ZG20A TL Multi Spectrum Monocular User Guide

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Monocular User Guide

GB RU DE FR IT ES JP KR PL

TL Multi-spectrum Monocular
Quickstart Guide

Thank you for choosing our product. Please thoroughly go through user manual before operation and keep it well for future reference. All photos here are for reference only. and specifications are subject to the physical product.

IMPORTANT

Thank you for choosing this product. Please read this guide before use and keep it for future reference. We hope

you'll be satisfied with this product.

This guide is a general guide for a series of products, which means that the specific model you receive may differ from the picture in the guide. Please refer to the actual product you receive.

This user guide is organized for the convenience of users to use and understand our products. We will do our best to ensure the accuracy of the contents of this guide, however, we still cannot guarantee the completeness of the contents thereof. As our products are subject to continuous upgrading, we reserve the right to modify this guide from time to time without prior notice.

FCC WARNING

This equipment may generate or use radio frequency energy.

Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

NOTE: 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 in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- The rating information is located at the bottom of the unit.

PRECAUTIONS

 DANGER

1. Please charge the battery with the method described in this guide and follow the charging procedure and precautions. Improper battery charging will cause heating, damage and even physical injury.
2. Do not try to open or disassemble the battery at any time. Once the battery leaks and the spill enters the human eye, wash the eyes with clean water immediately and take medical care.

WARNING

1. When using the equipment, please try to keep it stable and avoid violent shaking;
2. Do not use or store the equipment in an environment that exceeds the allowable operating temperature or storage temperature;
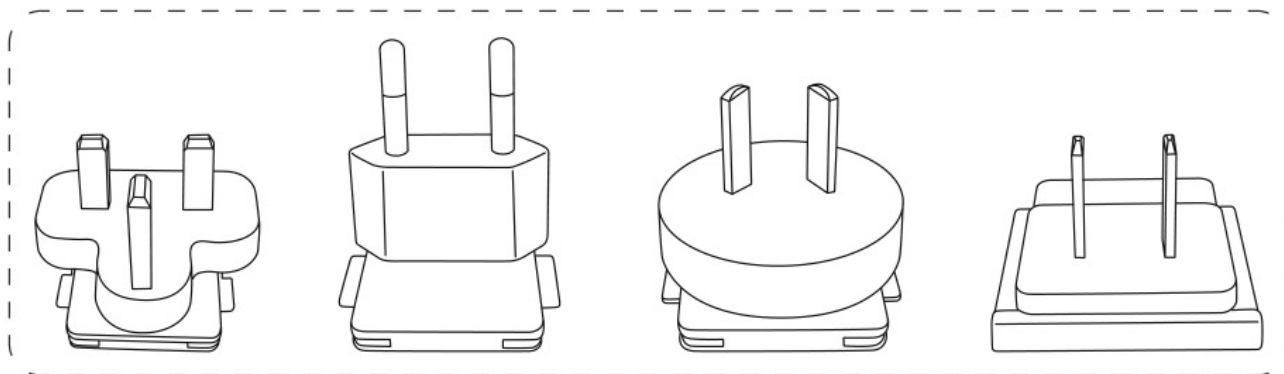
3. Do not directly aim the equipment at high-intensity thermal radiation sources, such as the sun, lasers, spot welding machines, etc.;

4. Do not plug the holes on the equipment;

5. Do not knock, throw or vibrate instruments and accessories to avoid damage;

6. Do not disassemble the machine by yourself, which may cause equipment damage and loss of warranty rights;

7. Do not use soluble or similar liquids on equipment and cables, which may cause damage to the equipment;

8. Please do not use the equipment in an environment that exceeds the operating temperature of the equipment, which may cause damage to the equipment;

9. Please observe the following measures when wiping this device:

· Non-optical surface: Use clean and soft cloth to wipe the non-optical surface of the thermographic camera;

