Athlon Optics 707301-Athlon

Athlon Optics Rangecraft Velocity Pro Radar Chronograph

User Manual

Model: 707301-Athlon

Overview Setup Operating Instructions Maintenance Troubleshooting Specifications Warranty & Support

1. Product Overview

The Athlon Optics Rangecraft Velocity Pro Radar Chronograph is a precision instrument designed for measuring projectile speeds with high accuracy. Utilizing Doppler radar technology, it provides real-time velocity readings for firearms, airguns, and archery equipment. Its non-invasive design ensures barrel harmonics and zero are not compromised, making it an ideal tool for gathering critical performance data.



Figure 1: Athlon Optics Rangecraft Velocity Pro Radar Chronograph with its compact tripod.

2. Setup

2.1 Unboxing and Initial Inspection

Upon receiving your Rangecraft Velocity Pro, carefully unpack all components. The package typically includes the chronograph unit, a compact tripod, a charging cable, and a user manual. Inspect all items for any signs of damage during transit.



Figure 2: The Rangecraft Velocity Pro Chronograph mounted on its included tripod.

2.2 Charging the Device

The Velocity Pro Chronograph features a Lithium-Ion battery. Before first use, and whenever the battery indicator is low, connect the device using the provided USB-C charging cable. A full charge provides approximately 6 hours of operation. The device will indicate charging status on its display.

2.3 Mounting and Alignment

Attach the chronograph to the included tripod using the 1/4-20 thread mount. Position the chronograph 4-10 inches from the muzzle or bow riser, ensuring it is aligned with the path of the projectile. The device's display will guide you through the alignment process upon power-on, showing visual cues for rifle, pistol, archery, or airgun setups. Press 'OK' on the device to confirm alignment and proceed.

3. Operating Instructions

3.1 Powering On and Session Selection

Press the power button to turn on the device. From the home screen, you can choose to "Quick Start Session" for immediate use or "New Session" to configure specific parameters. The device supports various projectile types including rifle, pistol, archery, and airgun, which can be selected from the menu.

3.2 Taking Readings

Once aligned and a session is started, fire your projectile through the detection zone. The Velocity Pro will instantly display the speed in Feet Per Second (FPS). It measures speeds from 65 to 5,000 FPS with an accuracy of +/- 0.1%.



Figure 3: The intuitive interface of the Rangecraft Velocity Pro, displaying rifle FPS readings.

3.3 Session Management and Data Display

The device stores up to 50 sessions, with each session capable of recording up to 100 shots. On-screen, you can view key statistics such as average velocity, standard deviation, and extreme spread. For erroneous shots, simply hold the "DEL" button to remove them from the current string without interrupting the session.

3.4 Seamless App Integration

Enhance your data analysis by connecting the chronograph via Bluetooth to the Athlon Ballistics Lite app (available for Android and iPhone). The app allows you to sync, manage, and modify your session data. You can exclude shots, rename sessions, and associate data with specific rifle and bullet profiles for detailed sorting and filtering, providing comprehensive ballistic insights.

