

PENTAX

smc PENTAX-D FA MACRO 100mmF2.8 WR

OPERATING MANUAL

Thank you for purchasing the smc PENTAX-D FA MACRO 100mmF2.8 WR lens.

This lens is an interchangeable lens for PENTAX SLR cameras. Its image circle covers the 35mm film format, and it also obtains optimum image clarity with PENTAX digital SLR cameras.

Please read this operating manual carefully before using the lens to ensure that it is used properly. In addition, also refer to your camera operating manual.

- Illustrations shown herein may differ from the actual appearance.
- PENTAX and smc PENTAX are trademarks of HOYA CORPORATION.

Specifications and external dimensions are subject to change without notice.

Refer to your camera operating manual for details about the mounting and removing the lens.



FOR SAFE USE OF YOUR LENS

Although we have carefully designed these lenses for safe operation, please pay special attention to items marked with the following symbols when using this product.



Warning This symbol indicates precautions that if not followed, could result in serious injury to the user.



Caution This symbol indicates precautions that if not followed, could result in minor or medium injury to the user or damage to the equipment.



Warning

Never look at the sun through the lens or camera for a long time. Serious damage to the retina or total loss of eyesight may occur, particularly when looking directly through the lens.



Caution

Do not leave the lens in direct sunlight without lens caps. Direct sunlight passing through the lens will be intensified, and should it focus on flammable materials, fire may occur.

Precautions When Using the Lens

■ Storage and mildew prevention

- Take the lens out of the protective case or camera bag, and store it in a dry, wellventilated place.
- Avoid storing the lens in a poorly ventilated location such as a closet, wardrobe, drawer, vehicle, or where insect repellent or medicine is kept.
- Avoid storing the lens in areas of high temperature and humidity, where there is a risk of mildew growth. Store the lens with a desiccant (anti- mildew agent) in a dry cabinet, airtight container, or plastic bag.

■ Precautions and lens maintenance

- Never use any organic solvent such as thinner, alcohol, or benzine, etc. to remove dust on the lens.
- The lens is a precise optical instrument. Be careful not to let it fall, or subject it to strong shocks or pressure. Use a cushion or similar pad to protect the lens from the vibrations of motorcycles or other vehicles, boats, etc.
- Avoid subjecting the lens to rapid changes in temperature, otherwise condensation can occur on both inside and outside of the lens. Put the lens in a plastic bag or camera bag, and take it out after the lens has reached ambient temperature.
- When the lens is not attached to the camera body, attach both the supplied lens cap and lens mount cap to protect it from dust.
- Do not leave the camera with the lens cap off attached to a tripod or other rigid camera support. The inner parts of the camera can be damaged by direct sunlight.

* Have the lens inspected by a dealer every one or two years to maintain its high performance.

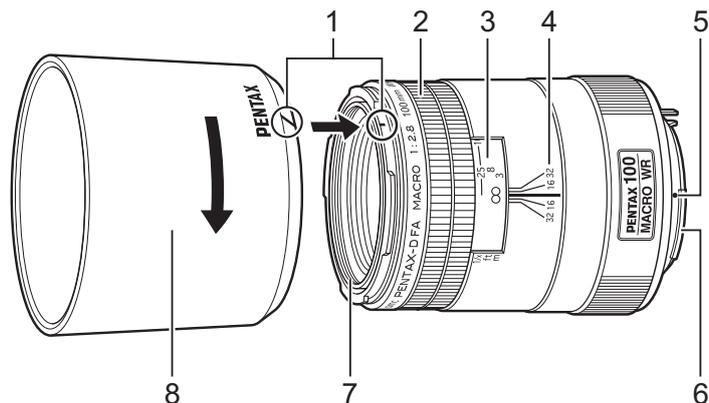
Features of This Lens

- If using the lens with PENTAX digital SLR cameras, you can focus manually after autofocus is performed, by using the "Quick-Shift Focus System".
- This lens is made with a simplified weather-resistant construction which makes it difficult for water to enter the lens.
- This lens uses a circular aperture. Using it with the aperture between the full open and approx. $f/5.6$ keeps light sources and other fuzzy points perfectly round.

Main Specifications

Focal length	100mm (equivalent to approx. 153mm in 35mm format)
Elements in groups	9-8
Angle of view	16° (when attached to PENTAX digital SLR cameras) 24.5° (when attached to PENTAX 35mm SLR cameras)
Aperture	$f/2.8$
Minimum aperture	$f/32$
Mount type	KAF-mount
Minimum focus distance	0.303m (0.99ft) (0.130m (0.45ft) working distance)
Maximum magnification	1×
Filter size	49mm
Lens hood	PH-RBE 49mm (provided)
Max. Diameter x Length	65mm × 80.5mm (2.6in × 3.2in)
Weight	Approx. 340g/12oz. (with hood approx. 380g/13.4oz.)
Soft case	S80-120 (provided)

Names of Parts



* This lens does not have an aperture ring. Aperture settings are controlled automatically as if set to the auto “A” position, so cameras and accessories without an auto “A” setting cannot be used with this lens.

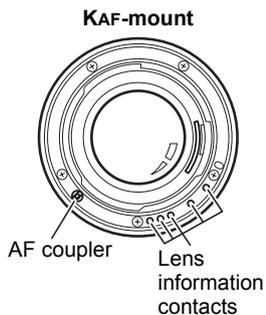
- 1 Lens hood attaching index
- 2 Focusing ring
- 3 Distance scale
- 4 Depth-of-field scale
- 5 Mounting index
- 6 Lens mount
- 7 Front-ring threads
- 8 Lens hood

■ About the Lens Mount

The D FA lens mount is called the “KAF - mount”. This lens mount enables autofocus and autoexposure.

