Canon

DIGI SUPER 75 XS

XJ75×9.3B IE 9.3-700mm 1:1.7

PREMIUM FIELD LENS WITH HDTV PERFORMANCE AND IMAGE STABILIZER

IMAGE STABILIZER

AFS Digital Servo System

HD XS

CROSSOVER

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IMAGE STABILIZER | CAFS Digital Servo System | HDxs | CROSSOVER

Canon's XJ75xs has been developed as the companion model of the XJ86xs series, our extraordinarily popular field lens. The XJ75xs features high optical quality, high specifications and built-in Image Stabilizer.
The marriage of cost-performance and quality-performance has been achieved by the use of XS technology.

HD Optical Performance with 75x Zoom Ratio and 9.3mm Wide Angle

The DIGISUPER 75 xs is an extraordinary field lens that utilizes Canon's new optical design concept "POWER OPTICAL SYSTEM" and "**X-Element**".
By adopting this new technology and concept, the DIGISUPER 75 xs realizes the necessary optical performance for HDTV, with increased zoom ratio of 75x, improved wide angle of 9.3mm while still maintaining the size equivalent to that of current SDTV lenses.

X-Element & POWER OPTICAL SYSTEM

Canon has developed this breakthrough optical design concept using a newly developed optical element in the most effective way.
We have named this design concept the "Power Optical System" which achieves higher specifications and quality using the optical "**X-Element**" which virtually eliminates aberrations.

Image Stabilizer

The history of field lenses is a history of zoom ratio/focal length extension. It came to a point where the industry thought it would be impossible to push the envelope any further. The telephoto focal lengths of the lens got so long that even the slightest amount of wind or operator movement would cause image shake and viewing the picture became intolerable, this was before Canon announced the incredible magnification DIGISUPER 86 xs zoom lens. Canon, renowned for its optical image stabilization technologies, developed another new stabilization solution for the broadcast field lens, a built-in Optical Shift Image Stabilizer (Shift-IS) to overcome image shaking at telephoto focal length. Now the Shift-IS is employed in the DIGISUPER 75 xs.

"CAFS" Constant Angle Focusing System

The zooming effect of focus is the phenomena where the picture size (angle of view) changes when focusing (breathing). However, a 32bit CPU calculates and controls the zoom when focusing in order to counteract these phenomena. Thus the DIGISUPER 75 xs has ZERO zooming effect of focus throughout the whole zoom range.

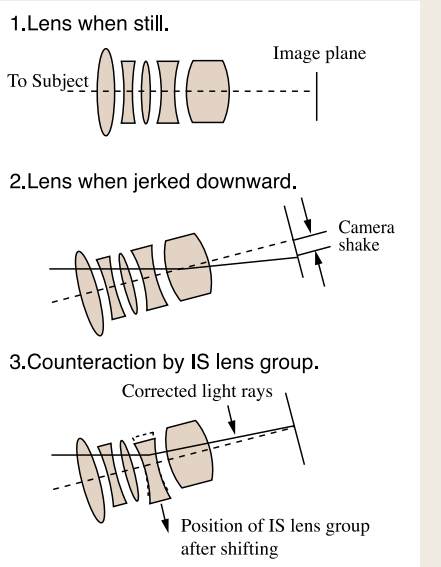
CROSSOVER COMPATIBILITY

Available optionally is the dual aspect ratio switching system, "CROSSOVER", for switchable 16:9/4:3 cameras.

Image Stabilizer

How the Optical Shift Image Stabilizer (Shift-IS) Works

When the lens moves, the light rays from the subject are bent relative to the optical axis, resulting in an unsteady image because the light rays are deflected. By shifting the IS lens group on a plane perpendicular to the optical axis to counter the degree of image shake, the light rays reaching the image plane can be steadied. Since image shake occurs in both horizontal and vertical directions, two shake-detecting sensors for yaw and pitch, detect the angle and speed of movement and send this information to a high-speed 32-bit microcomputer, which converts the information into drive signals for the IS lens group. Then the actuator moves the IS lens group horizontally and vertically thus counteracting the image shake and maintaining the stable picture. The Shift-IS component is located within the lens groups and is most effective for lower frequency movements caused by platform vibration or wind effect without increasing the overall size and weight of the master lens.



