

## Meade LX200 and Other High-End Meade Models

# Instruction Manual: So You Want a Meade LX Telescope!

A Comprehensive Guide to Selecting and Using the LX200 and Other High-End Models

Brand Covered: Meade Telescopes

## OVERVIEW OF THIS GUIDE

This guide, "So You Want a Meade LX Telescope!", serves as an essential resource for both prospective and current owners of Meade LX series telescopes, including the LX200 and other high-end models. It delves into the technological advancements in astronomy, particularly how computer-designed components have enhanced telescope capabilities.

The book highlights the transformation from traditional mirror grinding skills to modern programming and machine-making expertise, enabling amateur astronomers to access highly accurate tracking and computer control previously exclusive to professionals. This has significantly expanded possibilities for serious astronomy projects, especially with the integration of tailor-made software and CCD cameras.

Lawrence Harris

# So You Want a Meade LX Telescope!

How to Select and Use the LX200  
and Other High-End Models



Patrick Moore's  
Practical  
Astronomy  
Series

While this guide provides extensive information, it also offers a word of caution: for those new to astronomy, it advises against immediate large investments without prior familiarity with basic telescopes, to prevent abandonment due to perceived overcomplexity.

## KEY CONCEPTS AND TOPICS COVERED

This guide covers a wide array of topics crucial for understanding and operating Meade LX telescopes effectively:

- **Computer Control and Automation:** Detailed insights into the computer-controlled aspects of Meade LX200 series telescopes, including highly accurate tracking and automated functions.
- **Software Integration:** Essential software packages for basic operations, advanced control, autoguiding, and software adjustment of polar alignment.
- **Telescope Selection:** Guidance on how to select the appropriate Meade LX telescope model based on individual needs and experience levels.
- **Setup and Alignment:** Practical advice on initial setup, balancing, and achieving precise polar alignment.
- **Astrophotography:** Comprehensive information on integrating CCD cameras and utilizing "active optics" units for astronomical imaging.
- **Maintenance and Optimization:** Tips for minimizing image shift, reducing backlash, and general care to ensure longevity and optimal performance of your telescope.
- **Troubleshooting:** Strategies for addressing common operational issues and improving GoTo accuracy.

## SELECTING YOUR MEADE LX TELESCOPE

The guide emphasizes the importance of informed decision-making when acquiring a Meade LX telescope. It advises against significant investment without a foundational understanding of astronomy and basic telescope operation. The book helps readers navigate the complexities of various models, ensuring a choice that aligns with their experience and astronomical goals.

It provides context on the evolution of telescope technology, from craftsman-made optics to precision-machined components, which contributes to the superior views offered by modern instruments. Understanding these advancements is key to appreciating the capabilities of high-end Meade models.

## SETUP AND INITIAL CONFIGURATION

Proper setup is critical for optimal telescope performance. This guide details the essential hardware operations required for Meade LX telescopes. Key aspects covered include:

- **Physical Assembly:** Instructions for assembling the telescope components and mounting it securely.
- **Balancing:** Techniques for balancing the telescope to prevent wear on gears and ensure smooth movement.
- **Polar Alignment:** Methods for achieving accurate polar alignment, which is fundamental for precise tracking and imaging.
- **Initial Power-Up:** Steps for powering on the telescope and initiating its computer control system.

The book also touches upon the importance of environmental factors, such as allowing the telescope to cool down to ambient temperature before viewing, to ensure clear and stable images.

## OPERATING YOUR TELESCOPE WITH SOFTWARE

A significant portion of this guide is dedicated to the software control of Meade LX telescopes. It reviews the best software packages available to assist users in setting up and operating their instruments. Topics include:

- **Basic Operations Software:** Utilizing software for fundamental telescope functions.
- **GoTo System Optimization:** Improving the accuracy of the GoTo system during observing sessions, even after initial alignment.
- **Handbox Usage:** Maximizing the utility of the Autostar II handbox, including Smart Mount Technology.
- **Customizing Settings:** Adjusting parameters like maximum slew speed to protect gears and enhance longevity.

The guide emphasizes that tailor-made software has greatly increased the possibilities for serious astronomy projects, making advanced control accessible to amateur astronomers.

## ESSENTIAL ACCESSORIES AND ASTROPHOTOGRAPHY

For those looking to expand their astronomical pursuits, the guide provides detailed information on essential accessories and techniques for astrophotography:

- **CCD Cameras:** How to integrate and utilize CCD cameras to capture high-quality astronomical images.
- **Active Optics Units:** Reviews and applications of the latest "active optics" units for enhanced image stability and clarity.
- **Autoguiding Systems:** Understanding and implementing autoguiding for long-exposure astrophotography.

The book illustrates typical results and various methods to achieve them, providing readers with clear expectations from construction to final image.

## MAINTENANCE AND BEST PRACTICES

Proper maintenance is crucial for the longevity and performance of your Meade LX telescope. This guide offers practical tips to ensure your equipment remains in top condition:

- **Minimizing Image Shift:** Regularly winding the focuser fully in and out to evenly distribute grease along the shaft.
- **Reducing Backlash:** Making the final focus twist a push to move the mirror away from the rear of the scope.
- **Gear Preservation:** Setting a lower maximum slew speed to prevent premature wear on gears.
- **Optics Care:** General advice on caring for and cleaning optical components.

