

**10~17mm F3.5~4.5 Fisheye DX**  
**10~17mm F3.5~4.5 NH**  
**11~16mm F2.8 DX**  
**11~16mm F2.8 DX II**  
**11~20mm F2.8 DX**  
**12~24mm F4 DX II**  
**12~28mm F4 DX**  
**100mm F2.8 Macro D**

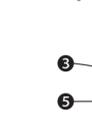
## D series

ENGLISH

### Descriptions of Parts

- ① Manual Focus Ring
- ② Focus Distance Scale
- ③ Focus Distance Index
- ④ Zoom Ring
- ⑤ Focal Length Scale
- ⑥ Center Index
- ⑦ Auto-Focus (AF) Position
- ⑧ Manual Focus (MF) Position
- ⑨ Hood Attachment Index
- ⑩ Aperture ring
- ⑪ Focus-limiting switch
- ⑫ Hood Right Position Indicator

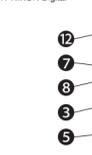
#### 10~17mm F3.5~4.5 DX



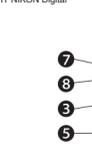
#### 10~17mm F3.5~4.5 NH



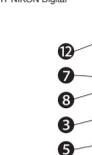
#### 11~16mm F2.8 DX II



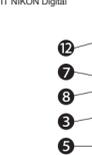
#### 11~16mm F2.8 DX



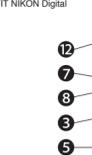
#### 11~20mm F2.8 DX



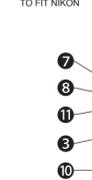
#### 12~24mm F4 DX II



#### 12~28mm F4 DX



#### 100mm F2.8 Macro D



Tokina's DX lenses are designed for use with digital single-lens reflex (SLR) cameras having APS-C sized sensors. Do not use DX lenses with digital SLR cameras having an imaging sensor of a size larger than APS-C, nor with a SLR camera designed for silver-halide film. The Tokina D lens can be used with both digital SLR cameras with APS-C size sensors, digital SLRs with full frame sensors and SLR film cameras.

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### How to Attach/Detach the Lens

Attach/detach the lens to/from your camera according to the instructions in the manual provided with your camera.

\* When attaching/detaching the lens, be careful not to touch the electronic contacts on the lens mounting surface nor crush these contacts by strong impact.

### Focusing

The lens normally focuses automatically when the focus mode switch on the lens is set to the Auto focus (AF) position. If the camera is in the manual-focus (MF) position, adjust the focus by looking into the finder and turning the manual focus ring. This lens also supports focusing through the use of a focusing aid.

### One-Touch Focus Clutch Mechanism

#### <How to switch from the Auto focus position to manual focus position>

The lens focus mode can be switched between the auto focus (AF) mark on the lens barrel and manual focus (MF) positions at any time by moving the manual focus ring forward or backward. When the focus ring is moved back toward the mount the AF mark will be covered and the lens will only focus manually. Move the focus ring toward the front of the lens for auto-focus.



\* For lenses using either the Nikon or Canon mounting system, it is possible to use manual focus without switching the focus mode switch on either the camera body or the lens to the manual position.

In the Auto focus position the manual focus ring turns freely.

\* For all Canon mounts and, 11~20mm F2.8 DX / 12~24mm F4 DX II / 11~16mm F2.8 DX II / 12~28mm F4 DX Nikon mount, the built-in AF motor will be automatically turned off when the focus ring is switched to MF mode position.

\* Sony a77 / a700

These types of camera are separated the coupler when the AF/MF button (pic.①) is pushed.

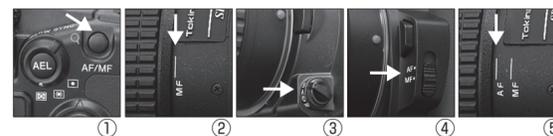
When the focus ring of a Tokina lens is slide to the MF position (pic.②), it is available to use the manual focus.

In this time, manual focus operation is possible in any position S/A/C at "the focus mode lever" (pic.③) under the lens release button.

\* Sony a65 / a58 / a550 / a380 / a330 / a280

These types of camera changes "the focus mode switch" (pic.④) under the lens release button to MF mode and the focus ring of a Tokina lens is made to slide to MF, manual focus operation will be available.

When you return to AF operation, please change the focus mode switch of a camera (pic.⑤) to AF after returning the focal ring of a Tokina lens to AF (pic.⑥).



### Exposure Modes

For the exposure mode settings, follow the instructions in the manual provided with your camera.

