


KODAK PROFESSIONAL DCS Pro SLR/n Digital Camera



User's Guide – Lens Optimization Section

P/N 4J1533

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Lens Optimization

Overview

Some lenses produce a color shift in the corners of images. Your camera has a feature that corrects this color shift to create a more uniform image. There are three methods for controlling the strength of this correction.

Method one: Auto—(see [page 5-28](#)) This method automatically determines the correction strength for each image based on analysis of the image data. This feature works with most lenses and may be the only method you ever need to use. When the camera is in Auto, all of the work is done for you.

NOTE: The Auto method is recommended if your images are not showing anomalies.

Method two: Manual—(see [page 5-29](#)) This method allows you to directly input the correction strength. This method is provided for testing, and is not for daily use.

Method three: Lens Selection—(see [page 5-29](#)) This method determines the correction strength by selecting the specific lens you are using. Since the camera cannot uniquely identify every lens attached, you must select the lens from a list. Your camera contains a master list of commonly used, current model lenses from several manufacturers. You can easily add additional lenses to the master list. There is a conveniently accessible user list for the lenses you use most often. The camera can usually automatically identify and select the current lens if it is in the user list. It is easy to maintain this list by adding and removing lenses.

The master list includes default correction strengths for each lens. Sometimes these defaults are not ideal. You can adjust the strength for any lens in the master list. If you define new lenses (see [page 5-35](#)), you will need to set the strengths for them as well.

We recommend that you try the Auto method first and only use the Lens Selection method if you are not satisfied with the results of the automatic optimization.

Configuring your Camera

Selecting the Method of Lens Optimization

There are three methods for optimizing your lens:

Auto



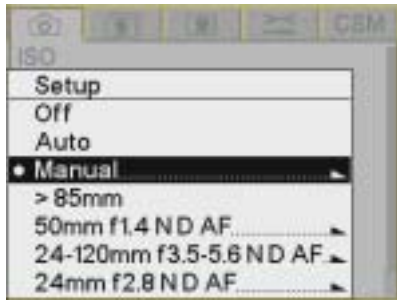
1. Choose Lens Optimization from the Capture menu.



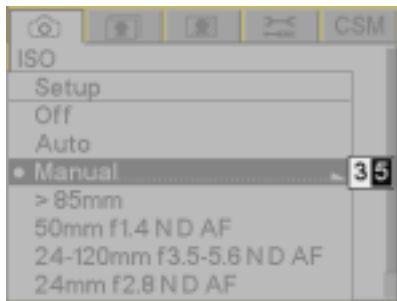
2. Choose Auto.
3. Press the OK button.

NOTE: Auto is the factory default. If you reset defaults, the camera resets to the Auto method.

Manual



1. Choose Lens Optimization from the Capture menu, then choose Manual.

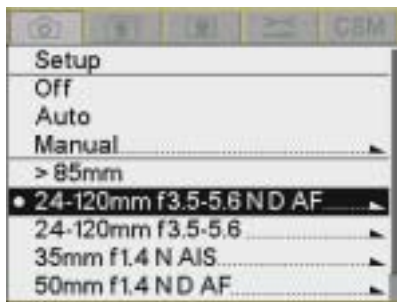


2. Press the right side of the Four-way switch to display the edit boxes.
3. Press the right or left side of the Four-way switch to highlight a box. Press the top or bottom of the Four-way switch to change a value.

NOTE: The strength must be between zero and 99.

4. Press the OK button.

Select a Lens from the User List



Once you add a lens to the user list (see [page 5-31](#)) or define a new lens (see [page 5-35](#)), you can select it.

1. Choose Lens Optimization from the Capture menu, then choose a lens.
2. Press the OK button.

NOTE: Most long lenses require a correction strength of zero. Select the >85mm option for these lenses. This is more convenient than adding all your long lenses to the user list. If you have a long lens that requires a non zero strength, add it to your user list.

