

# Canon

# HJ17ex6.2B

PREMIUM STANDARD HDTV LENS: WIDER & CLOSER, BRINGS ADDITIONAL MOBILITY TO HD VIDEO PRODUCTION



**INNOVATION**

In TV Optics Since 1958

Toward 100 years anniversary

**HDXS**

# HJ17ex6.2B

# HDXS



As HD continues to become the worldwide standard for broadcast TV production, there is an increasing need for versatility in HDTV lenses that enable more efficient production operations without sacrificing high picture quality. In particular, there is strong demand for lenses that combine superior wide-angle performance with sufficient telephoto range to boost the mobility of camera crews and make operations more efficient.

To fulfill the needs of users such as these, Canon has researched and developed the HJ17ex6.2B, embodying the uncompromising high-dimensional quality for which our products are known. The HJ17ex6.2B is fully equipped with the latest state-of-the-art Canon optical technologies, and serves as a highly innovative premium standard HDTV lens.

## MAIN FEATURES

### ■ The HJ17ex6.2B represents a further advancement of the HDxs Series, already the premier series of HDTV lenses.

Offering optimum mobility, the HJ17ex6.2B premium standard HDTV lens is a new addition to the HDxs Series, Canon's premier HDTV lens lineup, with lenses covering a full range from Super Telephoto (1,120mm) to Super Wide (4.3mm). Professional users are now more able to select the appropriate lens for their expressive needs, and produce video with the high quality for which HDxs is renowned.

Canon HDxs lens series

Category	Zoom Ratio	Features	Focal Length (2/3 inch)																								
			4.3mm	6.2mm	7.5mm	8.5mm	7.6mm	10mm	14mm	28mm	60mm	106mm	120mm	128mm	130mm	158mm	168mm	212mm	260mm	316mm	400mm	500mm	560mm	800mm	1000mm	1120mm	
Telephoto	40x	ULTRA TELEPHOTO with Image Stabilizer																									
	40x	SUPER TELEPHOTO with Image Stabilizer																									
	18x	PORTABLE ULTRA TELEPHOTO																									
Multi-Purpose	22x	TELEPHOTO ENG/EFP LENS																									
Exclusive EFP	21x	SUPER QUALITY																									
Standard	17x	STANDARD ENG/EFP LENS																									
	17x	PREMIUM STANDARD (wider + closer)																									
Super Wide	14x	WIDEST ANGLE LENS (to date in TV industry)																									
Image Stabilized	15x	WIDER RANGE IS with VAP																									

### ■ Shoot closer, shoot wider. Improved mobility for camera crews in diverse situations.

- When covering news stories on-site, camera crews must work with a limited supply of equipment and react rapidly to various changes in subject distance and focal length.



The HJ17ex6.2B is capable of adapting flexibly to all manner of filming situations, whether shooting in close proximity to a subject or shooting close-ups of a subject from far away, without the need for changing lenses, thanks to its short M.O.D., extra-wide angle, 17x magnification, and built-in 2x extender.

- For production of documentaries, the HJ17ex6.2B enables vivid shooting even when ultra-close to the subject to make the scene come alive, or shooting in small rooms where distance from the subject cannot be attained,
- The HJ17ex6.2B is a single lens capable of flexible operation, enabling the **improved versatility** required by camera crews, **maximum cost- and performance-efficiency for productions**, and a wide range of **expressive possibilities**.

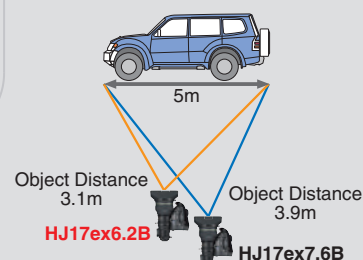
### ■ Superb optical performance. Wider focal length.

- With focal lengths ranging from wide-end to tele-end, and at subject distances ranging from infinite distance to extreme closeup (in which case optical performance generally suffers), the HJ17ex6.2B minimizes optical aberration across the entire screen and exhibits superb optical performance throughout the field.
- The HJ17ex6.2B provides the same magnification (17x) as our well-established HDTV production lens, the HJ17ex7.6B, while achieving a wider focal length of 6.2mm.
- M.O.D. has been shortened by approximately 30% (0.4m) compared to the HJ17ex7.6B.

Wider angle shot at the same object distance (0.6m) at wide end

	HJ17ex6.2B	HJ17ex7.6B
		
Focal length at Wide end	6.2mm	7.6mm
Angular Field of View at Wide end (16:9)	75.5°x47.1°	64.6°x39.1°

Closer distance to acquire same field of view





## Outstanding optical performance of the Canon HDxs Series

The HDxs Series makes optimum use of original Canon optical elements, UD (Ultra Low Dispersion) glass, large-diameter high-precision aspherical lenses and more, with their potential maximized through designs employing Canon's original "Power Optical System" optical design technology.

