



# HOWTO: USING SEESTAR 30/50 IN EQ MODE



Gord Tulloch,  
RASC, Winnipeg Centre



# WHY BOTHER?

- Field Rotation
  - As an object travels across the sky it rotates especially near the zenith
  - Altaz mountings see this as distortions and noise around the edges of the stack
  - Need to take mosaics when you don't really need to so the object is clear of field rotation artifacts – much longer integrations needed
  - EQ Mode (Polar Alignment) eliminates field rotation
- Less Dropped Frames
- Longer Exposures? No - 10-20s max, no dithering leads to noise buildup



# OPTIONS

- iOptron Alt-azimuth Adjustable Base #3327 (\$100)
- Sky-Watcher Star Adventurer Latitude (EQ) Base S20530 (\$100-\$120 if dovetail)
- Aktuhrashid base (\$175 from ebay)
- iOptron Precision AZ/EQ Base #3328 (\$315)
- William Optics Vixen-style Latitude Base Mount (\$325)



<https://www.cloudynights.com/topic/958693-comparison-of-eq-wedge-base-options-for-smart-telescopes>



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Skywatcher

## SKY-WATCHER - STAR ADVENTURER TRIPOD

(No reviews yet)  [Write a Review](#)

Your Price: **\$130.00**

**Klarna** 4 payments of \$32.50. [Learn more](#)

SKU: S20555

UPC: 50234205559

Quantity:

- 1 +

# TRIPOD

# HOMEMADE / PHOTO TRIPODS



# OTHER WEDGES



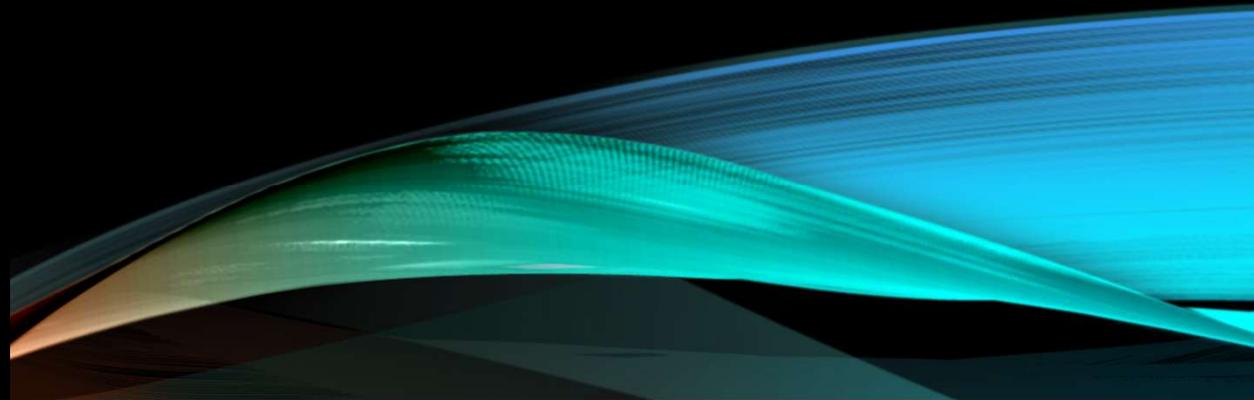
# MY RIG





# EQ MODE SETUP AND ALT/AZ ADJUSTMENTS

Note: Update the app on your phone/tablet so the next time you connect to the telescope it will update your firmware on the telescope!



Southland Park > 91%



S30\_4b2ec06b > Close Arm

Stargazing Solar System Scenery

Plan My Album Deep Sky Stack

Tutorials

- SkyAtlas
- Community
- Nearby
- Me**
- Seestar
- SkyAtlas
- Community
- Nearby

Gord  
No introduction

Volume **Loud** Low Mute

Focus >

Anti-Dew

Image Watermark

**Advanced Feature** >

Slide to shut down

Advanced Feature

When turned on, Seestar saves every image successfully stacked in stargazing mode. If Seestar's storage space is insufficient, it will automatically stop saving.

