Digisight Ultra LRF

Manual

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Specifications

N450 LRF

	Model	N450 LRF
	SKU (Without mount)	76627X
	SKU (With Weaver mount)	76627
	SKU (With Weaver QD112 mount)	76627Q
	Optical Characteristics	
	Generation	Digital
	Magnification	4.5x-18x
	Objective lens focus, mm	50
	Focal ratio, D/f'	1:1.2
	Field of view (horizontal), °/m@100m	6.2 / 10.9
	Eye relief, mm/inch	50/1.97
	Diopter eyepiece adjustment, diopter	+3/-5
	Min. focusing range, m/y	5/5.49

Detection range, animal 1.7 m high, m/y	550/601
Reticle	
Click value, mm per 100 m	10 mm (at 4.5x) / 2.5 mm (at 18x)
Click range (H/V), mm per 100 m	2000 (± 100 clicks)
Electronic Characteristics	
Sensitivity of riflescope, no more, mW [1]	$1.5 \cdot 10^{-5}$
Sensitivity of riflescope, no more, mW [2]	$5.5 \cdot 10^{-5}$
Sensor type / Resolution, pixels	HD CMOS/1280x720
Display Type / Resolution, pixels	AMOLED/1024x768
Detachable IR Illuminator	
Type / Wavelength, nm	LED/ 850
Laser Rangefinder	
Wavelength, nm	905
Max. measuring distance, m/y	1000/1093.6
Measurement accuracy, m/y	1/1.09

Video Recorder	
Video / photo resolution, pixel	1024x768
Video recording / photo format	mp4 / .jpg
Built-in memory	16 GB
Wi-Fi Channel [3]	
Frequency	2.4 GHz
Standard	802.11 b/g
Operational Characteristics	
Operating voltage, V	3.0 - 4.2
Battery Type / Capacity / Output Voltage	Li-Ion Battery Pack IPS 7A / 6400 mAh / DC 3.7 V
External power supply	MicroUSB type B (5 V)
Operating time on IPS 7A Battery at t=22 °C, h [4]	6
Max. recoil power on rifled weapon, Joules	6000
Max. recoil power on smooth-bore weapon, caliber	12
Degree of protection, IP code (IEC60529), with installed battery	IPX7

Operating temperature	-25°C – +50°C
Dimensions (without mount), mm/inch	370x142x74/14.6x5.6x2.9
Weight (without mount), kg/oz	1.1/ 38.8

1 - Wavelength 780 nm, resolution 25 lines/mm

2 - Wavelength 915 nm, resolution 25 lines/mm

3 - The reception range may vary depending on various factors: obstacles, other Wi-Fi networks.

4 - In minimum consumption mode at subzero temperatures, the capacity of the battery (or batteries) is significantly reduced, causing a decrease in operating time.

N455 LRF

	Model	N455 LRF
	SKU (Without mount)	76628X
	SKU (With Weaver mount)	76628
	SKU (With Weaver QD112 mount)	76628Q
	Optical Characteristics	
	Generation	Digital
	Magnification	4.5x-18x
	Objective lens focus, mm	50
	Focal ratio, D/f'	1:1.2
	Field of view (horizontal), °/m@100m	6.2 / 10.9
	Eye relief, mm/inch	50/1.97
	Diopter eyepiece adjustment, diopter	+3/-5
	Min. focusing range, m/y	5/5.49
	Detection range, animal 1.7 m high, m/y	500/546
	Reticle	
	Click value, mm per 100 m	10 mm (at 4.5x) / 2.5 mm (at 18x)
	Click range (H/V), mm per 100 m	2000 (± 100 clicks)
	Electronic Characteristics	
	Sensitivity of riflescope, no more, mW [1]	$1.5 \cdot 10^{-5}$
	Sensitivity of riflescope, no more, mW [2]	$5.5 \cdot 10^{-5}$

Sensor type / Resolution, pixels	HD CMOS/1280x720
Display Type / Resolution, pixels	AMOLED/1024x768
Detachable IR Illuminator	
Type / Wavelength, nm	LED/ 940
Laser Rangefinder	
Wavelength, nm	905
Max. measuring distance, m/y	1000/1093.6
Measurement accuracy, m/y	1/1.09
Video Recorder	
Video / photo resolution, pixel	1024x768
Video recording / photo format	mp4 / .jpg
Built-in memory	16 GB
Wi-Fi Channel [3]	
Frequency	2.4 GHz
Standard	802.11 b/g
Operational Characteristics	
Operating voltage, V	3.0 - 4.2
Battery Type / Capacity / Output Voltage	Li-Ion Battery Pack IPS 7A / 6400 mAh / DC 3.7 V
External power supply	MicroUSB type B (5 V)
Operating time on IPS 7A Battery at t=22 °C, h[4]	6
Max. recoil power on rifled weapon, Joules	6000
Max. recoil power on smooth-bore weapon, caliber	12

	Degree of protection, IP code (IEC60529), with installed battery	IPX7
	Operating temperature	-25°C – +50°C
	Dimensions (without mount), mm/inch	370x142x74/14.6x5.6x2.9
	Weight (without mount), kg/ oz	1.1/ 38.8

1 - Wavelength 780 nm, resolution 25 lines/mm

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4 - In minimum consumption mode at subzero temperatures, the capacity of the battery (or batteries) is significantly reduced, causing a decrease in operating time.

Description

The **Digisight Ultra LRF** riflescopes are designed for observation and shooting in twilight or nighttime. In complete darkness (no stars or the Moon) use of the built-in IR Illuminator with 850 nm or 940 nm wavelength is recommended.

The riflescope is equipped with a built-in laser rangefinder with a range of up to 1000 m and a measurement accuracy of ± 1 m.

The **Digisight Ultra LRF** is a versatile device designed for a wide range of professional and amateur applications such as hunting, sports shooting, night video recording and observation.

To get started, see the sections:

Battery Charging

Battery Installation

Mounting on the Rifle

Powering on and Image Setting

Zeroing

Built-In Laser Rangefinder

Stream Vision 2

Package Contents

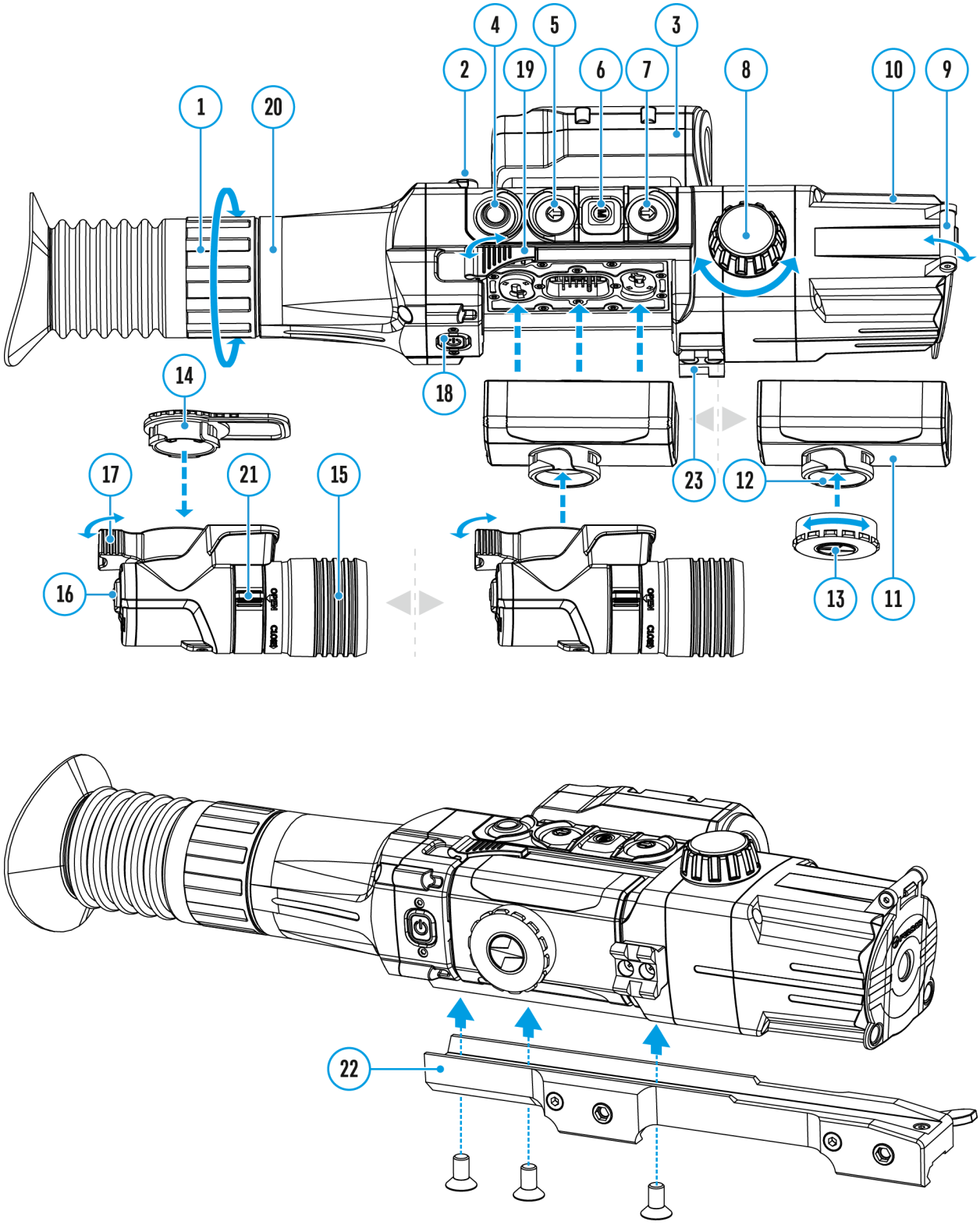
- Digisight Ultra LRF riflescope
- Carrying case
- Battery Pack
- Battery Charger
- Mains adapter
- MicroUSB cable
- IR illuminator protective cover
- IR illuminator connector plug
- Mount (with screws and hex-nut wrench)*
- Quick start guide
- Lens-cleaning cloth
- Warranty sheet

*Some models are supplied without mount.

Features

- HD-sensor 1280x720
- Enhanced nighttime sensitivity
- Over 500 m (547 yards) nighttime viewing range
- Variable magnification from 4.5x to 18x
- Built-in laser rangefinder with a measurement range of up to 1000 m (1094 yards)
- Wide field of view
- “Picture-in-Picture” mode
- B-pack power system: high capacity quick release rechargeable batteries
- Video recording
- Updatable Firmware
- 10 shapes/ 9 color reticles
- Precise zeroing with “Zoom Zeroing”
- Invisible long-range IR Illuminator (Digisight Ultra N455 LRF)
- 5 individual shooting profiles / 50 shooting distances
- Stream Vision app integration with iOS and Android devices
- Wi-Fi remote view via the Stream Vision app
- Heavy caliber recoil rating: 12 gauge., 9.3x64, .375H&H
- Increased windage and elevation adjustment ranges
- Extreme operating temperatures (-25 ... + 50 °C)
- SumLight™ enhanced sensitivity software
- IPX7 waterproof rating
- Side incline and elevation angle indication
- Suitable for daytime use
- Instant power up
- External power supply adaptable

Components and Controls



1. Diopter adjustment ring

2. MicroUSB port
3. Rangefinder
4. REC button
5. DOWN button
6. MENU button
7. UP button
8. Lens focus knob
9. Lens cover
10. Lens
11. Battery Pack
12. IR illuminator connector
13. IR illuminator connector plug
14. IR illuminator cover
15. IR illuminator
16. IR button
17. IR illuminator lever
18. ON/OFF button
19. Battery install lever
20. Eyepiece
21. IR-illuminator lens lock knob
22. Mount
23. Weaver rail

Button Operation

Operation	Button
Power riflescope on	⏻ short press
Power riflescope off	⏻ long press for 3 secs
Turn display off	⏻ long press for less than 3 secs
Turn display on	⏻ short press
Control discrete digital zoom	⬇ short press
PiP on/off	⬇ short press
SumLight™ on/off	⬆ long press
Video recorder	**Button**
Start/pause/resume video recording	○ short press
Stop video recording	○ long press
Switch to video / photo modes	○ long press
Capture Photo	○ short press
Rangefinder	**Button**
Activate rangefinder's stand-by mode	⬆ short press
Measure distance	⬆ short press (in rangefinder's stand-by mode)
Activate SCAN mode	⬆ long press (in rangefinder's stand-by mode)
Deactivate SCAN mode	⬆ short press
Main Menu	**Button**
Enter main menu	M long press

	Navigation upwards/rightwards	⬆ short press
	Navigation downwards/leftwards	⬇ short press
	Confirm selection	**M** short press
	Exit submenu without confirming selection	**M** long press
	Exit menu (switch to viewing mode)	**M** long press
	Quick Menu	**Button**
	Enter quick menu	**M** short press
	Switch between quick menu options	**M** short press
	Increase value	⬆ short press
	Decrease value	⬇ short press
	Exit quick menu	**M** long press
	IR Illuminator	**Button**
	Turn on IR illuminator	**IR** short press
	Switch IR power level	**IR** short press
	Turn off IR illuminator	**IR** long press

Operation Features

The riflescope has been designed for long-term use. To ensure durability and full performance, keep to the following guidelines:

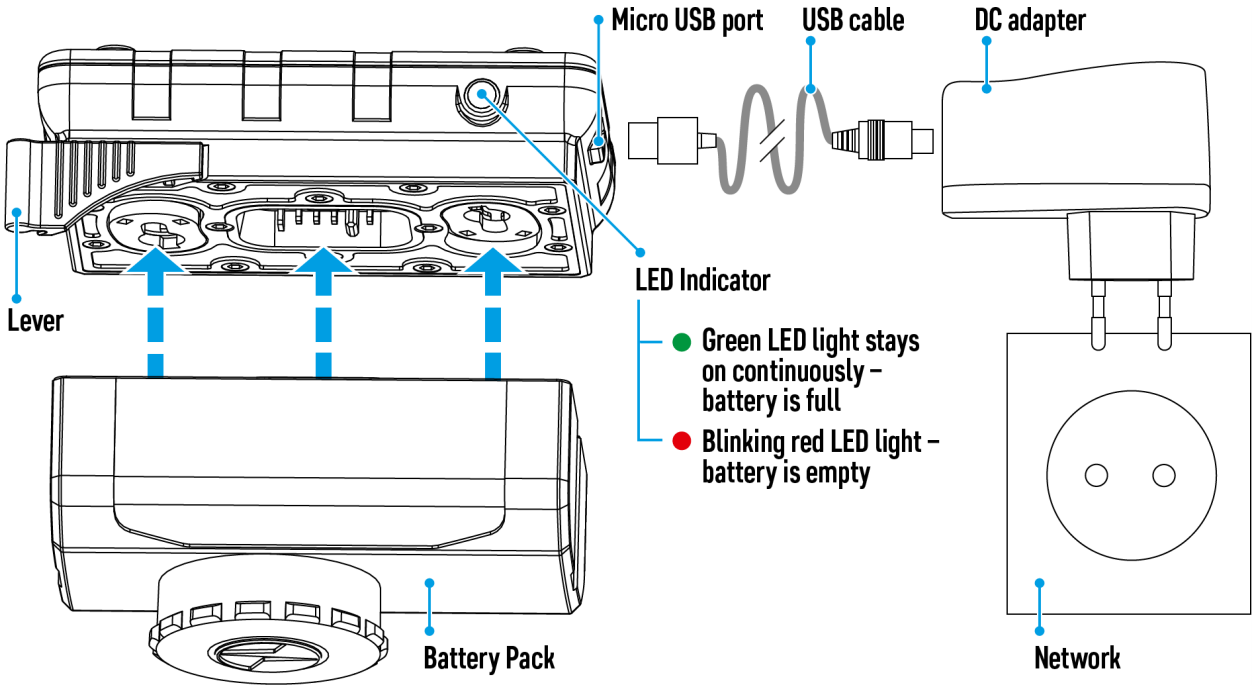
- Before use, make sure that you have installed and fixed the mount according to the instructions of the**Mounting On the Rifle** section.
- Turn the riflescope off after use.
- **Attempts to disassemble or repair the scope will void the warranty!**
- The riflescope can be used in a wide range of temperatures. If it has been brought indoors from cold temperatures, do not turn it on for 2 to 3 hours. This will prevent external optical surfaces from fogging.
- If the scope is unable to mount onto the rifle securely (without backlash, strictly along the trunk line), or you have doubts about the mounting system, see a qualified gunsmith.
- Using a rifle with a poorly mounted scope can lead to inaccurate target shooting!
- To ensure reliable performance, prevent and address the causes of premature wear or element failure, it is recommended to carry out regular technical inspections of the unit.
- To ensure optimal image in the daytime, the lens cover with integrated filter must be closed.

Safety Measures

- When charging, always use the charger supplied with the riflescope. The use of any other charger may irreparably damage the Battery Pack or the charger and may cause fire.
- The battery should be partially charged for long term storage. The recommended charge level is in range of 50% to 70%.
- Do not charge the battery directly after moving the battery from a cold to a warm environment. Wait 30-40 minutes for the battery to reach room temperature.
- During charging, do not leave the battery unattended.
- Do not use the charger if its construction has been altered or damaged.
- The battery should be charged at an air temperature of 0 ° C ... + 45 ° C.
- Otherwise, lifespan of the battery will decrease significantly.
- Do not leave the Battery Pack with a charger connected to the mains longer than 24 hours after full charge.
- Do not expose the battery pack to high temperature or to a naked flame.
- Do not submerge the battery.
- Do not connect external device with a current consumption that exceeds permitted levels.
- The Battery Pack is brief circuit protected. However, any situation that may cause short-circuiting should be avoided.
- Do not disassemble or deform the battery.
- Do not expose the battery to shocks and drops.
- When using the battery at low temperatures, the battery capacity decreases, this is normal and not a defect.
- Do not use the battery at the temperatures above those shown in the table – this may decrease battery’s life.
- Keep the battery out of the reach of children.

Battery Charging

Digisight Ultra LRFriflescopes are supplied with a rechargeable Li-Ion Battery Pack IPS 7A which allows operation for up to 6 hours. Please remember to charge the Battery Pack before first use.



Charging

Step 1. Install the battery into the charger

1. Lift the lever of the charger.
2. Remove the protective cover from the Battery Pack.
3. Install the Battery Pack into the charger.
4. Click the lever.

Step 2. Check the current battery level

- Upon installation, a green LED indicator on the charger will start to glow and begin flashing*:

- once if the battery charge ranges from 0% to 50%;

- twice if the battery charge ranges from 51% to 75%;

- three times if the battery charge ranges from 76% to 100%;

- If the indicator lights green continuously, the battery is fully charged.
- You can remove the battery from the charger by lifting the lever.
- If the indicator of the charger lights red continuously upon battery installation, probably the battery's charge level is lower than acceptable (the battery has been long in deep discharge). Keep the battery in the charger for a long time (up to several hours), remove and re-insert it.
- If the indicator starts blinking green, the battery is good.
- If the indicator keeps lighting red, the battery defective. **Do not use the battery!**

The LED indicator will display the battery charge status:

LED Indicator	Battery Charge Status
	Battery is empty
	Battery is full

Step 3. Connect the charger to the mains supply

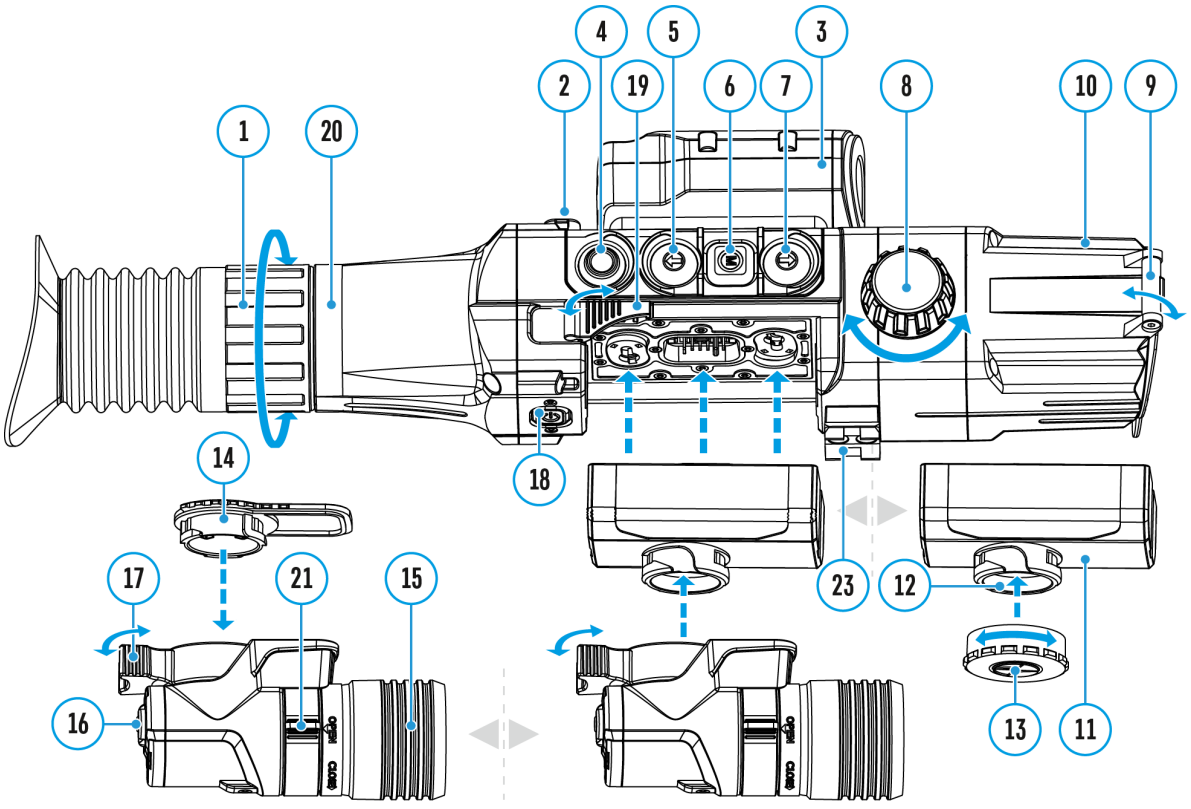
1. Connect the Micro-USB plug of the USB cable to the port of the charger.
2. Connect the Micro-USB plug to the DC adapter.
3. Insert the plug of the mains adapter to the 100-240 V socket.
4. Remove the full battery from the charging platform by lifting the lever.

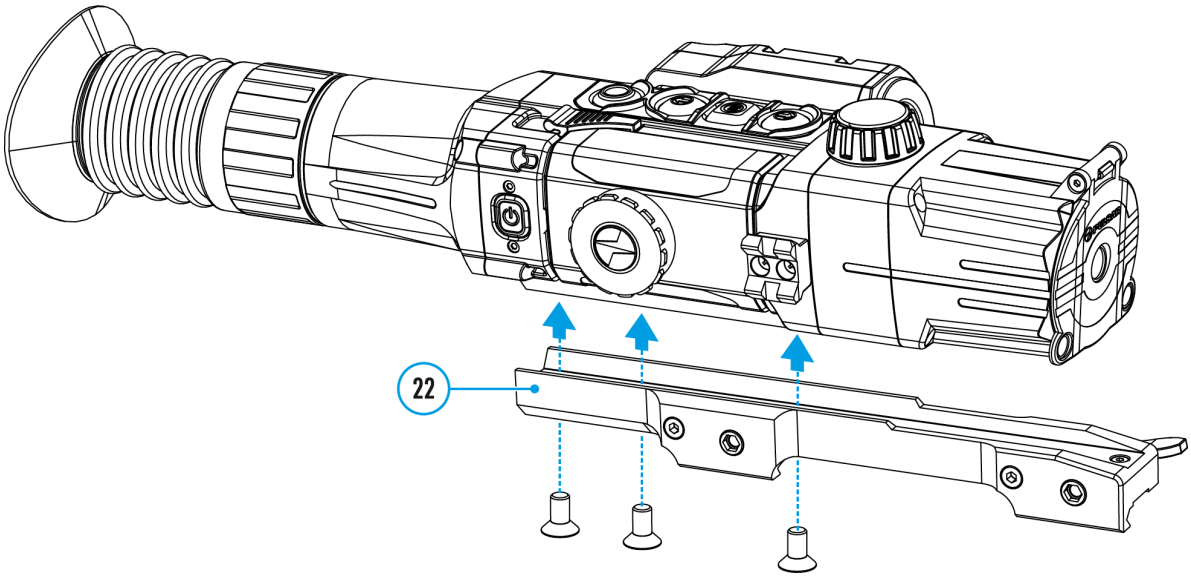
Removing the infrared illuminator installed on the IPS 7A battery is optional, and the infrared illuminator only works in conjunction with the riflescope.

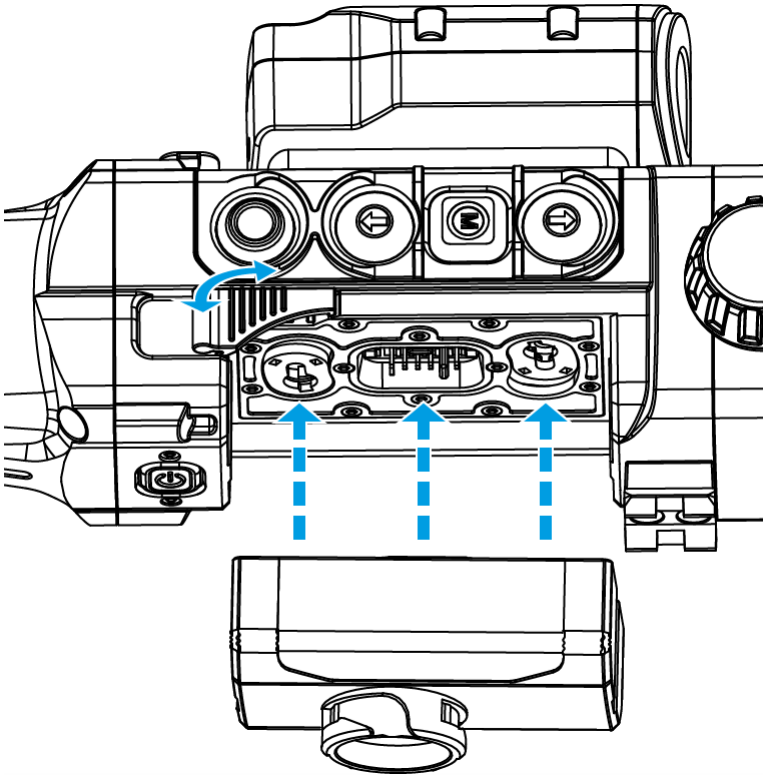
* If the charger is not connected to the mains, the display shows the current state of charge of the battery for 15 seconds. When the power is connected, the indicator shows the current state of the battery and the process of its charging.

