

Canon

Delighting You Always

2019/2020

# BROADCAST & CINEMA LENS CATALOG



Canon

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**INNOVATION**  
In TV Optics Since 1958

Toward 100 years anniversary

# CANON'S LENS TECHNOLOGY: WELCOME TO THE 4K/UHD ERA



UHDxs UHD-DIGISUPER 122



UHDxs UHD-DIGISUPER 111



UHDxs UHD-DIGISUPER 86



UHDxs UHD-DIGISUPER 27



UHDxs UHD-DIGISUPER 90



UHDxs UHD-DIGISUPER 66



UHDxs CJ45ex9.7B



UHDxs CJ45ex13.6B



UHDxs CJ25ex7.6B



UHDxs CJ20ex7.8B



UHDxs CJ12ex4.3B



UHDdc CJ18ex28B



UHDdc CJ15ex8.5B



UHDdc CJ24ex7.5B



UHDdc CJ18ex7.6B



UHDdc CJ14ex4.3B



CN-E14.5-60mm T2.6 L S  
CN-E14.5-60mm T2.6 L SP



CN-E30-300mm T2.95-3.7 L S  
CN-E30-300mm T2.95-3.7 L SP



CN-E15.5-47mm T2.8 L S  
CN-E15.5-47mm T2.8 L SP



CN-E30-105mm T2.8 L S  
CN-E30-105mm T2.8 L SP



COMPACT-SERVO  
18-80mm T4.4 EF



COMPACT-SERVO  
70-200mm T4.4 EF



CINE-SERVO 17-120mm T2.95-3.9 EF  
CINE-SERVO 17-120mm T2.95-3.9 PL



CINE-SERVO 50-1000mm T5.0-8.9 EF  
CINE-SERVO 50-1000mm T5.0-8.9 PL



CN-E14mm T3.1 FP X



CN-E20mm T1.5 FP X



CN-E24mm T1.5 FP X



CN-E35mm T1.5 FP X



CN-E50mm T1.3 FP X



CN-E85mm T1.3 FP X



CN-E135mm T2.2 FP X



CN-E14mm T3.1 L F



CN-E20mm T1.5 L F



CN-E24mm T1.5 L F



CN-E35mm T1.5 L F



CN-E50mm T1.3 L F



CN-E85mm T1.3 L F



CN-E135mm T2.2 L F



# Broadcast Zoom Lens Lineup



## Studio & Field Lenses



## ENG/EFP Lenses



## Pro-Video & Remote-Controlled Lenses

### Broadcast Studio and Field Lenses

P. 12 - 13

4K UHD 2/3"	UHD-DIGISUPER 122 <b>4K Premium</b> UHD <sub>XS</sub>	UHD-DIGISUPER 111 <b>4K Premium</b> UHD <sub>XS</sub>	UHD-DIGISUPER 86 <b>4K Premium</b> UHD <sub>XS</sub>
	UHD-DIGISUPER 90 UHD <sub>XS</sub>	UHD-DIGISUPER 66 UHD <sub>XS</sub>	UHD-DIGISUPER 27 <b>4K Premium</b> UHD <sub>XS</sub>
HD 2/3"	DIGISUPER 100AF <b>HD<sub>XS</sub></b> Auto Focus	DIGISUPER 100 <b>HD<sub>XS</sub></b>	DIGISUPER 95 TELE <b>HD<sub>XS</sub></b>
	DIGISUPER 95 <b>HD<sub>XS</sub></b>	DIGISUPER 86AF <b>HD<sub>XS</sub></b> Auto Focus	DIGISUPER 80 <b>HD<sub>XS</sub></b>
	DIGISUPER 76 <b>HD<sub>XS</sub></b>	DIGISUPER 27AF <b>HD<sub>XS</sub></b> Auto Focus	DIGISUPER 27 <b>HD<sub>XS</sub></b>
			DIGISUPER 22 <sub>XS</sub> <b>HD<sub>XS</sub></b>

### Broadcast ENG/EFP Lenses

P. 20, 21, 22

4K UHD 2/3"	CJ45ex13.6B <b>4K</b> UHD <sub>XS</sub>	CJ45ex9.7B <b>4K</b> UHD <sub>XS</sub>	CJ25ex7.6B <b>4K</b> UHD <sub>XS</sub>	CJ20ex7.8B <b>4K</b> UHD <sub>XS</sub>
	CJ12ex4.3B <b>4K</b> UHD <sub>XS</sub>	CJ24ex7.5B <b>4K</b> UHD <sub>GC</sub>	CJ18ex7.6 <b>4K</b> UHD <sub>GC</sub>	CJ14ex4.3B <b>4K</b> UHD <sub>GC</sub>
	CJ18ex28B <b>4K</b> UHD <sub>GC</sub>	CJ15ex8.5B <b>4K</b> UHD <sub>GC</sub>		
HD 2/3"	HJ40ex14B <b>HD<sub>XS</sub></b> <b>NEW</b>	HJ40ex10B <b>HD<sub>XS</sub></b> <b>NEW</b>	HJ21ex7.5B <b>HD<sub>XS</sub></b>	HJ17ex6.2B <b>HD<sub>XS</sub></b>
	KJ22ex7.6B <b>HDGC</b>	KJ17ex7.7B <b>HDGC</b>	KJ10ex4.5B <b>HDGC</b>	
HD 1/3"	KT17ex4.3B <b>HDGC</b>			

### Pro-Video Lenses

P. 22

HD 2/3"	KJ20x8.2B (IRSD) <b>HDGC</b>	KJ20x8.2B (KRSD) <b>HDGC</b>	KJ13x6B <b>HDGC</b>
HD 1/2"	KH20x6.4 <b>HDGC</b>		