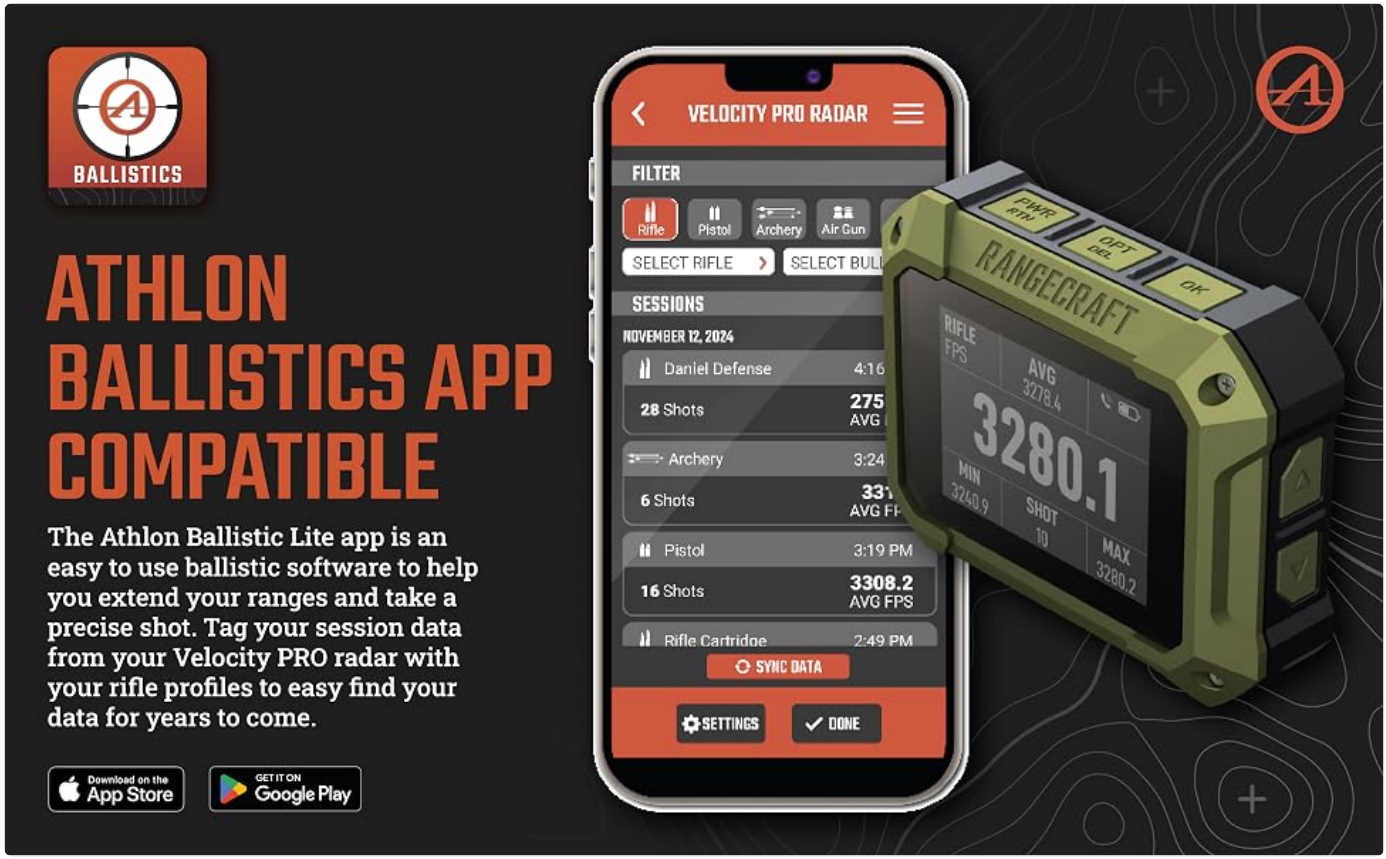


Figure 4: The Athlon Ballistics App provides advanced data management and analysis for your Velocity Pro readings.

3.5 Kinetic Energy and Power Factor Calculation

When creating a "New Session," you have the option to enter the projectile weight. This allows the chronograph to automatically calculate Kinetic Energy and Power Factor for your records, providing additional valuable data for your shooting analysis.

4. Maintenance

4.1 Cleaning and Storage

To maintain optimal performance, keep the chronograph clean. Wipe the device with a soft, dry cloth after each use. Avoid using abrasive cleaners or solvents. Store the unit in its protective case in a cool, dry place when not in use.

4.2 Water Resistance

The Velocity Pro is IP67 waterproof, offering protection against dust and temporary immersion in water. While it is designed to withstand various outdoor conditions, prolonged submersion or exposure to high-pressure water jets should be avoided.

4.3 Battery Care

For long-term storage, it is recommended to charge the battery to approximately 50% capacity. Recharge the battery periodically if the device is not used for extended periods to prevent deep discharge and prolong battery life.

5. Troubleshooting

5.1 No Reading or Inaccurate Readings

- **Alignment:** Ensure the chronograph is correctly aligned with the projectile's path and within the recommended distance (4-10 inches from the muzzle/bow riser).

- **Interference:** Minimize any potential sources of electromagnetic interference.
- **Environmental Conditions:** While robust, extreme weather conditions might affect performance.
- **Battery Level:** Check the battery indicator. A low battery can affect device performance.

5.2 Charging Issues

If the device is not charging or not reaching full charge, ensure the USB-C cable is securely connected to both the chronograph and a functional power source. Try a different USB-C cable or power adapter if issues persist. Monitor the charging indicator on the device's screen.

5.3 App Connectivity Problems

If the chronograph fails to connect to the Athlon Ballistics Lite app via Bluetooth, ensure Bluetooth is enabled on your mobile device and the chronograph is in pairing mode. Try restarting both the chronograph and the app. Refer to the app's help section for specific troubleshooting steps.

6. Product Specifications

Feature	Detail
Battery Type	Lithium-Ion
Battery Life	6 hours
Operating Range	14°F to 122°F / -10°C to 55°C
Memory/History	50 Sessions / 100 Shots per Session
Display Size	2.4"
Display Type	Transreflective LCD Screen
Display Resolution	240 x 320
Radar Type	Doppler Radar
Velocity Range	65-5000 FPS
Velocity Accuracy	+/- 0.1%
Tripod Mount	1/4-20 Thread
Connector Type	USB-C
Chronograph Weight	4.7 oz
Tripod Weight	4.3 oz



Figure 5: Visual representation of the Athlon Optics Rangecraft Velocity Pro Radar Chronograph specifications.

7. Warranty & Support

7.1 Manufacturer Warranty

The Athlon Optics Rangecraft Velocity Pro Radar Chronograph comes with a**1-year manufacturer warranty**. Please retain your proof of purchase for warranty claims.

7.2 Customer Support

For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact Athlon Optics customer support. Refer to the official Athlon Optics website for the most current contact information and support resources.

8. Product Videos

No official "Seller" videos were available for embedding in this manual. For additional product demonstrations and usage tips, please refer to the product page on Amazon or the manufacturer's official website.

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