Battery Installation

Show device diagram



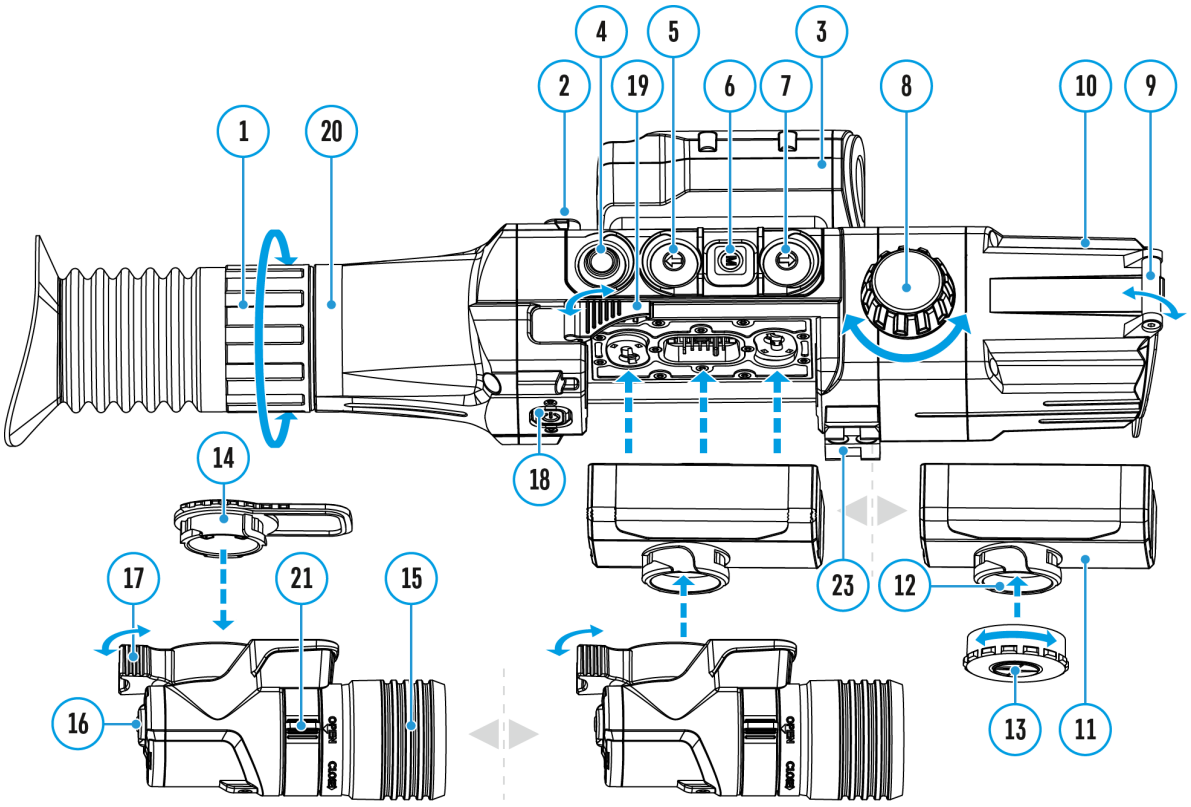


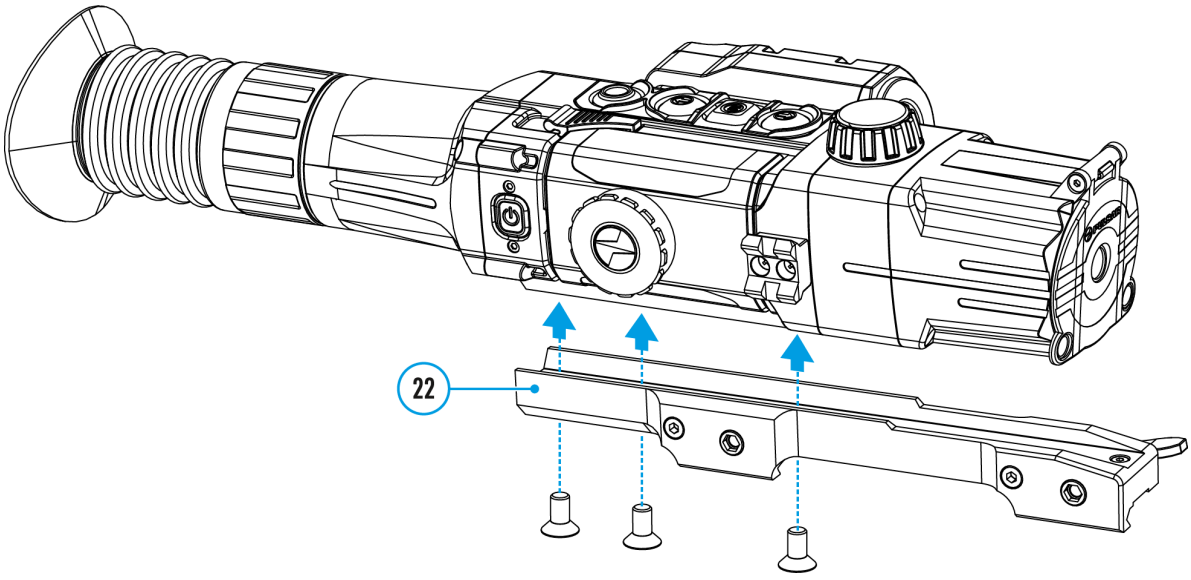


1. Remove the protective cover from the Battery Pack.
2. Raise the battery installation lever **(19)**. Install the battery all the way into the slot on the riflescope body so that the groove on the IR illuminator connector is on top.
3. Fix the battery by clicking riflescope’s lever.
4. Make sure the battery is installed correctly by turning the riflescope on by double pressing the **ON/OFF (18)** button briefly. An image will appear on the display.

External Power Supply

Show device diagram



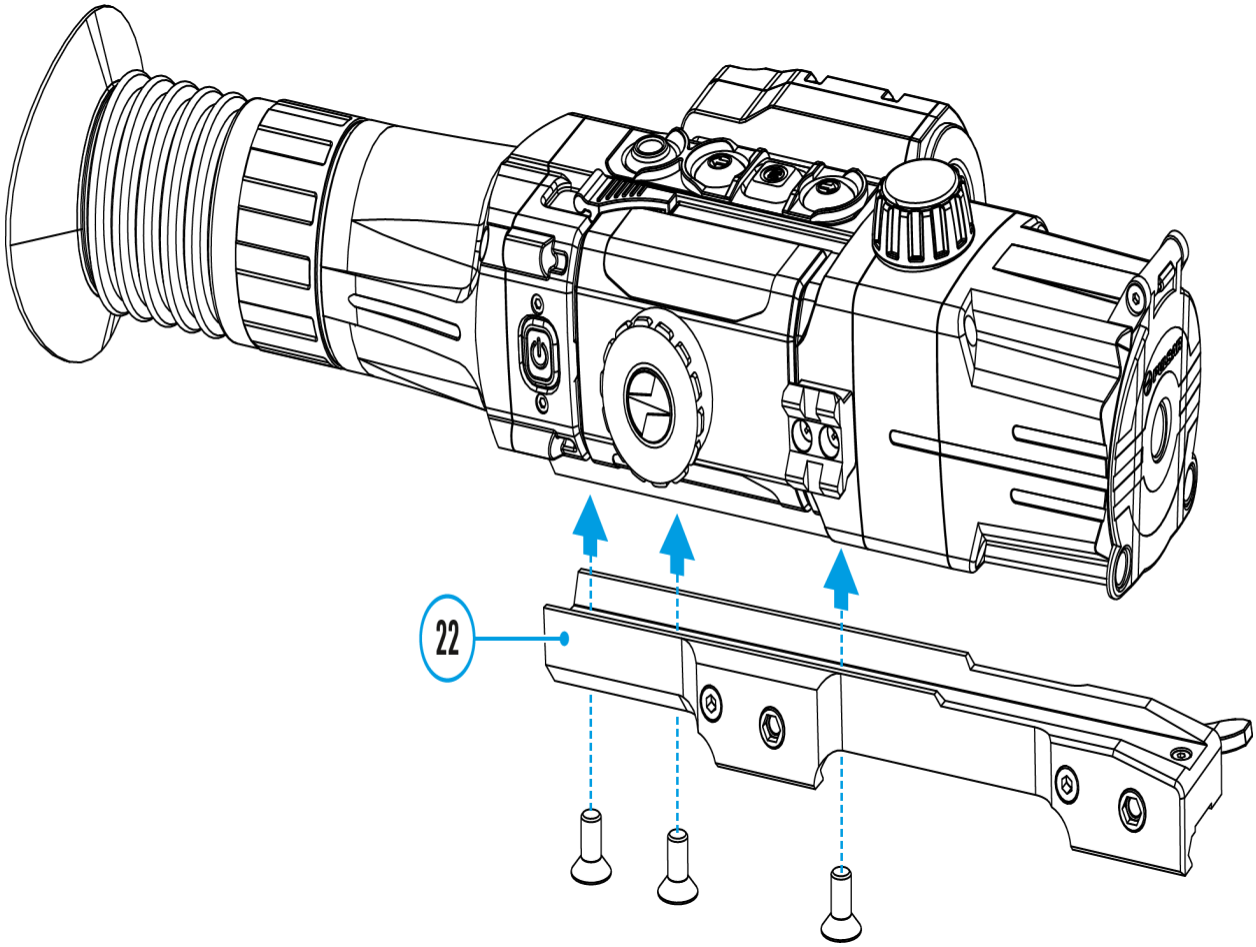


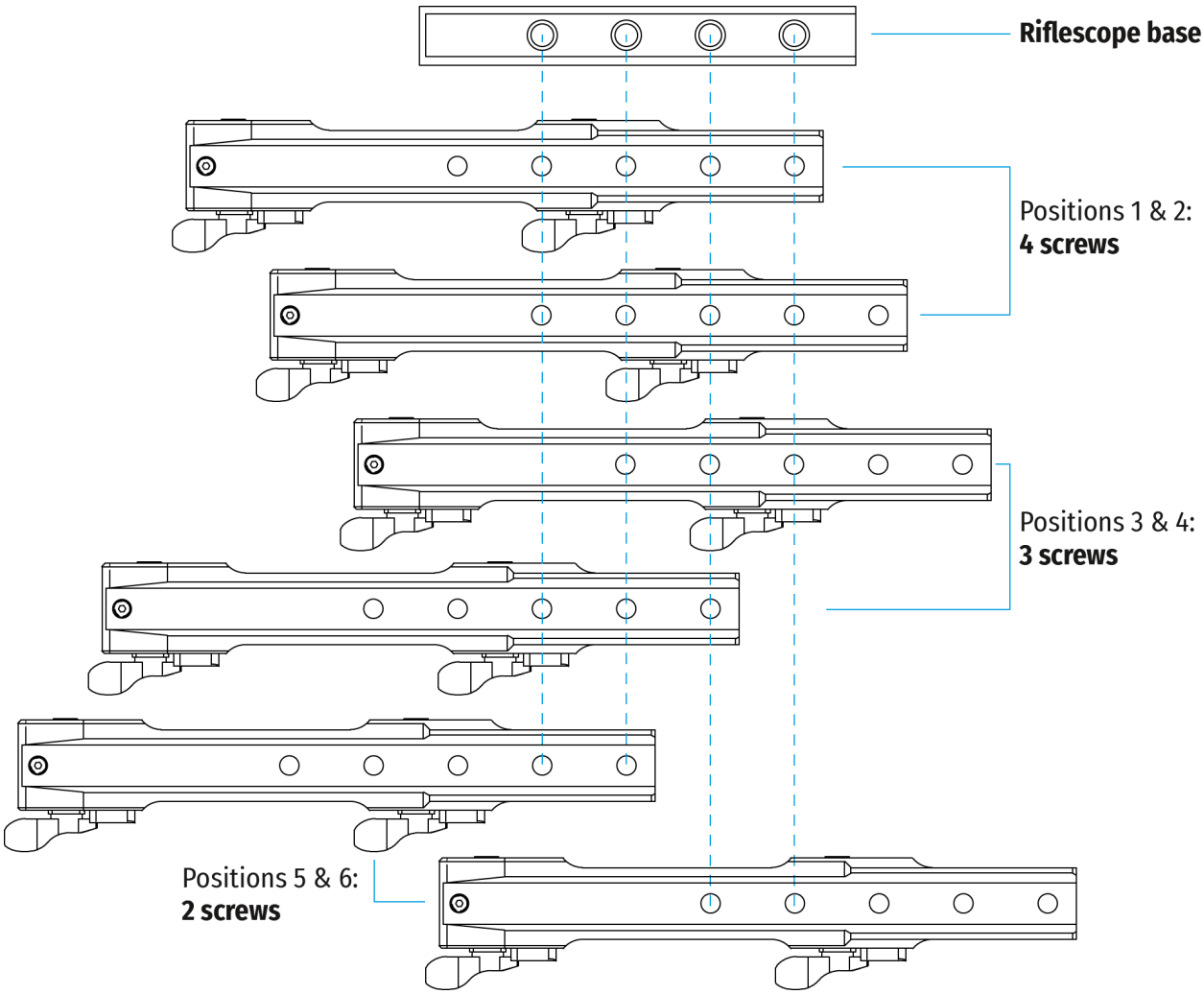
The device can be powered with an external power supply such as Power Bank (5 V).

1. Connect the external power supply to the USB port **(3)** of the device.
2. The device switches to operation from external power supply, and the IPS 7A Battery Pack will begin slowly charging.
3. The display will show the battery icon with charge level as a percentage.
4. If the device operates on external power supply but the IPS 7A battery is not connected, icon is shown.
5. When the external power supply is disconnected, the device switches to the internal battery pack without powering off.

Attention! Charging IPS 7A batteries at air temperatures below 0 °C can result in reduced battery life. When using external power, connect Power Bank to the switched-on device, which have worked for several minutes.

Mounting on the Rifle





Before using the riflescope you need to install a mount (may not be included). The mounting holes in the base of the riflescope enable the mount to be installed in one of the multiple positions to provide comfortable operating.

1. Attach the mount **(22)** to the base of the riflescope using a hex-nut wrench and screws.
2. The mount can be installed using either 4, 3 or 2 screws, depending on the chosen position of the mount.
3. Choosing the position of the mount helps to ensure the correct eye relief, depending on the type of rifle.
4. Install the riflescope with the mount on the rifle and check if the position is suitable for you, then remove it.
5. Unscrew the screws halfway, apply some thread sealant onto the thread of the screws and tighten them fully. Let the sealant dry for the time specified in the instructions. The riflescope is ready to be installed on a rifle and to be zeroed.
6. Before using the riflescope on the hunt, follow instructions in the **Zeroing**

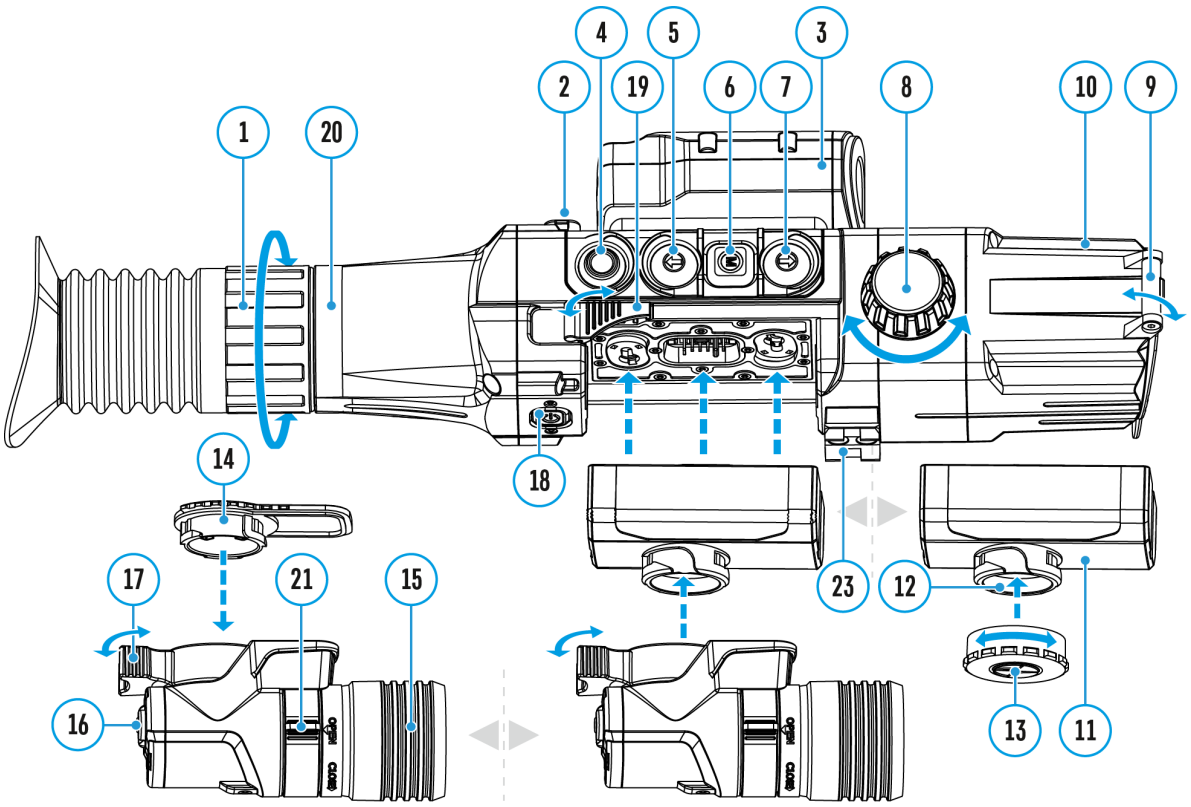
section.

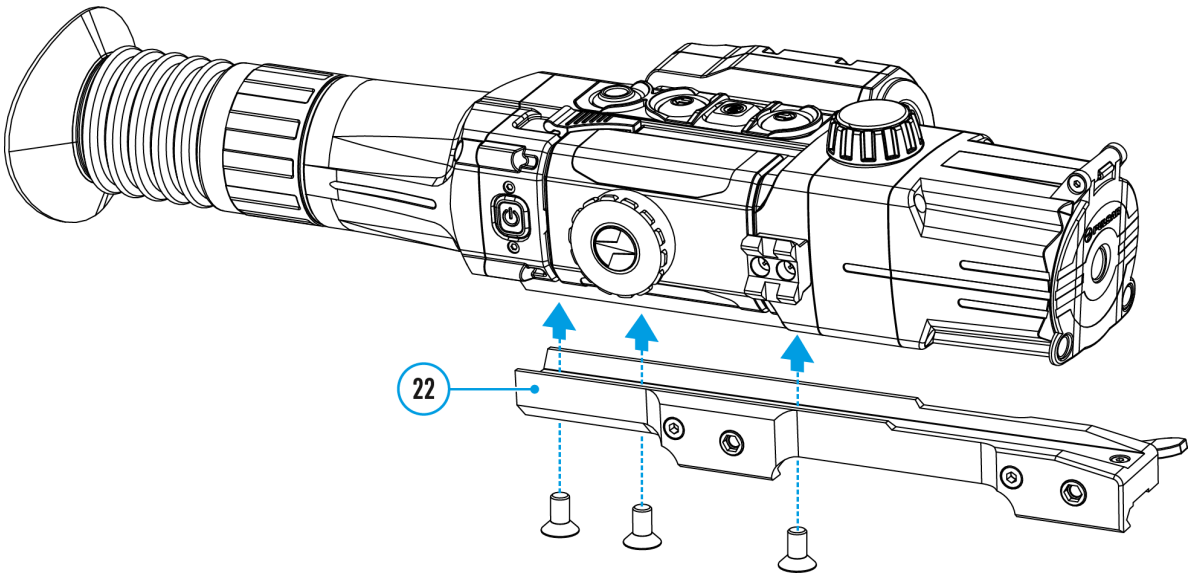
Rifle Mounts Catalogue

http:////e.issuu.com/embed.html?d=2020_pulsar_digital_a

Powering on and Image Settings

Show device diagram





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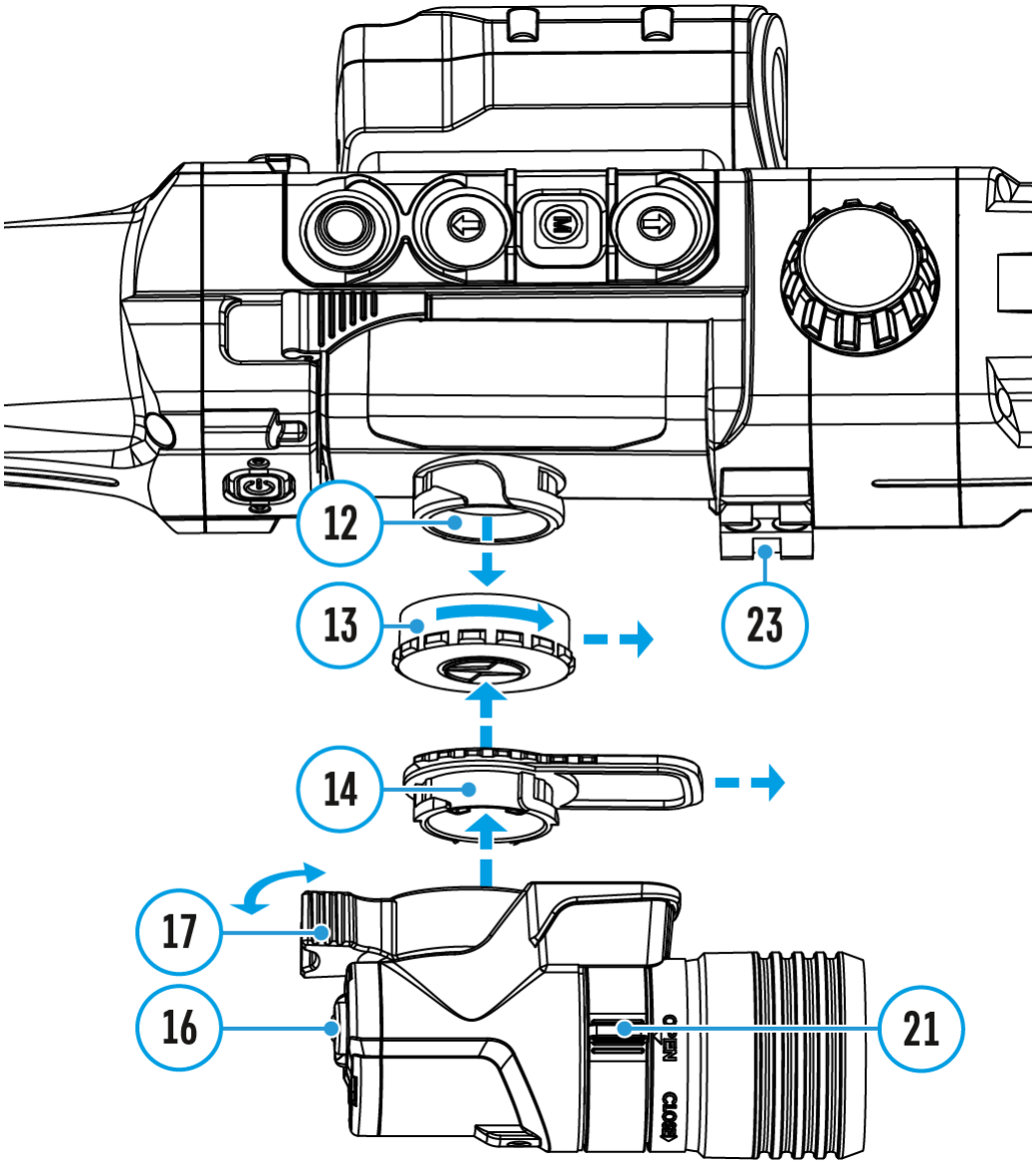
1. Open the lens cover **(9)**.
2. Press the **ON/OFF (18)** button to turn on the riflescope. In a few seconds an image will appear on the display.
3. To turn off the display while operating the riflescope, press and hold down the **ON/OFF (18)** button longer than one second.
4. Turned off display will show the “Display off” message.
5. To turn on the display, press the **ON/OFF (18)** button briefly.
6. To turn off the riflescope, press and hold down the **ON/OFF (18)** button longer than three seconds. Display will show the “Display off” message and a countdown from 3 to 1 sec, and will turn off upon countdown expiration.
7. Rotate the dioptre adjustment ring**(1)** to see a crisp image of the aiming reticle and the status bar icons. Once this adjustment is done, there is no need to rotate the dioptre adjustment ring for distance or any other conditions.
8. Rotate the lens focus knob**(8)** to see a crisp image of the object observed.
9. Adjusting the brightness and contrast of the display, enabling smooth digital zoom is described in the **Quick Menu Functions** section.
10. After use, turn off the riflescope by long pressing the **ON/OFF (18)** button.

Installing the IR illuminator

The riflescope is equipped with a IR Illuminator featuring a wavelength of 940 nm or 850 nm which provides significant increase in observation range in lowlight conditions and in the darkness.



1. Remove the IR illuminator connector plug**(13)**. Turn the plug according

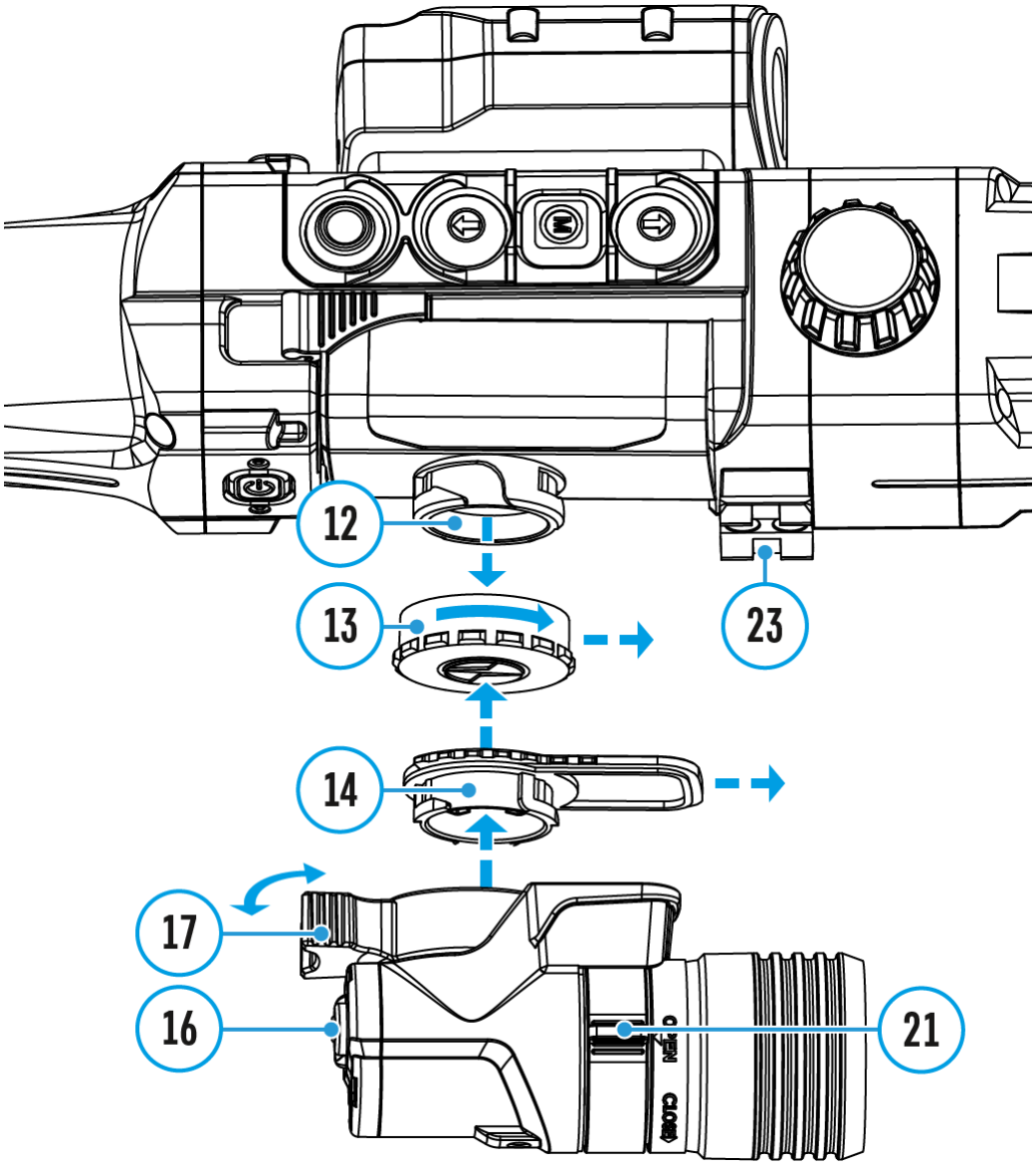
to the image, pull in the opposite direction from the battery.

2. Remove the IR illuminator cover**(14)**, lift the IR illuminator lever**(17)**.
3. Place the illuminator tightly onto the IR illuminator connector **(12)**, lower the lever **(17)**.
4. Make sure that the IR Illuminator is mounted and connected to the riflescope – the icon ( ) will disappear from the display.
5. To activate the IR illuminator, press the**IR (16)** button briefly on the edge of the illuminator. IR power level upon start is minimal .
6. IR Illuminator icon with respective power level is shown in the bar status.
7. To switch between power levels press the **IR (16)** button (> > >) successively and briefly.
8. To adjust the position of the light spot in the field of view of the sight, turn the IR-illuminator lens lock knob**(21)** to the OPEN position.
9. By moving the lens of the IR illuminator with your hand, adjust the required position of the light spot in the field of view of your sight. After successful adjustment, turn the lock knob **(21)** in the CLOSE direction while aiming the lens in the desired direction to lock the IR illuminator lens.
10. To deactivate the IR Illuminator, hold down the **IR (16)** button - the icon will disappear from the display.

Notes:

- Upon turning the IR off, power level is not saved in the riflescope’s memory.
- IR Illuminator is not focusable.
- IR Illuminator’s heat sink becomes hot. It is a functional and constructive feature; it is not a defect.
- The riflescope is equipped with a Weaver rail **(23)** for installing additional accessories. In this case, you will need to disconnect the standard IR illuminator and close the plug **(13)**of the IR illuminator connector **(12)**to ensure tightness
- When using an IR illuminator on a rifle with a silencer installed, light flare may appear on the display.

