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SingularXYZ Survey Pole

SingularXYZ Aluminum GPS Rover Rod Telescopic Survey Pole User Manual

Model: Survey Pole

Brand: SingularXYZ

INTRODUCTION

This manual provides essential instructions for the proper setup, operation, and maintenance of your SingularXYZ Aluminum GPS Rover Rod Telescopic Survey Pole. Designed for land surveying and engineering, this pole is a robust accessory for RTK GPS/GNSS receivers, ensuring precise measurements. Please read this manual thoroughly before using the product to ensure safe and efficient operation.

PRODUCT OVERVIEW AND FEATURES

The SingularXYZ Aluminum GPS Rover Rod is engineered for durability and ease of use. It features a one-piece design with dual locking systems for quick and secure setup. The pole is constructed from high-quality aluminum alloy, providing both strength and a lightweight profile for portability.

- **Easy Setup:** Features a one-piece design and dual locking systems for quick assembly.
- **Multiple Locking Positions:** Offers versatile height adjustments within the 1.6m/5.24ft to 1.8m/5.91ft range.
- **Aluminum Construction:** Crafted from high-quality aluminum alloy for durability and precise measurements.
- **Removable Tip:** Includes a steel tip with a rubber cover for protection, which is also replaceable.
- **Portable:** Collapses to 70cm/27.6 inches and comes with a carrying bag for easy transport.
- **High Compatibility:** Equipped with a 5/8" thread, compatible with mainstream GNSS RTK receivers.

SingularXYZ Telescopic Range Pole

Light & Portable
Clear Adjustable Scale
Easier Surveying



Image: The SingularXYZ Telescopic Range Pole highlighting its light, portable, and adjustable features for easier surveying.

ALUMINUM CONSTRUCTION 1.8M RANGE POLE

ADJUSTABLE HEIGHT FREELY



Image: Detailed features of the GPS Rover Rod, including the comfortable grip, laser engraving for measurements, secure latch design, and the 5/8"-11 thread mount for receiver attachment.

FEATURES



EASY SETUP

Offers a faster setup and enhanced user-friendliness



MULTIPLE LOCKING POSITIONS

Allowing you to set the desired height quickly and securely



EASY TO TRANSPORT

Weighs only 2.22lbs and come with a carrying case



ALUMINUM CONSTRUCTION

High-quality aluminum alloy material

Image: A visual summary of the pole's main features: easy setup, multiple locking positions, portability, and durable aluminum construction.

SETUP INSTRUCTIONS

Follow these steps to set up your SingularXYZ GPS Rover Rod:

1. **Unpack the Pole:** Remove the pole from its carrying bag. The pole is designed for compact storage, collapsing to 70cm (27.6 inches).
2. **Extend the Pole:** The pole consists of multiple telescopic sections. To extend a section, twist the locking collar counter-clockwise to loosen it, pull the section to the desired length, and then twist the collar clockwise to secure it. Repeat for all sections until the desired height is reached. The pole can extend from 1.6m (5.24ft) to 1.8m (5.91ft).
3. **Attach GNSS Receiver:** The top of the pole features a 5/8" thread. Carefully screw your compatible GNSS RTK receiver onto this thread until it is secure.
4. **Check Level:** Utilize the built-in bubble level to ensure the pole is perfectly vertical (plumb) for accurate measurements.
5. **Secure the Tip:** The steel tip is designed for ground penetration. Ensure the rubber cover is removed before use. If the tip feels loose, use the provided hex (Allen) key to tighten the locking screw on the pole for stable fixation.



Image: The SingularXYZ GPS Rover Rod shown alongside its compact carrying bag, emphasizing portability.

Included In The Package:

A Hex (Allen) Key Is Stored Inside The Carrying Case.

It Is Used To Tighten The Locking Screw On The Pole To Ensure Stable And Secure Fixation During Use.

The diagram consists of two parts. On the left, an open carrying case is shown with a green circle highlighting the internal compartment where the hex key is stored. A circular inset below shows the hex key and a locking screw, with the text 'Hex (Allen) Key Included'. On the right, a hand is shown using the hex key to tighten a screw on the rover rod. A green arrow points to the screw, and the text 'Tighten here' is written next to it. Above the hand, the text reads: 'You Can Tighten The Screw As Shown In The Image On The Right.'

