The Dominant Triple Digit Field Lens featuring Powerful HDTV Auto Focus technology and Superior Image Stabilizer

**DIGISUPER 100AF**

XJ100×9.3B AF 9.3-930mm 1:1.7

Compatibility of Accessories for DIGI SUPER 100AF

<table>
<thead>
<tr>
<th>No.</th>
<th>DESCRIPTION</th>
<th>MODEL NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Digital Zoom Demand</td>
<td>ZDJ-D02</td>
</tr>
<tr>
<td>2-a</td>
<td>Digital Focus Demand for AF lens for Right hand operation</td>
<td>FDJ-P31</td>
</tr>
<tr>
<td>2-b</td>
<td>Digital Focus Demand for Left hand operation</td>
<td>FDJ-P41</td>
</tr>
<tr>
<td>3</td>
<td>Digital Servo Module</td>
<td>SMJ-E01</td>
</tr>
</tbody>
</table>

**DIMENSIONS**

Normal 4:3

- Built-in extender: 1.0X
- 2.0X

Zoom Ratio: 100X

Range of Focal Length:
- 9.3-930mm
- 18.6-1860mm

Maximum Relative Aperture:
- 1:1.7 at 9.3-930mm
- 1:4.7 at 930mm
- 1:3.4 at 18.6-592mm
- 1:9.4 at 1860mm

Angular Field of View:
- 50°x40° at 9.3-930mm
- 26°x20° at 18.6-592mm

Minimum object Distance (M.O.D.):
- 3.0m from front lens vertex

Object Dimensions at M.O.D.:
- 253.9x190.4cm at 9.3mm
- 2.54x1.90cm at 930mm
- 127.0x95.2cm at 18.6mm
- 1.27x0.95cm at 1860mm

Size: 250.6x255.5x661.5mm

Mass: 26.8kg (59.1 lbs)

**SPECIFICATIONS**

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XJ100 x 9.3B AF 9.3·930mm 1:1.7

Recently there has been a greater demand for broadcast HDTV production and the requirement for accuracy in focusing has risen in response to this demand. Canon has been and continues to be a pioneer in the design of broadcast lens and meets this demand with the introduction of a revolutionary HDTV Auto Focus System. For many years the market has been recognizing this unique technology for HDTV production and the Auto Focus System has now been adapted into several of Canon’s DIGISUPER HDTV zoom lenses.

Prominent features of DIGISUPER 100AF

- Canon’s unique “Power Optical System” and “X-Element” with a 100:1(9.3-930mm) focal length range has made it possible to maintain high optical quality while dramatically reducing chromatic aberration. Its superior optical capacity allows the lens to offer a maximum relative aperture of 1.7 and a minimum object distance of 3.0 meters.

Power Optical System and X-Element
- Breakthrough Power Optical System design
- X-Element virtually eliminates aberrations

Internal Focusing System
- Achieves wide-angle with reduced distortion
- Minimal variation of chromatic aberration while focusing
- Minimal variation of the center of gravity while focusing
- Internal focusing system allows for Anti-Dust and Anti-fog

Optical Shift Image Stabilizer (shift-IS)
- Due to extreme telephoto focal lengths Canon created a superior optical image stabilization technology that prevents the picture from shaking due to even the slightest wind or operator movement

New Generation Digital Servo System
- Servo System meets Robotic Requirements
- Wide Dynamic Range of Zoom and Focus Servo
- 32-bit CPU calculates and controls the zoom when focusing to counteract “breathing” (phenomena where picture size/angle of view changes when focusing) and has zero zoom effect

Outstanding features of Canon’s HDTV Auto Focus System

- Canon’s Original Sensor Delivers High Focus Performance
- Ability to focus from a completely defocused status without hunting
- Ability to focus on a high speed moving object

Structure of DIGISUPER HDTV Zoom Lens with Auto Focusing

AF Operation Mode
The AF system’s two operation modes is the answer to a professional camera operator’s various demands.

<table>
<thead>
<tr>
<th>Mode</th>
<th>FULL TIME AF</th>
<th>PART TIME AF</th>
</tr>
</thead>
<tbody>
<tr>
<td>How AF works</td>
<td>Usually activated</td>
<td>Usually off. Activated while the SW is pushed.</td>
</tr>
<tr>
<td>Recommended Application</td>
<td>Sporting event etc.</td>
<td>Studio production etc.</td>
</tr>
<tr>
<td>Application</td>
<td>To follow a moving object.</td>
<td>To confirm the best focus position.</td>
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AF Frame
The camera operator can focus on a specific object by controlling the position of the AF Frame (target area) in the viewfinder. The size of the AF frame (target area) can be changed in 3 steps allowing for different subjects and compositions.
DIGISUPER 100AF

XJ100×9.3B AF 9.3·930mm 1:1.7

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Prominent features of DIGISUPER 100AF

- Breakthrough Power Optical System design
- Achieves higher specifications and quality
- The X-Element virtually eliminates aberrations

Power Optical System and X-Element

- Achieves wide-angle with reduced distortion
- Minimal variation of chromatic aberration while focusing
- Internal focusing system allows for Anti-Dust and Anti-fog

Internal Focusing System

Advanced 3 group IF system
- Achieves wide-angle with reduced distortion
- Minimal variation of chromatic aberration while focusing
- Internal focusing system allows for Anti-Dust and Anti-fog

Optical Shift Image Stabilizer (shift-IS)

- Due to extreme telephoto focal lengths Canon created a superior optical image stabilization technology that prevents the picture from shaking due to even the slightest wind or operator movement

New Generation Digital Servo System

Servo System meets Robotic Requirements
- High resolution zoom and focus servo 13-bit repeatability
- High resolution iris control

Wide Dynamic Range of Zoom and Focus Servo

- From ultra slow to high Max speed: Zoom 0.6sec, Focus 0.8sec

CAFS (Constant Angle Focusing System)

- 32-bit CPU calculates and controls the zoom when focusing to counteract “breathing” (phenomena where picture size/angle of view changes when focusing) and has zero zoom effect

AF Operation Mode

The AF system’s two operation modes is the answer to a professional camera operator’s various demands.

[2 kinds of AF Operation Modes with ACTIVE/HOLD switch]

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<td>Focus position locked while the SW is pushed.</td>
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The camera operator can focus on a specific object by controlling the position of the AF Frame (target area) in the viewfinder from the Digital Focus Demand FDJ-P31/P41. The size of the AF frame (target area) can be changed in 3 steps allowing for different subjects and compositions.

Outstanding features of Canon’s HDTV Auto Focus System

- Canon’s Original Sensor Delivers High Focus Performance
  - Focusing accuracy that meets full HDTV specifications (1920×1080 pixels)
  - Ability to focus from a completely de-focused status without hunting
  - Ability to focus on a high speed moving object
The Dominant Triple Digit Field Lens featuring Powerful HDTV Auto Focus technology and Superior Image Stabilizer