### Remote Controlled Lenses

P. 23

HD 2/3"	KJ22ex7.6B (ITS-ME/RE)	KJ17ex7.7B (ITS-ME/RE)	KJ20x8.2B (KTS)
HD 1/2"	KH20x6.4 (KTS)		

# CANON BROADCAST LENSES

Focal Length Table

Broadcast, Studio and Field Lenses (4K 2/3", HD 2/3")	
Angle of view horizontal (16:9)	72.9° 66.7° 60.7° 60.1° 58.3° 57.2° 56.1° 54.6° 42.3° 39.1° 3.4° 3.1° 1.02° 0.92° 0.81° 0.80° 0.77° 0.69° 0.68° 0.67° 0.65° 0.59° 0.59° 0.55° 0.47°
Focal Length (mm)	6.5 7.3 8.2 8.3 8.6 8.8 9 9.3 12.4 13.5 161 180 540 600 675 690 710 800 810 820 840 925 930 1000 1178
UHD-DIGISUPER 122	6.5 - 1178
UHD-DIGISUPER 111	8.2 - 1000
UHD-DIGISUPER 90	8.3 - 840
UHD-DIGISUPER 86	8.6 - 710
UHD-DIGISUPER 66	9 - 600
UHD-DIGISUPER 27	9.3 - 540
DIGISUPER 100 AF	12.4 - 1000
DIGISUPER 100	13.5 - 1000
DIGISUPER 95 TELE	161 - 1178
DIGISUPER 95	180 - 925
DIGISUPER 86 AF	540 - 710
DIGISUPER 80	600 - 800
DIGISUPER 76	675 - 710
DIGISUPER 27 AF	9.3 - 540
DIGISUPER 27	9.3 - 540
DIGISUPER 22 xs	9.3 - 540

Broadcast ENG/EFP Lenses (4K 2/3", HD 2/3")	
Angle of view horizontal (16:9)	96.3° 93.7° 77.3° 75.5° 65.2° 64.6° 63.9° 63.2° 58.9° 52.7° 51.3° 38.9° 37.8° 35.5° 19.6° 12.2° 10.5° 9.1° 7.0° 5.2° 4.3° 4.2° 4.0° 3.5° 3.5° 3.4° 3.3° 3.1° 2.89° 1.4° 1.26° 1.1° 1.0° 0.9°
Focal Length (mm)	4.3 4.5 6 6.2 7.5 7.6 7.7 7.8 8.5 9.7 10 13.6 14 15 28 45 52 60 78 106 128 131 137 156 158 164 168 180 190 400 437 500 560 612
CJ45e×13.6B	4.3 - 612
CJ45e×9.7B	4.5 - 560
CJ25e×7.6B	6 - 437
CJ20e×7.8B	6.2 - 400
CJ12e×4.3B	7.5 - 28
CJ24e×7.5B	7.6 - 15
CJ18e×28B	7.7 - 106
CJ18e×7.6B	7.8 - 128
CJ15e×8.5B	8.5 - 106
CJ14e×4.3B	9.7 - 106
HJ40e×14B	10 - 612
HJ40e×10B	13.6 - 560
HJ21e×7.5B	14 - 437
HJ17e×6.2B	15 - 400
KJ22e×7.6B	28 - 437
KJ17e×7.7B	28 - 437
KJ10e×4.5B	45 - 400

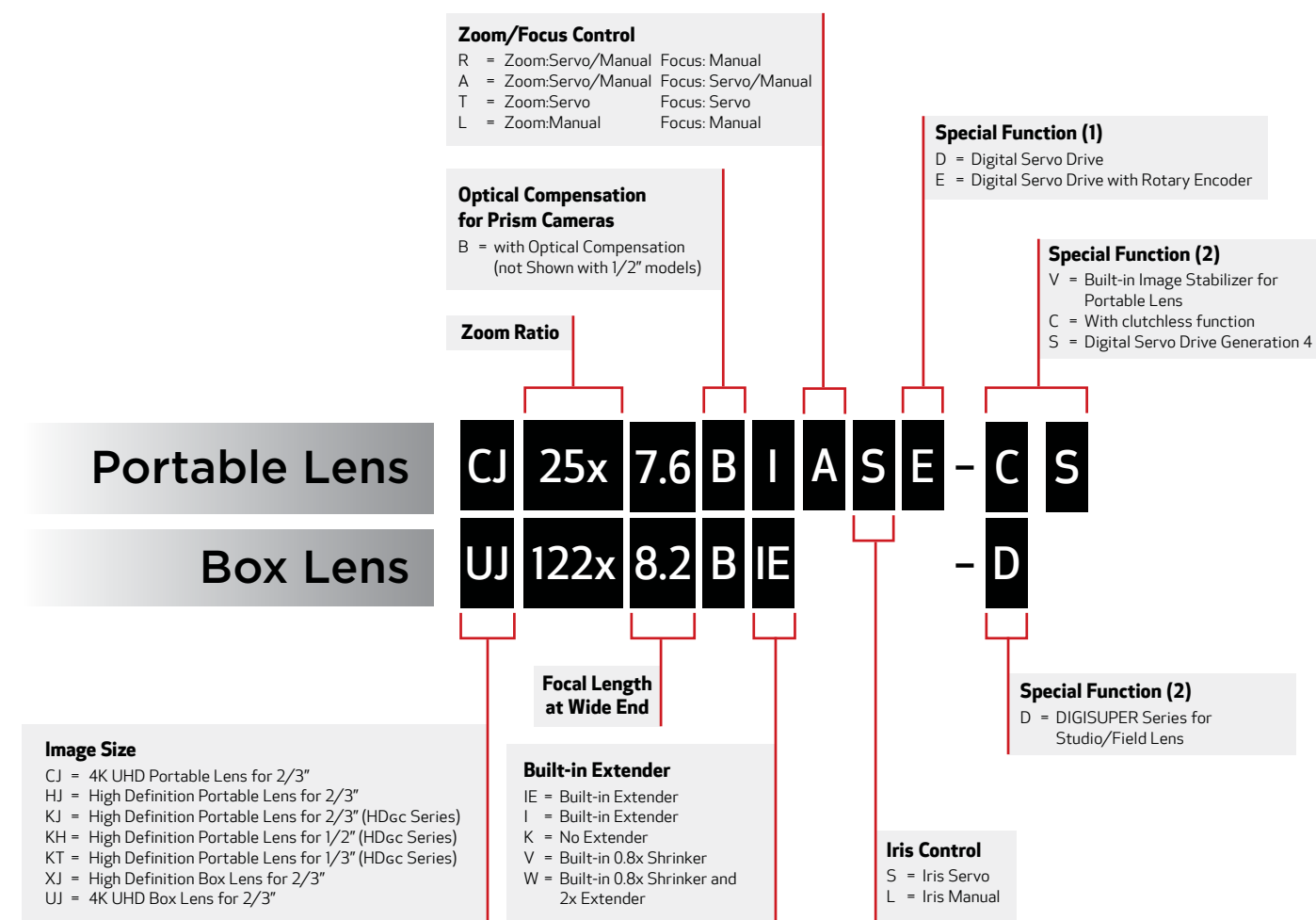
Broadcast ENG/EFP Lenses (HD 1/3")	
Angle of view horizontal (16:9)	58.3° 3.8°
Focal Length (mm)	4.3 73
KT17e×4.3B	4.3 - 73

