

Canon

KJ20x8.2B IRSD



INNOVATION

In TV Optics Since 1958

Toward 100 years anniversary

HDGC

KJ20x8.2B IRSD

Addressing a wide range of users, from HD broadcasters to professional operators, the HDgc series represents a more cost-effective approach to advanced video production.

Previously, only relatively high-end HDTV lenses featured built-in extender. However, the recent arrival of many new lower-cost HD camcorders has created a strong market demand for more affordable HD lenses with built-in extender. This is especially important for journalism and production applications seeking cost-effective HD acquisition systems.

In response, Canon proudly launches the KJ20x8.2B IRSD — a very affordable extender-equipped HDTV lens — that offers newsgathering and production organizations far greater image framing flexibility. The KJ20x8.2B IRSD is Canon's widest (8.2mm) lens in the affordable 20x class and its generous range of focal lengths is now augmented with the 2x built-in extender.

Because of its superior flexibility, and remarkable operational features (detailed below), the KJ20x8.2B IRSD is set to become the next generation's standard HDTV lens.



Main Features

Outstanding Optical Performance

New design tools, encompassing cutting-edge optical simulation and powerful 3D design technologies, combined with new optical glass materials and new optical coatings produced a novel optimization of the cost-performance ratio of this new lens. The KJ20x8.2B IRSD exhibits a high MTF at picture center that is also well-controlled out to picture extremities. The design optimization maintains that high MTF with operational adjustments of focal length and object distance. Longitudinal and lateral chromatic aberrations have been minimized as well as monochromatic aberrations like coma and astigmatism. Geometric distortion at wide angle settings is imperceptible.

The new optical materials and multilayer optical coatings have effectively attenuated optical artifacts such as ghosting, flare, and veiling glare, that might be stimulated by strong light sources in the scene (for example, sun in daytime and car headlight at nighttime).

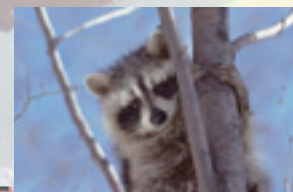
Newly Developed Advanced Drive Unit

Various companies have rolled out cameras with lens aberration correction functions in recent years. For this reason, the KJ20x8.2B IRSD is fitted with a camera-communication interface to support these separate aberration correction functions.*1

The KJ20x8.2B IRSD's zoom can travel end to end in 1.0 seconds, an improvement over the KJ20x8.5B KRS's speed. The servomotor has a noise-suppressing construction to ensure there is no corresponding increase in noise. The drive unit features the same ergonomically designed shape of the KJ20x8.5B KRS and others in the family that users have loved for its handling and grip.

On the newly developed advanced drive unit, the Memo switch, which sets specific zoom positions for the Shuttle Shot function (see right page), has been changed to a push switch. On previous drive units, to memorize the zoom position, the operator had to adjust its position by a volume switch. The memo switch enables more reliable Shuttle Shot setup in the field where more consistent functioning of the controls is required.

*1. Check with the camera manufacturer to see whether the KJ20x8.2B IRSD is compatible with the camera's aberration correction functions.



Broad Range of Focal Length 8.2mm-164mm
(16.4mm-328mm with 2.0x extender)



Specially designed optical lens elements

Additional Features

Optical Performance

HDTV Exceptional Optical Performance

- High MTF well controlled across image plane
- Reduced Chromatic Aberrations
- Effective countermeasures that significantly lower Ghosting and Flares

Minimum Focal Length of 8.2mm at Wide End

Widest angle of view within Canon's affordable 20x class



Enhanced Macro Function
Facilitates an effective M.O.D of 10mm (from lens front)

Built-in 2.0x Extender

Broad Range of Focal Length 8.2mm-164mm
(16.4mm-328mm with 2.0x extender)

Short M.O.D. 0.9m

Servo & Mechanical Performance



Memo Switch

Switch that sets zoom positions for the Shuttle Shot function.

Maximum Zoom Speed 1.0sec.
from wide end to tele end.

Lightweight Design
1.42kg(3.13lbs)

New Ergonomic Drive Unit

The new ergonomically designed Drive Unit has been minimized in size and physically tilted to afford a comfortable grip and an improved balance. Overall, this significantly enhances the operator's tactile connection with the lens.



Shuttle Shot Switch

Ribbed Surface

The ribbed surface on the bottom of the drive unit ensures a firmer grip and better overall operational control.

