# Table of contents

1 Disclaimers ........................................................................................................... 1
   1.1 Legal disclaimer .............................................................................................. 1
   1.2 U.S. Government Regulations ....................................................................... 1
   1.3 Patents ............................................................................................................ 1
   1.4 Quality assurance .......................................................................................... 1
   1.5 Third-party licenses ....................................................................................... 1
   1.6 Usage statistics .............................................................................................. 1
   1.7 Copyright ....................................................................................................... 1

2 Safety information ................................................................................................ 2
   2.1 Accessing regulatory information ................................................................ 3

3 Notice to user ........................................................................................................ 4
   3.1 Calibration ...................................................................................................... 4
   3.2 Accuracy ......................................................................................................... 4
   3.3 Disposal of electronic waste ......................................................................... 4
   3.4 Training .......................................................................................................... 4
   3.5 Documentation updates ............................................................................... 4
   3.6 Important note about this manual ................................................................ 4
   3.7 Note about authoritative versions ................................................................ 5

4 Customer help ..................................................................................................... 6
   4.1 General .......................................................................................................... 6
   4.2 Submitting a question ..................................................................................... 6
   4.3 Downloads ..................................................................................................... 6

5 Quick start guide .................................................................................................. 7

6 Camera overview .................................................................................................. 8
   6.1 View from the front ....................................................................................... 8
   6.2 View from the rear ......................................................................................... 8
   6.3 Screen elements ............................................................................................. 9
      6.3.1 General .................................................................................................... 9
      6.3.2 Menu system ........................................................................................... 9
      6.3.3 Status icons ........................................................................................... 9
      6.3.4 Swipe-down menu .................................................................................. 10

7 Achieving a good thermal image .......................................................................... 11
   7.1 To keep in mind ............................................................................................. 11
   7.2 Temperature scale ......................................................................................... 11
      7.2.1 Example 1 .............................................................................................. 11
      7.2.2 Example 2 .............................................................................................. 12
      7.2.3 Manually adjusting the temperature scale ........................................... 12
      7.2.4 Locking the temperature scale .............................................................. 12
      7.2.5 Showing/hiding the temperature scale ............................................... 12
   7.3 Temperature range ......................................................................................... 13
   7.4 Image modes .................................................................................................. 13
      7.4.1 General ................................................................................................... 13
      7.4.2 Changing the image mode ..................................................................... 13
      7.4.3 Aligning the thermal and visual images .............................................. 13
   7.5 Color palettes ................................................................................................. 14

8 Measuring temperatures ....................................................................................... 15
   8.1 Adding/removing measurement tools ........................................................... 15
   8.2 Moving the spotmeter ................................................................................... 15
   8.3 Moving and resizing the box ........................................................................ 15
   8.4 Changing the measurement parameters ....................................................... 16
      8.4.1 Setting measurement parameters ......................................................... 16
      8.4.2 Recommended values .......................................................................... 16