When you Change Lenses

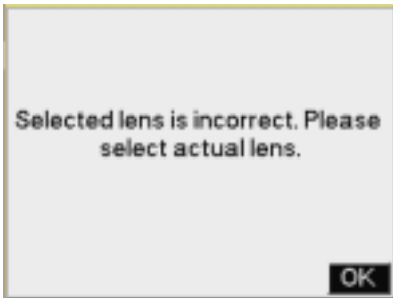
If you have selected a lens from the user list and you later change the lens, you should select the new lens before shooting. If you capture an image and the lens does not match your selection, the camera will attempt to automatically select the new lens. The camera will ask you for help if it is uncertain which lens you are using. One of the following events will occur:

- If there is one possible match in the user list or the master list, that lens is automatically selected.
- If there are two or more possible matches in the user list or the master list, the list of possible matches appears.
- If there are no possible matches in the user list or the master list, the camera switches to Auto.

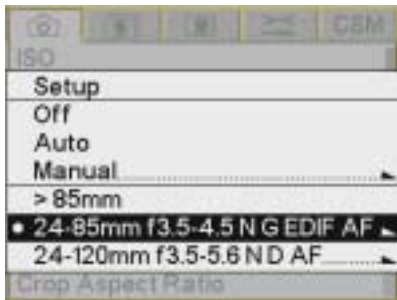
NOTE: If you use the wrong lens in Basic mode, the Auto method will be used.

With two or more matches:

1. Press the OK button to dismiss the screen.



2. Select a lens and press the OK button.



Maintaining the User List

The camera maintains a master list of lenses. You can create your own user list of frequently used lenses.

You can do the following with the user list:

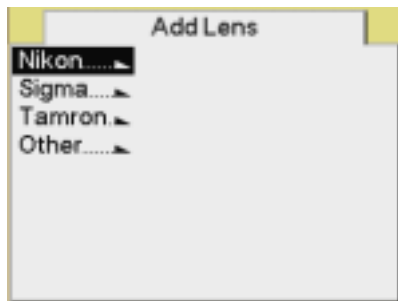
- Add lenses from the master list (see [page 5-31](#))
- Remove lenses (see [page 5-33](#))
- Select lenses (see [page 5-29](#))
- Save the user list (see [page 5-34](#))
- Load the user list (see [page 5-34](#))

Adding Lenses from the Master List

Use this option to move a lens from the master list to the user list.

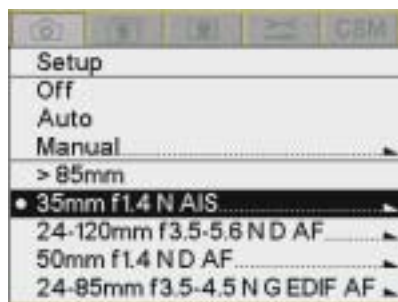


1. Choose Lens Optimization from the Capture menu, choose Setup, then choose Add Lens.



2. Choose the appropriate lens manufacturer.

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3. Choose the lens that is mounted on your camera.

NOTE: If your lens does not appear in the master list, add a new fixed (see [page 5-35](#)), or a new zoom lens (see [page 5-36](#)).

4. Press the OK button.

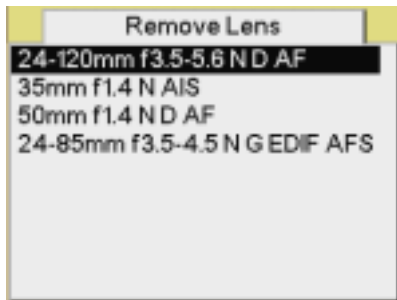
The lens is moved from the master list to the user list.

Removing Lenses from the User List

Use this option to move a lens from the user list to the master list.



