

J E D F N E s I S D k C

508050401

**SIGMA**

**AF-MF ZOOM LENS**

**APO 70-300mm F4-5.6<sup>DG</sup><sub>MACRO</sub>**

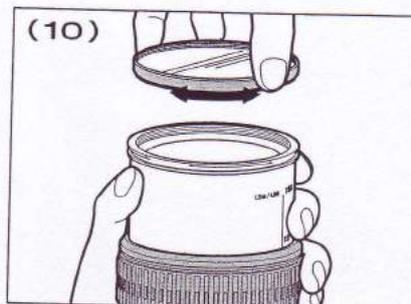
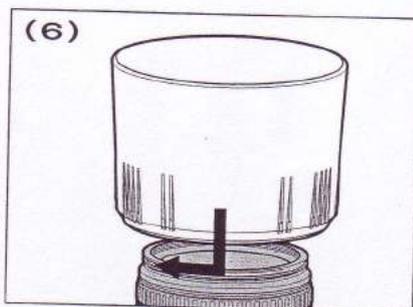
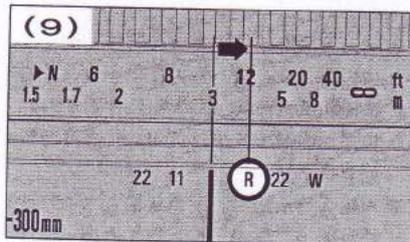
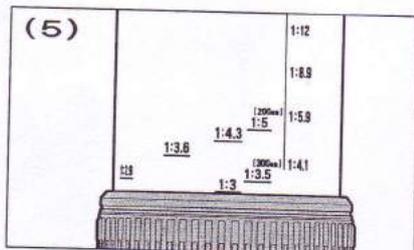
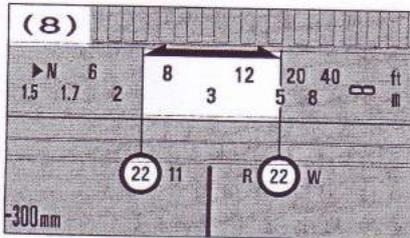
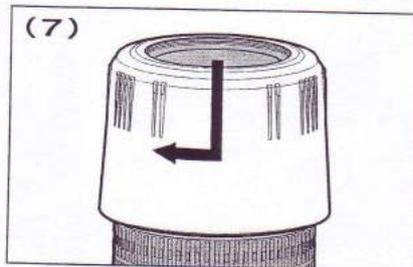
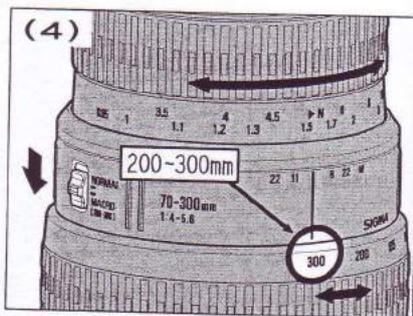
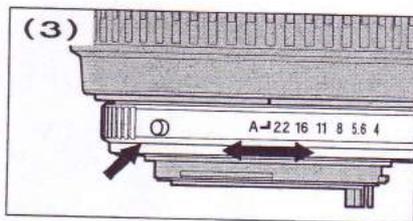
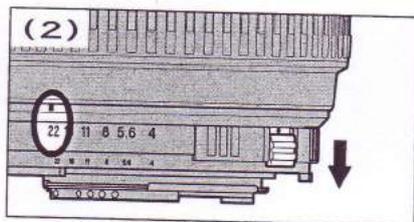
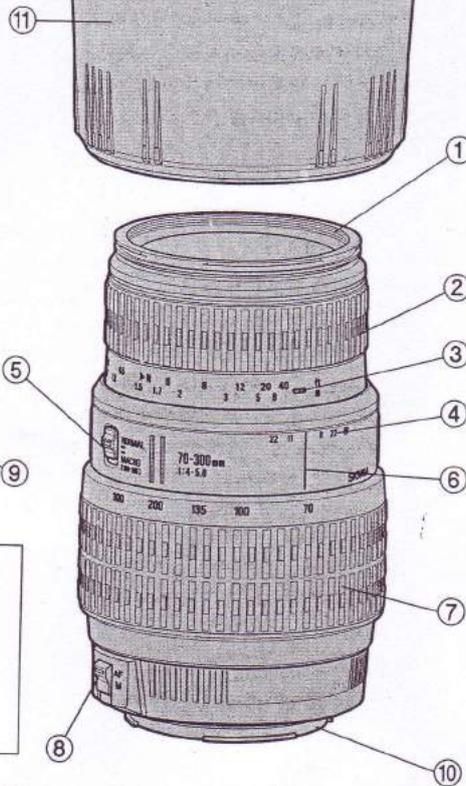
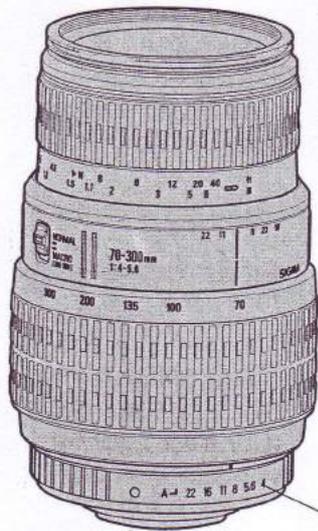
**使用説明書**