· Optical surface: When using the thermographic camera, please avoid polluting the optical surface of the lens, especially avoid touching the lens with your hands, because the sweat on your hands will leave traces on the lens glass and may corrode the optical coating on the glass surface. When the surface of the optical lens is polluted, use special lens paper to wipe

10. Do not place the battery in a high temperature or near a high-temperature object;

11. Do not short circuit the positive and negative poles of the battery;

12. Do not expose the battery to moisture or water;

13. Do not use non-original adapters or chargers (the contents of the original packaging shall prevail).
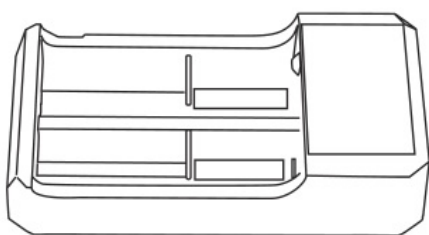
 NOTES

1. Do not expose the device to dust or moisture. Avoid water splashing to the device when being used in an environment with water. Cover the lens when not using the device;

2. When this device is not used, please put the device and all accessories in a special packing box;

3. Avoid using SD cards for other purposes;

4. Using the eyepiece for a long time will reduce the contrast of the eyepiece, and the picture will turn white. You can switch to LCD display, and then to eyepiece display after a period of time.

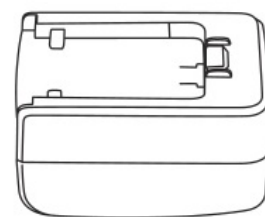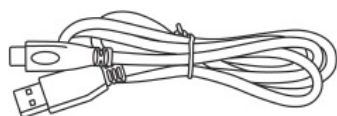**LIST OF PARTS**