Grip Support

Allows a user to securely grip the drive unit without inadvertently pressing on the VTR or Shuttle Shot buttons.

Shuttle Shot Technology



Shuttle Shot is a Canon Exclusive Technology that enhances production capabilities. At the touch of a button, this feature allows the operator to zoom back and forth instantly between any two positions. It can be used to zoom to the telephoto position to check focus and then return instantly to the original position or you can "shuttle" between any two-zoom positions at any time.



Starting Point

Frame 1

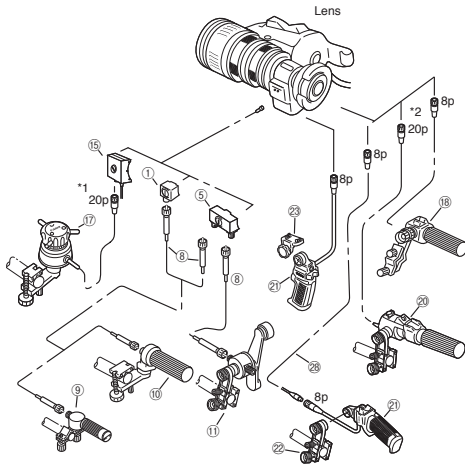
Frame 2

SPECIFICATIONS

KJ20x8.2B IRSD

	16:9		4:3	
	1.0x	2.0x	1.0x	2.0x
Built-in Extender	1.0x	2.0x	1.0x	2.0x
Zoom Ratio	20x			
Range of Focal Length	8.2-164mm	16.4-328mm	8.2-164mm	16.4-328mm
Maximum Relative Aperture	1:1.9 at 8.2-115.4mm 1:2.7 at 164mm	1:3.8 at 16.4-230.8mm 1:5.4 at 328mm	1:1.9 at 8.2-115.4mm 1:2.7 at 164mm	1:3.8 at 16.4-230.8mm 1:5.4 at 328mm
Angular Field of View	60.7°×36.5° at 8.2mm 3.4°×1.9° at 164mm	32.6°×18.7° at 16.4mm 1.7°×0.9° at 328mm	56.4°×43.8° at 8.2mm 3.1°×2.3° at 164mm	30.0°×22.8° at 16.4mm 1.5°×1.2° at 328mm
Minimum Object Distance (M.O.D)	0.9m (10mm with Macro)			
Object Demensions at M.O.D	98.2×55.2cm at 8.2mm 5.0×2.8cm at 164mm	49.1×27.6cm at 16.4mm 2.5×1.4cm at 328mm	90.1×67.6cm at 8.2mm 4.6×3.5cm at 164mm	45.1×33.8cm at 16.4mm 2.3×1.8cm at 328mm
Approx. Size	W×H×L=163.3×103.0×208.0mm			
Approx. Mass	1.42kg (3.13lbs)			

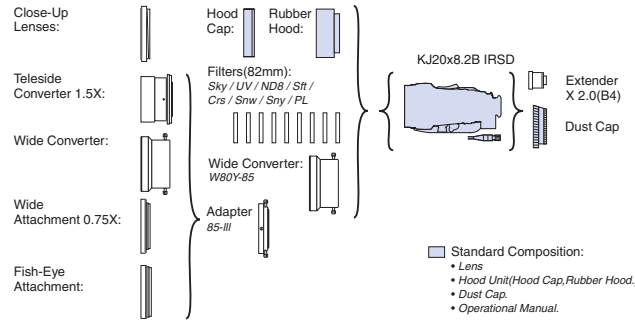
LENS CONTROLLERS



#	Unit	Description	#	Unit	Description
①	FM-12	Flex Focus Module	⑱	ZSD-15M II	Zoom Demand
②	FM-70	Flex Dual Module	⑳	ZSD-300D	Zoom Demand
③	FC-40	Flex Cable	㉑	ZSG-200M	Zoom Servo Grip
④	FFC-15	Flex Focus Controller	㉒	CR-10	Clamper
⑤	FFC-200	Flex Focus Controller	㉓	GA-70	Grip Adapter
⑥	FZC-100	Flex Zoom Controller	㉔	EC-80	Zoom Extension Cable (8P)
⑦	FPM-77	Focus Positional Servo Module	㉕	CC-0620	Conv. Cable (6pM-20pF)
⑧	FPD-400D	Focus Positional Demand	㉖	CC-0820	Conv. Cable (8pM-20pF)

*1 ㉕ CC-0620 conversion cable is necessary to connect between FPM-77 and FPD-400D.
*2 ㉖ CC-0820 conversion cable is necessary to connect between KJ20x8.2B IRSD and ZSD-300D.