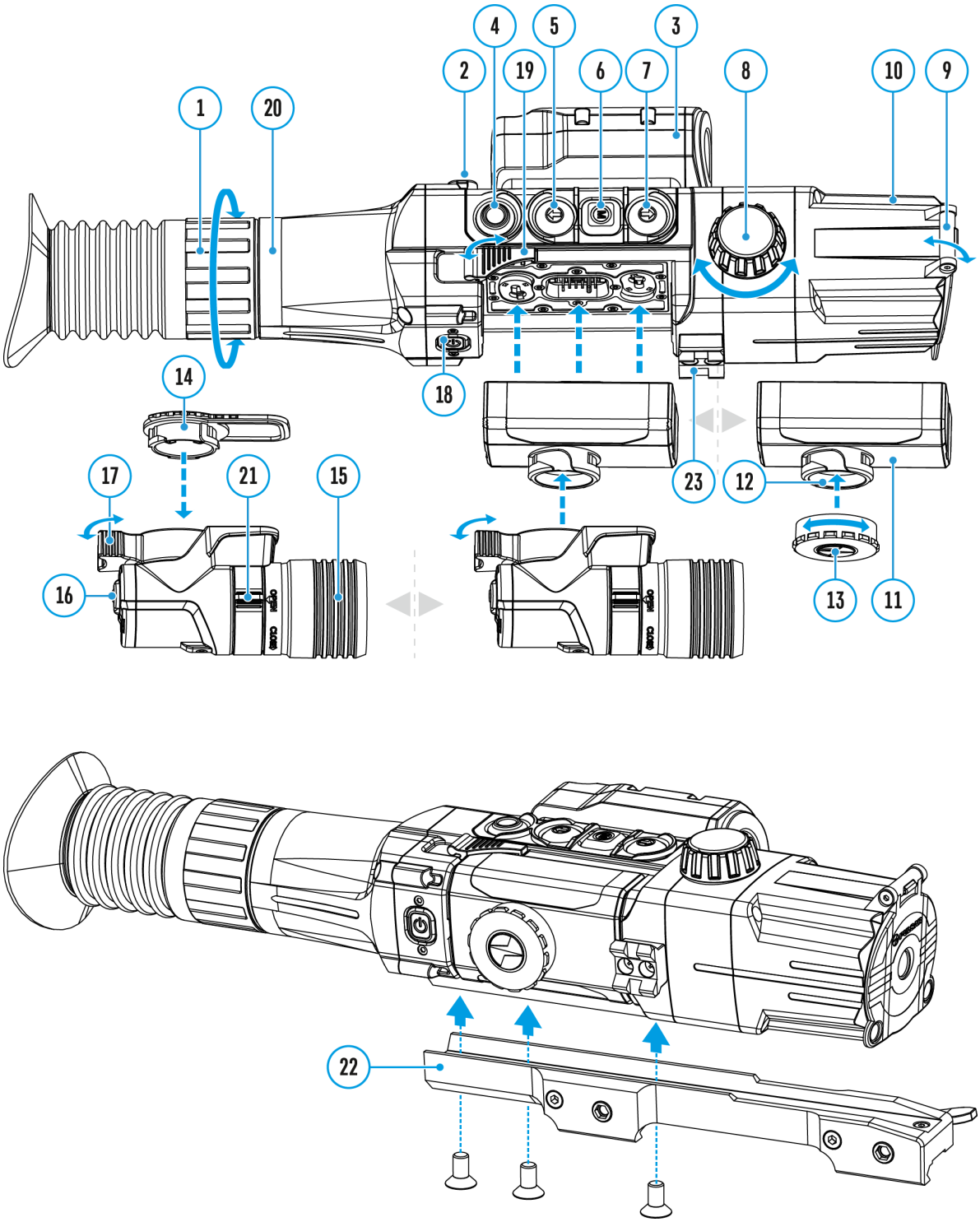
Removing the IR illuminator



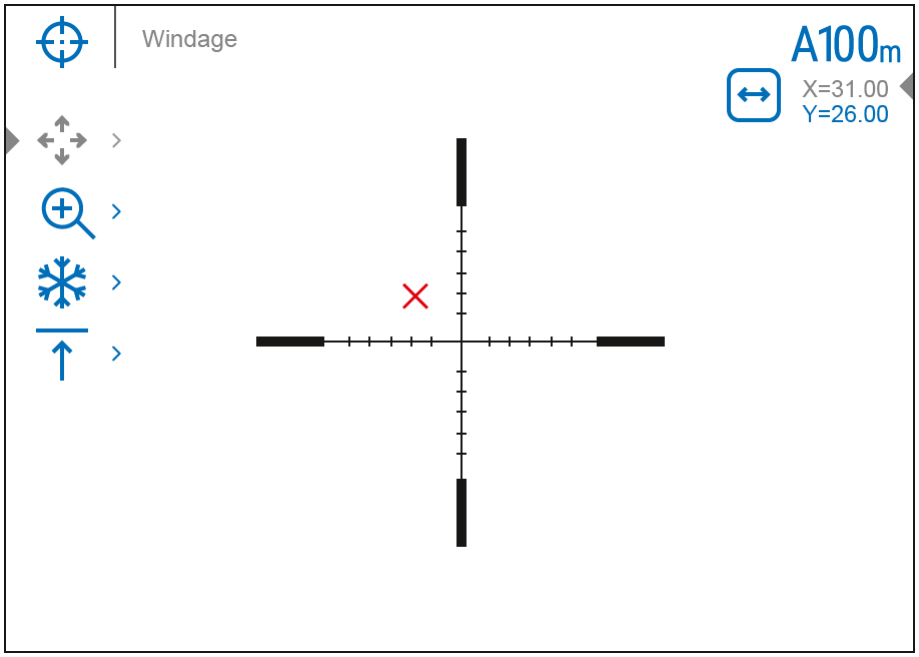
1. To remove the illuminator, raise the lever **(17)**.
2. Install the plug **(13)**.
3. The status bar will show an icon of the disconnected IR Illuminator .

How to zero

Show device diagram



Zeroing is recommended to be done at the temperature close to the riflescope operating temperature.



Zeroing should be done at operating temperatures, by following these steps:

Step 1. Make a shot

1. Mount your rifle with the riflescope installed on a bench rest.
2. Set a target at a certain distance.
3. Adjust the riflescope according to the instructions of section **Powering On and Image Setting**.
4. Select zeroing profile (see **Zeroing Profile** main menu item).
5. Point a rifle at the center of the target and shoot.

Step 2. Align the reticle with the impact point

1. If the point of impact does not match the aiming point (center of the riflescope's reticle), hold down **MENU (6)** button to enter the main menu.
2. Select submenu **Zeroing** with **UP (7)/DOWN (5)** buttons.
3. Enter submenu with a short press of **MENU (6)** button.
4. Add a new zeroing distance at which you are zeroing (see **Zeroing** menu item => submenu **Add New Distance**).
5. Additional menu for **Zeroing Parameters Settings** appears on the display.

6. An auxiliary cross ✕ appears in the center of display, and coordinates of the auxiliary cross X and Y appear in the top right corner.
7. Enter **Windage/Elevation** Image not found or type unknown submenu with a short press of **MENU (6)** button.
8. Holding the reticle at the aiming point, move the auxiliary cross horizontally or vertically with **UP (7)/DOWN (5)** buttons until the auxiliary cross matches the point of impact. Switch between movement directions of the auxiliary cross from horizontal to vertical with a short press of **MENU (6)** button.

Zoom Zeroing function:

To improve the accuracy of zeroing, you can change the magnification in the menu . The larger the magnification, the smaller the step of shifting the reticle on the display relative to the image from the sensor.

One-shot "Freeze Zeroing" function:

Not to hold the reticle at the aiming point, you can use the **Freeze** function – freezing the zeroing screen (refer to **Zeroing** Image not found or type unknown menu item => **Distance** submenu => **Zeroing Parameters Settings** submenu => **Freeze** Image not found or type unknown submenu or short pressing of the **ON/OFF (18)** button).

Step 3. Save the coordinates

1. To save the new reticle position, press and hold the **MENU (6)** button. The reticle is aligned with the point of impact and the submenu Image not found or type unk exits.
2. Press and hold the **MENU (6)** button again to exit the zeroing settings menu - the message “Zeroing coordinates saved” appears, confirming the successful operation.
3. Take another shot — the point of impact should now match the aiming point.

Notes:

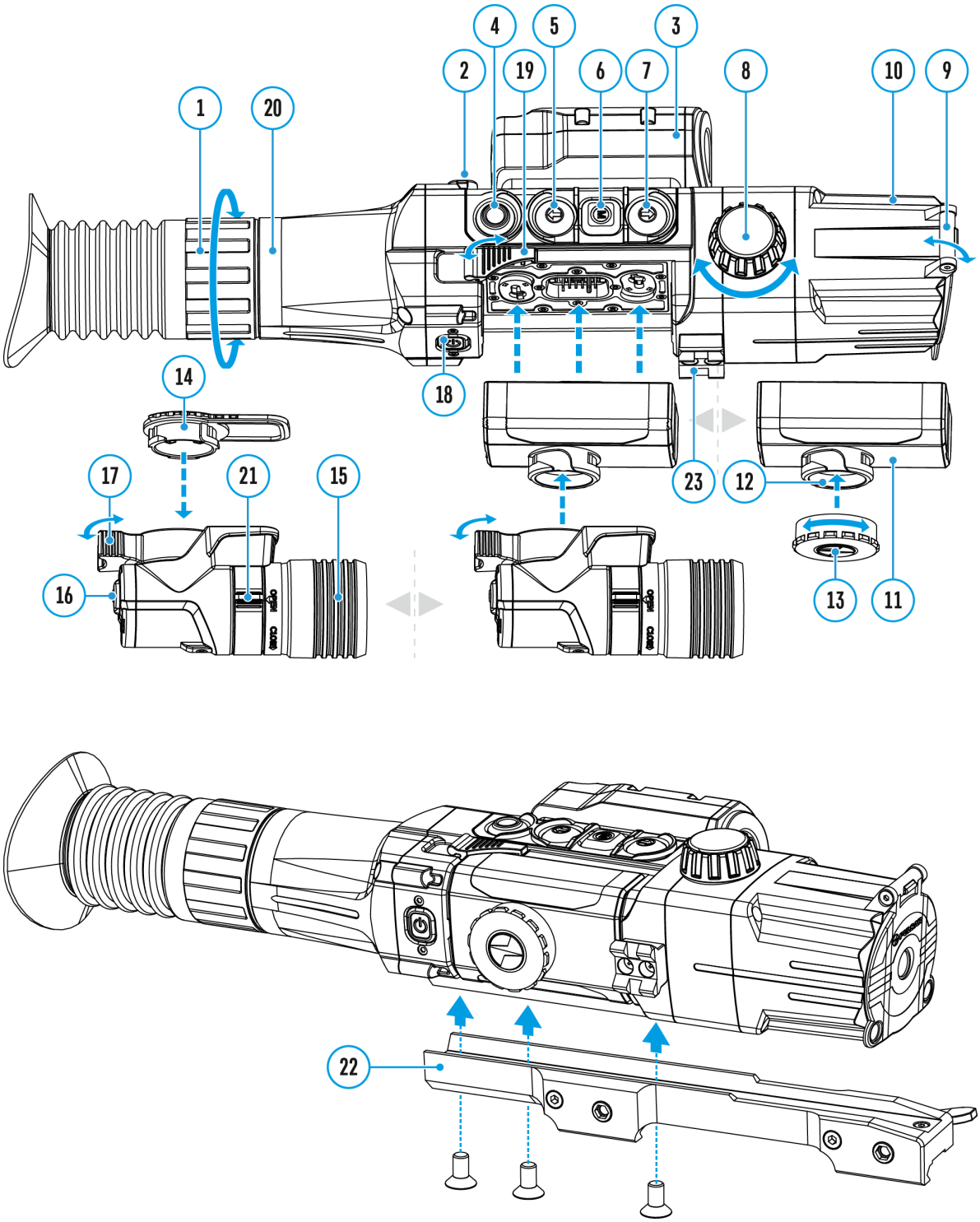
- To re-zero at any distance select the desired distance in **Zeroing** submenu, press **MENU (6)** button briefly and enter **Zeroing Parameters Settings**

submenu with another short press of **MENU (6)** button.

- After zeroing, the reticle may not be in the center of the display.
- The range of movement of the riflescope reticle allows you to successfully zero the riflescope, even on mounts that are far from ideal, minimizing the possible disadvantages of the mounts. The better the mount is installed, the less you have to move the reticle. We recommend mounting the riflescope as low as possible.

Add New Distance

Show device diagram



To zero your rifle, you need to set a zeroing distance first. You can zero your rifle at any distance ranging from 1 to 910m (1 to 955 yards).

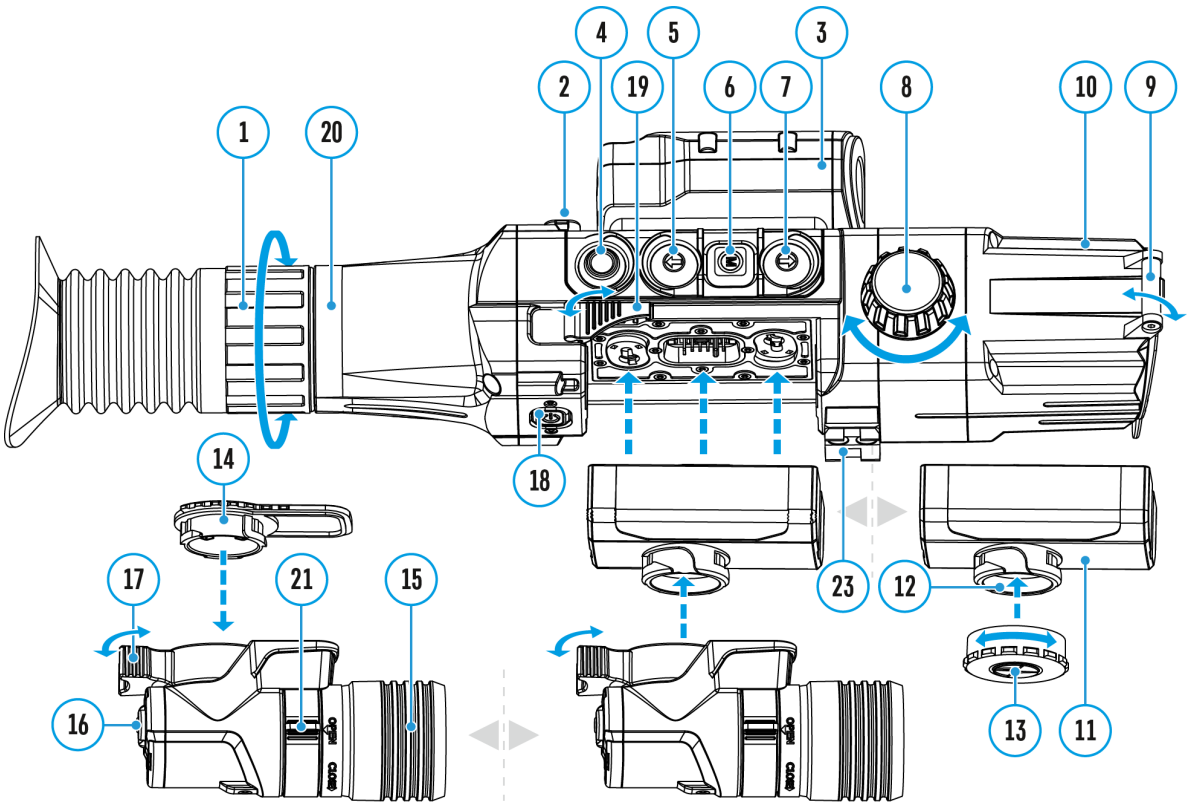
1. Enter the main menu with a long press of **MENU (6)** button.
2. Press **UP (7)/DOWN (5)** buttons to select **Zeroing**  menu item.
3. Enter submenu Zeroing with a short press of **MENU (6)** button.
4. Enter submenu **Add New Distance**  with a short press of **MENU (6)** button.
5. Set values for each digit with **UP (7)/DOWN (5)** buttons. Switch between the digits  with a short press of **MENU (6)** button.
6. Having set the desired distance value, hold down **MENU (6)** button to save it.

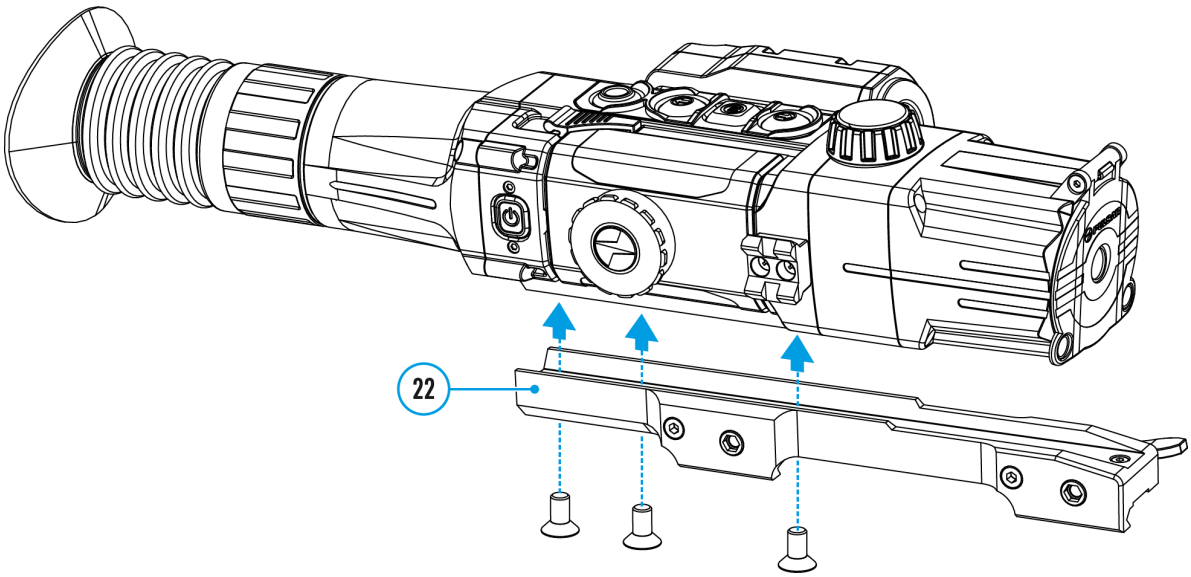
The distance you set first becomes a **primary distance** – shown with an icon  on the right to the distance value.

Note: max. number of zeroing distances is 10 for each profile.

Zeroing Parameters Settings

Show device diagram





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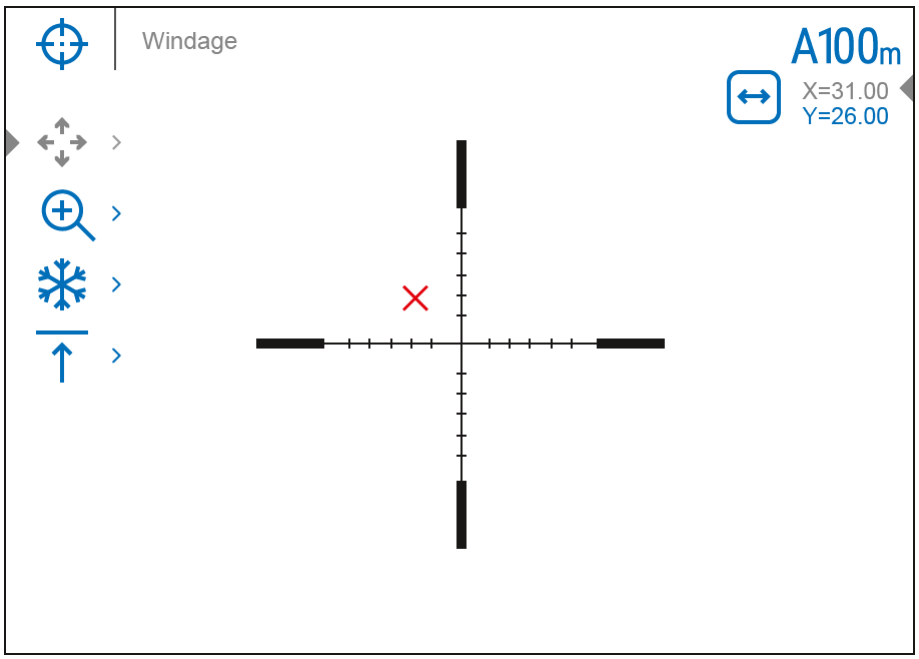
1. Press and hold **MENU (6)** button to enter the main menu.
2. Press **UP (7)/DOWN (5)** buttons to select the **Zeroing** Image not found or type unknown menu item and enter by briefly pressing **MENU (6)** button – the zeroed distances are displayed.
3. The values (e.g., +7.0) shown on the right of the distance values, stand for the number of clicks along the Y axis, at which the reticle position at other distances differs from the reticle position in the primary distance.
4. To zero at any distance again, press **UP (7)/DOWN (5)** buttons to select the required distance and briefly press **MENU (6)**.
5. Press **UP (7)/DOWN (5)** buttons to select the **Zeroing Parameters Settings** Image not found or type unknown and enter by briefly pressing **MENU (6)**.
6. **Zeroing** screen, which allows the change of zeroing coordinates, will appear.

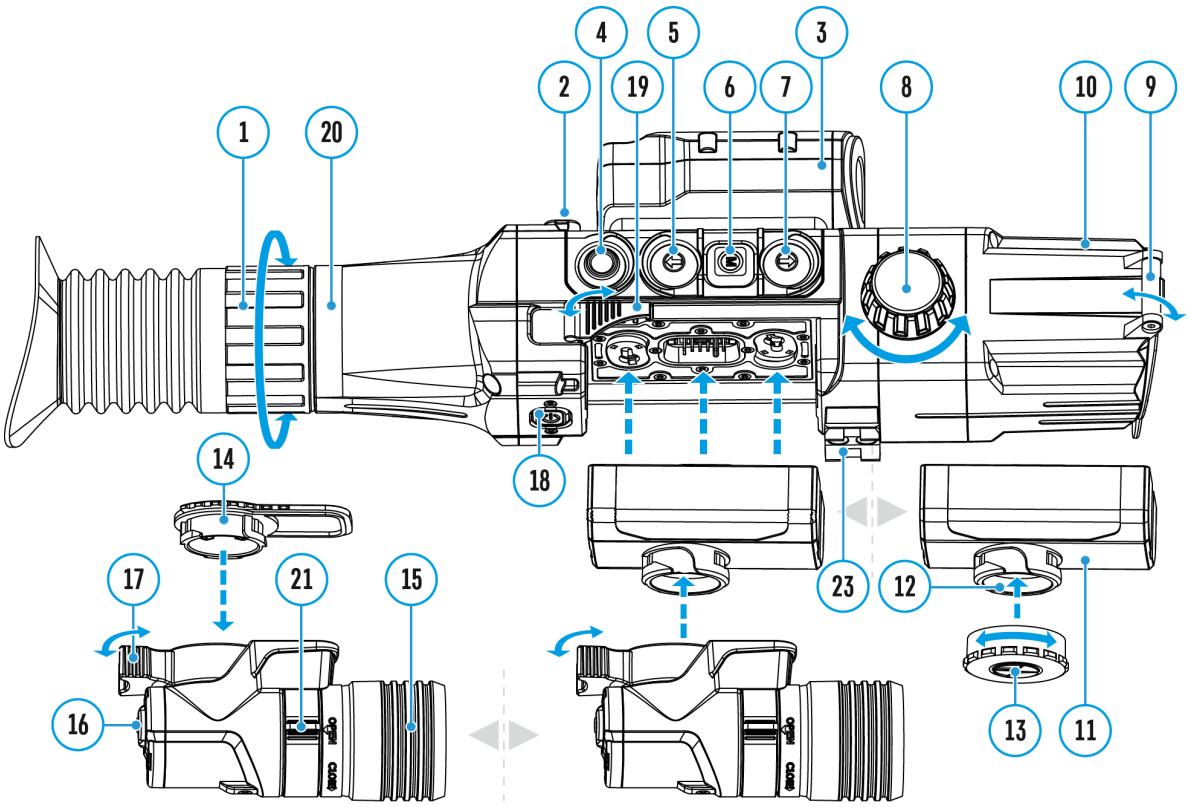

Windage
A100m
X=31.00
Y=26.00

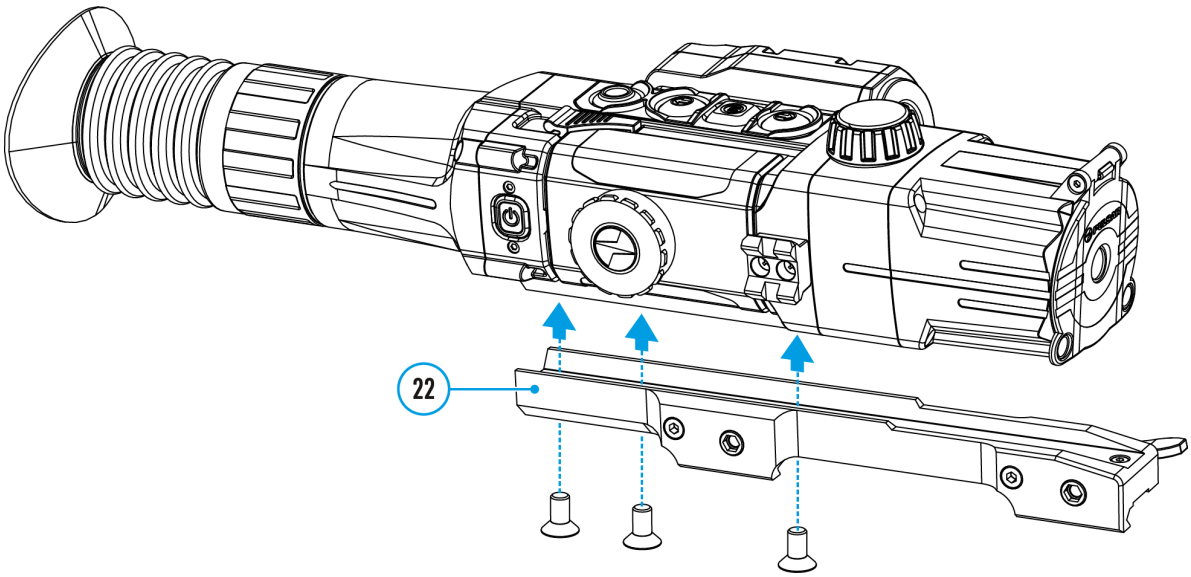
Windage/Elevation

The **Windage/Elevation** Image not found or type unknown additional menu item in the **Zeroing Parameters Settings** menu allows you to adjust the reticle position. For a detailed description of the reticle adjusting, refer to the **Zeroing** section.

Magnification (when Zeroing)

Show device diagram





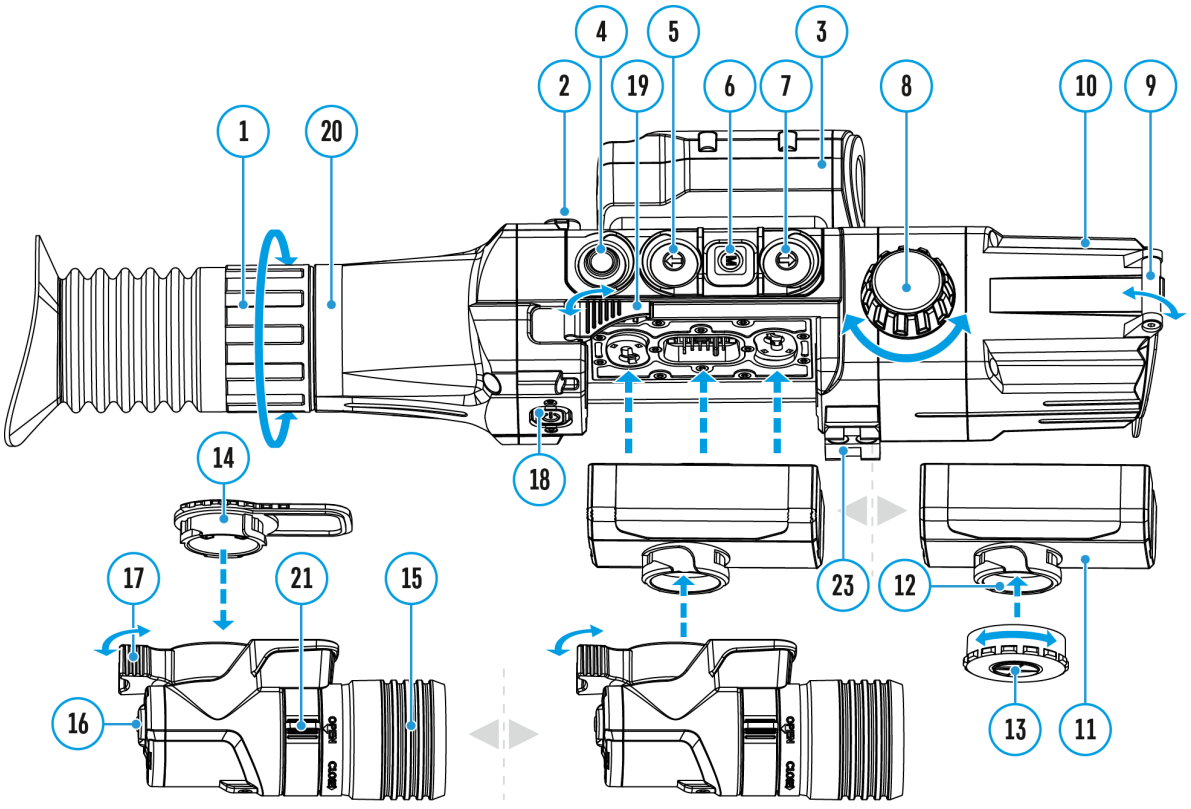
Magnification allows you to magnify a digital zoom of the riflescope when zeroing, which reduces the minute of angle click. It improves the zeroing accuracy.