1. Choose Lens Optimization from the Capture menu, choose Setup, then choose Remove Lens.



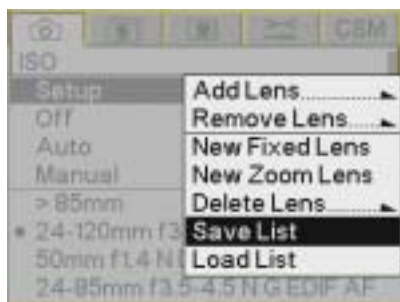
2. Select the lens to be removed.
3. Press the OK button.

The lens is moved from the user list to the master list.

Saving a List

If you have made any changes to a list in the camera, we recommend that you save the list to a memory card. This combines the user list and master list and provides a backup copy. If your camera needs repair and the original list cannot be saved, your backup copy can be loaded.

If you use more than one KODAK PROFESSIONAL DCS Pro SLR/n Digital Camera, you can save time by creating the user list of commonly used lenses on one camera, then loading it into the others.



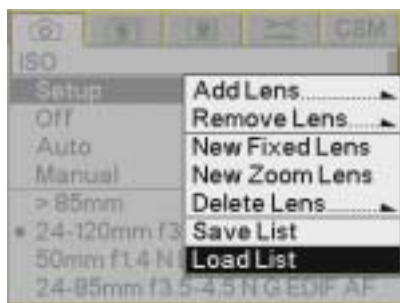
1. Insert a memory card in the camera.
2. Choose Lens Optimization from the Capture menu, choose Setup, then choose Save List.
3. Press the OK button.

The list is saved to the root directory of the memory card as lens.txt.

IMPORTANT: *Do not edit or rename this file. If you do, it may not work properly in the camera.*

Loading a List

IMPORTANT: *Save your current user list to your computer before loading a new one. The new list will be merged with your current list and new lenses or changes not already in the camera will be applied. If you change the strengths for a lens, and there are changes for that lens in the new list, your changes will be overwritten.*



1. Insert the memory card containing the list in the camera.
2. Choose Lens Optimization from the Capture menu, choose Setup, then choose Load List.
3. Press the OK button.
4. Press OK in response to the confirmation screen.

If a file named lens.txt is in the root directory of the memory card, it is saved to the camera.

Defining New Lenses

If you use a lens that is not in the camera's master list, you can define a new lens and add it to the user list.

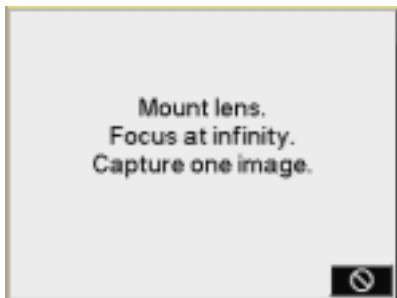
You can:

- Define a new fixed lens (see [page 5-35](#))
- Define a new zoom lens (see [page 5-36](#))
- Delete a defined lens from the user list (see [page 5-37](#))
- Edit the name of a defined lens (see [page 5-38](#))

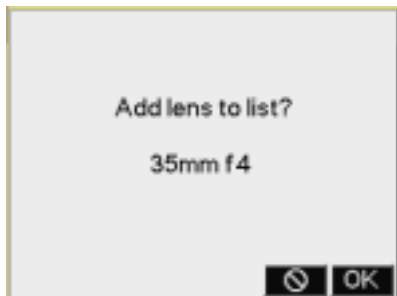
Defining New Fixed Lenses



1. Mount the appropriate lens on the camera.
2. Choose Lens Optimization from the Capture menu, choose Setup, then choose New Fixed Lens.