Focal Length Table

Pro-Video Lenses (HD 2/3")	
Angle of view horizontal (16:9)	96.3° 93.7° 77.3° 75.5° 65.2° 64.6° 63.9° 63.2° 60.7° 58.9° 51.3° 47.1° 37.8° 35.5° 19.6° 12.2° 10.5° 9.1° 7.0° 5.2° 4.3° 4.2° 4.0° 3.5° 3.5° 3.4° 3.3° 3.1° 1.45° 1.4° 1.1° 1.15° 1.0°
Focal Length (mm)	4.3 4.5 6 6.2 7.5 7.6 7.7 7.8 8.2 8.5 10 11 14 15 28 45 52 60 78 106 128 131 137 156 158 164 168 180 385 400 500 525 560
KJ20×8.2B	4.3 - 560
KJ13×6B	6 - 400

Pro-Video Lenses (HD 1/2")	
Angle of view horizontal (16:9)	75.7° 57.1° 6.8° 3.1°
Focal Length (mm)	4.5 6.4 59 128
KH20×6.4	4.5 - 128
KH13×4.5	6.4 - 59

## Understanding Canon Lens Naming Conventions





# Canon Broadcast Lens Technology

## Optical Performance

### Superb Optical Materials Produce a High-Performance Lens

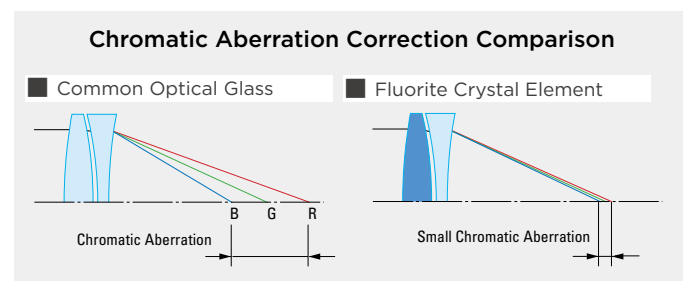
#### Fluorite · UD Glass · Hi-UD Glass

Unlike conventional optical glass, Fluorite has remarkably low dispersion properties. Realizing the effectiveness of Fluorite glass, Canon has put it to practical use in many lenses, primarily in the anterior section of zoom lenses to help correct telephoto chromatic aberration.



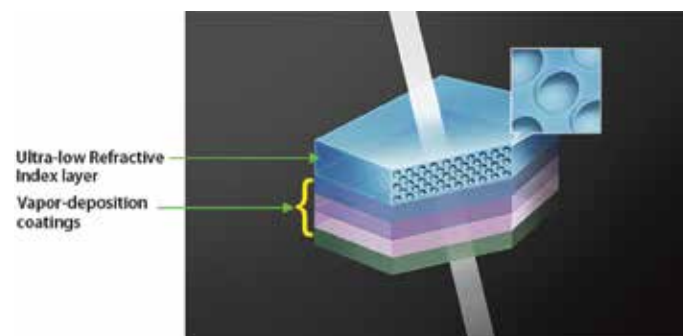
Both UD<sup>1</sup> glass and Hi-UD glass<sup>2</sup> have dispersion properties similar to Fluorite and are effective for correcting chromatic aberration. Due to its high refractive characteristics, Hi-UD glass is especially known for its spherical aberration correction. Used in the anterior and zooming sections of a lens, Hi-UD glass is effective for controlling aberration fluctuation seen when focusing and zooming.

<sup>1</sup> UD-Ultra Low Dispersion.  
<sup>2</sup> HI-UD High Index Ultra Low Dispersion.



