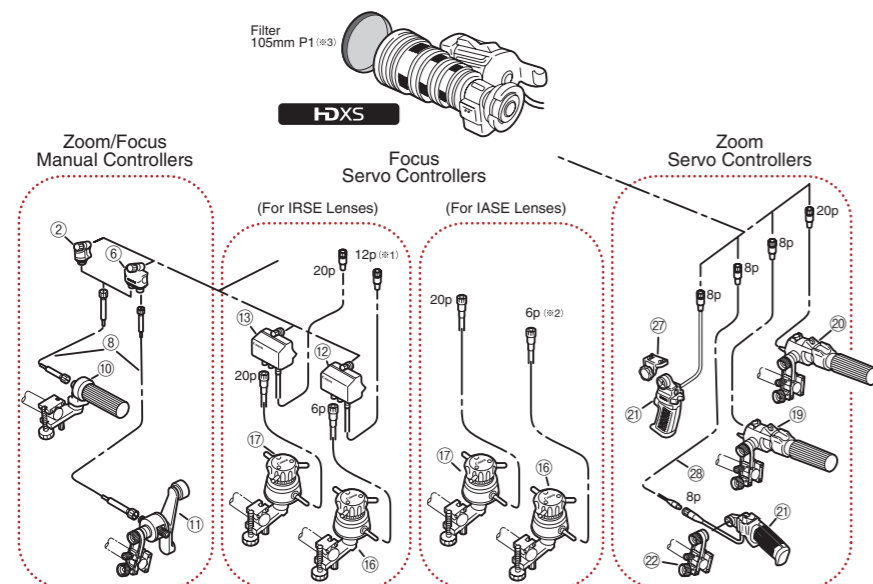


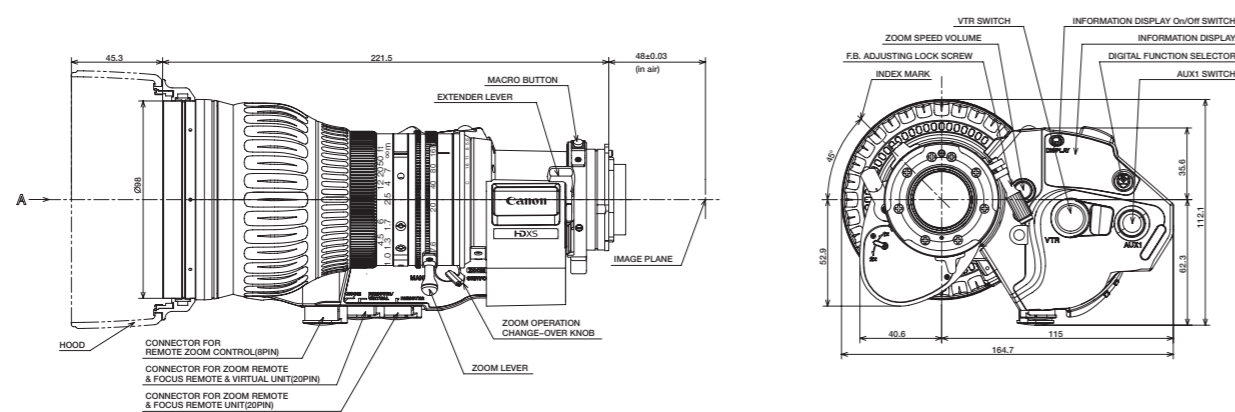
ACCESSORIES



- (※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/ Soften/ ND8) UV/94mm is also available for direct attachment to front of lens.
- (※4) FPD-400 is not available from Canon stock.

#	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
㉓	ZGA-500	Grip Adapter
㉔	EC-80	Zoom Extension Cable (8P)

DIMENSIONS



**North & South America
Canon U.S.A., Inc.**
Broadcast & Communications Div. (Headquarters)
65 Challenger Road, Ridgeland Park, NJ 07660
Tel: (201) 807-3300 / (800) 321-4388
Fax: (201) 807-3333
Email: bctv@usa.canon.com
http://www.canonbroadcast.com/

Chicago
100 Park Blvd. Itasca, IL 60143
Tel: (630) 250-6236 Fax: (630) 250-0399

Atlanta
5625 Oakbrook Pkwy. Norcross, GA 30093
Tel: (770) 849-7890 Fax: (770) 849-7888

Los Angeles
15955 Alton Parkway Irvine, CA 92618
Tel: (949) 753-4330 Fax: (949) 753-4337

Dallas
3200 Regent Blvd. Irving, TX 75063
Tel: (972) 409-8871 Fax: (972) 409-8869

