intelbras IVP 8000 EX Infrared Passive Sensor User Guide

User guide
IVP 8000 EX

IVP 8000 EX
Infrared passive sensor

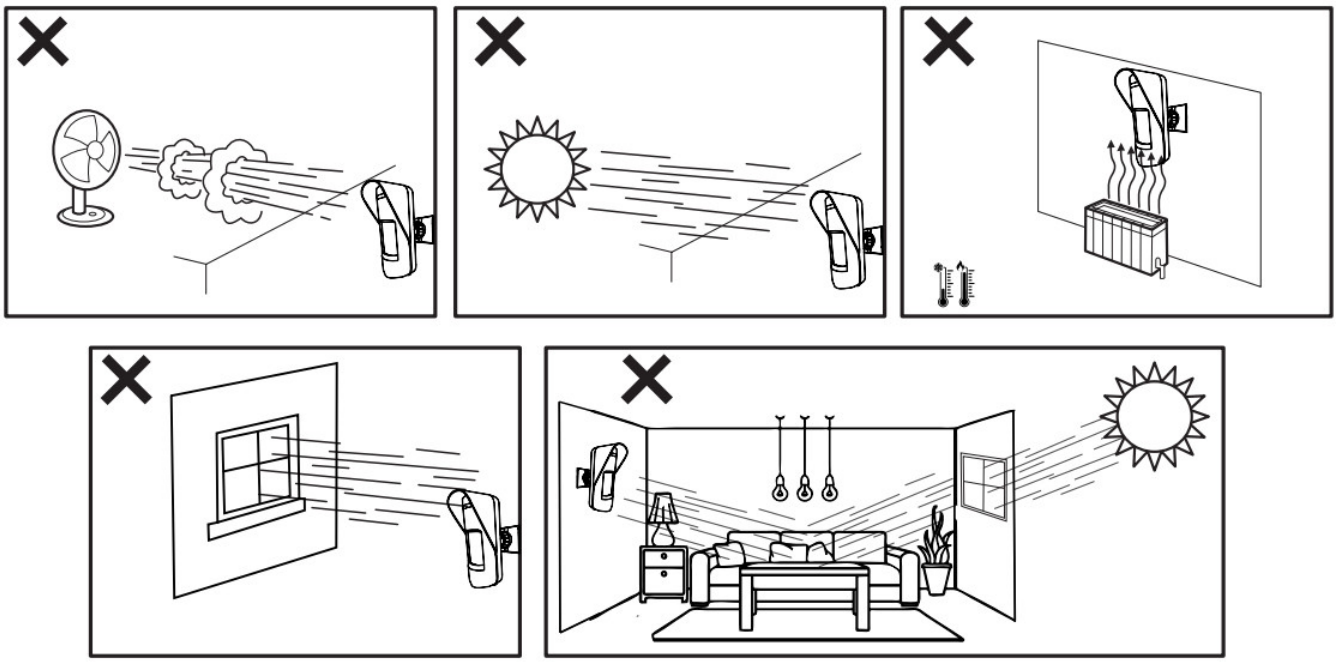
Congratulations, you have just purchased a product with Intelbras quality and security.
The IVP 8000 EX sensor has dust, water protection[1] white light immunity, making it perfect for the harshest environments, and can be installed indoors, semi-open or outdoors. Its lens is specially built for long life, containing materials resistant to sunlight.
The presence of the digital accelerometer ensures that the position of the sensor is not changed after installation, avoiding sabotage in the security system.
The sensor also has an integrated temperature sensor, to offer the same detection sensitivity and reliability in different environments (from – 10 °C to + 50 °C), low energy consumption circuit, providing a long battery life, communication status on the sensor via LED, low battery indication, tamper switch for tamper protection and Articulated support[2], in order to guarantee the best detection angle in the most diverse environments. The IVP 8000 EX sensor is suitable for environments with the presence of pets up to 30 kg. Read the product introductory information carefully for the correct use of the sensor.
[1]Read item 2. Features of this manual.
[2]Read item 12. Articulated bracket of this manual

Contents

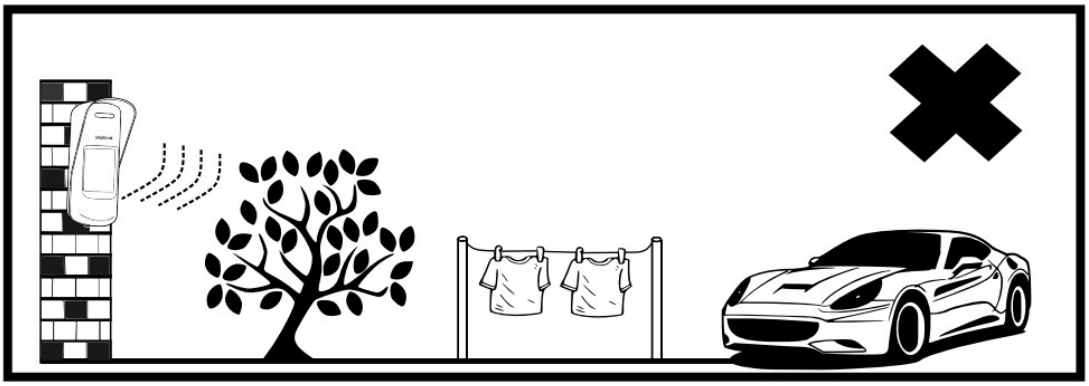
Care and security

⚠ The sensor is compatible with AMT 8000 control panel versions 1.2.1 or higher.

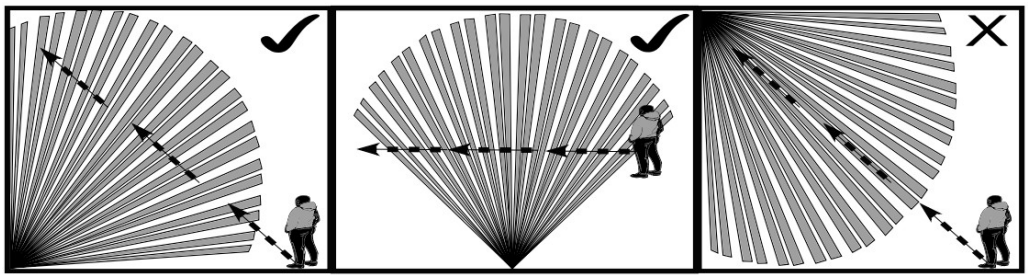
» LGPD – General Law for the Protection of Personal Data: Intelbras does not access, transfer, capture, or perform any other type of treatment of personal data from this product.
» Follow all instructions in the manual for assembling and installing the product;
» Fix the sensor on stable surfaces, where there is no flickering;
» Do not use the sensor in areas with sudden changes in temperature, such as near air conditioners and heaters, fans, refrigerators and ovens. Do not expose the sensor to direct or reflected sunlight;



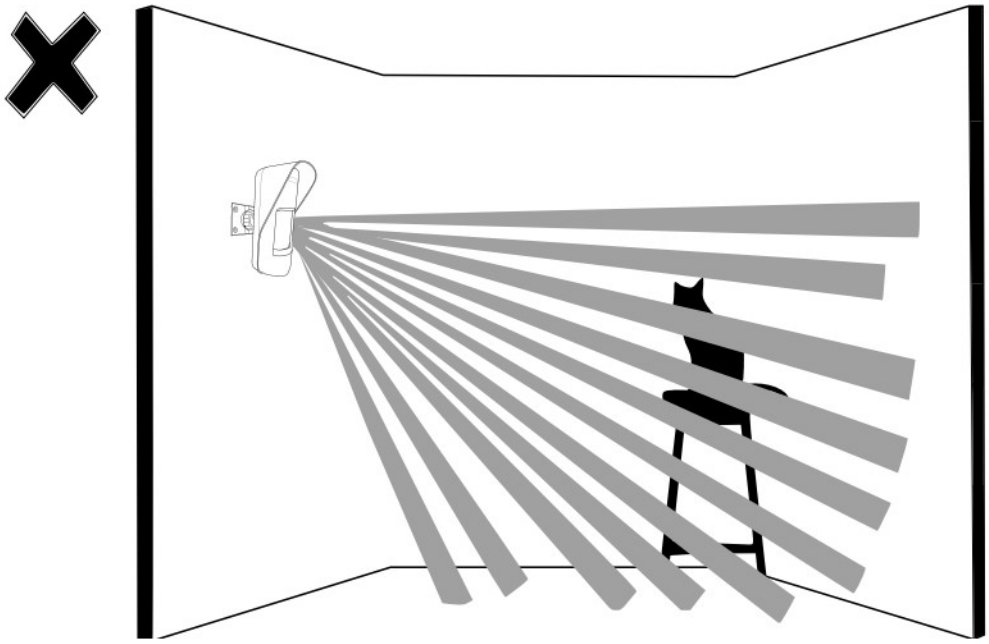
» Wireless communication technology, when exposed to environments with high power irradiation, may suffer interference and have its performance degraded. Example: locations near TV towers, AM/FM radio stations, amateur radio stations, routers, etc.;
» Do not touch the surface of the infrared (PIR) sensor. If necessary, use a soft cloth for cleaning;
» The recommended installation height varies from 2 m to 2.2 m depending on the installation environment.
» Do not place objects in front of the sensor. Keep the detection area clear of moving objects such as bushes, clotheslines, cars or any objects that block scanning. Do not exceed the installation height of the sensor (2.2 m).