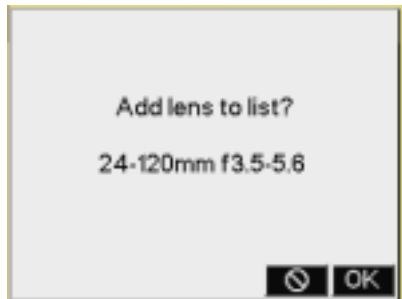
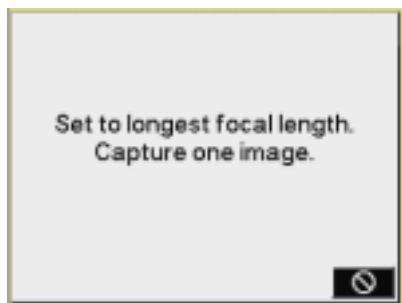
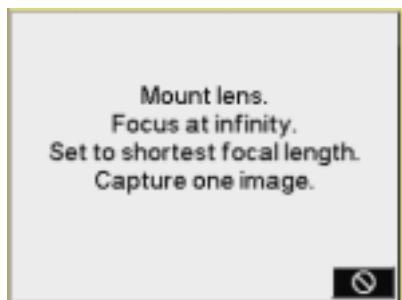
3. Focus at infinity, then capture one image.



4. Press the OK button.
The lens is selected and appears at the top of the user list.
5. Change the strengths for the lens (see [page 5-40](#)).

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Defining New Zoom Lenses



1. Mount the appropriate lens on the camera.
2. Choose Lens Optimization from the Capture menu, choose Setup, then choose New Zoom Lens.
3. Focus at infinity, set the lens to its shortest focal length, then capture one image.
4. Set the lens to its longest focal length, then capture one image.
5. Press the OK button.
The lens is selected and appears at the top of the user list.
6. Change the strengths for the lens (see [page 5-40](#)).

Deleting Defined Lenses

Use this option to delete a lens that you defined.



1. Choose Lens Optimization from the Capture menu, choose Setup, then choose Delete Lens.

A list of user-defined lenses appears.

2. Select the lens to delete.



3. Press the OK button.

The lens is removed from the user or master list, and all information about the lens is deleted from the camera.

Editing the Lens Name

NOTE: This feature is available for lenses that you defined. It is not available for lenses that you added from the master list.

In addition to assigning strength values to lenses in the user list, you can add information to help you identify the lens. While you can add any text, we recommend that the first letter be the first letter of the lens manufacturer. Predefined first letters are:

C—CANON

K—TOKINA

N—NIKON

Q—QUANTARAY

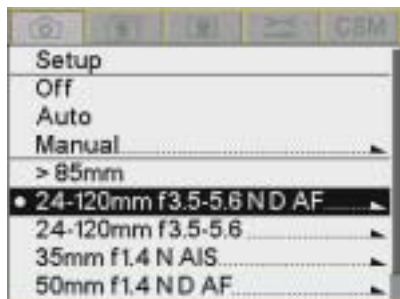
S—SIGMA

T—TAMRON

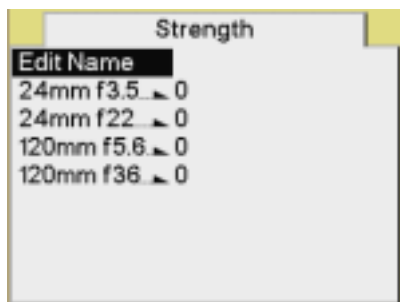
V—VIVITAR

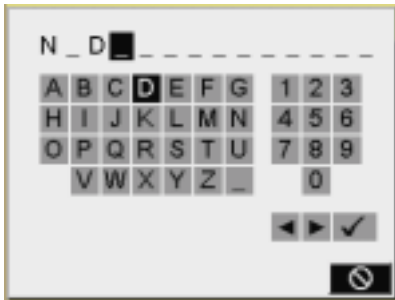
Select an appropriate first letter for other lenses.

1. Choose Lens Optimization from the Capture menu, then highlight the lens in the user list.



2. Press the right side of the Four-way switch to display the Strength screen. Choose Edit Name.





3. Enter text.

- a. To enter a character, press the right or left side of the Four-way switch to highlight the character, then press the OK button.
- b. To change a character, highlight > or <, then press the OK button to move to the next or previous character in the folder name.
- c. When finished, highlight ✓ and press the OK button.