At the same time, the HDxs Series succeeds in suppressing ghosting and flaring by employing ray simulation technology in conjunction with original Canon spectral coating. Its amalgamation of advanced Canon optical technologies also minimizes curvature of field, comatic aberration, chromatic aberration of magnification, and axial chromatic aberration throughout the entire filed regardless of focal length or subject distance, stably exhibiting peak optical performance.



Specially designed optical lens elements

## Enhanced Digital Drive Unit

Information Display

Zoom Speed Volume in New Location

New Rubber Grip Support



The incorporation of miniature 16-bit, high resolution Rotary Encoder Devices into the new enhanced digital drive unit, has extended the features of the HJ17ex6.2B to include:

- Precision control of all lens operations
- Precise digital repeatability of zoom, focus and iris control that support innovative image creation
- Simple and direct digital integration into virtual studio systems
- Precision zoom control over a total speed range of 0.5 sec. to more than 5 min.

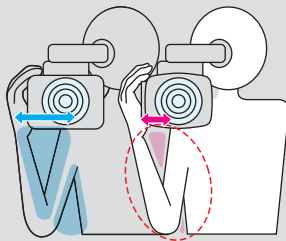
Moreover, Canon's unique Information Display provides easy, precise customization of the enhanced digital functions such as Shuttle Shot, Frame Preset and Speed Preset.

## Improved Operability & Reduced Operator Fatigue

Coupled with innovations in optical performance, is a totally new design of the digital drive unit.

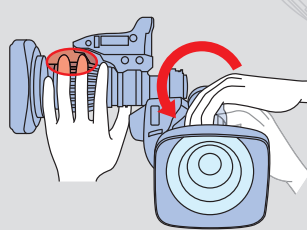
Refined by long-term market research and worldwide experience, Canon mobilized the latest in 3D CAD-CAM design to significantly improve the human tactile interface to the control of zoom, iris, and focus. Here are some results of Canon's research:

### Reduced Physical Stress



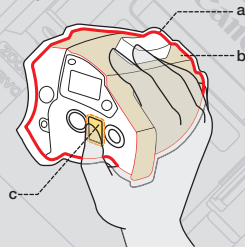
By reducing the width of the drive unit, the palm of the camera operator's hand is positioned closer to the optical axis, thus reducing the degree of arm bend which in turn lessens physical stress during prolonged shooting.

### Improved Ease of Operation



The spacing between the focus ring and drive unit has been changed to avoid accidental interference with the drive unit while manipulating the focus control.

### Ergonomic Design



The size and curvature size have been optimized to more comfortably fit in the palm of the operator's hand (a). Newly developed coatings improve the tactile interface between the user and the drive unit (b) together with the new Rubber Grip Support (c).

Premium Standard Lens : Focal Length of 6.2-106mm(12.4-212mm with 2x)

Short M.O.D.0.4m (10mm with Macro)

Newly Designed Ergonomic Drive Unit



2.0x Extender

Wide and Close Zoom Range

6.2-106mm 212mm

focal length  $\longleftrightarrow$  w/2x

Dynamic Zoom Speed Range (0.5sec-5min from wide end to tele end)

Exceptional High Optical Performance High MTF, Minimized Chromatic Aberrations and Innovative Countermeasures against Ghosting and Flares

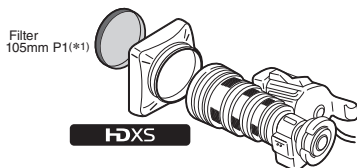
## SPECIFICATIONS

HJ17ex6.2B	NORMAL 16:9		SWITCHABLE 4:3 <sup>(1)</sup>	
	1.0x	2.0x	1.0x	2.0x
Built-in extender	1.0x		2.0x	
Zoom Ratio	17x			
Range of Focal Length	6.2-106mm	12.4-212mm	6.2-106mm	12.4-212mm
Maximum Relative Aperture	1:1.8 at 6.2-65.8mm 1:2.9 at 106mm	1:3.6 at 12.4-131.6mm 1:5.8 at 212mm	1:1.8 at 6.2-65.8mm 1:2.9 at 106mm	1:3.6 at 12.4-131.6mm 1:5.8 at 212mm
Angular Field of View	75.5°×47.1° at 6.2mm 5.2°×2.9° at 106mm	42.3°×24.6° at 12.4mm 2.6°×1.5° at 212mm	60.3°×47.1° at 6.2mm 3.9°×2.9° at 106mm	32.4°×24.6° at 12.4mm 1.9°×1.5° at 212mm
Minimum Object Distance (M.O.D.)	0.4m (10mm with Macro)			
Object Dimensions at M.O.D.	73.3×41.2cm at 6.2mm 4.1×2.3cm at 106mm	36.7×20.6cm at 12.4mm 2.1×1.2cm at 212mm	54.9×41.2cm at 6.2mm 3.1×2.3cm at 106mm	27.5×20.6cm at 12.4mm 1.6×1.2cm at 212mm
Approx. Size	W×H×L=165.0×112.3×240.5mm			
Approx. Mass	IRSE 1.97kg (4.34lbs) / IASE 2.05kg (4.52lbs) <sup>(2)</sup>			

<sup>1</sup> Specifications apply to Most Switchable camera when set to 4:3 mode (sensor size of 7.2×5.4mm), without using an optical Shrinker.

