intelbras IVP 7001 MW EX Passive Infrared Sensor User Manual

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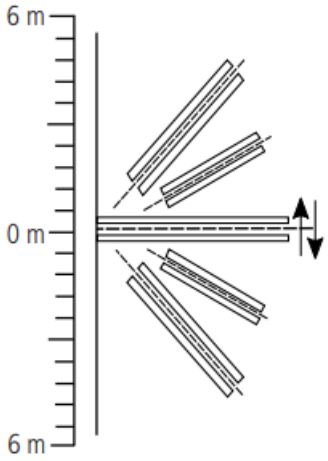
intelbras IVP 7001 MW EX Passive Infrared Sensor

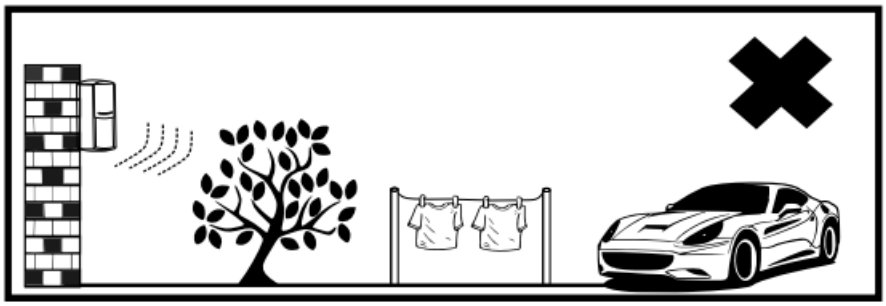
IVP 7001 MW EX
Passive infrared sensor
Congratulations, you have just purchased a product with Intelbras quality and safety.
The IVP 7001 MW PET passive infrared sensor has triple technology, which combines microwave detection with detection by passive infrared rays and immunity to animals up to 20kg. Advanced signal analysis technology prevents false triggering in external environments.

Care and safety

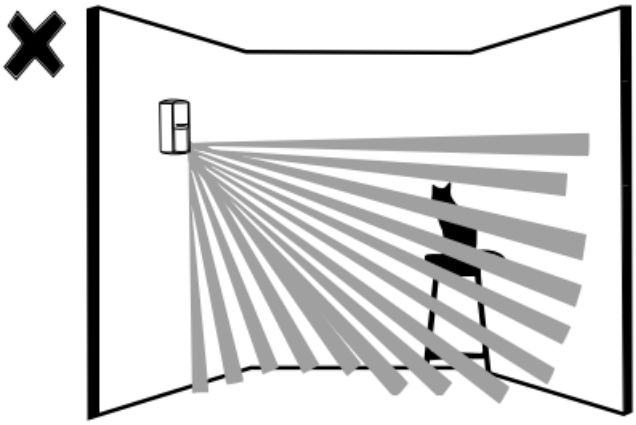
- Follow all instructions in the manual for assembling and installing the product.
- LGPD – General Law for the Protection of Personal Data: Intelbras does not access, transfer, capture, or perform any other type of treatment of personal data from this product.
- This sensor is intended for indoor environments.
- Do not touch the surface of the infrared (PIR) sensor. If necessary, use a soft cloth for cleaning.
- The sensor must be installed where a possible intruder is easily detected, that is, where a person performs movements transverse to the sensor’s detection beams when entering the environment. The optimal installation height is
- 2 m, depending on the installation environment, the sensor can be installed from 2 to 2.4 m in height.



- Do not place objects in front of the sensor. Keep the detection area free of moving objects, bushes, clotheslines, cars or any object that blocks the scan. Do not exceed the maximum sensor installation height (2.4 m).

