

WOSPORTS 90600TS

WOSPORTS 90mm Aperture Refractor Telescope User Manual

Model: 90600TS

1. INTRODUCTION

Thank you for choosing the WOSPORTS 90mm Aperture Refractor Telescope. This telescope is designed for both beginners and experienced astronomy enthusiasts, offering clear and detailed views of celestial objects and terrestrial landscapes. With its 90mm aperture and 600mm focal length, it gathers ample light for bright, high-contrast images. This manual provides essential information for assembly, operation, maintenance, and troubleshooting to ensure optimal performance and enjoyment of your telescope.

2. PRODUCT COMPONENTS OVERVIEW

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

- Telescope Tube
- Adjustable Tripod
- 3x24 Finder Scope
- 25mm Eyepiece
- 10mm Eyepiece
- 3x Barlow Lens
- 45° Diagonal Mirror
- Phone Adapter
- Accessory Tray
- Carrying Case

PRODUCT COMPONENTS OVERVIEW

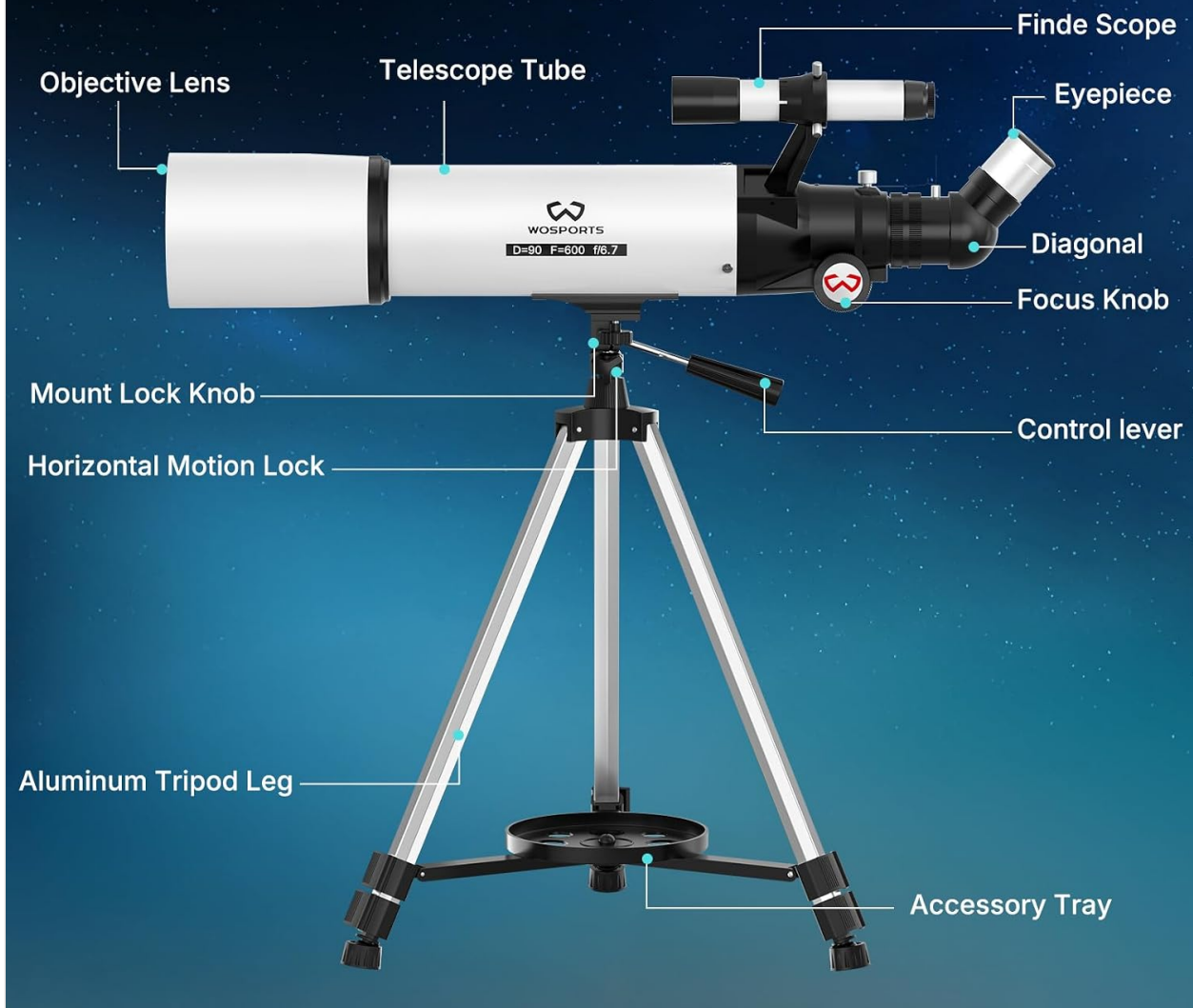


Figure 2.1: Overview of Telescope Components

3. SETUP INSTRUCTIONS

Follow these steps to assemble your WOSPORTS telescope. No special tools are required.

1. **Set up the Tripod:** Extend the aluminum tripod legs to your desired height (between 29-49 inches) and secure them. Ensure the tripod is stable on a flat surface. Attach the accessory tray to the center brace of the tripod.
2. **Attach the Telescope Tube:** Carefully place the telescope tube onto the tripod mount. Align the mounting screws with the holes on the telescope tube and tighten the mount lock knob to secure it.
3. **Install the Finder Scope:** Slide the 3x24 finderscope into its bracket on the telescope tube and tighten the small screws to hold it in place.
4. **Insert the Diagonal Mirror:** Remove the dust cap from the focuser tube. Insert the 45° diagonal mirror into the focuser and secure it with the small thumbscrew. The diagonal mirror provides an upright image for comfortable viewing.
5. **Insert an Eyepiece:** Choose an eyepiece (start with the 25mm eyepiece for a wider field of view and lower magnification). Insert it into the diagonal mirror and secure it with the thumbscrew.

6. **Attach the Phone Adapter (Optional):** If you wish to capture photos or videos, attach the phone adapter to an eyepiece. Secure your smartphone in the adapter and align its camera lens with the eyepiece.