HDxs

POWER OPTICAL SYSTEM
Featuring X-Element

4:3 16:9 CROSSOVER
CANON TV ZOOM LENS

INTERNAL FOCUSING SYSTEM
(Advanced 3 group IF system)
- Realization of wide-angle with reduced distortion.
- Minimized variation of chromatic aberration while focusing.
- Anti-Dust, Anti-Fog, thanks to a perfectly airtight Internal Focusing System.
- Minimized variation of the centre of gravity through focus movement.

Image Stabilizer (SHIFT-IS)

"CAFS"
-Constant Angle Focusing System-
- When focus is operated, the angle of view is maintained by synchronizing zoom movement.

ZOOM RATIO:75X

CROSSOVER COMPATIBILITY (Optional)
- For use with 16:9/4:3 switchable cameras.

4 - POSITION TURRET
(built in extender, master lens, crossover unit).
- Micro Computer Controlled Turret.

VERSATILE ZOOM/FOCUS CONTROLLERS
(See figure on the next page)
- New ergonomic design.
- Countermeasures against dust, rain, and radio interference.

HD OPTICAL PERFORMANCE
- Computer aided design in order to meet the higher level demanded by HDTV.

WIDE ANGLE OF 9.3mm WITH REDUCED DISTORTION

COUNTERMEASURES AGAINST "GHOSTING" AND "FLARES"
- New coatings and anti-reflection paint achieve the elimination of "ghosting" and "flares".

NEW GENERATION DIGITAL SERVO SYSTEM

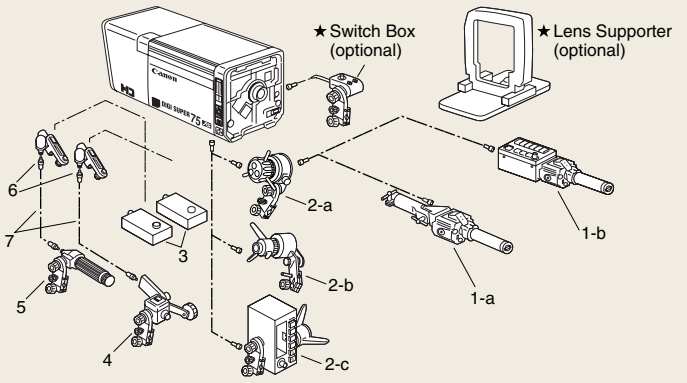
WIDE DYNAMIC RANGE OF ZOOM AND FOCUS SERVO SPEED
- From ultra slow to high speed. Max. speed: Zoom 0.6 sec, Focus 0.8sec.

COUNTERMEASURES AGAINST RADIO FREQUENCY NOISE(INTERFERENCE)

SPECIFICATIONS

	NORMAL4:3		16:9		SWITCHABLE 4:3		
Image Format	8.8 x 6.6mm ; φ11.0mm		9.6 x 5.4mm ; φ11.0mm		7.2 x 5.4mm ; φ9.0mm		
Built-in Extender	1.0X	2.0X	1.0X	2.0X	1.0X	1.2X	2.4X
Zoom Ratio	75X						
Range of Focal Length	9.3 - 700mm	18.6 - 1400mm	9.3 - 700mm	18.6 - 1400mm	7.65 - 575mm	9.3 - 700mm	18.6 - 1400mm
Maximum Relative Aperture	1:1.7 at 9.3~331mm 1:3.6 at 700mm	1:3.4 at 18.6~662mm 1:7.2 at 1400mm	1:1.7 at 9.3~331mm 1:3.6 at 700mm	1:3.4 at 18.6~662mm 1:7.2 at 1400mm	1:1.7 at 7.65~326mm 1:3.0 at 575mm	1:1.7 at 9.3~331mm 1:3.6 at 700mm	1:3.4 at 18.6~662mm 1:7.2 at 1400mm
Angular Field of View	50.6°x 39.1° at 9.3mm 0.72°x 0.54° at 700mm	26.6°x 20.1° at 18.6mm 0.36°x 0.27° at 1400mm	54.6°x 32.4° at 9.3mm 0.79°x 0.44° at 700mm	28.9°x 16.5° at 18.6mm 0.39°x 0.22° at 1400mm	50.6°x 39.1° at 7.65mm 0.72°x 0.54° at 575mm	42.3°x 32.4° at 9.3mm 0.59°x 0.44° at 700mm	21.9°x 16.5° at 18.6mm 0.29°x 0.22° at 1400mm
Minimum object Distance(M.O.D.)	2.8m						
Object Dimentions at M.O.D.	234.3 x 175.7cm at 9.3mm 3.2 x 2.4cm at 700mm	117.2 x 87.9cm at 18.6mm 1.6 x 1.2cm at 1400mm	255.6 x 143.8cm at 9.3mm 3.4 x 1.9cm at 700mm	127.9 x 71.9cm at 18.6mm 1.8 x 1.0cm at 1400mm	234.3 x 175.7cm at 7.65mm 3.2 x 2.4cm at 575mm	191.7 x 143.8cm at 9.3mm 2.6 x 1.9cm at 700mm	95.9 x 71.9cm at 18.6mm 1.3 x 1.0cm at 1400mm
Size	250.6(W) x 255.5(H) x 591.5(L) mm						
Approx. Mass	22.0Kg(48.5lbs)						