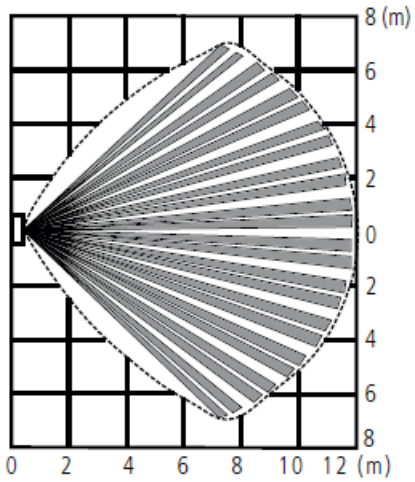


- Do not use the sensor in areas with sudden changes in temperature, near air conditioners, heaters, cooling fans and ovens.
- It is important to note that the Pet function is designed for crawling animals, so if the animal is not on the ground, but on top of a bench, for example, it can be detected thus canceling the Pet function , as seen in the image below :

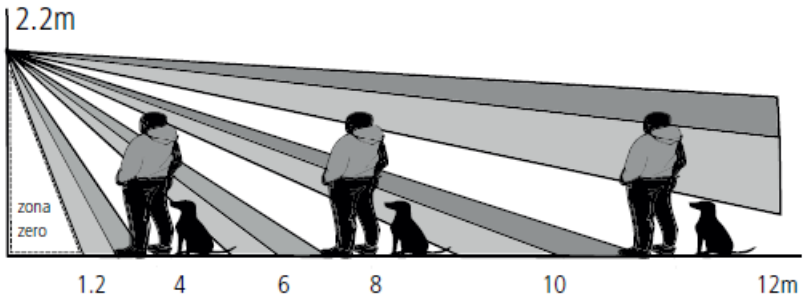


- do not install the sensor facing glass doors or windows.
- Make sure the installation location is stable and free from flickering.
- For your security, test the product and systems at least once a week. This is necessary due to changes in environmental conditions, electrical or electronic interruptions and violations. Take all necessary precautions for the security and pro-tection of your property.

Scan (top view)



Detection range (side view)