### Air Sphere Coating

In the context of HDR Optical imaging, Air Sphere Coating (ASC) technology is a critically important new innovation in broadcast field lenses. This is a Canon-developed technology that is an additional layer deposited on top of the normal multilayer coatings that are used to minimize numerous internal reflections that conspire to lower light transmission efficiency and to contaminate deep black reproduction. ASC is an ultra-low refractive index silicon dioxide film that includes microscopic air spheres having a sub-nanometer diameter arranged in regular structure. Because these spheres are microscopic when



comparing to the wavelength of visible light and as they are in an ordered array, light does not scatter. In combination with the multilayer coatings, ASC achieves far lower reflectance and significantly reduces flare and ghosting.

### Bokeh Effect

When shooting in macro, the focus position of the lens can be changed as the focal length is adjusted, when using the optional MCJ-S02 Macro Controller, creating a bokeh effect. This built-in feature can be utilized to support special techniques in which the focus position can be shifted within the same shot just by using the Macro Controller, allowing for subtle creative defocus effects. This can help provide a degree of creativity when shooting live events such as a concert.

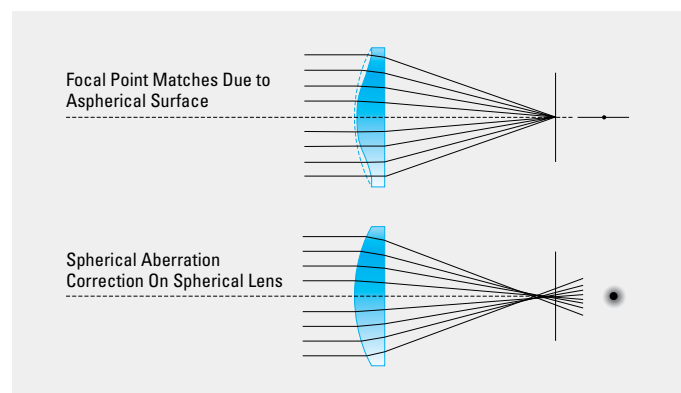


Please see page 16 for Bokeh Effect Controller configuration.

### High Quality, Compact Size and Weight

#### Large Aperture Aspheric Lens

Spherical aberration will increase as the diameter of a spherical lens increases. However, aspheric lenses form an ideal shape for aberration correction and are the desired lens type for improving optical performance. As they are more compact, aspheric lenses reduce the weight of the entire lens system. Through its optical design and large aperture processing techniques, Canon has developed compact, large aperture, high magnification field zoom aspheric lenses. As a result of this development, all high-magnification field zoom lenses released since 2000 have a constant total lens length regardless of zoom ratio.



### Focus Breathing Suppression

#### Constant Angle Focusing System (CAFS)

CAFS is a technology that suppresses view-angle fluctuation (breathing) while focusing. The Zooming Effect of Focus is the phenomenon where the picture size (angle of view) changes when focusing. Canon's 32-bit CPU calculates and controls the zoom when focusing in order to counteract this phenomenon. As a result of CAFS, the UHD-DIGISUPER and DIGISUPER Series has zero Zooming Effect of Focus.

## Advanced Design Technology to Help Minimize Various Aberrations

### Image Stabilizer (IS)

Canon launched its first field zoom lens with a shift type anti-vibration mechanism in 2000\*. Prior to that, Canon introduced the IS-20B anti-vibration adapter for portable zoom lenses. Those cutting-edge technologies, along with the Vari-angle Prism image stabilizer (VAP-IS) lens, helped to usher in the era of optical image stabilization in broadcasting lenses.

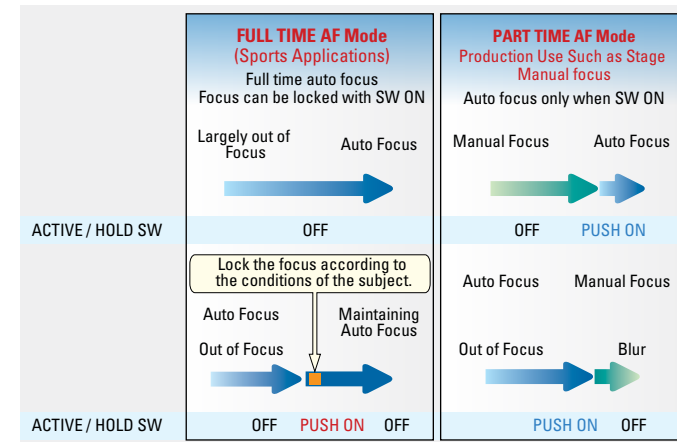
\*Adopted for DIGISUPER 86 XS (XJ86 × 9.3 B). The world's first field zoom lens for broadcasting.

## Auto Focus

### TTL Secondary Imaging Phase Difference Detection Method

The Secondary Imaging Phase Difference Detection Method, also used in single lens reflex EOS camera lenses, was adopted for broadcast autofocus systems. As a result of this Method, Canon's Auto Focus System has excellent focusing accuracy within the entire zoom range, along with outstanding focusing speed. Due to high performance servo motors, tracking a moving object at high speed can be possible even from a largely out of focus state.

### Autofocus Two Types of Operation



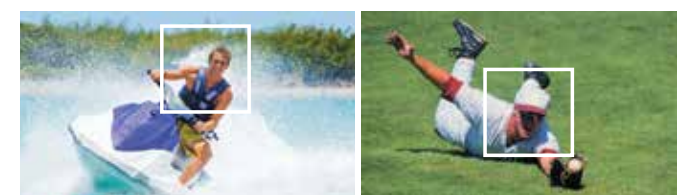
### AF Mode

Select DIGISUPER lenses provide two autofocus modes. "FULL TIME AF" provides continuous autofocus operation allowing the camera operator to focus on framing the subject. "PART TIME AF" allows for temporary autofocus use with manual focus. The modes can be switched on and off as needed, using the ACTIVE/HOLD switch.