PLUG

CHARGER

18650 BATTERY

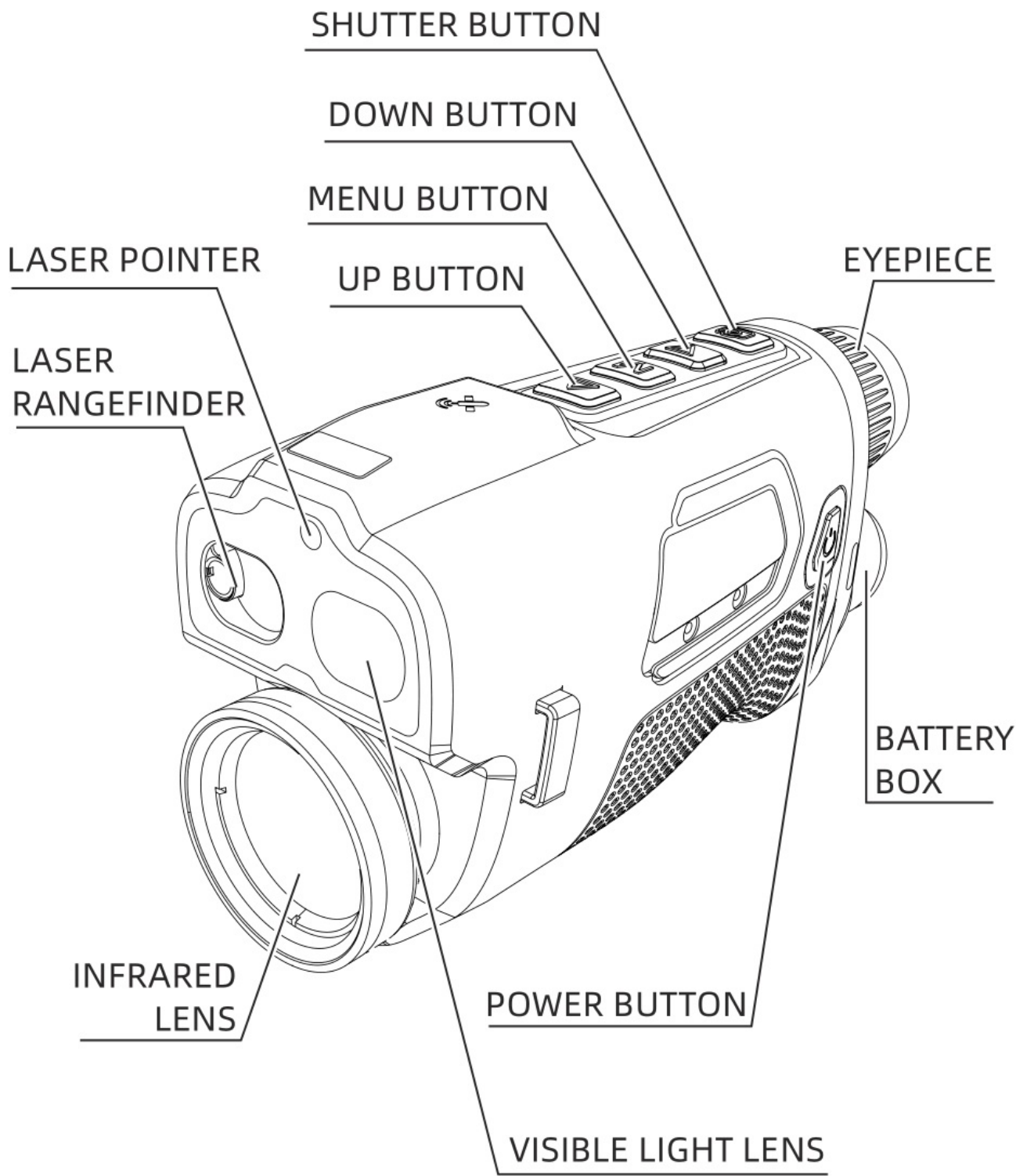5V2A ADAPTER

TYPE-C CABLE

WRIST STRAP

Options

- BLUETOOTH REMOTE CONTROL
- 18650 BATTERY*1
- DOVETAIL GUIDE

INTRODUCTION TO PRODUCT PARTS

This guide is applicable to many models of this series, and only one model is shown in the figure

SHUTTER BUTTON

DOWN BUTTON

MENU BUTTON

UP BUTTON

LASER POINTER

LASER
RANGEFINDER

EYEPIECE

BATTERY
BOX

INFRARED
LENS

POWER BUTTON

VISIBLE LIGHT LENS

QUICKSTART INSTRUCTIONS

Buttons	Current Device Status	Short Press	Long Press
Power button	Power on	Compensation	Display off/Power off
	Power off	/	Power on
	Display off	Display on	Display on
Menu button	No menu display	Shortcut menu	Main menu
	Menu display	Enter or confirm menu options	Return to the previous menu without saving
Up button	Power on	Switch the image mode	Switch the zoom multiple
Down button	Power on	Switch the scene mode or pseudo color	Switch the zoom multiple
Shutter button	Power on	Take photos	Take videos

BUTTON DESCRIPTION]

1. Power button

- **Power on**
  Long press the Power button until the boot screen appears in the eyepiece, then the device is turned on successfully.
- **Power off**
  Manual power-off: Long press the Power button to display the shutdown progress bar until the progress bar is completed and the shutdown is successful.
- **Display off**
  Long press the Power key to display the shutdown progress bar. Before the progress bar is completed, release the Power key to cancel the shutdown and enter the Display off mode.
- **Display on**

In Display off mode, press any button to wake up the screen.

- **Compensation**

Short press the Power button briefly to complete the corresponding compensation action.

2. Menu button

- **Shortcut menu**

Short press the Menu button to call up the shortcut menu.

- **Main menu**

Long press the Menu button to call up the main menu.

- **Move the menu and options**

When it is turned on and the menu is called up, short press the Down button or Up button to switch the menu options.

- **Exit menu**

When it is turned on and the menu is called up, long press the Menu button to save and back to the previous menu.

