

## CELTICBIRD 80600

# CELTICBIRD 80600 Refractor Telescope Instruction Manual

Model: 80600 | Brand: CELTICBIRD

## INTRODUCTION

This manual provides detailed instructions for the assembly, operation, and maintenance of your CELTICBIRD 80mm Aperture 600mm AZ Mount Refractor Telescope. Please read this manual thoroughly before using your telescope to ensure proper function and longevity of the product.

## PRODUCT COMPONENTS

Your telescope package includes the following items:

- Telescope Optical Tube
- Adjustable Aluminum Tripod
- Finderscope (5x24)
- Eyepieces (20mm and 9mm)
- Diagonal Mirror
- Moon Filter (13% transmission)
- Smartphone Adapter
- Backpack for transport and storage



Figure 1: Labeled diagram of the telescope components including the objective lens, finderscope, focus knob, diagonal mirror, eyepiece, telescope tube, pan handle, positioning gimbal, tripod head platform, central column locking knob, tripod, and tray.



Figure 2: All components of the CELTICBIRD telescope, including the main optical tube, adjustable tripod, various eyepieces, diagonal mirror, smartphone adapter, and a black carrying backpack.

## SETUP INSTRUCTIONS

1. **Unpack Components:** Carefully remove all items from the backpack and packaging.
2. **Set up the Tripod:** Extend the tripod legs to the desired height. The tripod is adjustable from 17.7 inches to 52 inches. Ensure the tripod is stable on a flat surface. The tripod head features a bubble level and a compass for proper alignment.
3. **Attach the Telescope Tube:** Secure the telescope optical tube to the tripod head platform using the provided mounting screws. Tighten securely.
4. **Install the Finderscope:** Attach the 5x24 finderscope to its designated bracket on the main telescope tube. Align the finderscope with the main telescope during daylight hours by focusing on a distant, stationary object.
5. **Insert the Diagonal Mirror:** Place the diagonal mirror into the focuser tube of the telescope. Secure it with the small thumbscrew.
6. **Insert an Eyepiece:** Choose either the 20mm or 9mm eyepiece and insert it into the diagonal mirror.

Secure it with the thumbscrew on the diagonal.

7. **Attach the Smartphone Adapter (Optional):** If you wish to capture images or videos, attach the smartphone adapter to the eyepiece. Place your smartphone securely into the adapter and align its camera lens with the eyepiece.



Figure 3: The CELTICBIRD 80600 telescope fully assembled on its adjustable tripod, showcasing the main optical tube, finderscope, diagonal, eyepiece, and smartphone adapter.





Figure 4: Close-up of the super-stable aluminum tripod, highlighting its 360-degree adjustable head and the ability to adjust leg height for various viewing positions.

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Video 1: This video demonstrates the easy assembly process of the Celticbird Telescope and highlights its convenient portability features.

## OPERATING INSTRUCTIONS

### 1. Adjusting Magnification

The telescope comes with two eyepieces for different magnifications:

- **20mm Eyepiece:** Provides 30X magnification. Ideal for wider field views and locating objects.
- **9mm Eyepiece:** Provides 66X magnification. Suitable for more detailed observations of the Moon and planets.

To change magnification, simply swap the eyepieces in the diagonal mirror. Ensure the thumbscrew is tightened to secure the eyepiece.

## 2. Focusing the Telescope

Once an object is centered in your view, slowly turn the large focus knob located on the focuser tube until the image appears sharp and clear. Fine adjustments may be needed as objects move across the sky or as atmospheric conditions change.

## 3. Using the Moon Filter

The included moon filter transmits only 13% of incoming light, which is essential for comfortable and detailed observation of the Moon. To use, gently screw the moon filter onto the bottom of your chosen eyepiece before inserting the eyepiece into the diagonal.

## 4. Using the Smartphone Adapter

The smartphone adapter allows you to capture photos and videos through the telescope. Attach your smartphone to the adapter, ensuring the phone's camera lens is perfectly aligned with the eyepiece. Secure the adapter to the eyepiece and then insert the eyepiece into the diagonal. Use your phone's camera app to view and record.



Figure 5: Visual representation of the 20mm eyepiece (30X magnification), 9mm eyepiece (67X magnification), and the 13% transmission moon filter for enhanced lunar viewing.