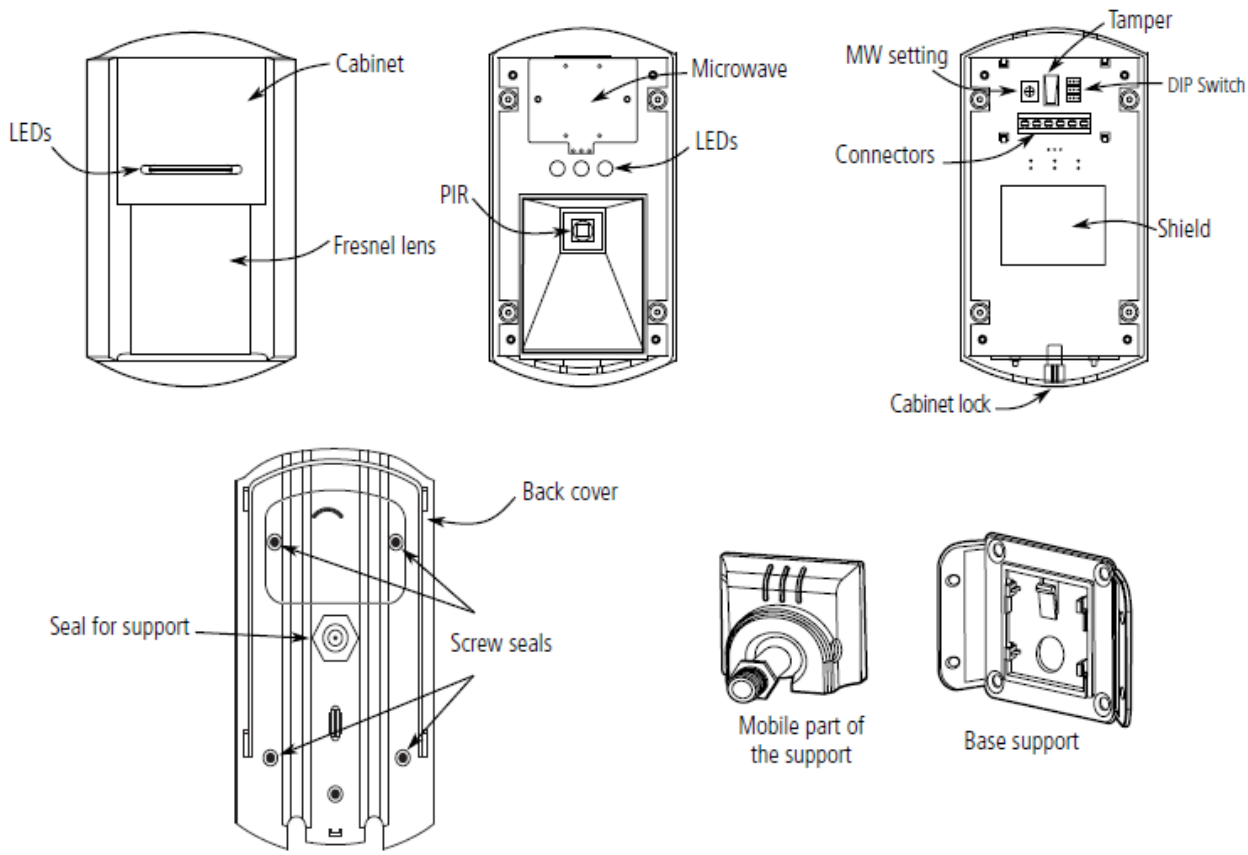
Technical specifications

Operating voltage	9-16 Vdc
Operating Current	≤ 50 mA (12 Vdc)
Detection Angle	110°
Detection Range	12 × 12 m ± 20%
Detection method	MW and PIR (AND)

Sensor element	Low noise PIR
MW antenna	GaAs FET
MW Frequency	10.525 GHz
Immunity to animals	Up to 20 kg
Detection pulse (P. COUNT)	1P – 2P
Recommended installation height	2.2m
Installation height range	2.0 to 2.4 m
Alarm output	NF / NA selectable, 28 Vdc, 80 mA max
Tamper switch	NF, 28 VDC and 100 mA max
LED indicators	Green (PIR), Yellow (MW) and Red (Alarm)

Start Time	60 S
Relay opening time	5 s
Operating temperature	-10 °C ~ +50 °C
IP grade	IP 54
Dimensions (W × H × D)	80 × 153 × 58 mm

Product



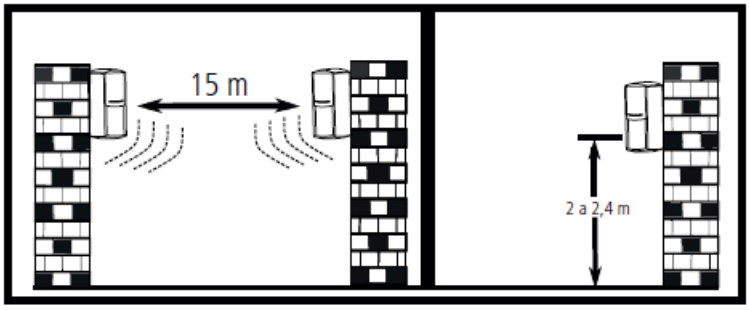
Characteristics

- Micro controlled signal processing.
- Microwave (Doppler effect) + infrared.
- Automatic temperature compensation to reduce false alarms.
- Adjustable microwave power;
- Immunity to white light up to 10,000 lux;
- Articulating bracket for attachment;
- High immunity to RFI / EMI – shield;
- Selectable relay output NA and NF (Normally open and normally closed);
- Infrared sensitivity (PIR) adjustable.
- Immunity to crawling animals weighing less than 20 kg.
- Anti-tamper protection (tamper switch).

