

# Focusing Screen Installation Guide

For the Pentax \*istDL, K100D, K100D Super, K110D, K200D, K2000 (K-m), K-r & K-x

Revised: December 20, 2010

Thank you very much for your purchase of a KatzEye<sup>™</sup> focusing screen. This document provides installation instructions for the Pentax \*istDL, K100D, K100D Super, K110D, K200D, K2000 (K-m), K-r & K-x cameras. While these instructions are based on a K100D installation, the procedure is equally applicable to all listed models. The installation of the KatzEye<sup>™</sup> screen requires no modifications to the camera, and when properly performed, is completely reversible. For best results, please read completely through the instructions before beginning the procedure.

Warning: These instruction are provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose. KatzEye<sup>TM</sup> Optics accepts no liability for damage resulting from using these instructions. Should damage occur as a result of following these instructions, the user will assume the entire cost of all necessary servicing, repair or correction. KatzEye<sup>TM</sup> Optics' liability is limited to repair or replacement of parts supplied by KatzEye<sup>TM</sup> Optics, at our sole discretion.

### Note: Pictures are available in larger format on the internet. Just click the links.

- 1. Set up a work area which is relatively free of dust and has a soft surface on which to place the camera.
- 2. Collect the necessary tools and supplies. You will need:
  - a. Plastic Tweezers Tool (supplied)
  - b. PecPads or similar
  - c. Small scissors
  - d. Bulb blower
  - e. Rubber gloves (optional), powder free



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- 3. Before removing the lens or body cap, use a bulb blower or cleaning brush to remove dust around the lens mount. This will help prevent dust from getting into the viewfinder.
- 4. Remove the lens from the camera and note the position of the focusing screen, the screen retainer and the latch. Clean any dust from the mirror chamber before beginning the procedure to help ensure a dust-free result. Place a strip of PecPad over the main mirror for protection. The pad is omitted in the photos in this guide for visual clarity.



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5. The end of the supplied tool has a small tab. Use this tab to <u>gently</u> lift the latch toward the lens mount and allow the retainer to come free. The latch is more clearly visible now and is highlighted again in the right photo. Remember to click the photos for a larger version online if necessary.





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6. Lower the retainer to the position shown below. The screen should come forward with the retainer. The retainer will NOT open all the way at this point.



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7. Hook the tool on the center of the retainer and gently lift the retainer straight out (parallel to the angle at which the retainer rests). This will disengage the pivot stop and allow the retainer to open fully, to the position shown in the right photo. The focusing screen handling tab and shim are also shown in the right photo.



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8. Using the tool provided, carefully grasp the focusing screen by the handling tab and remove it from the camera. Be careful not to scratch the screen on the retainer or other hard surface! Only touch the screen by the tab!





9. Place the original screen on the foam padded lid of the opened case of the KatzEye<sup>™</sup> focusing screen. Carefully cut the seal off the bag containing the KatzEye<sup>™</sup> screen with a scissors. Keep the special non-scratching bag to use for storing the original screen.



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10. Using the tool provided, and being careful to touch only the handling tab, remove the KatzEye screen from the protective bag and insert it into the camera as shown in the right photo and the left photo of step 11. Do not touch the screen with your fingers!



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11. Ensure that the screen is sitting correctly in the frame as shown in the left photo. Using the tab on the end of the provided tool, gently raise the retainer to the intermediate position shown in the left photo of step 12. The retainer will stay in this position once it has been reached.





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12. Reposition your tool so that the tab on the end of the tool pushes directly on the center front of the retainer and close the retainer the rest of the way. There will be a noticeable click with the retainer is fully seated.



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13. If necessary, blow any dust out of the mirror chamber with the bulb blower. Attach a lens and test the camera functions. If the camera functions correctly, the installation is complete. If any problems are encountered, please contact KatzEye™ Optics technical support for assistance.

Installation Complete

### Addendum A: Shim Insertion

### **Shim**

It is important that the horseshoe shaped shim remain installed in the camera to maintain the correct focus calibration. The shim is fitted above the focusing screen and should be in place <a href="mailto:before">before</a> the screen is fitted. In most installations, the shim will stay in place with no special procedures. However, the shim can sometimes become dislodged. If the shim falls out of position, it must be replaced before the screen is inserted. The correct position of the shim is shown below.



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# Addendum B: Screen Alignment & Focus Calibration

### **Screen Alignment**

Because of the high precision manufacturing of the KatzEye<sup>™</sup> focusing screen, the AF lights should align well to the prisms and markings of the KatzEye<sup>™</sup> focusing screen with no special procedures. However, because of parallax, the position of your eye in the viewfinder can shift the apparent alignment considerably. So before concluding there is an alignment problem, move the camera back and forth slightly in front of your eye to be certain your eye is properly centered in the viewfinder.

The alignment should be close without any special procedure, as long as the screen is installed correctly. If the alignment appears very far off, it is recommended to check for correct installation before proceeding. It also bears repeating that the apparent alignment can shift substantially based on the position of your eye in the viewfinder, so you might want to move your eye around a bit to be sure that there is actually a discrepancy. Also, bear in mind that the alignment of the AF lights will not affect the focusing accuracy in any way. However, if it is determined that there is an alignment discrepancy, the design of the camera does allow the screen to be shifted slightly in its frame. It can only change the alignment a small amount; but if you see a misalignment that is troubling, it is possible to move the screen to achieve perfect alignment. It is not necessary, nor desirable, to remove the focusing screen to perform the alignment. Simply unlatch the retainer, give the camera a gentle nudge, and re-latch the retainer.

Please note that because of the optics of the pentaprism, left/right motion of the screen is reversed; in other words, if the prism appears too far to the right, it will actually need to move to the right to correct the alignment. And if it appears too far to the left, it will need to move to the left. Vertical alignment is not readily adjustable. The alignment of the AF lights to the prism will not affect the accuracy of the focusing functions in any way; so once the alignment is close enough to be visually acceptable, the process is complete.

#### **Calibration**

The KatzEye<sup>™</sup> focusing screen will maintain the exact calibration set by the factory, provided it is correctly installed, and no special calibration procedures are required. If it is believed that there is a calibration problem, users are strongly advised to first check for correct installation of the focusing screen. If correct installation has been confirmed and there still appears to be a calibration problem, please contact KatzEye<sup>™</sup> Optics technical support for assistance.

# Technical Support

Technical support is available by email to <a href="mailto:customerservice@katzeyeoptics.com">customerservice@katzeyeoptics.com</a>. We strive to return all emails within 24 hours. Technical support is also available by phone at +1.413.743.2523 between the hours of 8:00am and 6:00pm Eastern Standard Time (GMT-5:00), Monday through Saturday. If we are not available, please leave a brief message, including your name and phone number, and we will call you back as soon as possible and always within 24 hours.

If you do not wish to complete the installation yourself, KatzEye<sup>™</sup> Optics can provide installation services. Please visit the KatzEye<sup>™</sup> Optics website, <u>www.katzeyeoptics.com</u> to purchase our installation service. We would also be happy to advise your choice of local camera shop regarding the installation procedure. Thank you very much for your purchase of a KatzEye<sup>™</sup> focusing screen and may the world favor you with abundant photo opportunities.

Take care,

Rachael Katz – Co-Owner, KatzEye™ Optics

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