



Adventurer

ADV650-LRF-Pro/ADV650

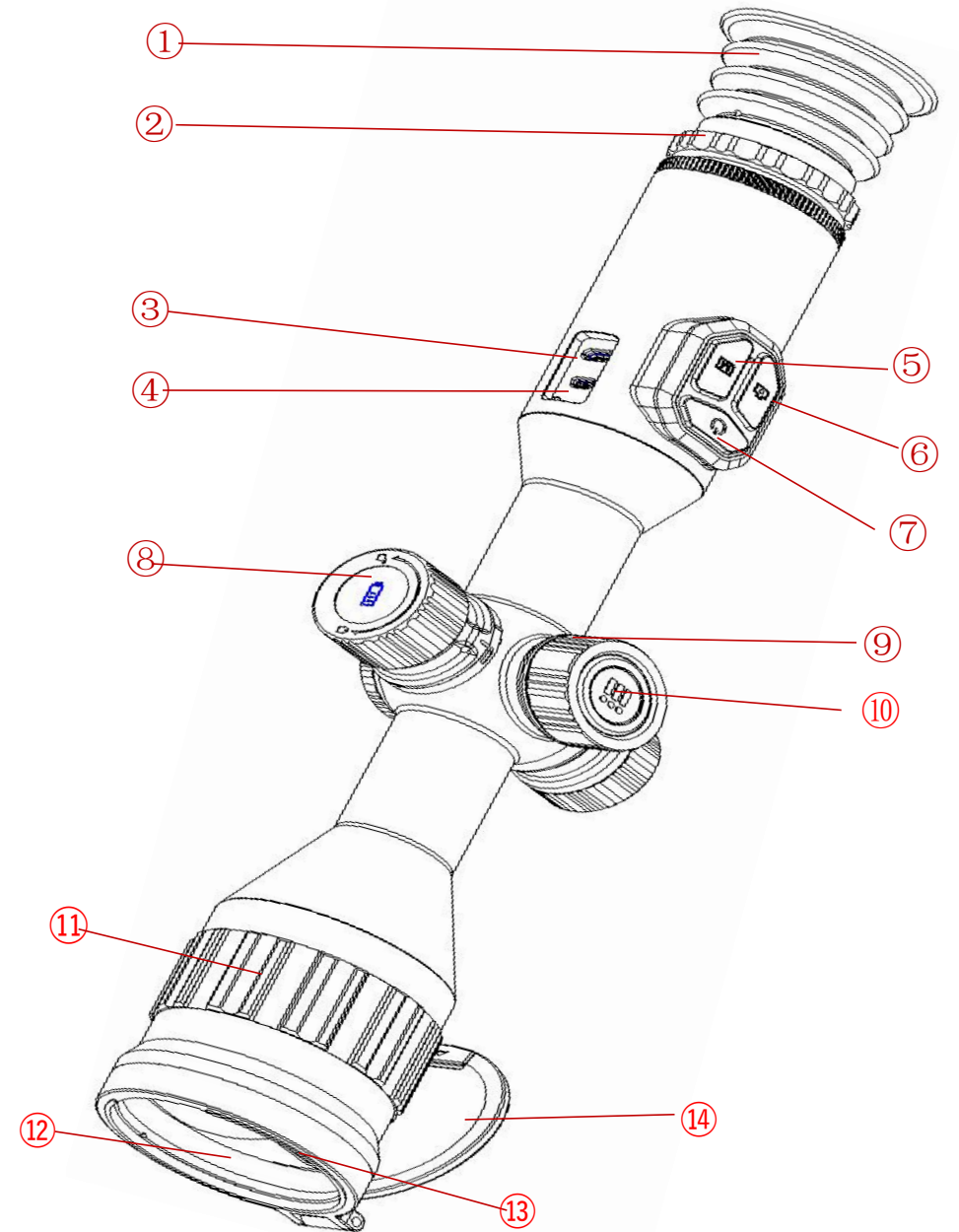
Thermal Sight Quick Guide

Product Description

This product features a high-sensitivity infrared sensor with a resolution of 640x512 pixels and a refresh rate of 50 Hz. The sight delivers high-quality imaging performance, providing clear visuals under any lighting conditions. This thermal imaging sight also incorporates AI recognition, target tracking, trajectory prediction, and intelligent ballistic calculation capabilities, making it ideal for hunting, search and rescue, outdoor sports, home defense, and other scenarios.

