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Pulsar N450

Pulsar Digisight Ultra LRF Digital Night Vision Riflescope N450

User Instruction Manual

1. INTRODUCTION

The Pulsar Digisight Ultra LRF Digital Night Vision Riflescope N450 is an advanced optical device designed for enhanced visibility in low-light and nighttime conditions. It integrates a high-sensitivity digital sensor, a powerful infrared (IR) illuminator, and a precise laser rangefinder (LRF) to provide clear imaging and accurate distance measurements. This manual provides detailed instructions for the proper setup, operation, and maintenance of your Digisight Ultra LRF N450 to ensure optimal performance and longevity.



Figure 1.1: Pulsar Digisight Ultra LRF Digital Night Vision Riflescope N450

2. SAFETY INFORMATION

Please read and understand all safety warnings and precautions before using the device. Failure to follow these instructions may result in injury or damage to the device.

- **Eye Safety:** Never look directly at the sun or other bright light sources through the device, as this can cause permanent eye damage.
- **Laser Safety:** The integrated laser rangefinder emits invisible laser radiation. Avoid direct eye exposure to the laser beam. Do not point the laser at people or animals.
- **Battery Handling:** Use only recommended batteries. Do not expose batteries to extreme temperatures, disassemble, or short-circuit them. Dispose of batteries according to local regulations.
- **Environmental Conditions:** Do not expose the device to extreme temperatures, high humidity, or direct sunlight for prolonged periods.
- **Maintenance:** Do not attempt to disassemble or repair the device yourself. Refer all servicing to authorized service personnel.

3. PACKAGE CONTENTS

Verify that all items are present in the package before initial use.

- Pulsar Digisight Ultra LRF Digital Night Vision Riflescope N450
- Detachable long-range IR illuminator
- Battery pack

- Battery charger
- USB cable
- Carrying case
- Lens cleaning cloth
- Quick start guide
- Warranty card
- Mounting hardware (if included with specific model variant)



Figure 3.1: Included components of the Digisight Ultra LRF N450

4. SETUP

4.1. Battery Installation and Charging

1. Locate the battery compartment on the device.
2. Insert the battery pack, ensuring correct polarity.
3. Close the battery compartment securely.
4. To charge, connect the battery pack to the charger, then plug the charger into a power outlet. Alternatively, the device can be charged via USB.
5. Monitor the charging indicator. A full charge is indicated when the light changes color or turns off.

4.2. Mounting the Riflescope

The Digisight Ultra LRF N450 is designed for side mount installation on compatible rifles.

1. Attach the appropriate mounting bracket (if not pre-installed) to the riflescope using the provided screws.
2. Secure the riflescope with the attached mount onto your rifle's rail system. Ensure it is firmly seated and aligned.
3. Tighten all mounting screws evenly to prevent movement during use.



Figure 4.1: Top view of the riflescope showing mounting points

4.3. Attaching the IR Illuminator

The detachable IR illuminator enhances visibility in complete darkness.

1. Align the IR illuminator with its designated port on the side of the riflescope.
2. Gently push and secure the illuminator until it clicks into place.
3. To remove, press the release button (if present) and pull the illuminator away.



Figure 4.2: Close-up of the detachable IR illuminator

4.4. Initial Power On and Focus Adjustment

1. Press and hold the power button (



) until the display activates.

2. Adjust the diopter ring on the eyepiece until the on-screen display (OSD) is sharp and clear for your eye.
3. Rotate the objective lens focus knob (



) to bring the target image into sharp focus.

5. OPERATING INSTRUCTIONS

5.1. Controls Overview

The device features several buttons and a rotary encoder for navigation and function control.



Figure 5.1: Main control buttons and rotary encoder

- **Power Button:** Long press to power on/off. Short press for standby mode.
- **Menu Button (M):** Accesses the main menu.
- **Up/Down Buttons:** Navigate menu options or adjust settings.
- **LRF Button:** Activates the laser rangefinder for distance measurement.
- **Rotary Encoder:** Used for fine adjustments and selection within menus.

5.2. Digital Zoom and Picture-in-Picture (PiP)

- **Digital Zoom:** Use the designated buttons (refer to manual for specific button mapping) to digitally zoom in or out on the image.
- **Picture-in-Picture (PiP):** Activate PiP mode to display a magnified image of the reticle area in a separate window on the main screen, allowing for precise aiming while maintaining a wide field of view.

