

# HJ18ex7.6B

EXPAND FREEDOM IN HD IMAGE CAPTURED WITH ENHANCED COMPACT HD LENS







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In recent years, as HD has become the standard in TV programming worldwide, Canon has made numerous contributions to the broadcasting industry by developing lenses that deliver the highest picture quality.

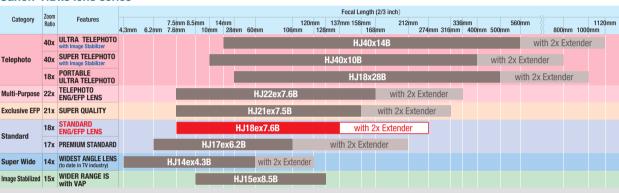
HDTV Zoom Lens for 2/3inch 3CCD Camera

The previous model, the HJ17ex7.6B has been used in a wide variety of applications including news reporting, and has been enthusiastically adopted as a standard lens by customers worldwide.

Eight years have passed since the HJ17ex7.6B was introduced, and Canon has been enhancing its performance and incorporating the latest optical technology in developing the HJ18ex7.6B.

The HJ18ex7.6B retains the compact and lightweight design essential to standard lenses, while upgrading specifications and performance across the board. This new lens also incorporates a new digital drive unit which further increases usability and operability when shooting. As this lens brings together many of Canon's state-of-the-art technologies, the HJ18ex7.6B is sure to become a next-generation standard and to be widely adopted by even more professional users.

#### Canon HDxs lens series



#### MAIN FEATURES

#### Highest Magnification and Longest Focal Length in its Class (As of January 1. 2014)

With 18x zoom, the HJ18ex76B lens has the highest magnification in its class, and its 137 mm tele focal length is also the longest in its class – thus enhancing the camera operator's possibility to express images. Combining optical design technology and cutting-edge optical simulation technology accumulated by Canon over several decades, this lens maintains excellent camera balance in terms of overall length and weight while also delivering expanded specifications.



#### Minimum Object Distance (MOD) in its Class (As of January 1. 2014)

The MOD of 0.56m is the shortest in its class. This, combined with the widest angle setting of 7.6 mm, allows a wide variety of scenes to be captured. This increased mobility and flexibility for camera operators and crews allows shooting under almost any conditions, including in tight spaces.

#### Compact and Lightweight

The size and weight of lenses are important factors contributing to comfort and convenience when shooting. The HJ18ex7.6B lens is very compact and lightweight, as befits an HD standard lens. The total length is 206.2 mm, and the weight is 1.58 kg (IRSE) - this enhances the mobility and enables the camera operators to shoot comfortably.

#### State-of-the-Art Canon Optical Technology for Advanced Optical Performance

The HDxs series has been supported by many customers in the broadcast industry and is in wide use throughout the world.

As a HD zoom lens for broadcast applications with the toughest demands anywhere, the HDxs series incorporates optical elements, a wide-diameter aspherical lens, Canon's cutting-edge design technology and Canon's exclusive optical simulation to achieve reduced chromatic aberration, distortion, and ghosting.

As part of the HDxs series, the HJ18ex7.6B inherits the optical performance refined by Canon over decades, and as a next-generation standard lens, incorporates even more advanced optical simulation technology, newly developed optical materials, and the latest optical processing technology. It delivers advanced optical performance from the widest angle to the telephoto, allowing camera operators to capture amazing images.





Specially designed optical lens elements

#### FEATURES OF NEW DRIVE UNIT

#### Aberration Correction and Virtual Functions Enabled without Lens Initialization

To date, aberration correction functions have often been employed on 2/3" HDTV cameras for broadcast use. The new drive unit of the HJ18ex76B can output accurate lens position data from the moment the power is turned on. Additionally, Canon's newly developed high-performance encoder does not require initialization as earlier units did, and this contributes to the quick start when shooting.

#### Saved Power Consumption

The HJ18ex7.6B can operate even longer on battery power than its predecessor. Power consumption while the zoom, focus, and iris functions are not being operated has been reduced by approximately 20%, further enhancing the mobility of the camera operator.

Simple Display Operations

Canon's unique display-based functions, which are highly regarded in the industry, have helped a variety of operations. We have listened to our customers, and a new simplified mode has brought the operation method even easier and closer to the ideal.

#### More Advanced Virtual Operability and More Precise Virtual Image Expression

- The new drive unit uses three 20-pin connectors. It provides virtual pins even with the digital full servo controllers, thereby enabling more advanced operation.
- Canon's new high-performance encoder is capable of extremely high-precision output. This simplifies calibration when composing virtual and live-action images, thus resulting in more accurate composites.



#### Digital Functions

The Canon drive unit integrates a variety of operations, stored digitally, that can be manipulated using the display.