» The sensor must be installed where a possible intruder is easily detected, that is, where a person makes the greatest possible movement across the detection beams when entering the environment (see the figure below);

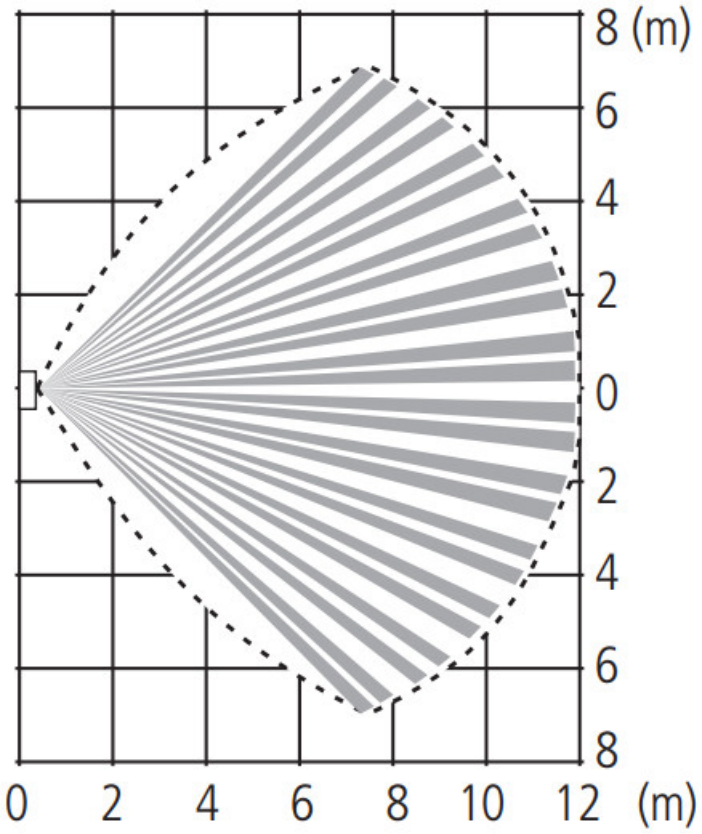


» It is important to note that the Pet function is designed for low-growing animals weighing up to 30kg. If the animal is on top of a bench, for example, the Pet function can be canceled.



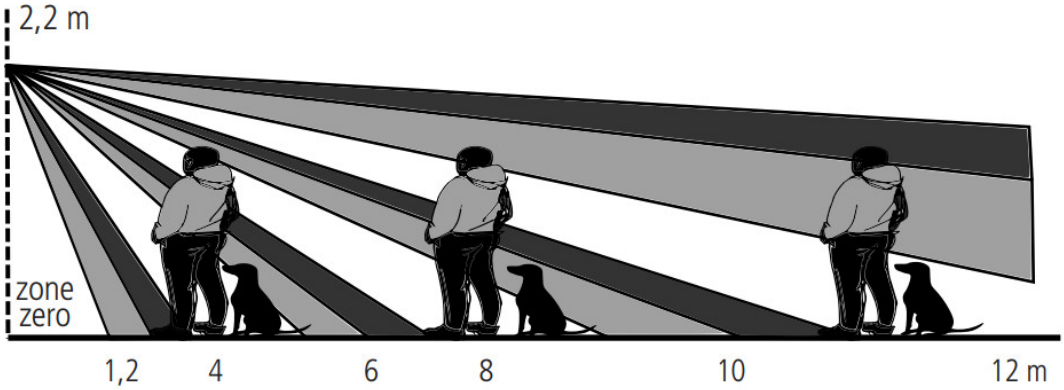
Obs.: before starting the installation, it is necessary to define the height at which the sensor will be positioned, which can vary from 2 to 2.2 m. If the sensor is installed at a height of less than 2.0 m or is tilted downwards, the Pet function will be compromised.

1.1. Scan



Upper view

1.2. Detection range



Side view

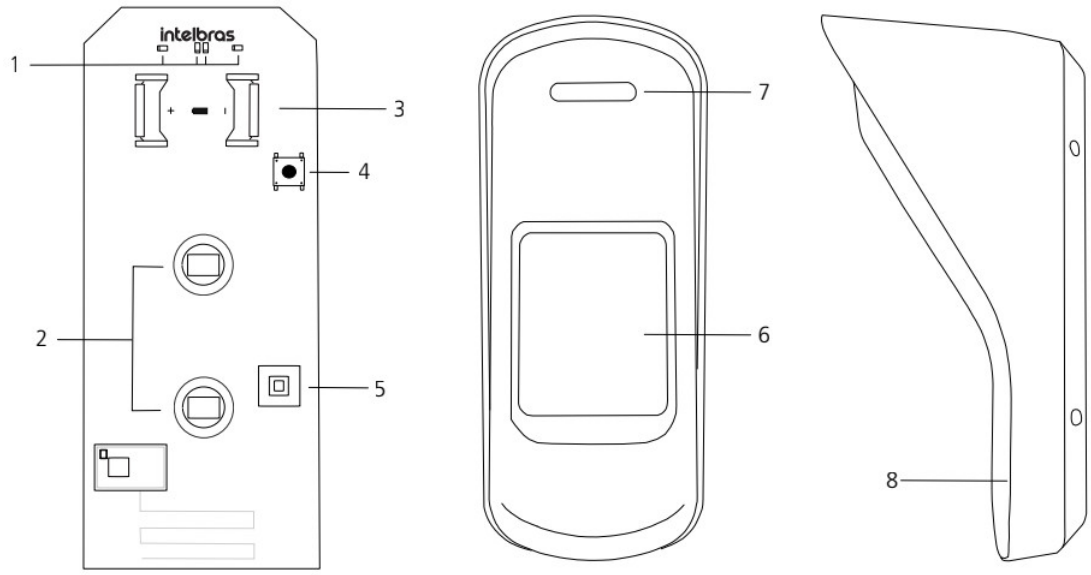
Technical specifications

Operating voltage	3 Vdc
Operating current	20 µA
Frequency band	915 MHz to 928 MHz
Modulation	DSSS BPSK 40 Kbps
Maximum transmission power	11 dBm
Battery	LITHIUM CR123A 3 V
Angle of detection	110°
Detection range	12 m
Method of detection	Double PIR
Animal immunity	Up to 30 Kg
Startup time	60 seconds
Operating temperature	-10 °C ~ +50 °C
RF Range	1000 meters without barrier

Features

» IPX4 protection against water and dust.
» Position anti-sabotage (accelerometer);
» Communication status check via LED;
» Wireless communication with range of up to 1000 meters with direct open field view;
» Supervised wireless communication;
» Encrypted transmission;
» Micro controlled sensor;
» Sensor operation adjustment through the AMT Remote Mobile application;
» Inmunidad a los animales rastreros que pesen menos de 30 kg;
» White light immunity up to 20,000 lux;
» High RFI/EMI immunity;
» Antimanipulación (tecla de manipulación);
» Easy installation.