9 Saving and working with images ........................................................................... 17
   9.1 Saving an image ............................................................................................ 17
Table of contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.2 About image files</td>
<td>17</td>
</tr>
<tr>
<td>9.2.1 File-naming convention</td>
<td>17</td>
</tr>
<tr>
<td>9.3 Adding a note</td>
<td>17</td>
</tr>
<tr>
<td>9.4 Editing a saved image</td>
<td>17</td>
</tr>
<tr>
<td>10 Uploading images</td>
<td>19</td>
</tr>
<tr>
<td>10.1 Connecting to Wi-Fi</td>
<td>19</td>
</tr>
<tr>
<td>10.2 Pairing with FLIR Ignite</td>
<td>19</td>
</tr>
<tr>
<td>10.3 Automatic upload</td>
<td>19</td>
</tr>
<tr>
<td>10.4 Manual upload</td>
<td>19</td>
</tr>
<tr>
<td>10.4.1 Uploading an image</td>
<td>19</td>
</tr>
<tr>
<td>10.4.2 Uploading multiple images</td>
<td>20</td>
</tr>
<tr>
<td>10.4.3 Uploading a folder</td>
<td>20</td>
</tr>
<tr>
<td>10.5 FLIR Ignite</td>
<td>20</td>
</tr>
<tr>
<td>10.5.1 View images</td>
<td>20</td>
</tr>
<tr>
<td>10.5.2 Organize in folders</td>
<td>20</td>
</tr>
<tr>
<td>10.5.3 Search</td>
<td>20</td>
</tr>
<tr>
<td>10.5.4 Download images</td>
<td>20</td>
</tr>
<tr>
<td>10.5.5 Share results</td>
<td>20</td>
</tr>
<tr>
<td>11 Working with the image gallery</td>
<td>21</td>
</tr>
<tr>
<td>11.1 Opening a saved image</td>
<td>21</td>
</tr>
<tr>
<td>11.2 Creating a new folder</td>
<td>21</td>
</tr>
<tr>
<td>11.3 Renaming a folder</td>
<td>21</td>
</tr>
<tr>
<td>11.4 Changing the active folder</td>
<td>22</td>
</tr>
<tr>
<td>11.5 Moving files between folders</td>
<td>22</td>
</tr>
<tr>
<td>11.6 Deleting a folder</td>
<td>22</td>
</tr>
<tr>
<td>11.7 Deleting an image</td>
<td>22</td>
</tr>
<tr>
<td>11.8 Deleting multiple images</td>
<td>22</td>
</tr>
<tr>
<td>11.9 Deleting all images</td>
<td>22</td>
</tr>
<tr>
<td>12 Handling the camera</td>
<td>24</td>
</tr>
<tr>
<td>12.1 Charging the battery</td>
<td>24</td>
</tr>
<tr>
<td>12.2 Turning on and turning off the camera</td>
<td>24</td>
</tr>
<tr>
<td>12.3 Using the camera lamp</td>
<td>24</td>
</tr>
<tr>
<td>12.4 Moving files via USB cable</td>
<td>24</td>
</tr>
<tr>
<td>12.4.1 Related topics</td>
<td>24</td>
</tr>
<tr>
<td>12.5 Bluetooth connection</td>
<td>24</td>
</tr>
<tr>
<td>12.6 Non-uniformity correction</td>
<td>25</td>
</tr>
<tr>
<td>12.7 Cleaning the camera</td>
<td>25</td>
</tr>
<tr>
<td>12.7.1 Camera correction</td>
<td>25</td>
</tr>
<tr>
<td>12.7.2 Infrared lens</td>
<td>25</td>
</tr>
<tr>
<td>13 Camera settings</td>
<td>27</td>
</tr>
<tr>
<td>13.1 Measurement parameters</td>
<td>27</td>
</tr>
<tr>
<td>13.2 Connections</td>
<td>27</td>
</tr>
<tr>
<td>13.3 Camera temperature range</td>
<td>27</td>
</tr>
<tr>
<td>13.4 Save options &amp; storage</td>
<td>27</td>
</tr>
<tr>
<td>13.5 Accounts</td>
<td>27</td>
</tr>
<tr>
<td>13.6 Device settings</td>
<td>28</td>
</tr>
<tr>
<td>14 Updating the camera</td>
<td>29</td>
</tr>
<tr>
<td>14.1 Updating the camera online</td>
<td>29</td>
</tr>
<tr>
<td>14.2 Updating the camera via USB cable</td>
<td>29</td>
</tr>
<tr>
<td>15 Mechanical drawings</td>
<td>30</td>
</tr>
<tr>
<td>16 CE Declaration of conformity</td>
<td>32</td>
</tr>
<tr>
<td>17 About FLIR Systems</td>
<td>34</td>
</tr>
<tr>
<td>17.1 More than just an infrared camera</td>
<td>35</td>
</tr>
<tr>
<td>17.2 Sharing our knowledge</td>
<td>35</td>
</tr>
</tbody>
</table>
1. Push the On/off button (③) to turn on the camera.
2. Follow the instructions on the camera screen to select the language, units, date and time formats, etc.
3. You can easily set up the camera to upload images for storage online.

   To enable upload of images, you need to connect your camera to a FLIR Ignite account. Use a computer or other device with internet access and follow the instructions on the camera screen.

4. To enable automatic upload of images, select (Settings) > Save options & storage > Auto upload = On.
5. To save an image, push the Save button.
6. If automatic upload is enabled, new images will automatically be uploaded to your FLIR Ignite account when the camera is connected to the internet.

   You can also upload images manually or move images from the camera using the USB cable.

Camera overview

6.1 View from the front

1. Camera lamp.
2. Infrared lens.
4. Lanyard attachment point.

6.2 View from the rear

5. USB-C connector.
7. On/off button.
8. Save button.
6.3 Screen elements

6.3.1 General

1. Result table.
2. Status icons.
3. Live view button.
4. Gallery button.
5. Settings button.
6. Menu button.
7. Spotmeter.
8. Temperature scale.

6.3.2 Menu system

To display the menu system, tap the menu button. 

