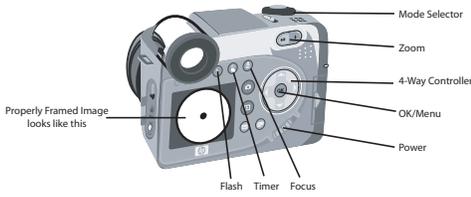


0-360 Panoramic Optic Setup for HP Photosmart 945



- 1) Mount camera on tripod, securely, with lens pointing vertically.
- 2) Attach thread adapter tube to camera, 0-360 Optic to adapter tube. (Do not overtighten.)
- 3) Adjust tripod until Optic is vertical (refer to bubble level on top of Optic).
- 4) Turn Mode Selector to "AV" (Aperture Priority).
- 5) Turn Power on.
- 6) First time setup, Press "OK" to access the menu, and set:
 ---Resolution to "5 MP".
 ---Compression to "Best".
 ---AE Metering to "Average". (Press "OK" again to exit Menu)
- 7) Press Right Arrow on 4-Way Controller to set Aperture to F8.0 or higher.
- 8) Press MF- Focus Switch until Manual Focus Mode appears.
- 9) Press Up and Down Arrows of 4-Way Controller until image of mirror comes into focus.
- 10) Adjust Zoom until image of mirror just fills frame from top to bottom (See drawing above).
 (NOTE: Depending on your camera's threads, the image may be slightly off-center. This is normal.
 A trick is to use a thin piece of paper or tape as a shim to align to center.)
- 11) Adjust Focus again, until both center and outside of mirror are sharply in focus.
- 11) Press Flash Button to turn flash off. (A will appear on screen)
- 12) Press Timer Button on top to turn timer on. (A will appear on the screen)
- 13) Press the Shutter button. You have 10 seconds to hide!
- 14) Review the image. Zoom in to see that both the center and outside of the mirror are in focus. If not, adjust the Manual Focus and/or Aperture to obtain uniform focus.
- 15) Advanced Users: To adjust exposures, use Manual setting, instead of Aperture Priority. Keep the Aperture at F8.0+, but experiment with the exposure times or bracketing.

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.

With the HP Photosmart 945, you should be able to get a vFOV of approximately 110 degrees, with good focus across the entire image.

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

Quick Start Guide



Please read the Care Instructions on back page.

IMPORTANT!

Instructions for use with HP Photosmart 945



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.
 - 4) Use care in threading the Optic into your camera, avoiding cross-threading.
- 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!