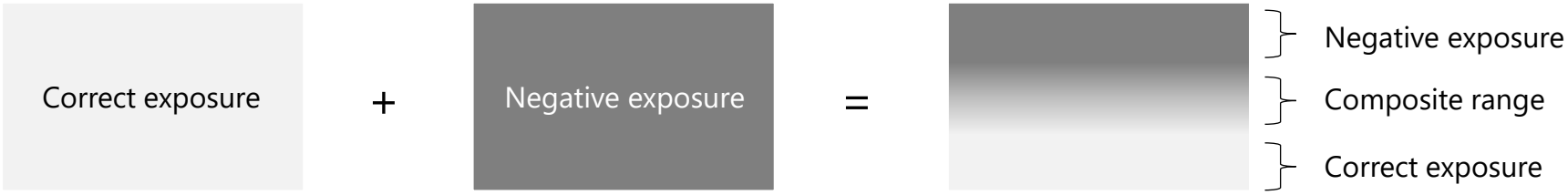
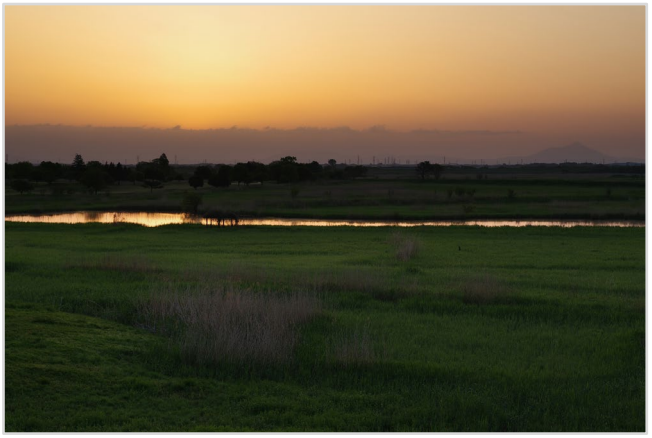
Grad ND Simulator

Function Overview

- The Grad ND Simulator combines two images, one at the correct exposure and one at a negative exposure, into a single image for a similar effect to using a graduated ND filter.
- The effect reduces the contrast in the frame to minimize overexposed and underexposed areas.
- You can specify how much negative exposure to use in regard to the correct exposure with the “Maximum Dimming Amount” setting.
- Setting the graduation type and range allows you to reproduce various graduated ND filter effects.



Off



Graduation type: Normal
Maximum dimming amount: -2.0

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Basic Shooting Procedures

1. With “Grad ND Simulator” in the 4 menu “Shooting Settings” (3 menu “Shooting Settings” for the K-3 Mark III Monochrome), select the graduation type.
2. Set “Maximum Dimming Amount” between -0.3 EV (-0.5 EV for a 1/2 EV step) and -5.0 EV.
3. Set the exposure.
4. Secure the camera to a tripod, etc., and shoot. A single shutter release captures two images in the following order: correct exposure, negative exposure.
5. On the composite confirmation screen, specify the composite range position and width.
6. Press the ISO button to check the composited image if necessary. To reset the specified composite range, press the menu button to go back to the composite confirmation screen in Step 5.
7. Press the OK button or shutter release button to process and save the composited image. Image processing takes about 3 seconds.

Caution

- The Grad ND Simulator composites two captured images to simulate the effects of an optical graduated ND filter.
- To capture two images, you must first secure the camera to a tripod.
- Moving subjects may be duplicated in the image, making it difficult to composite the final image.
- If there is an overexposed subject in the composite range, its color may change, and its tones may not show in the image. Keeping overexposed subjects out of the composite range makes it easier to achieve a good looking final composited image.
- The composited image is also saved in RAW format. You cannot turn off the Grad ND Simulator function or adjust the “Maximum Dimming Amount” setting or composite range once the image is saved.
- The shutter speed is adjusted for a negative exposure. For a correct exposure, make shooting settings such as lowering the ISO sensitivity and narrowing the aperture so that there is enough leeway for the negative exposure.

