TASCO 40060660

TASCO Luminova Telescope User Manual

Model: 40060660

Introduction

This manual provides comprehensive instructions for the assembly, operation, and maintenance of your TASCO Luminova Telescope, model 40060660. Designed for amateur astronomers, this refractor telescope offers clear views of celestial objects. Please read this manual thoroughly before using your telescope to ensure proper setup and optimal performance.

The TASCO Luminova Telescope features an 800mm focal length and a 60mm objective lens, providing up to 660x magnification. It is notably lightweight and portable, making it suitable for various viewing locations. Included accessories enhance your viewing experience and expand the telescope's capabilities.

Package Contents

Before beginning assembly, ensure all components are present. Refer to the image below for a visual guide to the included parts.



Figure 1: Included Components. This diagram illustrates the various parts included with your TASCO Luminova Telescope. Key components include: (1) Two Barlow Lenses (2x and 3.3x), (2) Finderscope, (3) Accessory for fine-tuning, (4) 1.25" Eyepieces (H25mm for 32x, H12.5mm for 64x, and SR4mm for 200x magnification), (5) Moon Filter, (6) Smartphone Photo Adapter, (7) Image Erector (Inverter), and (8) Solar Projection Screen.

- Telescope Optical Tube (800mm x 60mm)
- Adjustable Aluminum Tripod
- Finderscope: 6x24mm
- Eyepieces: H25mm (32x), H12.5mm (64x), SR4mm (200x)
- Barlow Lenses: 2x, 3.3x
- Moon Filter
- Solar Projection Screen
- Image Erector (Inverter)
- Smartphone Photo Adapter

- Accessory for fine-tuning
- Tasco SkyWatch CD-ROM with 10,000 Object Database (Note: CD functionality may vary with modern operating systems)

Setup

Follow these steps to correctly assemble your telescope. It is recommended to assemble the telescope in a well-lit area.

1. **Set up the Tripod:**
   Extend the legs of the adjustable aluminum tripod to a stable height. Ensure the tripod is placed on a level surface to prevent tipping. Secure the leg locks once the desired height is achieved.



Figure 2: Assembled Telescope. This image shows the TASCO Luminova Telescope fully assembled on its adjustable aluminum tripod, ready for observation.

2. **Attach the Mount:**
   The telescope comes with an alt-azimuth mount. Attach the telescope tube to the mount head. Ensure all screws and fasteners are tightened securely but do not overtighten.
3. **Install the Finderscope:**
   Mount the 6x24mm finderscope onto its designated bracket on the main telescope tube. The finderscope is crucial for locating objects before viewing them through the main eyepiece.
4. **Insert the Eyepiece:**
   Select an eyepiece (e.g., H25mm for 32x magnification) and insert it into the focuser. If using a diagonal or image erector, insert it first, then the eyepiece. Secure the eyepiece with the retaining screw.



Figure 3: Eyepiece Magnifications. This image displays the three included Luminova eyepieces and their corresponding magnifications: 32x (H25mm), 64x (H12.5mm), and 200x (SR4mm). Choose the appropriate eyepiece based on your viewing target.

5. **Attach the Solar Projection Screen (Optional):**
   WARNING: NEVER look directly at the sun through the telescope or finderscope without proper solar filters. Doing so can cause permanent eye damage.
   The solar projection screen allows for safe observation of the sun by projecting its image onto a surface. Attach the

screen according to the instructions provided with the accessory. This is the only safe method for solar observation with this telescope.

Operating the Telescope

Aligning the Finderscope

Before observing, the finderscope must be aligned with the main telescope. This makes it easier to locate objects.

1. Point the main telescope at a distant, stationary object (e.g., a tree or building) during daylight hours.
2. Center the object in the main telescope's eyepiece.
3. Look through the finderscope and adjust its alignment screws until the same object is centered in the finderscope's crosshairs.
4. Repeat this process with a higher magnification eyepiece for more precise alignment.

Focusing

Once an object is located, use the focus knob on the main telescope tube to bring the image into sharp focus. Different eyepieces may require slight refocusing.

Changing Magnification

To change magnification, simply swap eyepieces. Higher magnification eyepieces (smaller mm numbers, e.g., SR4mm) provide a more zoomed-in view but a narrower field of view and a dimmer image. Lower magnification eyepieces (larger mm numbers, e.g., H25mm) offer a wider field of view and brighter images, ideal for locating objects or viewing larger celestial bodies like the Moon.
Barlow lenses can be used in conjunction with eyepieces to further increase magnification. Insert the Barlow lens into the focuser first, then insert the eyepiece into the Barlow lens.

Using the Mount

The alt-azimuth mount allows for movement along two axes: altitude (up and down) and azimuth (left and right). Use the slow-motion controls for precise tracking of celestial objects as they move across the night sky. For terrestrial viewing, the included image erector (inverter) can be used to correct the image orientation, making objects appear right-side up.

Maintenance

- **Cleaning Lenses:** Use a soft, lint-free cloth specifically designed for optical lenses. Gently wipe the lens surfaces. For stubborn smudges, use a small amount of optical cleaning fluid applied to the cloth, not directly to the lens. Avoid touching the lens surfaces with your fingers.
- **Storage:** When not in use, store the telescope in a dry, dust-free environment. Keep all caps on the optical tube and eyepieces to prevent dust accumulation.
- **Handling:** Always handle the telescope with care. Avoid sudden impacts or dropping the instrument, as this can affect optical alignment.
- **Environmental Conditions:** Avoid exposing the telescope to extreme temperatures or humidity. Allow the telescope to acclimate to outdoor temperatures for about 30 minutes before observing to prevent image distortion

from temperature differences.

Troubleshooting

Problem	Possible Cause	Solution
Image is blurry or out of focus.	Improper focus; eyepiece not fully inserted; telescope not acclimated to temperature.	Adjust the focus knob. Ensure the eyepiece is fully seated and secured. Allow telescope to acclimate to ambient temperature.
Cannot find objects.	Finderscope not aligned; using too high magnification to locate objects.	Align the finderscope with the main telescope. Start with the lowest magnification eyepiece (H25mm) to locate objects, then switch to higher power.
Image is dim.	Too high magnification; light pollution; dirty lenses.	Use a lower magnification eyepiece. Observe from a darker location away from city lights. Clean lenses as per maintenance instructions.
Image is inverted or reversed.	This is normal for astronomical telescopes.	For terrestrial viewing, use the included image erector (inverter) to correct the image orientation. For astronomical viewing, an inverted image is standard and does not affect observation.

Specifications

Feature	Detail
Model Number	40060660
Optical Design	Refractor
Objective Lens Diameter	60mm
Focal Length	800mm
Focal Ratio	F/13
Finderscope	6x24mm
Eyepieces Included	H25mm (32x), H12.5mm (64x), SR4mm (200x)
Barlow Lenses	2x, 3.3x
Mount Type	Alt-Azimuth
Tripod	Adjustable Aluminum

Feature	Detail
Product Dimensions	77.47 x 27.94 x 20.32 cm (30.5 x 11 x 8 inches)
Item Weight	5 kg (11 lbs)

Warranty and Support

For warranty information and technical support, please refer to the documentation included with your purchase or visit the official TASCO website. Keep your proof of purchase for any warranty claims.
The included Tasco SkyWatch CD-ROM contains a 10,000 object database which can assist in locating celestial bodies. Please note that compatibility with modern operating systems may vary.

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Example: How do I reset this device or fix this error?

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