

StarLapse – Simple Operating Instructions

In its basic configuration the StarLapse System can be used to add dynamics to your time-lapse videos.



SIMPLE PAN MODE

The camera will pivot horizontally at the degree-per-hour rate set by the controller. Your tripod head mounting plate should be set vertically. Use a 90° adapter or adjust the legs if necessary.



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.

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Attach the StarLapse motor assembly to the dovetail making sure to securely tighten the thumb knob.

Loosen knurled knob to release the clutch. Point the StarLapse in the desired direction and re-tighten.



Mount your camera to the longer dovetail plate using a 1/4-20 socket cap screw. Slide the dovetail with the attached camera onto the dovetail clamp of the motor assembly with the center of gravity as close as possible over the center of rotation. In this photo the dovetail is offset to allow clearance of the lens barrel to permit rotation. Also note that the tripod handle has been removed to avoid interference with the StarLapse rotation.

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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.

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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SLOW-MODE

If you press **AND HOLD** the **START** button for three seconds all speeds become 1/10th the indicated value, IE: “20” is 2 degrees per hour; “60” is 6 degrees per hour, etc. The three vertical center LEDs (SOLAR, 30, 120) will flash to indicate operation in the SLOW-MODE. You may want to use this when time intervals between frames may run into minutes.

TILTING THE CAMERA



If your shot requires the camera to point away from horizontal, you will need to use a ball-joint or tilt plate adapter as shown. Use the strongest available and be sure to tighten securely before starting the shot.

AND A FINAL NOTE ON PANNING RATES...

An easy way to figure out your degree-per-hour panning speed is to start with your frame rate and determine how far you want the camera to pan during the duration of the entire exposure.

For example, you want to shoot one frame per second, to be played back at a speed of 30 frames per second. That means every hour of shooting will provide 3600 frames (60 secs x 60 mins), with a playback duration of 120 seconds or two minutes (3600/30).

You plan on shooting for two hours (total playback of four minutes) and want to pan 120° during that time. You would select the 60° per hour rate.

Accessories are also available to permit time-lapse TILT motion, celestial tracking, compound movements, and more...

Please go to www.losmandy.com for the latest information and demo videos of the StarLapse system.