6.3.3 Status icons

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Battery icon]</td>
<td>Battery status indicator.</td>
</tr>
<tr>
<td>-</td>
<td>When the battery status is 20–100%, the indicator is white.</td>
</tr>
<tr>
<td>-</td>
<td>When the battery is charging, the indicator is green.</td>
</tr>
<tr>
<td>-</td>
<td>When the battery status is below 20%, the indicator is red.</td>
</tr>
<tr>
<td>![Storage icon]</td>
<td>The remaining storage capacity of the camera memory is below 100 MB.</td>
</tr>
</tbody>
</table>
6.3.4 Swipe-down menu

To open the swipe-down menu, place your finger at the top of the screen and swipe down.

1. Battery status indicator.
2. Control buttons:
   - Wi-Fi button: Tap to enable/disable Wi-Fi. See also section 10.1 Connecting to Wi-Fi, page 19.
   - Bluetooth button: Tap to enable/disable Bluetooth. See also section 12.5 Bluetooth connection, page 24.
   - Upload button: Tap to enable/disable automatic upload of images. See also section 10.3 Automatic upload, page 19.
   - Lamp button: Tap to turn on/off the camera lamp.
3. Screen brightness slider: Used to control the brightness of the screen.
4. Camera memory indicator.
5. The FLIR Ignite user account that the camera is paired with. For more information, see section 10.2 Pairing with FLIR Ignite, page 19.
Achieving a good thermal image

These are the functions and settings you need to experiment with to achieve a good thermal image:

- Adjusting the temperature scale.
- Selecting a suitable temperature range.
- Selecting a suitable image mode.
- Changing the color palette.

### 7.1 To keep in mind

- A thermal camera has a resolution limit. This depends on the size of the detector, the lens, and the distance to the target. Use the center of the spot tool as a guide to the minimum possible object size, and get closer if necessary. Make sure to stay away from dangerous areas and live electrical components.
- Be careful when holding the camera perpendicular to the target. Be observant of reflections, especially at low emissivities—you, the camera, or the surroundings may become the main source of reflection.
- Select a zone of high emissivity, e.g., an area with a matte surface, to perform a measurement.
- Blank objects, i.e., those with low emissivities, may appear warm or cold in the camera, because they mainly reflect the environment.
- Avoid direct sunlight on the details that you are inspecting.
- Various types of faults, e.g., those in a building’s construction, may result in the same type of thermal pattern.
- Correctly analyzing an infrared image requires professional knowledge about the application.

### 7.2 Temperature scale

An infrared image can be adjusted automatically or manually.

In automatic mode, the camera continuously adjusts the level and span for the best image presentation. The temperature scale on the screen shows the upper and lower temperatures of the current span.

In manual mode, you can adjust the temperature scale to values close to the temperature of a specific object in the image. This will make it possible to detect anomalies and smaller temperature differences in the part of the image of interest.

#### 7.2.1 Example 1

Here are two infrared images of a building. In the left image, which is auto-adjusted, the large temperature span between the clear sky and the heated building makes a correct analysis difficult. You can analyze the building in more detail if you change the temperature scale to values close to the temperature of the building.
7.2.2 Example 2
Here are two infrared images of an isolator in a power line. To make it easier to analyze the temperature variations in the isolator, the temperature scale in the right image has been changed to values close to the temperature of the isolator.

7.2.3 Manually adjusting the temperature scale
1. Tap the menu button .
2. Tap Temperature scale and then tap Manual . This displays a wheel next to the temperature scale.
3. To enhance the details of a certain point of interest in the image, tap that point on the screen. The image will be auto-adjusted based on the thermal content of the area around the tapped point.
4. To change the level, scroll the wheel up/down.
5. To change the span, do the following:
   5.1. Tap the temperature limit you want to keep unchanged. This locks the limit.
   5.2. Scroll the wheel up/down to change the value of the other temperature limit.

7.2.4 Locking the temperature scale
You can lock the temperature scale.
• To lock the temperature scale, tap the upper and the lower temperature limits.
• To unlock the temperature scale, tap the temperature limits again.

Note
• When a temperature limit (upper and/or lower) is locked, the auto-adjust by touch function is disabled.
• If you switch to automatic mode, the temperature scale will automatically unlock.

A typical situation where you would lock the temperature scale is when looking for temperature anomalies in two items with a similar design or construction.

For example, you have two cables, and you suspect that one is overheated. With the camera in automatic mode, direct the camera toward the cable that has a normal temperature. Then activate the manual mode and lock the temperature scale.