3. Up button

- **Zoom in**

Long press the Up button to zoom in at the specified point;

In the real-time interface and infrared mode, long press the Up button to zoom in the picture at 0.1x in combination of optical zoom and digital zoom (as shown in the table below) to 4X (ZG20A), 8X (ZG20B).

In visible light mode, there is only digital zoom multiple (1X, 2X, 4X and 8X), and UI displays the optical zoom multiple * digital zoom multiple.

Model	Optical Zoom Multiple	Digital Zoom	Optical Zoom * Digital Zoom
ZG20A + 35mm	2.3X	1.0~4.0	2.3X~9.2X
ZG20A + 50mm	3.2X	1.0~4.0	3.2X~12.8X
ZG20B + 35mm	2.0X	1.0~8.0	2.0X~16.0X
ZG20B + 50mm	2.8X	1.0~8.0	2.8X~22.4X

4. Down button

- **Zoom out**

  In zoom in mode, long press the Down button to zoom out at the specified point, and the multiple display of zoom out is opposite to that of zoom in.

5. Shutter button

- **Take photos**

  Short press the Shutter button to take photos.
- **Take videos**

  Long press the Shutter button to start video recording and long press it again to stop video recording and save the video.

FUNCTION DESCRIPTION

Icon	Definition	Icon	Definition
	Photo taking successfully		Video recording successfully
	Photo taking failed		Video recording failed
	WiFi		Video recording
	Bluetooth		Do not adjust the screen brightness
	Do not take photos		Do not record videos
	Do not adjust the screen brightness		Do not turn on WIFI
	Do not turn on serial port mode		Do not turn on Bluetooth
	Do not turn on hotspot tracking		Do not turn on GPS
	Do not turn on compass		Do not turn on holding prompt
	Do not turn on ranging		Serial port mode
	Super power saving mode		Memory full
	Memory is to be full		Hotspot tracking
	Ranging		

- **PIP:**

  PIP can be switched among four states: upper left, upper middle, upper right and off.

- **Screen brightness:** The screen brightness can be adjusted from level 1 to 10.
- **Hotspot tracking:** A cursor will be displayed when it is enabled to track the spot with the highest temperature on the entire map (this function can be turned on in infrared mode only).
- **Super power saving:** When the super power saving mode is enabled, the ARM switches to the low power mode, and the OLED brightness is fixed at 20%, which cannot be adjusted, and WIFI, Bluetooth, Ranging, GPS, Compass and Holding prompt cannot be turned on. If these functions have been already turned on, turn off them.
- **Ranging**: When it is enabled, the ranging cursor and ranging information are displayed, and the ranging cursor is aligned with the target to display the target distance.
- **Image enhancement:** The imaging quality can be adjusted.
- **Scene mode (infrared):** Natural/Enhanced/Highlighted (only displayed in infrared mode).
- **Pseudo color:** Colors can be adjusted to White hot, Black hot, Red hot, Iron red and Blue hot.
- **Scene mode (visible light):** Daylight/Night vision/Glimmer (only displayed in infrared mode).
- **Brightness**: The detector brightness can be adjusted from level 1 to 10.
- **Contrast**: The detector contrast can be adjusted from level 1 to 10.
- **Compensation mode:** Scene compensation/Shutter compensation.
- **WIFI**: WIFI switch. When the mobile client and the device are connected, real-time videos can be transmitted to the mobile phone, the device can be operated through the APP.
- **GPS**: This function shall be used in open space. When it is enabled, the location coordinates of the device is displayed on the screen.
- **Compass**: When it is enabled, the orientation is displayed on the screen. The compass can be calibrated with the calibration function.
- **Holding prompt:** This function shall be used in open space. When it is enabled, the holding offset information of the current device is displayed on the screen and the way of holding the device can be adjusted based on the information.
- **Target indication:** When it is enabled, ranging and background GPS are enabled at the same time. When the ranging cursor indicates the target, the locating information of the target is displayed.
- **Auto sleep:** Auto sleep time can be set at 5/10/15min. If no operation is made within the set time, the camera will enter the sleep mode.
- **Automatic power off:** Automatic power off time can be set at 15/30/60min. If no operation is made within the set time, a countdown to power off will appear and the camera will be powered off when the countdown is over.
- **Power indication:** When it is enabled, the power indicator lights on and when it is disabled, the indicator lights off.
- **Date format:** The date format can be YYYY-MM-DD/MM- DD-YYYY/DD-MM-YYYY.
- **Time format:** The time format can be 12H/24H.
- **Time adjustment:** The device time and date can be adjusted in the time adjustment interface.
- **Watermark settings:** Options can be made from Date only/Time only/Time and date/Off.
- **Language settings:** Foreign version: English/Russian/ German/French/Spanish/Italian/Japanese/Korean/ Polish; domestic version: Simplified Chinese.
- **Memory card formatting:** All files in the memory card can be deleted.
- **Restore default:** The default values of the device can be restored.
- **About**: The software version and MAC address are displayed.
- **Bluetooth**: The Bluetooth remote control can be connected to control the device.