OPTICAL ACCESSORIES



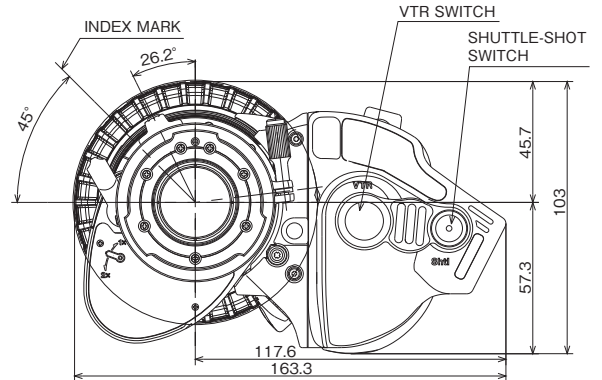
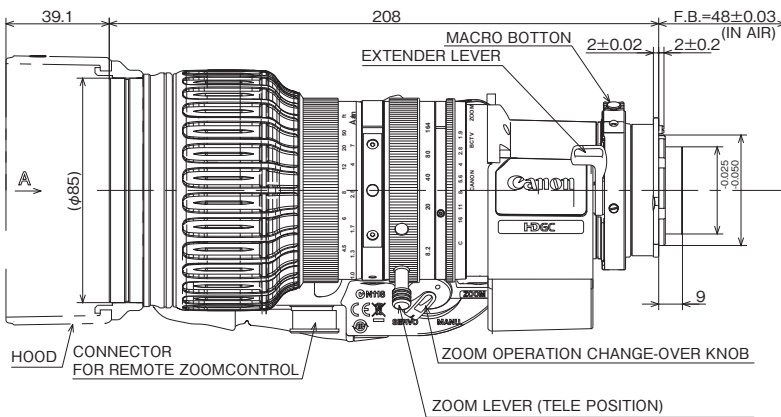
TYPE	MODEL	TYPE	MODEL
Close-Up Lens	82CL-UP800H	Ultra Violet	UV/82P0.75
	82CL-UP1300H	Sky Light	SKY/82P0.75
Tele-side Converter	T15-II	Cross Screen	CRS/82P0.75
	T15HD-II *1	Snow Cross	SNW/82P0.75
Wide Converter	W80Y-85	Sunny Cross	SNY/82P0.75
	W80-III B	Polarized Light	PL/82P0.75
	W80HD *1	Softon	SFT/82P0.75
Wide Attachment	WA75-II	ND4 (25% Transmittance)	ND4/82P0.75
	WA75HD *1	ND8 (12.5% Transmittance)	ND8/82P0.75
Fish-eye Attachment	FEA-III B		
	FEA-HD *1		
Adaptor	Adaptor85III		
Extender	X2.0-B4		

FILTERS

TYPE	MODEL
Ultra Violet	UV/82P0.75
Sky Light	SKY/82P0.75
Cross Screen	CRS/82P0.75
Snow Cross	SNW/82P0.75
Sunny Cross	SNY/82P0.75
Polarized Light	PL/82P0.75
Softon	SFT/82P0.75
ND4 (25% Transmittance)	ND4/82P0.75
ND8 (12.5% Transmittance)	ND8/82P0.75

*1 The HD quality accessories offer higher optical performance.
*2 The filters are to be attached to front of lens.

DIMENSIONS



North & South America
Canon U.S.A., Inc.
Imaging Technologies & Communications Group
Broadcast and Communications Sales & Marketing
Division (Headquarters)
65 Challenger Road, Ridgefield 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
Canon (China) Co., Ltd.
Broadcast Equipment Products
15F Jinbao Building No. 89 Jinbao Street
Dongcheng District, Beijing 100005, China
Tel: 86-10-8513-9999 Fax: 86-10-8513-9128
http://www.canon.com.cn

Asia/Japan
Canon Inc.
(Broadcast Equipment Group)
23-10, Kiyohara-Kogyo-Danchi, Utsunomiya-shi,
Tochigi-ken, 321-3298, Japan
Tel: +81 (0) 28-667-8669 Fax: +81 (0) 28-667-8672
http://www.canon.com/bctv

Distributed by

Specifications subject to change without notice.

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