

## ESSLNB 650130

# ESSLNB 650130 Reflector Telescope User Manual

Model: 650130 | Brand: ESSLNB

## 1. INTRODUCTION

Thank you for choosing the ESSLNB 650130 Reflector Telescope. This manual provides detailed instructions for the assembly, operation, and maintenance of your telescope. Designed for adult astronomers, this instrument offers a large 130mm aperture and high-quality optics for exceptional views of celestial objects. Please read this manual thoroughly before use to ensure optimal performance and a rewarding stargazing experience.

## 2. SAFETY INFORMATION

- **Never look directly at the sun through the telescope or its finder scope without a professionally manufactured solar filter.** Permanent and irreversible eye damage, including blindness, can result.
- Do not leave the telescope unsupervised, especially when children are present.
- Handle optical components with care to avoid scratches or damage.
- Ensure the tripod is stable on a level surface before attaching the telescope.

## 3. PACKAGE CONTENTS

Verify that all components listed below are present in your package:

- Telescope Tube
- Stainless Steel Tripod
- Adjustment Handle
- Moon Filter
- K10mm Eyepiece

- K25mm Eyepiece
- Barlow Lens (2X)
- Metal Extension Tube
- Stargazing Phone Mount
- Wireless Remote Control
- Phone Adapter
- Red-dot FinderScope
- Accessory Tray



**Figure 3.1:** Overview of all included accessories, including the telescope tube, tripod, eyepieces, Barlow lens, phone mount, and remote control.

## 4. SETUP INSTRUCTIONS

---

Follow these steps to assemble your ESSLNB 650130 Reflector Telescope:

1. **Assemble the Tripod:** Extend the legs of the stainless steel tripod to a stable position. Adjust the height as needed using the leg clamps. Attach the accessory tray to the center brace for added stability

and storage.

2. **Mount the Telescope Tube:** Carefully place the telescope tube onto the tripod mount. Secure it firmly using the provided screws or clamps. Ensure the tube is balanced.
3. **Attach the Finder Scope:** Slide the red-dot finder scope into its bracket on the telescope tube and tighten the retaining screws.
4. **Insert Eyepiece:** Choose an eyepiece (e.g., K25mm for lower magnification) and insert it into the focuser. If using the Barlow lens, insert the Barlow lens first, then the eyepiece into the Barlow lens.
5. **Attach Phone Adapter (Optional):** If you plan to use your smartphone for observation or photography, attach the stargazing phone mount to the eyepiece.