### AF In-Focus Display

By using the FDJ - P41 dedicated focus demand, you can change the size (3 options) and position of the AF in - focus frame displayed on the viewfinder\*.

\*To change the in-focus frame, it is necessary to interlock with the camera.



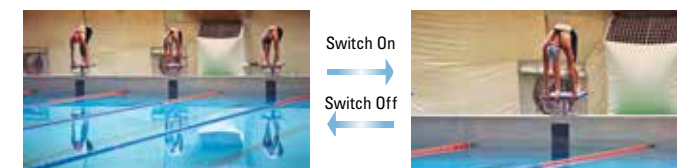
## Digital Technology

### Digital Servo System/Digital Drive Unit

Since the release of the DIGISUPER 70 in 1995, Canon has been a leader in digital broadcast zoom lens control. Canon's ENG/EFP lenses, having the same digital technology, offer a wealth of features to make shooting more efficient. Canon's digital drive unit is installed in all ENG/EFP and Provideo broadcast lenses.

### Shuttle Shot

At the touch of a button, this feature allows the operator to zoom back and forth instantly between any two positions at the maximum speed or at any speed memorized in the Speed Presets.

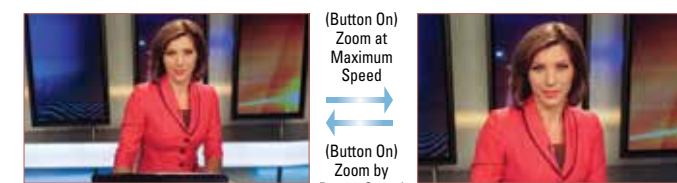


Normal view angle A

Field of view of shuttle memory B

### Frame Preset

With the Frame Preset feature, a preset frame position can be saved and repeated multiple times.

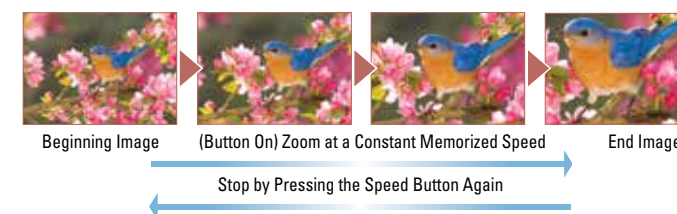


Normal view angle A

The angle of view B

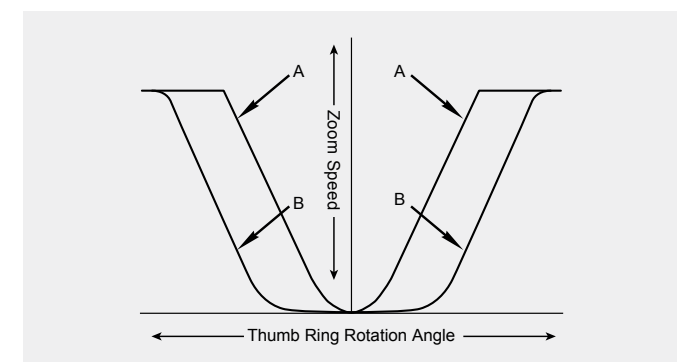
### Speed Preset

Simply press a button to recall the preset zoom speed.



### Zoom Servo Characteristics

Zoom Servo characteristics can be selected from two curvature options on the ZDJ-P01 zoom demand.



Zoom Servo Characteristics Example



### Virtual Studio System

Canon has a series of HDxs and HDGC (IRSE/IASE version) lenses which are equipped with an enhanced digital drive unit. The digital drive unit's 16-bit encoder makes detection and output of positional information possible at a much higher resolution than an analog position sensor (equivalent to 10 bits). The 16-bit resolution rotary encoder built into the drive unit can be integrated into a virtual studio system. The encoders enable precise control as the zoom servo has a range of 0.5 second quick zooms to over a 5 minute super slow zoom. Repeatability in focus and iris control are also precise. Canon's technology has made the encoder device very small, allowing it to be installed in the existing drive unit without adding size or weight.

### Further Improving Operational Efficiency

#### Type S Drive Unit

Canon has improved the operational efficiency of its lenses with the adoption of the Type S Drive Unit \*1.

- Matches the aberration correction function on the camera without initialization at power-on
- Reduced power consumption by about 10% \*2 when using a battery as compared with previous versions
- Real and virtual images can easily be calibrated with high-precision position detection
- Three 20 PIN connectors allow for simultaneous full servo and virtual system operation
- Easy operation with straightforward menu and display

\*1: Please refer to page 6, Understanding Canon Naming Conventions, Special Functions (2)

\*2: When zoom, focus & iris in operation.

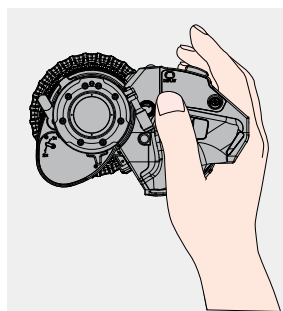
### Zoom Track

The zoom control range can be set within a more limited range on both the telephoto and wide-angle sides of UHD-DIGISUPER and DIGISUPER Series lenses. With these lenses and the optional ZDJ-PO1 zoom demand, the zoom range can be set to virtually any range smaller than the full focal range of the lens. If not used to limit the zoom range, the feature can be used to memorize an additional preset zoom position.

