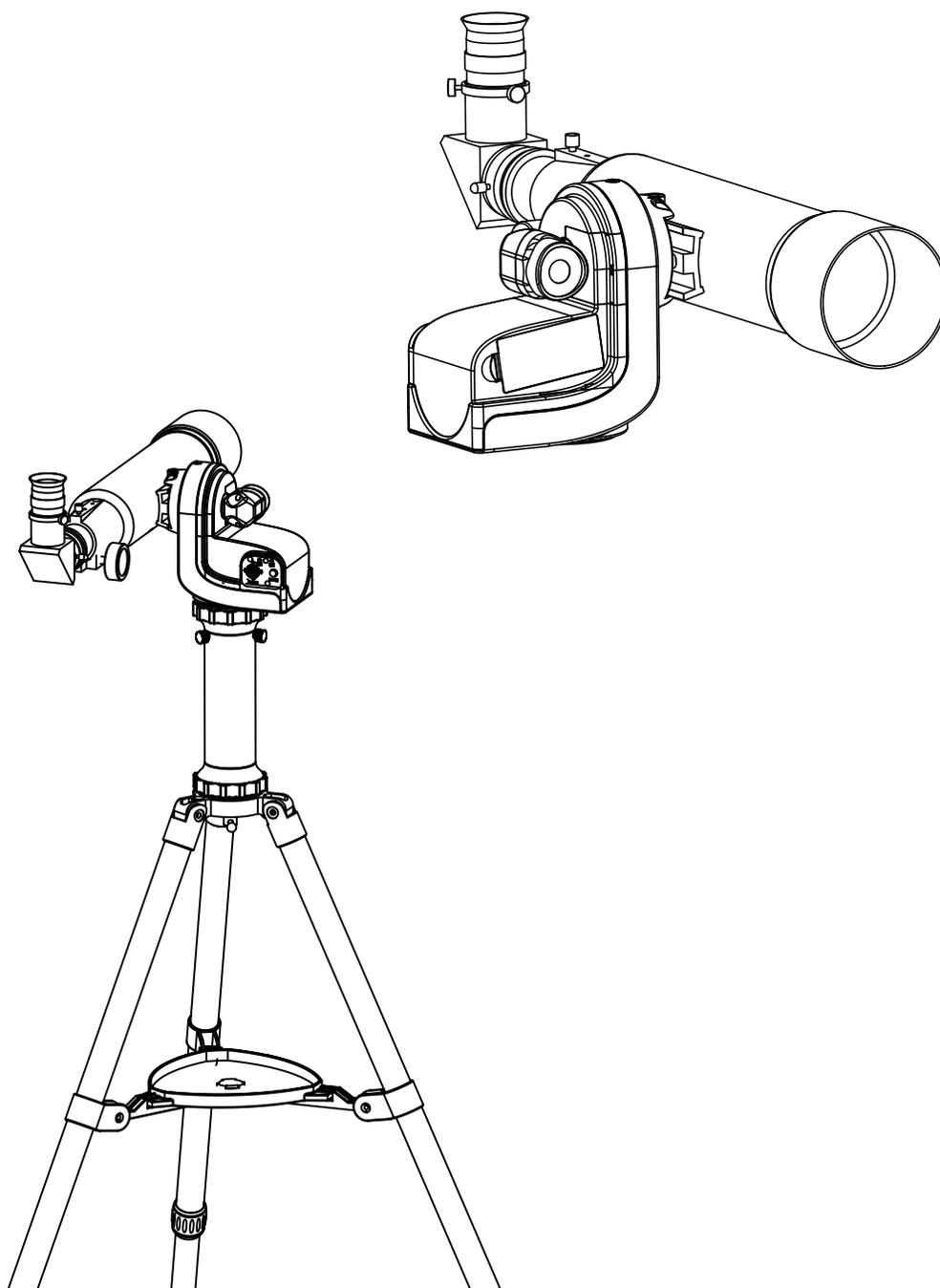


# INSTRUCTION MANUAL

## SolarQuest



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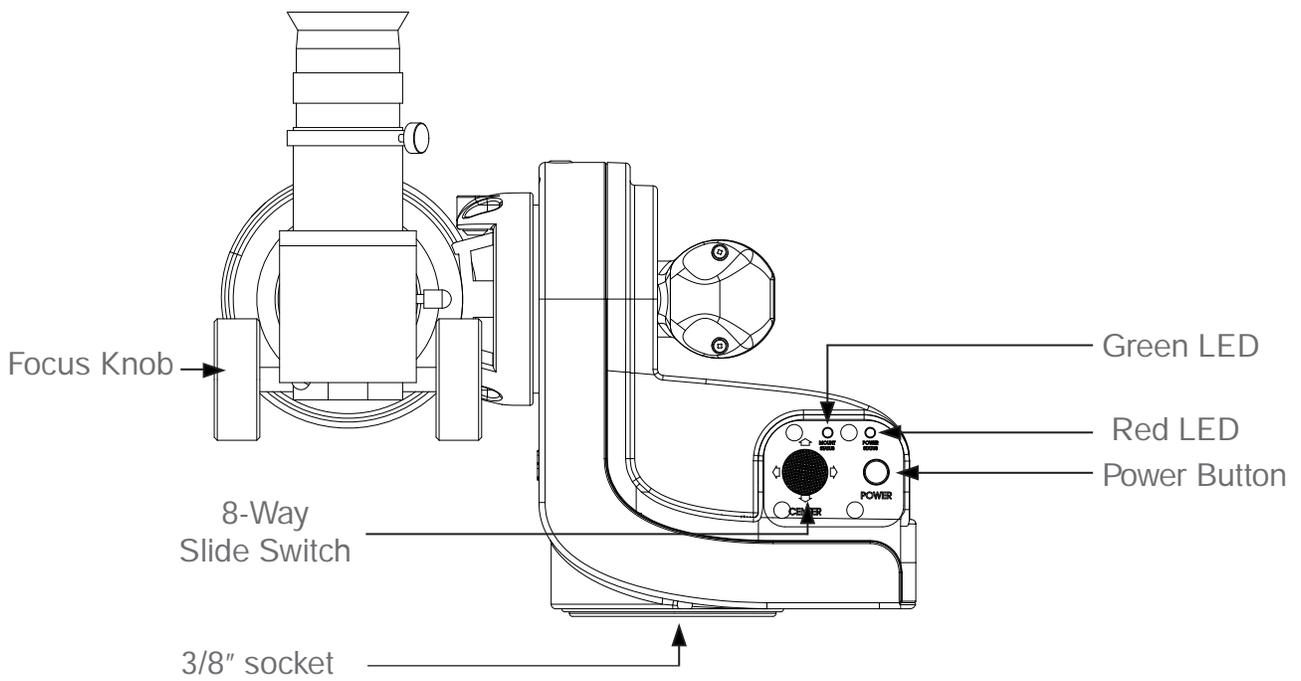
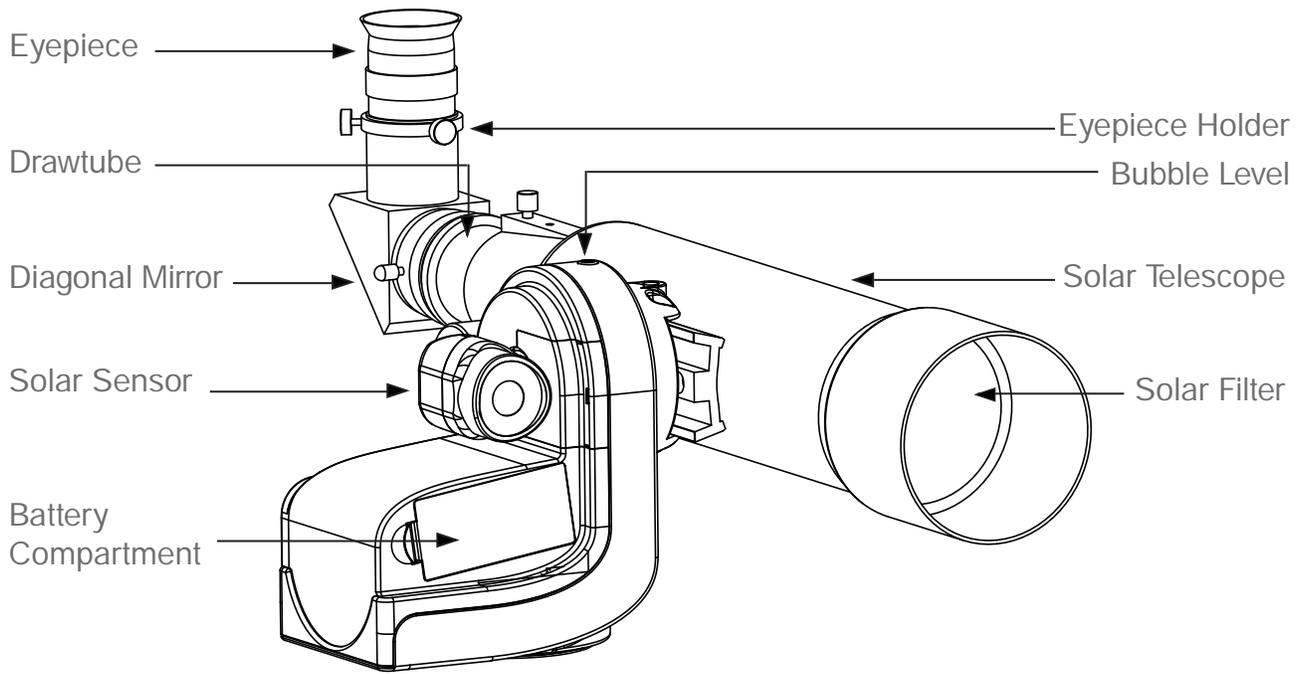
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**WARNING:** THE SOLARQUEST MOUNT IS DESIGNED TO WORK WITH THE ATTACHED SOLAR TELESCOPES ONLY. DO NOT POINT OTHER TYPES OF OPTICAL DEVICE AT THE SUN. LOOKING DIRECTLY AT THE SUN WITHOUT A CERTIFIED FILTER WILL CAUSE IMMEDIATE AND IRREVERSIBLE DAMAGE TO THE EYES OR INSTRUMENT.