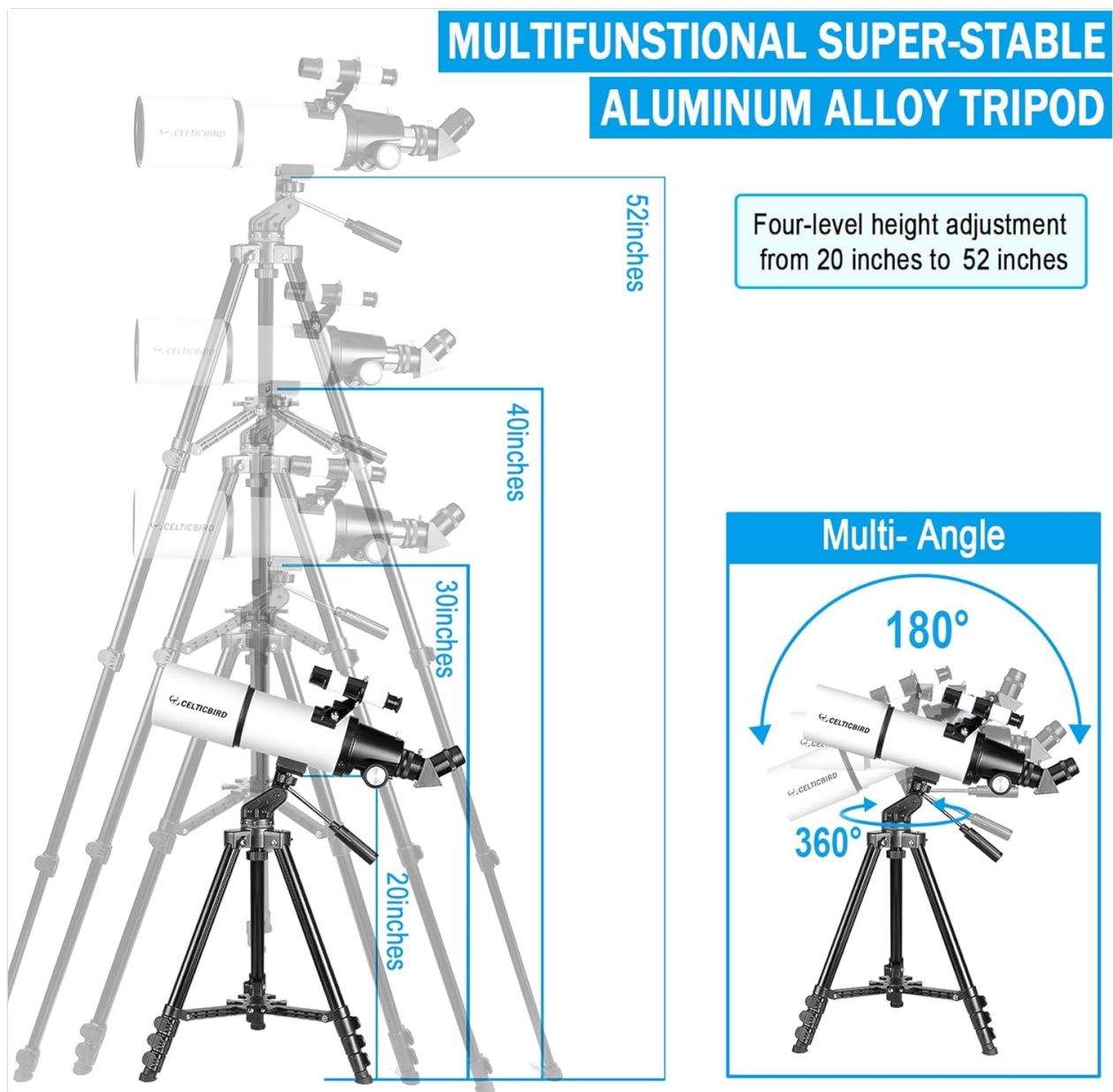


Figure 6: The upgraded smartphone adapter in use, demonstrating how a mobile phone can be attached to the telescope eyepiece to capture celestial images.

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Video 2: This video showcases the CELTICBIRD 80mm Aperture 600mm telescope in action, specifically demonstrating its capability for observing the moon.

## MAINTENANCE

Proper maintenance ensures the longevity and performance of your telescope:

- **Cleaning Lenses:** Use a soft, lint-free cloth specifically designed for optical lenses. Avoid touching the lens surfaces with your fingers. For stubborn smudges, use a specialized optical cleaning solution sparingly.
- **Storage:** Store the telescope and all accessories in the provided backpack in a dry, dust-free environment. Avoid extreme temperatures and humidity.
- **Handling:** Always handle the telescope with care. Avoid sudden movements or impacts that could misalign optical components.

## TROUBLESHOOTING

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

- **Blurry Image:** Adjust the focus knob slowly. Ensure the correct eyepiece is securely inserted. Check for condensation on the lenses.
- **Difficulty Locating Objects:** Ensure the finderscope is properly aligned with the main telescope. Start with the lowest magnification eyepiece (20mm) to locate objects, then switch to higher magnification (9mm) for detailed viewing.
- **Unstable View:** Ensure the tripod legs are fully extended and locked, and the telescope is securely mounted. Avoid using the telescope on uneven or shaky surfaces.

## SPECIFICATIONS

Feature	Specification
Optical Design	Refractor
Aperture	80mm
Focal Length	600mm
Focal Ratio	f/6.7
Eyepieces Included	20mm (30X), 9mm (66X)
Finderscope	5x24
Optical Coating	Multi-fully coated
Mount Type	Altazimuth Mount
Tripod Material	Aluminum Alloy
Tripod Height Adjustment	17.7" to 52"
Item Weight	5.8 pounds
Product Dimensions	17.5 x 5.1 x 11.4 inches

## WARRANTY AND SUPPORT

CELTICBIRD provides a 3-year satisfaction service for this telescope. If you have any questions or require technical support, please contact our expert team. Contact information can be found on our official website or through your purchase platform.





[Otterbox Wireless Charger Car Mount for Vents Quick Start Guide](#)

Quick start guide for the Otterbox Wireless Charger Car Mount for Vents, including unpacking, components, charging instructions, specifications, and warranty information.



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