

[Manuals.plus](#) /

> [MEADE](#) /

> Meade ETX90EC Telescope User Manual

MEADE ETX 90EC

Meade ETX90EC Telescope User Manual

Model: ETX 90EC

INTRODUCTION

This manual provides instructions for the proper setup, operation, and maintenance of your Meade ETX90EC Telescope. The ETX90EC is a compact, high-resolution Maksutov-Cassegrain optical system designed for astronomical observation and terrestrial viewing. It features an electronic controller for precise celestial object tracking.



Image: Meade ETX90EC Telescope. This image shows the complete telescope unit, including the optical tube, fork mount, and electronic controller.

PRODUCT FEATURES

- **Optical System:** 90mm Maksutov-Cassegrain design for high contrast and resolution.
- **Electronic Controller:** Pushbutton hand controller for dual-axis motor drive system.
- **Cordless Operation:** Powered by 8 AA batteries for portable use.
- **Fork Mount:** Equatorial fork mount with dual-axis drive.
- **Flip-Mirror System:** Allows for 90-degree observation, straight-through viewing, or camera attachment.
- **Eyepiece:** Includes a Meade Series 4000 Super Plössl 26mm eyepiece (48x magnification).
- **Optical Coatings:** EMC super multicoatings on all optical surfaces for maximum light transmission.
- **Setting Circles:** Integrated setting circles and locks on both axes for manual positioning.

SETUP

1. **Unpacking and Inspection:** Carefully remove all components from the packaging. Verify that all parts are present and undamaged. Refer to the packing list for a complete inventory.
2. **Tripod Assembly (Optional, but Recommended):** If using a tripod, assemble it according to its specific instructions. Ensure the tripod is stable and level before attaching the telescope. The ETX90EC is designed to be mounted on a compatible astronomical tripod.
3. **Battery Installation:** The ETX90EC requires 8 AA batteries for cordless operation of the dual-axis drive system. Locate the battery compartment, typically on the base of the fork mount, and insert the batteries, observing correct polarity.
4. **Mounting the Telescope:** Securely attach the ETX90EC telescope to your tripod or a stable surface. Ensure the fork mount is firmly seated and locked.
5. **Eyepiece Insertion:** Insert the 26mm Super Plössl eyepiece into the eyepiece holder. Secure it with the thumbscrew.
6. **Initial Alignment:** For accurate tracking, the telescope's mount needs to be aligned. If using in equatorial mode, align the mount to Polaris (Northern Hemisphere) or a suitable southern celestial pole equivalent (Southern Hemisphere). A compass can assist in finding North. For basic altazimuth use, ensure the telescope is level.
7. **Electronic Controller Connection:** Connect the electronic hand controller to the designated port on the telescope's mount.

OPERATING INSTRUCTIONS

Powering On and Basic Movement

- **Power On:** Turn on the power switch, usually located near the battery compartment or on the electronic control panel.
- **Hand Controller:** Use the directional buttons on the electronic hand controller to move the telescope in Right Ascension (RA) and Declination (Dec) axes.
- **Drive Speeds:** The hand controller offers four dual-axis drive speeds:
 - **Slow (8x):** For precise image centering at high magnification.
 - **Medium (32x):** For image centering at lower magnification or pushbutton tracking in altazimuth mode.
 - **Moderate (0.75 degrees/second):** For image centering in the viewfinder or terrestrial tracking.
 - **Fast (5 degrees/second):** For rapid scanning across the sky.

Focusing

The ETX90EC features manual focus. Rotate the focus knob, typically located on the rear cell of the telescope, until the image appears sharp and clear. For astronomical observations, focus on a bright star or distant terrestrial object.

Using the Flip-Mirror System

The integrated flip-mirror system allows you to switch between different viewing configurations:

- **90-Degree Observation:** Position the mirror for comfortable viewing through the eyepiece at a 90-degree angle, suitable for both celestial and terrestrial objects.
- **Straight-Through Observation:** Flip the mirror to allow light to pass straight through. This position is used with optional accessories like the #932 45-degree Erecting Prism for correctly oriented terrestrial views.
- **Photography:** The straight-through position is also used for attaching a camera via an optional #64T-Adapter for astrophotography.

Optional Autostar Controller

The ETX90EC is compatible with the optional #497 Autostar controller. This accessory provides computerized GoTo capabilities, allowing the telescope to automatically locate and track thousands of celestial objects. Refer to the Autostar manual for detailed instructions on its use and alignment procedures.

MAINTENANCE

- **Optical Cleaning:** Dust on the optical surfaces (corrector plate, mirrors, eyepieces) should be removed carefully. Use a soft brush or compressed air to remove loose particles. For stubborn smudges, use a specialized optical cleaning solution and a microfiber cloth designed for optics. Avoid touching optical surfaces with bare hands.
- **Body Cleaning:** Wipe the exterior of the telescope and mount with a soft, damp cloth. Avoid using harsh chemicals or abrasive cleaners.
- **Battery Replacement:** Replace the 8 AA batteries when the motor drive performance degrades or the controller indicates low power. Always use fresh, high-quality batteries.
- **Storage:** When not in use, store the telescope in a clean, dry environment, preferably in its original packaging or a padded carrying case, to protect it from dust and moisture. Avoid extreme temperatures.

TROUBLESHOOTING

No Power to Electronic Controller/Motor Drive:

- Check if the power switch is in the "ON" position.
- Verify that 8 AA batteries are correctly installed with proper polarity.
- Replace old or depleted batteries with fresh ones.
- Ensure the electronic hand controller cable is securely connected to the telescope.

Blurry or Unfocused Images:

- Adjust the focus knob slowly until the image is sharp.
- Ensure the eyepiece is fully inserted and secured.
- Check for atmospheric conditions (e.g., heat haze, turbulence) that can affect image clarity.
- Allow the telescope to equalize to the ambient outdoor temperature for optimal performance.

Telescope Not Tracking Objects Accurately:

- Confirm that the telescope's mount is properly aligned (equatorial alignment for sidereal tracking).
- Ensure the setting circles and axis locks are correctly set and tightened.
- Verify that the batteries have sufficient charge to power the motor drive.
- If using the optional Autostar, ensure it has been properly aligned and calibrated.

SPECIFICATIONS

Feature	Detail
Brand	MEADE
Model Number	ETX 90EC
Optical Design	Maksutov-Cassegrain
Aperture	90mm
Focal Length (Telescope)	1250mm
Focal Ratio	f/13.9
Eyepiece Included	Meade Series 4000 Super Plössl 26mm
Magnification (with 26mm EP)	48x
Lens Coating	Super Multi-Coated (EMC)
Mount Type	Equatorial Fork Mount
Motor Drive	Dual-axis, Cordless (8 AA batteries required)
Hand Controller	Pushbutton Electronic Hand Controller (4 speeds)
Finderscope	Reflex
Focus Type	Manual Focus
Item Weight	Approximately 11.6 pounds (5.26 kg)
Compatible Devices	Eyepieces, Camera, Mount
UPC	709942351477

WARRANTY AND SUPPORT

The Meade ETX90EC Telescope comes with a **One Year Limited Warranty** from the manufacturer. This warranty covers defects in materials and workmanship under normal use. Please retain your proof of purchase for warranty claims.

For technical support, service, or to inquire about optional accessories, please contact Meade Instruments customer service. Refer to the official Meade Instruments website for the most current contact information and support resources.

[Visit Meade Instruments Support Page](#)

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

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

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

<https://manuals.plus/asin/B00000K3RI>

More documents and user manuals: <https://manuals.plus/>