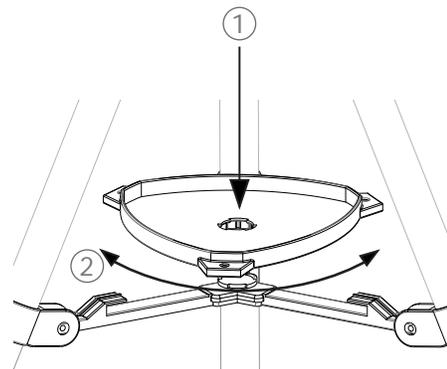
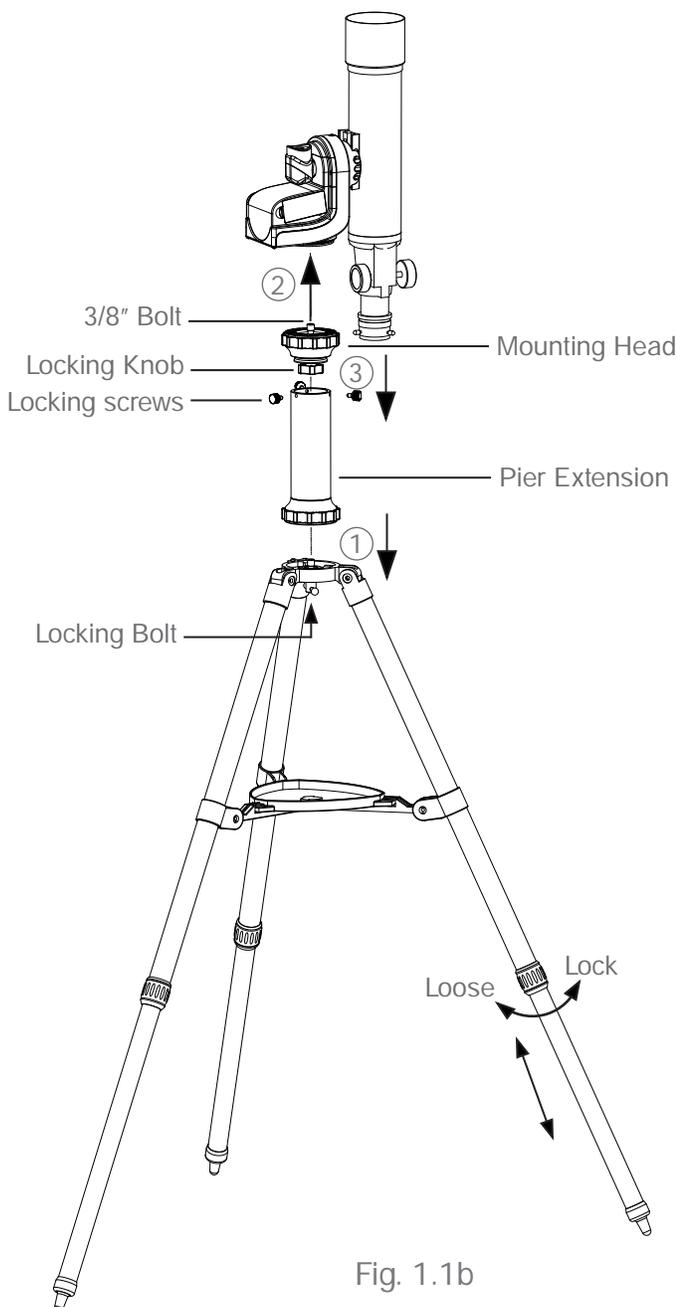
# SolarQuest Diagram



