



50080

# Generic 50080 Refractor Telescope User Manual

Model: 50080 (V-82366)

## INTRODUCTION

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Thank you for choosing the Generic 50080 Refractor Telescope. This instrument is designed for both beginners and experienced astronomy enthusiasts, offering clear views of celestial objects such as the Moon, planets, and binary stars. Its robust construction and high-quality optics provide an excellent platform for exploring the night sky and observing terrestrial landscapes. This manual provides detailed instructions for assembly, operation, maintenance, and troubleshooting to ensure optimal performance and enjoyment of your telescope.

## PACKAGE CONTENTS

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Please verify that all components listed below are present in your package. If any items are missing or damaged, please contact customer support.

# PACKING LIST



Main tube



Eyepiece group



Eyepiece group



tripod



Erect mirror



Extender



Carrying case



Finder



Accessory tray

Image: All components included in the Generic 50080 Refractor Telescope package.

- Main Telescope Tube
- Adjustable Stainless Steel Tripod
- 25mm Wide-Angle Eyepiece
- 10mm Eyepiece
- 3X Barlow Lens (Extender)
- Erect Image Diagonal (Erect Mirror)
- Finder Scope
- Accessory Tray
- Carrying Case

## SETUP AND ASSEMBLY

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

1. **Set up the Tripod:** Spread the tripod legs apart until they are fully extended. Secure the accessory tray to the center brace of the tripod. Adjust the height of the tripod legs to your desired viewing level.
2. **Attach the Telescope Tube:** Locate the mounting bracket on the telescope tube. Align it with the mounting platform on the tripod head and secure it using the provided screws or clamps. Ensure the tube is firmly attached.

3. **Install the Finder Scope:** Slide the finder scope into its bracket on the main telescope tube. Tighten the small screws on the bracket to hold it in place. The finder scope helps in locating objects before viewing them through the main eyepiece.
4. **Insert the Diagonal:** Insert the erect image diagonal into the focuser tube. Tighten the thumbscrew on the focuser to hold the diagonal securely.
5. **Insert an Eyepiece:** Choose an eyepiece (e.g., 25mm for wider views or 10mm for higher magnification) and insert it into the diagonal. Tighten the thumbscrew on the diagonal to secure the eyepiece.
6. **Attach Barlow Lens (Optional):** For increased magnification, insert the 3X Barlow lens into the diagonal before inserting an eyepiece. Then, insert your chosen eyepiece into the Barlow lens.

