



Safe operations manual FLIR Si2x-Series

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1 Notice to user

1.1 Important note

This manual provides important information about the FLIR Si2x-Series. Before operating the device, you must read, understand, and follow all instructions, warnings, and legal disclaimers.

For information on the use and operation of the FLIR Si2x-Series camera, please refer to the FLIR Si2-Series user manual.

1.2 Online documentation

Our manuals are continuously updated and published online.

To access the FLIR Si2x-Series and the FLIR Si2-Series manuals, the certifications, and other product documentation, go to

<http://support.flir.com/resources/gg2z>.



To access the manuals for our other products, as well as manuals for our discontinued products, go to <https://support.flir.com/resources/app>.

2 Disclaimers

2.1 Quality assurance

The Quality Management Systems under which the FLIR Si2x-Series is manufactured has been certified in accordance with the following standards:

- EN ISO/IEC 80079-34
FLIR Systems is committed to a policy of continuous development, therefore we reserve the right to make changes and improvements on any of the products without prior notice.

2.2 Copyright

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3 Safety information

3.1 Warnings related to a classified (potentially hazardous) area



WARNING

Do not disassemble the camera in a hazardous area.



WARNING

This equipment shall only be used where there is a low risk of mechanical damage.



WARNING

Do not remove the battery and/or open the USB cover in a hazardous area.



WARNING

Do not charge the battery in a hazardous area.



WARNING

If there is reason to believe that the unit is no longer safe to use, it must be taken out of service and measures taken to prevent its further unintentional use.

3.2 Maintenance

The Si2 user manual contains all the complete information. The FLIR Si2x acoustic imager shall be used in potentially explosive atmospheres according to the requirements in the EN/IEC 60079-14 and local regulations. For safety critical maintenance, refer to EN60079-14 and EN60079-17.

3 Safety information

3.3 Ex compliance marking

A non-removable label with the following markings is adhered to the bottom part of the camera. If this label is missing or illegible, do not enter the potentially hazardous area without consulting a suitably qualified person.



3.4 Certifications

| Scheme | Standards |
|--------------|--|
| ATEX | EN IEC 60079-0:2018 EN 60079-11:2011 |
| EMC | EN 300 328 EN 301 893 EN 301 489-1/-17 |
| Safety (LVD) | IEC 62368-1:2018 |

The FLIR Si2x-Series certifications are available online at
<http://support.flir.com/resources/gg2z>.

4 FLIR Si2x-Series operations

4.1 Introduction

The FLIR Si2x-Series series represents the most advanced acoustic performance and decision support available on the market today. The FLIR Si2x-Series series are ATEX certified acoustic cameras for hazardous locations. These cameras allow quantification of pressurized gas leakage, mechanical fault identification and partial discharge detection in explosive atmosphere. ATEX certified for Zone 2 (gas), and Zone 22 (dust), the Si2x provides an effective, easy to use scalable ultrasound inspection tool that helps reduce energy costs and loss of productivity for Explosive Vapor and Explosive Dust environments.

This chapter covers essential operations that must be performed on the camera before entering a potentially explosive atmosphere, including battery placement and USB export.

Required tools (included in package):

- H2.0 Hex Bit screwdriver (USB cover)
- H2.5 Hex Bit screwdriver (battery door)

4.2 Battery placement and removal

The FLIR Si2x-Series uses an RRC power solutions GmbH RRC2054 lithium-ion battery pack.



WARNING

Keep the battery guard on the battery casing at all times when using the camera, especially in a potentially explosive atmosphere.

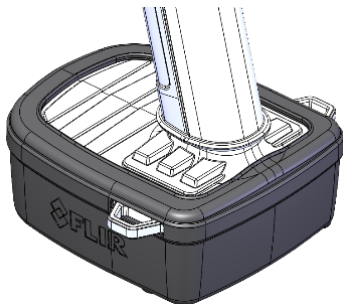


WARNING

Do not insert, remove, or replace the camera battery in a potentially explosive atmosphere.

4.2.1 Opening the battery compartment

1. Remove the battery guard:



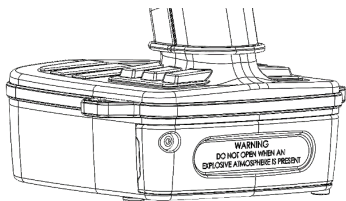
- 1.1. Temporarily remove the battery guard by grasping the ends near the front of the camera. If using a compliant neck strap, remove it first.
- 1.2. Slide the battery guard down from the top and make sure the neck strap attachment points are free. Continue sliding until the cover is completely removed from the camera's battery case.



NOTE

A compliant neck strap can be used with the camera.

2. Open the battery compartment:

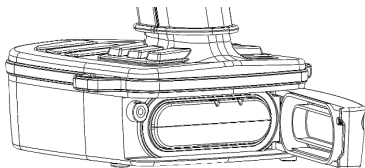


- 2.1. Unscrew the HEX 2.5 mm screw counterclockwise from the battery door.
- 2.2. Pull out the door to open the battery compartment.

4 FLIR Si2x-Series operations

3. Insert battery:

- 3.1. Align the battery connectors with the compartment, ensuring the connectors are at the front and facing upwards.
- 3.2. Push the battery into the compartment until it clicks into place.



4.2.2 Closing the battery compartment

1. Remove the battery (if needed):

- 1.1. Pull the battery tail to slide it out.

2. Close the battery compartment:

- 2.1. Close the door and screw the HEX 2.5 mm screw clockwise to secure it.

3. Reattach the battery guard:

- 3.1. Orient the battery guard with the FLIR logo facing outward.
- 3.2. Insert the front end to cover the front of the battery casing. Then, pull the other end to fit over the back where the battery compartment is located. Ensure the battery guard fits securely around the neck strap attachment points.

4.2.3 Check battery level

For more information, see the Si2 user's manual, chapter *Battery indicator*.

4.3 Charge the battery



WARNING

Charge only with the provided battery charger.

For more information, see the Si2 user's manual, chapter *Battery charging*.

4.4 USB operations



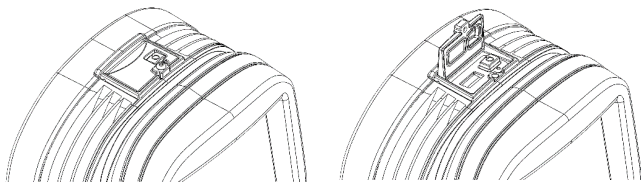
WARNING

Do not open the USB cover in an explosive area.

For file transfer and camera updates, the USB cover must be opened. For more information about file transfer, see the Si2 user's manual, chapter *Basic operation, File transfer*. For information about updates, see the Si2 user's manual, chapter *Updating the camera*.

4.4.1 Open the USB cover

1. Find the cover and screw next to the power button on the top of the camera.
2. Use the HEX 2.0 mm tool to unscrew counterclockwise until the cover is free.
3. Pull out the cover to access the USB port.



4.4.2 Close the USB cover

1. To attach the cover, press down firmly on the camera body.
2. Use the HEX 2.0 mm tool to screw clockwise and make sure it is properly tightened.



Website

<http://www.flir.com>

Customer support

<http://support.flir.com>

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