Image: A diagram illustrating the use of the included hex (Allen) key to tighten the locking screw, ensuring the pole's stability during use.

Video: This video demonstrates the unboxing and extension of the SingularXYZ GPS Rover Rod, showcasing its telescopic sections and ease of adjustment.

OPERATING INSTRUCTIONS

Once the GPS Rover Rod is set up and your GNSS receiver is attached, you can begin surveying:

1. **Positioning:** Place the steel tip firmly on the desired measurement point.
2. **Leveling:** Observe the built-in bubble level to ensure the pole is held perfectly vertical. Adjust your stance or the pole's position until the bubble is centered.
3. **Data Collection:** Operate your GNSS RTK receiver according to its specific instructions to collect accurate positional data. The stable and plumb positioning provided by the rover rod is crucial for high-precision results.
4. **Adjusting Height:** If different measurement heights are required, loosen the locking collars, adjust the pole sections, and re-secure the collars. Always re-check the bubble level after any height adjustment.



Image: A close-up view of the built-in bubble level, essential for achieving perfectly vertical positioning during surveying.

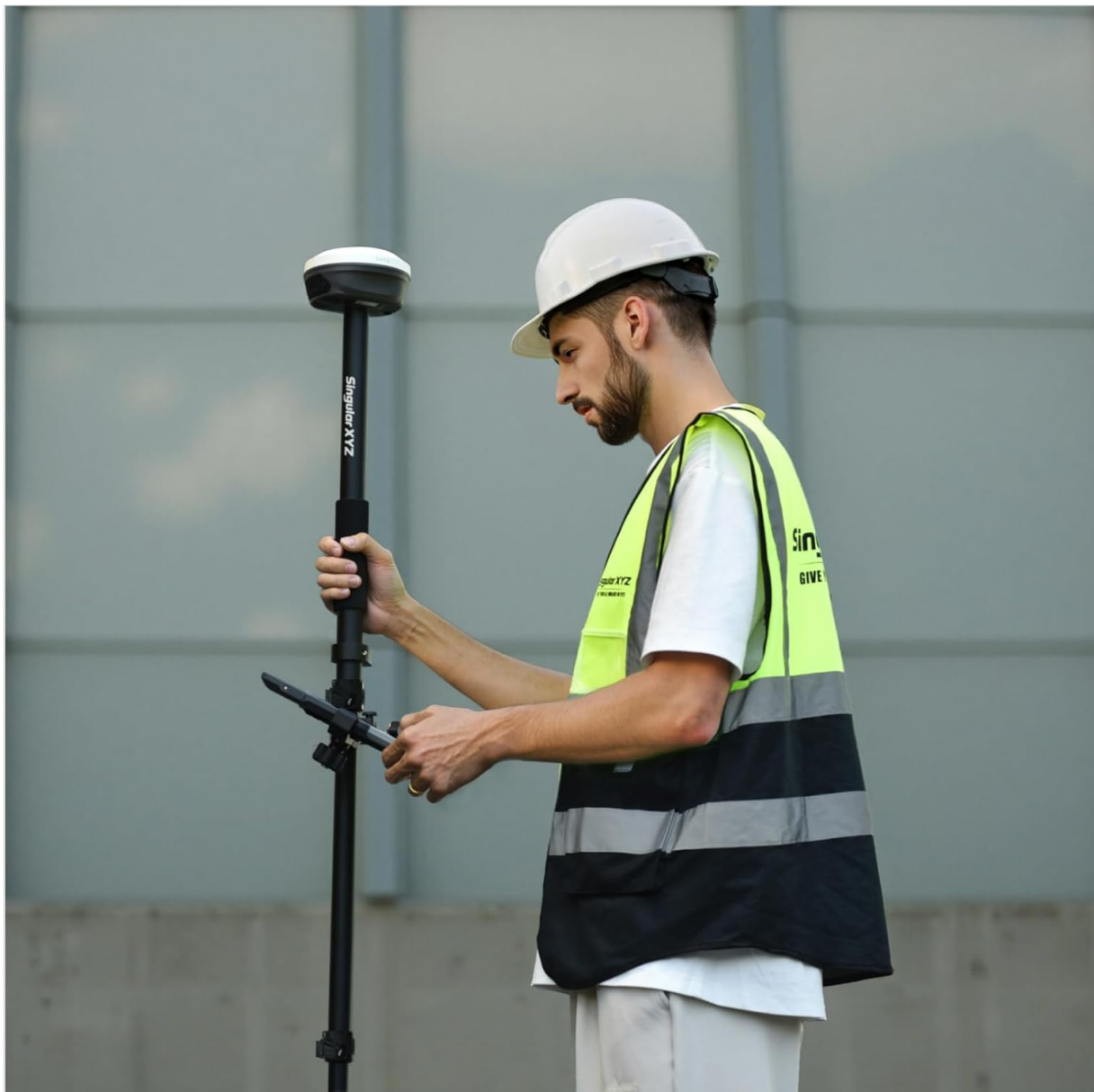


Image: A person demonstrating the use of the SingularXYZ GPS Rover Rod with an attached GNSS receiver for surveying tasks.

Video: This video illustrates the process of surveying using the SingularXYZ Telescopic Range Pole, demonstrating its practical application in the field.

MAINTENANCE

Regular maintenance ensures the longevity and accuracy of your GPS Rover Rod:

- **Cleaning:** After each use, wipe down the pole with a clean, damp cloth to remove dirt, dust, and moisture. Avoid abrasive cleaners.
- **Tip Care:** The steel tip should be kept sharp. Use the included rubber cover to protect the point when not in use. The tip is removable for easy replacement if it becomes dull or damaged.
- **Lubrication:** Periodically inspect the telescopic sections and locking collars. If they become stiff, apply a small amount of silicone-based lubricant to ensure smooth operation.