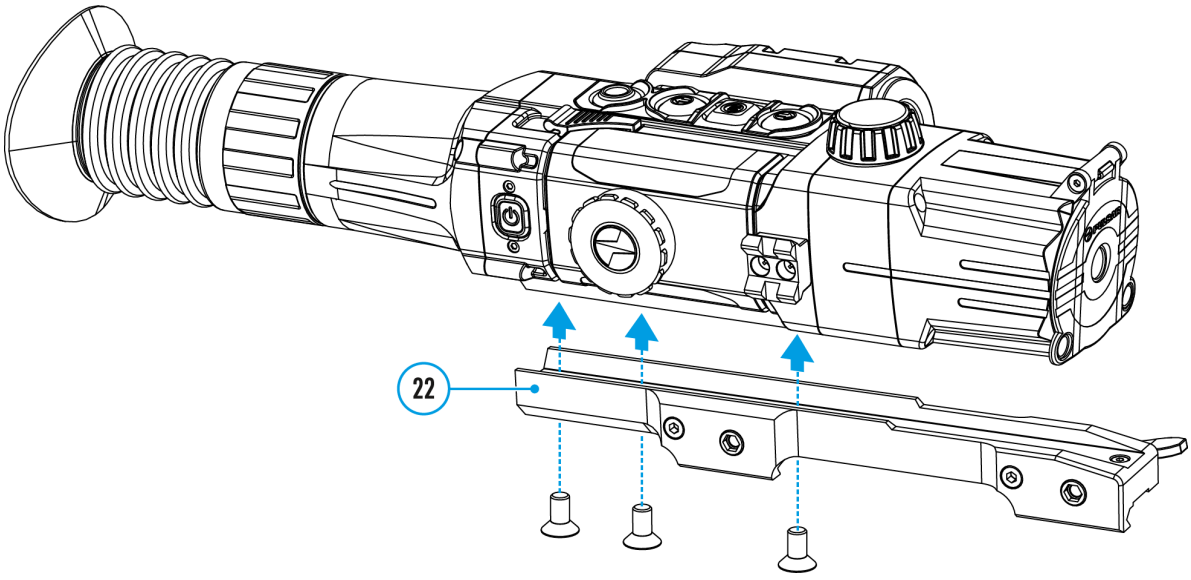
1. In the **Zeroing Parameters Settings** menu, press **UP (7)/DOWN (5)** buttons to select the **Magnification** submenu item and enter by briefly pressing **MENU (6)** button.
2. Press **UP (7)/DOWN (5)** buttons to select a digital magnification value of the riflescope (e.g., x4).
3. Press **MENU (6)** button briefly to confirm your selection.

The minute of angle click when using the Magnification function is indicated in the Table of **Technical Specifications**.

Freeze

Show device diagram



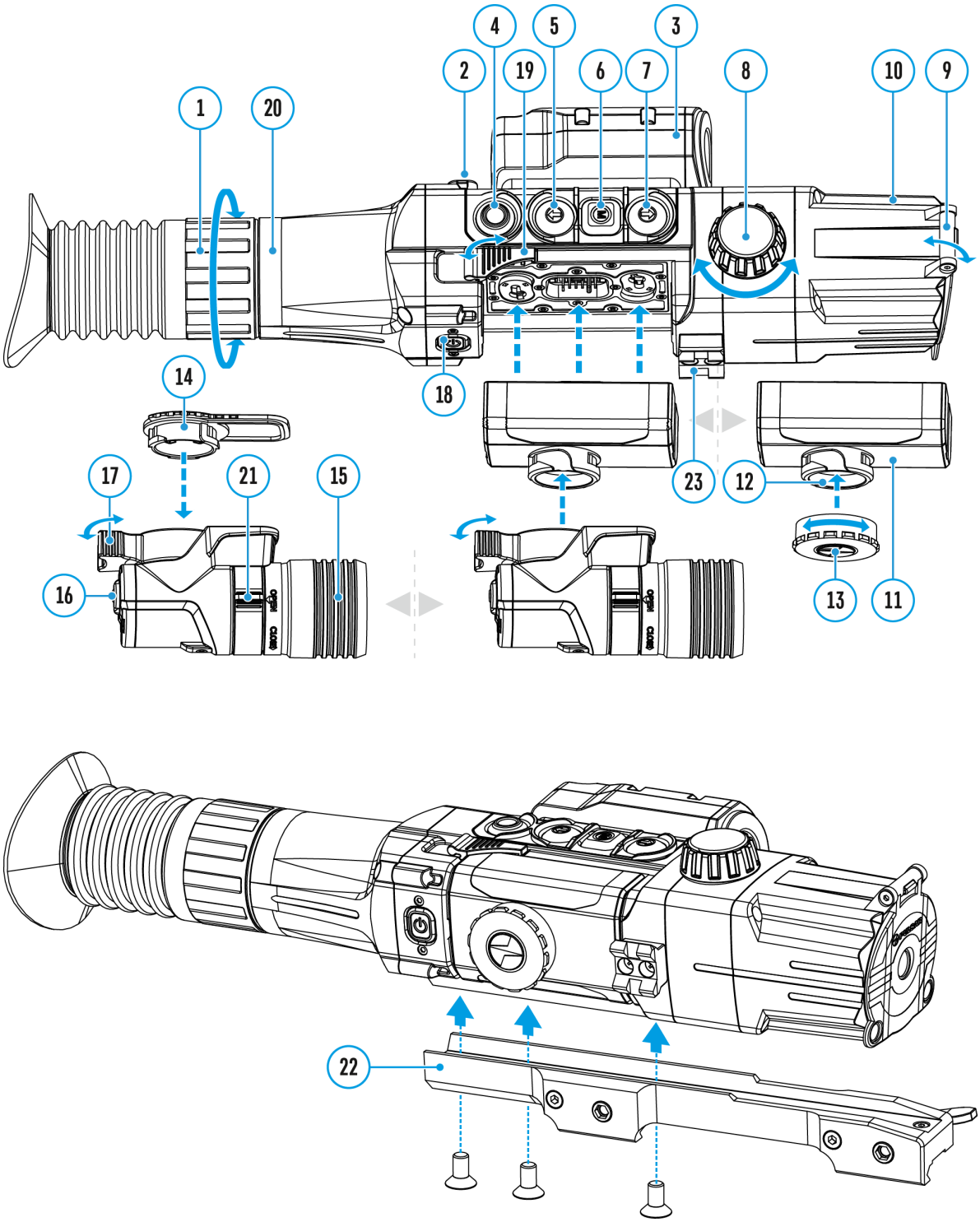


The feature of the function is that there is no need to constantly keep the riflescope at the point of aiming.

1. In the **Zeroing Parameters Settings** menu, press **UP (7)/DOWN (5)** buttons to move the cursor to the **Freeze** function.
2. Align the reticle with the point of aiming and press **MENU (6)** or **ON/OFF (18)** button. A screenshot will be taken, an icon will appear.
3. Go to the additional **Windage/Elevation** submenu and adjust the position of the reticle (see the **Zeroing** section).
4. Select the **Freeze** submenu item again and briefly press **MENU (6)** or **ON/OFF (18)** button - the image will “unfreeze”.

Name Distance

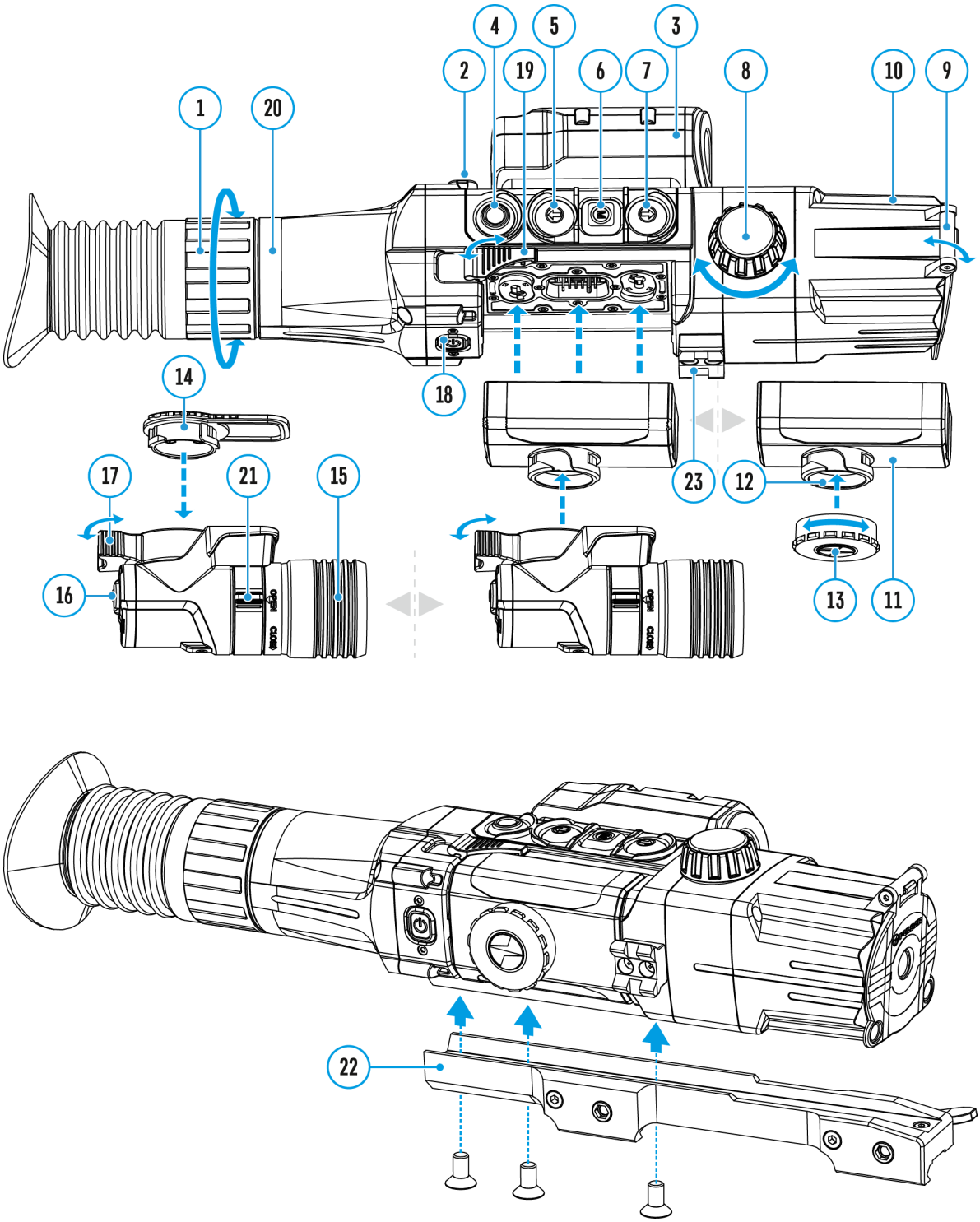
Show device diagram



1. In the **Zeroing Parameters Settings** menu, press **UP (7)/DOWN (5)** buttons to select the **Name Distance** submenu item and enter it by briefly pressing **MENU (6)** button.
2. Press **UP (7)/DOWN (5)** buttons to select a value for each digit. Press **MENU (6)** button briefly to switch between digits.
3. Press and hold **MENU (6)** button to confirm the selection.

Change Primary Distance

Show device diagram

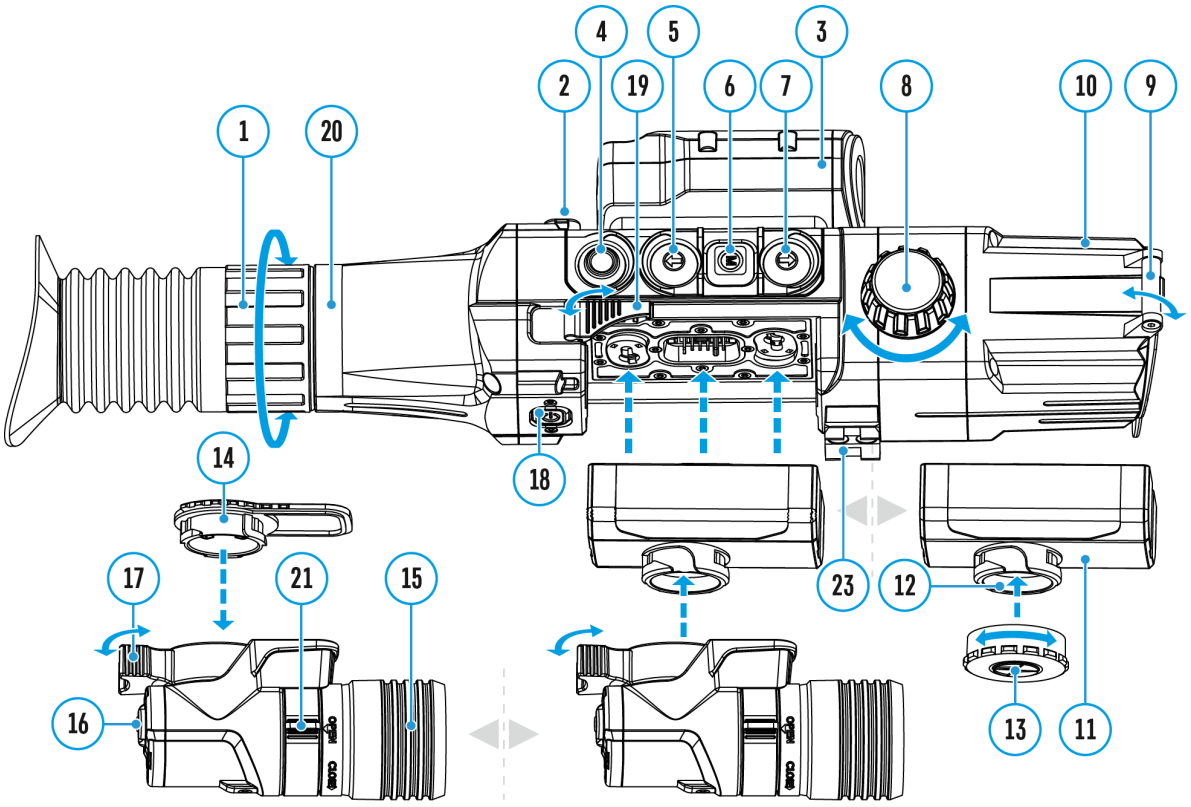


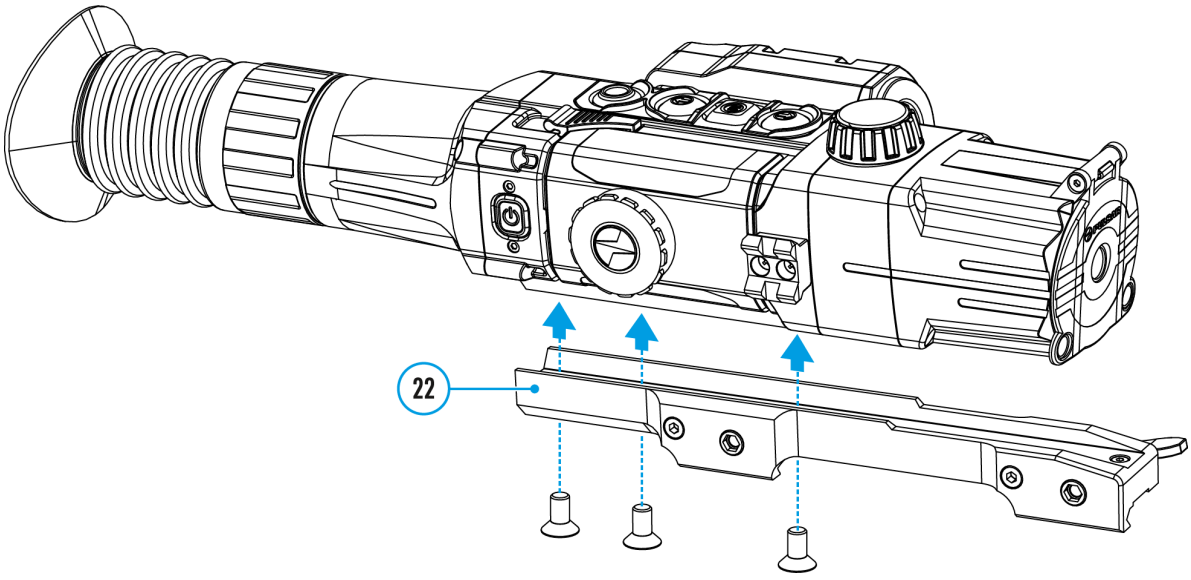
1. Press and hold **MENU (6)** button to enter the main menu.
2. Press **UP (7)/DOWN (5)** buttons to select the **Zeroing** menu item and enter by briefly pressing **MENU (6)** button – the zeroed distances are displayed.
3. Select a non-primary distance and enter the submenu for operating the distance with a brief press of **MENU (6)** button.
4. Select **Change Primary Distance** item .
5. Press **MENU (6)** button briefly.
6. Icon next to the selected distance confirms the change of primary distance.

The differences of other distances from the new primary distance are recalculated as per clicks.

Delete Distance

Show device diagram



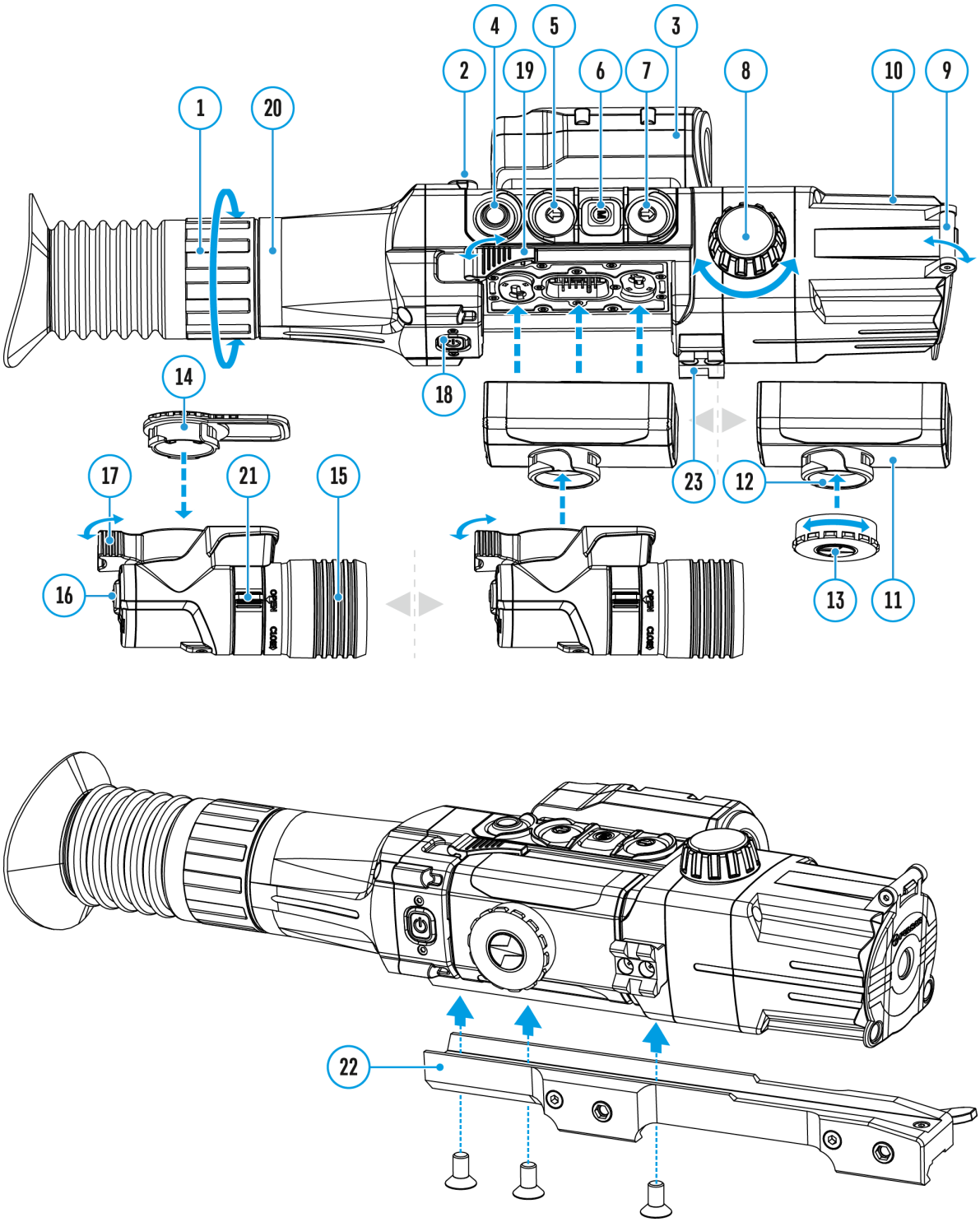


1. Press and hold **MENU (6)** button to enter the main menu.
2. Press **UP (7)/DOWN (5)** buttons to select the **Zeroing** Image not found or type unknow menu item and enter by briefly pressing **MENU (6)** button – the zeroed distances are displayed.
3. Select the distance you wish to delete and enter the submenu for operating the distances with a brief press of **MENU (6)** button.
4. Select **Delete Distance** Image not found or type unknown item.
5. Press the **MENU (6)** button briefly.
6. Select “Yes” in the appeared dialog box to delete a distance. “No” – to cancel deletion.
7. Press the **MENU (6)** button briefly to confirm your selection.

Attention! If the primary distance is deleted, the first distance on the list automatically becomes the new primary distance.

Discrete Digital Zoom

Show device diagram



The riflescope functionality allows you to quickly increase the basic magnification (please refer to the **Magnification** line in the **Specifications** table) by two times or four times, as well as to return to the basic magnification.

To operate the discrete digital zoom, press successively the **DOWN (5)** button.

Status Bar

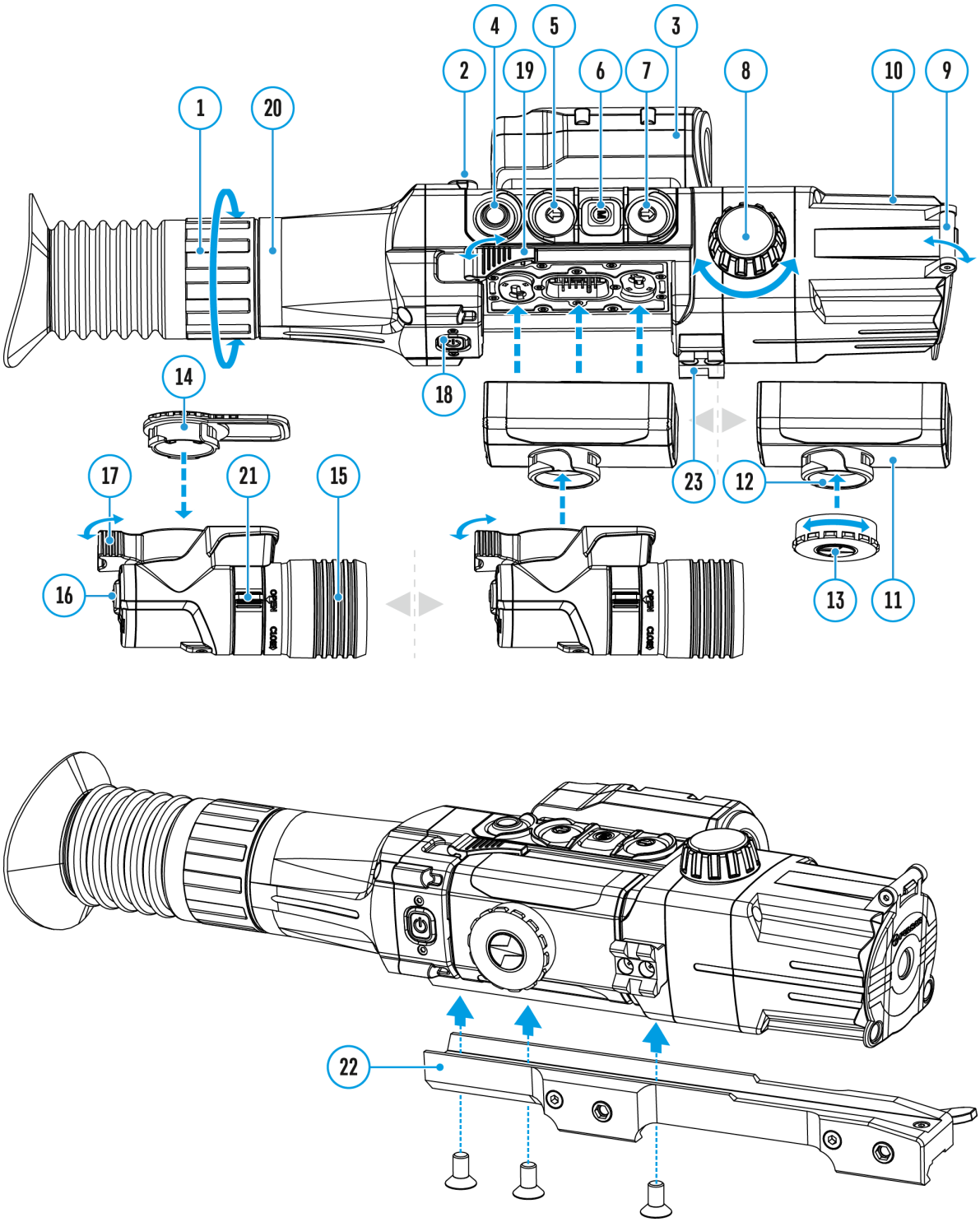
The status bar is located in the lower part of the display and shows the information on the actual operating status of the riflescope, including:

1. Actual zeroing profile.
2. Zeroing distance (distance is not shown before zeroing is done).
3. Sum Light (on/off).
4. IR connection status / IR Illuminator’s power level (for example, level 3).
5. Full magnification value.
6. Microphone
7. Wi-Fi connection status.
8. “Auto shutdown” function.
9. Running time
10. Power indication:
    - Battery charge level (if the riflescope is powered by the Battery Pack).
    - External battery power indicator (if the riflescope is powered by an external power supply).

The status bar shows the distance value selected in the quick menu. Also, after zeroing at different distances, the distance value selected from the quick menu is displayed. If one distance is zeroed, it is displayed.

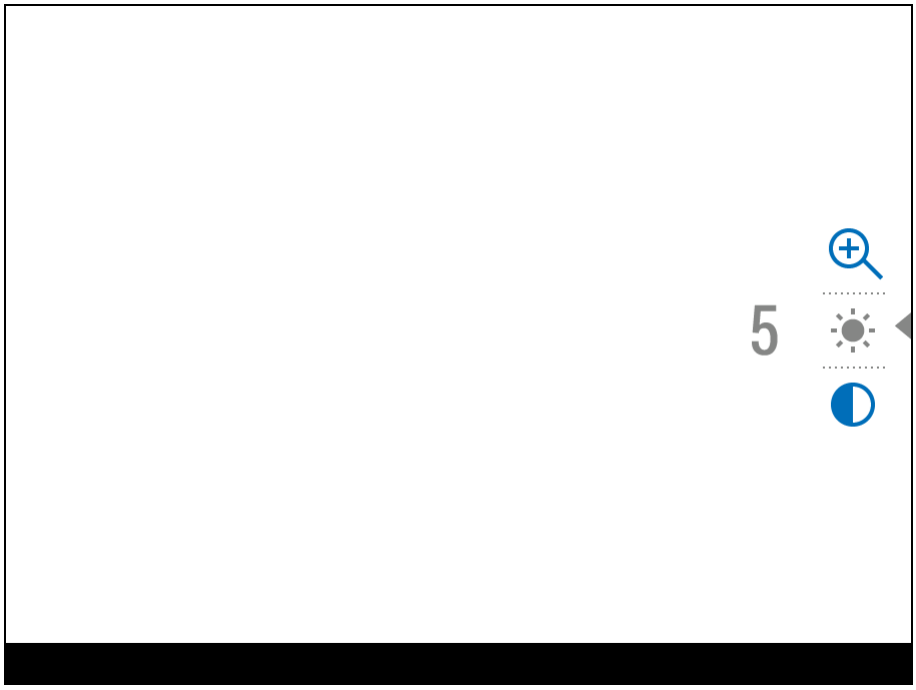
Quick Menu Functions

Show device diagram



The Quick Menu allows to manage basic riflescope’s settings (display brightness and contrast, continuous digital zoom) and change zeroing distance (if several are available) in the current shooting profile.