Shooting Hints

The Grad ND Simulator is a shooting method that simulates the effects of a graduated filter. When shooting, determine the dark area of the exposure as the reference point, and then set “Maximum Dimming Amount” to determine to what extent to reduce the exposure of bright area (whether to darken them).
You cannot change “Maximum Dimming Amount” after shooting, so check the bright area and dark area exposures in Live View in advance. Setting the difference between the two exposures as “Maximum Dimming Amount” is a simple way to determine the exposure.
* Setting “Exp. Simulation LV” to “On” in the 2 menu “Monitor Settings” can make it easier to determine the exposure.

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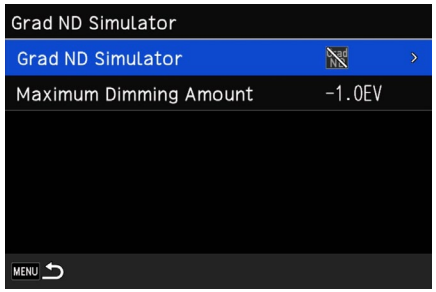
Graduation Settings

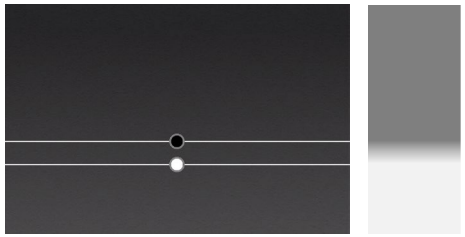
- You can select the graduation type from “Normal Nor”, “Reverse Rev”, “Custom 1 C1”, “Custom 2 C2”, and “Custom 3 C3”.
- In addition to the 4 menu “Shooting Settings” (3 menu “Shooting Settings” for the K-3 Mark III Monochrome), by saving the Grad ND Simulator in the control panel, you can also make the graduation settings from the control panel.
- With the graduation type “Custom”, you can select “Line (Dark)” and “Line (Bright)” as the graduation method in addition to “Normal” and “Reverse” and change and save the composition range in advance. To make detailed settings for “Custom”, select “Grad ND Simulator” in the 4 menu “Shooting Settings” (3 menu “Shooting Settings” for the K-3 Mark III Monochrome) or the control panel, and press the OK button to open the menu.
- “Maximum Dimming Amount” cannot be saved in “Custom”. Make sure to set this for each shooting scene.



Shooting menu

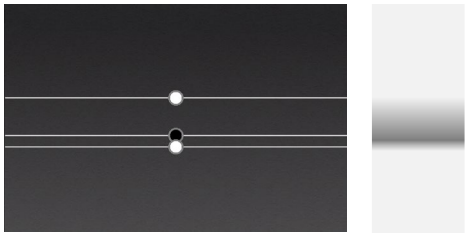
Control panel

Graduation Method



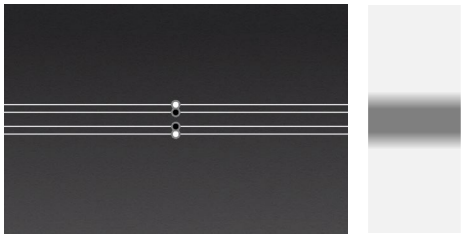
Nor Normal

This setting reduces the contrast to minimize overexposed and underexposed areas.



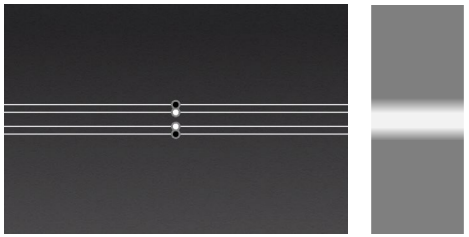
Rev Reverse

This setting is effective for shooting sunrises and sunsets with the greatest brightness near the horizon.



Line 1 Line (Dark)

This setting is effective for shooting scenery while keeping the city lights across a body of water low.



Line 2 Line (Bright)

This setting is effective for situations where the subject is backlit and underexposed.