### Lens Hood

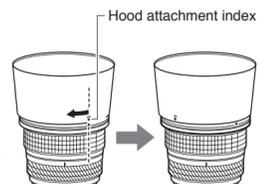
A lens hood is designed to help reduce or prevent flare and ghost images that are caused by strong diagonal or side rays of light striking the front of the lens. We recommend that you use a lens hood at all times to ensure clear, problem-free photographs and to protect the lens.

\* The 11~20mm F2.8 DX / 12~24mm F4 DX II/100mm F2.8 Macro D/11~16mm F2.8 DX II/11~16mm F2.8 DX II/12~28mm F4 DX lens hood can be attached in the reverse direction on the front of the lens for storage.

### <How to attach the lens hood>

#### [100mm F2.8 Macro D]

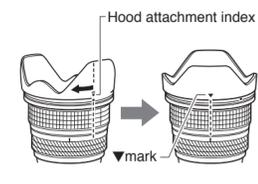
Place the lens hood on the lens by aligning the index (N) on the hood with the hood attachment index dot (●) on the lens. Secure the hood by turning it clockwise (when viewed from the front) until it clicks into place. Grabbing the tip of the lens hood with a strong force will make it difficult to attach/detach the hood. When attaching/detaching the lens hood, do so by holding the base of the hood (the part attached to the lens).



#### [11~16mm F2.8 DX]

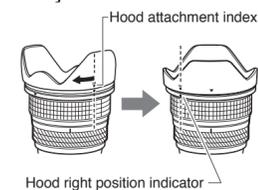
To securely install the hood, align the mark on the hood with the hood attachment indicator (●) on the lens, and then turn the hood clockwise, as viewed from the front, until a click is heard.

Important-Confirm that the ▼ mark on the hood is aligned with the center index on the lens.



#### [11~16mm F2.8 DX II] [11~20mm F2.8 DX] [12~24mm F4 DX II] [12~28mm F4 DX]

To securely install the hood, align the mark on the hood with the hood attachment index (●) on the lens, and then turn the hood clockwise, as viewed from the front, until a click is heard. Then, confirm the position of the mark on the hood aligns with the position of the hood position indicator on the lens.



\* When attaching the hood, turn it until you hear a "click" to ensure a secure fit. If the hood is not attached properly, vignetting could occur.

### Filters

Use the appropriate sized threaded filters with these lenses. Be sure your filters are clean before taking a photo. Perfect photographs cannot be taken if the filter is dirty or when water droplets or other foreign particulates are on the filter. Clean the filter thoroughly before taking photographs.

\* Always use one filter at a time. If two or more filters are used together, or when a thick filter such as a polarized filter is used, vignetting (darkening at the corners of the exposed image) may occur.

### Caution Regarding the Use of a Built-in Flash

If the camera's built-in flash is used, the light of the built-in flash will be partially obstructed by the lens, so the picture shows a large shaded area at the bottom of the image. Therefore, it is advisable to use an external flash when this lens is attached.

### Flash Photography (Red-eye Phenomenon)

When photographing people with the aid of a flash, their eyes sometimes show as red in the image. This is called the "red-eye phenomenon." Follow your camera manual instructions on how to remove red eye.

\* Depending on the lens model, you may hear a sound from inside the lens when the lens is shaken lightly. This is the sound of the ball bearings that are designed to smooth the action of the focus ring. It does not indicate a problem with the general functioning of the lens.

#### [100mm F2.8 Macro D]

##### ● Limiting the Focus Distance Range

This lens is equipped with a focus-limiting switch, which makes it ideal for use as a moderate telephoto or portrait lens. Lock the lens out of the macro range to shorten the focusing time by setting this switch to the LIMIT position instead of the FULL position.



FULL: The lens will focus from 0.3m to infinity.



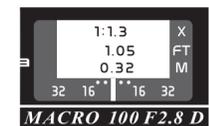
LIMIT: The lens will focus from approximately 0.38m to infinity OR from approximately 0.3m to 0.36m in the macro range.