When you direct the camera, with the temperature scale locked, toward the suspected overheated cable, that cable will appear in a lighter color in the thermal image if its temperature is higher than the first cable.

If you instead use the automatic mode, the color for the two items might appear the same despite their temperature being different.

7.2.5 Showing/hiding the temperature scale
In some situations, you may want to hide the temperature scale for a better view.
Achieving a good thermal image

1. Tap the Settings button.
2. Tap Device settings > Show temperature scale.
3. Show/hide the temperature scale by toggling the Show temperature scale switch.

7.3 Temperature range

The camera is calibrated for different temperature ranges. For accurate temperature measurements, you must change the Camera temperature range setting to suit the expected temperature of the object you are inspecting.

Note For more information, see section , page .

To change the temperature range, do the following:

1. Tap the Settings button .
2. Tap Camera temperature range.
3. Select the appropriate temperature range.

7.4 Image modes

7.4.1 General

The camera can capture thermal and visual images at the same time. By choosing the image mode, you select which type of image to display on the screen.

The camera supports the following image modes:

- **Thermal MSX (Multi Spectral Dynamic Imaging)**: An infrared image where the edges of the objects are enhanced with visual image details is displayed.
- **Thermal**: An infrared image is displayed.
- **Digital camera**: The visual image captured by the digital camera is displayed.
- **Picture in picture**: An infrared image frame is displayed on top of the visual image.

Note

- For the Thermal MSX, Thermal, and Picture in picture image modes, all thermal and visual information is stored when an image is saved. This means that you can edit the image later, in the camera image gallery or in a FLIR Thermography software, and select any of the image modes.
- For the Digital camera image mode, a digital image is stored when an image is saved. However, no thermal information is stored.
- You can choose to turn off the digital camera. This can, for example, be required in restricted areas. Select (Settings) > Save options & storage > Digital camera = Off. When the digital camera is off, only the image mode Thermal is enabled.

7.4.2 Changing the image mode

To change the image mode, do the following:

1. Tap the menu button .
2. Tap Image mode .
3. Tap the image mode you want to use.

7.4.3 Aligning the thermal and visual images

In Thermal MSX and Picture in picture modes, the camera displays a combination of thermal and visual images. When looking at an object close up or far away, you may need to adjust the distance setting in the camera to align the thermal and visual images.
To align the thermal and visual images, do the following:
1. Tap the screen. This displays a box with a distance in the upper right corner.
2. Tap the distance box. This displays a slider.
3. Use the slider to adjust the distance.

## 7.5 Color palettes

You can change the color palette that the camera uses to display different temperatures. Changing the palette can make it easier to analyze an image.

To change the color palette, do the following:

1. Tap the menu button.
2. Tap Color  .
3. Tap the palette you want to use.
You can measure a temperature using a spotmeter or a box. The measured temperatures are displayed in the result table on the screen.

- With a spotmeter, the camera measures the temperature at the position of the spotmeter.
- With a box, the camera detects the hottest/coldest spot within the box area and measures its temperature.

Note: For accurate temperature measurements, you may need to change the measurement parameters. See section 8.4 Changing the measurement parameters, page 16.

### 8.1 Adding/removing measurement tools

1. Tap the menu button.
2. Tap Measurement.
3. Do one or more of the following:
   - Tap to add/remove a spotmeter.
   - Tap to add/remove a hot spot box.
   - Tap to add/remove a cold spot box.

### 8.2 Moving the spotmeter

1. Tap the spotmeter. The tool is now displayed with a handle.
2. Tap and hold the spotmeter and drag it to a new position.

### 8.3 Moving and resizing the box

1. Tap one of the corners of the box. The tool is now displayed with handles.
2. To move the box, tap and hold the center handle and drag the box to a new position.
3. To resize the box, tap and hold one of the corner handles and drag it to a new position.
8.4 Changing the measurement parameters

For accurate temperature measurements, it is important to use appropriate measurement parameters:

- **Emissivity**: The emissivity determines how much of the radiation originates from the object as opposed to being reflected by it.
- **Reflected temperature**: This parameter is used to compensate for the radiation from the surroundings reflected by the object into the camera.
- **Relative humidity**: The relative humidity of the air between the camera and the object of interest.
- **Atmospheric temperature**: The temperature of the air between the camera and the object of interest.
- **Distance**: The distance between the camera and the object of interest.

**Note** During normal operation there is typically no need to change the default measurement parameters, see section 8.4.2 Recommended values, page 16.

