

Introduction

The Nodal Ninja Ultimate M2 Giga (M2G) manual pano head is an ideal solution for capturing high resolution Gigapixel or mosaic type imagery. The M2G will accommodate telephoto lenses up to 700mm equivalent focal length, with camera in landscape orientation, or up to 550mm equivalent in portrait orientation.

The build quality and high level of precision obtainable from both upper and lower rotators mirror that of many robotic heads. The results are quicker and more consistent alignments for the stitching software, especially when featureless areas such as skies or blank walls are included within a scene.

Benefits of shooting with the M2G manual pano head over other robotic heads:

- Lighter
- Greater load capacity.
- No batteries.
- Intuitive design allows for extremely fast capturing.
- Rotator indexing/detents may be setup to allow for free rotation.
- Ability to pause and/or recapture a specific image due to elements that may be moving within a scene inside that frame.
- Works well in many environmental conditions such as rain, dust, extreme heat or cold.
- Makes for great “backup” pano head to those using robotic heads in remote areas or in highly critical and important shoot locations.

Features and Highlights

The M2 is built upon the Arca-Swiss style quick release system. This two part system, plate and clamp, is the most popular quick-release system used today. Any Arca-Swiss style plate will fit into an Arca-Swiss style clamp and visa-versa. With the Arca-Swiss style modular build design, upgrading from previous models into current and future models is more easily supported.

The M2 can also act as a gimbal arm allowing for smooth rotation of heavy telephoto lenses by rotating around the center of gravity of that lens.

M2G Features:

- Easily support telephoto lenses up to 3 kg (6.6 lb) in weight.
- Full bearing loaded rotators for smooth and steady rotation.
- Upper rotator with adjustable friction to serve as a gimbal arm.
- Upper rotator with laser marked index ring with fine 2.5° intervals (as with M2).
- Our patented design on the upper rotator allows for precise positive stops of 7.5°/5°/4°/3.75°/3°/2.5°/2°/1.5° intervals.
- Upper rotator can be engaged and changed on-the-fly by simply switching 1 or 2 levers in the Giga model.
- Upper and lower rotators with indicators for starting and ending positions, ideal for making mosaics with a large number of images. Photographers can first compose the mosaic, and set the starting and ending positions horizontally and vertically. The indicators will ensure images are not missed or excessive images taken.
- With RD8-II (precise click stops at 30°, 15°, 6°, 5°, 4°, 3°, 2.5°, 2°) the M2G will support up to 700mm equivalent focal length lenses with camera in landscape orientation, or 550mm equivalent in portrait orientation.
- Precision CNC machined from aircraft aluminum and hard anodized, resulting in high precision, accuracy, durability and long lifetime.



Weight with padded hard case = 2.33 kg (5.1 lb)



Weight without camera plate = 1.88 kg (4.14 lb).
Difference between M2 and M2G = 0.2 kg (7 oz)





Upper Rail can be replaced by lens ring or lens plate for lens with tripod foot.

Presetting Rotator Friction with Drag Knob



The upper rotator tightening knob adjusts the friction for rotation of upper rotator and locks the rotator when fully tightened. A proper level of friction provides smooth movement at the upper rotator when using as a gimbal head, useful when tracking moving objects such as in sporting events or wildlife. It also helps to align the rotator to the indexing stops more precisely.

The drag knob keeps the desired rotator friction setting even after the tightening knob has been fully tightened.

To use the drag knob, first mount the camera gear on M2 Giga. Loosen it by 1-2 turns. With camera and lens mounted to upper rotator, and while holding the camera, adjust the upper rotator tightening knob to desired friction. Once you're satisfied with amount of friction applied you can then lock this tension by tightening the drag knob in clockwise motion. If you would like to change the amount of friction first tighten the tightening knob then loosen drag knob, readjust the tightening knob and set the friction with drag knob.