**INSTRUCCIONES**

**INSTRUCTIONS**

**ISTRUZIONI PER L'USO**

(1)



Thank you for purchasing a Sigma lens. In order to get the maximum performance and enjoyment out of your Sigma lens, please read this instruction booklet thoroughly before you start to use the lens.

## DESCRIPTION OF THE PARTS (fig.1)

- ① Filter Attachment Thread
- ② Focus Ring
- ③ Distance Scale
- ④ Depth of Field Read Out index (for the wide angle side setting)
- ⑤ Macro Switch
- ⑥ Focus/Zoom Index Line
- ⑦ Zoom Ring
- ⑧ Focus Mode Switch (Sigma SA and Canon AF only)
- ⑨ Diaphragm Control Ring
- ⑩ Mount
- ⑪ Lens Hood

## ATTACHING TO THE CAMERA BODY

When this lens is attached to the camera body it will automatically function in the same way as your normal lens. Please refer to the instruction booklet for your camera body.

- ◆ On the lens mount surface, there are a number of couplers and electrical contacts. Please keep them clean to ensure proper connection. To avoid damaging the lens, be especially sure to place the lens with its front end down while changing the lens.
- ◆ Many accessories such as rear mounted teleconverters, extension tubes, etc., are specially made for designated lenses. Before you purchase such accessories, please check your Sigma lens to determine that it is compatible and that the accessories will function properly with it.

## SETTING THE EXPOSURE MODE

When a Sigma lens is mounted on your camera, it functions in the same manner as your normal lens. However, depending on the camera body, the exposure settings may vary. Please refer to the camera instruction book. The basic setting is as follows:

### (For Sigma SA, Minolta AF and Canon AF)

Exposure modes and Diaphragm values are set by the controls, on the camera body, therefore the lens does not have a diaphragm control ring. Please refer to your camera's instruction booklet.

### (For Nikon AF/MF, Minolta MF)

When you use the Program exposure mode or Shutter speed priority auto mode, the Diaphragm control ring must be set to the smallest F-stop (i.e. largest number). All Nikon AF/MF and Minolta MF lenses have a safety button which should be moved to the lock position (fig.2). When you use the Aperture priority auto mode or Manual exposure mode, unlock the button and set the Diaphragm value by turning the ring.

### (For Pentax AF/MF)

When you use the Program exposure mode or Shutter speed priority auto mode, turn the Diaphragm ring on the lens to the smallest F-stop (i.e. largest number), then set to the "A" position while pressing the auto lock button. When you use the Aperture priority auto mode or Manual exposure mode, turn the Diaphragm ring away from the "A" setting while pressing the auto lock button, and set the Diaphragm value by turning the ring (fig.3).

## FOCUSING AND ZOOMING

### (Auto Focus)

When you use the AF lens with the AF camera body, Auto Focusing is possible. Select the autofocus mode on your camera body (set the focus mode switch on the lens to "AF" for Sigma SA and Canon AF lens). In the autofocus mode, your camera will set the focus automatically. While auto focusing, please do not touch the focus ring around the lens.

- ◆ To avoid damaging AF mechanism, please do not turn the focus ring manually while in the autofocus mode.

### (Manual Focus)

You can set the focus by turning the focus ring. When you focus manually with AF lens, select the manual focus mode on your camera body (set the focus mode switch on the lens to "MF" for Sigma SA and Canon AF lens).