Installation

Before starting the installation, it is necessary to define the height at which the sensor will be positioned, which can vary from 2 to 2.4 m;

- do not install sensors that have microwave technology close to each other.
- The sensitivity of the microwave must be adjusted so that targets, outside the desired detection area, are not detected and so that there is no interference between the sensors.



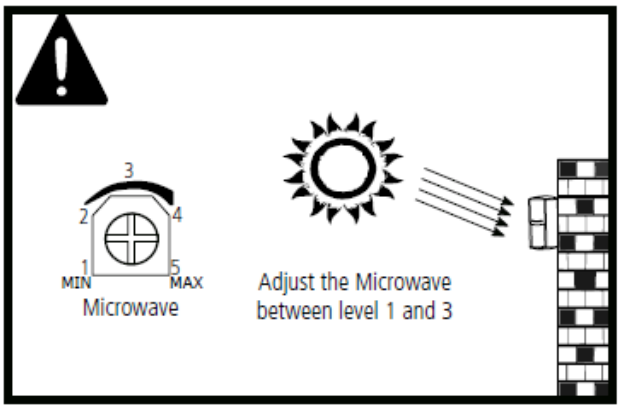
- For environments that have the circulation of pets, we recommend that you use the following configuration for the correct operation of the PET function:

PET function	
Installation height	Between 2.3 and 2.4 m
PIR sensitivity	2P

Note: if the sensor is configured at maximum sensitivity (1P), unwanted triggering may occur with the presence of pets.

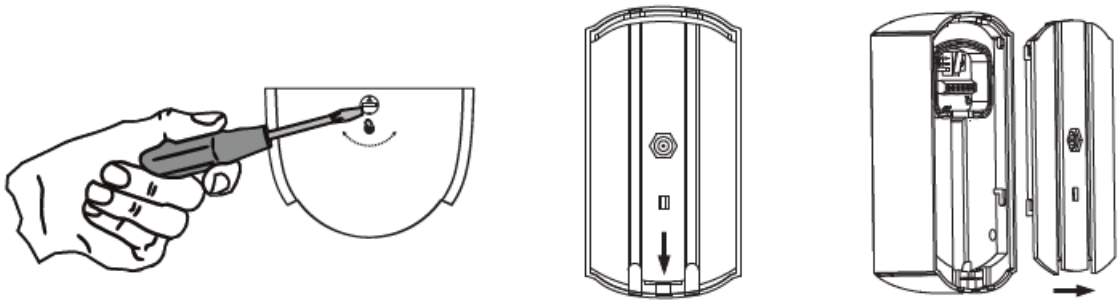
- Adjustment of the sensitivity of the PIR (P. Count) and the microwave must be made according to each

environment. Inenvironments where sunlight falls directly on the sensor lens, the microwave must be adjusted between levels 1 and 3.

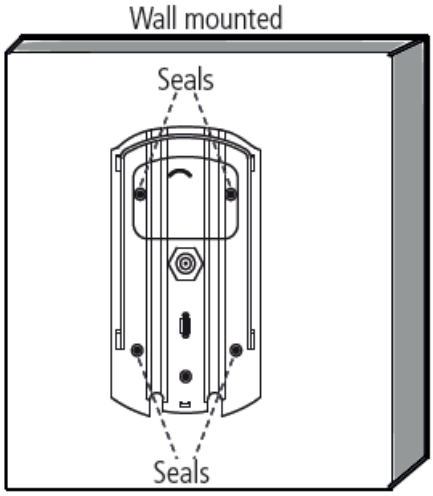


To attach the sensor follow the steps described below:

1. Unlock the rear cover by turning the lock on the bottom of the cabinet 180 ° and remove it by sliding the sensor upwards, as shown below:

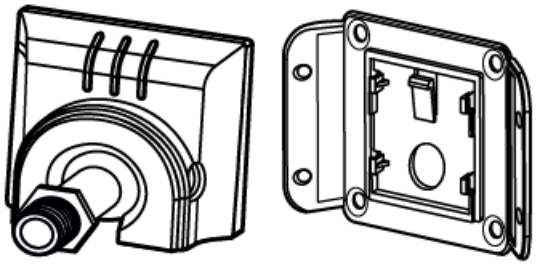


2. For installation directly or in a wall corner, break the seals indicated for the holes in the rear attaching cover: For installation in the corner of the wall, it is necessary to use the support, as described in item 3.

