

StarLapse – Astronomical Setup

The StarLapse System can be balanced for use with most cameras without the need for counterweights.



You will need the STLA-SYS which contains the above components.



Using the 1/4-20 or 3/8-16 threaded hole, mount the small dovetail plate to the tripod head with the narrow side inward.



Attach the StarLapse motor assembly onto the dovetail and tighten the thumbscrew securely.

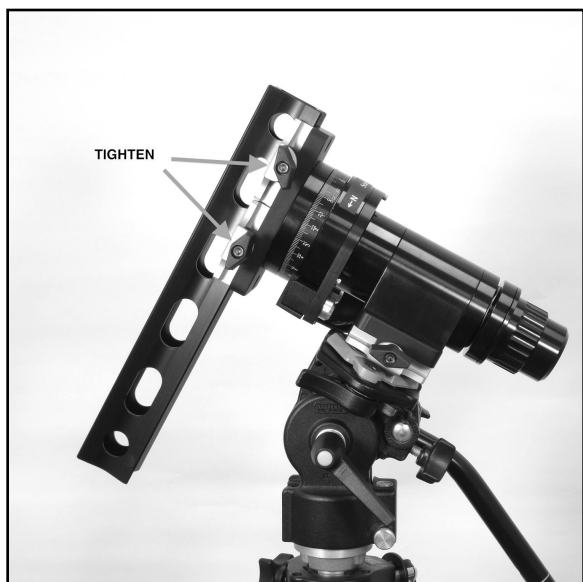
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Unscrew the shaft cover knob to facilitate polar alignment. The use of a polar scope is highly recommended to ensure accurate tracking.



Polar align the StarLapse mount before attaching the camera assembly. This will prevent blocking the center through-hole.



Attach the main beam as shown and securely tighten both thumbscrews.



Attach the camera mount assembly and tighten securely.

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Attach the camera (already mounted to the larger dovetail). Be sure to point the camera as shown and tighten the camera mount knob.

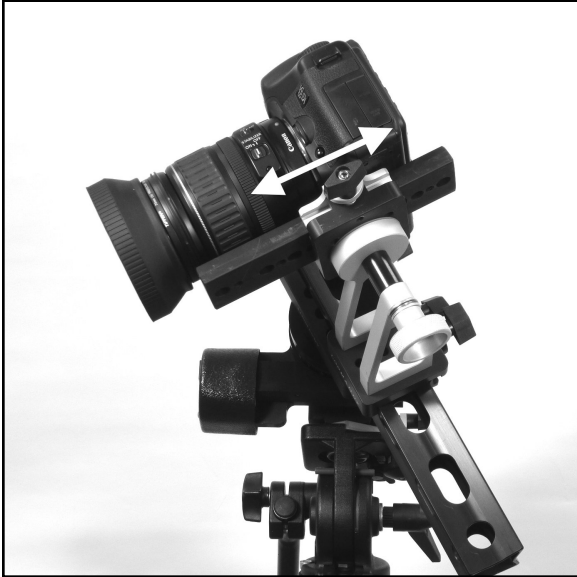


Loosen the large knurled clutch knob. Place a hand under the camera assembly and loosen the thumbscrew. Slide the assembly up or down as necessary to place its center of gravity in line with the axis of rotation.

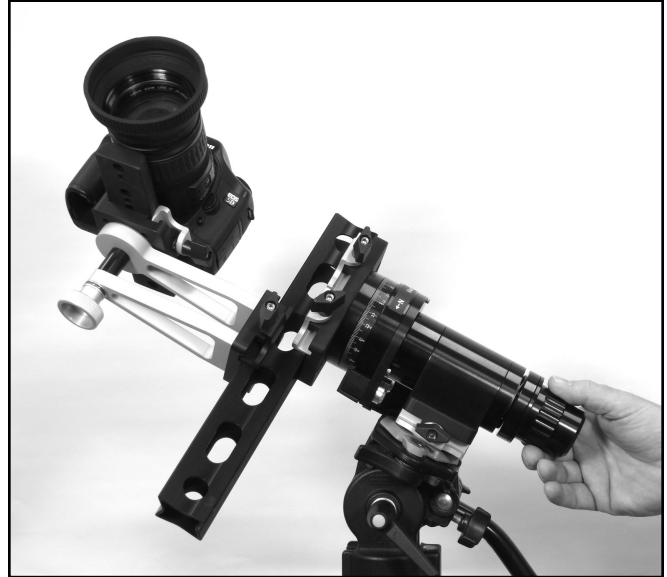


When you have correctly done this you should be able to rotate the main beam to any angle and let go without any further movement. Be sure to always re-tighten the camera mount thumbscrew to prevent it from sliding off during the rotation.

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Rotate the camera 90° and note any tendency for the assembly to rotate because of an imbalance. Slide the **camera** dovetail as necessary to maintain the correct center of gravity. With the clutch loose, you should now be able to point the camera anywhere with no out-of-balance rotation.



Make sure all thumbscrews are secure. Point the camera at the desired celestial object and tighten the camera mount knob and the black clutch knob before starting photography.

USING THE ELECTRONICS

Connect a center-positive 12 volt DC power source rated at 500 milliamps or higher to the input connector. Our battery pack (STLA-BP) loaded with eight AA alkaline batteries is recommended, and can operate the system for more than sixty hours when used at the moderate or slower speeds. Where AC is available you can use our universal DC power supply (part# ACDC). Circuitry of the StarLapse is regulated to protect the internal electronics, however, the motor is driven directly from the DC input voltage. The motor is optimized for 12 volts but can safely operate at a slightly higher voltage. **DO NOT EXCEED 18 VOLTS** for the power source! The system will run at voltages as low as 7 volts but the motor may no longer have enough torque to reliably pulse.

The motor connects with a 6-conductor modular connector. Be sure to dress the cable such that it will not bind or impede the motion of the StarLapse system.

When power is applied to the control, the first icon ☼ will glow to indicate that the system is set for the default SIDEREAL mode. Press the **RATE** button to cycle through the icons and select the desired speed. The SUN ☀ represents the SOLAR rate of 15°/hour, and all numeric icons are degrees/hour. For astronomical use you will use the SIDEREAL or SOLAR speeds.

The **NORTH/SOUTH** switch determines the direction of rotation as indicated by the arrows on the StarLapse motor assembly. For celestial use set the slide switch for NORTH or SOUTH depending on your location with respect to the equator. The StarLapse *must* be polar-aligned when tracking stars.

Press **START** when you want the motion to begin. The center icon (30) will pulse in sync with the motor speed to indicate proper operation.

All buttons become inoperative once the system is started. To stop or change operation you must temporarily disconnect the power from the controller and start over.

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Typical connections with the optional 12 volt battery pack (STLA-BP) which uses 8 x AA cells. Make sure to dress the all cables such that they will not interfere with the rotation of the StarLapse.

Please contact

www.losmandy.com

for the latest information