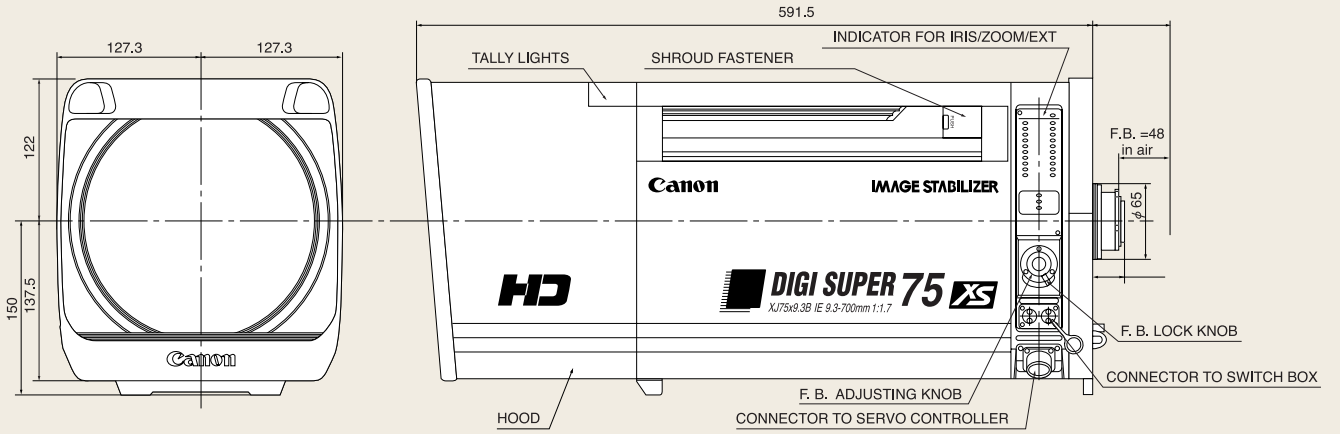
RECOMMENDED LENS SYSTEM



■Compatibility of Accesories for DIGI SUPER 75XS

No.	DESCRIPTION		CODE
1-a	Digital Zoom Demand	ZDJ-D02	1822A066
1-b	Digital Zoom Demand W/Pre-set Box	ZPJ-D02	
2-a	Digital Focus Demand	FDJ-D02	1822A065
2-b	Digital Focus Demand Propeller Type	FDJ-D12	0024T320
2-c	Digital Focus Demand W/Pre-set-Box	FPJ-D12	
3	Digital Servo Module	SMJ-D02	1822A070
4	Flexible Zoom Controller	FZP-T61	1822A005
5	Flexible Focus Controller	FFP-T61	1822A007
6	Flexible Module	FMJ-702	0028T275
7	Flexible Cable 30"	—	1822A018

DIMENSIONS



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Specifications subject to change without notice

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