

Astromania SKU_AM_GS60

Astromania Guide Scope 60mm FMC Compact Finder Guide Scope Kit User Manual

Model: SKU_AM_GS60

1. INTRODUCTION

This manual provides detailed instructions for the setup, operation, and maintenance of your Astromania Guide Scope 60mm FMC Compact Finder Guide Scope Kit. This versatile instrument is designed for both visual astronomical observation as a finder scope and for precise auto-guiding in astrophotography setups.



Figure 1: Overview of the Astromania 60mm Guide Scope.

2. WHAT'S IN THE BOX

Please verify that all components are present upon unpacking:

- 1x Astromania 60mm Guide Scope
- 2x Mounting Rings with Nylon-Tipped Thumbscrews
- 1x Dovetail Guide Scope Bracket
- 1x 1.25-inch Eyepiece Adapter (integrated with focuser)
- 1x M42x0.75 Male T-Thread Adapter (integrated with focuser)

- Dust Caps for both ends

3. PRODUCT FEATURES

- **Versatile Use:** Functions as a mini guide tube for quickly locating objects and guiding stars, suitable for both visual observation and astrophotography.
- **Double Helical Focuser:** Features a worm focuser with a brass compression ring and two thumbscrews, offering a 45mm focusing range (10mm micro-focusing helical focuser and 35mm fixable scaled drawtube) for precise focus adjustments.
- **Optical Design:** Equipped with a 60mm objective lens with FMC (Fully Multi-Coated) design and a 240mm focal length, providing a wide field of view for potential guide stars.
- **Robust Construction:** Sturdy metal housing made of black anodized aluminum ensures durability. Milled and knurled rings allow for easy and precise fine focus adjustments.
- **Mounting System:** Includes matching pipe clamps and a Synta-style mounting plate for easy assembly and installation on various telescopes. Adjustable aim dovetail bracket minimizes added weight to your astrophotography setup.



FMC Wide Field Optics Lense

Fully multi-coated glass lense design not only provide us realistic and sharp observing resultduring astronomy, but also obatin wide field of view.

Figure 2: Detailed design highlighting various components and their features.



Extendable Focusing Range

35mm focusing range with fixable and scaled drawtube helps you quickly lock to stars you want to see and further lock details of stars.

Figure 3: Illustration of the 60mm wide field optics lens and its specifications.

4. SETUP

4.1 Attaching the Mounting Rings and Dovetail Bracket

1. Secure the two mounting rings to the dovetail guide scope bracket using the provided screws and hex wrench.
2. Place the 60mm guide scope into the mounting rings. Ensure the scope is centered and the thumbscrews on the rings are tightened to hold it firmly but without excessive force.
3. Attach the dovetail guide scope bracket to your telescope's dovetail finder scope base or universal dovetail plate. Tighten the locking thumbscrews on your telescope's mount to secure the guide scope.

Double Installation Options - Mounting on Telescope

Stynta-Style Dovetail Bar can be mounted to telescope in different ways for enjoying the astronomical beauty.

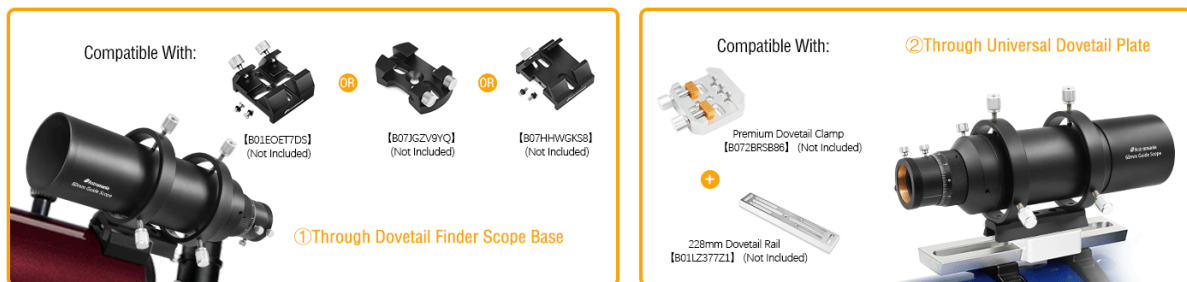


Figure 4: Components of the adjustable guiding scope ring set.

Double Installation Options - Mounting on Telescope

Stynta-Style Dovetail Bar can be mounted to telescope in different ways for enjoying the astronomical beauty.



- M8x1.25 Thread
- 1/4" - 20 Threads

① Through Universal Dovetail Plate



② Through Dovetail Finder Scope Base



The Width of Dovetail Bar : 31mm

Figure 5: Various methods for mounting the guide scope onto a telescope.