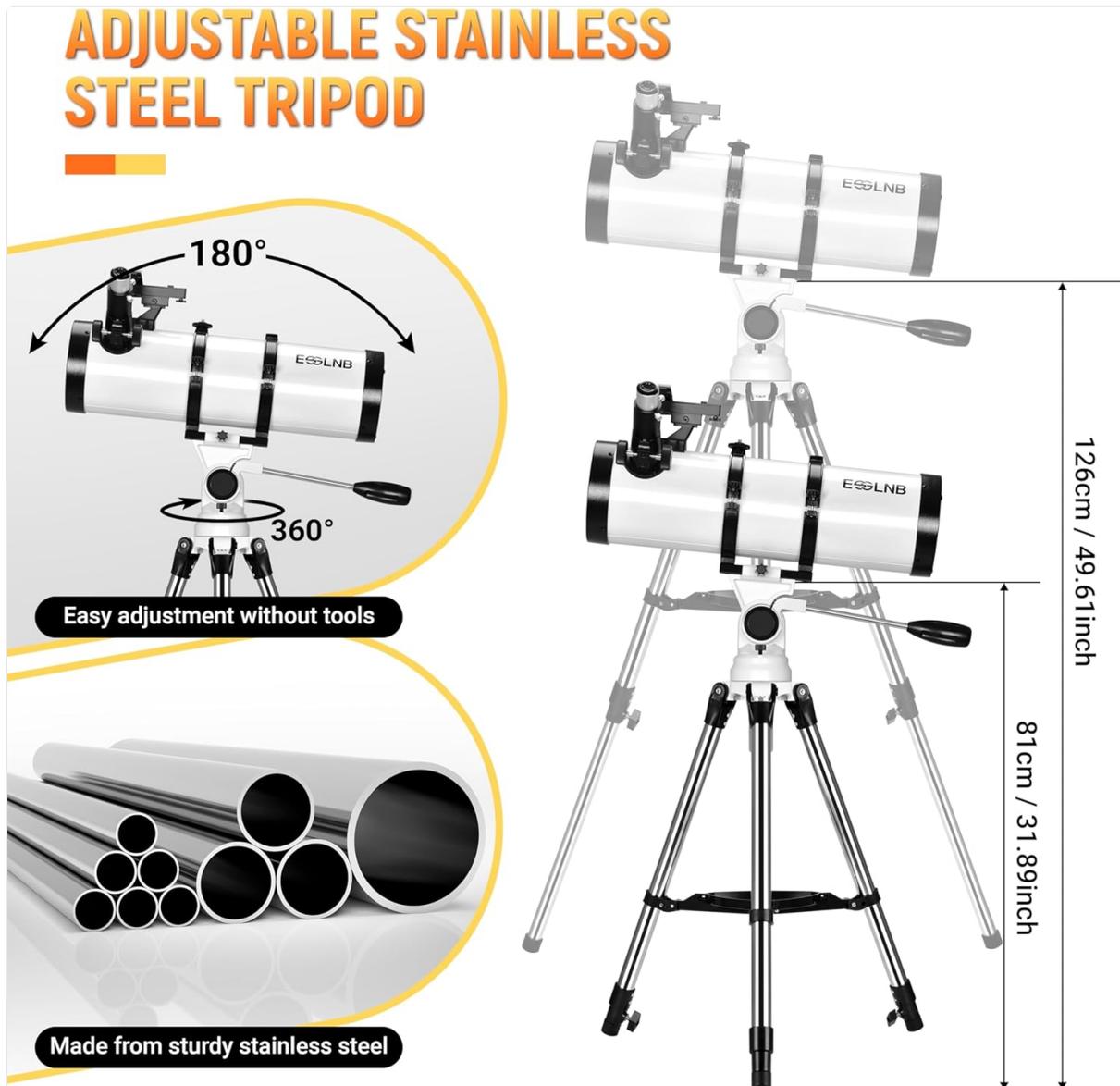


Figure 4.1: The adjustable stainless steel tripod, showing its height range from 31.9 to 49.9 inches for comfortable viewing.

# TELESCOPE ACCESSORIES



Figure 4.2: The telescope mounted on its tripod, illustrating its 180-degree vertical and 360-degree horizontal adjustment capabilities for flexible observation.

## 5. OPERATING INSTRUCTIONS

### 5.1. Initial Alignment and Focusing

1. **Finder Scope Alignment:** Before observing celestial objects, align the red-dot finder scope with the main telescope. Point the main telescope at a distant, easily identifiable terrestrial object. Look through the finder scope and adjust its alignment screws until the red dot is centered on the same object.
2. **Focusing:** Look through the eyepiece. Turn the focuser knob slowly until the image is sharp and clear.

### 5.2. Using Eyepieces and Barlow Lens

Your telescope comes with two K-eyepieces (K10mm and K25mm) and a 2X Barlow lens. The K-eyepieces are designed for clear images with minimal aberrations.

- The **K25mm eyepiece** provides lower magnification and a wider field of view, ideal for locating objects and observing larger celestial bodies like the Moon or star clusters.
- The **K10mm eyepiece** offers higher magnification, suitable for detailed views of planets or smaller deep-sky objects.

- The **2X Barlow lens** doubles the magnification of any eyepiece it's used with, allowing for a maximum magnification of 130X with the K10mm eyepiece.



**Figure 5.1:** Illustration of various magnification levels (26X, 52X, 65X, 130X) achievable with the K25mm and K10mm eyepieces, both with and without the 2X Barlow lens.

### 5.3. Using the Sky Tonight App

The Sky Tonight app, combined with the adjustable phone holder, simplifies locating celestial objects:

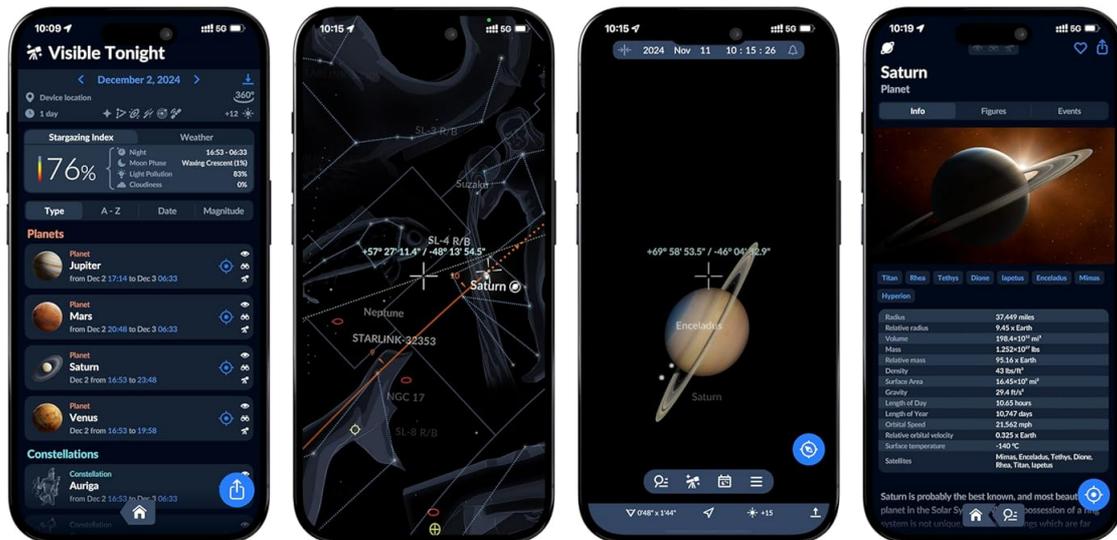
1. **Install the App:** Download and install the Sky Tonight app on your smartphone.
2. **Connect Phone:** Secure your smartphone to the telescope's main tube using the phone adapter.
3. **Select Object:** Open the app and enter the name of the celestial body you wish to observe.
4. **Align Telescope:** Follow the directional arrows within the app to adjust the telescope's latitude and longitude until it aligns with your desired object. The app will then display detailed information about the object.