- Enter the menu with a short press of **MENU (6)** button.
- To select the functions below, press successively **MENU (6)** button.



Brightness – press **UP (7)/DOWN (5)** buttons to change display brightness from 0 to 20.

Contrast – press **UP (7)/DOWN (5)** buttons to change display contrast from 0 to 20.

A100 – information on the actual profile and zeroing distance, at which zeroing was done in this profile (for example, profile A, zeroing distance 100 m). Select zeroing distances with **UP (7)/DOWN (5)** buttons. This option is available when more than one distance is saved.

Smooth digital zoom – press the **UP (7)/DOWN (5)** buttons to change the value of the digital zoom from 4.5 to 18. Change step for digital zoom is 0.1.

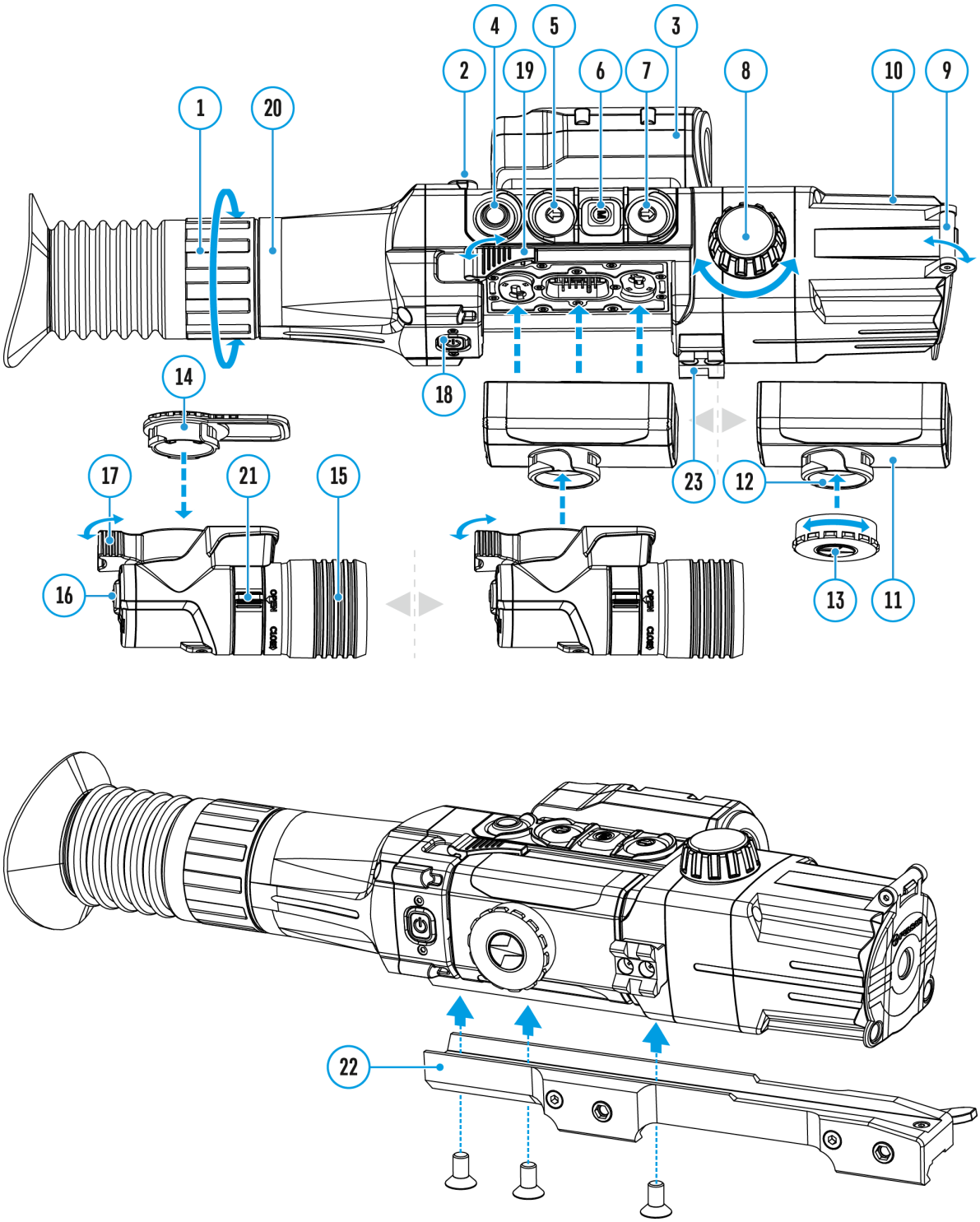
- Exit the quick menu with a long press of **MENU (6)** button or wait 10 seconds to exit automatically.

Note: display brightness and contrast settings are saved in the memory

when the unit is turned off.

Enter the Main Menu

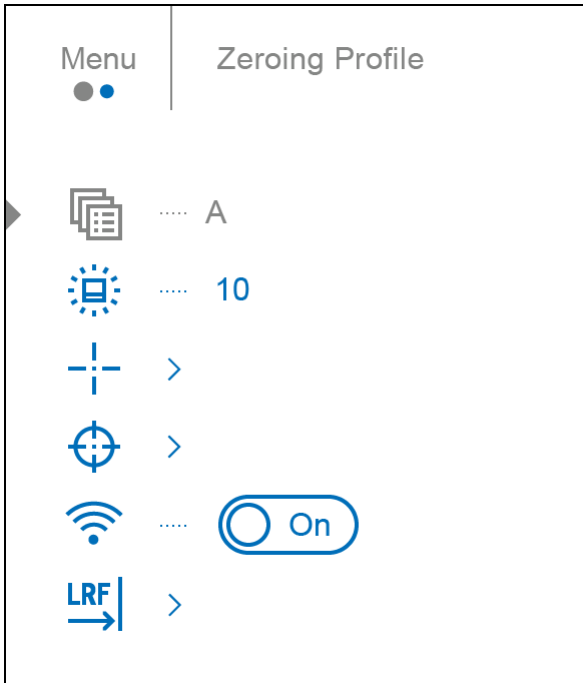
Show device diagram



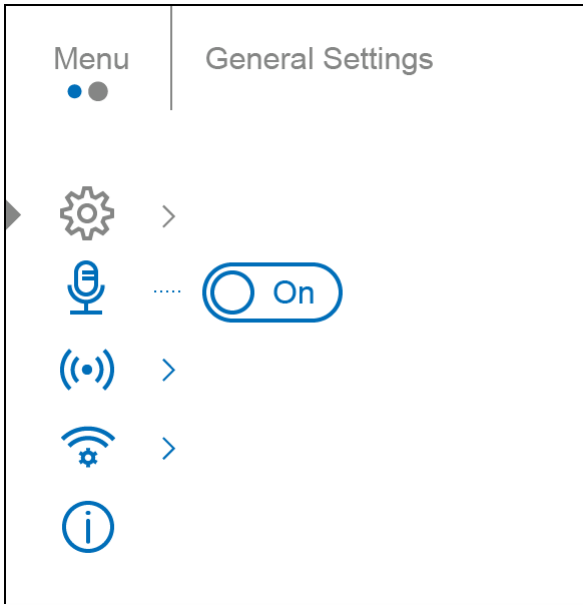
1. Enter the main menu with a long press of **MENU (6)** button.
2. Press **UP (7)/DOWN (5)** buttons to select main menu options.
3. Enter a submenu of the main menu with a short press of **MENU (6)** button.
4. Exit a submenu with a long press of **MENU (6)** button.
5. Automatic exit takes place in 10 sec of inactivity.

Menu contents:

Tab 1

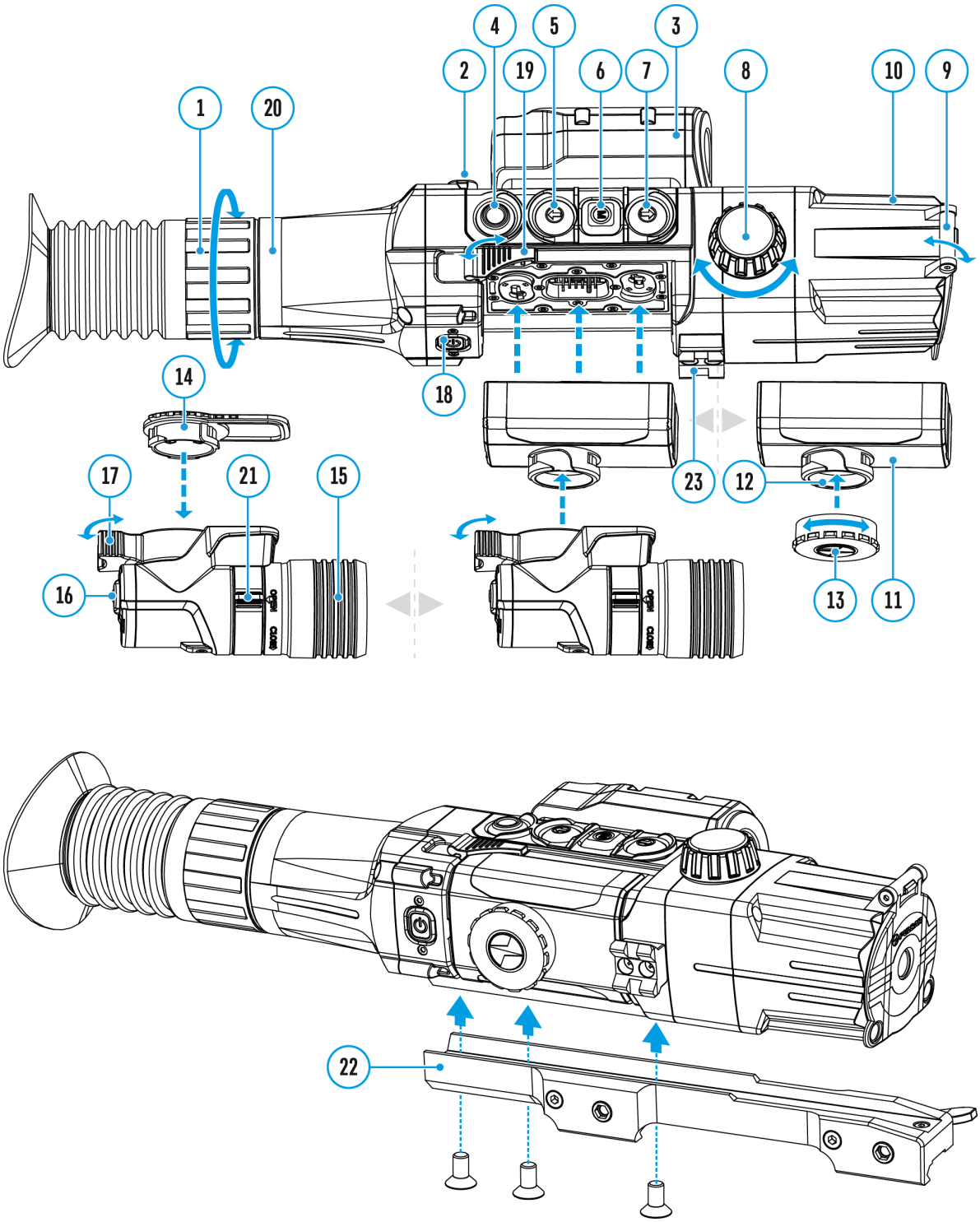


Tab 2


Menu
General Settings
On

Zeroing Profile

Show device diagram



This main menu option allows you to select one of five profiles. Each profile includes the following:

- A set of zeroed distances;
- Reticle color
- Reticle type

Various profiles can be used when employing the riflescope on different rifles and when shooting different cartridges.

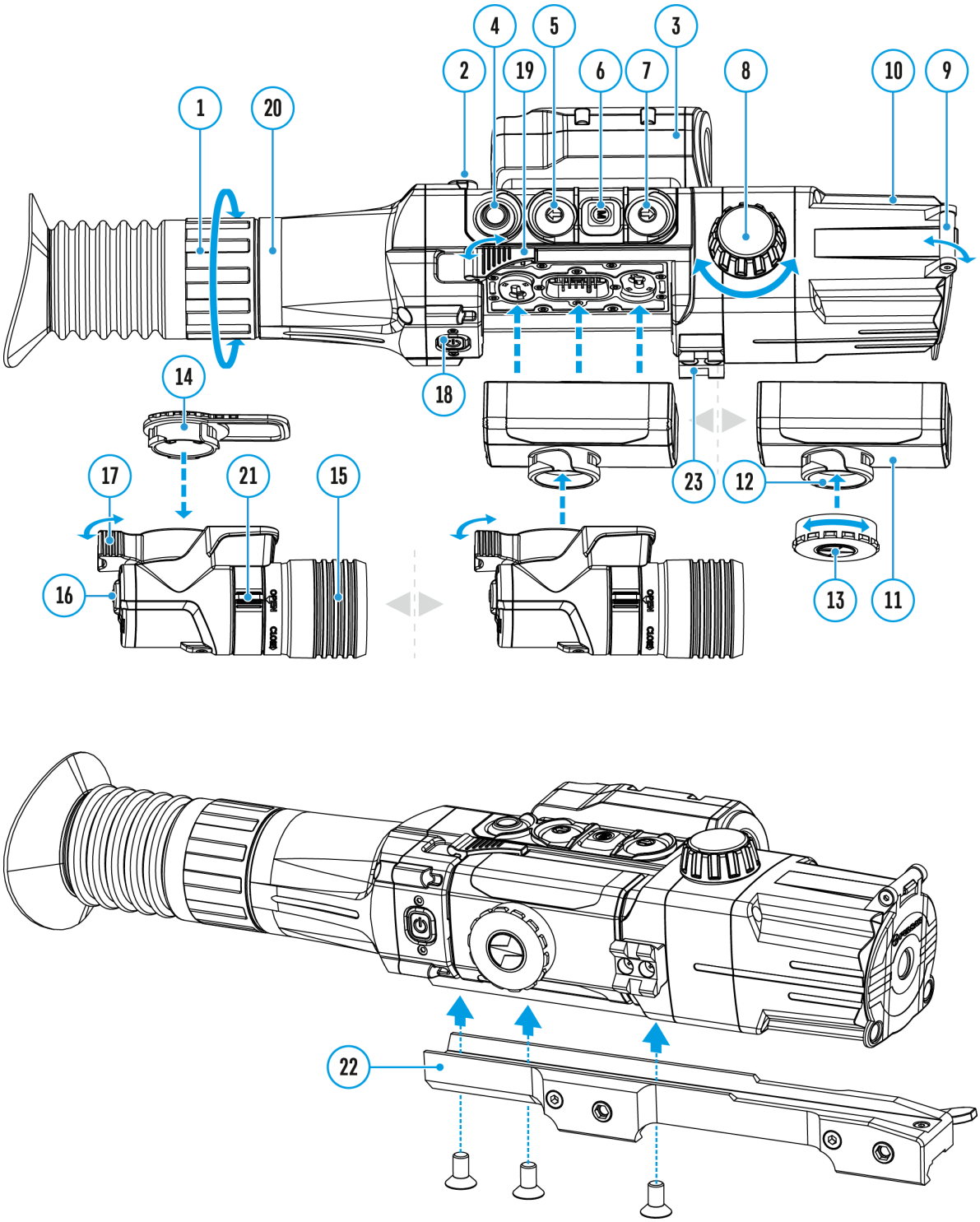
Zeroing profiles cannot be deleted. You can change the parameters of zeroing distances or delete distances within a profile.

1. Enter the main menu with a long press of **MENU (6)** button.
2. Press **UP (7)/DOWN (5)** buttons to select **Zeroing Profile** menu item.
3. Enter submenu Zeroing Profile with a short press of **MENU (6)** button.
4. Select one of the zeroing profiles (shown with letters A; B; C; D; E) with **UP (7)/DOWN (5)** buttons.
5. Confirm your selection with a short press of **MENU (6)** button.

Name of the selected profile is displayed in the status bar.

Icon Brightness

Show device diagram

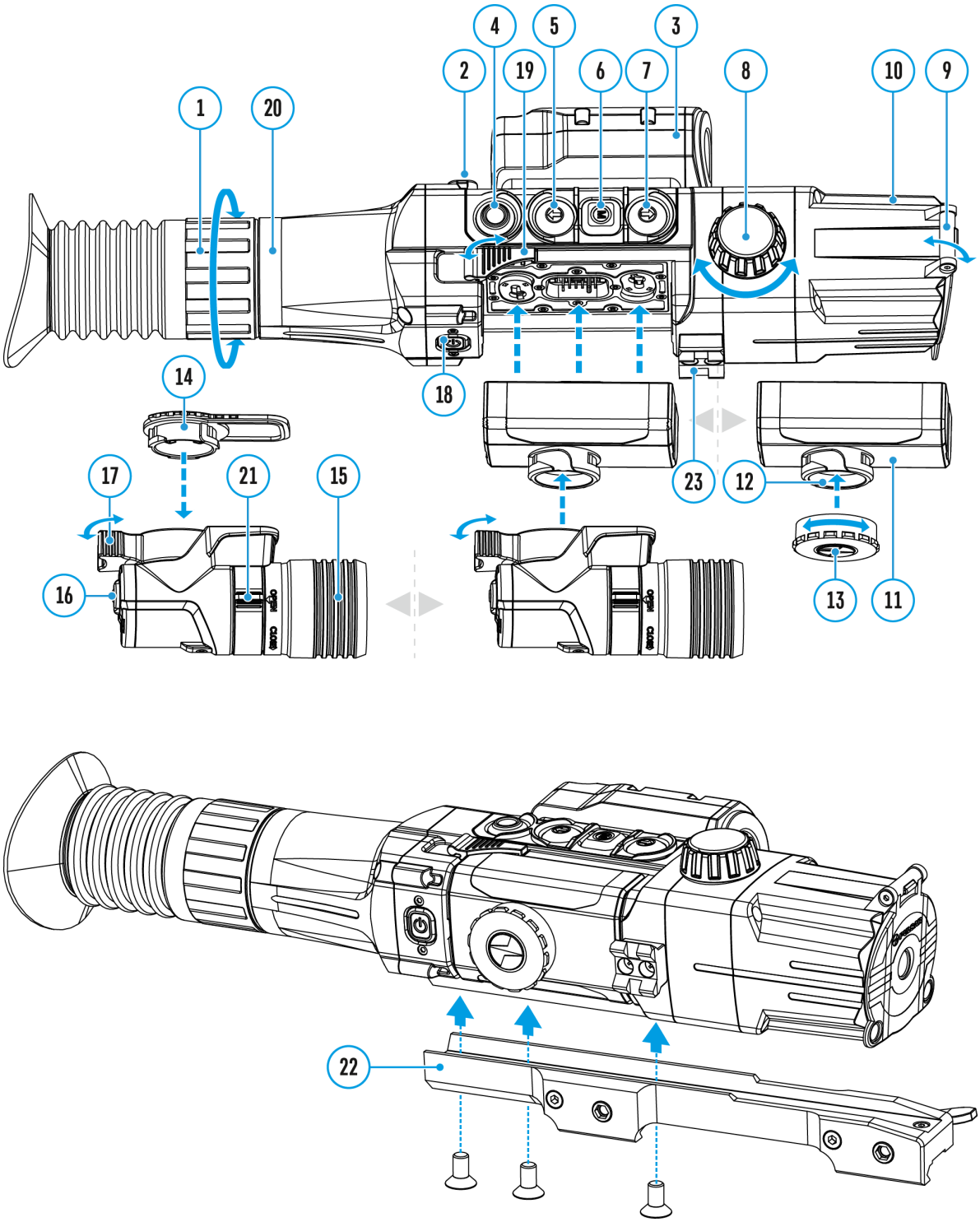


Adjust brightness level of the icons and screensavers (Pulsar, Display off) on the display.

1. Enter the main menu with a long press of **MENU (6)** button.
2. Press **UP (7)/DOWN (5)** buttons to select **Icon Brightness** menu item.
3. Enter Icon Brightness submenu with a short press of **MENU (6)** button.
4. Set desired graphics brightness from 0 to 10 with **UP (7)/DOWN (5)** buttons.
5. Confirm your selection with a short press of the **MENU (6)** button.

Reticle Setup

Show device diagram



This main menu option allows you to select reticle shape, color and brightness.

1. Press and hold the **MENU (6)** button to enter the main menu.
2. Press **UP (7)/DOWN (5)** buttons to select the **Reticle Setup** menu item.
3. Press the **MENU (6)** button briefly to enter the Reticle Setup submenu.

Reticle Type

Selection of reticle shapes.

1. Use the **UP (7)/DOWN (5)** buttons to select the **Reticle Type** submenu.
2. Press the **MENU (6)** briefly to enter the Reticle Type submenu.
3. Select the desired reticle shape with **UP (7)/DOWN (5)** buttons. Reticle type changes as the cursor goes down the reticle list.
4. Confirm your selection with a short press of **MENU (6)** button.

Note: the riflescope supports **scalable reticles**.

Reticle Color

Selection of reticle color.

1. Press **UP (7)/DOWN (5)** buttons to select **Reticle Color** menu item.
2. Enter submenu Reticle Color with a short press of **MENU (6)** button.
3. Select the desired reticle color with **UP (7)/DOWN (5)** buttons: Black/Red, White/Red, Black/Green, White/Green, Red, Green, Yellow, Blue, Orange.
4. Confirm your selection with a short press of **MENU (6)** button.

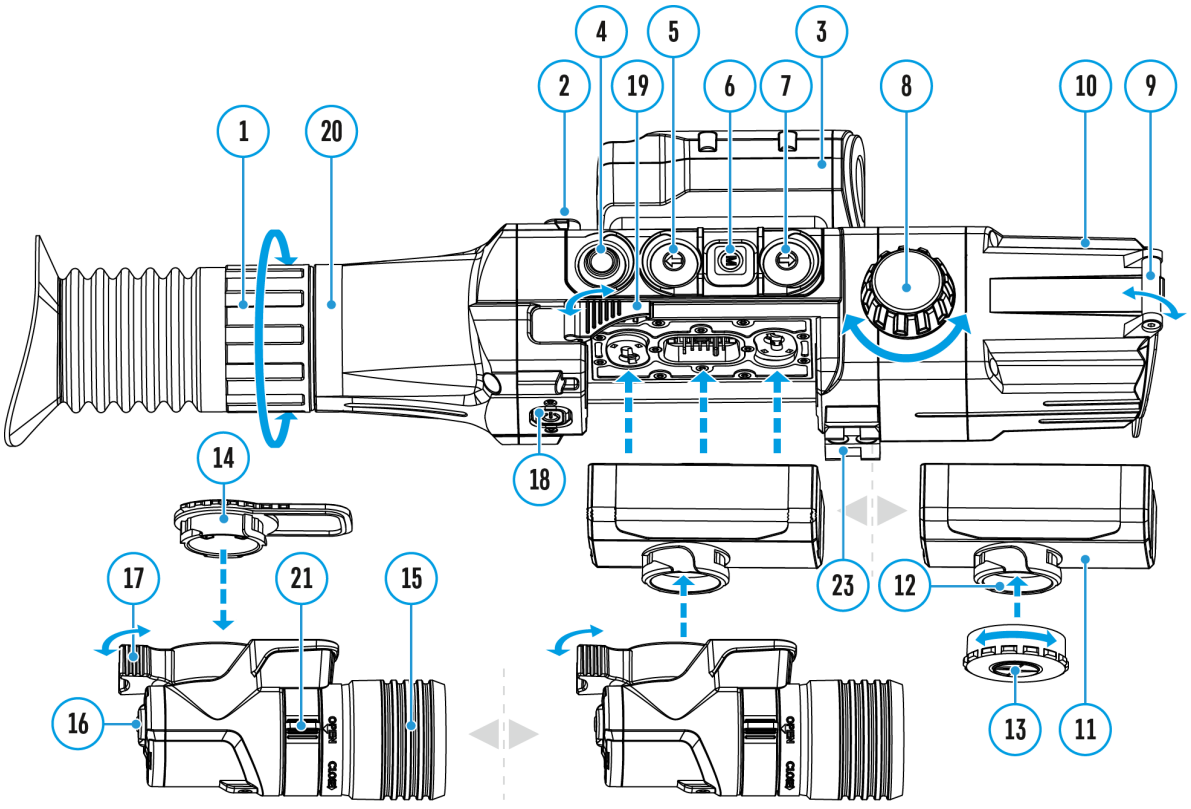
Reticle Brightness

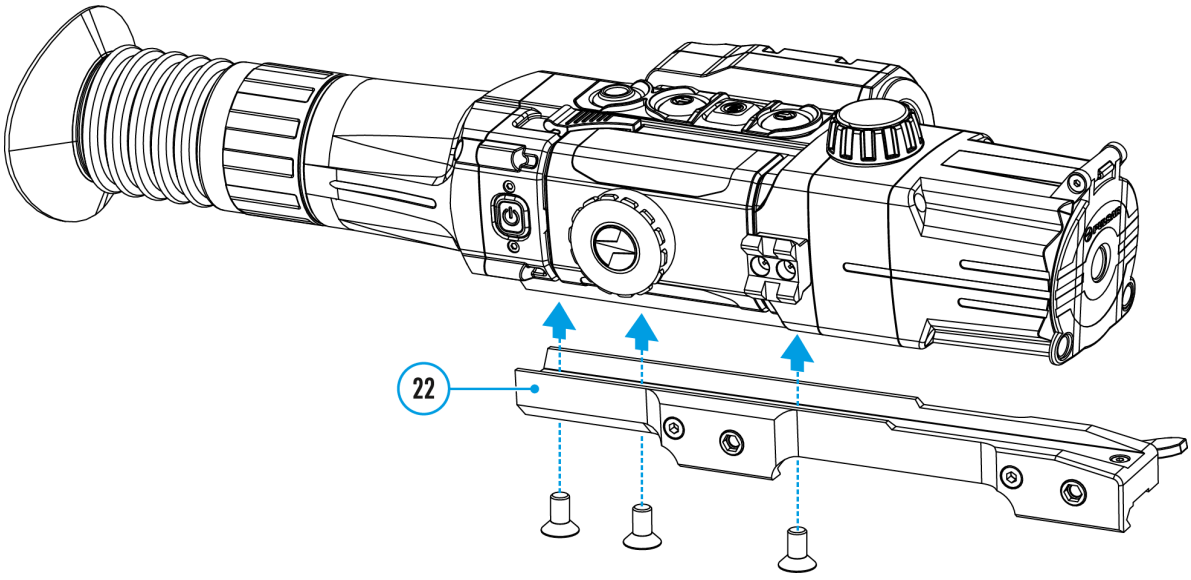
Reticle brightness setup.

1. Press **UP (7)/DOWN (5)** buttons to select **Reticle Brightness** menu item.
2. Enter submenu Reticle Brightness with a short press of **MENU (6)** button.
3. Set desired reticle brightness from 0 to 10 with **UP (7)/DOWN (5)** buttons.
4. Confirm your selection with a short press of **MENU (6)** button.