8.4.1 Setting measurement parameters

_Emissivity_ is the most important measurement parameter to set correctly. If the _Emissivity_ is set to a low value, the _Reflected temperature_ also becomes important. The parameters _Relative humidity_, _Atmospheric temperature_, and _Distance_ are relevant for longer distances.

To set the measurement parameters, do the following:

1. Tap the _Settings_ button.
2. Tap _Measurement parameters_.
3. Tap the measurement parameter you want to change.
4. Select the appropriate parameter setting.

8.4.2 Recommended values

If you are unsure about the measurement parameter values, the following are recommended:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissivity</td>
<td>0.95</td>
</tr>
<tr>
<td>Reflected temperature</td>
<td>20°C (69°F)</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>50%</td>
</tr>
<tr>
<td>Atmospheric temperature</td>
<td>20°C (69°F)</td>
</tr>
<tr>
<td>Distance</td>
<td>1 m (3.3 ft.)</td>
</tr>
</tbody>
</table>
9 Saving and working with images

9.1 Saving an image

To save an image, push the Save button at the top of the camera.

When you save an image, the camera stores the image file in the camera memory. You can also set up the camera to upload images for storage online, see section 10 Uploading images, page 19.

9.2 About image files

The saved image file includes all thermal and visual information. This means that you can open an image file, in the camera or in a FLIR Thermography software, and, for example, change the color palette, apply another image mode, and add measurement tools.

Note When the Digital camera image mode is selected, a high-resolution digital image is stored when an image is saved. However, no thermal information is stored.

9.2.1 File-naming convention

The naming convention for image files is FLIRxxxx.jpg, where xxxx is a unique counter.

To reset the numbering of the image filenames, tap (Settings) > Device settings > Reset options > Reset image counter... > Reset.

Note To prevent image files being overwritten, the new counter value will be based on the highest existing filename number in the camera memory. To ensure that the counter is reset to 0001, delete all images from the camera memory before resetting the counter.

9.3 Adding a note

To make reporting and post-processing more efficient, you can add notes with additional information, e.g., conditions and information about where an image is taken. The notes are added to the image file and can be viewed and edited in the camera or in a FLIR Thermography software.

You can set up the camera to display the note tool when an image has been saved. Select (Settings) > Save options & storage > Add note after saving = On.

You can also add notes to saved images in the image gallery, by doing the following:

1. Tap the Gallery button.
2. Tap a folder and then tap an image.
3. Tap and then tap Note.
4. A soft keyboard is displayed, where you can enter text.
5. When completed, tap Done on the soft keyboard.
6. To get the note stored online, make a manual upload of the image. See section 10.4 Manual upload.

9.4 Editing a saved image

1. Tap the Gallery button.
2. Tap a folder and then tap an image.
3. Tap and then tap Edit. This opens the image in edit mode.
4. Manual adjustment mode is now active. For adjustment instructions, see section 7.2.3 *Manually adjusting the temperature scale*, page 12.

5. Tap the menu button.

   • To change the image mode, tap *Image mode*.
   • To add a measurement tool, tap *Measurement*.
   • To change the color palette, tap *Color*.

6. To exit edit mode, tap.

7. To get the edited image stored online, make a manual upload of the image. See section 10.4 *Manual upload*. 
You can set up the camera to upload images for storage online.

To enable upload of images, you need to connect the camera to a Wi-Fi network and pair the camera with a FLIR Ignite account.

If automatic upload is enabled, new images will automatically be uploaded to your FLIR Ignite account when the camera is connected to a Wi-Fi network. You can also upload images manually.

10.1 Connecting to Wi-Fi

1. Tap the **Settings** button.
2. Tap **Connections > Wi-Fi**.
3. Make sure Wi-Fi is enabled by toggling the **Wi-Fi** switch.
   - When Wi-Fi is enabled, a list of the available networks is displayed.
4. In the list, tap one of the networks.
   - **Note** Password-protected networks are indicated with a padlock icon, and for these you will need to enter a password the first time you connect to the network. After that the camera will connect automatically to the network. To disable the automatic connection, select the currently connected network and then select **Forget network**.

10.2 Pairing with FLIR Ignite

You can pair the camera as part of the initial setup of the camera. You can also pair the camera at any time via the **Settings** menu.

To pair the camera via the **Settings** menu, do the following:

1. Make sure the camera is connected to a Wi-Fi network.
2. Tap the **Settings** button.
3. Tap **Accounts**.
4. Tap **Pair**.
5. Use a computer or other device with internet access and follow the instructions on the camera screen.

