

SOLOMARK 901000

SOLOMARK 901000 Telescope Instruction Manual

Model: 901000

INTRODUCTION

Thank you for choosing the SOLOMARK 901000 Telescope. This high-performance refractor telescope is designed for both beginners and experienced astronomers, offering clear and bright views of celestial objects. With its 90mm aperture and 1000mm focal length, combined with a precision Vertisteel AZ Mount, you can explore the night sky with ease. This manual provides detailed instructions for assembly, operation, maintenance, and troubleshooting to ensure you get the most out of your telescope.

PRODUCT COMPONENTS

Before assembly, please ensure all components listed below are present in your package. Refer to the image for visual identification of each part.

- **Optical Tube:** The main body of the telescope, housing the objective lens.
- **Vertisteel AZ Mount:** Provides stable support and allows for smooth movement in altitude (up-down) and azimuth (left-right).
- **Adjustable Tripod:** Three-legged stand for supporting the mount and optical tube.
- **Eyepieces:** Two Plossl eyepieces (20mm for 50x magnification, 10mm for 100x magnification).
- **Finderscope:** A small telescope with a wider field of view, used for locating objects before viewing through the main telescope.
- **90-Degree Diagonal:** Redirects the light path for comfortable viewing, especially for objects high in the sky.
- **Smartphone Adapter:** Allows attachment of a smartphone to an eyepiece for astrophotography.



Image: All components of the SOLOMARK 901000 Telescope, including the optical tube, mount, tripod, eyepieces, finderscope, diagonal, and smartphone adapter.

SETUP INSTRUCTIONS

Follow these steps to assemble your SOLOMARK 901000 Telescope:

1. Set up the Tripod:

Spread the tripod legs to a stable position. Adjust the leg height to your desired viewing level using the locking clamps. Ensure the tripod is level on a flat surface.

2. Attach the Vertisteel AZ Mount:

Place the Vertisteel AZ Mount onto the tripod head. Secure it firmly using the locking screw located underneath the tripod head.

3. Mount the Optical Tube:

Carefully place the optical tube into the mounting rings on the Vertisteel AZ Mount. Tighten the ring screws to hold the tube securely, but do not overtighten. Ensure the focuser end is accessible for eyepiece insertion.

4. Install the Finderscope:

Slide the finderscope into its bracket on the optical tube. Tighten the small screws on the bracket to

hold it in place.

5. **Insert the Diagonal:**

Loosen the thumbscrew on the focuser drawtube. Insert the 90-degree diagonal into the focuser and tighten the thumbscrew to secure it.

6. **Insert an Eyepiece:**

Loosen the thumbscrew on the diagonal. Insert your chosen eyepiece (e.g., 20mm for lower magnification) into the diagonal and tighten the thumbscrew.

7. **Attach the Smartphone Adapter (Optional):**

If using, attach the smartphone adapter to the eyepiece. Secure your smartphone into the adapter, aligning its camera lens with the eyepiece lens.



Image: The SOLOMARK telescope fully assembled on its adjustable tripod, demonstrating stability.

OPERATING INSTRUCTIONS

1. Aligning the Finderscope

The finderscope must be aligned with the main telescope for easy object location. This is typically done during daylight hours:

1. Point the main telescope at a distant, stationary object (e.g., a treetop or building) and center it in the eyepiece.
2. Look through the finderscope. Use its adjustment screws to move the crosshairs until they are centered on the same object.
3. Verify alignment by switching between the finderscope and the main eyepiece.

2. Observing with Eyepieces

The telescope comes with two eyepieces:

- **20mm Eyepiece:** Provides 50x magnification (1000mm focal length / 20mm eyepiece = 50x). Ideal for wide-field views and locating objects.
- **10mm Eyepiece:** Provides 100x magnification (1000mm focal length / 10mm eyepiece = 100x). Suitable for more detailed views of the Moon, planets, and brighter deep-sky objects.

To change magnification, simply swap eyepieces by loosening the diagonal's thumbscrew, removing the current eyepiece, inserting the new one, and retightening the thumbscrew.

MAGNIFICATION FIELD OF VISION



Image: The 20mm and 10mm eyepieces, demonstrating their respective magnifications for lunar observation.

3. Focusing

Once an object is centered in the eyepiece, slowly turn the focus knob located on the focuser until the image appears sharp and clear. Fine-tune the focus for optimal clarity.

4. Tracking Celestial Objects

The Vertisteel AZ Mount allows for smooth manual tracking. Use the slow-motion control knobs to make fine adjustments to the telescope's position, keeping celestial objects centered in your field of view as they move across the sky.



Image: The Vertisteel Altazimuth Mount, illustrating its range of motion for precise tracking.

5. Smartphone Photography

The included smartphone adapter allows you to capture images and videos through the telescope. Attach your phone to the adapter, align the phone's camera with the eyepiece, and use your phone's camera app to take pictures or record footage of your observations.



Image: Close-up of the smartphone adapter mounted on an eyepiece, ready for mobile astrophotography.

MAINTENANCE

Proper care and maintenance will extend the life and performance of your telescope:

- **Cleaning Lenses:** Use a soft, lint-free cloth specifically designed for optical lenses. Gently wipe away dust. For stubborn smudges, use a specialized optical cleaning solution sparingly. Avoid touching the lens surfaces with your fingers.
- **General Cleaning:** Wipe down the telescope tube and mount with a soft, damp cloth. Avoid abrasive cleaners.
- **Storage:** Store the telescope in a dry, dust-free environment. Use the original packaging or a

dedicated telescope case for protection when not in use. Keep dust caps on the objective lens and eyepieces.

- **Avoid Extreme Temperatures:** Do not expose the telescope to rapid temperature changes or extreme heat/cold, as this can affect optical components.

TROUBLESHOOTING

Here are solutions to common issues you might encounter:

- **Image is blurry:**
Ensure the focuser knob is adjusted correctly. Check if the eyepiece is fully inserted and secured. Allow the telescope to acclimate to the ambient temperature if moved from a warm to cold environment.
- **Cannot find objects:**
Verify that the finderscope is properly aligned with the main telescope. Start with the lowest magnification eyepiece (20mm) for a wider field of view to locate objects, then switch to higher magnification.
- **Image is upside down or reversed:**
This is normal for astronomical telescopes without a correcting prism. The 90-degree diagonal provides a correctly oriented image vertically but may still be reversed horizontally.
- **Telescope is unstable:**
Ensure the tripod legs are fully extended and locked, and the mount is securely attached to the tripod. Avoid placing the telescope on uneven surfaces.

SPECIFICATIONS

Feature	Specification
Model Name	901000B
Aperture	90 Millimeters
Focal Length	1000 Millimeters
Eyepiece Lens Description	Plossl
Telescope Mount Description	Altazimuth Mount (Vertisteel AZ Mount)
Focus Type	Manual Focus
Finderscope	Reflex
Compatible Devices	Smartphone
Lens Coating Description	Ultra-High Transmission Coated
Product Dimensions (D x W x H)	100D x 18W x 32H Centimetres

WARRANTY AND SUPPORT

Your SOLOMARK 901000 Telescope comes with a **2-year warranty** from the date of purchase, covering manufacturing defects. For warranty claims, technical assistance, or any questions regarding your

telescope, please contact SOLOMARK customer support.

Manufacturer Contact Information: SOLOMARK

Please retain your proof of purchase for warranty service.