Wi-Fi Activation

Show device diagram



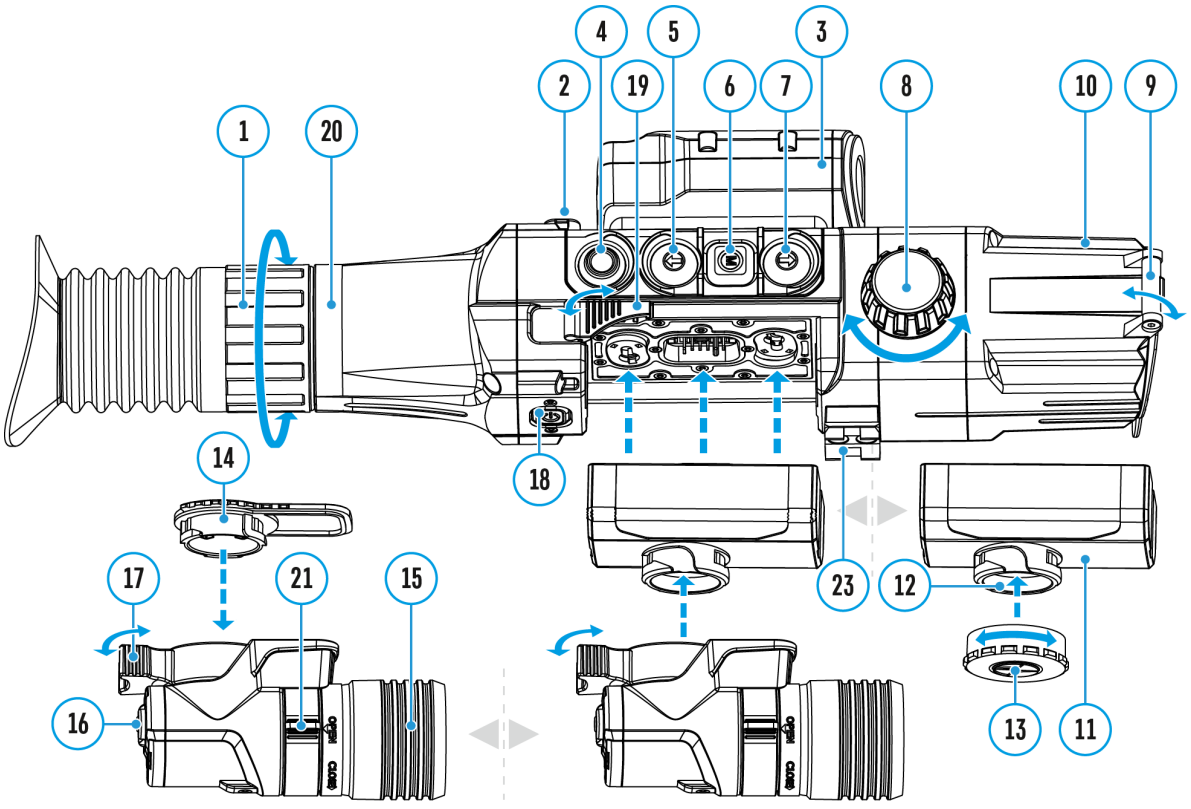


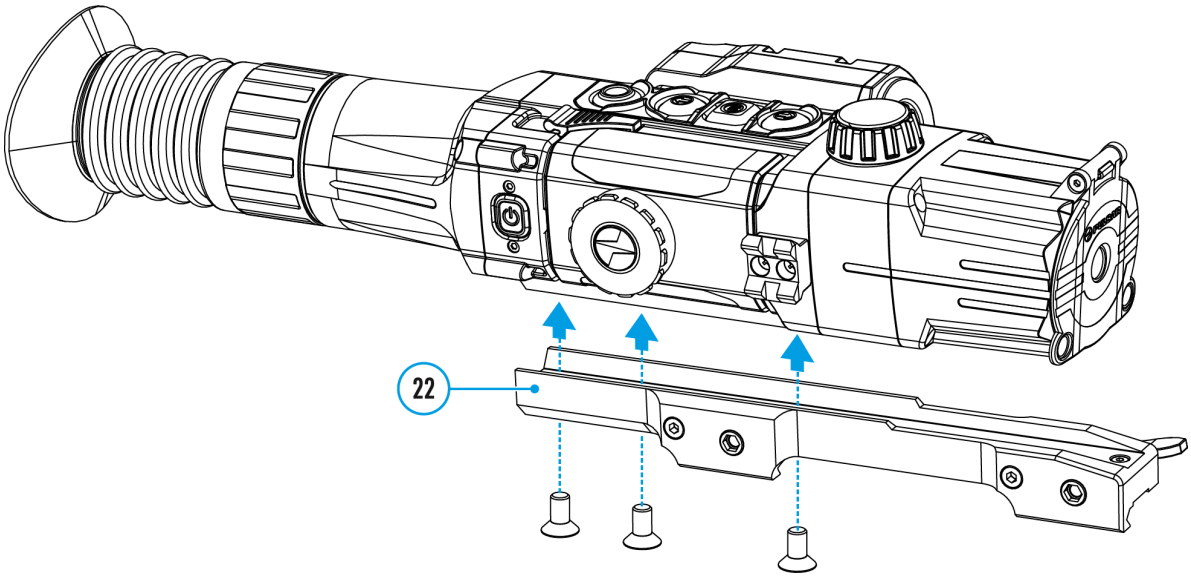
Turn Wi-Fi on/off

1. Enter the main menu with a long press of **MENU (6)** button.
2. Press **UP (7)/DOWN (5)** buttons to select **Wi-Fi Activation** menu item.
3. Turn Wi-Fi on/off with a short press of **MENU (6)** button.

Rangefinder

Show device diagram





Menu item Rangefinder allows you to set up built-in rangefinder’s parameters.

1. Enter the main menu with a long press of the **MENU (6)** button.
2. Select the submenu **Rangefinder** LRF with the **UP (7)/DOWN (5)** buttons.
3. Enter the submenu with a short press of the **MENU (6)** button.
4. Select the desired menu item with the **UP (7)/DOWN (5)** buttons.

Reticle Type

Selection of rangefinding reticle

1. Select the **Reticle Type** menu item with the **UP (7)/DOWN (5)** buttons.
2. Press briefly the **MENU (6)** button to enter submenu.
3. Select one of the three reticle shapes with the **UP (7)/DOWN (5)** buttons.
4. Confirm selection with a brief press of the **MENU (6)** button.

Target Position Angle

Function Target Position Angle (TPA) allows you to measure angle of target location (angle of elevation). When the function is activated, the angle is shown continuously in LRF stand-by mode in the top right corner of the display.

1. Select **TPA** with the **UP (7)/DOWN (5)** buttons.
2. Turn **TPA** on/off with a short press of the **MENU (6)** button.

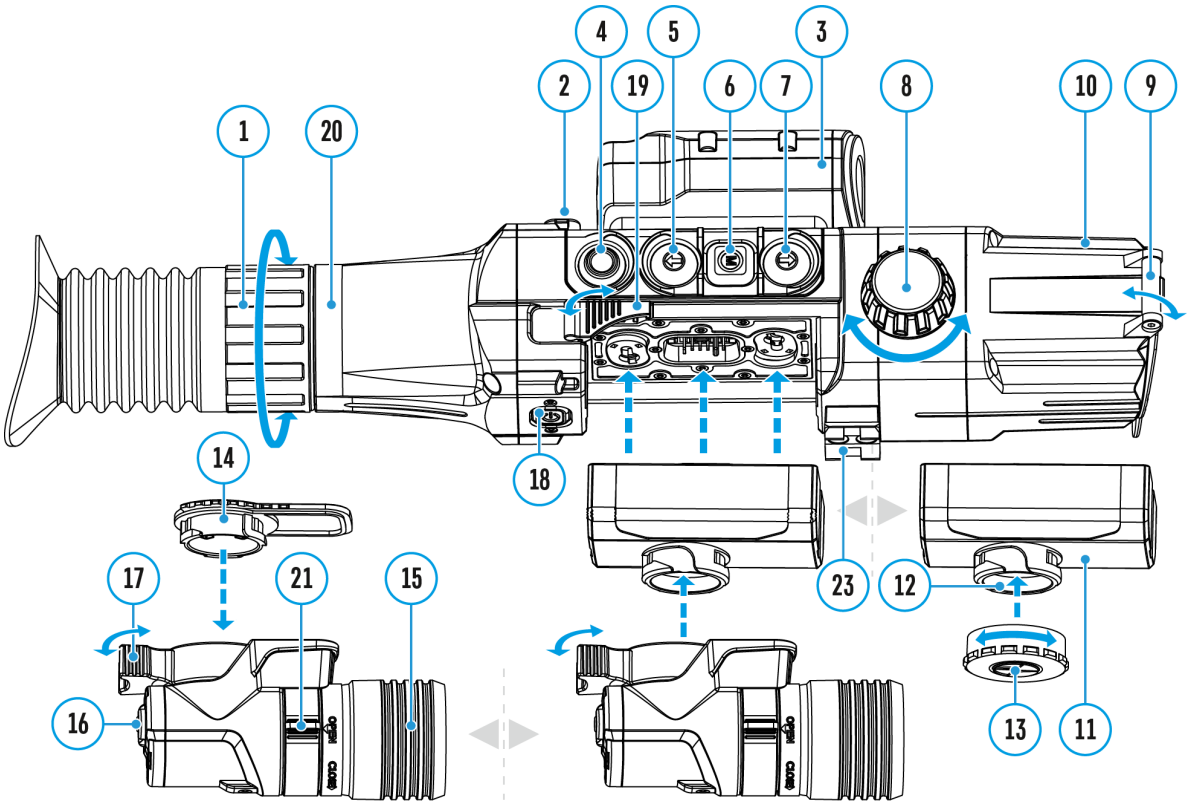
True Distance

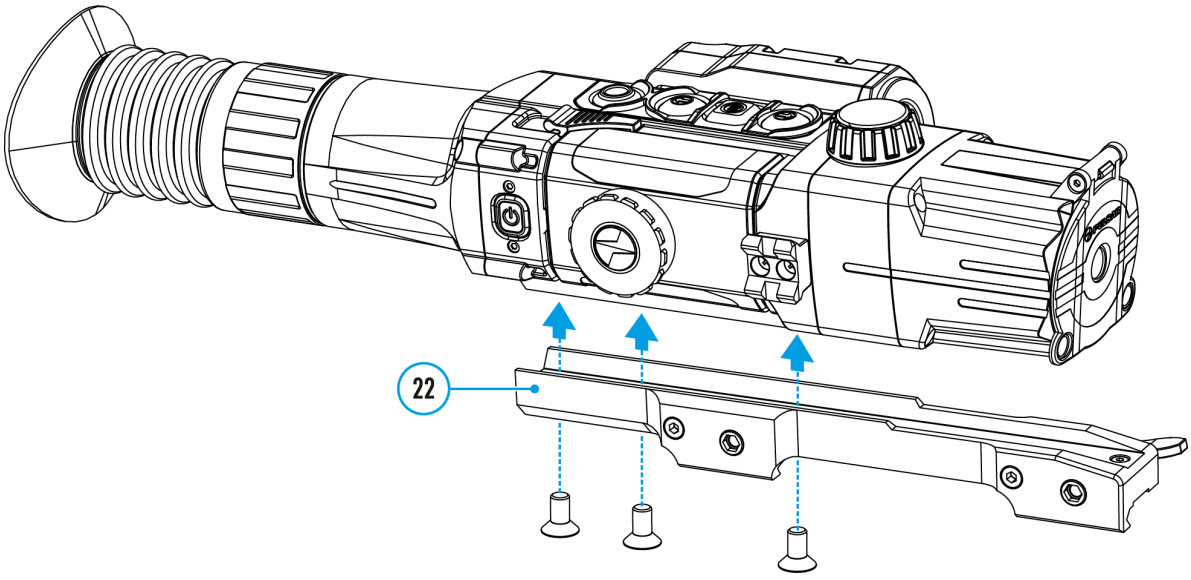
Function True Horizontal Distance (THD) allows the user to measure true horizontal distance to a target based on the angle of elevation.

1. Select **THD**  with the **UP (7)/DOWN (5)** buttons.
2. Turn **THD** on/off with a short press of the **MENU (6)** button
3. Hereinafter the message **THD** will appear above the distance readings.

General Settings

Show device diagram





1. Press and hold down the **MENU (6)** button to enter the main menu.
2. Select option **General Settings** with the **UP (7)/DOWN (5)** buttons.
3. Press briefly the **MENU (6)** button to confirm.

The following settings are available:

Language

Interface language selection.

1. Select option **Language** with the **UP (7)/DOWN (5)** buttons.
2. Press briefly the**MENU (6)** button to confirm.
3. Select one of the available interface languages with a short press of the **UP (7)/DOWN (5)** buttons: English, German, Spanish, French, Russian, Italian, Portuguese, Dutch, Danish, Norwegian, Swedish, Polish, Czech, Hungarian.
4. Save selection and exit the submenu with a long press of the **MENU (6)** button.

Date

Date setup.

1. Select option **Date** with **UP (7)/DOWN (5)**.
2. Press briefly the **MENU (6)** button to confirm. Date format is displayed as: YYYY/MM/DD (year/month/day)
3. Select the correct values for the year, month and date with a short press of the **UP (7)/DOWN (5)** buttons.
4. Switch between digits with a short press of the **MENU (6)** button.
5. Save selected date and exit the submenu with a long press of the **MENU (6)** button.

Time

Time setup.

1. Select option **Time** with **UP (7)/DOWN (5)** buttons.
2. Press briefly the **MENU (6)** button to confirm.
3. Select the desired time format with a short press of the **UP (7)/DOWN (5)** buttons: 24 or PM/AM.
4. Switch to hour setup with a brief press of the **MENU (6)** button.
5. Select hour value with a brief press of the**UP (7)/DOWN (5)** buttons.
6. Switch to minute setup with a brief press of the **MENU (6)** button.
7. Select minute value with a brief press of the **UP (7)/DOWN (5)** buttons.
8. Save selected time and exit the submenu with a long press of the **MENU (6)** button.

Units of Measure

Selection of units of measurement.

1. Select option **Units of Measure** with **UP (7)/DOWN (5)** buttons.
2. Press briefly the **MENU (6)** button to confirm.
3. Select the desired unit of measurement - meters or yards - with **UP (7)/DOWN (5)**buttons.
4. Press briefly the **MENU (6)** button to confirm.
5. Exit to general settings submenu takes place automatically.

Note: unit of measurement is used both for the rangefinder and the zeroing distances. When changing the unit of measurement, distance titles change too.

Default Settings

Restore default settings.

1. Select option **Default Settings** with **UP (7)/DOWN (5)** buttons.
2. Press briefly the **MENU (6)** button to confirm.
3. With a short press of the **UP (7)/DOWN (5)** buttons select**"Yes"** to restore default settings or **"No"** to abort.
4. Confirm selection with a brief press of the **MENU (6)** button.
    - If **"Yes"** is selected, display will show **"Do you want to restore default settings?"** and **"Yes"** and **"No"** options. Select **"Yes"** to

restore default settings.
    - If **"No"** is selected, action is aborted and you return to the submenu.

The following settings will be returned to their defaults:

- **Operating mode of video recorder** – video
- **Display brightness** – 10
- **Display contrast** – 10
- **Zeroing profile** – A
- **Reticle selection from the riflescope’s memory** – 1
- **Reticle color** – black/red (black reticle, red cross)
- **Reticle brightness** – 5
- **Interface language** – English
- **Wi–Fi** – disconnected + default password
- **Zoom** – optical, digital zoom off
- **Unit of measurement** – metric
- **PiP** – off
- **Side incline** – on
- **Auto shutdown** – off
- **SumLight™** – off
- **IR illuminator** – off

Attention! After restoring default settings, date and time values, zeroing distance lists in profiles as well as the zeroing coordinates for each distance are saved.

Format

This menu option allows you to format the device's memory card. All files will be deleted.

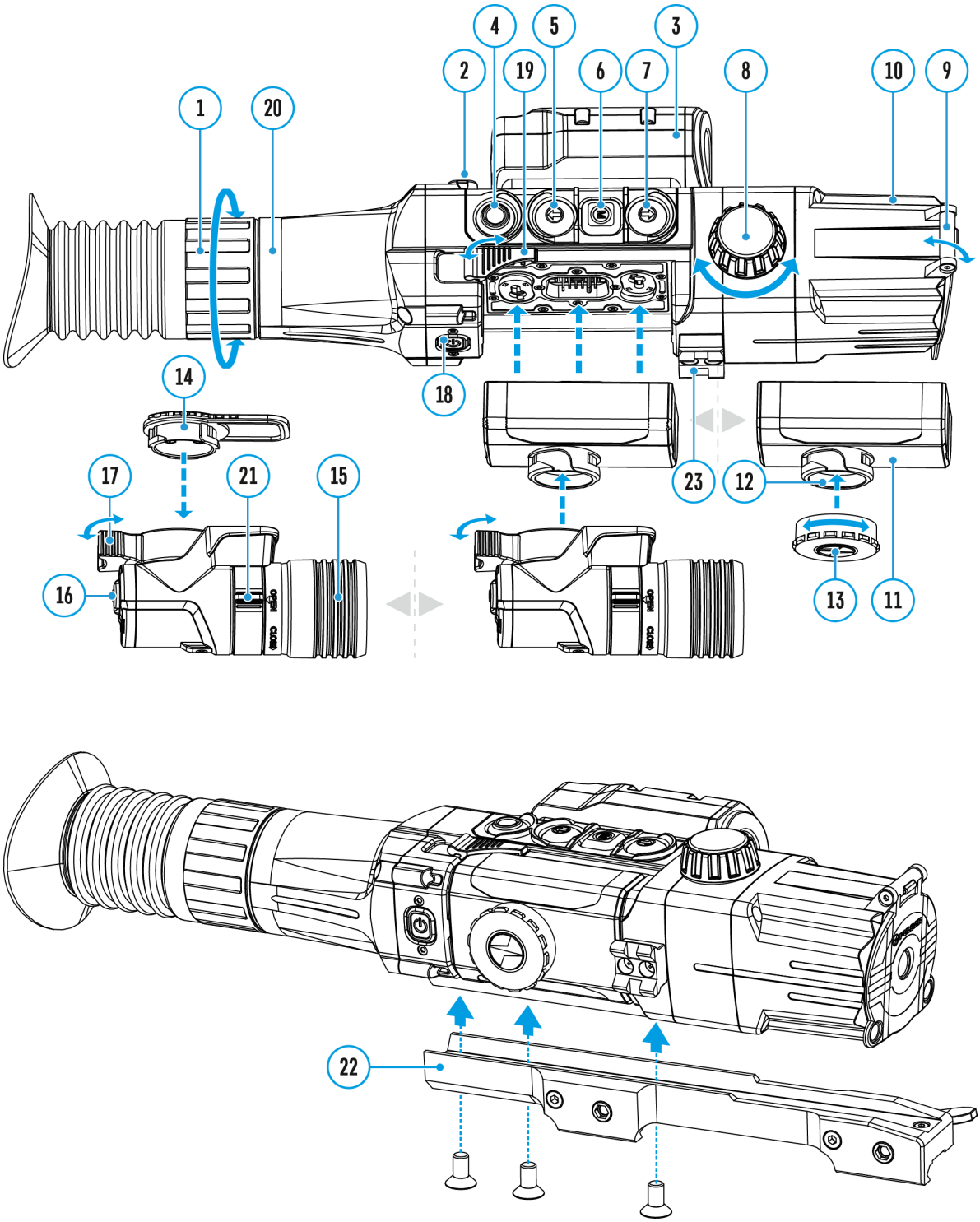
1. Select option **Format**  with **UP (7)/DOWN (5)** buttons.
2. Press briefly the **MENU (6)** button to confirm.
3. With a short press of the **UP (7)/DOWN (5)** buttons select **"Yes"** to format the memory card or **"No"** to return to the submenu.
4. Confirm selection with a short press of the **MENU (6)** button.
    - If **"Yes"** is selected, display will show **"Do you want to format memory card?"** and **"Yes"** and **"No"** options. Select **"Yes"** to

format the memory card.

- If **"No"** is selected, formatting is aborted and you return to the submenu.

Microphone

Show device diagram



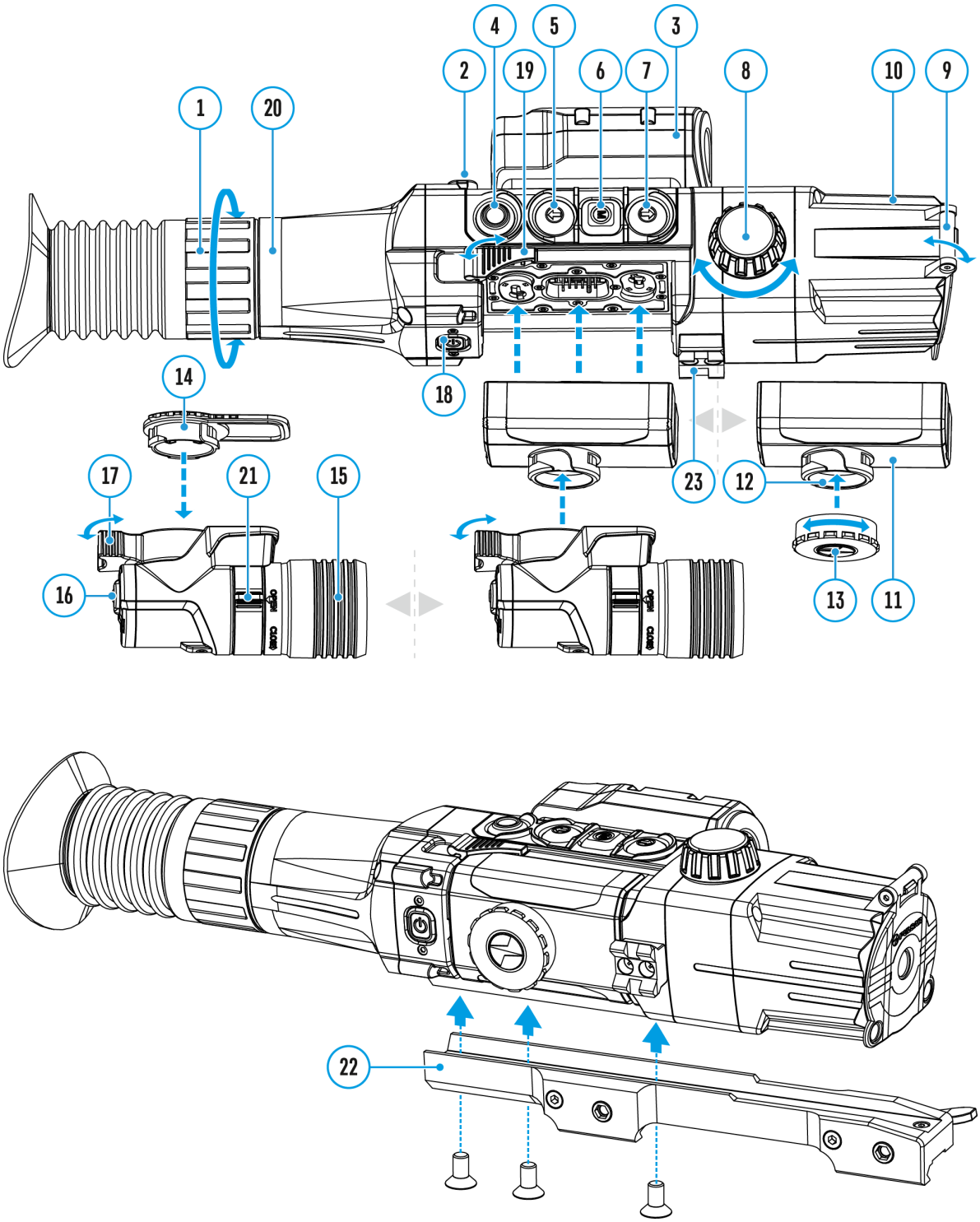
With the microphone on, you will have audio track in your video.

1. Enter the main menu with a long press of **MENU (6)** button.
2. Press **UP (7)/DOWN (5)** buttons to select **Microphone**  menu item.
3. Turn the microphone on/off with a short press of **MENU (6)** button.

The microphone is off by default.

Wi-Fi Settings

Show device diagram



Wi-Fi setup. This menu option allows you to set up your riflescope for operation in a Wi-Fi network.

1. Press and hold down the **MENU (6)** button to enter the main menu.
2. Select the **Wi-Fi Settings**  menu option with the **UP (7)/DOWN (5)** buttons.
3. Press briefly the **MENU (6)** button to enter submenu.
4. Select the desired menu item with the **UP (7)/DOWN (5)** buttons.

Password Setup

This submenu allows you to set a password to access your riflescope from a mobile device.

The password is used to connect a smartphone or a tablet to your riflescope.

1. Press briefly the **MENU (6)** button to enter submenu **Password Setup** PAS.
2. The default password **(12345678)** will appear on the screen.
3. Set the desired password with the **UP (7)/DOWN (5)** buttons.
4. Switch between digits with a short press of the **MENU (6)** button.
5. Save the password and exit the submenu with a long press of the **MENU (6)** button.

Access Level Setup

This submenu allows you to set access levels of Stream Vision application to your riflescope.

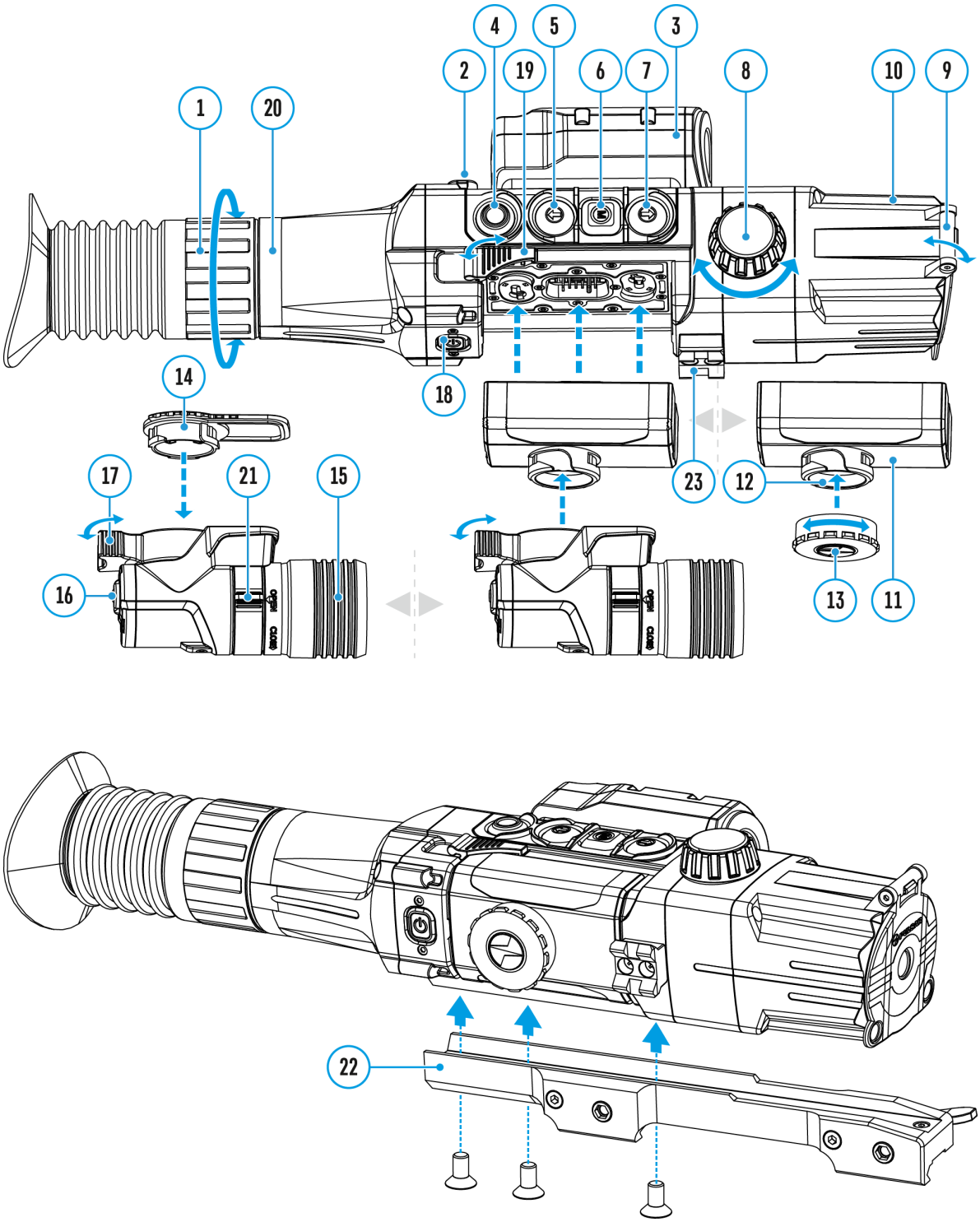
- Access level **Owner.** The Stream Vision user has the complete access to all device's functions.
- Access level **Guest**. The Stream Vision user has the access only to the real time video stream from the device.

1. Press briefly the **MENU (6)** button to enter submenu **Access Level Setup** submenu.
2. Select the access level with the **UP (7)/DOWN (5)** buttons.
3. Press and hold the **MENU (6)**to confirm your selection and exit from

the submenu.