- **Storage:** Always store the pole in its carrying bag when not in use. Store in a dry, cool place away from direct sunlight and extreme temperatures.
- **Inspection:** Regularly check all components for signs of wear, damage, or loose connections. Ensure all locking mechanisms function correctly.

TROUBLESHOOTING

If you encounter issues with your GPS Rover Rod, refer to the following common problems and solutions:

- **Pole sections do not hold position:** Ensure the locking collars are twisted clockwise firmly after extending each section. If they still slip, check for dirt or debris within the locking mechanism and clean as necessary. The hex (Allen) key can be used to tighten the internal locking screw if it has loosened over time.
- **Difficulty extending or collapsing sections:** Clean the pole sections and apply a small amount of silicone lubricant to the moving parts. Avoid forcing the sections.
- **Inaccurate leveling:** Verify that the built-in bubble level is clean and free from obstruction. Ensure the pole is placed on a stable surface and held steady when checking the level.
- **Damaged steel tip:** The steel tip is removable and replaceable. Contact SingularXYZ support for replacement parts.

SPECIFICATIONS

Feature	Detail
Brand	SingularXYZ
Model Name	Survey Pole
Material	Aluminum Alloy <i>(Note: Product title and features indicate Aluminum, while some specifications list Carbon Fiber. This manual refers to the Aluminum version.)</i>
Color	Black
Minimum Height	2.13 Feet (approx. 0.65 meters)
Maximum Height	5.91 Feet (approx. 1.8 meters)
Folded Size	27.6 inches (approx. 70 cm)
Item Weight	1.01 Kilograms (2.22 lbs)
Weight Limit	10000 Grams (10 kg)

Feature	Detail
Compatible Devices	GNSS Receiver (5/8" thread)
Special Features	Lightweight, Telescopic, Built-in Bubble Level, Removable Tip
What's in the Box	1.8m/5.91ft Telescopic Survey Pole, Carrying Bag, Hex (Allen) Key

WARRANTY AND SUPPORT

The SingularXYZ GPS Rover Rod comes with a **1-year warranty**. For any product inquiries, technical support, or warranty claims, please contact SingularXYZ customer service. Refer to the official SingularXYZ website or your purchase documentation for contact details.