

QuickGuide to EOS Focusing Screens

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Description

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Solution

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One of the many advantages of using Canon EOS SLRs—the professional models in particular—is the ability to change the focusing screen to suit a particular lens aperture, focal length, application, or focusing preference.

This QuickGuide is therefore intended to you derive the maximum benefit from these useful accessories.

The primary benefit of using something other than the standard screen is that an accessory screen may be better suited for use with manual focus or wide aperture lenses or may provide framing aids that are useful for macro, microscopic, copy, or architectural photography.

EOS SLRS with Interchangeable Screens

The following cameras feature interchangeable focusing screens:

EOS-1/1N/1V and EOS-3 series film cameras

EOS-1D/Ds series DSLRs

EOS 5D series DSLRs

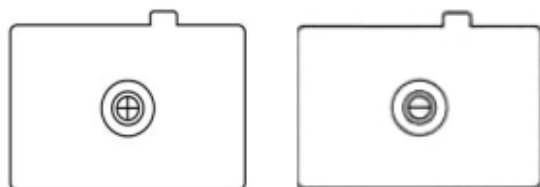
EOS 40D, 50D, and 60D DSLRs

Although similar types of focusing screens are available for each camera series, the screens themselves are not interchangeable between series. Screens are, however, interchangeable between models of the same series.

All Canon focusing screens are compatible with EOS autofocus systems, however, screens that have a focusing aid in the center may be incompatible with spot or evaluative metering.

BASIC SCREEN TYPES

Split-image

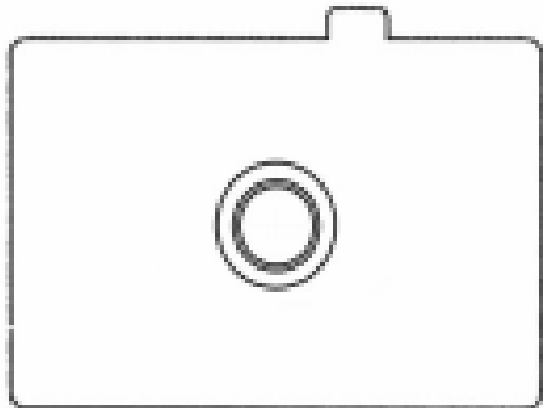


A split-image focusing screen helps with manual focus by visually splitting a subject along the horizontal or vertical and horizontal axis when it is not in focus and bringing the image together when the subject is in focus.

Canon's Ec-L Cross-Split screen is similar to the Ec-B screen but combines a vertical and horizontal split. With either version, the split-image focusing area occupies the center of the screen, and can be used with lenses that have a maximum effective aperture of $f/5.6$ or wider.

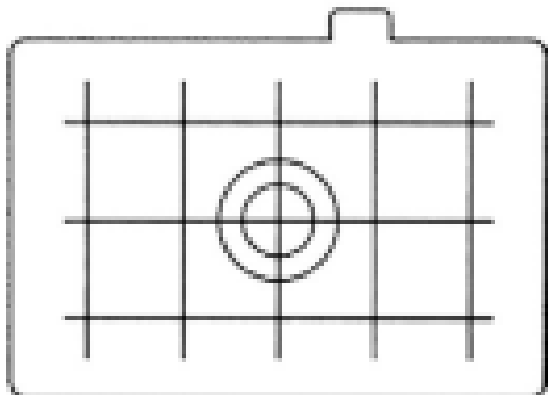
Available for EOS-1 series models (and EOS 3) only.

Microprism



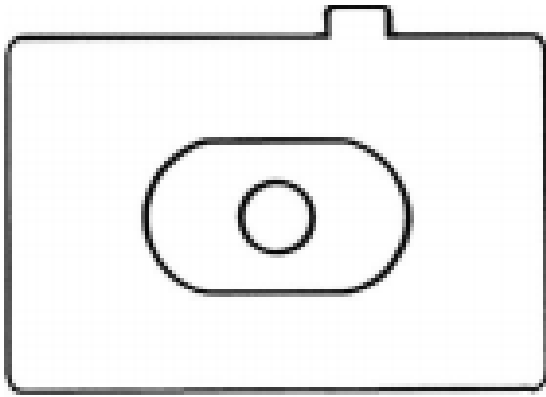
A microprism focusing screen such as the Ec-A helps with manual focus by visually diffracting a subject when it is not in focus and eliminating the diffraction when the subject is in focus. The microprism focusing area occupies the center portion of the screen, and can be used with lenses that have a maximum effective aperture of $f/5.6$ or wider. Available for EOS-1 series models (and EOS 3) only.