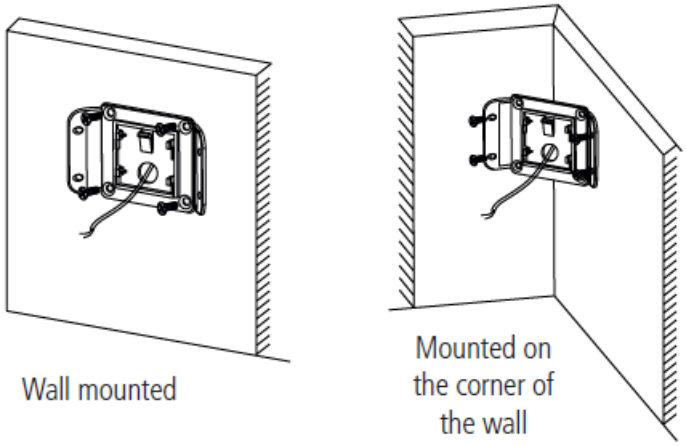


3. **Installation** without using the articulator:
   Attention: if the mounting bracket is inclined with respect to the ground, the characteristics of the PET function will change.

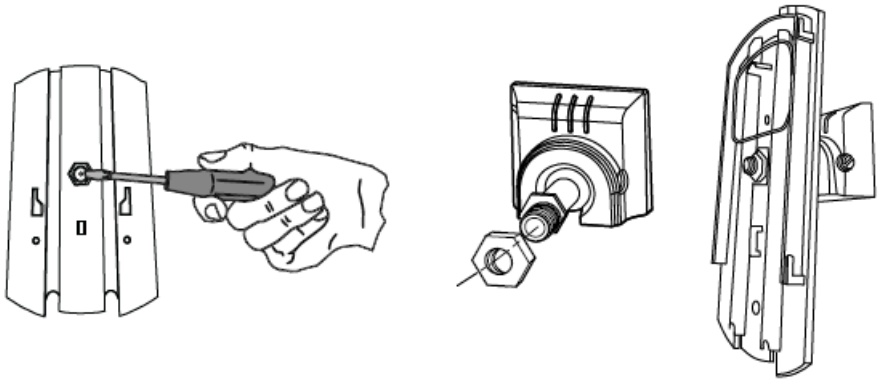
   - Separate the moving part from the base of the articulator;



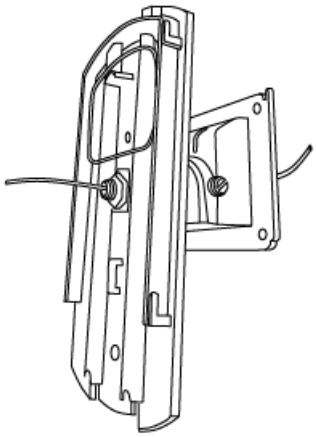
- For installation directly on the wall, drill the holes in the positions indicated on the base of the articulator. For installation in the corner of the wall, drill the holes in the positions indicated on the side of the back cover; Before screwing the articulator in position, pass the wire as shown in the images