10.3 Automatic upload

You can set up the camera to automatically upload images to your FLIR Ignite account when the camera is connected to the internet.

To enable automatic upload of images, do the following:

1. Tap the **Settings** button.
2. Tap **Save options & storage > Auto upload**.
3. Enable/disable automatic upload by toggling the **Auto upload switch**.

10.4 Manual upload

You can manually upload images to your FLIR Ignite account when the camera is connected to the internet.

10.4.1 Uploading an image

1. Make sure the camera is connected to a Wi-Fi network.
2. Tap the **Gallery** button.
3. Tap a folder and then tap an image.
4. Tap *** and then tap Upload.

10.4.2 Uploading multiple images
1. Make sure the camera is connected to a Wi-Fi network.
2. Tap the Gallery button ➤.
3. Tap a folder.
4. Tap ✔ and then tap the images you want to upload.
5. Tap ✗.

10.4.3 Uploading a folder
1. Make sure the camera is connected to a Wi-Fi network.
2. Tap the Gallery button ➤.
3. Tap a folder.
4. Tap *** and then tap Upload.

10.5 FLIR Ignite

In FLIR Ignite, you can view, organize, search for, download, and share your uploaded images.

To access your FLIR Ignite account, go to https://ignite.flir.com.

10.5.1 View images
In FLIR Ignite, you can view all images uploaded from your camera. You can see measurement functions in the image, read notes, zoom in to see more details, and switch between thermal and visual images.

10.5.2 Organize in folders
Folders that you create in your camera will also be created in FLIR Ignite. Images saved in the folders on your camera will be uploaded to the corresponding folder in your FLIR Ignite Library.

To create a suitable structure for your thermal images, you can create additional folders in FLIR Ignite and move the folders created in your camera into those.

10.5.3 Search
You can search among all your files and images uploaded to FLIR Ignite. It is possible to search on file names, folder names, and any notes added to the images.

10.5.4 Download images
You can select one or more images for download to your computer, for example to analyze and create reports in a FLIR Thermography software. Folders and selections of multiple files are downloaded as .zip files.

10.5.5 Share results
You can share results with colleagues and clients by generating a shared link. You can share individual images and entire folders. Shared links can be password protected and you can set an expiry date.
Working with the image gallery

When you save an image, the camera stores the image file in the image gallery of the camera. You can open an image in the image gallery and, for example, change the color palette, apply another image mode, and add measurement tools.

The image gallery can include one or several folders. New images will be saved to the active folder. You can create new folders, rename a folder, change the active folder, move files between the folders, and delete folders.

11.1 Opening a saved image

1. Tap the Gallery button. This displays the Gallery with one or more folders.
2. Tap a folder.
3. Tap the image you want to view. This displays thumbnails of the thermal and visual images and information about the image.
4. To view an image in full screen, tap .
   To return to the thumbnail view, tap .
5. To do changes to the image, tap . This displays a menu where you can do one or more of the following:
   • Upload the image. For more information, see section 10.4 Manual upload, page 19.
   • Edit the image. For more information, see section 9.4 Editing a saved image, page 17.
   • Move the image to another folder in the image gallery.
   • Add a note. For more information, see section 9.3 Adding a note, page 17.
   • Delete the image.

11.2 Creating a new folder

1. Tap the Gallery button .
2.Tap .
3. A soft keyboard is displayed, where you can enter the name of the new folder.
4. When completed, tap Done on the soft keyboard.
5. The new folder automatically becomes the active folder and appears at the top of the Gallery.

11.3 Renaming a folder

You can change the name of the folders in the image gallery. The active folder cannot be renamed.

To rename a folder, do the following:

1. Tap the Gallery button .
2. Tap the folder to rename.
3. Tap and then tap Rename.
4. A soft keyboard is displayed, where you can enter the new name of the folder.
5. When completed, tap Done on the soft keyboard.
11.4 Changing the active folder

New images are saved to the active folder.

To change the active folder, do the following:

1. Tap the Gallery button.
2. Tap the folder that new images should be saved to.
3. Tap and then tap Save new images to this folder.
4. The new active folder is now at the top of the Gallery.

11.5 Moving files between folders

1. Tap the Gallery button.
2. Tap a folder.
3. Tap and then tap the images you want to move.
4. Tap and then tap the destination folder.

11.6 Deleting a folder

You can delete a folder in the image gallery. The active folder cannot be deleted.

To delete a folder, do the following:

1. Tap the Gallery button.
2. Tap a folder.
3. Tap and then tap Delete. This displays a dialog box.
4. To delete the folder and the images, tap Delete.

