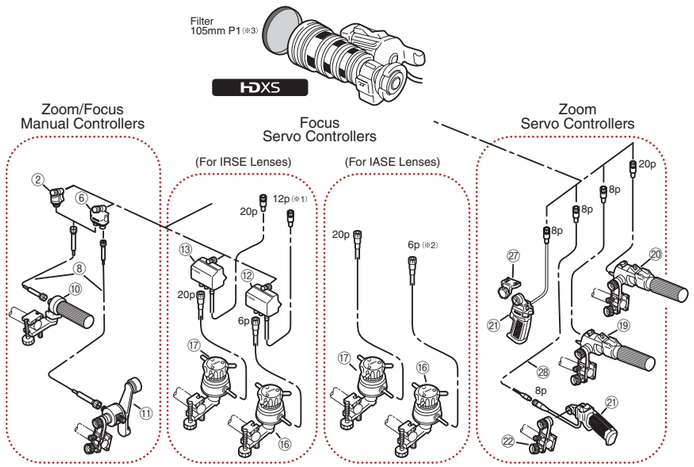
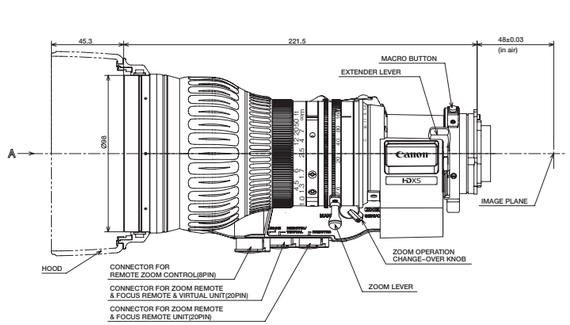
ACCESSORIES

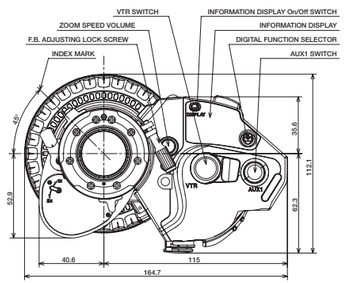


#	Unit	Description
②	FFM-100	Flex Focus Module
⑥	FFM-200	Flex Dual Module
⑧	FC-40	Flex Cable
⑩	FFC-200	Flex Focus Controller
⑪	FZC-100	Flex Zoom Controller
⑫	FPM-420	Focus Positional Servo Module
⑬	FPM-420D	Focus Positional Servo Module
⑯	FPD-400 (※4)	Focus Positional Demand
⑰	FPD-400D	Focus Positional Demand
⑲	ZSD-300M	Zoom Servo Demand
⑳	ZSD-300D	Zoom Servo Demand
㉑	ZSG-200M	Zoom Servo Grip
㉒	CR-10	Clamper
㉗	ZGA-500	Grip Adapter
㉘	EC-80	Zoom Extension Cable (8P)

(※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) For the optical accessories, the 105mm diameter P1 filters are applicable.The filters are to be attached to the threaded hood unit. (UV/ Clear/ Cross/ Snow Cross/ Sunny Cross/ Polarized Light/ Softon/ ND8) UV/94mm is also available for direct attachment to front of lens.
(※4) FPD-400 is not available from Canon stock.

DIMENSIONS





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Canon

HJ22ex7.6B

Expand Your Video Creativity with Canon's Multipurpose HD ENG Lens

50 YEARS
INNOVATION
In TV Optics Since 1958

HDXS

HJ22ex7.6B

Recent years have witnessed expansions in both HD production and the range of program genres. Within this environment the worldwide popularity of the HJ22ex7.6B lens as a flexible multipurpose lens exhibiting high optical performance and ease of operation has grown significantly. The combination of a generous 22x zoom ratio and a wide 7.6mm field of view meets numerous challenging production applications that include dramas, documentaries, sports, news etc.

A newly developed digital drive unit has further streamlined the lens ergonomics to further empower camera operator shooting flexibility.

The new drive unit will be identified with an "A" at the end of the model name – such as IRSE A or IASE A.

MAIN FEATURES

High Specification in Compact Size

The focal range of 7.6mm to 167mm can be further extend to 334mm using the 2x range extender included in the lens. This highly flexible lens has been reduced in length to 221.5mm and in weight to 1.81 kg (IRSE A type) producing a remarkably compact package that supports a broad range of productions.

Tight Control Over Optical Aberrations

Close attention to managing a reduction in a variety of optical aberrations while also adopting an innovative new focusing system has produced an overall performance improvement over the predecessor model that benefits both HD ENG and general HD production.

