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.

**Descriptions of Parts**

- Manual Focus Ring
- Focus Distance Scale
- Hood Attachment Index
- Zoom Ring
- Focal Length Scale
- Center Index
- Auto-Focus (AF) Position
- Manual Focus (MF) Position
- Hood Attatchment Index
- Hood Right Position Indicator

**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 or 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) 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 models and 11-28mm F2.8 D, 12-24mm F4 D DX II/11-16mm F2.8 II D, 12-24mm F4 D DX 1/12-28mm F4 D4, Nikon mount, the built-in AF motor will automatically turn off when the focus ring is switched to MF mode position.

**Flash Photography (Red-eye Phenomenon)**

- The Aometry data is based on the use of the lens with a Nikon camera.

In macro photography, the subject and lens become very close and the magnification increases. In the Exposure Magnification Table, the change in macro magnification.

- On a TTL auto-focus camera or when shooting with a TTL flash, the exposure correction corresponding to the decrease in subject brightness is called “effective F-value.”

- 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 particles are on the filter.

- Clean the filter thoroughly before taking photographs.

- Always use a 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.

**Performance Table**

<table>
<thead>
<tr>
<th>Model</th>
<th>Optical imaging elements/groups</th>
<th>Angle of view</th>
<th>Minimum focus distance (mm)</th>
<th>Maximum macro magnification</th>
<th>Minimum aperture</th>
<th>Number of aperture stop settings</th>
<th>Filter thread size (mm)</th>
<th>Overall length (mm)</th>
<th>Maximum diameter (mm)</th>
<th>Weight (g)</th>
<th>Len hood</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-17mm F3.5~4.5 DX</td>
<td>11− 13</td>
<td>180°~ 100°</td>
<td>0.14</td>
<td>1.25</td>
<td>22</td>
<td>6</td>
<td>70.9</td>
<td>69.9</td>
<td>450</td>
<td>BH778</td>
<td></td>
</tr>
<tr>
<td>10-17mm F3.5~4.5 NH</td>
<td>11− 13</td>
<td>180°~ 100°</td>
<td>0.14</td>
<td>1.25</td>
<td>22</td>
<td>6</td>
<td>70.9</td>
<td>69.9</td>
<td>450</td>
<td>BH778</td>
<td></td>
</tr>
<tr>
<td>11-16mm F2.8 DX I</td>
<td>13− 11</td>
<td>104° ~ 82°</td>
<td>0.3</td>
<td>1.16</td>
<td>22</td>
<td>9</td>
<td>89.2</td>
<td>84.0</td>
<td>560</td>
<td>BH778</td>
<td></td>
</tr>
<tr>
<td>11-16mm F2.8 DX II</td>
<td>13− 11</td>
<td>104° ~ 82°</td>
<td>0.3</td>
<td>1.16</td>
<td>22</td>
<td>9</td>
<td>89.2</td>
<td>84.0</td>
<td>560</td>
<td>BH778</td>
<td></td>
</tr>
<tr>
<td>12-24mm F4 DX II</td>
<td>13− 11</td>
<td>104° ~ 72°</td>
<td>0.28</td>
<td>1.86</td>
<td>22</td>
<td>9</td>
<td>89.2</td>
<td>84.0</td>
<td>560</td>
<td>BH778</td>
<td></td>
</tr>
<tr>
<td>12-24mm F4 DX</td>
<td>13− 11</td>
<td>99° ~ 67°</td>
<td>0.28</td>
<td>1.86</td>
<td>22</td>
<td>9</td>
<td>89.2</td>
<td>84.0</td>
<td>560</td>
<td>BH778</td>
<td></td>
</tr>
<tr>
<td>100mm F2.8 Macro D</td>
<td>9− 8</td>
<td>24° 17°</td>
<td>0.3</td>
<td>1.1</td>
<td>12</td>
<td>55.1</td>
<td>91.1</td>
<td>730</td>
<td>540</td>
<td>BH451</td>
<td></td>
</tr>
</tbody>
</table>

**Hood Attachment Index**

- 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.

**Macro Magnification**

- “Macro magnification” refers to the ratio of the image captured on film or the sensor to the actual subiect size. For example, if a subject item in size is captured as a 1cm image on film, the magnification ratio is 1:1. 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 1:3.

**Exposure Correction**

- When the macro magnification increases, 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 II D Macro D lens.

**Flash Photography**

- When photographing people with the aid of a flash, their eyes sometimes show a red glow 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.

**Performance Table**

- The specification data is based on the use of the lens with a Nikon camera.

**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 photography Tokina highly recommends the use of a tripod, cable release and for a wireless remote control and an external flash.

**Aperture Ring**

- Limit 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 using a wide-angle lens, 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-wide-angle lens, you may not focus on the periphery (outer edges) of the frame in AF mode. Since the depth of field is 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 a wide angle ultra-wide angle lenses.