

- 1) Turn camera on. Set Mode dial to **M**
- 2) First-time setup... Press **(MENU)** and use 4-way controller to set the following:
  - Metering > **[Spot AF Area]**
  - Qual > Image Quality > "FINE"
  - Qual > Image Size > "2272x1704"
  - Focus Options > AF Area Mode > "Manual"
  - Focus Options > Auto Focus Mode > "Single"
  - EXposure Options > Exposure Mode > "Manual"
- 3) Adjust Zoom until circular image just fills frame from top to bottom (see below).  
 (Note: depending on your camera's threads, the image may be slightly off center. This is normal. A trick is to place a thin piece of paper or tape, as a shim, between the camera and the optic to align more closely.)
- 4) Press & hold **[+/-]** and use 4-way controller to set:
  - Aperture to F8 or higher. (see below).
  - Exposure to acceptable setting. This may require some experimentation to make sure the image is properly exposed. Try going into the menu and turning Auto Bracketing (BKT) on. This will allow the camera to take 3 images at once, each at different exposures.
  - 5) Use 4-way controller to position focus area at the bottom of 5 spots, just below center.
  - 6) Press **[Macro]** 2-3 times, until focus switches to Macro **(M)**, and timer is set to On **(ON)**.
  - 7) Press **[Flash Off]** to turn Flash off **(OFF)**
  - 8) Press Shutter Release halfway to focus, then fully to shoot. You have 10 seconds to hide!

- 1) For best results, mount camera on tripod with mirror at eye level.
- 2) Attach 0-360 to lens threads on camera. Optic points vertically. Adjust to Level.

**A note about Aperture, Depth of Field, and Field of View**

**Aperture-** a mechanism behind the camera lens similar to the iris of your eye, opening and closing to adjust the amount of light entering the camera. The aperture opening also determines the Depth of Field of the image.

**Depth of Field-** describes the objects in the image which are in focus, in terms of their distance from the camera. For example, a camera focused at 30m, with a Depth of Field of 8m, will have objects from 26-34m from the camera in focus. Objects closer than 26m or further than 34m will start to become blurry.

**Field of View-** the vertical Field of View (vFOV) of the 0-360 attachment. The 0-360 has a vFOV of 100+ degrees, meaning it will "see" from 50°+ above the horizon to 50°+ below the horizon.

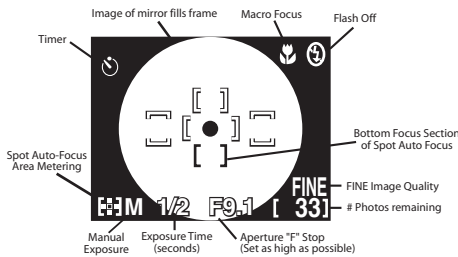
A smaller Aperture opening (higher F-Stop number) allows less light to enter the camera, but yields a higher Depth of Field. With a high F-Stop, the shutter speed needs to be slowed down to allow more light (else a dark photo), but will have more Depth of Field in focus.

A larger Aperture opening (lower F-Stop number) allows more light to enter the camera, but a lower Depth of Field. This means the shutter speed can be faster, but fewer objects will be in focus. (With slower shutter speeds, moving objects may blur.)

The 0-360 is designed to operate with a camera F-Stop of F8.0 or higher (preferably 9 or 10). This provides a high enough Depth of Field to allow the entire mirror to be in focus. With lower F-stops, the shutter speed can be increased, but the upper or lower portions (or both) of the mirror may not be entirely in focus. This means the image far above or far below the horizon may not be sharply focused. This may not be a problem, as many times the sky or the ground may not need to be sharply focused.

For best results, shoot a well-lit scene! With high F-Stops, you need good lighting, or longer exposure times.

When you are ready to shoot, the monitor should appear like this:



**Quick Start Guide**



Please read the Care Instructions on back page.

**IMPORTANT!**

**Instructions for use with Nikon COOLPIX 4300**



**ENJOY!**

The 0-360 Panoramic Optic is warranted against defects in material and workmanship for a period of one year from date of purchase. This warranty does not cover damage caused by accident, abuse, misuse, exposure to the elements, or scratches to the mirror surface. If a defect in workmanship or material is discovered, 0-360.com will, at its option, repair or replace the Optic free of charge. Purchaser must first obtain a Return Authorization from 0-360.com, and return the unit properly packaged and freight prepaid. 0-360.com's liability is limited to repair or replacement of the Optic only. This warranty supersedes all other warranties, express or implied.

**WARRANTY**

- 1 Do not touch, handle, or polish the mirror! While the mirror does have a protective coating, touching or rubbing on its surface can cause scratches. Use the dust blower provided to remove dust before shooting. Use lens cleaning paper or lens cloth only if absolutely necessary, and rub gently. NEVER use a paper towel or other material to clean.
- 2 Avoid dropping or mishandling the unit, as it is a sensitive glass optical device.
- 3 Store the unit in its carrying case when not in use, in an upright position and in a cool, dry environment.

Thank you for purchasing the 0-360 Panoramic Optic! With proper care and handling, the Optic should give you years of service. Here are a few important handling instructions:

**Care Instructions**

**IMPORTANT!**