Device Information

Show device diagram



This option allows the user to view the following information about the riflescope:

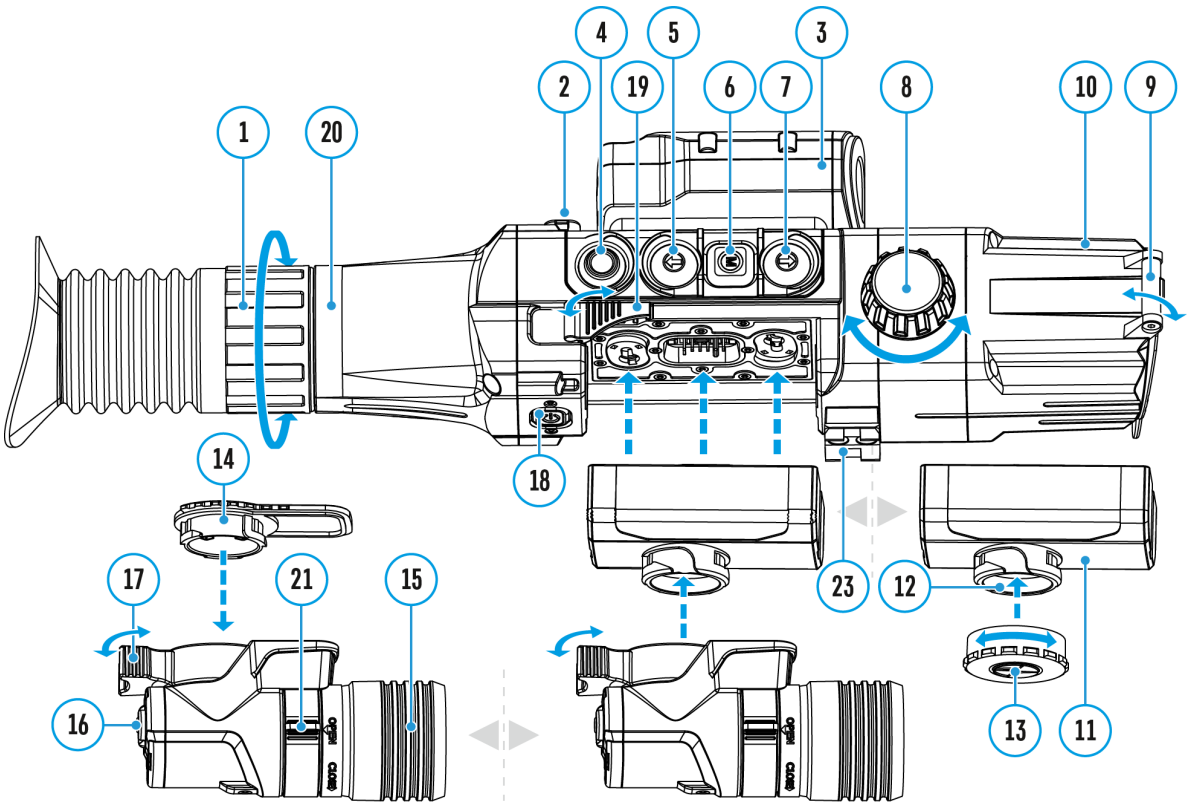
- Full name
- SKU number
- Serial number
- Software version
- Hardware version
- Service information

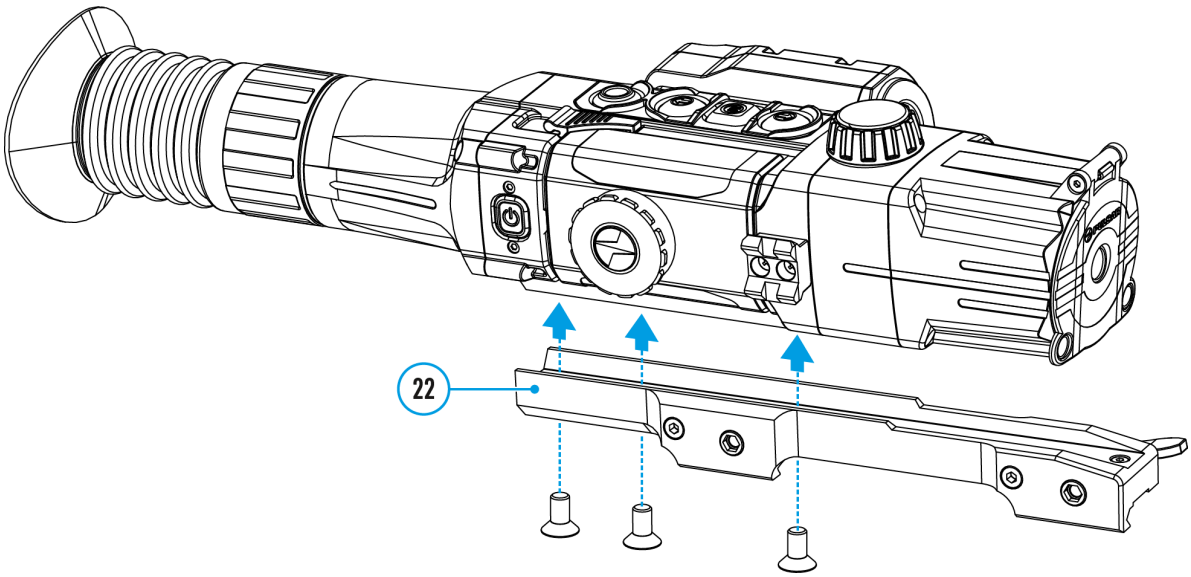
To display information, do the following:

1. Press and hold down the**MENU (6)** button to enter the main menu.
2. Select option **Device Information** ⓘ with the **UP (7)/DOWN (5)** buttons.
3. Press briefly the **MENU (6)** button to confirm.

Video Recording and Photography

Show device diagram





Digisight Ultra LRF riflescopes feature video recording and photography of an image, which are saved to an internal memory card.

Before using this feature, please read the **Date** and **Time** subsections of the section **General Settings**.

For information on how to watch recorded photos and videos, see the Stream Vision 2 user manual: **Android**, **iOS**.

The built-in recorder operates in two modes - **Video** and **Photo**.

Video mode. Video recording

1. Switch to **Video**mode with a long press of **REC (4)** button.
2. Start video recording with a short press of **REC (4)** button.
3. Upon start of video recording icon disappears, and icon REC and recording timer in the format MM:SS (minutes : seconds) appear instead: ●REC | 00:25.
4. Pause and resume recording video with a short press of**REC (4)** button.
5. Stop recording video with a long press of the **REC (4)** button.
6. Video files are saved to memory card:

- After stopping video recording.
- Upon powering the riflescope off if recording was on.
- When the memory card is overfilled during record (“Memory full” message appears on the display).

Photo mode. Capturing an image

1. Switch to **Photo** mode with a long press of **REC (4)** button.
2. Take a picture with a short press of **REC (4)** button. The image freezes for 0.5 sec and a photo is saved to memory card.

Notes:

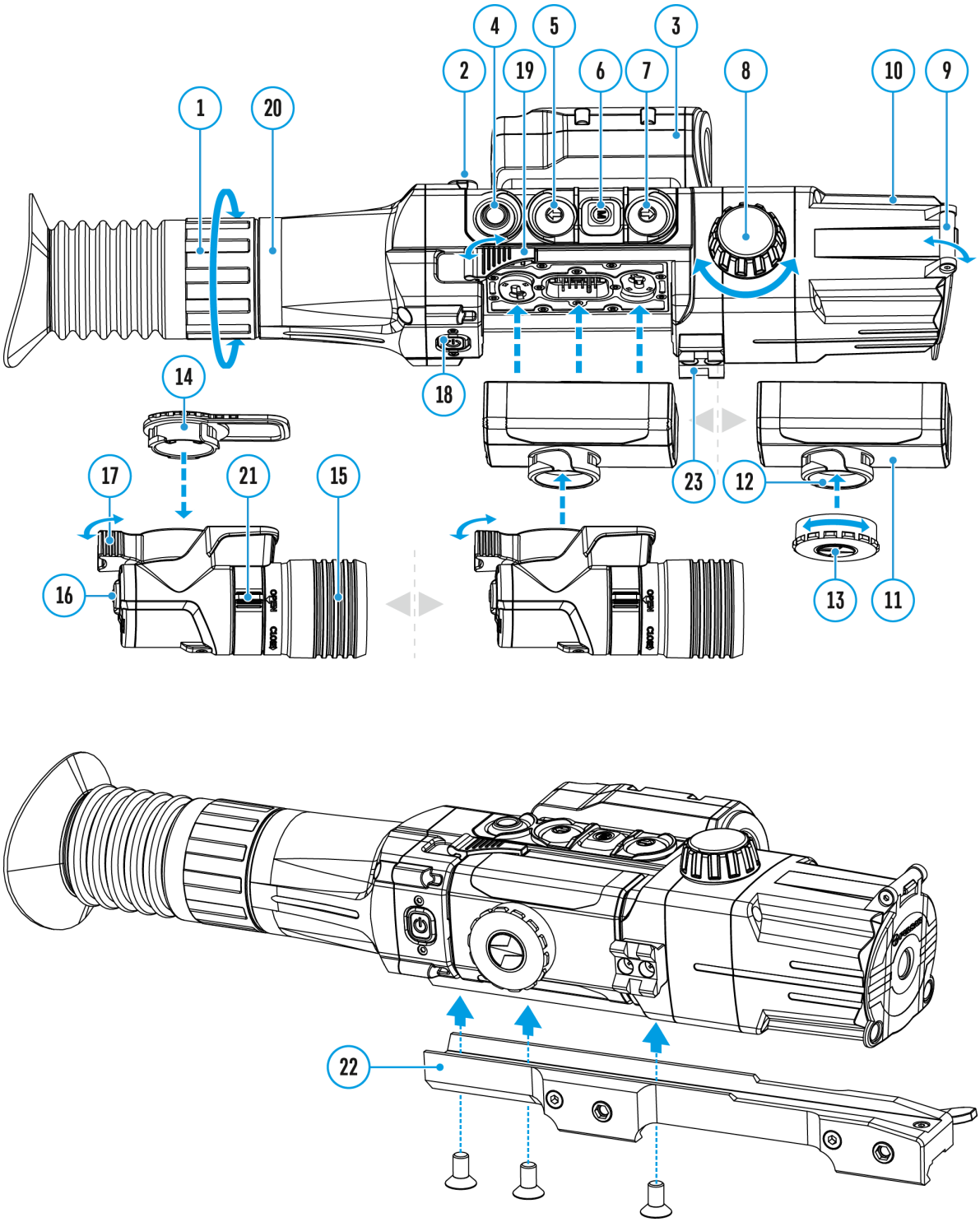
- You can enter and operate the menu during video recording.
- Recorded videos and photos are saved to built-in memory card in the format img_xxx.jpg (photos); video_xxx.mp4 (videos). xxx – three-digit counter for videos and photos.
- The counter for multimedia files cannot be reset.

Attention!

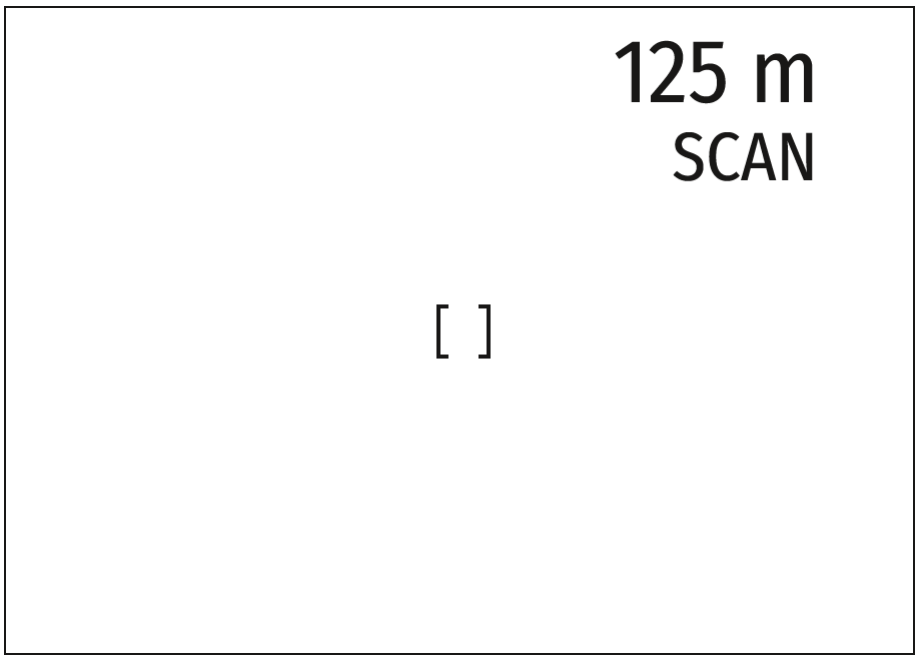
- Maximum duration of a recorded file is five minutes. After this time expires a video is recorded into a new file. The number of recorded files is limited by the capacity of unit's internal memory.
- Check regularly free capacity of the internal memory, move recorded footage to other storage media to free up space on the internal memory card.
- Graphic data (status bar, icons and other) are shown in recorded video/photo files.
- When the Display Off function is activated, video recording is paused.

Built-In Laser Rangefinder

Show device diagram



The riflescope is equipped with a built-in rangefinder **(3)**, allowing you to measure distance to objects up to 1000m away.



How the rangefinder works:

1. Turn on the riflescope, adjust image according to section **Powering On and Image Setting**.
2. Press **UP (7)** button — rangefinding reticle appears (and aiming reticle disappears), dashes of distance values with unit of measurement appear in the top right corner of the display, i.e. the rangefinder enters stand-by mode. ----m
3. If PiP mode is on, the aiming reticle disappears upon activation of the rangefinder, but in the PiP window remains active.
4. If PiP mode is off, the activation of the rangefinder automatically turns on the PiP window with the last digital magnification set for it and a reticle in it.
5. Point the rangefinding reticle at an object and press **UP (7)** button.
6. In the top right corner of the display you will see distance in meters (or yards depending on settings). 7 m

Notes:

- If the rangefinder is idle longer than three seconds, it turns off automatically and aiming reticle appears.
- The point of aiming of the rangefinding reticle and the aiming reticle in the PiP window might not coincide due to aiming reticle shift after

zeroing.

Operation in SCAN mode:

1. Turn on the rangefinder by briefly pressing the **UP (7)** button.
2. Hold down **UP (7)** button for longer than two seconds. Measurement readings will be changing in real time as you point the riflescope at different objects. In the top right corner a message **SCAN** appears.
3. In case of unsuccessful measurement dashes will appear on the display.
4. To exit **SCAN** mode and to return to stand-by mode, press **UP (7)** button briefly.
5. To turn off the rangefinder hold the **UP (7)** button.

Notes:

- To select a rangefinding reticle, please go to submenu **Rangefinder**in the main menu.
- To select units of measurement (meters or yards) go to submenu **General Settings** in the main menu.
- While you measure the distance in the **SCAN**mode you can use the reticle of the PiP window to make a shot.

Peculiarities of operation

- Accuracy of measurement and maximum range depend on the reflection ratio of the target surface, the angle at which the emitting beam falls on the target surface and environmental conditions. Reflectivity is also affected by surface texture, color, size and shape of the target. A shiny or brightly colored surface is normally more reflective than a dark surface.
- Accuracy of measurement can also be affected by light conditions, fog, haze, rain, snow etc. Ranging performance can degrade in bright conditions or when ranging towards the sun.
- Measuring range to a small sized target is more difficult than to a large sized target.

Wi-Fi Function

Your thermal riflescope features wireless connection option (Wi-Fi) which links it with external appliances (tablet, smartphone).

- Turn on the wireless module as described in the option **Wi-Fi Activation** .

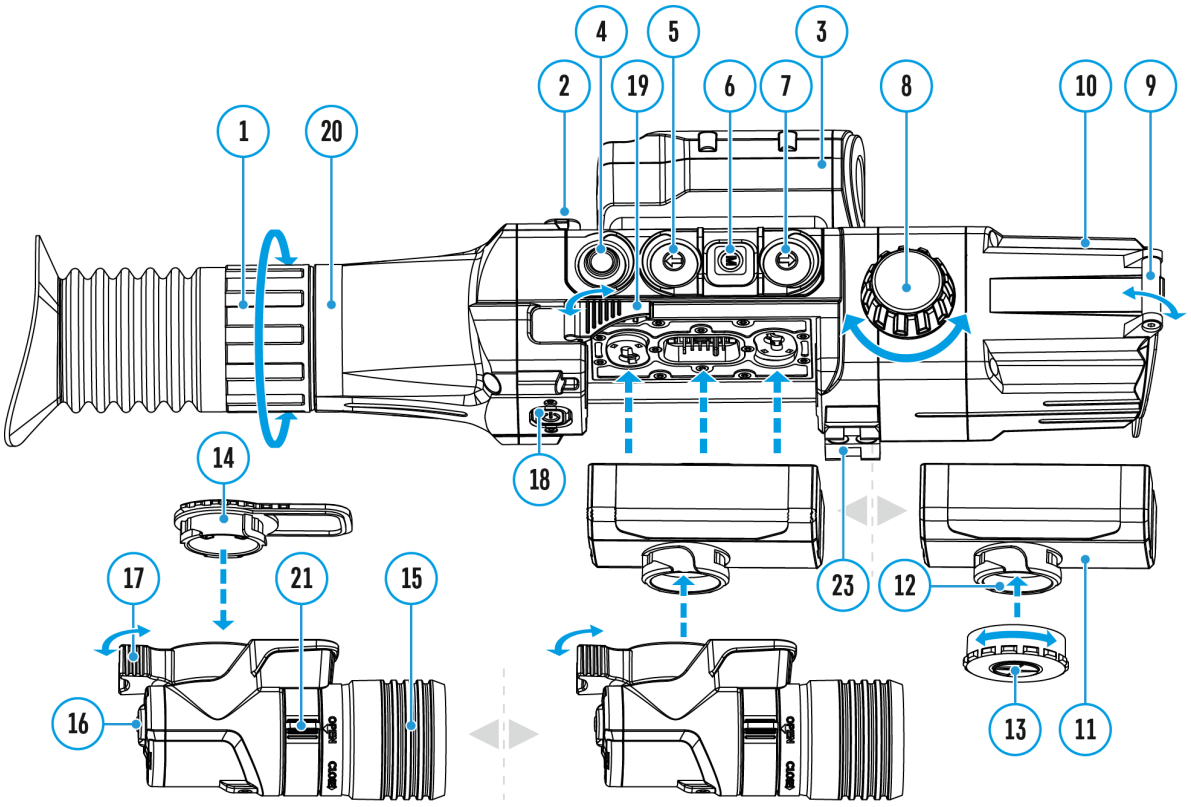
Wi-Fi operation is shown in the status bar as follows:

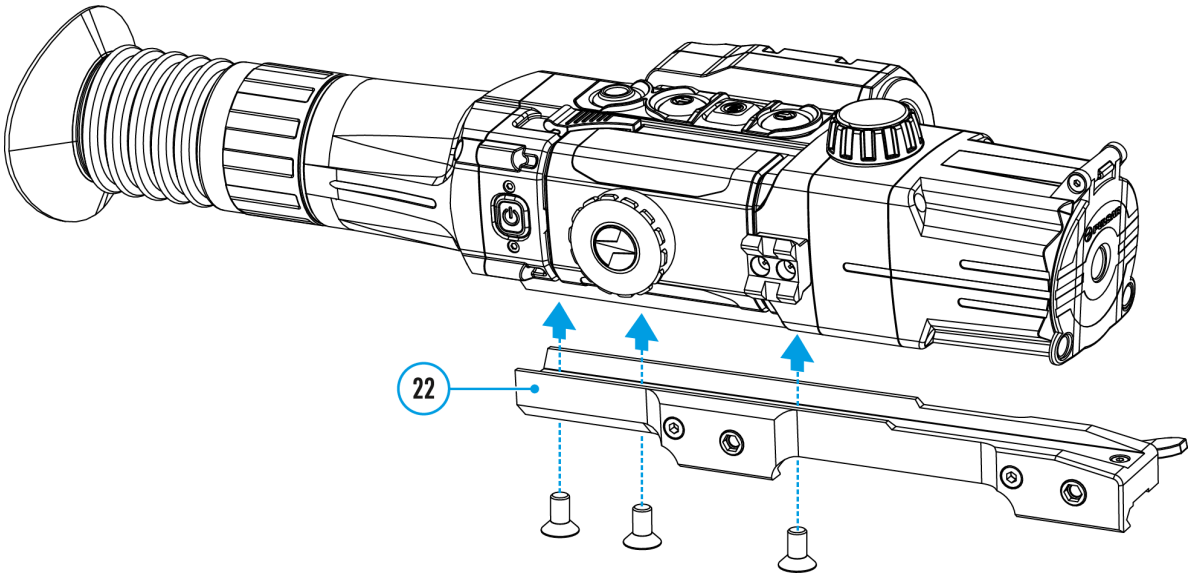
Connection Status	Indication in the Status Bar
Wi-Fi is off	
Wi-Fi in the riflescope is being activated	
Wi-Fi is on, no connection with mobile device	
Wi-Fi is on, mobile device connected	

- Your riflescope is detected by external appliance as “Digisight Ultra_XXXX”, where XXXX — is the last four digits of riflescope's serial number.
- After entering the password (**default: 12345678**) on a mobile (see the **Password Setup** subsection of the **Wi-Fi Settings** section for more information on setting a password) and setting up a connection, the icon in the riflescope status bar changes to .

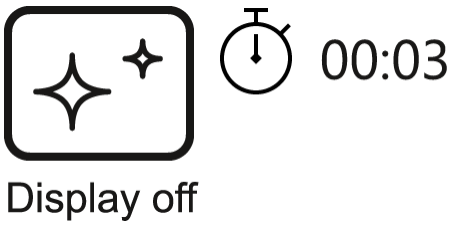
Display-Off Function

Show device diagram





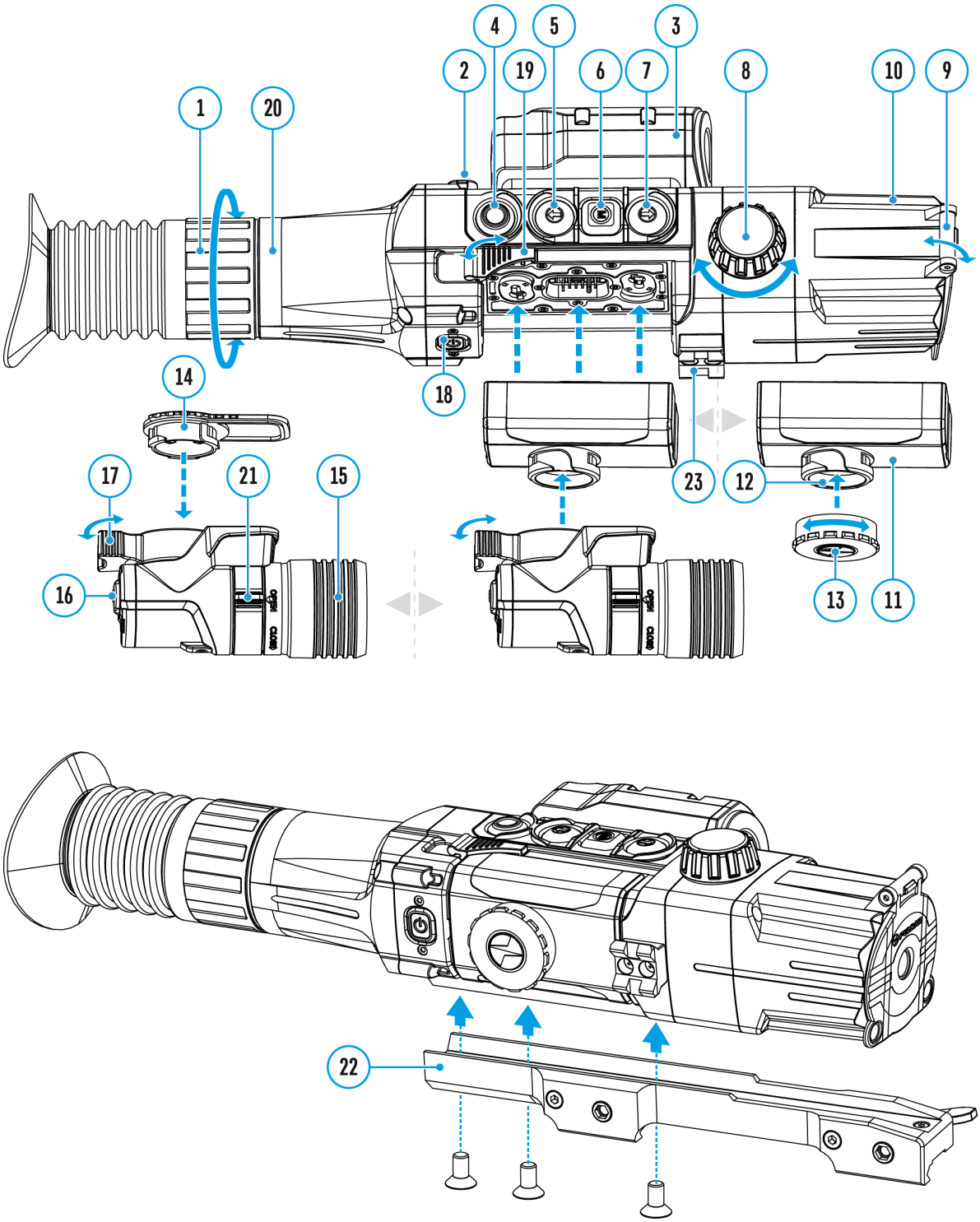
The Display-Off function deactivates transmission of image to the display by minimizing its brightness. This prevents accidental disclosure by light in the dark. In this mode the device is in stand-by and keeps running.



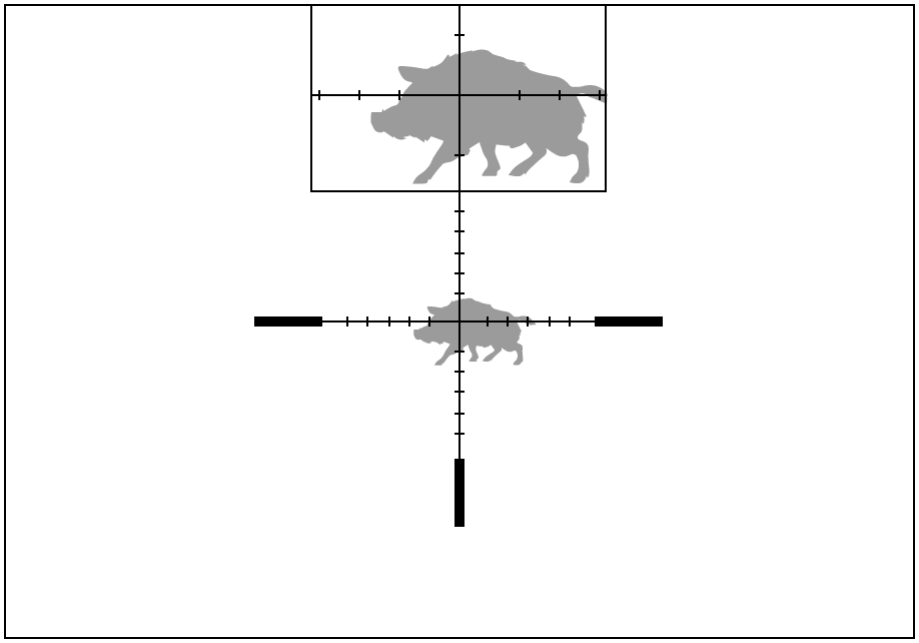
1. To activate the Display-Off function press and hold **ON/OFF (18)** button when the device is switched on. The "Display off" message with 3 sec countdown will appear on the screen.
2. Before the end of the countdown release the **ON/OFF (18)** button, otherwise if the countdown ends the device will be switched off.
3. To activate the display, press briefly **ON/OFF (18)** button.