5.3. Laser Rangefinder (LRF) Operation

The integrated LRF provides accurate distance measurements to targets.



Figure 5.2: Close-up of the Laser Rangefinder module

1. Aim the riflescope at the desired target.
2. Press the LRF button. The measured distance will be displayed on the screen.
3. The LRF can also measure side incline and elevation angles, which can be used for ballistic calculations.

5.4. Zeroing and Shooting Profiles

The device allows for precise zeroing and storage of multiple shooting profiles.

- **Zeroing:** Follow the on-screen instructions to perform the zeroing procedure. This typically involves firing at a target and adjusting the reticle position to match the point of impact.
- **Shooting Profiles:** The N450 supports up to 5 individual shooting profiles, each capable of holding up to 10 zeroing distances. This allows for quick switching between different firearms, ammunition types, or shooting distances without re-zeroing.

5.5. Stream Vision App Connectivity

Connect your riflescope to a smart device via the Stream Vision app for remote control, live streaming, and firmware updates.

1. Download the Stream Vision app from your device's app store.
2. Enable Wi-Fi on the riflescope through the menu.
3. Connect your smart device to the riflescope's Wi-Fi network.
4. Open the Stream Vision app and follow the prompts to connect to your device.

6. MAINTENANCE

6.1. Cleaning

- **Lenses:** Use the provided lens cleaning cloth or a soft, lint-free cloth specifically designed for optical surfaces. Gently wipe the lenses to remove dust and smudges. For stubborn dirt, use a small amount of lens cleaning fluid.
- **Body:** Wipe the body of the device with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- Ensure all caps and covers are in place when not in use to protect lenses and ports.

6.2. Storage

- Store the riflescope in its carrying case in a cool, dry place, away from direct sunlight and extreme temperatures.
- Remove batteries if the device will not be used for an extended period to prevent leakage.

7. TROUBLESHOOTING

If you encounter issues with your Digisight Ultra LRF N450, refer to the table below for common problems and solutions.

Problem	Possible Cause	Solution
Device does not power on.	Low or dead battery; improperly installed battery.	Charge the battery; ensure battery is correctly inserted.
Image is blurry or out of focus.	Diopter or objective lens not adjusted.	Adjust the diopter for your eye and the objective lens for target distance.
No image in low light/darkness.	IR illuminator off or not attached; insufficient ambient light.	Turn on or attach the IR illuminator; ensure sufficient IR light for the environment.
Laser Rangefinder not working.	Obstruction in front of LRF; target too far or too close; LRF module not properly connected.	Clear any obstructions; ensure target is within LRF range; check LRF module connection.
Cannot connect to Stream Vision app.	Wi-Fi off on device; incorrect Wi-Fi password; app issues.	Enable Wi-Fi on the riflescope; verify Wi-Fi password; restart app/device.

8. SPECIFICATIONS

Key technical specifications for the Pulsar Digisight Ultra LRF Digital Night Vision Riflescope N450.

Feature	Detail
Model Name	Digisight Ultra LRF N450
Brand	Pulsar
Night Vision	Yes (Digital)
Image Intensifier Tube	CF-Super
Digital Zoom	Picture-in-Picture functionality
Laser Rangefinder	Integrated, with side incline and elevation angle sensor
Shooting Profiles	5 individual profiles, up to 10 zeroing distances each
Connectivity	Stream Vision App (Wi-Fi)
IR Illuminator	Detachable, powerful long-range
Mounting Type	Side Mount
Item Weight	1 Pound (approx. 0.45 kg)
Dimensions (LxWxH)	14.5 x 5.6 x 2.9 inches (approx. 36.8 x 14.2 x 7.4 cm)
UPC	812495026577
Part Number	PL76627

9. WARRANTY AND SUPPORT

9.1. Warranty Information

The Pulsar Digisight Ultra LRF Digital Night Vision Riflescope N450 comes with a **3 Year Limited Warranty**. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims. For full terms and conditions, refer to the warranty card included in your package or visit the official Pulsar website.

9.2. Customer Support

For technical assistance, service, or questions regarding your product, please contact Pulsar customer support.

- **Online Support:** Visit the official Pulsar website for FAQs, software updates, and support resources.
- **Contact Information:** Refer to the contact details provided on the Pulsar website or in your product documentation.

You can also visit the Pulsar Store on Amazon for more product information and accessories.