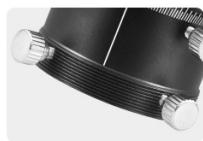
4.2 Focuser Adjustment

The guide scope features a double helical focuser for precise adjustments:

- **Coarse Focus:** The scaled drawtube provides 35mm of travel for initial, larger focus adjustments.
- **Fine Focus:** The micro-focusing helical focuser offers an additional 10mm of precise adjustment.
- To adjust focus, loosen the focus lock thumbscrew. Rotate the knurled ring to extend or retract the focuser. Once desired focus is achieved, tighten the thumbscrew to secure the setting.

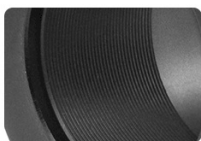
1.25 Inch Eyepiece Connecting Interface

Equipped with 1.25" tube diameter for connecting 1.25" eyepieces or other telescope accessories for naked-eyes observing.



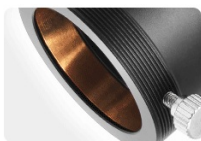
Accessory Collar Thumbscrews

For Securing Installed 1.25" Telescope Accessories.



Internal Thread Design

Minimize reflections and eliminate stray lights during strong light condition.



Built In Brass Compression Ring

Provide better protection for fixing telescope accessories from being scratched.



Knurled Threads Design

Increase friction, convenient and quick to use even with gloves.



Tighten Clockwise to Fix
Loosen Counterclockwise to Release

! Please Attention: Not install diagonal mirror on the guide scope, otherwise it will be out of focus.

Figure 6: Detailed view of the double helical focuser with its focusing knob and lock thumbscrew.

5. OPERATING THE GUIDE SCOPE

5.1 Visual Use (Finder Scope)

To use the guide scope for visual observation:

1. Insert a 1.25-inch eyepiece into the focuser. Secure it with the accessory collar thumbscrews.
2. Point your main telescope and the guide scope to a bright star or distant terrestrial object.
3. Adjust the focuser until the image is sharp.
4. Align the guide scope with your main telescope by adjusting the six nylon-tipped thumbscrews on the mounting rings until the object is centered in both scopes.



Figure 7: The 1.25-inch eyepiece connection interface with thumbscrews and brass compression ring.

5.2 Astrophotography (Auto-Guiding)

For auto-guiding, connect your auto-guiding camera to the guide scope:

1. Remove any eyepiece from the focuser.
2. If your camera has a male M42x0.75 T-thread, it can be directly threaded onto the focuser. If your camera requires a T-ring, attach the appropriate T-ring (not included) to your camera, then connect it to the M42x0.75 male T-thread on the focuser.

3. Ensure the camera is securely attached.
4. Connect your auto-guiding camera to your computer and use appropriate guiding software to calibrate and begin guiding.

Adjustable Guiding Scope Ring Set

By utilizing screws manufactured through specialized processes, adjustments can be made more conveniently and easily to accommodate the varying diameter dimensions of lens barrels.



Figure 8: The M42x0.75 male T-thread for connecting astrophotography cameras.

5.3 Product Video

Video 1: This video demonstrates the Astromania Guide Scope's utility for both visual observation and astrophotography, highlighting its ease of use and compact design.

6. MAINTENANCE

- **Cleaning Optics:** Use a soft, lint-free cloth and a specialized optical cleaning solution to clean the lens surfaces. Avoid touching the optical surfaces with bare hands.
- **Cleaning Body:** Wipe the metal body with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the guide scope in a dry, dust-free environment. Keep the dust caps on when not in use to protect the optics.

7. TROUBLESHOOTING

- **Difficulty Achieving Focus:**
 - Ensure the focuser lock thumbscrew is loosened before attempting to adjust focus.
 - Verify that the eyepiece or camera is fully inserted and properly secured in the focuser.
 - If using a diagonal, some diagonals may not reach focus without an additional Barlow lens or extension tube.
- **Unstable Guiding:**
 - Check that all mounting screws for the guide scope and rings are securely tightened.
 - Ensure the guide scope is properly aligned with the main telescope.
 - Verify that your auto-guiding camera and software settings are correctly configured.
- **Image Quality Issues:**
 - Check for dust or smudges on the objective lens or eyepiece/camera sensor.
 - Ensure the focuser is precisely adjusted for optimal sharpness.

8. SPECIFICATIONS

Feature	Specification
Brand	Astromania
Model Name	Astromania 60mm Compact Deluxe Finder & Guidescope Kit
Item Model Number	SKU_AM_GS60
Objective Lens Diameter	60 Millimeters
Optical Tube Length	60 Millimeters
Focal Length	240 mm
Focus Type	Manual Focus (Double Helical)
Eyepiece Compatibility	1.25-inch
Camera Connection	M42x0.75 Male T-Thread
Product Dimensions	10.4 x 3.9 x 3.9 inches
Item Weight	2.04 pounds

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the contact details provided with your purchase or visit the official Astromania website. Keep your proof of purchase for any warranty claims.