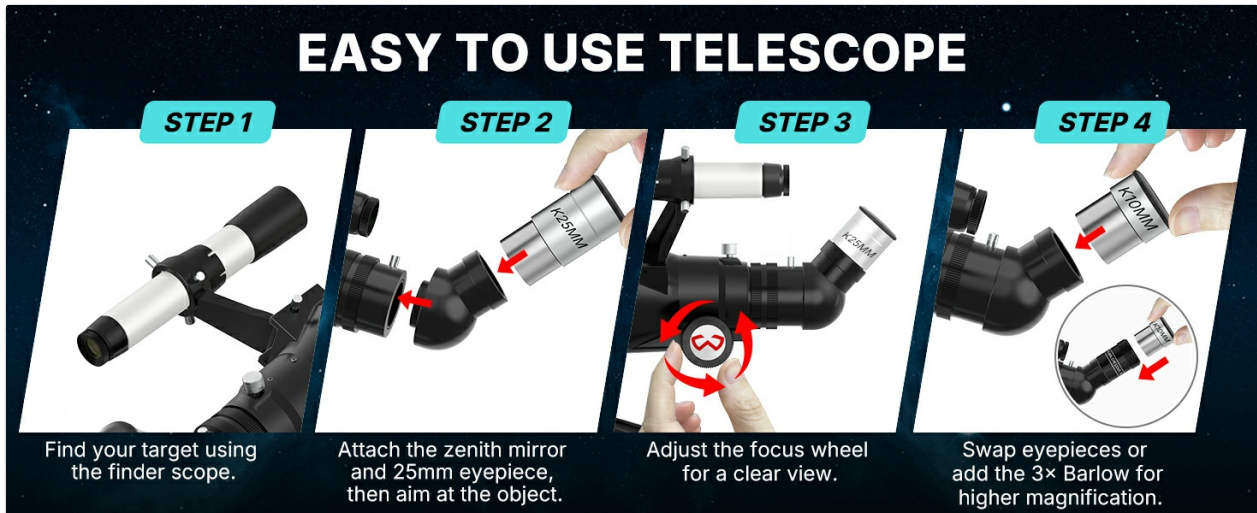


Figure 3.1: Attaching the Phone Adapter

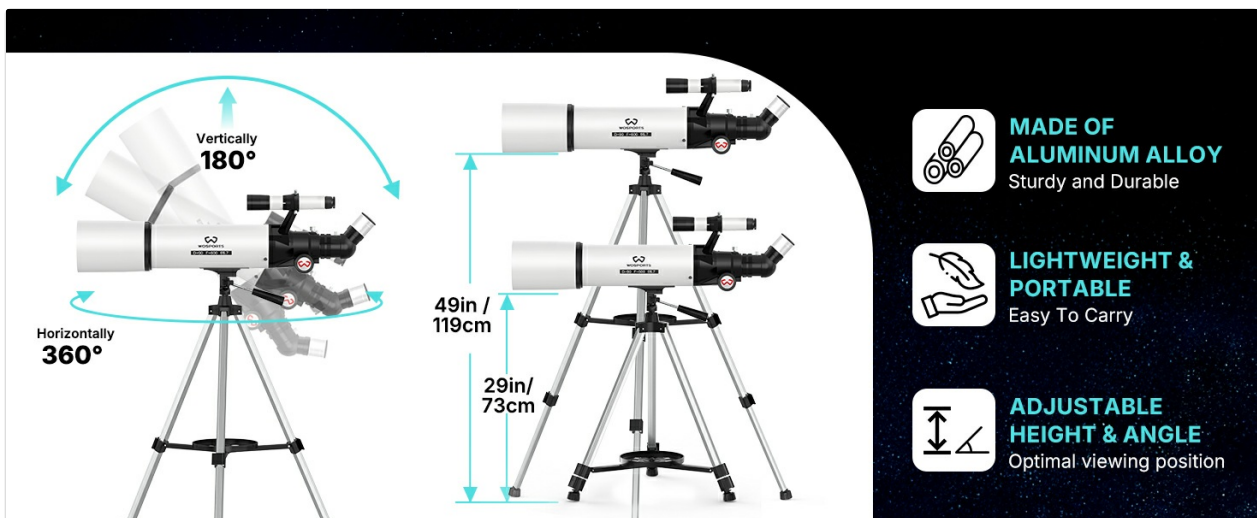


Figure 3.2: Adjustable Tripod Features

4. OPERATING THE TELESCOPE

Operating your WOSPORTS telescope involves locating objects, adjusting magnification, and focusing for clear views.

4.1 Using the Finder Scope

The 3x24 finderscope helps you quickly locate objects before viewing them through the main telescope. It has a wider field of view than the main telescope.

1. Point the main telescope roughly towards the target area.
2. Look through the finderscope and adjust the telescope's position until the target is centered in the finderscope's crosshairs.
3. Once centered in the finderscope, the object should be visible in the main telescope's eyepiece.

45° ERECT-IMAGE ZENITH MIRROR

Erect Images for Comfortable Viewing with Reduced Eye and Neck Strain



3X24 FINDERSCOPE

Optimal Magnification with Wide Field of View for Quick Target Acquisition



Figure 4.1: Finder Scope and Diagonal Mirror

4.2 Adjusting Magnification

Your telescope comes with two eyepieces (25mm and 10mm) and a 3x Barlow lens, offering various magnification levels:

- **25mm Eyepiece:** Provides 24x magnification. Ideal for wide-field views and locating objects.
- **10mm Eyepiece:** Provides 60x magnification. Suitable for more detailed observations.
- **3x Barlow Lens + 25mm Eyepiece:** Provides 72x magnification.
- **3x Barlow Lens + 10mm Eyepiece:** Provides 180x magnification. Ideal for observing fine details on the Moon or planets.