Composition and Buttons

- | | | |
|-----------------------------------|-----------------------|------------------------|
| ① Eyepiece | ⑥ Shutter button | ⑪ Objective Focus Knob |
| ② Accommodation | ⑦ Shutter button | ⑫ Objective Lens |
| ③ TYPE-C Interface | ⑧ Battery compartment | ⑬ Laser Rangefinder |
| ④ HDMI Interface | ⑨ Rotary knob | ⑭ Battery |
| ⑤ Range/
False Color
Button | ⑩ Menu | |

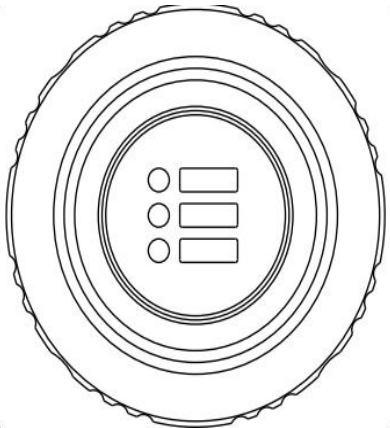
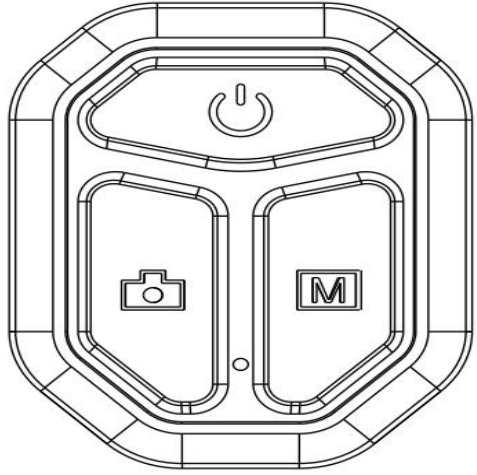








Product Specifications

Project Category	Adventurer650-LRF-Pro	Adventurer650
Thermal Mode		
Detector Type	UFPA (VOx)	UFPA (VOx)
Detector Resolution	640×512	640×512
Pixel Pitch	12um	12um
Frame Rate	50Hz	50Hz
NETD	≤20mk	≤20mk
Optical Parameters		
Focal Length	50mm	50mm
Aperture	F0.9	F0.9
Field of View	8.7°×7.0°	8.7°×7.0°
Focus Mode	Manual	Manual
Detection Range (2 pixels)	3.5km (People)	3.5km (People)
Recognition Range (12 pixels)	590m (People)	590m (People)
Image Display		
Screen Type	AMOLED, 0.39 Inch	AMOLED, 0.39 Inch
Screen Resolution	1024×768	1024×768
Exit Pupil Distance/Aperture	55mm / 6mm	55mm / 6mm
Brightness/Contrast Adjustment	Support	Support
Color Palette	Black Heat / White Heat / Red Heat / Fusion / Gold Heat / Green Heat	
Digital Zoom	1×; 2×; 4×	1×; 2×; 4×
































Item category	Adventurer650-LRF-Pro	Adventurer650
Power Supply		
Battery Type	2 built-in lithium batteries + 1 external lithium battery	
Battery Specifications	21700(5000mah)×2+18650(3400mah)×1	
External Power Supply	DC 5V (USB Type-C)	DC 5V (USB Type-C)
Power Consumption	≤2.2W (25°C)	≤2.2W (25°C)
Continuous Operating Time	≥15h (25°C)	≥15h (25°C)
Peripherals		
Electronic Compass	Support	Support
Attitude Sensor	Support	Support
WIFI	2.4G	2.4G
Storage	Built-in 32GB EMMC	Built-in 32GB EMMC
Laser Rangefinder	Laser, 905nm	-----
Laser Range & Accuracy	1Km, ±1m	1Km, ±1m
Ohters		
Interfaces	Micro HDMI (Type D)	Micro HDMI (Type D)
Protection Rating	IP67	IP67
Operating Temperature	-20°C to +50°C	-20°C to +50°C
Shock Resistance	1000g/0.4ms	1000g/0.4ms
Weight (without battery)	≤1195g	≤1150g
Dimensions	425×88×75 (mm)	425×88×75 (mm)

Keypad Instructions



Name	Button	Status/Current Operating Mode	Single-Click	Double-click	Long Press
Power Button		All Modes	Standby Switch	—	Turn Off
M Button		Main Interface	Range Measurement (LRF)/False Color Switch (NO LRF)	Image Correction	Set Quick Functions
		Menu Mode	Back to Previous Level	—	Exit without saving to main interface
Shutter button		Main Interface	Take Photo	—	Video recording toggle
Menu button		Main Interface	False Color Switch (LRF)	—	Enter Menu Mode
		Menu Mode	Confirm	—	Return to previous level
Combination button	 + 	Main Interface	Toggle Rotation Button	—	—
Name	Status/Current Operating Mode		Rotation		
Rotary knob	Main Interface		Digital Zoom		
	Menu Mode		UP/DOWN		

Icon Description

Icon	Function	Icon	Function
	False Color Settings		Target Intelligent Recognition
	Digital Zoom		Target Auto Tracking
	Highlight Mode		Hotspot Tracking
	Laser Rangefinder		Smart Ballistics
	Shutter Correction		System Settings
	Crosshair Calibration		Advanced Settings
	Crosshair Type Adjustment		WIFI
	Screen Adaptation		Screen Brightness
	Photo Capture		Icon Settings
	Video Recording		Time Settings
	Dead Pixel Correction		Compass Calibration
	Multimedia		Smart Noise Reduction
	Picture-in-Picture		Format
	Image Brightness Adjustment		Factory Reset
	Image Contrast Adjustment		System Information
	Image Enhancement		