11.7 Deleting an image

1. Tap the Gallery button.
2. Tap a folder and then tap an image.
3. Tap and then tap Delete. This displays a dialog box.
4. To delete the image, tap Delete.

11.8 Deleting multiple images

1. Tap the Gallery button.
2. Tap a folder.
3. Tap and then tap the images you want to delete.
4. Tap. This displays a dialog box.
5. To delete the selected images, tap Delete.

11.9 Deleting all images

You can delete all images from the camera memory.
To delete all images, do the following:

1. Tap the Settings button.
2. Tap Save options & storage and then tap Delete all saved files.... This displays a dialog box.
3. To permanently delete all images, tap Delete.
12 Handling the camera

12.1 Charging the battery
You can charge the battery by using a standard USB power adapter or by connecting the camera to a computer.

It is good practice to disconnect the camera from power when the battery is fully charged.
The battery status is displayed on the swipe-down menu, see section 6.3.4 Swipe-down menu, page 10.

12.2 Turning on and turning off the camera
• When the camera is off, push and hold the On/off button for more than 1 second to turn on the camera.
• When the camera is on and in live mode, push and hold the On/off button for about 1 second until the screen goes black. This puts the camera in standby mode. From standby, the camera automatically turns off after 48 hours.
• When the camera is on, push and hold the On/off button for more than 12 seconds to turn off the camera.

You can also set up the camera to enter standby mode after a period of inactivity. Select (Settings) > Device settings > Auto power off.

12.3 Using the camera lamp
You control the camera lamp on the swipe-down menu, see section 6.3.4 Swipe-down menu, page 10.

12.4 Moving files via USB cable
When you save an image, the file is stored in the internal camera memory. You can move the image files by connecting the camera to a computer using the USB cable. The file transfer is done using the Media Transfer Protocol (MTP).

Note To be able to access the camera file system from a Mac computer, you must first install an Android File Transfer application. For more information, go to https://www.android.com/filetransfer.

To move files to a computer via USB cable, do the following:
1. Turn on the camera.
2. Connect the camera to the computer using the USB cable.
3. Move the files to the computer using a drag-and-drop operation.

Note Moving a file using a drag-and-drop operation does not delete the file in the camera.

12.4.1 Related topics
You can also set up the camera to upload images for storage online, see section 10 Uploading images, page 19.

12.5 Bluetooth connection
If supported by your mobile phone, you can share the phone’s internet connection with the camera via Bluetooth. Before you can use the internet sharing connection, you need to pair the devices.
1. Tap the Settings button.
2. Tap Connections > Bluetooth.
3. Make sure Bluetooth is enabled by toggling the Bluetooth switch.
   Note: On the mobile phone, you must also make sure that Bluetooth is enabled, that the phone is in discovery mode, and that Bluetooth tethering is enabled.
4. Tap Available devices.
5. Wait until a list of available Bluetooth devices is displayed.
6. In the list, tap your mobile phone to begin the pairing procedure.

12.6 Non-uniformity correction

When the thermal camera displays Calibrating... it is performing what in thermography is called a "non-uniformity correction" (NUC). An NUC is a non-uniformity correction carried out by the camera software to compensate for different sensitivities of detector elements and other optical and geometrical disturbances.

The camera performs the NUC automatically, for example at start-up and when the environment temperature changes.

To perform an NUC manually, tap and hold the button.

12.7 Cleaning the camera

12.7.1 Camera housing, cables, and other items

12.7.1.1 Liquids
Use one of these liquids:
- Warm water
- A weak detergent solution

12.7.1.2 Equipment
A soft cloth

12.7.1.3 Procedure
Follow this procedure:
1. Soak the cloth in the liquid.
2. Twist the cloth to remove excess liquid.
3. Clean the part with the cloth.

CAUTION
Do not apply solvents or similar liquids to the camera, the cables, or other items. This can cause damage.

12.7.2 Infrared lens

12.7.2.1 Liquids
Use one of these liquids:
- A commercial lens cleaning liquid with more than 30% isopropyl alcohol.
- 96% ethyl alcohol (C₂H₅OH).

12.7.2.2 Equipment
Cotton wool

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>If you use a lens cleaning cloth it must be dry. Do not use a lens cleaning cloth with the liquids that are given in section 12.7.2.1 above. These liquids can cause material on the lens cleaning cloth to become loose. This material can have an unwanted effect on the surface of the lens.</td>
</tr>
</tbody>
</table>

12.7.2.3 Procedure
Follow this procedure:
1. Soak the cotton wool in the liquid.
2. Twist the cotton wool to remove excess liquid.
3. Clean the lens one time only and discard the cotton wool.