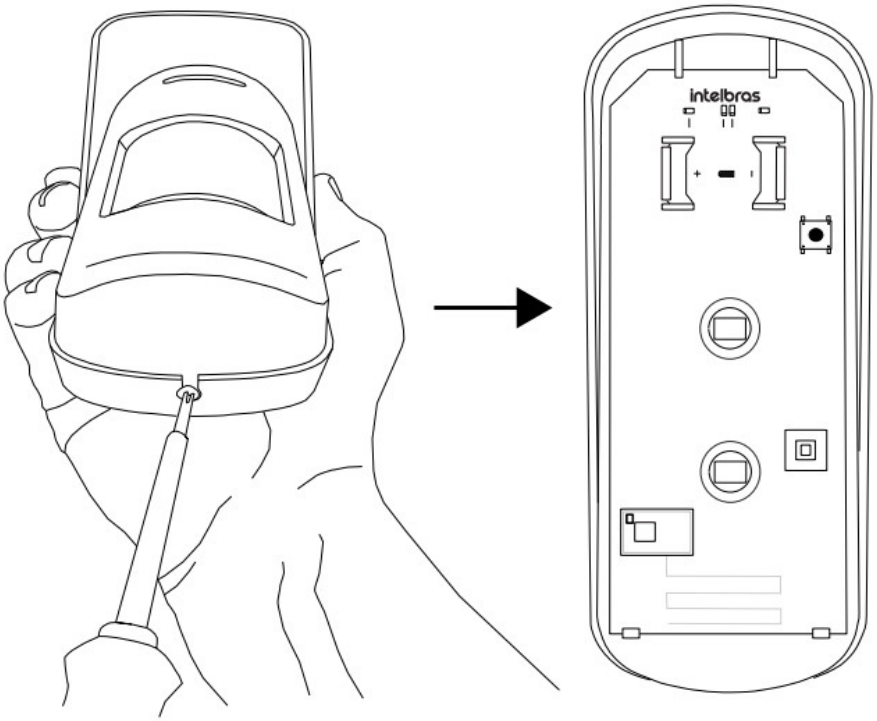
Product



1. LEDs 2. PIR sensor 3. Battery connector 4. Synchronism button	5. Tamper key 6. Fresnel lens 7. LED light conductor 8. Product base

Sensor opening

To access the 8000 EX IVP board for registering, changing batteries or to unregister it from the center unit, simply remove the screw from the bottom with the help of a Philips wrench and remove its front cover. This way the board is exposed and ready to be handled. See the picture:



Sensor stabilization

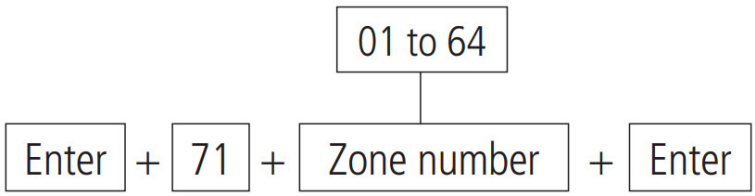
After inserting the battery, the sensor goes into stabilization mode and the blue LED flashes for a few seconds. When stabilization is complete, the blue LED will stop flashing.

Registering the IVP 8000 EX sensor

The sensor registration can be performed through the AMT 8000 Desktop Programmer software, remote AMT mobile application, keyboard commands and synchronization button on the alarm center.
Follow the procedure below for registration through the synchronization button on the control panel.
In this type of registration, the address of the sensors follows the registration sequence, Example: first sensor will be registered in zone 1, the second sensor in zone 2 and so on. For other forms of registration, please consult the complete manual of the AMT 8000 control panel.

1. Press the alarm control panel synchronization button;
2. LED 3 on the control unit stays on for 3 minutes, indicating that it is waiting for the sensor to register;
3. Insert the battery and wait for the sensor to stabilize;
4. Press the sensor synchronization key;
5. The status LED will flash green indicating the correct registration. If it flashes red, the registration was not carried out and the procedure must be repeated.

6.1. Deleting the sensor register
To remove the device from the control panel, two steps are necessary, one directly on the sensor and the other on the control panel.
» Sensor: press and hold the sensor timing switch for approximately 10 seconds, watching the status LED blink red twice slowly.
» Alarm control panel: enter the programming mode and type the command below:



For other ways to remove the sensor from the control panel, please consult the complete manual of the AMT 8000 control panel.

Identifying the best place for installation

The IVP 8000 EX sensor has communication signal level indications with the AMT 8000 center, this will help you choose the best installation location. Follow the procedure:

1. Once properly registered, take the sensor to the environment you wish to protect;
2. Check the position where the sensor can cover the whole environment, respecting the installation height, according to the table in item 1.2. Detection range.
3. Once chosen, position the sensor in the exact place where it will be installed and perform a transmission through a detection or tamper opening;
4. Observe the color that the LED will light up and check in the following table if the sensor can be installed in this location;

LED status	Communication level
Green	Excellent signal level (Recommended installation location)
Orange	Regular signal level Not recommended location for installation (communication failure may oc cur)
Red	No communication (Do not install on site)
Blue	Intrusion detection

5. If the signal level is not excellent, reposition the sensor and perform the procedure again.

Installation

Once the best installation location has been identified, set the height of the sensor.
We recommend that this sensor be installed at a height of 1.8 m to 2.2 m and positioned so that the intruder performs movements transverse to the sensor's detection radius. It is not recommended to install the sensor tilted up or down as this may impair the functioning of its PET function.
Check that the sensor is firmly fixed and not subject to flicker, in order to avoid unwanted triggering. The Articulated Bracket can be used to ensure greater flexibility to the installation, adapting to most scenarios and installation angles.
Follow all the mounting instructions in the manual for maximum benefit.

8.1. Anti-Sabotage Function

The Anti-Sabotage function prevents the sensor from having its position changed after installation, sending a Tamper shot to the central, thus preventing its detection field from being changed and keeping the area always protected.

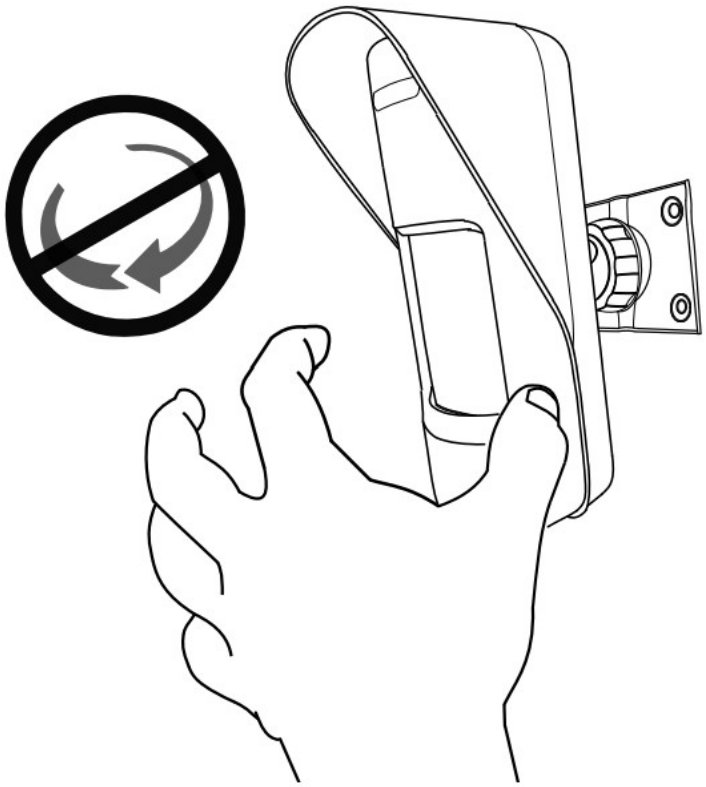
Operation
To understand how it works, see the examples below:
Examples of operation

» Example 1: describes the operation of the sensor under the following conditions:
» During the initial 15 minutes after registration;
» During the initial 15 minutes after pressing the registration key;
» Or during the Wireless Sensor Test configured on the keyboard (programming: Enter + 52 + Enter).

1. Register the sensor in an AMT 8000 control panel (check item 6. Registering the IVP 8000 EX sensor).
2. With the sensor enrolled, close the front cover and keep the sensor in a fixed position.
3. Change the position of the sensor (vertically or horizontally) and keep it in the modified position. Pay attention to messages on the keyboard or configuration applications.
4. Check on the keyboard if the Tamper message of the zone in which the sensor was registered will appear. The time for sending a tamper can take up to 45 seconds.
5. The tamper will automatically reset after 1 minute, clearing the keypad message.
   » Example 2: describes the operation of the sensor under the following conditions:
   » 15 minutes after registration;
   » 15 minutes after the registration key is pressed;
   » 15 minutes after the Wireless Sensors Test configured on the keyboard (programming: Enter + 52 + Enter).
6. Change the position of the sensor (vertically or horizontally) and keep it in the modified position.

