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PayPal Name  Lynn@butkus.org
Automatic Interchangeable Lens
135mm f2.8 Macro Telephoto Lens
Owners Manual
Model 202. 73681
Model 202. 73694
Model 202. 73696-9
Knowing
Your Sears Accessory Lens

Your new Sears accessory lens will increase the pleasure you have already experienced with your SLR Camera by extending its range of picture taking capability. This lens has been designed and manufactured in one of the world's most modern optical facilities, in order to insure the same fine photographic quality built into your camera.
Multi-Coating

The multi-layer method of lens coating utilized in the manufacture of Sears lenses is the most efficient way of controlling the transmission of light through the lens. Light flares and reflections are minimized by these multiple lens coatings.

Aperture Control

The automatic diaphragm operation of your Sears lens allows you to focus and compose your picture with the diaphragm at maximum aperture (wide open), presenting you with the brightest possible viewfinder image. When shooting, the diaphragm will automatically stop down to the pre-selected aperture at the moment of exposure and re-open as the exposure is completed.

This function is performed internally with bayonet mount lenses. There is an Auto/Manual switch on lenses with a Pentax universal screw mount, which must be set on "A" for automatic diaphragm control. When set in the "M" position, the diaphragm opens and closes as the aperture ring is rotated.

Depth of Field

When the camera is focused on an object, an area in front of and behind the object will be in acceptable sharp focus. The distance between the nearest and farthest objects in focus is depth of field.

The apparent depth of sharpness when focusing on a subject is determined by the focal length of the lens and F/stop selected. A wide angle lens appears to have greater depth of sharpness, while a telephoto lens appears to have a very narrow and selective depth of sharp focus. By stopping a lens down (closing), this apparent depth of sharpness can be increased. Depth of field adjustments can produce very creative results if properly used.
Depth of Field Scale

As on your standard camera lens, your new accessory lens has a depth of field scale which enables you to calculate limits of focus in front of and behind your main subject. These markings correlate with the distance scales on the focus ring. For depth of field pre-view, see your camera instruction book.

Built-In Sun Shade

Your telephoto lens has a built-in sun shade (lens hood) to assist in taking better pictures, especially in a backlit situation.

Infra-Red Film Pre-View

Your Sears lens provides an infra-red index mark (see Description of Parts) for use with infra-red film. When using infra-red film, focus normally on your subject and read the distance on the distance scale indicated by the distance index mark. Then, turn the focusing ring until this distance reading is lined up with the infra-red index mark.

Lens Care

Storage

Never store lenses in extreme heat and high humidity areas. Avoid areas where there is heavy exposure to salt water or salt air.

Protect your lens by using front and rear lens caps.

Care and Cleaning

Use a blower or camel’s hair brush to clean the lens surface or rub VERY GENTLY in a circular motion with a high-quality lens tissue. In severe cases you can use a small amount of lens cleaning solution, again wiping in a circular motion. NEVER RUB THE LENS TO REMOVE DIRT OR GRIT! If the dirt will not come loose with a brush or blower, take the lens to a factory approved service technician. Never touch the lens with your fingers or any material other than a brush or lens tissue. Do not use chemically treated eye-glass tissues.
Using Your Lens

KR Mount

Sears KR mount lenses provide automatic diaphragm operation for cameras using PK (Sears) KA (Pentax) and RK (Ricoh) program systems. No special adapters or camera adjustments are required. The KR mount also provides automatic diaphragm operation for non-program cameras using PK lens system.

Mounting Your Lens

Your Sears lens has been designed to mount in the same manner as your normal lens. Holding the lens firmly around the lens barrel will give you better balance and a more secure grip during the mounting procedure.

Holding Your Lens

While using your lens, it is best to support the camera/lens combination with most of the weight resting in the palm of the left hand. This leaves the right hand free to operate the controls of your camera and assures proper balance and stability.

Focusing

Your new Sears lens has been designed to provide you with the utmost in fast and easy focusing. To focus, simply turn the Focusing Ring until the subject appears sharpest in the camera’s viewfinder.

One-Touch Zoom Lenses

The 80-200mm and 35-70mm Compact One-Touch Macro Zoom Lenses have one rotating barrel which covers both zooming and focusing. On the 80-200mm lens, it also controls the macro-focusing with one continued action.

Close-Focus (Macro) System

Convenient close focusing capability has been provided on the compact macro zoom lenses by having extended focusing range at close distances. Focusing at close distances with these lenses is done with the focusing ring in the same manner previously described for conventional focusing. An additional scale on the focusing ring indicates the reproduction (Macro) ratio. This scale indicates the ratio of film image size to object size.

"Your new 135mm F2.8 macro telephoto lens is designed with a macro focusing action at the closest focus distance. Set the focusing ring at the closest focus distance then rotate the macro ring clockwise to the position of the desired macro ratio."
**Lens Specifications**

### 73715 Range

**28mm f:2.8 Wide Angle Lens**

<table>
<thead>
<tr>
<th>Specification</th>
<th>6 groups, 6 elements</th>
<th>4 groups, 4 elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>6 groups, 6 elements</td>
<td>4 groups, 4 elements</td>
</tr>
<tr>
<td>Angle of View</td>
<td>75°</td>
<td>18°</td>
</tr>
<tr>
<td>Aperture Range</td>
<td>f:2.8–22</td>
<td>f:2.8–22</td>
</tr>
<tr>
<td>Minimum Focus</td>
<td>1.2 ft</td>
<td>3 ft (at Macro)</td>
</tr>
<tr>
<td>Filter Size</td>
<td>52 mm</td>
<td>52 mm</td>
</tr>
<tr>
<td>Length</td>
<td>1 ¾ in</td>
<td>3 ¼ in</td>
</tr>
<tr>
<td>Weight</td>
<td>7.58oz.</td>
<td>14.5 oz.</td>
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</table>

### 73694 Range

**135mm f:2.8 Telephoto Lens**
<table>
<thead>
<tr>
<th>Construction</th>
<th>9 groups, 9 elements</th>
<th>9 groups 13 elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angle of View</td>
<td>33° 30′ – 63°</td>
<td>30° – 12°</td>
</tr>
<tr>
<td>Aperture Range</td>
<td>f:2.8/3.8–22</td>
<td>f:4.0–22</td>
</tr>
<tr>
<td>Minimum Focus</td>
<td>15 ft.</td>
<td>1.5 ft (at Macro)</td>
</tr>
<tr>
<td>Filter Size</td>
<td>55mm</td>
<td>55 mm</td>
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<tr>
<td>Length</td>
<td>3.2 in.</td>
<td>5.2 in.</td>
</tr>
<tr>
<td>Weight</td>
<td>14.46 oz</td>
<td>1 lbs..5 oz</td>
</tr>
</tbody>
</table>

35–70 mm f: 2.8–3.8 Close-Focus Zoom Lens

80–200 mm f: 4.0 Macro Zoom Lens