

# EZ-Leveler II

# FANOTEC Nodal Ninja

## Quick Reference Guide

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Support: [www.nodalninja.com/forum](http://www.nodalninja.com/forum)  
Tutorials: [www.youtube.com/nodalninja](http://www.youtube.com/nodalninja)  
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EZ-Leveler II (EZ-L II) allows fine level adjustment of the mounted device. By simply turning 3 rollers, adjustment of the level is easy and smooth. There are locking knobs to cancel out backlash and prevent accidental change of level. It is lightweight, compact, and smartly shaped to minimize the nadir footprint when taking spherical panoramas. Its "Head Alignment Knob" allows a pano head with an indexed rotator to point in any direction without moving the tripod. Alternatively, it allows aligning of EZ-L II edges to the tripod legs to minimize the nadir footprint.

**NOTE: EZ-L II does not incorporate its own bubble level. It requires the mounted device to have a bubble level or other level reading capability.**

## Package Contents of EZ-Leveler II

	Spare Parts	Qty
	3/8" to 1/4" adapter	1

## Features



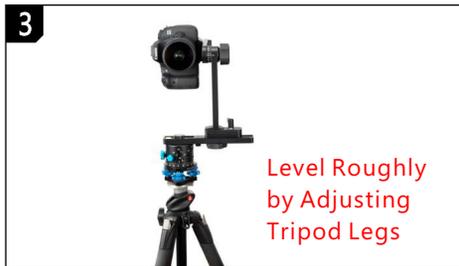
## Installation and Level Adjustment



Install the 3/8" to 1/4" adapter if the tripod has a 1/4" thread. If tripod top plate has bare metal surface, consider adding a friction material to prevent loosening and/or scratching the base of EZ-L II. An optional cork sheet like that on EZ-L II is available from Fanotec.



Place the tripod legs in their preferred positions. Unlock the level locks. Turn the rollers to roughly the middle of their full adjustment range. Tighten the "Head Alignment Knob" (HA Knob) of EZ-L II to the base. Tighten EZ-L II to tripod while holding the knob with fingers.



Mount the tripod head or ball head on EZ-L II. Mount the camera on tripod head or ball head. Then roughly level (bubble inside or on the circle line) the tripod head using its own tilt adjustment or by adjusting the length of tripod legs. This prevents EZ-L II from going out of adjustment range.



Stand in a position so that 2 rollers (1 and 2) are horizontal in front of you. Look at the bubble from vertically above. Adjust the horizontal rollers to center the bubble horizontally.



Adjust roller 3 to center the bubble vertically. If this fails due to poor initial leveling, adjust rollers 1 and 2 simultaneously till the bubble is centered horizontally and vertically. Then lock the level locks to prevent accidental change of level.

## Using the Head Alignment Knob (HA Knob)

In panoramic photography, one may want to include a specific view into a single image to reduce stitching errors. One may also want to set a specific viewpoint as the initial displayed view, instead of in post processing. This can be achieved by moving the tripod legs. Some situations may require the tripod legs be placed in specific positions, e.g., in very crowded places. The indexed rotator in a pano head may hinder rotation to the preferred angle. The HA Knob will allow the pano head to point in any direction. Alternative, it allows EZ-L II to align its edges to the tripod legs to minimize the nadir footprint.



Place the tripod legs in their preferred positions. Tighten the HA Knob to the base. Tighten EZ-L II to tripod while holding the knob with fingers. Then mount the pano head on top of EZ-L II. Mount the camera on pano head.



Loosen EZ-L II a bit to help loosen HA Knob. Gradually loosen HA Knob while tightening EZ-L II, until the camera is about to point at the desired direction. Tighten EZ-L II fully. Then continue the leveling process described in the previous section.



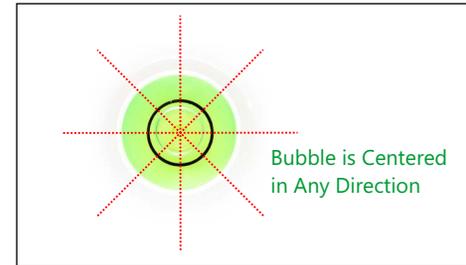
Alternatively, HA Knob allows EZ-L II to align its edges to the tripod legs to minimize the nadir footprint. Loosen EZ-L II a bit. Gradually loosen HA Knob while tightening EZ-L II, until its edges are about to align with the tripod legs. Then tighten EZ-L II fully.

## Tips for Leveling a Panoramic Tripod Head

Many people new to panoramic photography have concerns about bubble movements after rotating the pano head, and they try to re-level the pano head after each rotation. DO NOT re-level the pano head! Re-leveling moves the lens away from the No-Parallax Point and will cause stitching errors. For the bubble to remain stationary and centered, it requires a level of perfect accuracy or very low sensitivity. That is not the case for levels used in photography. It also requires a tripod and a pano head of perfect rigidity, which seldom exist. The recommendation from experienced panoramic photographers is to level the first shot and forget about leveling the remaining shots.

## Tips for Accurate Reading of Circular Bubble Level

For accurate leveling, a circular bubble level must be read from vertically above. Any viewing angle to the vertical will cause reading error. With a camera and lens positioned at the No-Parallax Point on a pano head, it can be quite difficult to view the bubble from vertically above. This tip will help you overcome this difficulty.

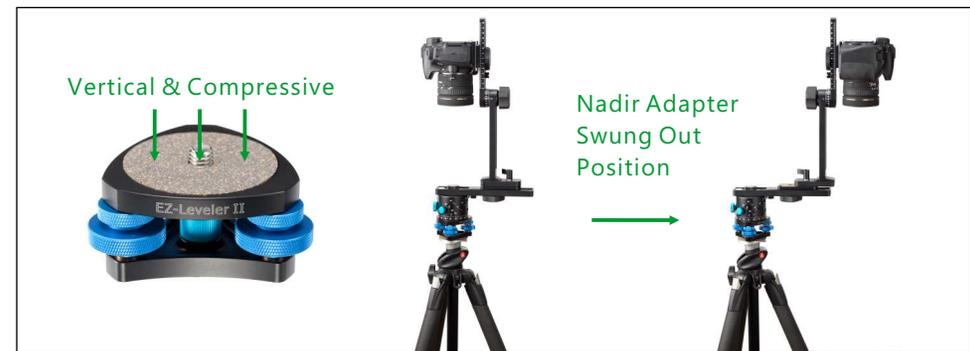


With a properly leveled circular bubble level, the bubble is positioned at the center of the vial. The bubble is horizontally centered when a viewer looks at the center of the vial from any direction. Therefore it suffices that the viewer reads the bubble from any 2 perpendicular vertical planes



Level the bubble as described in previous section. Confirm the accuracy of reading by ensuring the bubble is centered horizontally when viewed from the top front/back as well as from the top left/right. If not, re-adjust roller(s) to center the bubble. Now the bubble is leveled.

## Note About Maximum Loading and Off-Axis Loading



EZ-L II is designed to support 10kg (22 lb) vertical compressive loading, a typical loading type for most equipment to be mounted on EZ-L II. For equipment with center of gravity far away from the mounting point, the load rating is reduced due to the much amplified bending torque. This is the case for long lenses and Nodal Ninja with nadir adapter (or pano head with similar construction) in the swung out position. We recommend maximum loading of 1.5kg (3.3lb) using a nadir adapter on EZ-L II. There may be a slight lifting of level on the opposite side of load.