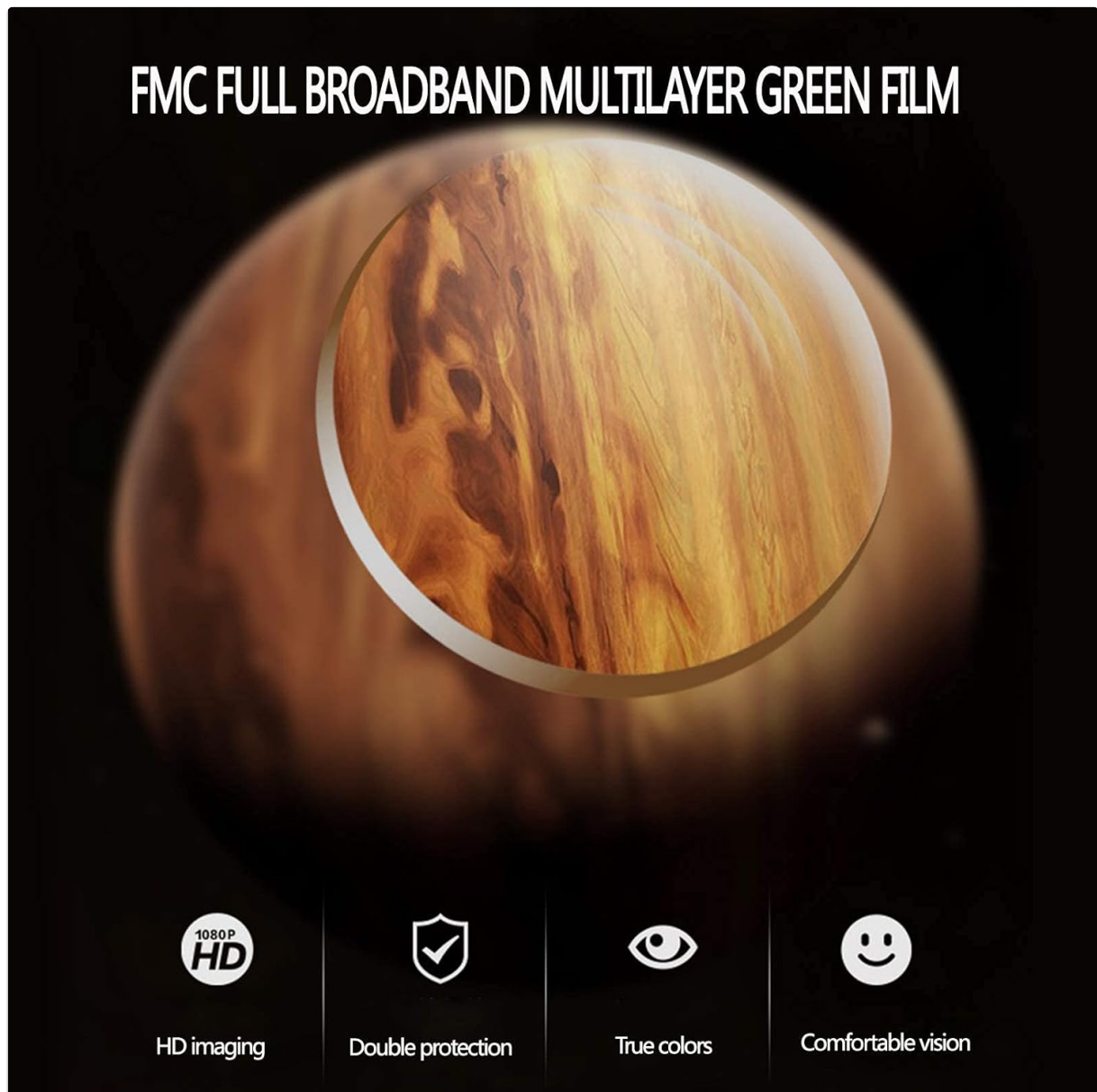


Image: Assembled telescope with approximate dimensions.



Image: The Generic 50080 Refractor Telescope fully assembled and ready for observation.

## OPERATING THE TELESCOPE

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Once assembled, your telescope is ready for use. Follow these guidelines for effective observation.

### 1. Aligning the Finder Scope

Before observing, align the finder scope with the main telescope. Point the main telescope at a distant, stationary object (e.g., a streetlight during the day). Look through the main telescope's eyepiece and center the object. Then, look through the finder scope and adjust its alignment screws until the same object is centered in the finder scope's crosshairs.

### 2. Focusing

After pointing the telescope at an object, slowly turn the focuser knob until the image appears sharp and clear. Fine-tune the focus for optimal clarity.

### 3. Changing Magnification

To change magnification, swap eyepieces. The 25mm eyepiece provides a wider field of view and lower magnification, ideal for locating objects. The 10mm eyepiece offers higher magnification for detailed views. The 3X Barlow lens triples the magnification of any eyepiece it is used with.



Image: The 80mm large aperture objective lens, crucial for light gathering.



Image: The 25mm wide-angle eyepiece for broader views.

#### 4. Observing Celestial Objects

Begin with the lowest magnification eyepiece (25mm) to locate your desired object. Once centered, you can switch to a higher magnification eyepiece (10mm) or add the Barlow lens for more detailed observation. The telescope's console can be rotated 360° and the lens rotated 180° for flexible operation and observation without dead angles.

## MAINTENANCE

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

- **Cleaning Lenses:** Use a soft, lint-free cloth specifically designed for optical lenses. Gently wipe the lens surfaces to remove dust. For 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 its carrying case in a dry, dust-free environment. Keep dust caps on the objective lens and eyepieces to prevent dust accumulation.
- **Handling:** Always handle the telescope and its components with care. Avoid sudden impacts or dropping the equipment.
- **Environmental Protection:** Do not expose the telescope to extreme temperatures or humidity. Avoid

direct sunlight exposure for prolonged periods, especially the objective lens, as this can damage internal components.



Image: The FMC full broadband multilayer green film coating on the lens, enhancing light transmission and protecting optics.

## TROUBLESHOOTING

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

| Problem                                | Possible Cause   | Solution  |
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| Image is blurry or out of focus.       | Improper focusing.   | Adjust the focuser knob slowly until the image is sharp.  |
| Cannot find objects.                   | Finder scope is not aligned.   | Align the finder scope with the main telescope as described in the 'Operating the Telescope' section. Start with the lowest magnification eyepiece. |
| Image is dim or dark.                  | Light pollution; high magnification in poor conditions; dirty lenses.  | Move to a darker viewing location. Use a lower magnification eyepiece. Clean the objective lens and eyepieces.                                      |
| Image appears upside down or reversed. | This is normal for astronomical telescopes. For terrestrial viewing, ensure the erect image diagonal is correctly installed. | For astronomical viewing, this is expected. For terrestrial viewing, verify the erect image diagonal is used.                                       |

## SPECIFICATIONS

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- **Model:** 50080 (V-82366)
- **Optical Design:** Refractor
- **Aperture:** 80mm
- **Focal Length:** 500mm
- **Optical Coating:** Multilayer Optical Coating (FMC Full Broadband Multilayer Green Film)
- **Eyepieces:** 25mm, 10mm
- **Barlow Lens:** 3X
- **Tripod:** Adjustable Stainless Steel Tripod
- **Rotation:** Telescope lens 180° rotation, Console 360° rotation
- **Construction:** Durable Aluminum

## WARRANTY AND SUPPORT

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Your Generic 50080 Refractor Telescope is designed for durability and performance. If you have any questions regarding the quality or operation of your telescope, please do not hesitate to contact our customer service team. We are committed to providing a high standard of 24/7 customer support and will work to resolve any issues to your satisfaction.

Please refer to your purchase documentation for specific warranty terms and contact information.