Giga Plate Stopping End Tabs



Blue tabs on the M2 Giga Plate serve as the end stops for upper rotator. Limiting rotation by using these stops ensures camera and lens will not inadvertently touch the pano head during up and down rotation.

To use the tabs as safety stops, point the camera to the upper most positions without touching the lower rotator. Tighten the upper rotator knob. Loosen the blue handle at the other side of the Giga plate of the corresponding tab. Slide the handle to the center of rotator till stopped and then fully tighten the handle. Repeat for lower most position.

To use the tabs as limiters in composing a panorama or gigapixel, see instruction at the end of this guide for details.



While the tilt angles are small from the 0 degree, a small tab on the blue end tab on the Giga Plate must be lifted to allow stopping at smaller angles from 0 degree tilt.



Index ring showing 1.5 degrees (yellow dots) and 2 degrees (lines) intervals.

Corresponding stopping plungers will stop the rotator at these angles.



Index ring showing 3.75 degrees (yellow dots) and 2.5 degrees (line) intervals.

Corresponding stopping plungers will stop the rotator at these angles.

Using the Stopping Plunger



Stopping plunger in action. Lift the lever to engage the stopping mechanism. Use upper rotator index ring to align the pin.
Rear pin engaged.



Stopping plunger in action.
Front pin engaged.

Rotating the Index Ring



Index ring can be rotated to face the user in right-handed or left-handed orientation.

First, choose the shooting interval and lift the corresponding plunger lever to engage the stopping mechanism at 0 degree. This ensures the upper rotator is precisely aligned to 0 degree tilt.

Loosen the light blue screws to free the index ring. Slide the index ring away from Giga Plate to rotate.



Rotate the index ring by 180 degrees. Align the 0 degree mark accurately and tighten the light blue screws to fix the index ring.

Accurate alignment of index ring helps to engage the stopping plungers at other tilt angles.



To use the stopping plunger, first select the desired stopping intervals according to the angle of view of lens and the desired overlap. Rotate the upper rotator index ring to reveal the desired intervals if needed.

Rotate the camera to the desired position. Align the rotator to the interval according to the index ring, lift up the corresponding plunger lever slowly to engage the stop. The plunger should snap into the plate. Turn the rotator slightly up and down to fully engage the plunger when needed.

Each plunger lever has marking to show its working intervals.

Offsetting the Giga Plate



To keep the Giga Plate small, limits are imposed on the max tilt angles for different intervals. It is indicated by "L" marks.

3.75 degrees interval supports full 180 degrees.

2.5 degrees interval is limited to about 150 degrees.

2 degrees interval is limited to 128 degrees.

1.5 degrees interval is limited to 96 degrees.

The Giga Plate can be offset to support full 180 degrees vertical coverage



In normal configuration the Giga Plate has 0 offset. Locking knob is aligned to the quick release clamp handle.

When the Giga Plate and the selected stopping plungers need to work outside the limits indicated by the index ring. The Giga Plate must be offset to extend the working range. To do so, loosen the locking knob, rotate to the plate to the smallest offset interval enough to cover the range according to the marking. Tighten the locking knob.

Tip: when using an ultra-wide angle lens, the Giga Plate may block some of the view of camera at 0 offset position. To reduce the blockage, use as large offset as possible while maintaining the working range of stopping plungers.



The Giga Plate can be offset to a max of 45 degrees to each side at 7.5 degrees intervals.



Giga Plate offset by 7.5 degrees.

Using the stopping end tabs:



Point the camera to the upmost region of interest without touching the lower rotator. Engage the stopping plunger by lifting the lever. Loosening the end tab handle and slide the stopping tab against the vertical rail stop and tighten. This sets the upper limit and ensures camera and lens will not inadvertently touch the pano head during up and down rotation.



Point the camera to the lowest region of interest without touching the lower rotator. Engage the stopping plunger by lifting the lever. Loosening the end tab handle and slide the stopping tab against the vertical rail stop and tighten. This sets the lower limit and ensures camera and lens will not inadvertently touch the pano head during up and down rotation.