7. Check on the keyboard if the Tamper message of the zone in which the sensor was registered will appear. Tamper sending time can take up to 45 seconds.
8. At this stage the tamper will not be automatically restored.

Option 1: pressing the sensor registration key once. Restoration is immediate.
Option 2: keyboard command (in programming mode: Enter + 52 + Enter). Stay at least two minutes on the schedule.
Option 3: test Wireless Sensors command. Spend at least two minutes in test mode.
Option 4[1]: command via keyboard (in programming mode: Enter + 543 + 2-digit sensor zone number + Enter). Restore will take up to 2 minutes.
[1]Option available from sensor version 2.0.0 and AMT 8000 central version 2.0.0.

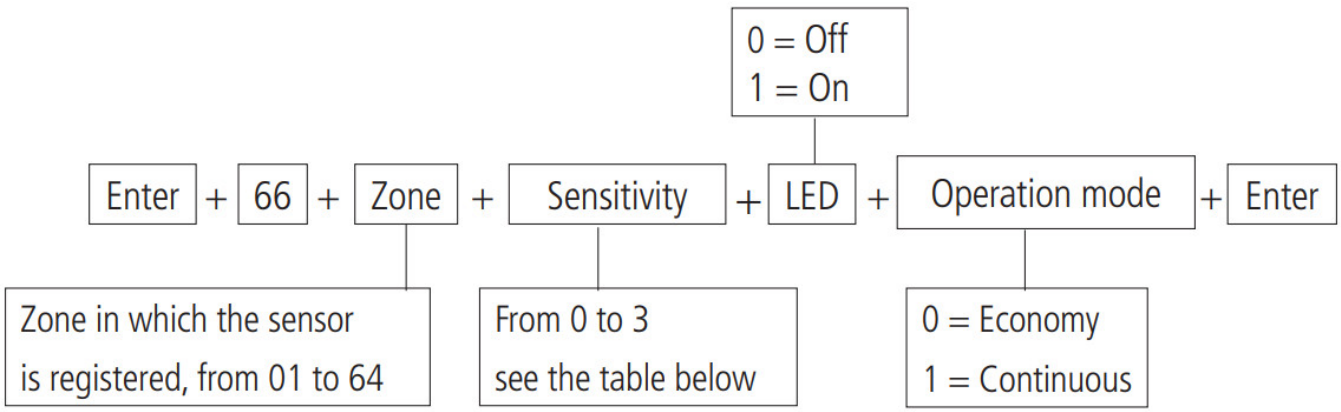


Configuring the IVP 8000 EX sensor

The sensor settings can be adjusted in two ways, below we present the step by step of each one.

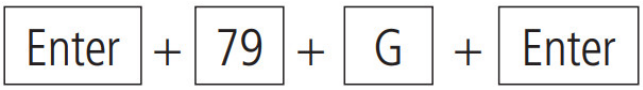
9.1. Configuring the sensor through the keyboard

Using the keyboard of the AMT 8000 alarm center, go into the programming mode with the installer password, then type the following command:



Note: on the EX 8000 IVP, the Operation Mode will not influence its operation.

9.2. Disable Anti-Sabotage function[1]



G – Group of zones from 0 to 6

After entering the command, using the keyboard keys, select which zone you want to disable the Anti-Sabotage function and press the Enter key to confirm.

[1]Available from version 2.0.0 of the sensor and version 2.0.0 of the AMT 8000 control panel.

9.3. Information on sensor settings

Sensitivity adjustment table.

Level	Condition
0	Minimum sensitivity
1	Normal sensitivity
2	Intermediate sensitivity (factory default)
3	Maximum sensitivity

Sensitivity adjustment table

9.4. Information about LED operation and mode of operation

LED

» Off: with the LED off option checked, the sensor will turn on the LED in the first 15 minutes after inserting the battery and after activating the AMT 8000 control panel (factory default).

» On: with the LED function on, battery life can be drastically reduced.

Operation mode

» Activated control panel: the sensor transmits all detections to the alarm control panel, lighting the detection and communication status LEDs regardless of the LED configuration.

» Central deactivated: the sensor performs an intelligent analysis of movement in the environment. This way, the detections occur in a variable period between 1 and 5 minutes adjusted automatically, according to the proportion of movements of the place. Lighting of the detection and communication status LEDs depends on the sensor configuration (default – LED off).

Note: the initial 15 minutes after inserting the battery into the sensor, detections occur regardless of the status of the control panel (activated/deactivated) and the respective LEDs light up at each detection.

⚠ After activation of the AMT 8000 control panel, it is necessary to wait a time of up to 2 minutes for synchronization between the IVP 8000 EX and the AMT 8000 control panel. During this period, the sensor does not detect movement. After synchronization, which can take up to 2 minutes, the sensor will detect normally.

9.5. Configuring the sensor through the application

1. After the application is properly connected to the alarm center, select Configure center on the main screen of the APP;

   Menu

Configure Center	>
Online	>
Events	>

2. After that, select sensors;

Settings

General	>
Zones	>
Passwords	>
Communication	>
Event codes	>
IP monitoring	>
Ethernet/Wi-Fi	>
GPRS	>
Programed activation/deactivation	>
Sensors	>

Once you have done this, select the sensor you wish to configure, for example:
Sensor 1

Sensors	
Sensor 1	>
Sensor 2	>
Sensor 3	>
Sensor 4	>
Sensor 5	>
Sensor 6	>
Sensor 7	>
Sensor 8	>
Sensor 9	>
…Sensor 64	>

After selecting the sensor, the following adjustment screen will open.

Sensor 1	
Sensitivity	
Level 0 (minimum sensitivity)	◉
Level 1 (normal sensitivity, factory default)	○
Level 2 (intermediate sensitivity)	○
Level 3 (maximum sensitivity)	○
LED	
Always Off	◉
On when triggered	○
Operation mode	
Economy mode	◉
Continuous mode	○
Discard changes	**Save**

Note: for configuring the settings, check the sensitivity table, the explanations of LED operation and the Operation mode in item 9.2. Information on the sensor settings.

Battery

Use only quality batteries with the correct sizing for the device, and with the typical use of the device, the battery life forecast is 3 to 5 years and can be influenced by the number of triggering, weather conditions and configuration mode.
The battery model should be CR123A 3 V, being used one (1) battery per sensor.
We recommend replacing batteries with the same brand and industrial model as purchased from factory products.

This product has an internal battery. After their useful life, the batteries must be delivered to an authorized Intelbras technical assistance department or directly disposed of in an environmentally appropriate manner, avoiding environmental and health impacts. If you prefer, the battery, as well as other unused Intelbras brand electronics, can be discarded at any Green Eletron collection point (electronic waste manager with which we are associated). If you have any questions about the reverse logistics process, please contact us by telephone (48) 2106-0006 or 0800 704 2767 (Monday to Friday from 8am to 8pm and Saturdays from 8am to 6pm) or via email - mail **support@intelbras.com.br**.

Homologation

05326-18-00160

This equipment is not entitled to protection against harmful interference and may not cause interference to duly authorized systems. This is a product approved by Anatel, the approval number can be found on the product label, for queries, visit the website: **https://www.gov.br/anatel/pt-br**.

Articulated bracket

The articulated bracket was built to fit perfectly in most of the presence sensors available in the market, besides having a large steering angle, support for wiring passage and UV protection for indoor or outdoor installation.