<sup>2</sup> HJ17ex6.2B IRSE Zoom: Servo / Manual Focus: Manual  
HJ17ex6.2B IASE Zoom: Servo / Manual Focus: Servo / Manual

## ACCESSORIES

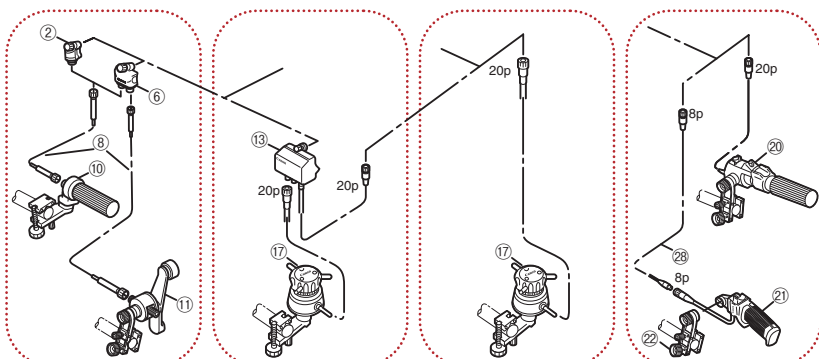


Filter  
105mm P1(\*1)

Zoom/Focus  
Manual Controllers

Focus Servo Controllers  
(For IRSE Lenses)  
(For IASE Lenses)

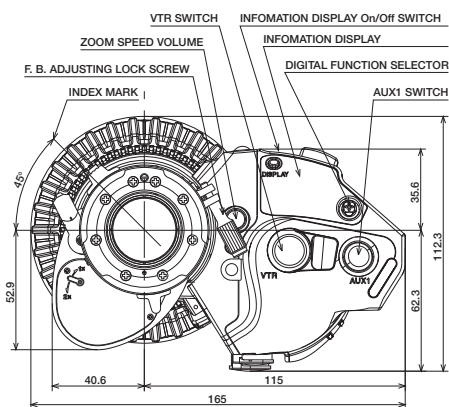
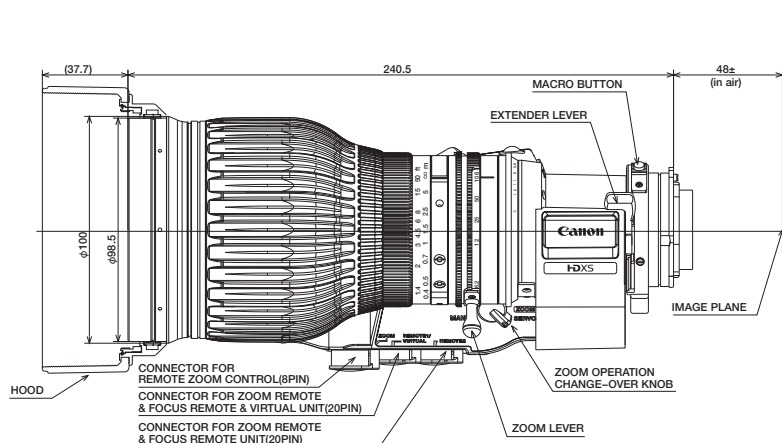
Zoom  
Servo Controllers



(\*1) For the optical accessories, the 105mm diameter P1 filters are applicable. The filters are to be attached to the lens hood. (UV/Cross/Snow Cross/Sunny Cross/Polarized Light/Softon/ND8)  
The optical converters and attachments are not applicable.

#	Unit	Description
②	FFM-100	Flex Focus Module
⑥	FFM-200	Flex Dual Module
⑧	FC-40	Flex Cable
⑩	FFC-200	Flex Focus Controller
⑪	FZC-100	Flex Zoom Controller
⑬	FPM-420D	Focus Positional Servo Module
⑰	FPD-400D	Focus Positional Demand
⑳	ZSD-300D	Zoom Servo Demand
㉑	ZSG-200M	Zoom Servo Grip
㉒	CR-10	Clammer
㉓	EC-80	Zoom Extension Cable (8P)

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