Latin America
Tel: (954) 349-6975 Fax: (201) 807-3333

**Canada
Canon Canada, Inc.**
Broadcast and Communications Div.
6390 Dixie Road
Mississauga, Ontario, L5T 1P7, Canada
Tel: (905) 795-2012 Fax: (905) 795-2140

**Europe/Africa/Middle East
Canon Europa N.V.**
Broadcast and Communications Div.
Bovenkerkerweg 59-61
1185 XB Amstelveen
Tel: +31 (0) 20-5458905 Fax: +31 (0) 20-5458203
Email: tvprod@canon-europe.com
http://www.canon-europe.com/tv-products

**Australia
Canon Australia Pty. Ltd.**
Optical Products Division
1 Thomas Holt Drive, North Ryde, NSW 2113,
Australia
Tel: +61 (0) 2-9805-2000 Fax: +61 (0) 2-9805-2444

China (China) Co., Ltd.
Optical Products Division
15F Jinbao Building No. 89 Jinbao Street
Dongcheng District, Beijing 100005, China
Tel: 86-10-85139999 Fax: 86-10-85139902
http://www.canon.com.cn

Distributed by

Canon

HJ22ex7.6B

EXPAND YOUR VIDEO CREATIVITY WITH CANON'S MULTIPURPOSE HD ENG LENS



Canon <http://www.canon.com/bctv>



INNOVATION
In TV Optics Since 1958

HDXS

HJ22ex7.6B

HDXS

EXPAND YOUR VIDEO CREATIVITY WITH CANON'S MULTIPURPOSE HD ENG LENS



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.

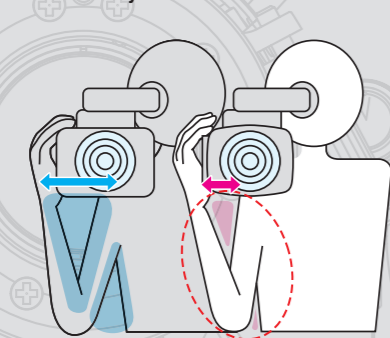


Multi-purpose Lens
7.6mm-167mm
(15.2-334mm with 2.0x)

Improved Operability & Reduced Operator Fatigue

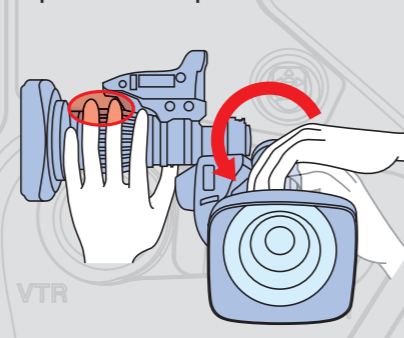
Coupled with innovations in optical performance, is a totally new design of the digital drive unit. Refined by long-term market research and worldwide experience, Canon mobilized the latest in 3D CAD-CAM design to significantly improve the human tactile interface to the control of zoom, iris, and focus.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

Reduced Physical Stress



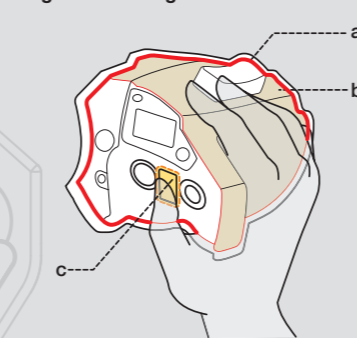
By reducing the width of the drive unit, the palm of the camera operator's hand is positioned closer to the optical axis, thus reducing the degree of arm bend which in turn lessens physical stress during prolonged shooting.

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.

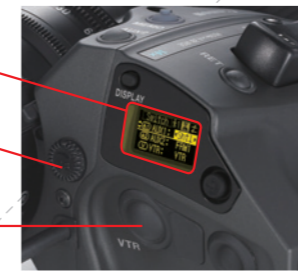
Ergonomic Design



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

- 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 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.

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.



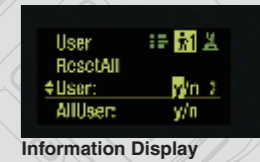
Starting Point Frame 1 Frame 2

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



Information Display

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



Newly Designed Ergonomic Drive Unit

2.0x Extender

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

Low-Weight, High-Mobility

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

SPECIFICATIONS

HJ22ex7.6B	16:9		4:3	SWITCHABLE 4:3	
	1.0x	2.0x	1.0x	1.2x	2.4x
Built-in extender	1.0x	2.0x	1.0x	1.2x	2.4x
Zoom Ratio	22x				
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