

***Frequency Agile*[®] Receivers**

FA416	16-channel / 4-output
FA416D	16-channel / 4-output with display
FA464	64-channel / 16-output

***Frequency Agile*[®] Transmitters**

FA200(W)	universal transmitter (optional widegap)
FA202	smoke detector transmitter
FA203(S/D)	pendant transmitter (Single or Double Button)
FA205(S/D)	beltclip transmitter (Single or Double Button)
FA204	pendant transmitter
FA206	Sharpshooter PIR transmitter
FA207	glassbreak detector transmitter
FA210(W)	reduced-size universal transmitter (optional widegap)

FA206DS PIR detector transmitter accessories

B328 Gimbal Mount Bracket
B335 low profile, swivel mount bracket
OMB77-3 Barrier Coverage Mirror (shipped in packs of 3)
OMLR77-3 Long range coverage Mirror (shipped in packs of 3)

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