

Attackcam F12 / F20

**Handheld Thermography Camera
User Manual**

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About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the attackcam website (www.attackcam.net).

Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

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Regulatory Information

FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC compliance: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement



This product and, if applicable, the supplied accessories are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Radio Equipment Directive 2014/53/EU, the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU.



2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.



2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info.

Safety Instruction

The symbols that may be found in this document are defined as follows.

Symbol	Description
Danger	Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.
Caution	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
Note	Provides additional information to emphasize or supplement important points of the main text.

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss.

Laws and Regulations

- Use of the product must be in strict compliance with the local electrical safety regulations.

Transportation

- Keep the device in original or similar packaging while transporting it.
- Keep all wrappers after unpacking them for future use. In case of any failure occurred, you need to return the device to the factory with the original wrapper. Transportation without the original wrapper may result in damage on the device and the company shall not take any responsibilities.
- Do not drop the product or subject it to physical shock. Keep the device away from magnetic interference.

Power Supply

- Please purchase the charger by yourself. Input voltage should meet the Limited Power Source (3.7 VDC, 0.5 A) according to the IEC61010-1 standard. Please refer to technical specifications for detailed information.
- Make sure the plug is properly connected to the power socket.

- DO NOT connect multiple devices to one power adapter, to avoid over-heating or fire hazards caused by overload.

Battery

- The built-in battery cannot be dismantled. Please contact the manufacture for repair if necessary.
- For long-term storage of the battery, make sure it is fully charged every half year to ensure the battery quality. Otherwise, damage may occur.
- When the device is powered off and the RTC battery is full, the time settings can be kept for 4 months.
- Before the first use, charge the lithium battery for more than 8 hours.

Maintenance

- If the product does not work properly, please contact your dealer or the nearest service center. We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.
- Wipe the device gently with a clean cloth and a small quantity of ethanol, if necessary.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the device may be impaired.
- We recommend you send the device back for calibration once a year, and please contact the local dealer for the information on maintenance points.

Technical support

- The <https://www.attackcam.net> portal will help you as a attackcam customer to get the most out of your attackcam products. The portal gives you access to our support team, software and documentation, service contacts, etc.

Using Environment

- Make sure the running environment meets the requirement of the device. The operating temperature shall be -10°C to 220°, and the operating humidity shall be 95% or less.
- DO NOT expose the device to high electromagnetic radiation or dusty environments.
- DO NOT aim the lens at the sun or any other bright light.

Emergency

If smoke, odor, or noise arises from the device, immediately turn off the power, unplug the power cable, and contact the service center.

Manufacture Address:

Ace-tec GmbH, Sandweg 5, 25899 Niebüll

COMPLIANCE NOTICE: The thermal series products might be subject to export controls in various countries or regions, including without limitation, the United States, European Union, United Kingdom and/or other member countries of the Wassenaar Arrangement. Please consult your professional legal or compliance expert or local government authorities for any necessary export license requirements if you intend to transfer, export, re-export the thermal series products between different countries.

1 Introduction

1.1 Product Introduction

The handheld thermography camera is a camera with thermal and optical images. The built-in high-sensitivity IR detector and high-performance sensor detects the temperature change and measure the real-time temperature. The accuracy of temperature measurement is $\pm 2\text{ }^{\circ}\text{C}$ ($3.6\text{ }^{\circ}\text{F}$) or $\pm 2\%$ when the ambient temperature is from $15\text{ }^{\circ}\text{C}$ to $35\text{ }^{\circ}\text{C}$ ($59\text{ }^{\circ}\text{F}$ to $95\text{ }^{\circ}\text{F}$) and the object temperature is above $0\text{ }^{\circ}\text{C}$ ($32\text{ }^{\circ}\text{F}$).

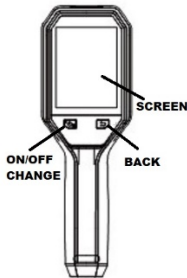
It helps the users to find the risky part and lower their property loss. The device supports live viewing, and capturing, etc. It is mainly applied to various industries, such as building, HVAC, and auto industry, etc.