CAUTION

Be careful not to damage or dirty the lens information contacts and AF coupler on the mount surface of the lens. Otherwise, failure or malfunction may result.



■ About the Lens Hood

Using a lens hood is recommended to block stray light from entering the lens.

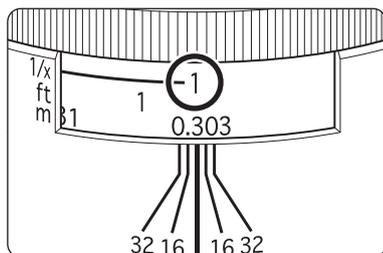
The internal reflection of stray light degrades image quality.

<How to attach>

Align the index on the lens hood with the attaching index on the lens, and push both parts straight toward each other. Attach the lens hood on the lens by turning the hood in the clockwise direction, as viewed from the front of the lens, to lock it until it clicks into position.

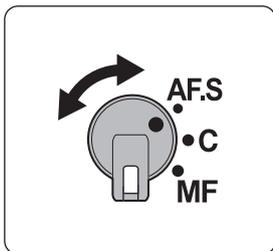
* When the lens hood is not in use, it can also be turned around and attached in the reversed position.

■ Magnification Scale



This lens enables closeup photography up to 1x magnification. The magnification is indicated by denominators above the distance scale. For example, “1” indicates “1/1x”, and “5” indicates “1/5x”. If you want to set the magnification first, turn the focusing ring to set the desired magnification in the manual focus mode. Then focus the subject by moving the camera forward or back.

Focusing



■ Switching the Focus Mode

Change between the autofocus mode and manual focus mode at the camera. For details, refer to your camera operating manual.

* The forms of focus mode switch vary with the camera.

■ Using Autofocus

Set the camera's focus mode to AF, and press the shutter release button halfway to autofocus.

- With the cameras having the AF button, you can also press the button to autofocus.

■ Using Manual Focus

Set the camera's focus mode to MF, and turn the focusing ring to focus manually.

■ Using the Quick-Shift Focus System

If using the lens with PENTAX digital SLR cameras, you can focus manually after autofocus is performed. Just turn the focusing ring to manually touchup the focus. You can do this without switching the focus mode to MF.

<How to take pictures>

1. Using Autofocus
2. Hold down the shutter release button halfway (or hold down the AF button), then turn the focusing ring to finely adjust focus.
3. Finally, press the shutter release button fully to take a picture.

CAUTION

- Keep pressing the shutter release button (or AF button) after you achieve focus and before taking a picture. If you let go of the shutter release button before taking the picture, autofocus will operate again when you press the shutter release button again.
 - During autofocus, the focusing ring will rotate.
Do not touch the focusing ring while autofocus is operating as it may cause a malfunction.
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Precautions When Using the Lens with a Built-in Flash

- The built-in flash can not be used when the distance is less than 0.7m. When the flash is used within 0.7m, it causes incorrect exposure control and vignetting in the picture corners.
- If the built-in flash is used with the lens hood attached to the lens, the flash light will be blocked by the lens hood. Always make sure to remove the lens hood before using the built-in flash.

Filters

Screw the commercial 49mm diameter filter to the front of the lens.

- Since a filter becomes a part of the optical system when attached to the lens, handle it in the same way you handle the lens with care to dust, dirt and scratches.
- Use a circular polarizing filter with an autofocus camera for proper exposure and autofocus.

For customers in USA

STATEMENT OF FCC COMPLIANCE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures :

- Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

*Consult the dealer or an experienced radio/TV technician for help.

For customers in Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.



The CE Mark is a Directive conformity mark of the European Community.

HOYA CORPORATION
PENTAX Imaging Systems Division

2-36-9, Maeno-cho, Itabashi-ku, Tokyo 174-8639, JAPAN
(<http://www.pentax.jp>)

PENTAX Europe GmbH Julius-Vosseler-Strasse, 104, 22527 Hamburg, GERMANY
(European Headquarters) (HQ - <http://www.pentaxeurope.com>)
(Germany - <http://www.pentax.de>)
Hotline: 0180 5 736829 / 0180 5 PENTAX

Austria Hotline: 0820 820 255 (<http://www.pentax.at>)

PENTAX U.K. Limited PENTAX House, Heron Drive, Langley, Slough,
Berks SL3 8PN, U.K.
(<http://www.pentax.co.uk>) Hotline: 0870 736 8299

PENTAX France S.A.S. 112 Quai de Bezons - BP 204, 95106 Argenteuil Cedex, FRANCE
(<http://www.pentax.fr>)
Hotline: 0826 103 163 (0,15€ la minute) Fax: 01 30 25 75 76
Email: http://www.pentax.fr/_fr/photo/contact.php?photo&contact

PENTAX Imaging Company
A Division of PENTAX of America, Inc.

(Headquarters)
600 12th Street, Suite 300 Golden, Colorado 80401, U.S.A.
(PENTAX Service Department)
250 North 54th Street Chandler, AZ 85226, U.S.A.
(<http://www.pentaximaging.com>)

PENTAX Canada Inc. 1770 Argentia Road Mississauga, Ontario L5N 3S7, CANADA
(<http://www.pentax.ca>)

PENTAX Trading 23D, Jun Yao International Plaza, 789 Zhaojabang Road,
(SHANGHAI) Limited Xu Hui District, Shanghai, 200032 CHINA
(<http://www.pentax.com.cn>)