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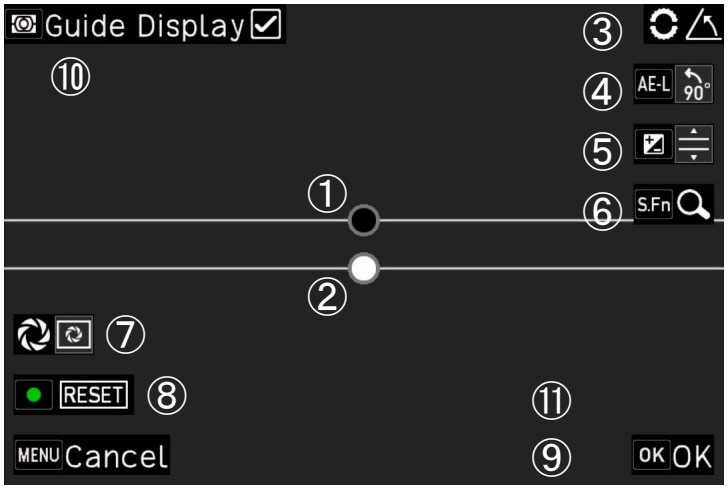
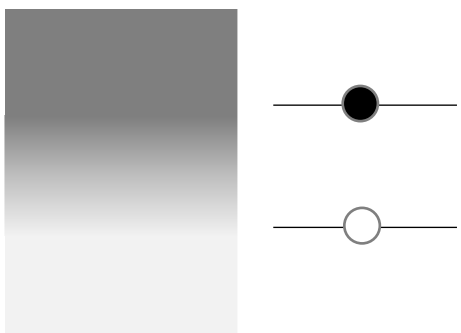
Composite Confirmation Screen



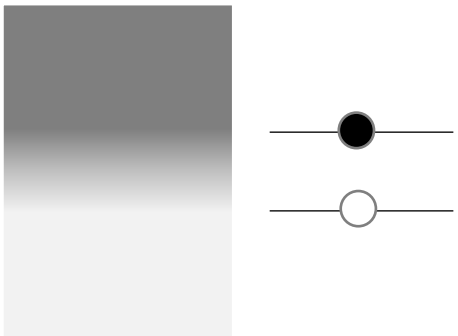
① Specify the starting edge (negative exposure side) of the composite range with the four-way controller.
② Specify the ending edge (correct exposure side) of the composite range with the four-way controller.
③ Rotate the starting and ending edges in 1-degree increments with the front e-dial and 0.1-degree increments with the rear e-dial.
④ Rotate the composite range 90 degrees with the AE Lock button AE-L.
⑤ Switch between moving both the starting edge and ending edge of the composite range or moving the ending edge only with the EV Compensation button. Selection of the moving line differs depending on the graduation method. A grayed-out line (● or ○ is transparent) will not move.
⑥ Reduce the screen display size with the Smart Function button S.Fn to set the starting/ending edge outside the frame.
⑦ Check the composited image before confirming the settings with (preview) of the main switch.
⑧ Reset the starting/ending edge positions with the Green button.
⑨ Start composite processing and save the image with the OK button OK.
⑩ Show/Hide the guide with the AE Metering button.
⑪ When “Custom 1”, “Custom 2”, or “Custom 3” is selected, switch the graduation method with the INFO button INFO.

* All operations are also possible on the touch panel.

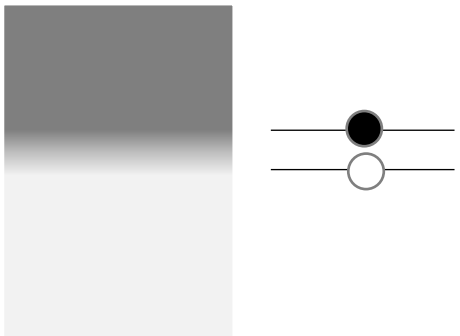
Widening the space between the starting and ending edges results in a softer graduation, and narrowing it results in a harder graduation.