1.2 Main Function

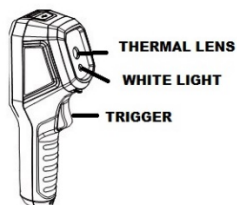
Thermography

Device detects the real-time temperature, and display it on the screen.

2 Appearance only F12



Button	Function
	Hold: Power On/Off Press: Display menu or confirm operation
	Exit the menu or return to previous menu.



3 Palette Mode F12

The Attackcam is started in the NFPA Mode

NFPA Mode

For Fire Fighting / Rescue / Search / Safety Colour Temperatur Range

-20° -150° Colour black-cold/white-Hot

150° -300° Colour yellow

300° -450° Colour orange

450° -610° Colour Red

More Informations over the Colour range and the sense under www.attackcam.net

4 Preparation

4.1 Power On/Off

Power On

Remove the lens cover, and hold for over three seconds to turn on the device. You can observe the target when the interface of the device is stable.

Power Off


When the device is turned on, hold for three seconds to power off the device.

4.2 Charge Device

Steps:

1. Open the top cover of the camera.
2. Connect the device interface and the power adaptor with the usb magnetic cable.

4.3 Set LED Light

In the live view interface, press , and go to **White Light** to enable or disable the LED light.

Note

Certain models support the White Light. Please refer to the actual device or datasheet.

Capture Snapshots

Steps:

1. In the live view interface, pull the trigger to capture snapshot. The live view freezes and device displays the snapshot with temperature information.

4.4 Export Snapshots

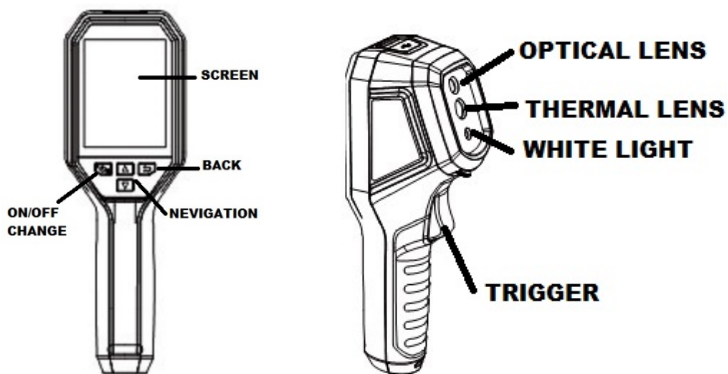
Purpose:



Connect the device to your PC with the magnetic usb cable, you can export the captured snapshots.

Steps:

1. Open the interface cover.
2. Connect the camera to your PC with the the usb cable and open the detected disk.
3. Select and copy the snapshots to PC and view the files.
4. Disconnect the device from your PC.

5 Appearance F20



Button	Function
	Hold: Power On/Off Press: Display menu or confirm operation
	Exit the menu or return to previous menu.
	Navigation Button Press ∇ , Δ to select parameters. Press \rightarrow to confirm.

Component	Function
Trigger	In live view interface, pull the trigger to capture snapshots. In menu mode, pull the trigger to switch to live view.

 **Note**

- The appearance varies according to different models.
- Certain models support the optical lens and white light. Please refer to the actual device or datasheet.

6 Preparation

6.1

Charge Device

Steps:

Connect the device interface and the power adaptor with usb magnetics cable.

6.2 Power On/Off

Power On

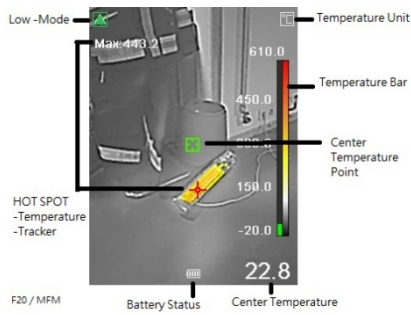
Type-C
|

Remove the lens cover, and hold for over three seconds to turn on the device. You can observe the target when the interface of the device is stable.