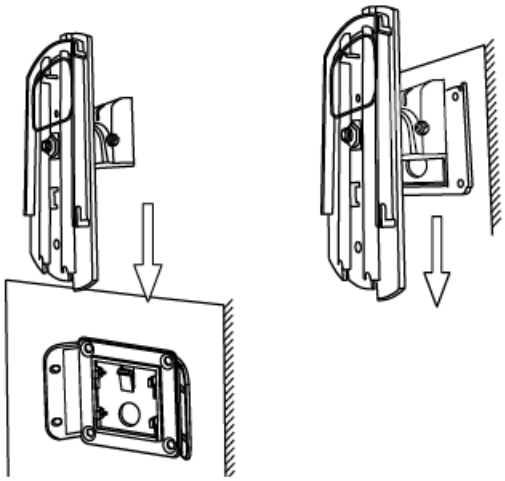
- With the aid of a screwdriver, break the seal of passage of the articulator. Secure the movable part of the articulator to the rear sensor cover with the aid of the hex nut



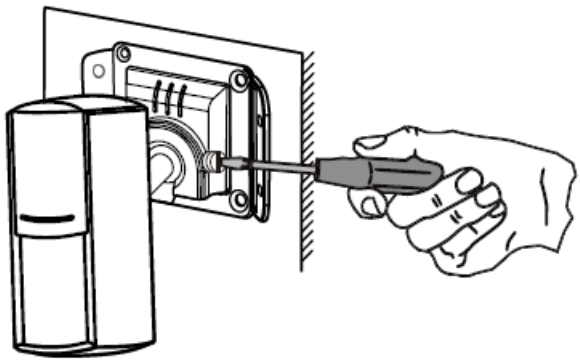
- Pass the cable through the holes indicated on the articulator



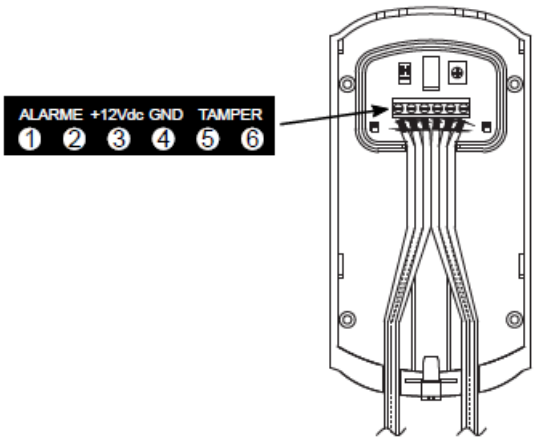
- Fit the back cover to the wall-mounted bracket



- Define the position of the sensor and fix the articulator by tightening the screw as shown



4. Connect the cables following the terminal indications. When energized, the sensor LED will flash for 60 s. This time is necessary to stabilize the amplification circuit of the PIR sensor and the microwave



5. Perform the configuration on the sensor:
    - **The LED jumper** is used to control the LED indication without interfering with the detector. With the switch in the On position, the LEDs are enabled to function normally. With the switch in the Off position, the LEDs are disabled, that is, they do not light up. Factory default: LEDs On.

LED	
Position	Condition
Off	LED off
On	LED on

- **P.COUNT:** controls the pulse count of the PIR sensor to trigger the alarm. This adjustment has three selectable levels, according to the table below. Choose the configuration accordingly according to the environment in which the sensor will be installed. Factory Default: 1P

P. COUNT	
Position	Condition
Off	1P – Maximum sensitivity
On	2P – Minimum sensitivity. Greater immunity false triggering (EMI and RFEI).