## Ergonomic Design

### Compact and Lightweight Drive Unit

Canon's HDxs, and HDGC (IRSE/IASE models) Ergonomic Drive Units are tilted at an ideal angle of 12.5 degrees to realize good balance and comfort. An informational display has been added which now allows the user to customize the enhanced digital functions easily, precisely and fully. The enhanced digital functions are easily accessed and set using the Digital Function Selector, an X-Y axis switch located next to the display.



Ergonomic design allows the camera operator's left hand to easily access the focus ring for manual operation.

# THE NEW ERA OF

## NEW BCTV LENSES DESIGNED TO SUPPORT THE TRANSITION TO 4K UHD CONTENT CREATION

HDTV is now firmly established worldwide and HD production is expected to continue for many years to come. Ultra HDTV - generally referred to as UHD - has more recently emerged as the next generation of enhanced television service. In 2015 the International Telecommunications union published their ITU-R BT.2020 standard "Parameter Values for UHDTV Systems for Production and international Program Exchange" - that included both 4K UHD and 8K UHD production formats. This standard includes a Wide Color Gamut (WCG). In 2016 they published the ITU-R BT.2100 standard "Image Parameter Values for High Dynamic Range Television for use in Production and International Program Exchange". This standard specifically applies the High Dynamic Range (HDR) to the HD, 4K UHD, and 8K UHD production formats (all exclusively progressive scan). In September 2017 the industry body - Ultra HD Forum - published their updated Guidelines on technologies and practices that support a commercially deployable Ultra HD real-time linear service with live and pre-recorded content in 2016, which is termed a "UHD Phase A" service. They include 4K UHD and 1080P HD (that includes both HDR and WCG).

These standards and guidelines have spurred increasing attention to the adoption of 4K UHD origination of sports, concerts, and major events. The anticipated protracted coexistence of HDTV and UHDTV has spawned a new generation of 2/3-inch multi format broadcast camera systems - from most of the major international camera manufacturers - that can selectively originate HD or UHD. To support this new era of mixed HD / UHD origination Canon has invested heavily into the development of an array of 2/3-inch 4K UHD broadcast lenses that encompass long zoom field lenses, a studio lens, and a broadening family of portable lenses.

STUDIO / FIELD BOX LENSES			EFP / ENG PORTABLE LENSES		
LENS SERIES	PERFORMANCE		LENS SERIES	PERFORMANCE	
UHDxs	4K Premium	↑ 1080P/HDR/WCG	UHDxs	4K	↑ 1080P/HDR/WCG
UHDxs	4K		UHDgc	4K	
HDxs	HD		HDxs	HD	
		HDgc	HD		

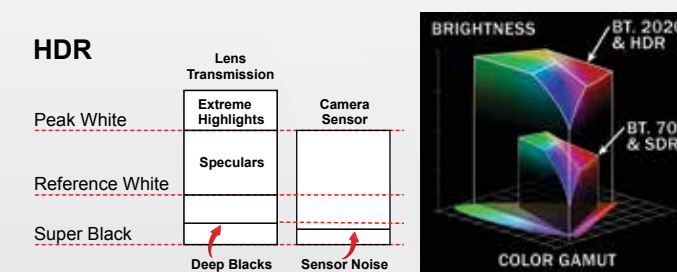
Simplistic mapping of the performance levels within the separate categories of box lenses and portable lenses.

### IMPLICATIONS OF HDR AND WCG

Delivering the requisite high image sharpness required for 4K UHD - while simultaneously lowering traditional optical aberrations (that can be more exposed by the high resolution image sensors) - called for multiple innovations in lens design and manufacturing. Lateral chromatic aberration causes color misregistration on high contrast edges within the imagery - especially toward picture extremities. Longitudinal chromatic aberration causes color fringing on any speculars with this imagery. HDR and WCG further enhance the visibility of these

# ENHANCED HDTV AND UHDTV

aberrations - because of the elevation in the color volume of the camera video - placing a greater onus on suppressing them to where they become subjectively invisible.

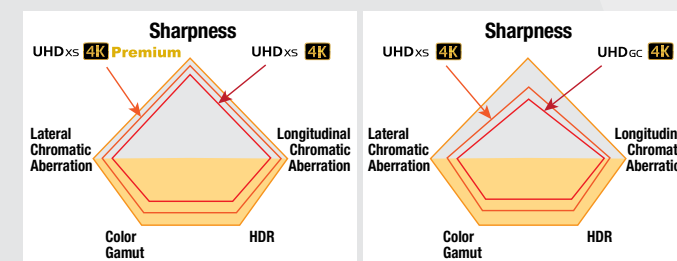


To support HDR the lens must accurately reproduce scene speculars and minimize optical artifacts stimulated by strong scene highlights.

### UHD LENS PERFORMANCE HIERARCHY

In the case of the large box field and studio lenses and the portable EFP/ENG lenses Canon has created two performance levels in each. A special priority is assigned to elevating image sharpness (the essence of 4K UHD). An attendant high priority underlies design strategies that aggressively curtail the visibility of the two chromatic aberrations. Higher luminance levels and allied greater color volume associated with HDR / WCG combine to elevate the visibility of even small levels of these chromatic aberrations.

In the case of the Box lenses advanced design strategies allied with advanced optical glass materials are mobilized to maintain high image sharpness across the image plane, over the total focal ranges, and over a wide range of object distances. The 4K PREMIUM box lenses take these strategies to a particularly high level to further tighten those optical performance specifications.

