



PYROIS
TECH

AZTECA

Optical
Interrogator



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The specifications indicated in this manual are subject to change without prior notice.

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0. Introduction

Thank you for purchasing the AZTECA optical interrogator developed by Pyroistech S.L. This document describes the equipment and provides you with instructions for its correct operation. Feel free to contact us at info@pyroistech.com if you have any questions or concerns about this manual.

The equipment integrates a LED light source and a spectrometer in the visible range, both connected to the inputs of a 2x1 fiber optic splitter 105/125 μm core/ sheath diameter. The end user can connect the desired sensor to the SMA output of the splitter and access the values measured by the spectrometer through a USB port.

1. Package content

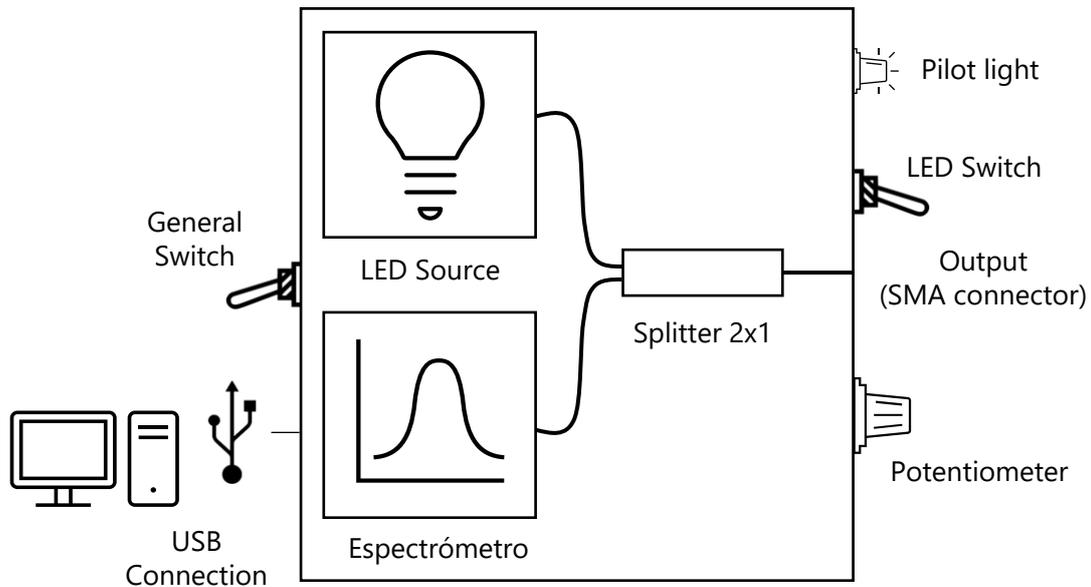
The shipment contains the following items:

- AZTECA Optical Interrogator
- Power source: input 100 - 240 V ~, 50 - 60 Hz; output 18 V, 2 A; dimensions 99 x50 x33 cm, cable length 1.5 m
- Power cord, length 1.85 m.
- Cable for USB connection
- User manual

Carefully inspect the device and other items in the shipment and make sure there is no damage. Otherwise, do not use the equipment and contact us at info@pyroistech.com for information on repair or replacement.

2. Operation

2.1 Blocks diagram



2.2 Instructions for use

Insert the power cord plug into the power source and connect the power cord to the outlet. Then insert the plug of the power source into the device's power connector (female type DC connector).

Unscrew the protective cap from the SMA connector on the front face of the device and connect the fiber. Then connect the device to the computer for data acquisition via the USB cable. The type B connector connects to the device while the type A connector connects to the computer.

Finally, once all the connections are correct, turn on the device. First, move the main switch on the back of the device to the ON position. Subsequently, turn on the LED using the switch located on the front face. When the LED source is on, the green pilot light located on the front of the equipment will light up. Use the potentiometer (11 positions, 0-10) on the front face to regulate the intensity of the LED source.

To turn off the device, carry out the process in reverse order, first turning off the LED switch (front side) and lastly the main switch (rear side).

2.3 Maintenance

The output connector of the device should be periodically cleaned using compressed air to remove dust. It is recommended to have the output connector with the dust cap on whenever the device is not in use. The fiber connector that connects to the output of the device must also be clean to ensure the best possible performance of the equipment.

2.4 Device parts



Front face

1. **SMA output connector:** device output that corresponds to the splitter output.
2. **ON/OFF LED Switch:** the left position of the switch (dark bulb symbol) corresponds to the LED in OFF state and the right position (white bulb) corresponds to the LED in ON state. The turning on of this switch must be preceded by turning on the device using the general switch (6) located on the rear face.
3. **Pilot light:** it will light green when the LED is ON.
4. **Potentiometer:** it has 11 positions (0-10) and it regulates the intensity of the LED source.

Rear face



5. **DC female power connector:** 18 V, 1.5 V
6. **General ON / OFF switch:** in the ON position the spectrometer and the electronics in charge of controlling the LED source are turned on. This switch does not turn on the LED (this function is performed with the switch on the front face (2)).
7. **USB type B connector:** connector for USB communication between the spectrometer and the computer.

3. Important Notes

Before operation

- Do not remove or alter any installed safety device on this equipment. Doing so will cancel your warranty and create an unsafe operating environment.
- There are NO user serviceable parts inside. Dangerous currents are present in this device. Only allow qualified personnel to service this unit.
- Inspect this unit and its power supply before using it for the first time. Do not use the unit if it is damaged in any way. Contact us for repair or replacement information.

During operation

- Do not cover the source or obstruct the air flow for its refrigeration. Avoid exposure to direct sun light. A rise in the light source's temperature could affect its operation or even damage its components.
- The output connector of the light source may get hot during operation. After its employment, allow enough time to cool down before handling.
- The equipment should not be used adjacent to or stacked with other equipment. If adjacent or stacked use is necessary, the equipment should be observed to verify normal operation in the configuration in which it will be used.

Eye safety

- Optical radiation can damage your eyes. Do NOT stare directly at the light beam.



CAUTION !

Do NOT stare directly at the light beam

Electromagnetic Compatibility

- Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of this equipment. Otherwise, degradation of the performance of this equipment could result.
- The use of cables, power supplies, transformers and accessories other than those specified by Pyroistech S.L., in addition to not being covered by the warranty, may lead to increased emissions and/or decreased electromagnetic compatibility.

4. Warranty

Pyroistech's general warranty for a product has a 1 year duration.

This warranty includes repairs and replacement of damaged parts due to a malfunction of the source, as long as said malfunction can be attributed to errors made in the manufacture of it by Pyroistech SL, not to a punctual misuse of the source or to a continued incorrect employment of it by the user, whether conscious or unconscious, due to not having followed the operation recommendations indicated by Pyroistech SL

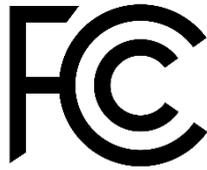
There is the possibility of extending this guarantee. For more information, contact Pyroistech S.L

5. Compliance

This device complies the following standards:



EMC 2014/30/EU
RoHS-compliant



Federal
Communications
Commision

Contact Pyroistech S.L. if you require more information about the electromagnetic compatibility of the product.



WEEE
Compliance

If you consider that the product has reached the end of its useful life and you want to dispose of it, you can contact Pyroistech S.L. so that it is in charge of its management.

Version	Date	Description
1.0	1 June 2021	First Document

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