# PART I : Setting up the SolarQuest

## 1.1 Setting Up on a Skywatcher Tripod

1. Fully expand the three legs of the tripod on level ground.
2. Install the accessory tray on the tripod as shown in Fig. 1.1a.
3. Attach the pier extension onto the tripod tightly with the locking bolt on the tripod head.
4. Remove the mounting head on the pier extension by loosening the 3 small locking screws.
5. Attach the SolarQuest mount to the mounting head tightly with the locking knob.
6. Place the mounting head onto the pier extension and fix it with the 3 locking screws.
7. Adjust the lengths of the tripod legs. Extend the legs to the desired height and center the bubble level on top of the SolarQuest mount.



- Fig. 1.1a
- ① Align the accessory tray and push down on it while holding onto the bottom supports
  - ② Rotate the tray to lock it into place.

**WARNING:** The accessory tray of a Skywatcher tripod ensures that the tripod legs are firmly expanded, which prevents the tripod from accidentally tipping over. When using the SolarQuest mount on a Skywatcher tripod, an accessory tray should always be used to ensure stability.

## 1.2 Attaching the SolarQuest to a Camera Tripod

1. Fully expand the three legs of the tripod on leveled ground. Make sure that the tripod is stable.
2. Raise the camera tripod's central pole to the height which prevents the solar telescope from hitting the tripod legs when the telescope points to zenith.
3. Screw the SolarQuest mount to the 3/8" bolt on the tripod head's mounting plate, tighten **SLIGHTLY**.  
*Caution: Over-tightening the mount may cause damage to the internal mechanical parts.*
4. Most camera tripods' mounting plate comes with 1 to 3 locking screws, firmly tighten the locking screws from underneath the plate to fix the SolarQuest mount onto the mounting plate.
5. Adjust the lengths of the legs to center the bubble level on the mount.

## 1.3 Installing Batteries

1. Open the battery compartment cover and pull out the battery holder.
2. Make sure the battery cable connects to the holder before inserting batteries to the slots.
3. Insert 8 "AA" size batteries to the battery holder. Refer to the battery marks of each slot while inserting the batteries.
4. Place the battery holder back to the compartment gently and closer the cover.  
*Note: For the safety of your equipment , remove the batteries from SolarQuest if it will not be used for a long time.*

## 1.4 Test Run

1. Press the power button until the red LED light is on.
2. The solar telescope will be moved to horizontal position automatically in several seconds.
3. Slide the 8-way switch to one direction and then press the power button, the SolarQuest will slew quickly.
4. Slide the 8-way switch alone to one direction to move the SolarQuest slowly for fine centering the Sun in the field of view of an eyepiece.
5. To turn off the power, press and hold the power button for several seconds until the red LED light is off.

**Warning:** Always adjust the SolarQuest mount with the internal motor drive and the 8-way switch. Forcing the SolarQuest to rotate manually might cause damages to the internal mechanical parts.