Changing the Strength

You can change the strength of a lens in the user list two ways:

- Reset the lens to factory defaults (see [page 5-42](#)). (This feature is available only for lenses that were in the master list.)
- Determine the optimum strengths using Photo Desk, (see [page 5-40](#)), then assign the strengths to the camera (see [page 5-41](#)).

Determining the Optimum Strength

Do the following when you are changing the strengths of a lens in the user list or when you are using the Manual method (see [page 5-28](#)):

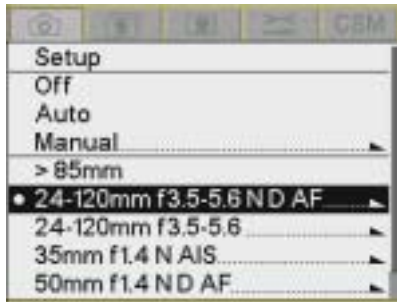
1. Capture an image of a gray card at normal exposure. (Fill the frame with the gray card.)
2. On your computer, open the image in Photo Desk.
If the lens optimization strength is too low, the corners of the image appear green or yellow.
If the lens optimization strength is too high, the corners of the image appear blue or magenta.
3. In Photo Desk, use Click Balance at the center of the image.
4. Click Lens Optimization, then adjust the slider to make the corners neutral. The number for the appropriate strength appears. Click OK.
5. Make a note of this number so you can assign it to the lens (see [page 5-41](#)).
6. Repeat steps 1 - 5 for all combinations of minimum/maximum focal length, and minimum/maximum aperture.

NOTE: Refer to the Help for Photo Desk for more information.

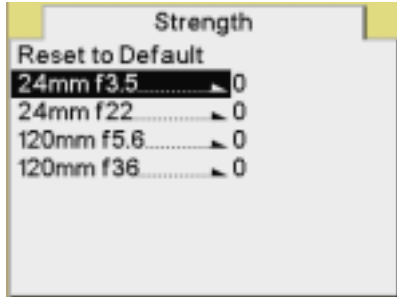
Assigning Optimum Strengths to Lenses in the User List

Once you determine the optimum strengths for a lens in Photo Desk (see [page 5-40](#)) and add the lens to the user list, you can assign the strengths to the lens in the user list.

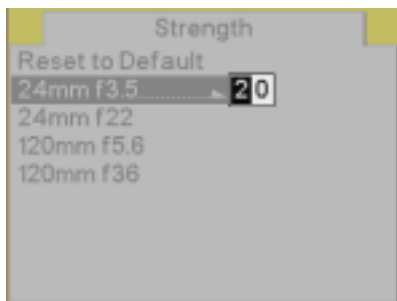
If you remove the lens from the user list (see [page 5-33](#)), the new values are moved to the master list. You can always reset to the default strengths, if needed (see [page 5-42](#)). If you delete the lens (see [page 5-37](#)), the changes are not saved in the master list.



1. With the appropriate lens mounted and set to infinity, choose Lens Optimization from the Capture menu, then highlight the lens in the user list.



2. Press the right side of the Four-way switch to display the Strength screen.
3. Select the focal length and aperture.



4. Press the right side of the Four-way switch to display boxes where you can enter the strength determined in Photo Desk.
5. Press the right or left side of the Four-way switch to highlight a box. Press the top or bottom of the Four-way switch to change a value.

NOTE: The strength must be between zero and 99.

6. Press the OK button.

The assigned strength is applied whenever you capture an image with the lens selected in the user list.

Configuring your Camera

Resetting to Defaults

NOTE: This feature is available for lenses that you added from the master list. It is not available for lenses that you have defined.

You can reset strength values for a lens in the user list to the values in the master list.

1. Choose Lens Optimization from the Capture menu, then highlight the lens in the user list.
2. Press the right side of the Four-way switch to display the Strength screen.
3. Choose Reset to Default.
4. Press the OK button.