Soft



Medium



Hard

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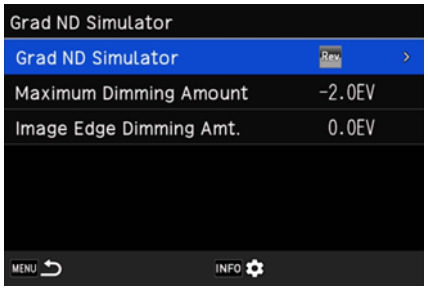
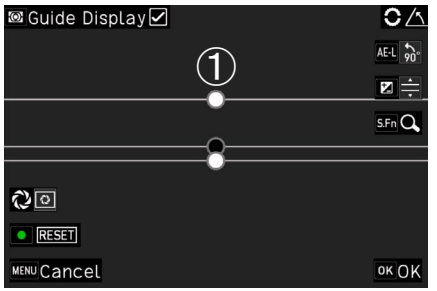
“Ending Edge Dimming Amount” for “Reverse”

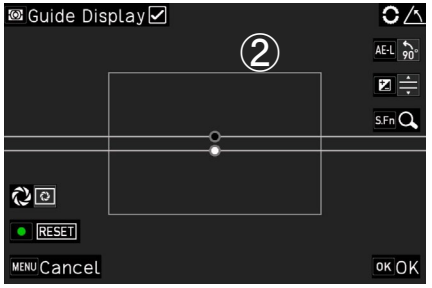
When the graduation method is set to “Reverse”, “Image Edge Dimming Amt.” appears as a setting item. This “Image Edge Dimming Amt.” sets the light reduction in the area ① of the setting screen (shown to the right). The default setting is 0.0 EV, and it can be set in the range from 0.0 EV to the maximum light reduction of +0.3 EV. Changing this setting allows you to set an exposure difference in three areas: the ground, center area, and sky.

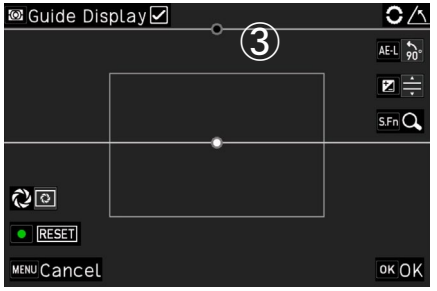




Setting Starting and Ending Edges Outside the Frame

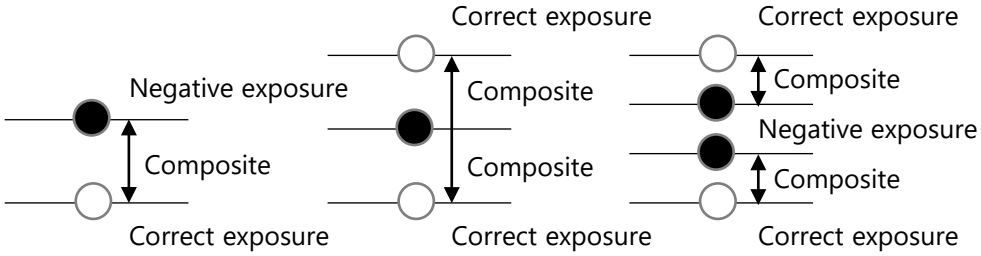
If you want to set the graduation starting or ending edge outside the frame, press the Smart Function button S.Fn to reduce the screen display size (as shown on the left of the two screens to the right) and use the four-way controller to set the starting/ending edge.
The gray frame ② indicates the shooting range, and ③ is an example of the ending edge set outside the frame.





Compositing

The Grad ND Simulator composites two images with different exposures to achieve a similar effect to a graduated ND filter, so images are composited between the set starting edge and the ending edge. More specifically, the area between the black circle (●) and the white circle (○) is the composite range.



If there is a moving subject or overexposed subject in the composite range, the two images used for compositing may result in a blurry image, the colors may change, or the tones may not show. Avoiding such subjects in the composite range will result in better images.