Shuttle Shot	<ul> <li>By memorizing any two focal lengths, the Canon drive unit can automatically "shuttle" between two points, moving in either direction. As an example, this function is effective for shots in which an operator wants to start from a wide angle and then zoom in rapidly on to an object.</li> <li>Image: MENU [1] 1</li> <li>Basic ] [Trk]OFF</li> <li>A Shtl \$&gt;[I-Gain ]</li> <li>A Shtl \$VTR</li> </ul>
Frame Preset	An angle of view can be preset in either of two memories and the lens will zoom at the highest speed, or in a preset zoom speed, to the preset position with the push of a simple button. As an example, this function is effective for situations such as interview programs, where it is necessary to switch between bust shot and wide shot.
	Preset       L I IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
Speed Preset	A specific zoom speed can be preset in memory making it possible to repeat the zoom speed as often as you like with the push of a simple button. Using a preset speed when zooming in and zooming out contributes to create stable images, particularly with slow zooms. Preset L T & T & T & T & T & T & T & T & T & T

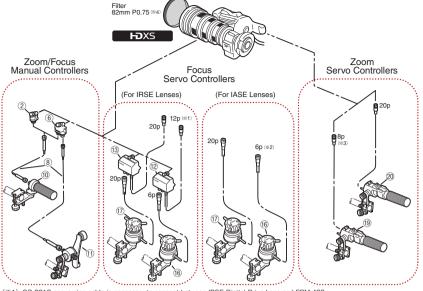
#### **SPECIFICATIONS**

ZSpeed:

< 500 ▶

HJ18ex7.6B	16:9		4:3	
Built-in Extender	1.0×	2.0×	1.0×	2.0×
Zoom Ratio	18:1			
Local Length	7.6-137mm	15.2-274mm	7.6-137mm	15.2-274mm
Maximum Relative Aperture	1:1.8 at 7.6-103mm 1:2.4 at 137mm	1:3.6 at 15.2-206mm 1:4.8 at 274mm	1:1.8 at 7.6-103mm 1:2.4 at 137mm	1:3.6 at 15.2-206mm 1:4.8 at 274mm
Angular Field of View	64.6°×39.1° 4.0°×2.3°	35.1°×20.1° 2.0°×1.1	60.1°×46.9° 3.7°×2.8°	32.3°×24.5° 1.8°×1.4°
M.O.D.	0.56m (10mm with Macro)			
Object Dimensions at M.O.D.	65.5×36.8cm at 7.6mm 3.8×2.1cm at 137mm	32.8×18.4cm at 15.2mm 1.9×1.1cm at 274mm	60.4cm×45.3cm at 7.6mm 3.5cm×2.6cm at 137mm	30.2×22.7cm at 15.2mm 1.8×1.3cm at 274mm
Approx. Size	W×H×L = 160.5×105.0×206.2mm			
Approx. Mass	1.58kg			
Object Dimensions with Macro at M.O.D.	6.7×3.8cm at 7.6mm (10mm with Macro)		6.1×4.6cm at 7.6mm (10mm with Macro)	

#### ACCESSORIES



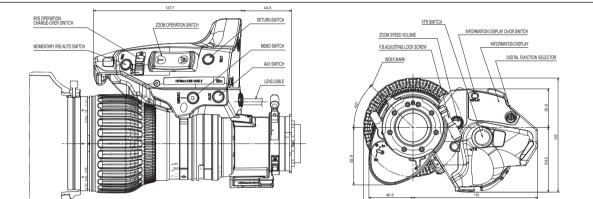
#	Unit	Description
2	FFM-100	Flex Focus Module
6	FFM-200	Flex Dual Module
8	FC-40	Flex Cable
(10)	FFC-200	Flex Focus Controller
(1)	FZC-100	Flex Zoom Controller
(12)	FPM-420	Focus Positional Servo Module
(13)	FPM-420D	Focus Positional Servo Module
(16)	FPD-400*5	Focus Positional Demand
17)	FPD-400D	Focus Positional Demand
(19)	ZSD-300M	Zoom Servo Demand
20	ZSD-300D	Zoom Servo Demand

(\*1) CC-2012 conversion cable is necessary to connect between IRSE Digital Drive Lens and FPM-420.
 (\*2) CC-2006 conversion cable is necessary to connect between IASE Digital Drive Lens and FPD-400.

(#3) CC-2008 conversion cable is necessary to connect between New Digital Drive Lens and ZSD-300M.

(\*4) For the optical accessories, the 82mm diameter P0.75 filters are applicable. The filters are to be attached to the lens barrel. (UV/ Clear/ Cross/ Snow Cross/ Sunny Cross/ Polarized Light/ Softon/ ND8) (%5) FPD-400 is not available from Canon stock.

#### **DIMENSIONS**



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