# PART II : Observing the Sun

## 2.1 Pointing to the Sun Automatically

1. Setup the SolarQuest in an open field under the Sun, as described in the previous chapter.
2. Turn on power. The SolarQuest will level the solar telescope automatically and then takes up to 2 minute to acquire GPS lock before the next movement.
3. The SolarQuest will bring the solar telescope to the elevation of the Sun and starts slewing in clockwise in the azimuth direction to search for the Sun.
4. The red LED will blink slowly during the search and becomes solid after the SolarQuest mount locates the Sun successfully.
5. Fully insert the diagonal mirror into the drawtube of the solar telescope, with the eyepiece holder pointing up, and fix it in place with the locking screws.
6. Insert the 20mm eyepiece to the eyepiece holder and fix it in place with the locking screws.
7. Users can now look into the eyepiece. Adjust the focus knob on the solar telescope to obtain a sharp image of the Sun.
8. Use the 8-way slide switch to center the Sun in the FOV of the eyepiece. It is normal to find lags in movement when switching to an opposite direction.

### *Tips:*

- Before turning on power, point the solar telescope to the left side of the Sun can reduce the searching time.
- Use a long focal length eyepiece(20mm) to start the observing.

## 2.2 Correcting Auto-Pointing Offset

The Sun might be off-center in the eyepiece after the SolarQuest finishes the auto-pointing routine. After centering the Sun manually in the eyepiece, users can double click the power button to save the corrections. It will be applied to the next auto-pointing routine.

## 2.3 Envioremental Influence

1. Clouds, especially thick or low clouds might reduce the accuracy of auto-pointing. They might also lead to visible drift of the Sun in the eyepiece while the SolarQuest is tracking the Sun.
2. Strong reflected light, which happens to appear within the SolarQuest's searching path, can terminate the auto-pointing routine unexpectedly.

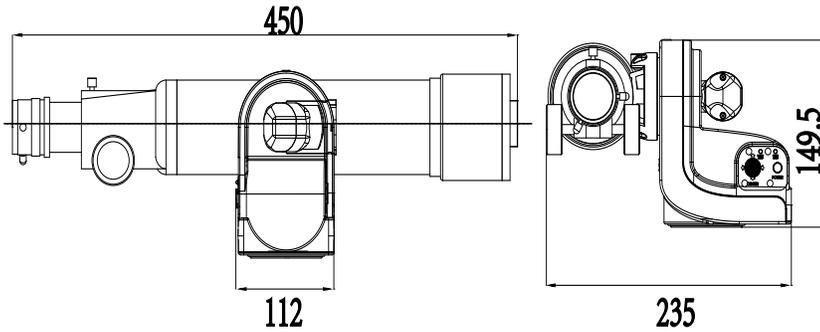
## 2.4 Factory Reset

A SolarQuest mount and the attached Skywatcher solar telescope have been pre-calibrated in the factory. As a result, the auto-pointing will be fully functional straight out of the box. To restore the original calibration data of the package:

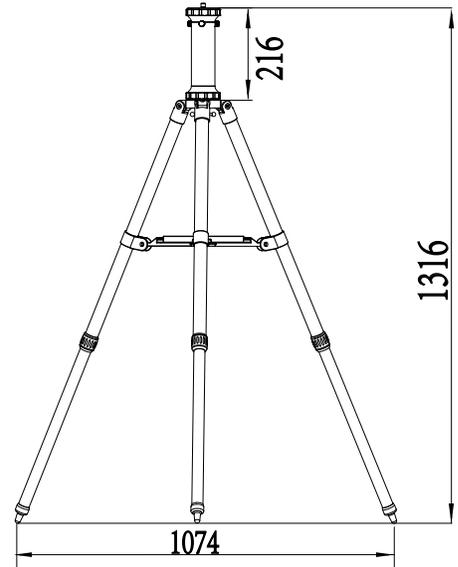
1. Push the 8-way slide switch to lower-right position and then turn on power.
2. Continue to observer the Sun as described in section 2.1 and 2.2.

# APPENDIX I : SPECIFICATIONS

## Dimensions:



Mount



Tripod

## Specifications:

Product Name	SolarQuest
Weight	2.5 kg
Tripod's Weight	1.9 kg + 0.5kg
Power Requirement	8 "AA" Size Batteries

**Note:** The above specifications may be changed without prior notice. For more information on updates please visit our website.

# SolarQuest

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