

[Manuals.plus](#) /

› [Pulsar](#) /

› Pulsar Thermion 2 LRF Thermal Riflescope with Laser Range Finder XG50 User Manual

Pulsar XG50

Pulsar Thermion 2 LRF Thermal Riflescope User Manual

MODEL: XG50

Brand: Pulsar

INTRODUCTION

The Pulsar Thermion 2 LRF Thermal Riflescope with Laser Range Finder XG50 is a state-of-the-art thermal imaging device designed for precision and reliability. This manual provides essential information for the proper setup, operation, and maintenance of your riflescope, ensuring optimal performance and longevity.



The Pulsar Thermion 2 LRF Thermal Riflescope XG50, a high-performance thermal imaging device.

KEY FEATURES

- **Unprecedented Thermal Sensor Sensitivity:** Imaging sensor with NETD <40mK for detail recognition in harsh weather. Reveals smallest temperature differences in rain, fog, or cold mornings, excelling in low thermal contrast situations.

- **Long Detection Range Up to 2500 yards:** A powerful F50/1.0 objective lens combined with a highly-sensitive thermal imaging sensors provides exceptional detection capabilities. Can detect a standard 6ft tall object 2500 yards away in complete darkness.
- **Picture-in-Picture Mode:** Display high-precision zeroing frame, occupying 10% of the total area. Magnifies target and reticle, providing a close view in the aiming area with visual control of the entire field of view simultaneously.
- **Stream Vision 2 with Wi-Fi:** Built-in Wi-Fi connects the device to Android/iOS smartphones via Stream Vision 2 app. Update device software, transfer real-time images to mobile screens, and remotely control digital functions.
- **EXPORT CONTROL NOTICE:** This product is controlled for export and in-country transfer under the International Traffic in Arms Regulations (ITAR). Diversion contrary to U.S. law is prohibited.

SETUP

Battery Installation and Charging

The Thermion 2 LRF XG50 utilizes an APS2 battery system, which can be accessed by removing the top cap. An APS3 battery can be purchased separately for extended battery life. The device also features a USB-C interface for charging the internal battery and for data transfer to a computer.

Mounting

The riflescope features a 30mm tubing system, allowing for compatibility with standard 30mm scope mounts. Ensure the mount is securely fastened to your firearm's Picatinny rail for stable operation.

PULSAR THERMION 2

LRF XG50 THERMAL RIFLESCOPE

Premium HD Riflescope



HD Thermal Sensor



8.8° of FOV



Integrated Ballistic
Calculations



The Pulsar Thermion 2 LRF XG50, highlighting its HD thermal sensor, wide FOV, and integrated ballistic calculations.

OPERATING INSTRUCTIONS

Controls and Menu Navigation

The device features an intuitive control layout. The LRF button, record button, and zoom controls are conveniently located for quick access. A short press on the menu system button allows access to brightness and contrast settings, while a long press provides access to main zeroing profiles and other advanced settings.

Thermal Imaging and Detection

The XG50 model is equipped with a 640x480 pixel, 17-micron thermal sensor with a sub-25 milliKelvin NETD, providing highly detailed and clear thermal images even in challenging conditions. The powerful F50/1.0 objective lens enables detection of a 6ft tall object up to 2500 yards away.



The HD thermal sensor offers an incredibly detailed image



An example thermal image demonstrating the detailed output from the HD thermal sensor.



HD 640x480 px @ 12 μ m
thermal sensor

Close-up view highlighting the HD 640x480 pixel @ 12 μ m thermal sensor for superior image quality.

Field of View and Magnification

The 8.8° Field of View (FOV) enhances situational awareness. The riflescope offers a 2-16x optical magnification and a 4x digital magnification, allowing for precise targeting at various distances.



8.8° of FOV allows you to have better situational awareness



The wide 8.8° FOV provides enhanced situational awareness during use.



With a magnification of 3-24x
to ensure accurate shooting

The riflescope offers a magnification range of 3-24x to ensure accurate shooting.

Laser Range Finder (LRF)

The integrated laser range finder allows for quick and accurate distance measurement to your target, facilitating precise shot placement. The LRF unit is ambidextrously designed for both left and right-handed shooters.



With the ability to detect a heat signature up to 2300m

The device boasts a heat signature detection ability up to 2300 meters.

Stream Vision 2 Connectivity

Connect your Thermion 2 LRF XG50 to your Android or iOS smartphone via the Stream Vision 2 app. This allows for software updates, real-time image transfer to your mobile screen, and remote control of digital functions, including ballistic calculations displayed directly on the scope's screen.



Stream Vision Ballistics display ballistic calculations right on the scope's screen



Stream Vision Ballistics can display calculations directly on the scope's screen via the app.

Zeroing Profiles

The riflescope allows you to store up to 5 zeroing profiles, each with 10 distance coordinates, providing versatility for different firearms or shooting scenarios.



Store up to 5 zeroing profiles,
with 10 distance coordinates each

The device can store up to 5 zeroing profiles, each with 10 distance coordinates.

MAINTENANCE

To ensure the longevity and optimal performance of your Pulsar Thermion 2 LRF Thermal Riflescope, regular maintenance is recommended:

- **Cleaning:** Use the provided lens-cleaning cloth to gently wipe the objective and eyepiece lenses. Avoid abrasive materials or harsh chemicals.
- **Storage:** Store the riflescope in its carrying case in a cool, dry place when not in use.
- **Battery Care:** Ensure batteries are charged before extended storage. Remove batteries if the device will not be used for a long period.

TROUBLESHOOTING

If you encounter issues with your riflescope, consider the following common troubleshooting steps:

- **No Power:** Check battery charge level. Ensure the battery is correctly inserted.
- **Poor Image Quality:** Clean the objective lens. Adjust brightness and contrast settings. Ensure proper focus using the ambidextrous focus knob.
- **Connectivity Issues:** Ensure Wi-Fi is enabled on both the riflescope and your mobile device. Restart both devices and try reconnecting.
- **Laser Range Finder Malfunction:** Ensure no obstructions are blocking the LRF. Check for any error messages on the display.

For persistent issues, refer to the full user manual or contact Pulsar customer support.

SPECIFICATIONS

Attribute	Value
Brand	Pulsar
Color	XG50
Sport	Airsoft
Item Weight	2.1 Pounds
Material	Magnesium Alloy
Magnification Maximum	3 x
Objective Lens Diameter	5E+1 Millimeters
Magnification Minimum	3 x
Compatible Devices	Handgun
Mounting Type	Picatinny Mount
Night vision	No
Model Name	Thermion 2 LRF
Manufacturer	Sellmark Corporation
UPC	812495029622
Item Package Dimensions L x W x H	18.07 x 10.28 x 8.03 inches
Package Weight	2.62 Kilograms
Item Dimensions LxWxH	16.5 x 3 x 3.7 inches
Part Number	PL76554

Attribute	Value
Included Components	Thermal Imaging Riflescope, Rechargeable Battery Pack, Charger, USB cable, Carrying case, Lens-cleaning cloth, Quick User Manual, Warranty card
Date First Available	February 20, 2023

WARRANTY AND SUPPORT

The Pulsar Thermion 2 LRF Thermal Riflescope comes with a **3 Year Limited Warranty**. For warranty claims or technical support, please contact Pulsar customer service through their official website or the contact information provided in the product packaging.

Additional resources, including software updates and detailed FAQs, may be available on the Pulsar website.

© 2025 Pulsar. All rights reserved.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question