12.1. Care and security

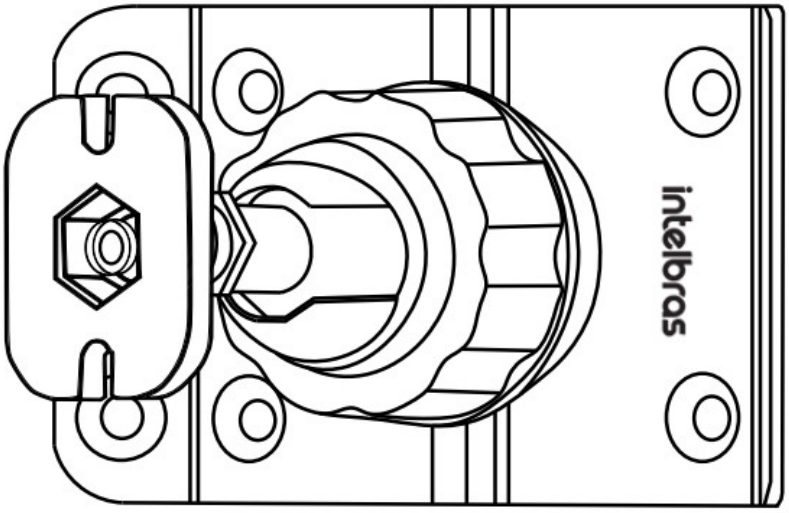
» Follow all instructions in the manual for product assembly and installation.
» Make sure that both the sensor and the bracket are securely attached to the installation site to avoid changes in the detection angle of the product.
» Make sure the installation site is stable and not subject to flicker.

12.2. Technical specifications

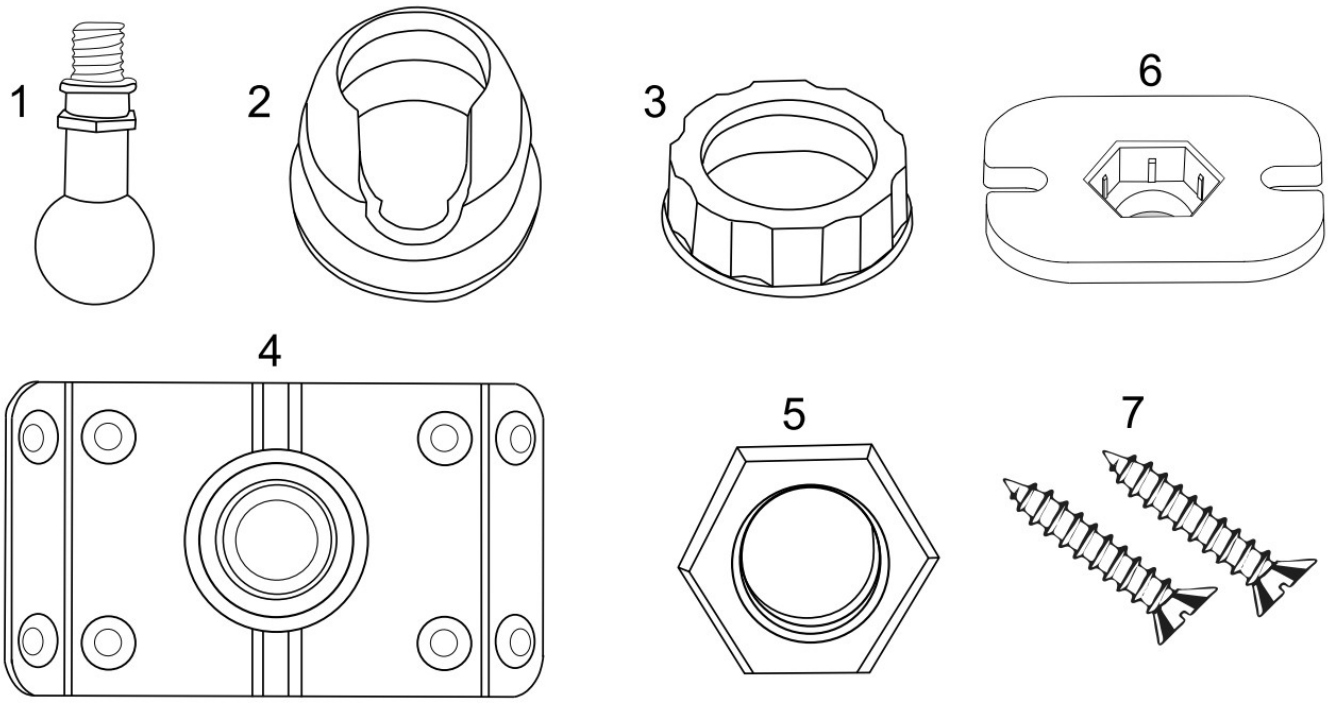
General characteristics	
Material	Plastic with UV protection
Weight	44 g
Load capacity	1.5 Kg
Installation environment	Indoors / outdoors
Dimensions (W × H × D)	99 × 58 × 64
Horizontal movement angle	160°
Vertical movement angle	160°

12.3. Product

Mounted support



Components	
1	Axis
2	Cover
3	Ring
4	Base
5	Nut
6	Connector
7	Screw 3.5 x 9.5 mm



12.4. Features

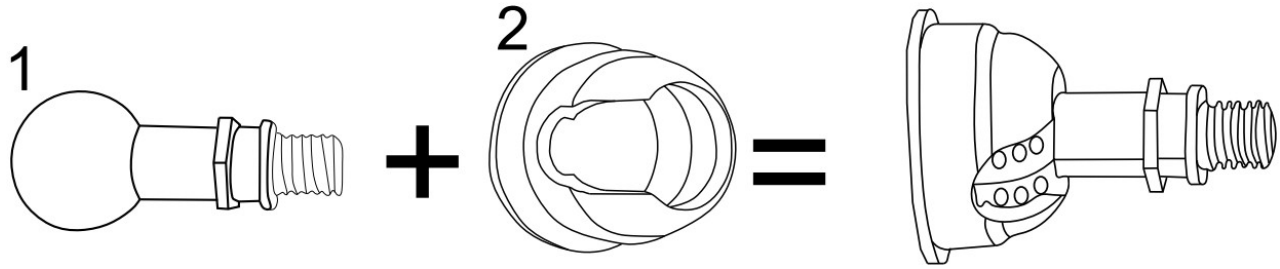
» Built in UV-protected material;

» Easy installation;

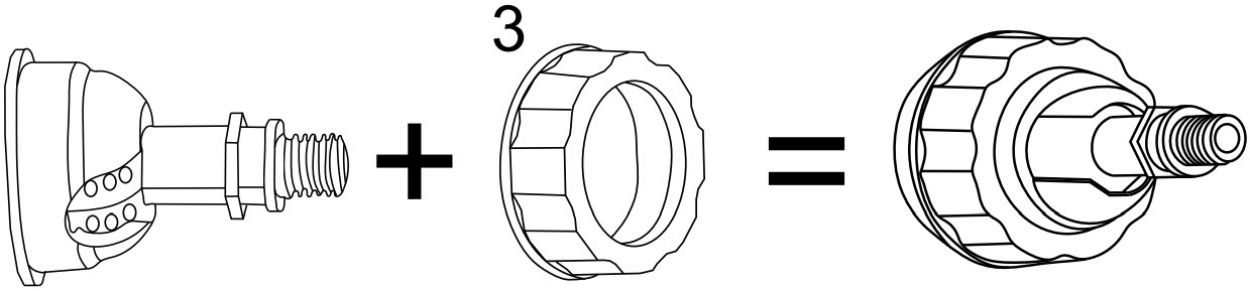
» Wide application scenario;
» Discreet and robust.

12.5. Installation with IVP 8000 EX base with internal nut housing

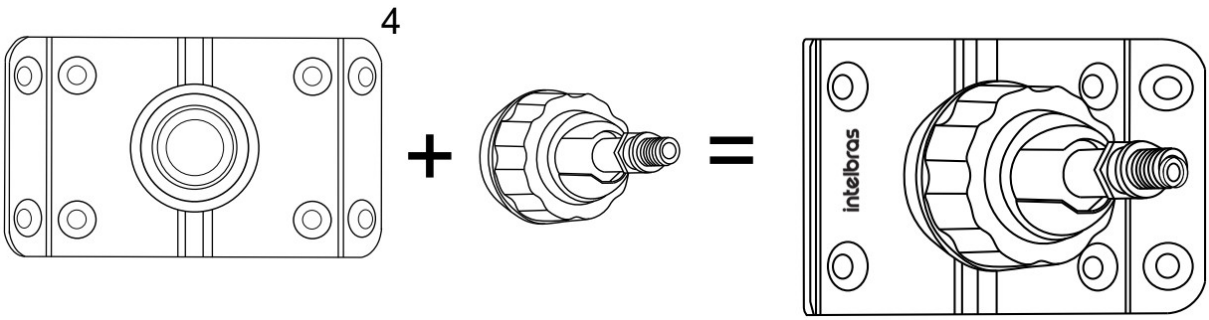
» Insert the shaft into the cover (piece 1 and piece 2);