To change magnification, simply swap eyepieces or insert the 3x Barlow lens between the diagonal mirror and the eyepiece. Always start with the lowest magnification (25mm eyepiece) to find your target, then switch to higher magnifications for more detail.



Figure 4.2: Magnification Options

4.3 Focusing

Once an object is in view, rotate the focus knob slowly until the image appears sharp and clear. Fine-tune the focus for optimal clarity.

4.4 Terrestrial Viewing

The 45° diagonal mirror ensures that images are upright, making the telescope suitable for terrestrial observations such as bird watching or landscape viewing.

VERSATILE FOR MULTIPLE SCENES



Figure 4.3: Versatile Viewing Applications

5. MAINTENANCE

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

- **Cleaning Optics:** Use a soft, lint-free cloth specifically designed for optical lenses. Gently wipe the objective lens and eyepieces. For stubborn smudges, use a small amount of optical cleaning fluid on the cloth, not directly on the lens. Avoid touching optical surfaces with your fingers.
- **Dust Protection:** Always keep dust caps on the objective lens and eyepieces when not in use. Store the telescope in its carrying case to protect it from dust and moisture.
- **Storage:** Store the telescope in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Mechanical Parts:** Periodically check all screws and knobs to ensure they are securely tightened. Do not over-tighten.

6. TROUBLESHOOTING

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

Problem	Possible Cause	Solution
Image is blurry or out of focus	Improper focus adjustment	Adjust the focus knob slowly until the image is sharp.
Cannot see anything through the eyepiece	Dust caps are still on Wrong eyepiece inserted Object not centered	Remove all dust caps. Ensure an eyepiece is correctly inserted. Use the finderscope to center the object.
Image is upside down or reversed	Diagonal mirror not used (for terrestrial viewing)	Ensure the 45° diagonal mirror is correctly installed for upright images. Astronomical viewing naturally shows inverted images.
Difficulty locating objects	Finder scope not aligned Using too high magnification	Align the finderscope with the main telescope. Start with the 25mm eyepiece for a wider field of view.
Unstable image	Tripod not stable Wind or vibrations	Ensure tripod legs are fully extended and locked on a firm surface. Avoid windy conditions.

7. SPECIFICATIONS

Key technical specifications for the WOSPORTS 90mm Refractor Telescope:

- **Brand:** WOSPORTS
- **Model Name:** 90600TS
- **Objective Lens Diameter:** 90 Millimeters
- **Focal Length:** 600mm
- **Optical Tube Length:** 900 Millimeters
- **Eyepieces:** 10mm and 25mm
- **Barlow Lens:** 3x
- **Maximum Magnification:** 180X
- **Finderscope:** 3x24 Reflex
- **Telescope Mount:** Altazimuth Mount
- **Product Dimensions:** 22"D x 8"W x 4"H
- **Focus Type:** Manual Focus
- **Coating:** Fully Multi-coated Optics
- **Field Of View:** 2 Degrees
- **Exit Pupil Diameter:** 3.75 Millimeters

8. WARRANTY AND SUPPORT

WOSPORTS is committed to providing high-quality products and excellent customer service.

- **Warranty:** This product comes with a 1-year manufacturer's warranty, extendable to 24 months.
- **Money-Back Guarantee:** Enjoy a 30-day money-back guarantee from the date of purchase.
- **Customer Support:** Our dedicated customer support team is available 24/7 to provide technical

assistance and answer any questions you may have.

For technical support or warranty inquiries, please contact us at: wosportsservice@gmail.com

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