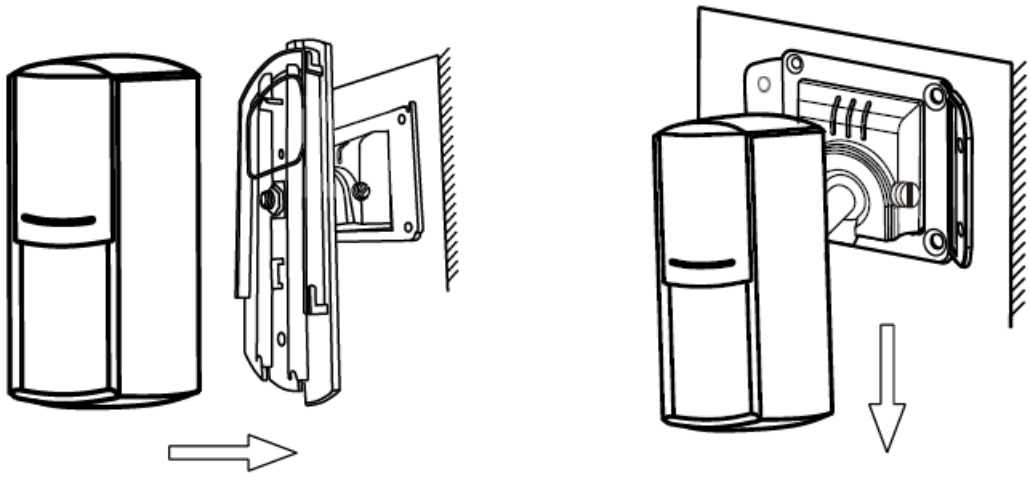
- The sensor also has a trimpot (MW setting) to adjust the microwave sensitivity. Turning the trimpot clockwise will increase the sensitivity, turning it counterclockwise will make the microwave less sensitive. Factory default: **MAX** (more sensitive).
  Note: the microwave setting should be kept to the minimum possible sensitivity that can provide detection in the entire protected area to avoid undue fire.

Microwaves	
Position	Condition
Min.	Minimum detection range
Max.	Maximum detection range

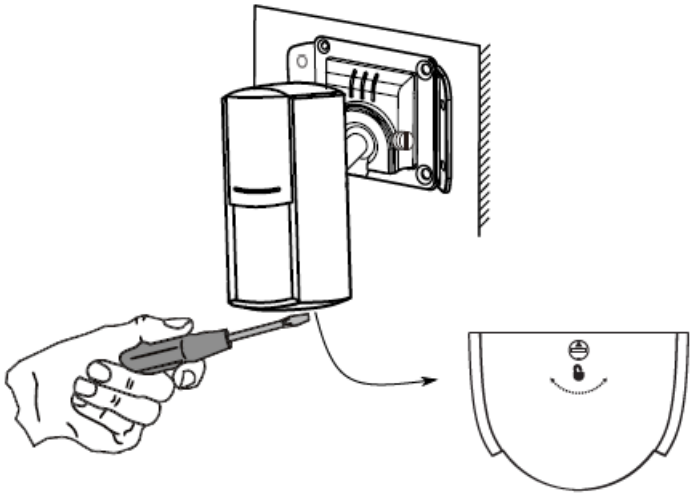
- RELAY: controls the state of the relay contact. In the Off position, the contact is normally closed. In the On position, the contact is normally open. Factory default: NF (normally closed).

Relay	
Position	Condition
Off	NF- Normally closed
On	NA – Normally open

6. Close the sensor by sliding the front case on the back cover down and perform detection tests to make sure the sensor is working as expected.



7. Finally, lock the rear cover by turning the protection lock 180 °.



Troubleshooting

- Perform the walk test by verifying that the entire area you want to protect is being detected by the sensor. If this does not happen, readjust the PIR and microwave detection sensitivity. To do this, perform the following steps:
    1. Rotate the protection lock to open the sensor;
    2. Remove the sensor from the back cover;
    3. Readjust the PIR and MW sensitivity as desired;

4. If the articulator is being used, make sure that its position allows you to detect the desired area. If necessary, change the position of the articulator;
5. Refit the sensor to the back cover and perform detection tests;
6. Lock the rear cover by turning the protection lock.

Important: make sure that the microwave is detecting movement only in the desired environment, this is necessary because the microwave can cross obstacles, such as walls, doors, windows, glass, etc.

LED Indications

- Green LED: infrared activation.
- Yellow LED: microwave activation.
- Red LED: alarm activation

Note: when there is a detection, the LED and the Relay were activated for an interval of 3 seconds.