High Optical Performance

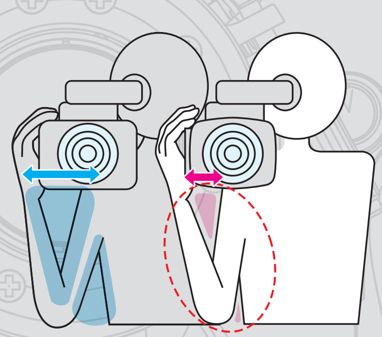
Evolving design techniques, advanced optical materials and optical coatings, and continuing refinements to manufacturing processes have collectively contributed to the HJ22ex7.6B lens having very high optical performance and extended operational capabilities. Specifically these include a lowering of longitudinal chromatic aberration at the longer focal lengths, and curtailment of spherical and comatic aberrations. Adoption of new optical materials also afforded a reduction in curvature of field. The lens focusing system has also been improved over the conventional 2-group inner focus in terms of an improved resolution and contrast at the picture extremities especially at the telephoto side of the focal range.

Multi-purpose Lens of a Broad Range of Focal Length 7.6mm-167mm (15.2-334mm with 2.0x)

Improved Operability & Reduced Operator Fatigue

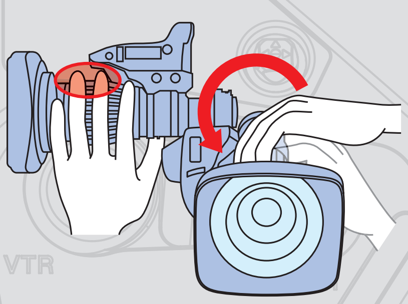
Coupled with innovations in optical performance, is a totally new design of the digital drive unit.
Refined by long-term market research and worldwide experience, Canon mobilized the latest in 3D CAD-CAM design to significantly improve the human tactile interface to the control of zoom, iris, and focus. Here are some results of Canon's research:

Reduced Physical Stress



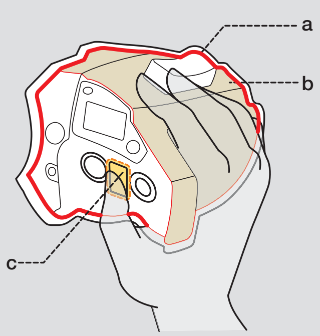
By reducing the width of the drive unit, the palm of the camera operator's hand is positioned closer to the optical axis, thus reducing the degree of arm bend which in turn lessens physical stress during prolonged shooting.

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).

Enhanced Digital Drive Unit

The incorporation of miniature 16-bit, high resolution Rotary Encoder Devices into the new enhanced digital drive unit, has extended the features of the HJ14x 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.

Multi-purpose Lens : Focal Length of 7.6-168mm (15.2-336mm with 2x)

Enhanced Digital Functions

Shuttle Shot

By memorizing any two focal lengths, the Digital Drive can automatically "shuttle" between the two points, moving in either direction.

Starting Point · Preset Position · Starting Point

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 by pushing a simple button.

Starting Point · Frame 1 · Frame 2

Information Display

Speed Preset

A specific zoom speed can be preset in memory and it is possible to repeat the zoom speed as often as you like by pushing a simple button.

Zooming in same speed

SPECIFICATIONS

HJ22ex7.6B	16:9		4:3	SWITCHABLE 4:3	
Built-in extender	1.0×	2.0×	1.0×	1.2×	2.4×
Zoom Ratio	22×				
Range of Focal Length	7.6~168mm	15.2~336mm	6.3~139mm	7.6~168mm	15.2~336mm
Maximum Relative Aperture	1:1.8 at 7.6~114.1mm 1:2.65 at 168mm	1:3.6 at 15.2~228.2mm 1:5.3 at 336mm	1:1.8 at 6.3~114.2mm 1:2.19 at 139mm	1:1.8 at 7.6~114.1mm 1:2.65 at 168mm	1:3.6 at 15.2~228.2mm 1:5.3 at 336mm
Angular Field of View	64.6°×39.1° at 7.6mm 3.27°×1.84° at 168mm	35.1°×20.1° at 15.2mm 1.64°×0.92° at 336mm	60.1°×46.9° at 6.3mm 3.00°×2.25° at 139mm	50.7°×39.1° at 7.6mm 2.46°×1.84° at 168mm	26.6°×20.1° at 15.2mm 1.22°×0.92° at 336mm
Minimum Object Distance (M.O.D)	0.85m (10mm with Macro)				
Object Dimensions at M.O.D	100.6×56.6cm at 7.6mm 4.60×2.60cm at 168mm	50.3×28.4cm at 15.2mm 2.30×1.30cm at 336mm	92.5×69.4cm at 6.3mm 4.25×3.19cm at 139mm	75.8×56.6cm at 7.6mm 3.48×2.60cm at 168mm	37.9×28.4cm at 15.2mm 1.74×1.30cm at 336mm
Approx. Size	WxHxL=164.7x112.1x221.5mm				
Approx. Mass (IRSE A / IASE A)	1.81Kg (4.00 lbs) / 1.89Kg (4.17 lbs)				

HJ22ex7.6B IRSE A Zoom: Servo / Manual Focus: Manual
HJ22ex7.6B IASE A Zoom: Servo / Manual Focus: Servo / Manual