Power Off

When the device is turned on, hold for three seconds to power off the device.

6.3 Interface Description



7 Temperature Measurement








The temperature measurement function provides the real-time temperature of the scene and display it on the left of your screen. The function is turned on by default.

7.1 Connect via Wi-Fi

Before You Start

Download and install app on your phone.

Steps:

- 1 In the live view interface, press  to show the menu.
- 2 Press  / , and select **Wi-Fi**.
- 3 Press  to enable the function.
- 4 Press  /  to select Wi-Fi, and enter the password.
- 5 Press  to save and exit.

6 Launch the app, and add the device to online devices.

Result





You can view the live view, or capture snapshots via the app.

 **Note**

Certain models support the Wi-Fi. Please refer to the actual device or datasheet.








8 Image Settings Thermal or Multi Fusions Mode - MFM

Steps:

1. In the live view interface, press  to show the menu.
2. Press  /  , and select **Image**.
3. Press  , go to **Image -> Preview Mode**, and select the preview mode needed.
 - Thermal: Display the thermal image only.
 - Fusion: Fuse the optical image with the thermal image. The fused image with clear edge is displayed in this mode. Multi Fusion Mode MFM

8.1 Language Set

Steps:

1. In the live view interface, press  to show the menu.
2. Press  /  , and select language.
3. Press  to enable the function.
4. Press  /  to select the language.
5. Press  to save and exit.

9 Palettes Mode

The Attackcam is started in the NFPA Mode

NFPA Mode

For Fire Fighting / Rescue / Search / Safety Colour Temperatur Range

-20° -150° Colour black-cold/white-Hot

150° -300° Colour yellow



300° -450° Colour orange

450° -610° Colour Red

More Informations over the Colour range and the sense under www.attackcam.net

Here is an example of setting the Mode.

Steps:

- 1 In the live view interface, press  to select the Palettes Mode
- 2 Press  button to save and exit.

Further technical Palettes Mode to choose from:


Black hot, White hot, Ironbow

9.1 Capture Snapshots

Steps:

- 1 In the live view interface, pull the trigger to capture snapshot. The live view freezes and device displays the snapshot with temperature information.

10 Set LED Light

In the live view interface, press , and go to **White Light** to enable or disable the LED light.

 **Note**

Certain models support the White Light. Please refer to the actual device or datasheet.

10.1 Export Snapshots

Purpose:

Connect the device to your PC with the magnetic usb cable, you can export the captured snapshots.

Steps:

1. Open the interface cover.
2. Connect the camera to your PC with the the usb cable and open the detected disk.
3. Select and copy the snapshots to PC and view the files.
4. Disconnect the device from your PC.

10.2 Upgrade

Steps:

1. Connect the device to your PC with the usb cable and open the detected disk.
2. Copy the upgrade file and replace it to the root directory of the device.
3. Disconnect the device from your PC.
4. Reboot the device and then it will upgrade automatically. The upgrading process will be displayed in the main interface.

Note

After the upgrading, the device automatically reboot. You can view the current version in **Menu > About**.

10.3

Frequently Asked Questions (FAQ)

Q: Capturing fails.

A: Examine the items below:

1. Whether the device is connected to your PC and the capture function is unavailable.
2. Whether the storage space is full.
3. Whether the device is low-battery.

Q: The PC cannot identify the camera.

A: Examine whether the device is connected to your PC with usb magnetics cable.

B: Clean the magnetics USB Port

Q: Camera is dirty.

A: Clean and dry the camera with a soft cloth

and non-corrosive detergent.

B: Clean the magnetics USB Port and dry it off.

To avoid corrosion.

Q: Camera won't Load.

A: Clean the magnetics USB Port and dry it

off. To avoid corrosion.

Q: The camera can not be operated or no responding.

A: Hold to reboot the camera.

Applications and instructions at your language.

Waranty conditions and extensions, and accessories items under

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