- **Laser pointer:** The laser pointer can be in "Red, Yellow and Green". When it is enabled, the laser pointer lights on.
- **Indication calibration:** The coordinate of the laser pointer can be adjusted to adapt to the indication consistency of the laser and laser cursor in different distances.
- **Calibration blending:** The display range of the infrared image on the screen can be adjusted in the blending mode (only displayed in blending mode).
- **Capacity indication**

When the thermographic camera is turned on and the battery capacity changes, the capacity indicator is displayed in the lower left corner of the screen, and the part of the lit power indicator shows the remaining battery capacity.

After starting up and entering the real-time screen, the icon corresponding to the above power capacity will be displayed in the left bottom of the screen.

The power capacity is as follows:

High capacity of external battery	▭
Medium high capacity of external battery	▭
Medium capacity of external battery	▭
Medium low capacity of external battery	▭
Low capacity of external battery	▭
Insufficient capacity of external battery	▭

Notes:
Please replace the battery in a timely manner when the battery is low!

COMMON TROUBLESHOOTING GUIDE

1. **The device cannot be powered on**

   Solution: replace the battery or connect the adapter for power supply
2. **The device cannot take photos/videos**

   Solution: the internal storage space of the device is full.

   It is needed to format the memory card or disconnect the device from the computer
3. **The display time of the device is inconsistent with the actual time**

   Solution: reset the time and date of the device in the menu
4. **The screen goes black during use**

   Solution: short press any key to wake up sleep and light up the screen
5. **The imaging of the device is blurred in use**

Solution: turn the lens for manual focusing until the image sharpens

STORAGE AND TRANSPORTATION

The following is the correct storage and transportation of the product. To prevent danger, property loss, etc., please read the manual carefully before using the device. Strictly observe it, and keep the instruction properly after reading it.

Storage:

1. The storage environment of packaged products is -30℃~60℃, the relative humidity is not more than 95%, without condensation and corrosive gas, and is well ventilated and clean indoor;
2. Please take it out and charge it every 3 months.

Transportation:

The thermographic camera shall be protected from rain, water, inversion, violent vibration and impact during transportation, and shall be handled with care.
Throwing is not allowed.

Special statement: the version of the guide will be updated after the technical improvement of the product.

Contents

Documents / Resources

Guide ZG20A TL Multi Spectrum Monocular [pdf] User Guide
ZG20 TL, 2AKU5ZG20, ZG20A TL Multi Spectrum Monocular, TL Multi Spectrum Monocular, Spectrum Monocular, Monocular

References

- BARRE Privatbrauerei Lübbecke
- lente.de - lente Resources and Information.
- Free URL Redirection Services and more at The WebAlias Network
- touche.de