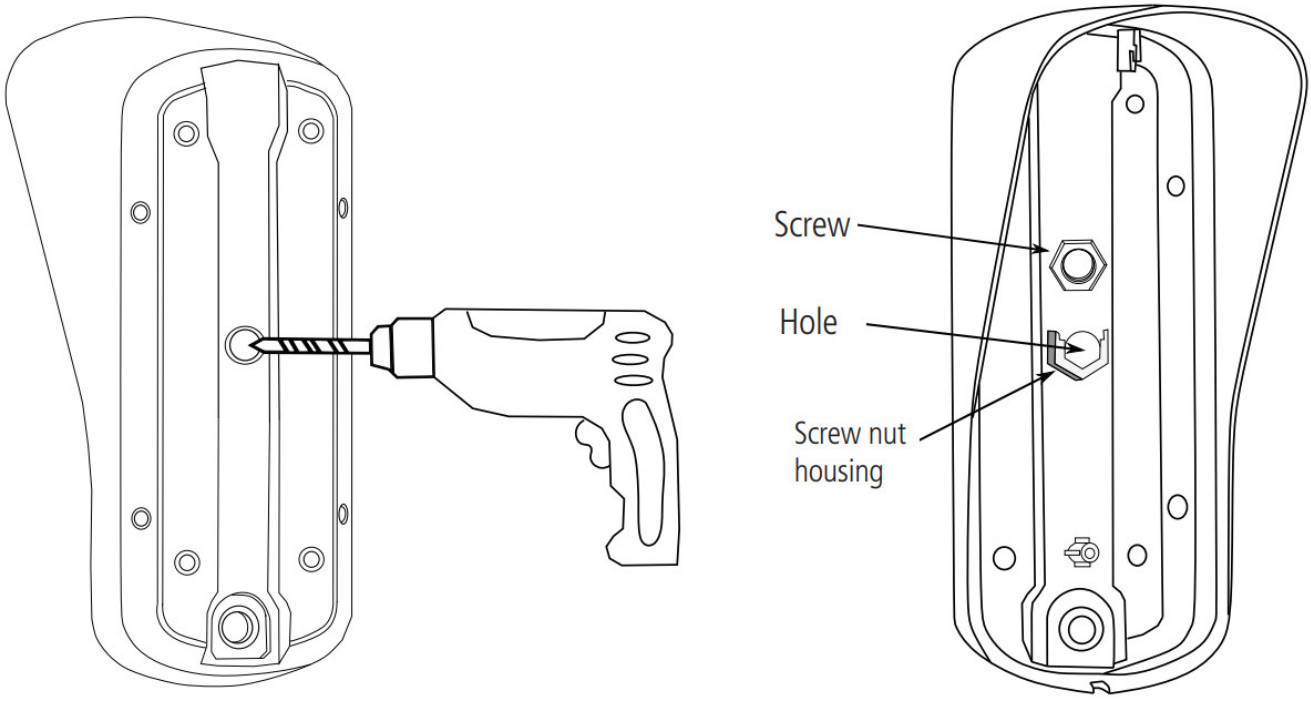
» Pass the ring through the assembly above (piece 3);



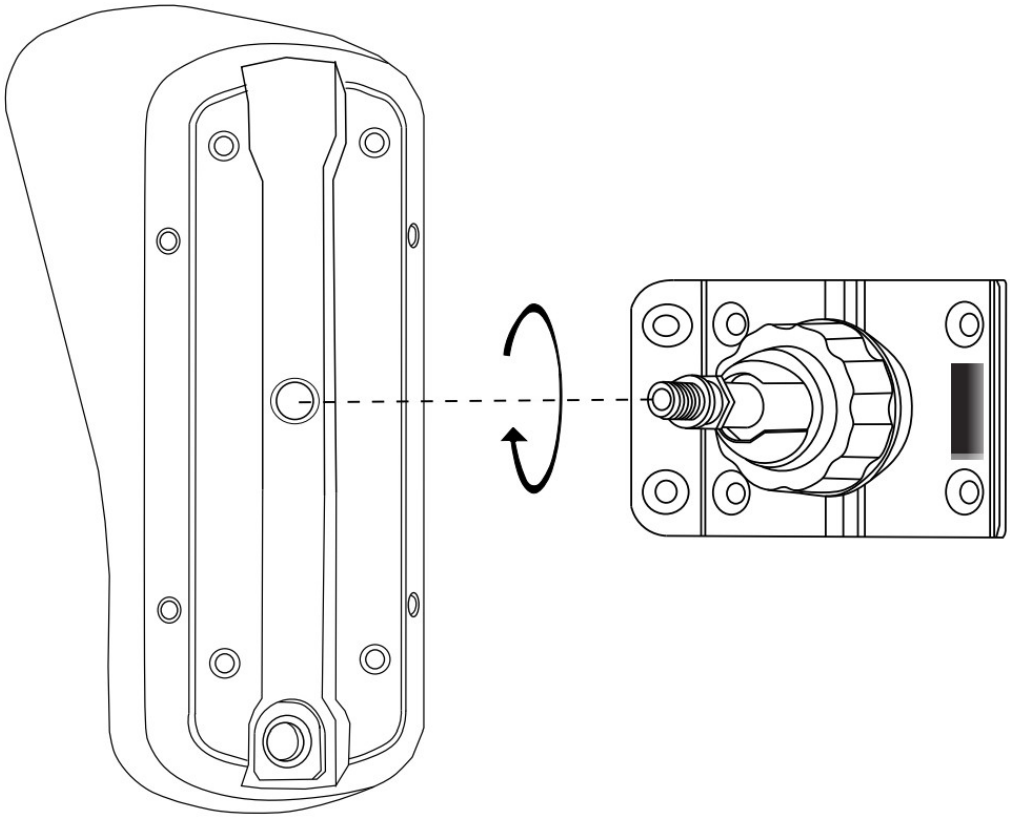
» Screw the ring onto the base of the articulator (piece 4);



» Remove the plate and make a hole at the indicated location on the base using a drill or whatever tool you deem appropriate, check that the hole made allows the passage of the support shaft. Then, insert the nut in the housing located inside the base;

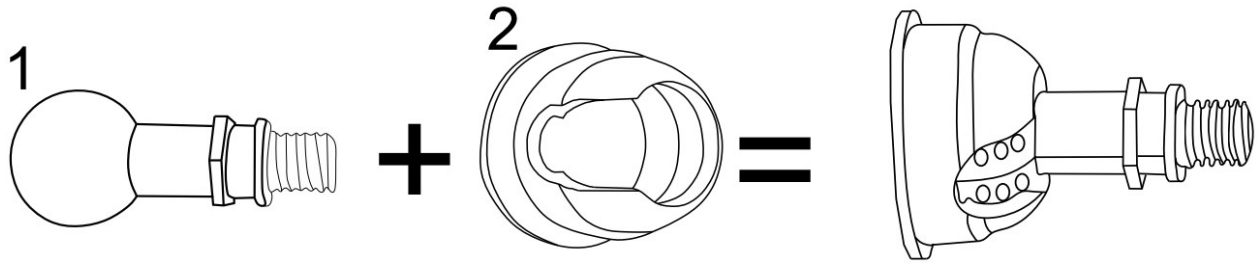


» Insert the shaft through the hole, turning it clockwise.