Approval

This equipment is not entitled to protection against harmful interference and must not cause interference in duly autho-rized systems.

Warranty term

It is established that this warranty is granted upon the following conditions:

1. All the parts, pieces and components of the product are guaranteed against possible manufacturing defects, which may arise, for the term of 1 (one) year – this being 90 (ninety) days of legal warranty and 9 (nine) months' contractual war-ranty –, counting from the date of purchase of the product by the Consumer, as appears in the product purchase bill of sale, which is an integral part of this Term throughout the domestic territory. This contractual warranty includes the free exchange of parts, pieces and components which have a manufacturing defect, including the expenses with labor used in this repair. If there is no manufacturing defect, but defect(s) arising from misuse, the Consumer shall bear these expenses.
2. The installation of the product shall be executed in accordance with the Product Manual and/or Installation Guide. If your product requires the installation and configuration by a qualified technician, seek a suitable specialized professional, the costs of these services not being included in the product amount.
3. Having perceived the defect, the Consumer shall immediately contact the nearest Authorized Service which appears in the report offered by the manufacturer – they are the only ones authorized to examine and remedy the defect during the warranty term foreseen herein. If this is not respected, this warranty shall lose its validity, as it shall be characterized as product infringement.
4. If the Consumer requests home service, it shall contact the nearest Authorized Service to inquire about the technical visit rate. If it is necessary to remove the product, the ensuing expenses, such as those of transportation and insurance of the taking and return of the product, shall be the Consumer's responsibility.
5. The warranty shall lose its validity totally in the occurrence of any of the following cases: a) if the defect is not one of manu-facture, but is caused by the Consumer or by third parties foreign to the manufacturer; b) if the damage to the product arises from accidents, disasters, agents of nature (lightning, floods, landslides, etc.),

humidity, voltage in the electrical network (excess voltage caused by accidents or excessive fluctuations in the network), installation/use in disagreement with the user's manual or arising from natural wear of the parts, pieces and components; c) if the product has undergone effects of a chemical, electromagnetic, electrical or animal (insects, etc.) nature; d) if the serial number of the product has been falsified or erased; e) if the appliance has been infringed.

6. This warranty does not cover loss of data; therefore, it is advisable that if it is the case of the product, the Consumer makes a backup regularly of the data which appears in the product.
7. Intelbras is not responsible for the installation of this product, or for possible attempts at fraud and/or sabotage in its products. Maintain the updates of the software and applications used up-to-date, if it is the case, as well as the network protection required for defense against hackers. The equipment is guaranteed against defects in its usual conditions of use, it being important to bear in mind that, as it is electronic equipment, it Is not free of fraud and scams which may interfere with its correct functioning.
8. After its useful life, the product must be delivered to an authorized Intelbras service center or directly disposed of in an environmentally appropriate manner to avoid environmental and health impacts. If you prefer, the battery, as well as other unused Intelbras brand electronics, can be disposed of at any Green Eletron collection point (waste management facility to which we are associated). If you have any questions about the reverse logistics process, please contact us at (48) 2106-0006 or 0800 704 2767 (Monday to Friday 8am to 8pm and Saturdays 8am to 6pm) or via -mail **support@intelbras.com.br**.

These being the conditions of this complementary Warranty Term, Intelbras S/A reserves the right to alter the general, technical and esthetic features of its products without prior notice.
The manufacturing process of this product is not covered by the requirements of ISO 14001.
All the images of this manual are illustrative.

Documents / Resources

intelbras User manual IVP 7001 MW EX	**intelbras IVP 7001 MW EX Passive Infrared Sensor** [pdf] User Manual IVP 7001 MW EX, Passive Infrared Sensor

References

- **Fórum Intelbras - Índice**
- **Ajuda e Downloads**
- **Intelbras | Segurança eletrônica, Redes, Comunicação e Energia**