Laser matte (with or without grid lines)



A laser matte focusing screen such as the Ec-D has no visual focusing aids. Instead, it shows the entire image area going in and out of focus, even with lenses that have an effective aperture smaller than $f/5.6$. Canon offers laser matte screens in a variety of markings, ranging from grid lines, a cross-hair reticle, frame crops, or no markings at all.

Super Precision Matte



A Super Precision Matte screen such as the Ec-S is optimized for wideaperture lenses, specifically those that have a maximum aperture of $f/1.8 - f/2.8$. It's best suited for users who frequently manually focus in dim light with fast lenses. Areas that are slightly out of focus will appear more out of focus, making it easier to tell when focus is right-on. Note, however, that with lenses that have a maximum aperture smaller than $f/2.8$, a Super Precision Matte screen will appear dark and grainy. Different versions of the Super Precision Matte screen are available for EOS-1 series models, EOS 5D, EOS 5D Mark II, and EOS 40D-60D series.

Ec SERIES SCREENS

Ec-series screens are compatible with all versions of the EOS-1, EOS 3, EOS-1D, EOS-1Ds, and EOS D2000.

Available screens include:

Ec-A Microprism

Ec-B New Split with single horizontal split-image focusing aid in center

Ec-C III Original Laser-Matte. This is the standard screen for the EOS-1Ds. Its only markings are an outer AF ellipse and an inner spot metering reference circle.

Ec-C IV Bright Laser-Matte. This is the standard screen for the EOS-1D Mark III/IV, and 1Ds Mark III. It has the same markings as the Ec-C III but is brighter, less grainy and better balanced.

Ec-D Laser-Matte with Sections (grid screen)

Ec-H Laser-Matte with Scale

Ec-I Laser-Matte with Double Cross-Hair Reticule

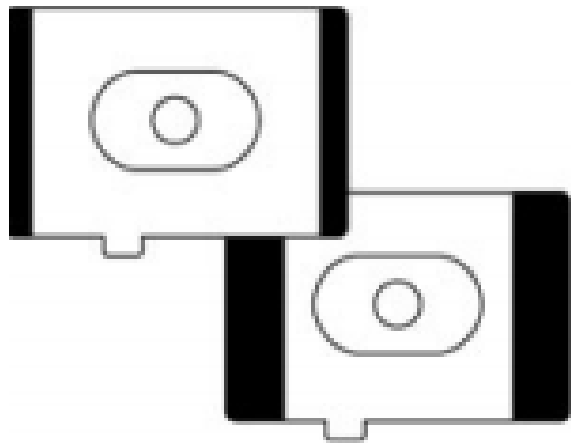
Ec-L Cross-Split Image

Ec-N New Laser-Matte. This screen is standard for the EOS 3. It has a Bright Laser Matte field with an AF ellipse center-focusing spot.

Ec-R New Laser-Matte. This screen is standard for the EOS 1N RS. It compensates for decreased brightness due to low reflection from a pellicle mirror. It is an overall bright laser matte and allows for center spot metering.

Ec-S Super Precision Matte. Optimized for wideaperture lenses, specifically those that have a maximum aperture of $f/1.8 - f/2.8$.

SCREENS WITH CROPS FOR 4×5 AND SQUARE FORMATS



These screens come as a set of two. They are ideal for users who regularly shoot images that will be printed at standard print sizes. One is marked for square (6x6cm) format, the other indicates the boundaries for 4x5 and 8x10 format.

Each set of screens is available in one of two versions:

The Black Mask Set (shown above) has each format indicated by a heavy black mask. The Crop Lines Set has each format indicated by a thin border. Both versions are otherwise identical to the standard Bright Laser Matte screen. With Black Mask versions, we recommend Partial or Spot ambient metering and FEL flash metering for optimum accuracy and repeatability.