PiP Function

Show device diagram



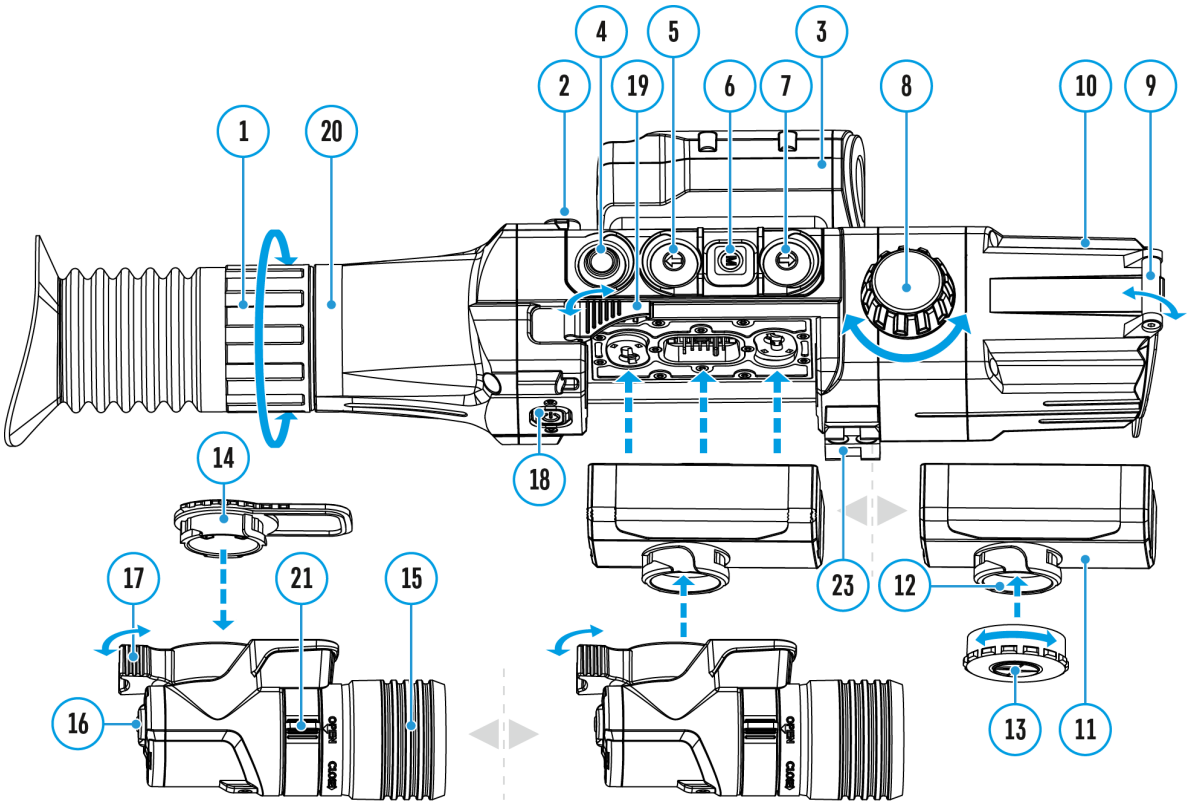
PiP (Picture in Picture) allows you to see a zoomed image in a dedicated window simultaneously with the main image.

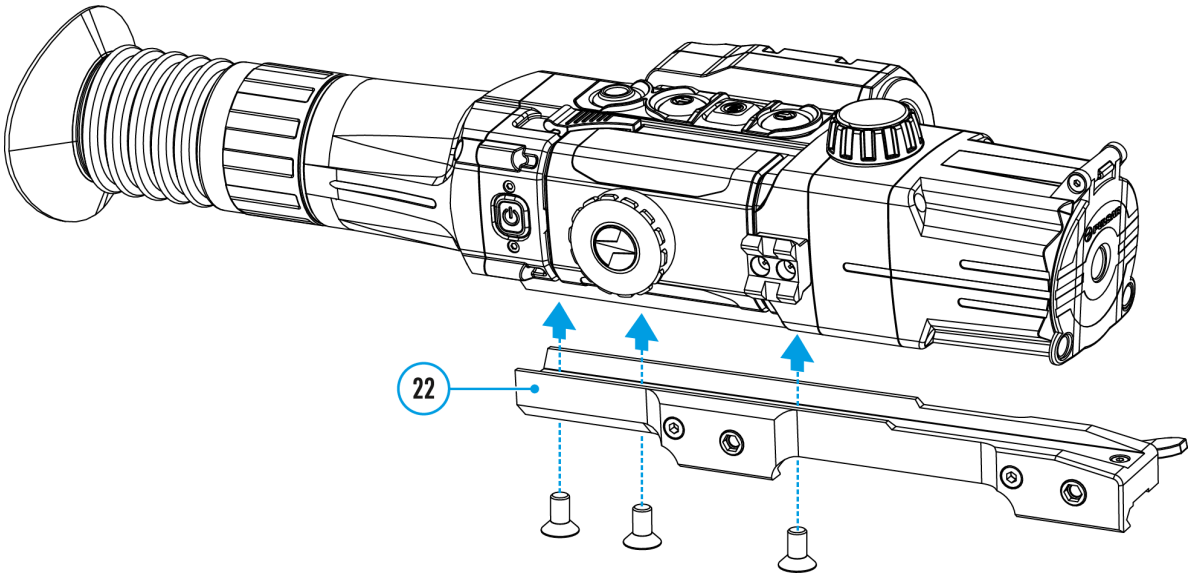


- Turn on/off the PiP function with a long press of **DOWN (5)** button.
- Change zoom ratio in the PiP window with a short press of **DOWN (5)** button.
- The zoomed image is displayed in a dedicated window, while the image in the rest of the screen is displayed at base magnification (4.5x).
- When PiP is turned on, you can operate the discrete and smooth digital zoom. The magnification will take place only in the dedicated window.
- When PiP is turned off, the main image retains the magnification set for the PiP window.

SumLight™ Function

Show device diagram





The SumLight ™ function substantially increases sensitivity of the CMOS array in lowlight conditions thus enabling observation in low light without using the IR Illuminator.

- Activate the SumLight™ function by long pressing the **UP (7)** button.
- By long pressing the **UP (7)** button, deactivate this function.
- “SumLight™” icon (on  or off ) is shown in the status bar.

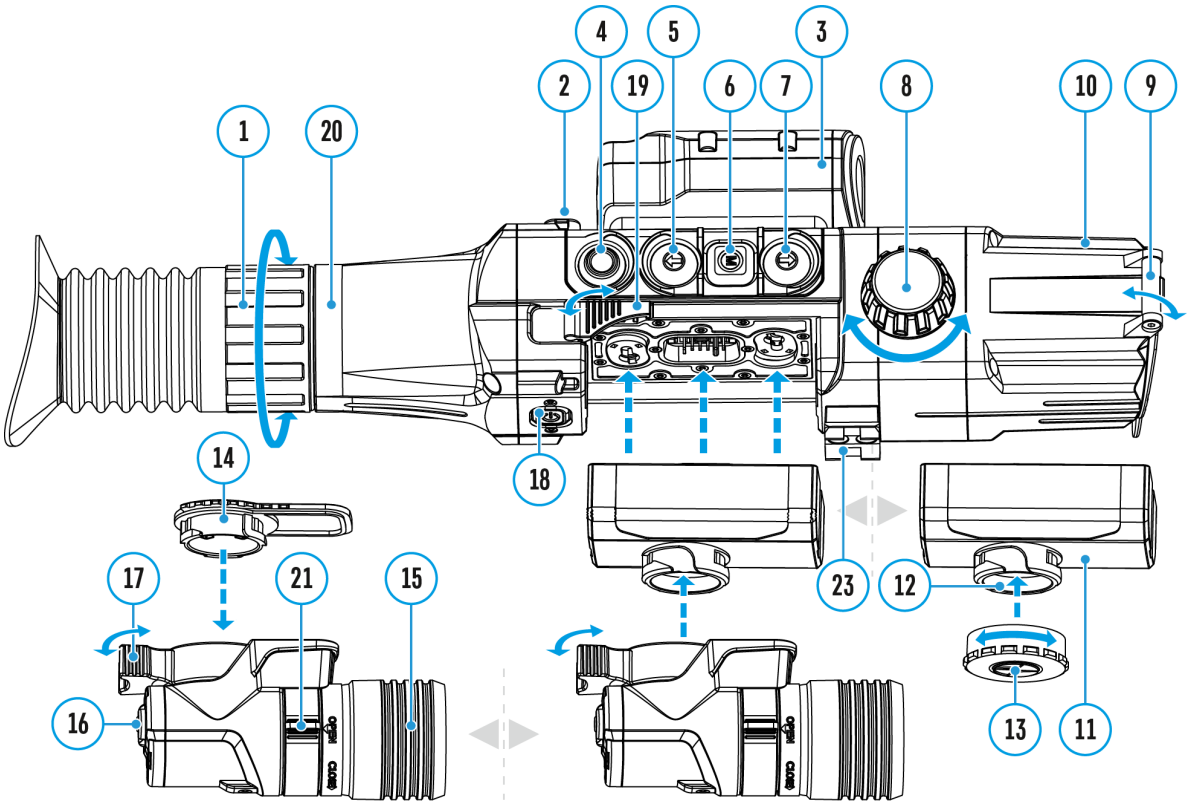
Attention! Upon activation of the SumLight™ function, noise level in the picture increases, frame rate lowers, image slows down - if the riflescope rapidly moves from one side to the other, the picture may be blurred; such effects are not defects. On the riflescope display glowing white dots (pixels) can be seen, the number of dots may increase when SumLight ™ is turned on. This is due to the operating peculiarities of the function and is not a flaw.

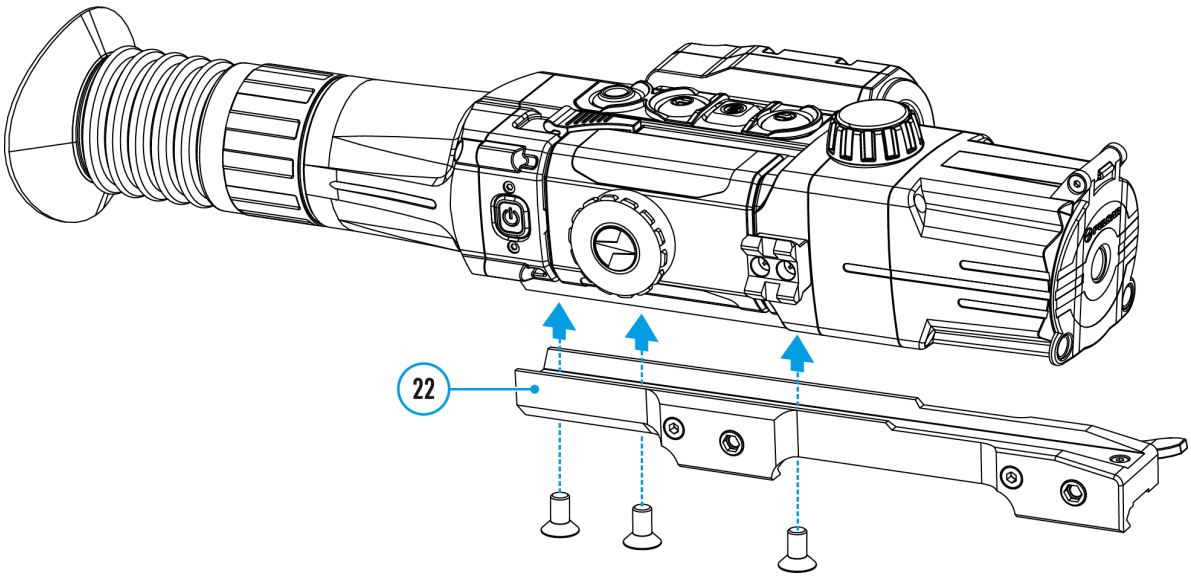
Attention! Due to peculiarities of AMOLED display technology, after switching between various reticles, you may notice on the riflescope’s display semitransparent white lines of the previous reticle. They may appear if a new reticle does not contain elements (such as lines, circles, bars etc.) of the previous reticle. After a while, the “ghost image” becomes less noticeable. The appearance of “ghost images” on the display after repeatedly changing the reticle is not a defect and is not considered as a warranty case.

Scalable Reticles

http:////e.issuu.com/embed.html?d=digisight_ultra_n400th_reticle_cata&u=yukon2

Show device diagram





This function is designed to preserve ballistic properties of the scalable reticles for all magnifications.

1. Enter the main menu with a long press of **MENU (6)** button.
2. Enter submenu **Reticle Setup** with a short press of **MENU (6)** button.
3. Enter submenu **Reticle Type** Image not found or type unknown with a short press of **MENU (6)** button.
4. Select the reticle (please check available Scalable reticles in the Reticles catalogue in Downloads section on our **web page**).

Notes:

- When zooming in and out the image, the selected reticle on the display and in the recorded video changes its geometrical size according to the magnification selected.
- The reticle scale changes both on the main display and in the PiP mode.

Stream Vision 2

Digisight Ultra LRFnight vision digital riflescopes support Stream Vision and Stream Vision 2 mobile apps that allow you to stream real-time image from your thermal imager to your smartphone or tablet via Wi-Fi. We recommend using the latest version of Stream Vision 2.

We recommend using the latest version – Stream Vision 2.

Mobile App
STREAM VISION 2

You can find further guidelines on Stream Vision 2 **here.**

Download from Google Play

Download from App Store

Find answers to frequently asked questions about using Stream Vision 2 **here**.

You can find further guidelines on Stream Vision **here.**

Download from Google Play

Download from App Store

Find answers to frequently asked questions about using Stream Vision **here**.

Stream Vision 2 Manual

Android

iOS

Firmware Update

Stream Vision 2

1. Download free Stream Vision 2 App in Google Play or App Store.
2. Connect your Pulsar device to your mobile device (smartphone or tablet).
3. Launch Stream Vision 2 and go to section “Settings”.
4. Select your Pulsar device and press “Check firmware update”.
5. Wait for the update to download and install. Pulsar device will reboot and will be ready to operate.

Important:

- if your Pulsar device is connected to phone, please turn on mobile data transfer (GPRS/3G/4G) to download update;
- if your Pulsar device is not connected to your phone but is already listed in “Settings” > “My devices” section, you may use Wi-Fi to download update.

Find answers to frequently asked questions about using Stream Vision 2 **here**.

Stream Vision

https://www.youtube.com/embed/0BIu4rr-8IY

1. Download free of charge Stream Vision App on Google Play or App Store .
2. Connect your Pulsar device to your mobile device (smartphone or tablet).
3. Launch Stream Vision and go to section “My Devices”.
4. Select your Pulsar device and press “Check Updates”.
5. Wait for the update to download and install. Pulsar device will reboot

and will be ready to operate.

Important:

- if your Pulsar device is connected to phone, please turn on mobile data transfer (GPRS/3G/4G) to download update;
- if your Pulsar device is not connected to your phone but it's already in the “My Devices” section, you may use Wi-Fi to download update.

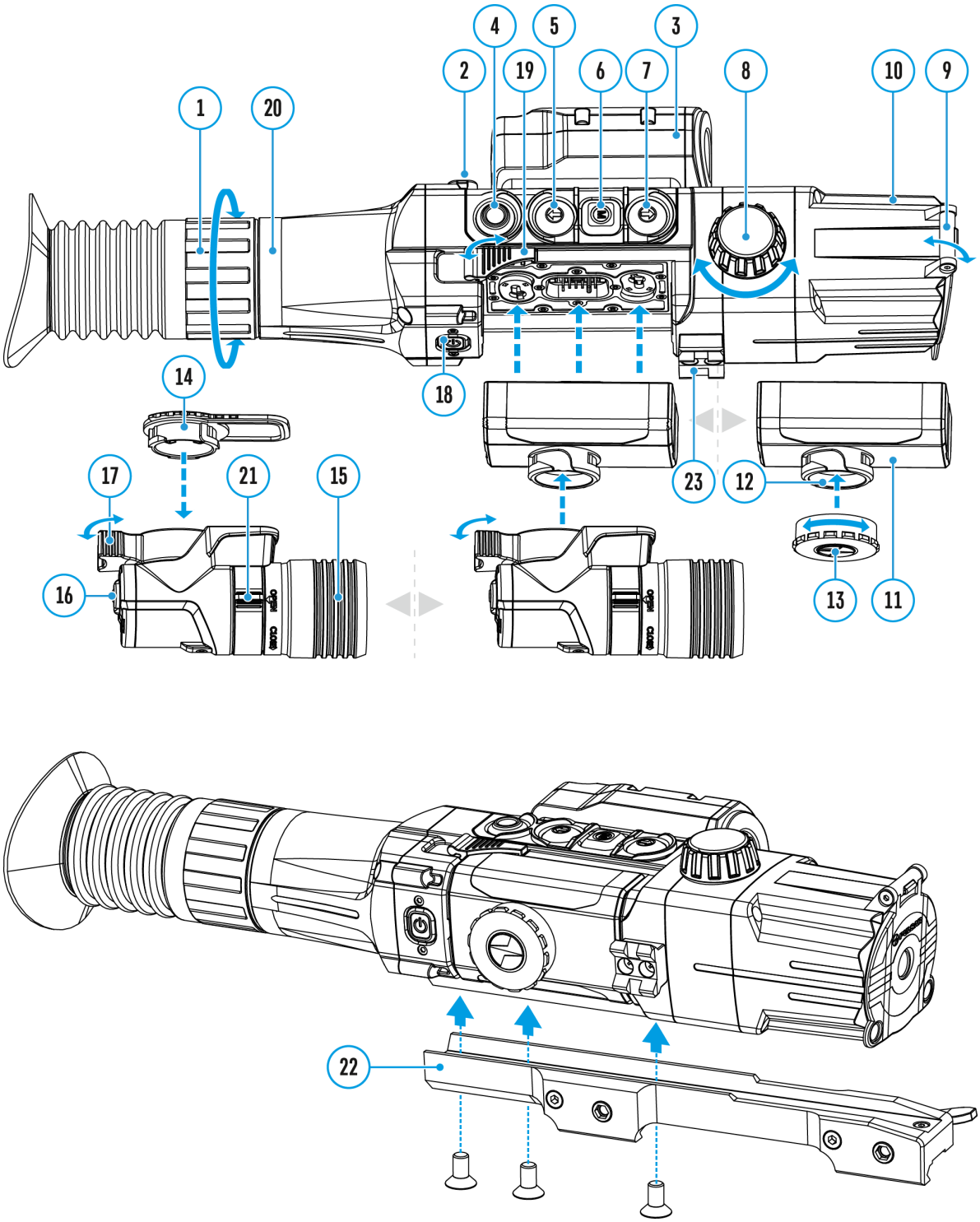
Find answers to frequently asked questions about using Stream Vision **here**.

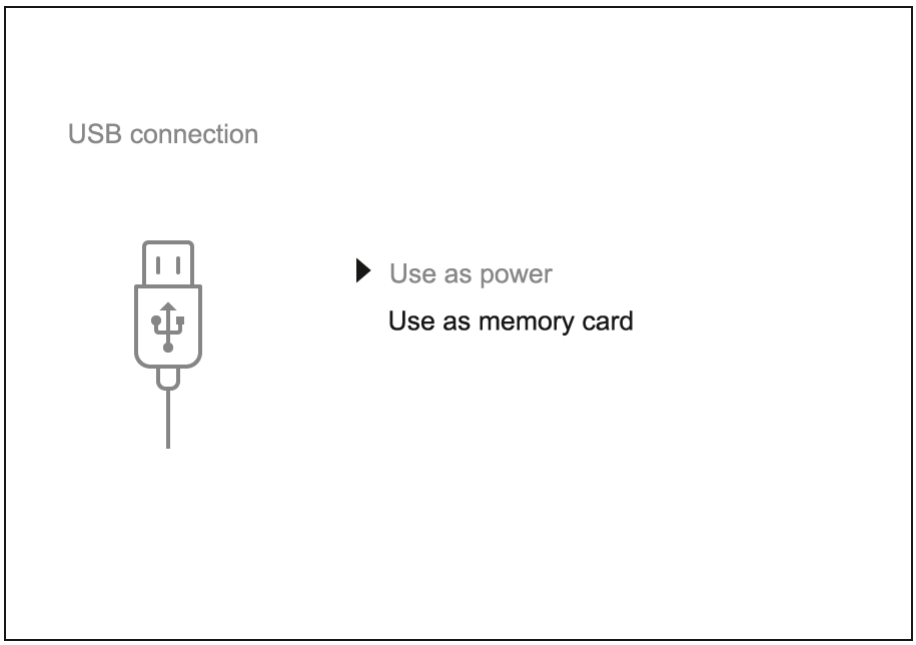
Is your firmware up to date?

Click **here**to check the latest firmware for your device.

USB Connection

Show device diagram





1. Connect one end of the USB cable to the Micro-USB **(2)** port of your riflescope, and the other end to the USB port of your PC/laptop.
2. Turn the riflescope on with a short press of **ON/OFF (18)** button (riflescope that has been turned off cannot be detected by your computer).
3. Your riflescope will be detected by the computer automatically; no drivers need to be installed.
4. Two connection modes will appear on the display: **Power**and **Memory Card (external memory)**.
5. Select connection mode with **UP (7)/DOWN (5)** buttons.
6. Confirm selection with a short press of **MENU (6)** button.

Connection modes:

Power

- In this mode PC/laptop is used as an external power supply. The status bar shows an icon . The device continues operating and all functions are available.
- The Battery Pack installed in the device is not being charged!
- When USB cable is disconnected from the device when in the **Power** mode, the device keeps operating with Battery Pack, if available, and it has sufficient charge.

Memory card (external memory)

- In this mode the device is detected by the computer as a flash card. This mode is designed for work with the files saved in device's memory. The device's functions are not available in this mode; the device turns off automatically.
- If video recording was in progress when connection was made, recording stops and video is saved.
- When USB cable is disconnected from the device in **Memory Card** mode, the device remains turned off. Turn the device on for further operation.

Technical Inspection

During the technical inspection, recommended before every use, check:

- External view of the riflescope (cracks, deep dents and corrosion are not allowed).
- Correct and reliable mounting of the riflescope on your rifle (clearances are not allowed).
- The state of objective lens, eyepiece, IR illuminator and rangefinder lens (cracks, grease spots, dirt, water stains and other residue are not allowed).
- Correct functioning of the controls.
- Smoothness of the objective lens focus knob and dioptre eyepiece focus knob.
- The state of the Battery Pack and its charge level: signs of electrolyte leakage, corrosion of the riflescope and IR illuminator contacts are not allowed.

Technical Maintenance

Technical maintenance should be done at least twice a year, includes the following steps:

- Clean the outside metal and plastic surfaces from dust, dirt and moisture; wipe the scope with a soft lint free cloth. To avoid damage to the paint coating, do not use chemically active substances, solvents, etc.
- Inspect the eyepiece lens, the objective lens, IR illuminator and rangefinder; gently blow off any dust and sand, if necessary clean their outside surfaces.

Storage

- Always store the riflescope in its carrying case in a dry, well-ventilated space. For prolonged storage, be sure to remove the Battery Pack.
- Check the battery level, if necessary, charge it to the recommended level (50% - 70%).

Troubleshooting

For technical support please contact support@pulsar-vision.com.

Answers to frequently asked questions about the devices can also be found in the **FAQ** section.

The device does not turn on

Possible cause

Battery Pack is discharged.

Solution

Charge the battery.

Device malfunction

Solution

In case of any malfunctions during operation, try resetting the device by long pressing the ON/OFF button for 10 seconds.

The device does not operate on external power supply

Possible cause

USB cable is damaged.

Solution

Replace USB cable.

Possible cause

External power supply is discharged.

Solution

Charge the external power supply (if necessary).

The reticle is blurred and cannot be focused with the dioptre knob

Possible cause

The diopter adjustment range is not enough for your eyesight.

Solution

If you wear glasses with a range of +3/-5, keep glasses on when looking through the eyepiece.

Possible cause

Condensation on the external surface of the eyepiece lens.

Solution

Wipe the lens with a cloth.

Color stripes appear on the display or image disappears

Possible cause

The device has accumulated static charge during operation.

Solution

As soon as the impact of the static charge is over, the device may reboot automatically; alternatively please turn off and restart the device.

The image is too dark

Possible cause

Brightness or contrast level is too low.

Solution

Adjust brightness/contrast in the **Quick Menu**.

With a crisp image of the reticle, the image of the observed target that is at least 30 m away is blurred

Possible cause

Dust and condensate are covering the outside optical surfaces after the riflescope was brought in from the cold into a warm environment, for example.

Solution

Clean the lens surfaces with a blower and soft lens cloth. Let the riflescope dry by leaving it in a warm environment for 4 hours.

Possible cause

The objective lens is not focused.

Solution

Adjust the image by rotating the lens focusing knob.

The point of impact shifts after firing rounds

Possible cause

The riflescope is not mounted securely or the mount was not fixed with thread sealant.

Solution

Check that the riflescope has been securely mounted.

Make sure that the same type and caliber bullets are being used as when the scope was initially zeroed.

If your riflescope was zeroed during the summer, and is now being used in the winter (or the other way round), a small displacement of the point of impact is possible.

After zeroing, the aiming reticle moves relative to the centre of the display and the rangefinder reticle

Possible cause

After shooting, the aiming reticle may not be in the centre of the display. This is normal and is not a defect.

The riflescope will not focus

Possible cause

Wrong settings

Solution

Adjust the riflescope according to the instructions given in section **Powering On and Image Setting**.

Check the surfaces of the eyepiece and objective lenses and clean them if necessary from dust, condensation, frost, etc. To prevent fogging in cold weather, apply a special anti-fog solution (for example, as for

corrective glasses).

Possible cause

The riflescope is used in the daytime at long distances.

Solution

Check focusing in the nighttime.

Smartphone or tablet cannot be connected to the device

Possible cause

Password in the riflescope was changed.

Solution

Delete network and connect again entering the password saved in the riflescope.

Possible cause

There are too many Wi-Fi networks in the area where the riflescope is located which may cause signal interference.

Solution

To ensure stable Wi-Fi performance, move the riflescope to an area with few or no Wi-Fi networks.

More information on solving problems with connection by following the links: **Stream Vision FAQ**, **Stream Vision 2 FAQ**.

Image is over-exposed

Solution

Use the riflescope with a closed lens cover.

There are several light or black dots (pixels) on riflescope’s display or sensor

Solution

Presence of dots is caused by peculiarities of sensor or display production technology and is not a defect.

IR illuminator is not functioning

Solution

- Examine the contacts in the IR Illuminator and riflescope port for contamination or coat.
- Clean carefully if necessary.
- Check their integrity.
- Check the contact area for debris.
- Clean if necessary.

Barely visible texture which does not hinder detection range or efficiency of observation can be noticed on the display after the extra laser IR Illuminator (AL-915) is activated.

Possible cause

This effect is due to the peculiarity of operation of IR Illuminators and it’s not a defect.

Rangefinder does not measure distance

Possible cause

In front of the receiver lens or emitter lens there is an object that prevents signal transmission.

Solution

Make sure that: the lenses are not blocked by your hand or fingers; the lenses are clean.

Possible cause

The riflescope is not held steadily when measuring.

Solution

Do not stress the riflescope when measuring.

Possible cause

Distance to the object exceeds 1000m.

Solution

Choose an object at a distance closer than 1000m.

Possible cause

Low reflection ratio (i.e. leaves of trees).

Solution

Pick an object with higher reflection ratio (see point **Peculiarities of Operation** in section **Built-In Laser Rangefinder**.

Large measurement error

Possible cause

Inclement weather conditions (rain, mist, snow).

During operation, the riflescope is getting hot in the area of the rangefinder unit

Possible cause

The metal part in the riflescope’s body is a heat sink designed to withdraw heat from the electronic components during riflescope’s operation. This ensures optimum temperature range for the electronic components.

Solution

Warm heat sink is normal and is not a defect.

Legal Compliances and Disclaimers

Attention! A license is required when exporting the Digisight Ultra N450/N455 LRF night vision digital riflescope outside your country.

Electromagnetic compatibility. This product complies with the requirements of European standard EN 55032: 2015, Class A.

Caution: Operating this product in a residential area may cause radio interference.

Caution:use of controls of adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Updates of the Product. The manufacturer reserves the right at any time, without mandatory prior notice to the Customer, to make changes to the package contents (subject to the applicable laws, if any), design and characteristics that do not impair the quality of the Product.

Repair. Repair of the product is available within 5 years after purchase of the product.

Limitation of Liability. Subject to mandatory applicable laws and regulations: manufacturer will not be liable for any claims, actions, suits, proceedings, costs, expenses, damages or liabilities (if any), arising out of the use of this product. Operation and use of the product are the sole responsibility of the Customer. Manufacturer’s sole undertaking is limited to providing the product(s) and related services in accordance with the terms and conditions of concluded transactions, including provisions established in warranty. The provision of products sold and services performed by

Manufacturer to the Customer shall not be interpreted, construed, or regarded, either expressly or implied, as being for the benefit of or creating any obligation toward any third party (other than Distributor, Dealer, Buyer). Manufacturer’s liability hereunder for damages, regardless of the form or action, shall not exceed the fees or other charges paid to Manufacturer for the product(s) and/or service(s).

MANUFACTURER WILL NOT BE LIABLE FOR LOST REVENUES OR INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, OR PUNITIVE DAMAGES, EVEN IF THE MANUFACTURER KNEW OR SHOULD HAVE KNOWN THAT SUCH DAMAGES WERE POSSIBLE AND EVEN IF DIRECT DAMAGES DO NOT SATISFY A REMEDY.