These simple yet effective practices can significantly extend the life and improve the performance of your telescope.

## TROUBLESHOOTING COMMON ISSUES

The guide provides insights into diagnosing and resolving common problems encountered during telescope operation. While not an exhaustive list of every possible issue, it addresses frequent challenges such as:

- **Alignment Failures:** Understanding why auto-alignment might fail and strategies to correct it.
- **Collimation Adjustments:** A simple approach to identifying which screw needs adjustment during collimation.
- **Software Glitches:** Guidance on updating firmware and addressing software-related operational hiccups.

The book aims to empower users to overcome obstacles and maximize their observing experience.



## BOOK SPECIFICATIONS

This section provides details about the physical and publication attributes of this instructional guide:

Attribute	Detail
Publisher	Springer
Publication Date	May 4, 2010
Edition	2010th
Language	English
Print Length	252 pages
ISBN-10	1441917748
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Dimensions	6.1 x 0.57 x 9.25 inches
Series	The Patrick Moore Practical Astronomy Series

## ADDITIONAL SUPPORT AND RESOURCES


As this document is an instruction manual for a book about Meade LX telescopes, it does not provide direct product warranty or technical support for the telescopes themselves. However, the book itself serves as a valuable resource for finding information and guidance.

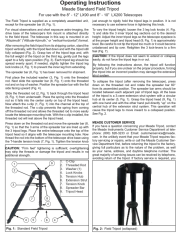


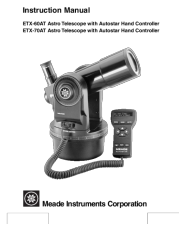

For direct support, warranty information, or service for Meade LX telescopes, please refer to the official Meade Instruments website or authorized service centers. The book may also guide you to relevant online user groups and forums where experienced Meade users share knowledge and assistance.

The author, Lawrence Harris, is a professional astronomer and experienced Meade LX telescope owner, providing practical insights based on years of experience.



### Related Documents - LX200 and Other High-End Meade Models

	<p><a href="#">Meade Standard Field Tripod Operating Instructions</a></p> <p>Comprehensive operating instructions for the Meade Standard Field Tripod, designed for use with 8"-12" LX90 and 8"-10" LX200 telescopes. Learn how to assemble, adjust height, collapse, and safely use your tripod for optimal astronomical observations and imaging.</p>
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 <p>Operating Instructions Meade Standard Field Tripod</p> <p>The Meade Standard Field Tripod is designed to provide a stable base for your Meade telescope. It is easy to set up and adjust to suit your needs. The tripod is made of lightweight aluminum and is collapsible for easy storage and transport. It features a central column that can be extended or retracted to adjust the height of the telescope. The legs are also adjustable and can be locked in place. The tripod is compatible with all Meade telescopes.</p>	<p><a href="#">Meade Standard Field Tripod Operating Instructions</a></p> <p>Comprehensive operating instructions for the Meade Standard Field Tripod, detailing assembly, setup, height adjustment, and collapsing procedures for LX90 and LX200 telescopes.</p>
 <p>W.A.C.® The Meade ETX Telescope A Tutorial for both Basic and Advanced Setup</p>	<p><a href="#">Meade ETX Telescope: A Comprehensive Tutorial for Setup and Viewing</a></p> <p>A detailed guide to setting up and using the Meade ETX telescope, covering basic and advanced setup, alignment, celestial object viewing, and essential accessories for amateur astronomers.</p>
 <p>MEADE INSTRUCTION MANUAL INFINITY SERIES 80, 90, 102mm Telescopes</p>	<p><a href="#">Meade Infinity Series Telescopes: Instruction Manual for 80mm, 90mm, 102mm Models</a></p> <p>User manual for Meade Infinity Series 80, 90, and 102mm alt-azimuth refracting telescopes. Covers setup, component identification, operation, safety, and observing tips for amateur astronomers.</p>
 <p>Instruction Manual ETX-60AT Astro Telescope with Autostar Hand Controller ETX-70AT Astro Telescope with Autostar Hand Controller</p>	<p><a href="#">Meade ETX-60AT &amp; ETX-70AT Astro Telescope Instruction Manual with Autostar</a></p> <p>Comprehensive instruction manual for the Meade ETX-60AT and ETX-70AT Astro Telescopes, detailing setup, operation with the Autostar Hand Controller, advanced features, maintenance, and troubleshooting for astronomical and terrestrial observation.</p>
 <p>Instruction Manual LX200-ACF Astro Telescope with AutoStar II Hand Controller LX200-ACF Astro Telescope with GPS and AutoStar II Hand Controller</p>	<p><a href="#">Meade LX200-ACF Instruction Manual: Advanced Coma-Free Telescopes with GPS and AutoStar II</a></p> <p>Comprehensive instruction manual for Meade LX200-ACF telescopes, covering setup, operation, features, and maintenance of these advanced coma-free telescopes with GPS and AutoStar II.</p>