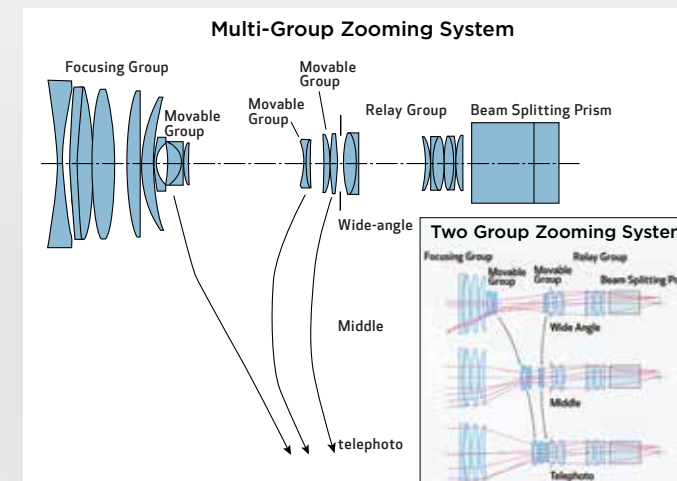


In the case of the portable lenses, similar priorities apply. The UHDxs manifests higher sharpness and lower chromatic aberrations when compared to the UHDgc - although on a different scale to the box lenses.

### MULTI-GROUP ZOOMING SYSTEM

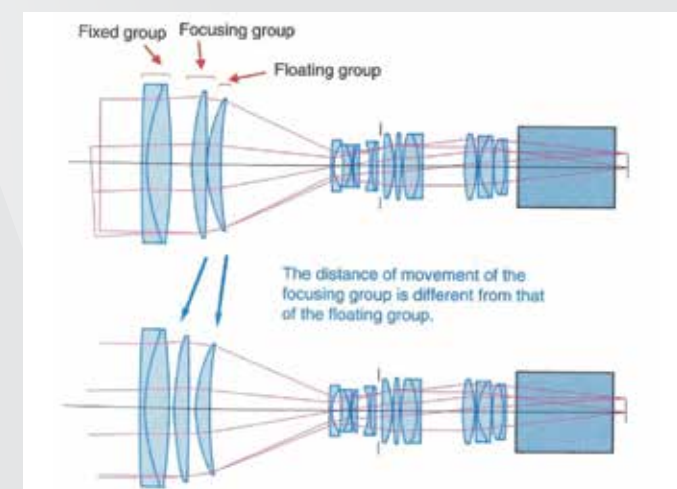
In seeking longer focal ranges for the box field and studio lenses and some of the longer focal length portable lenses, challenges in achieving the requisite zooming speeds while also achieving UHD performance were escalated. This called for a radical new design approach to the zooming optical subsystems. The central goals were to achieve greater control over multiple lens aberrations to help ensure full 4K performance while at the same time expediting an increase in the speed of the zooming action (when the digital drive unit is set to maximum zoom speed).

The traditional two group zooming system (right picture) is being replaced with a three group zooming system (left picture). Three movable groups move differentially with respect to each other over the zoom range. Design optimization consisted in balancing the weight of the three individual groups with their stroke distance during zooming action.



### FLOATING FOCUSING SYSTEM





The focus optical subsystem entails high responsibility for numerous optical performance parameters and operational considerations. The lens maximum relative aperture is largely determined by the diameter of this lens input optical grouping. In addition, focus breathing (undesirable alteration to the field angle as the focus control is actuated) characteristics and aberration behavior are associated with this optical subsystem. Overall lens size and weight are heavily proportional to decisions made in the overall design of this system. Central to the design is curtailing the size and weight of the moving lens system. To help ensure UHD optical performance focus fluctuations must be suppressed - and this was accomplished by using two separate moving groups.



New innovations in a floating focus group support 4K UHD performance while curtailing size and weight

Broadcast Studio/Field Lenses

Broadcast Studio/Field Lenses

4K UHD 2/3"				
	UHD-DIGISUPER 122 UHDxs	UHD-DIGISUPER 111 UHDxs	UHD-DIGISUPER 86 UHDxs	UHD-DIGISUPER 27 UHDxs
Appearance	 <b>4K Premium</b> IMAGE STABILIZER	 <b>4K Premium</b> IMAGE STABILIZER	 <b>4K Premium</b> IMAGE STABILIZER	 <b>4K Premium</b> IMAGE STABILIZER
Model Name	UJ122x8.2B		UJ111x8.3B	
Zoom Ratio	122x		111x	
Focal Length	8.2 – 1000mm	16.4 – 2000mm (2.0x)	8.3 – 925mm	16.6 – 1850 mm (2.0x)
Maximum Relative Aperture	F1.7 (8.2 – 340mm) F5.0 (1000mm)	F3.4 (16.4 – 680mm) F1.0 (2000mm)	F1.7 (8.3 – 340mm) F4.65 (925mm)	F3.4 (16.6 – 680mm) F9.3 (1850mm)
Angular Field of View	60.7°×36.5° (8.2mm) 0.55°×0.31° (100mm)	32.6°×18.7° (16.4mm) 0.28°×0.15° (2000mm)	60.1°×36.0° (8.3mm) 0.59°×0.33° (925mm)	32.3°×18.5° (16.6mm) 0.30°×0.17° (1850mm)
M.O.D.*	3.0m		3.0m	
Object Dimensions at M.O.D.*	314.8×177.1cm (8.2mm) 2.7×1.5cm (1000mm)	157.4×88.6cm (16.4mm) 1.4×0.8cm (2000mm)	311.6×175.3cm (8.3mm) 2.9×1.6cm (925mm)	155.8×87.7cm (16.6mm) 1.5×0.8cm (1850mm)
Approx. Size (WxHxL)	9.9x10.1x25.1 in. (250.6×255.5×637.4mm)		9.9x10.1x25.1 in. (250.6×255.5×637.4mm)	
Approx. Weight	58.6 lbs (26.6kg) ※		58.6 lbs (26.6kg) ※	