### Performance Table

Model	Item	Optical structure elements/groups	Angle of view	Minimum focus distance (m)	Maximum macro magnification	Minimum aperture	Number of aperture diaphragms	Filter size (mm)	Overall length (mm)	Maximum diameter (mm)	Weight (g)	Lens hood
10~17mm F3.5~4.5 DX		10-8	180° ~ 100°	0.14	1 : 2.56	22	6	—	71.1	70.0	350	—
10~17mm F3.5~4.5 NH		10-8	180° ~ 100°	0.14	1 : 2.56	22	6	—	70.9	69.9	350	—
11~16mm F2.8 DX		13-11	104° ~ 82°	0.3	1 : 11.6	22	9	77	89.2	84.0	560	BH77B
11~16mm F2.8 DX II		13-11	104° ~ 82°	0.3	1 : 11.6	22	9	77	89.2	84.0	550	BH77B
11~20mm F2.8 DX		14-12	104° ~ 72°	0.28	1 : 8.62	22	9	82	92.0	89.0	560	BH821
12~24mm F4 DX II		13-11	99° ~ 61°	0.3	1 : 8	22	9	77	89.5	84.0	540	BH777
12~28mm F4 DX		14-12	99° ~ 54°	0.25	1 : 4.94	22	9	77	90.2	84.0	530	BH77B
100mm F2.8 Macro D		9-8	24° 30'	0.3	1 : 1	32	9	55	95.1	73.0	540	BH551

### ● Macro Magnification

"Macro magnification" refers to the ratio of the image captured on film or the sensor to the actual subject size. For example, if a subject 3cm in size is captured as a 1cm image on film, the magnification is "1:3." The macro magnification is indicated above the focus distance. In the example shown at right, the focus distance is 0.32m, while the macro magnification is approximately 1:1.3.



### <Effective F-Value and Exposure Magnification>

The F-value shown on the lens indicates the brightness of a subject located at infinity. The Maximum aperture of a lens is always measured with the focus at infinity. If the macro magnification is raised, the brightness of the subject will decrease. This reduced brightness is called the "effective F-value," while the exposure correction corresponding to the decrease in subject brightness is called "exposure magnification."

\* If you are doing macro photography using a Nikon mount, the display on the camera body will indicate a change in aperture as the focus distance approaches the minimum value, even when the lens's F-value is set to F2.8 (fully open), until the effective F-value finally reaches F5.6.

### ● Exposure Correction

When the macro magnification is increased, the brightness at the film plane will decrease. On a TTL auto-focus camera or when shooting with a TTL flash, the quantity of light passing through the lens is measured and the exposure is corrected automatically.

If the exposure is measured using an external light meter or when a non-dedicated external flash is used, the exposure must be corrected by a corresponding increase (in exposure magnification) equal to the decrease in brightness from the change in macro magnification.

The table shown at right lists the exposure magnifications for the different macro magnifications applicable to the 100mm F2.8 Macro D lens.

### <Macro Magnifications in the Exposure Magnification Table>

The table shown at right lists the exposure magnifications and aperture openings at different macro magnifications of 1:10 and above. If you don't want to change the aperture setting, correct the exposure by changing the shutter speed.

Macro magnification	Exposure magnification	Aperture openings
1 : 10	1.23	1/3
1 : 7	1.33	2/5
1 : 5	1.47	1/2
1 : 4	1.59	2/3
1 : 3	1.82	4/5
1 : 2.5	2.01	1
1 : 2	2.31	1 1/5
1 : 1.7	2.60	1 2/5
1 : 1.5	2.88	1 1/2
1 : 1.3	3.24	1 2/3
1 : 1.1	3.80	1 4/5
1 : 1	4.00	2

### ● Note on Macro Photography

In macro photography, the subject and lens become very close and the magnification increases as a result. Therefore, even a slight vibration or movement of the camera can affect image quality. In macro photography, hold the camera securely to eliminate vibrations. For vibration-free photographs Tokina highly recommends the use of a tripod, cable release and/or a wireless remote control and an external flash.

### ● Aperture Ring

Lock the aperture at the minimum (Highest F number), otherwise, the shutter will not release.

### ■ Precautions for Use

#### ● Attaching a lens hood

Unlike a SLR camera using a silver halide film, a digital SLR camera produces a large measure of reflection due to its imaging sensor. It is therefore recommended that a lens hood be attached when you're taking photographs with a digital SLR camera. Especially when a wide-angle lens is used, a lens hood should be attached even indoors.

#### ● The DX lens is designed exclusively for a digital SLR camera of APS-C size.

Tokina's DX lenses are designed exclusively for use with digital SLR cameras having an APS-C sized image sensor. Using the DX lenses with a digital SLR camera with an imaging sensor of a size larger than APS-C, or with a SLR camera designed for silver-halide film, will cause vignetting.

#### ● Using Ultra-Wide Angle Lenses.

If you are using a super/ultra-wide angle lens in auto focus, it may not focus on the periphery (outer edges) of the frame in AF mode. Since the depth of field in an ultra-wide angle zoom lens is very deep, focus detection in the periphery of the frame becomes difficult for cameras set in multi-point auto focus. We recommend using a central focus detection setting on your camera when using auto focus with ultra-wide angle lenses.