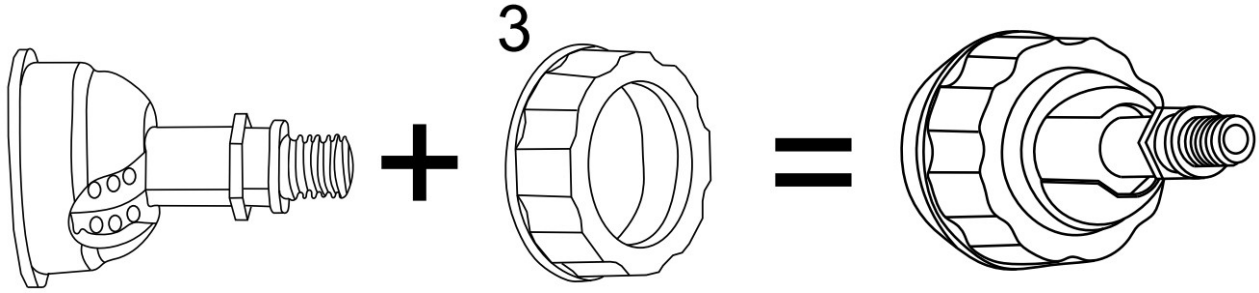


12.6. Installation with the base of the IVP 8000 EX without drilling

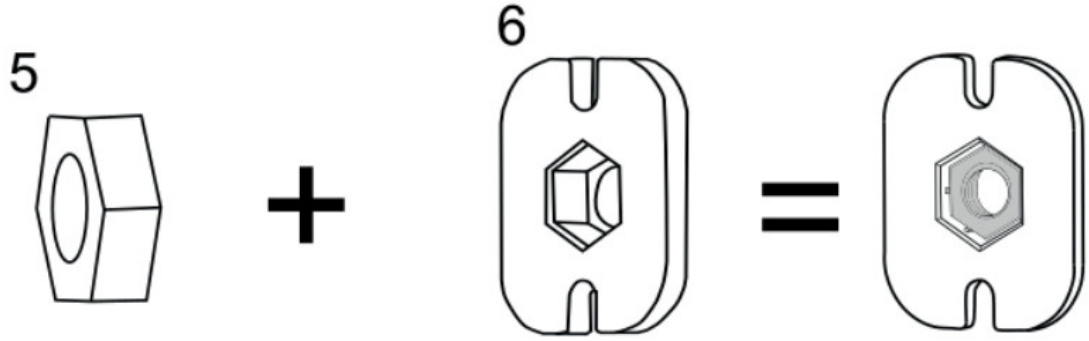
» Insert the shaft into the cover (piece 1 and piece 2);



» Pass the ring through the assembly above (piece 3);



» Insert the nut in the connector (pieces 5 and 6); Installation using the articulator:



» Fix the connector on the base of the sensor using the two screws as shown in figure 1, observe the existing hole in the base, then insert the shaft through the hole, rotating it clockwise as shown in figure 2.

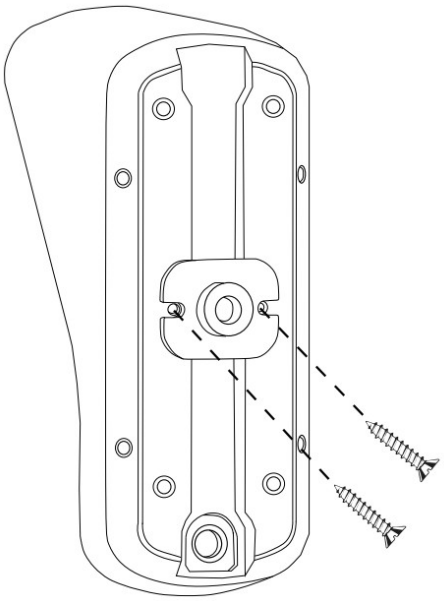


Figure 1

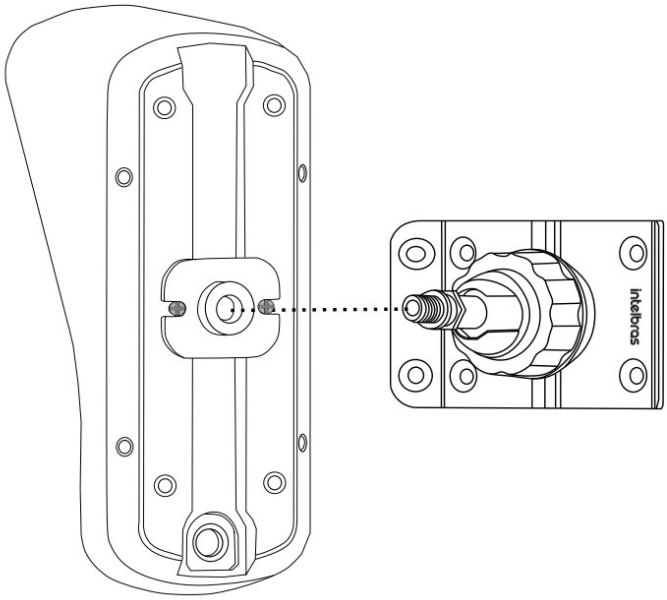
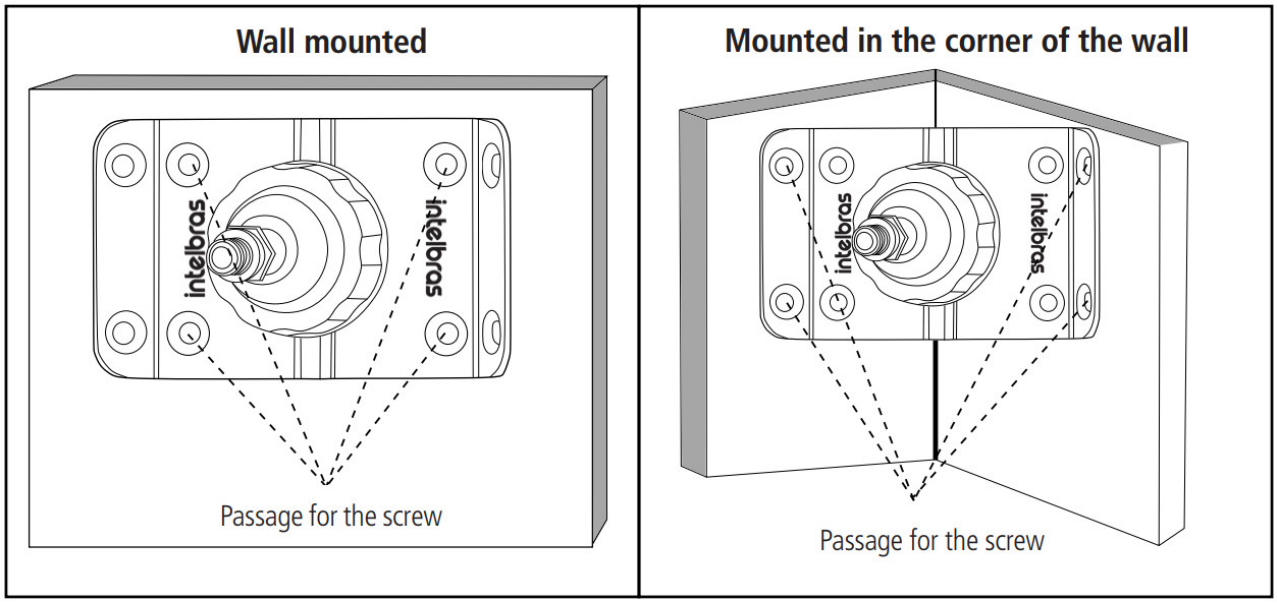
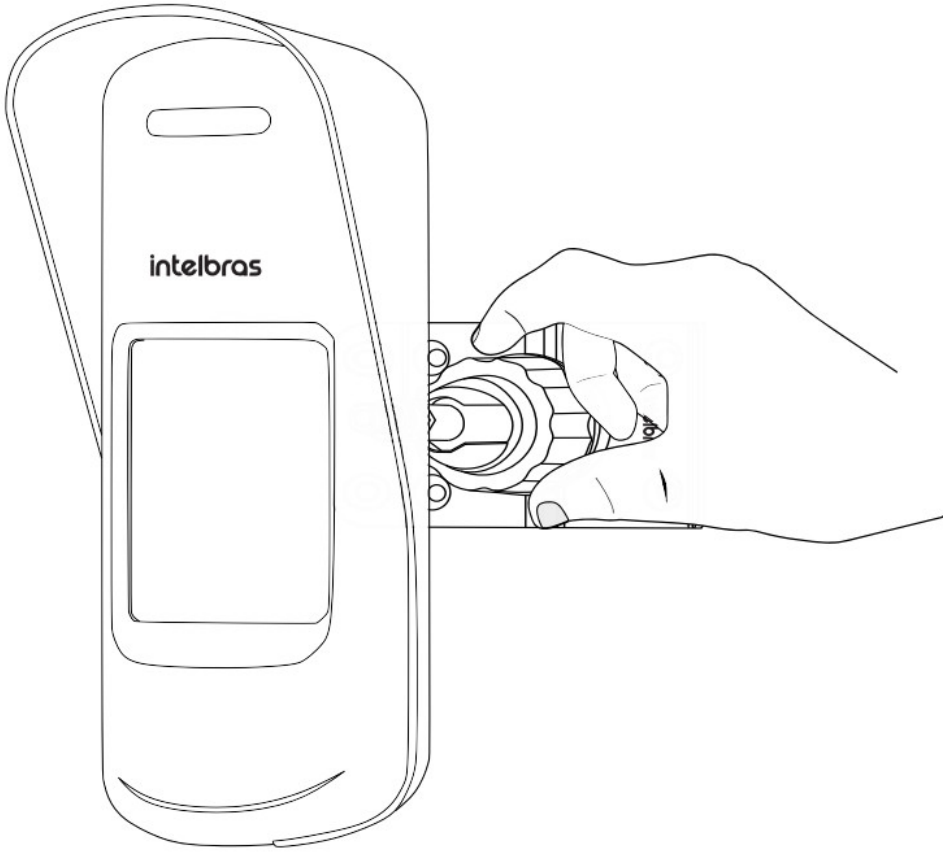