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make sure that you read all applicable MSDS (Material Safety Data Sheets) and warning labels on containers before you use a liquid: the liquids can be dangerous.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
</table>
| • Be careful when you clean the infrared lens. The lens has a delicate anti-reflective coating.  
• Do not clean the infrared lens too vigorously. This can damage the anti-reflective coating. |
13 Camera settings

The Settings menu includes the following:

- Measurement parameters.
- Connections.
- Camera temperature range.
- Save options & storage.
- Accounts.
- Device settings.

To display the Settings menu, tap the Settings button 🛠.

13.1 Measurement parameters

For accurate temperature measurements, it is important to use appropriate measurement parameters. The Measurement parameters submenu is used to set these parameters. For more information, see section 8.4 Changing the measurement parameters, page 16.

13.2 Connections

- Wi-Fi: This setting defines Wi-Fi networks. For more information, see section 10.1 Connecting to Wi-Fi, page 19.
- Bluetooth: This setting defines Bluetooth connectivity. For more information, see section 12.5 Bluetooth connection, page 24.

13.3 Camera temperature range

For accurate temperature measurements, you must change the Camera temperature range setting to suit the expected temperature of the object you are inspecting.

The unit (°C or °F) depends on the temperature unit setting, see section 13.6 Device settings, page 28.

13.4 Save options & storage

- Auto upload: When this setting is on, new images will automatically be uploaded to your FLIR Ignite account when the camera is connected to the internet.
- Photo as separate JPEG: For the Thermal MSX, Thermal, and Picture in picture image modes, a visual image is always saved in the same JPEG file as the thermal image. Enabling this setting saves an extra low-resolution visual image as a separate JPEG file.
- Add note after saving: When this setting is on, the note tool will be displayed when an image has been saved.
- Digital camera: This setting is used to turn on/off the digital camera. Turning off the digital camera can for example be required in restricted areas and in confidential (e.g. doctor/patient) situations. When the digital camera is off, the images modes Thermal MSX and Picture in picture are disabled.
- Delete all saved files:... This displays a dialog box where you can choose to permanently delete all the saved files from the camera memory or to cancel the delete action.

13.5 Accounts

The Accounts dialog box is used to pair the camera with your FLIR Ignite account. For more information, see section 10 Uploading images, page 19.
When the camera is paired, the Accounts dialog box displays the following information:

• The FLIR Ignite account that the camera is paired with.
• The link to FLIR Ignite: https://ignite.flir.com
• The current storage capacity in your FLIR Ignite account.

### 13.6 Device settings

• **Language, time & units:** This submenu includes settings for a number of regional parameters:
  - **Language.**
  - **Date & time.**
  - **Distance unit.**
  - **Temperature unit.**

• **Screen brightness:** The screen brightness slider is used to control the brightness of the screen.

  **Note**  You can also control the screen brightness on the swipe-down menu. For more information, see section 6.3.4 Swipe-down menu, page 10.

• **Auto power off:** This setting defines the period of inactivity before the camera enters standby mode.

• **Screen rotation:** This setting defines if the orientation of the overlay graphics will change according to how you hold the camera.

• **Show temperature scale:** This setting is used to show/hide the temperature scale.

• **Update:** This dialog box is used to check for updates and install new firmware versions. The camera must be connected to the internet. For more information, see 14 Updating the camera, page 29.

• **Product improvement program:** This setting is used to help FLIR improve your camera. The camera can send anonymous information to FLIR about how it is used and, when something does not work as intended, notify FLIR about it.

• **Reset options:** This submenu includes the following settings:
  - **Reset default camera mode...:** This setting will affect the image mode, color palette, measurement tools, and measurement parameters. Saved images will not be affected.
  - **Reset device settings to factory default...:** This setting will affect all camera settings, including regional settings, Wi-Fi networks, and pairing with your FLIR Ignite account. Saved images will not be affected. The camera will be restarted and the start-up wizard will appear again.
  - **Reset image counter...:** This setting will reset the numbering of the image filenames. To prevent image files being overwritten, the new counter value will be based on the highest existing filename number in the camera memory.

  **Note**  When a reset option is selected, a dialog box is displayed with more information. You can choose to execute the reset action or to cancel.

• **Camera information:** This submenu displays information about the camera, regulatory information, and open-source license information. No changes can be made.