Ec-1Ds/Ec-1D/Ee Crop Lines

Ec-1Ds/Ec-1D/Ee Black Mask

Ec-1Ds For all versions of EOS-1Ds, and all 35mm versions of the EOS-1.

Ec-1D For all versions of EOS-1D.

Ee For original 12MP EOS 5D only. Will not fit EOS 5D Mark II.

Ee SERIES (EOS 5D) AND Eg SERIES SCREENS (EOS 5D MARK II)

Ee-A (5D) / Eg-A (5D Mark II): Precision Matte

Ee-D (5D) / Eg-D (5D Mark II): Precision Matte Grid Lines

Ee-S (5D) / Eg-S (5D Mark II): Super-Precision Matte (for f/2.8 or faster lenses)

Ef SERIES (EOS 40D, 50D, 60D)

Ef-A Standard Laser Matte focusing screen

Ef-D Precision Matte surface with etched grid lines. The camera's AF points remain fully visible. Focus characteristics are suited to most lenses.

Ef-S The Super Precision Matte focusing screen is optimized for wide-aperture lenses from f/1.8 thru f/2.8. Areas that are slightly out of focus appear more out of focus, making it easier to tell when focus is right-on. It is ideal for users who frequently use manual focus in dim light with fast lenses.

EXPOSURE AND COMPATIBILITY ISSUES

Center spot metering will not be accurate with splitimage, microprism, and double cross-hair reticle screens.

Evaluative metering is also not recommended because of possible exposure inconsistencies. The best option with these screens is center-weighted average metering.

A second option is spot metering linked to an off-center AF point (C.Fn I-7-1 with EOS-1D Mark

III & Mark IV).

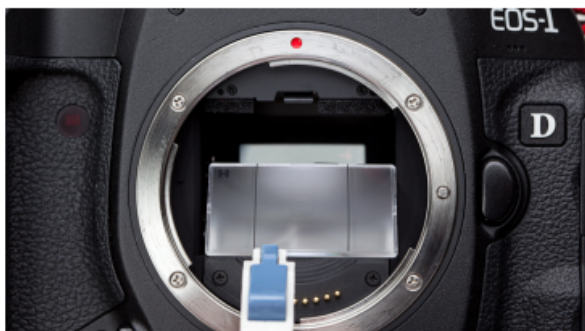
PROPER CARE AND HANDLING

Focusing screens are extremely delicate and should be handled with great care. Always use the special gripping tool that Canon provides with each screen. Never touch the screen with your fingers or hold it in your hand.

Never place the screen in contact with a dirty or abrasive surface. If you smudge the screen you will find the smudge very difficult to remove. If you scratch the screen the scratch will be permanent. If you see dust on the screen, do not attempt to remove the dust with a brush or compressed gas duster. You should only attempt to remove dust with a manual air blower, making sure never to touch the screen. If you are unable to remove the dust, have the screen cleaned by an authorized Canon service facility. Bear in mind that minor specks of dust will not appear on your images and have no effect on a focusing screen's usability

REMOVAL

1. Place your camera on a flat surface, with the lens mount facing upward. This will prevent the screen from accidentally falling out of the camera.
2. Use the focusing screen gripping tool to gently pull toward you the latch that holds the screen in place. The frame that holds the screen will release and drop downward, toward the mirror. Note whether the mounting tab is to your left or right. The replacement screen must be inserted with the mounting tab in the same position.
3. Grasp the focusing screen's mounting tab with the tool and carefully lift the screen out of the camera. Place the screen you have removed in the open area of the new screen's storage case to prevent damage.



INSERTION

1. Grasp the focusing screen's mounting tab with the tool and carefully place it into the retaining frame inside the camera, in the same position as the original. Make sure the screen is properly seated.
 2. Gently press up on the screen holder with the tool until the holder clicks into place. Be especially careful that the tool doesn't slip forward and scratch the focusingscreen or mirror.
- Grasp the mounting tab of the screen you removed and place it in the case in the storage position.

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