Figure 2

» If the sensor is installed on a flat surface, use the four innermost holes in the base for mounting. If the sensor is used on a 90° corner, use the four outermost holes on the base;



» After definitively fixing the base, direct the sensor to the desired detection field, always respecting its specifications. Lock the sensor position by turning the fixing ring clockwise until you feel that it is firm.

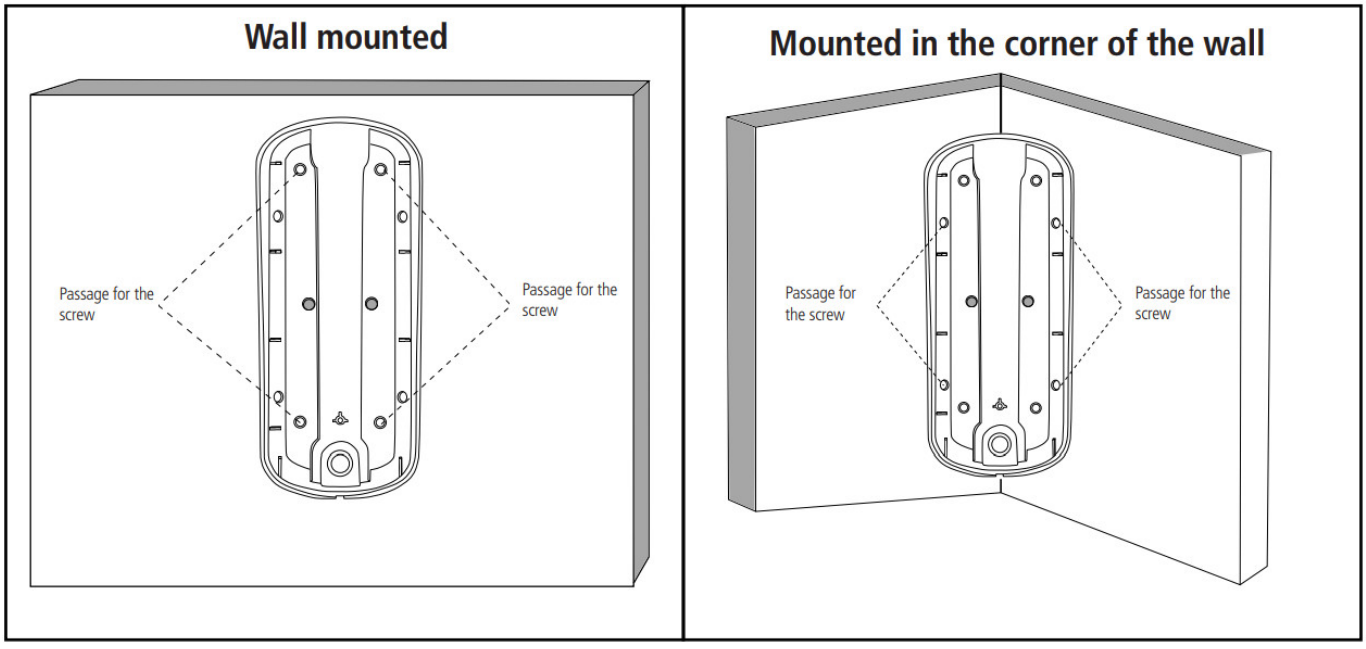


Installation without using the articulator

» For installation directly on the wall, or in the corner of the wall, remove the plate and break the seals indicated for the holes in the rear fixing cover.

⚠ **Attention!**

Ensure that the coat is in accordance with the size of the action, as a hole can be driven into the product.



Warranty term

It is expressly stated that this contractual warranty is given subject to the following conditions:

Name of customer: ————————-
Signature of the customer: ————————-

No. of the invoice: ————————-
Date of purchase: ————————-
Model: ————— Serial No: ————————-
Reseller: ————————-

1. All parts and components of the product are under warranty against possible manufacturing defects, which may present, for a period of one (1) year, – comprising 90 (ninety) days of legal warranty and 9 (nine) months of contractual warranty, –, counted from the date of purchase of the product by the Consumer, as stated in the invoice of purchase of the product, which is part of this Term throughout the national territory. This contractual warranty includes the express exchange of products that are defective in manufacture. In case no manufacturing defect is found, but flaw(s) from inappropriate use, the Consumer will bear these expenses.
2. Product installation must be done in accordance with the Product Manual and/or Installation Guide. If your product needs to be installed and configured by a qualified technician, look for a suitable and specialized professional, and the costs of these services are not included in the value of the product.
3. If the defect is found, the Consumer should immediately communicate with the nearest Authorized Service listed by the manufacturer, – only they are authorized to examine and remedy the defect during the warranty period provided herein. If this is not respected, this guarantee will lose its validity, as the violation of the product will be characterized.
4. In the event that the Customer request home care, he/she should refer to the nearest Authorized Service for the technical visit fee. If the need for withdrawal of the product is found, the expenses arising, such as transportation and safety to and from the product, are under the responsibility of the Consumer.
5. The warranty will totally lose its validity in the event of any of the following:
   a) if the defect is not of manufacture, but caused by the Consumer or by third parties alien to the manufacturer;
   b) if the damage to the product comes from accidents, claims, agents of nature (lightning, floods, landslides, etc..), humidity, mains voltage (overvoltage caused by accidents or excessive mains fluctuations), installation/use in disagreement with the user manual or due to natural wear of parts and components;
   c) if the product has been influenced by chemical, electromagnetic, electrical or animal (insects, etc.);
   d) if the product's serial number has been tampered with or erased;
   e) if the device has been tampered with.
6. This warranty does not cover loss of data, so it is recommended that the Consumer make a regular backup of the data on the product.
7. Intelbras is not responsible for the installation of this product and also for any attempts of fraud and/or sabotage on its products. Keep software and application updates, if any, up to date, as well as network protections necessary to pro¬tect against hackers. The equipment is guaranteed against flaws within its normal conditions of use, and it is important to be aware that, since it is an electronic equipment, it is not free from frauds and scams that may interfere with its correct functioning.

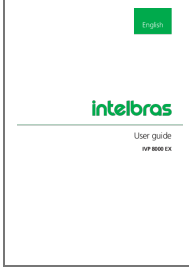
Since these are the conditions of this complementary Warranty Term, Intelbras S/A reserves the right to change the general, technical and aesthetic characteristics of its products without prior notice.
All images in this manual are illustrative.

Customer Support: (48) 2106 0006
Forum: forum.intelbras.com.br
Support via chat: chat.intelbras.com.br
Support via e-mail: suporte@intelbras.com.br
Customer Service: 0800 7042767
Where to buy? Who installs it? 0800 7245115

Produced by: Intelbras S/A – Indústria de Telecomunicação Eletrônica Brasileira
Rodovia BR 459, km 124, nº 1325 – Distrito Industrial – Santa Rita do Sapucaí/MG – 37540-000
CNPJ 82.901.000/0016-03 – www.intelbras.com.br

04.23
Made in Brazil

Documents / Resources

	intelbras IVP 8000 EX Infrared Passive Sensor [pdf] User Guide IVP 8000 EX, IVP 8000 EX Infrared Passive Sensor, Infrared Passive Sensor, Passive Sensor, Sensor

References

- CHAT Intelbras
- Fórum Intelbras - Índice
- intelbras.com.br
- Anatel — Agência Nacional de Telecomunicações
- User Manual