Initialization >

Calibrate >

**Mount Mode** EQ Mode >

SkyAtlas Sync

RTSP Address **Get**

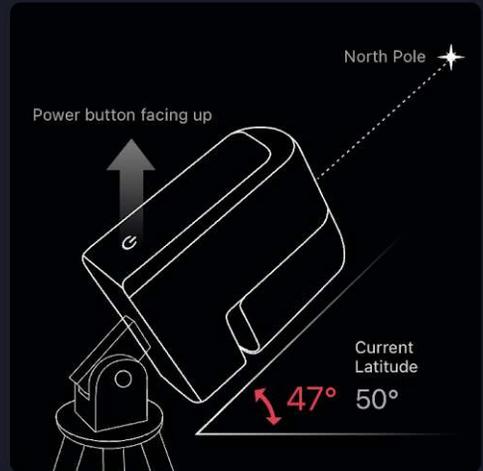
Auto Shut Down

Demonstration Mode >

EQ Mode ⓘ **Switch**

2. Adjust Seestar to the ground Angle until it is consistent with current latitude

3. After switching "EQ Mode" successfully, click "Get Polar Align Deviation" to adjust the device to the deviation within 1°



Power button facing up

North Pole

Current Latitude 50°

47°

**Get Polar Align Deviation**

8:30 PM 70% Bell VPN

EQ Mode Switch

2. Adjust Seestar to the ground Angle until it is consistent with current latitude

3. After switching "EQ Mode" successfully, click "Get Polar Align Deviation" to adjust the device to the deviation within 1°

North Pole

Power button facing up

Current Latitude 50° 50°

**Get Polar Align Deviation**

8:31 PM 70% Bell VPN

EQ Mode Switch

2. Adjust Seestar to the ground Angle until it is consistent with current latitude

3. After switching "EQ Mode" successfully, click "Get Polar Align Deviation" to adjust the device to the deviation within 1°

EQ Mode

Getting Polar Align Deviation...

North Pole

Power button facing up

Current Latitude 50° 50°

Cancel

Get Polar Align Deviation

8:37 PM 68% Bell VPN

EQ Mode Switch

2. Adjust Seestar to the ground Angle until it is consistent with current latitude

3. After switching "EQ Mode" successfully, click "Get Polar Align Deviation" to adjust the device to the deviation within 1°

North Pole

Power button facing up

Current Latitude 50° 50°

← 1.1°

↓ 0.4°

Get Polar Align Deviation

8:38 PM 68% Bell VPN

EQ Mode Switch

2. Adjust Seestar to the ground Angle until it is consistent with current latitude

3. After switching "EQ Mode" successfully, click "Get Polar Align Deviation" to adjust the device to the deviation within 1°

North Pole

Power button facing up

Current Latitude 49° 50°

→ 0.1°

↓ 0.0°

Get Polar Align Deviation



Altitude Adjustment



Azimuth Adjustment

Bell VPN 8:38 PM 68%

**EQ Mode** *i* Switch

2. Adjust Seestar to the ground Angle until it is consistent with current latitude

3. After switching "EQ Mode" successfully, click "Get Polar Align Deviation" to adjust the device to the deviation within 1°

→ 0.1°  
0.0°

North Pole

Current Latitude  
49° 50°

Get Polar Align Deviation

# INDICATOR LIGHTS



**Rosette Nebula (Caldwell 49)**

Seestar S39 Mosaic EQ 103mins



## Markarian's Chain

Member galaxies include  
M84 (NGC 4374), M86 (NGC 4406),  
NGC 4477, NGC 4473, NGC 4461,  
NGC 4458, NGC 4438 and  
NGC 4435.

Seestar S30 22min EQ



# QUESTIONS?

- My Web Sites
  - <https://openastronomy.substack.com>
  - <https://www.openastronomy.ca>
- My email
  - [gord.Tulloch@gmail.com](mailto:gord.Tulloch@gmail.com)



First EQ Light – Rosette 20m uncropped