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> SOLOMARK 90mm Aperture 700mm High Powered Telescope User Manual

## SOLOMARK TL70700EQ

# SOLOMARK 90mm Aperture 700mm High Powered Telescope User Manual

Model: TL70700EQ

## 1. SAFETY INFORMATION

**WARNING:** NEVER aim your telescope at the sun or even close to the sun! Doing so can cause immediate and irreversible eye damage, including blindness, and can also damage the telescope's optics.

Always ensure the telescope is used under adult supervision, especially when children are present.

## 2. PACKAGE CONTENTS

Please verify that all items listed below are included in your package:

- Telescope Optical Tube (90mm Aperture, 700mm Focal Length)
- Equatorial (EQ) Mount
- Adjustable Tripod
- 10mm Eyepiece
- 25mm Eyepiece
- Finderscope
- Phone Adapter
- Slow Motion Control Cables (2)

## 3. SETUP GUIDE

The SOLOMARK telescope is designed for quick and easy, no-tool setup. Follow these steps to assemble your telescope:

1. **Assemble the Tripod:** Extend the tripod legs to your desired height and secure them. Attach the accessory tray to the center brace for stability.
2. **Attach the Equatorial Mount:** Secure the equatorial mount to the top of the tripod. Ensure all knobs are

tightened for a stable base.

3. **Mount the Optical Tube:** Carefully attach the main optical tube to the equatorial mount. Use the provided screws to fasten it securely.
4. **Install the Finderscope:** Locate the finderscope and attach it to its designated bracket on the optical tube. Align it with the main telescope later during operation.
5. **Insert an Eyepiece:** Choose either the 10mm or 25mm eyepiece and insert it into the focuser. Secure it with the small thumbscrew.
6. **Attach the Phone Adapter:** If desired, attach the phone adapter to the eyepiece. This allows you to use your smartphone to view and capture images.
7. **Connect Slow Motion Cables:** Attach the two slow motion control cables to the equatorial mount for precise horizontal and vertical adjustments.

For a visual guide on assembly, please refer to the product demonstration video below.



Figure 3.1: Fully assembled SOLOMARK Telescope with phone adapter.

## 4. OPERATING INSTRUCTIONS

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Once your telescope is assembled, follow these steps for optimal viewing:

1. **Choose an Eyepiece:** Start with the 25mm eyepiece for a wider field of view, making it easier to locate objects. Once an object is centered, switch to the 10mm eyepiece for higher magnification. The 90mm aperture and 700mm focal length provide magnifications of 28X (with 25mm eyepiece) and 70X (with 10mm eyepiece).
2. **Align the Finderscope:** During daylight, point the main telescope at a distant, stationary object (e.g., a tree top). Look through the finderscope and adjust its alignment screws until the object is centered in its crosshairs. This ensures the finderscope points to the same area as the main telescope.
3. **Locate an Object:** Use the finderscope to locate the celestial object you wish to observe. Once it's in the finderscope's view, it should also be visible in the main telescope's eyepiece.
4. **Focus the Image:** Slowly turn the focuser knob until the image appears sharp and clear. The fully multi-coated optics glass lens with high transmission coatings ensures stunning images.
5. **Track Objects with the EQ Mount:** The equatorial mount comes with two slow motion control cables. These allow for fine, precise adjustments to the telescope's position in both Right Ascension (R.A.) and Declination, making it easier to track celestial objects as they move across the night sky.
6. **Using the Phone Adapter:** Attach your smartphone to the phone adapter and align your phone's camera with the eyepiece. This allows you to capture photos and videos of your observations.

## 5. MAINTENANCE

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Proper maintenance will ensure the longevity and performance of your telescope:

- **Cleaning Optics:** Use a soft, lint-free cloth specifically designed for optical lenses. Gently wipe the lens surfaces to remove dust. For stubborn smudges, use a specialized optical cleaning solution sparingly. Avoid touching the lens surfaces with your fingers.
- **Cleaning the Body:** Wipe down the telescope's body and tripod with a soft, damp cloth. Avoid abrasive cleaners or solvents.
- **Storage:** When not in use, store the telescope in a dry, dust-free environment. Keep the lens caps on to protect the optics. If possible, store it in its original packaging or a dedicated telescope case.
- **Avoid Extreme Temperatures:** Do not expose the telescope to extreme hot or cold temperatures, as this can affect its components.

## 6. TROUBLESHOOTING

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Here are some common issues and their solutions:

- **Blurry Images:** Adjust the focuser knob slowly until the image is sharp. Ensure the correct eyepiece is used for the desired magnification. Atmospheric conditions can also affect image clarity.
- **Difficulty Locating Objects:** Ensure your finderscope is properly aligned with the main telescope. Start with the lowest magnification eyepiece (25mm) to get a wider field of view.
- **Unstable View/Shaking:** Ensure the tripod legs are fully extended and locked, and all knobs on the mount are tightened. Use the slow motion control cables for fine adjustments instead of directly pushing the telescope.
- **No Image Through Eyepiece:** Check that the lens caps are removed from both the main optical tube and the

finderscope. Ensure an eyepiece is correctly inserted and secured.

## 7. SPECIFICATIONS

Feature	Specification
Brand	SOLOMARK
Model Name	90700EQ
Model Number	TL70700EQ
Optical Tube Length	700 Millimeters
Objective Lens Diameter	90 Millimeters
Focal Length	700 millimeters
Eyepieces	10mm, 25mm (Plossl)
Magnification	70X (with 10mm), 28X (with 25mm)
Telescope Mount Description	Equatorial Mount
Finderscope	Reflex
Coating	Multi-Coated
Product Dimensions	36"D x 12.5"W x 8"H
Item Weight	7.7 Kilograms
Additional Features	Smartphone adapter, tripod, and equatorial mount with slow motion control cables

## 8. WARRANTY AND SUPPORT

**Warranty:** This SOLOMARK telescope comes with a 2-year warranty from the date of purchase, covering manufacturing defects. Please retain your proof of purchase for warranty claims.

**Customer Support:** For any questions, technical assistance, or warranty inquiries, please contact SOLOMARK customer service through the retailer where the product was purchased or visit the official SOLOMARK website for contact information.