# Automatic Star Tracking for Easy Stargazing

Find a star in the Sky Tonight APP and follow the App arrows to set telescope coordinates for easy targeting.



“Sky Tonight” APP designed by a famous American Technology company. It is a new powerful stargazing app and very easy to use!



List of “Visible Tonight”

Find stars

Identify stars or coordinations

View star details

Figure 5.2: The Sky Tonight app in use, demonstrating its features for identifying and tracking celestial objects, including detailed information and alignment guidance.

## 5.4. Wireless Remote Control

Use the included wireless remote control to capture steady photos and videos with your smartphone through the telescope, minimizing vibrations.

## Wireless Remote Control & Phone Adapter

Use the wireless remote control to get a steady picture.  
Use your phone to share photos and videos on social media.



**Figure 5.3:** The wireless remote control and phone adapter, designed to facilitate stable smartphone photography and videography through the telescope.

### 5.5. Large Aperture Advantage

The 130mm aperture of this reflector telescope provides superior light-gathering power and exceptional resolution, allowing for brighter and clearer images, especially for deep-sky objects.

# 130MM LARGE APERTURE



- ▶ **130MM Large Aperture**  
Fully Multi-Coated Optics
- ▶ **650MM Focal Length**  
Excellent Light-gathering Power

**Figure 5.4:** The telescope's 130mm large aperture, highlighting its fully multi-coated optics for enhanced light gathering and image clarity.

## 6. MAINTENANCE

- **Cleaning Lenses:** Use a soft, lint-free cloth specifically designed for optical lenses. Breathe lightly on the lens to fog it, then gently wipe with the cloth. For stubborn spots, use a small amount of optical cleaning fluid on the cloth, not directly on the lens.
- **Cleaning Telescope Body:** Wipe the telescope tube and tripod with a soft, damp cloth. Avoid abrasive cleaners.
- **Storage:** Store the telescope in a dry, dust-free environment. Use dust caps for the main lens and eyepiece openings when not in use.
- **Avoid Extreme Temperatures:** Do not expose the telescope to extreme hot or cold temperatures, as this can affect its components.

## 7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Image is blurry or out of focus.	Incorrect focus setting.	Adjust the focuser knob slowly until the image is sharp.
Cannot find objects easily.	Finder scope is not aligned.	Align the finder scope with the main telescope using a distant terrestrial object.
Image is dim or dark.	Light pollution; high magnification in poor conditions.	Observe from a dark location. Use a lower magnification eyepiece. Ensure lenses are clean.
Telescope shakes during observation.	Tripod not stable; loose connections.	Ensure tripod legs are fully extended and locked. Tighten all mounting screws. Observe on a stable surface.

## 8. SPECIFICATIONS

Feature	Detail
Brand	ESSLN
Model Name	650130
Item Model Number	UK2026
Objective Lens Diameter	130 millimeters
Eyepiece Description	K-type (K10mm, K25mm included)
Barlow Lens	2X
Maximum Magnification	130X
Telescope Mount Type	Tripod Mount
Tripod Material	Stainless Steel
Tripod Adjustable Height	31.9 inches to 49.9 inches (81 cm to 126 cm)
Focus Type	Manual Focus
Compatible Devices	Smartphone
Product Dimensions (L x W x H)	60 x 20 x 20 cm
Item Weight	10.04 kg

Feature	Detail
Batteries Required	1 C battery (for wireless remote)

## 9. WARRANTY AND SUPPORT

---

For warranty information or technical support, please refer to the documentation included with your purchase or contact ESSLNB customer service through their official website or your retailer. Keep your purchase receipt as proof of purchase.