- ◆ When operating this lens in manual focus mode, it is recommended that correct focus be confirmed visually in the viewfinder rather than relying on the distance scale. This is due to possible focus shift resulting from extreme changes in temperature which cause various components in the lens to expand and contract. Special allowance is made for this at the infinity setting.

### (Zooming)

Rotate the Rubber grip on the zoom ring to the desired position.

## OPERATION OF MACRO SWITCH

1. Set the zoom ring to the maximum telephoto setting.
2. Turn the Macro Switch to the "MACRO" position (fig.4). Now the focus ring will turn from infinity to macro range. The Macro Switch will not be able to be changed to the "MACRO" position if the zoom ring is set on other than the maximum telephoto setting.
- ◆ While the Macro Switch is set on the "MACRO" position, the zoom ring is locked in the maximum telephoto setting and zooming is not possible. To avoid damage to the lens, please do not force the zoom ring to turn.
3. To return to the normal mode, please turn the Macro Switch to the "NORMAL" position while the focus ring is out of the macro range. If the focus ring is in the macro range, the switch will not move.

## MAGNIFICATION

The indication of the lens as "1:xx" on a focusing distance scale represent the magnification (commonly called the reproduction ratio). For example when you are in focus at the "1:3" position on the scale, a subject with an actual size of 3cm will have an image size of 1cm on the film.(fig.5)

## LENS HOOD

A bayonet type detachable lens hood is provided with lens. The lens hood helps prevent flare and ghost images caused by bright illumination from beyond the subject area. When attaching, be sure to turn the hood to its fully locked position (fig.6).

- ◆ When mounting or removing the lens hood, the lens should be in the manual focus mode in order to avoid the damage to the lens or camera.
- ◆ When taking photographs using the built-in flash, it is advisable to remove the lens hood so as to avoid cutting off any of the flash output, which could cause a shadow in the picture.
- ◆ The lens hood can be reverse-mounted for storage (fig.7).

## DEPTH OF FIELD

When you set the focus for a particular subject, there is an area in front of and behind your subject that will also be in focus. This is called the Depth of Field. Generally, the larger the aperture (smaller F-stop number), the shallower the depth of field.

As shown in (fig.8), at the F22 aperture and at a 3m (9.8ft). focusing distance, the subject will be in focus from about 2.2m (6.6ft) to 5m (16.4ft).

## INFRARED PHOTOGRAPHY

When photographing using infrared film and infrared filters an adjustment to focus must be made.

First focus in the normal way. Then set focus switch to manual focus mode. Turn the focus ring manually so that the distance scale marking that was previously aligned with the focus/zoom index mark is now aligned with the infrared guide mark "R" (fig.9).

## FILTERS

- ◆ Only one filter should be used at a time. Two or more filters and/or special thicker filters, like a polarizing filter, may cause vignetting.
- ◆ When mounting or removing the filter, the lens should be in the manual focus mode, and should be held by the front of the lens barrel in order to avoid damaging the lens and camera (fig.10).
- ◆ When using a polarizing filter with AF camera, use the "circular" type.

## BASIC CARE AND STORAGE

- ◆ Avoid any shocks or exposure to extreme high or low temperatures or to humidity.
- ◆ For extended storage, choose a cool and dry place, preferably with good ventilation. To avoid damage to the lens coating, keep away from mothballs or naphthalene gas.
- ◆ Do not use thinner, benzine or other organic cleaning agents to remove dirt or finger prints from the lens elements. Clean by using a soft, moistened lens cloth or lens tissue.
- ◆ This lens is not waterproof. When you use the lens in the rain or near water, keep it from getting wet. It is often impractical to repair the internal mechanism, lens elements and electric components damaged by water.
- ◆ Sudden temperature changes may cause condensation or fog to appear on the surface of the lens. When entering a warm room from the cold outdoors, it is advisable to keep the lens in the case until the temperature of the lens approaches room temperature.

## SPECIFICATIONS

Lens construction	10 - 14
Angle of View	34.3°~8.2°
Minimum Aperture	22~32
Minimum Focusing Distance	0.95m(37.4in)
Magnification	1 : 2
Filter Size	58mm
Dimensions Dia.xLength	78x119.5mm(3.1x4.7in)
Weight	550g(19.4oz)

Dimensions and weight include the Nikon mount.



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

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