4K UHD 2/3"		
	UHD-DIGISUPER 90 UHDxs	UHD-DIGISUPER 66 UHDxs
Appearance	 <b>4K Premium</b> IMAGE STABILIZER	 <b>4K Premium</b> IMAGE STABILIZER
Model Name	UJ90x9B	
Zoom Ratio	90x	
Focal Length	9 – 810mm	18 – 1620mm (2.0x)
Maximum Relative Aperture	F2.4 (9 – 486mm) F4.0 (810mm)	F4.8 (18 – 972mm) F8.0 (1620mm)
Angular Field of View	56.1°×33.4° (9mm) 0.68°×0.38° (810mm)	29.9°×17.1° (18mm) 0.34°×0.19° (1620mm)
M.O.D.*	3.0m	
Object Dimensions at M.O.D.*	287.9×161.9cm (9mm) 3.3×1.9cm (810mm)	144.0×81.0cm (18mm) 1.7×1.0cm (1620mm)
Approx. Size (WxHxL)	9.9x10x24 in. (250.6×255.5×610mm)	
Approx. Weight	51.2 lbs (23.2kg) ※	

UHD-DIGISUPER 122: Highlights

High Zoom Ratio and Long Focal Length

While displaying performance that surpasses 4K, the lens has the high zoom ratio (122x) and long focal length (1000 mm) desired by many in television production.

Elimination of Image "Lag" Following Operational Pan/Tilt Movements

The image stabilization system must be capable of distinguishing between unwanted physical perturbations to the lens-camera system and operational control of panning and tilting of the same. In the UHD-DIGISUPER 122 lens new correction strategies have been implemented. As a result, the vibration component of the sensor detection signal and the panning operation component can be separated rapidly and with high accuracy.



Compatibility with HD Lens Systems

The lens enables the use of the same Canon standard controllers for zoom and focus as well as servo modules currently used by HD equipment. It comes with a 20-pin connector compatible with virtual units and that enables high-accuracy position information of the zoom, focus and iris to be read out.

Air Sphere Coating (ASC) Technology

This is a Canon-developed technology that is an additional layer deposited on top of the normal multilayer coatings that are used to minimize those many internal reflections that conspire to lower light transmission efficiency and to contaminate deep black reproduction.

Bokeh Effect Controller

When shooting in macro, the focus position of the UHD-DIGISUPER 122 can be changed as the focal length is adjusted, when using the optional MCJ-S02 Macro Controller. This built-in feature can be utilized to support special techniques in which the focus position can be shifted within the same shot just by using the Macro Controller, allowing for subtle creative defocus effects. This can help provide a degree of creativity when shooting live events such as a concert.

HD 2/3"							
	DIGISUPER 100AF HDxs	DIGISUPER 100 HDxs	DIGISUPER 95 TELE HDxs	DIGISUPER 95 HDxs			
Appearance	 IMAGE STABILIZER	 IMAGE STABILIZER	 IMAGE STABILIZER	 IMAGE STABILIZER			
Model Name	XJ100x9.3B AF		XJ100x9.3B				
Zoom Ratio	100x		100x				
Focal Length	9.3 – 930mm	18.6 – 1860mm (2.0x)	9.3 – 930mm	18.6 – 1860mm (2.0x)			
Maximum Relative Aperture	F1.7 (9.3 – 296mm) F4.7 (930mm)	F3.4 (18.6 – 592mm) F9.4 (1860mm)	F1.7 (9.3 – 296mm) F4.7 (930mm)	F3.4 (18.6 – 592mm) F9.4 (1860mm)			
Angular Field of View	54.6°×32.4° (9.3mm) 0.59°×0.33° (930mm)	28.9°×16.5° (18.6mm) 0.30°×0.17° (1860mm)	54.6°×32.4° (9.3mm) 0.59°×0.33° (930mm)	28.9°×16.5° (18.6mm) 0.30°×0.17° (1860mm)			
M.O.D.*	3.0m		3.0m				
Object Dimensions at M.O.D.*	276.4×155.5cm (9.3mm) 2.8×1.6cm (930mm)	138.2×77.8cm (18.6mm) 1.4×0.8cm (1860mm)	276.4×155.5cm (9.3mm) 2.8×1.6cm (930mm)	138.2×77.8cm (18.6mm) 1.4×0.8cm (1860mm)			
Approx. Size (WxHxL)	9.9x10x26 in. (250.6×255.5×661.5mm)		9.9x10x24 in. (250.6×255.5×610mm)				
Approx. Weight	59.3 lbs (26.8kg) ※		51.8 lbs (23.5kg) ※				

HD 2/3"					
	DIGISUPER 86AF HDxs	DIGISUPER 80 HDxs	DIGISUPER 76 HDxs		
Appearance	 IMAGE STABILIZER	 IMAGE STABILIZER	 IMAGE STABILIZER		
Model Name	XJ86x9.3B AF		XJ80x8.8B		
Zoom Ratio	86x		80x		
Focal Length	9.3 – 800mm	18.6 – 1600mm (2.0x)	17.6 – 1420mm (2.0x)		
Maximum Relative Aperture	F1.7 (9.3 – 340mm) F4.0 (800mm)	F3.4 (18.6 – 680mm) F8.0 (1600mm)	F3.4 (17.6 – 680mm) F7.1 (1420mm)		
Angular Field of View	54.6°×32.4° (9.3mm) 0.69°×0.39° (800mm)	28.9°×16.5° (18.6mm) 0.34°×0.19° (1600mm)	57.2°×34.1° (8.8mm) 0.77°×0.44° (710mm)		
M.O.D.*	3.0m				
Object Dimensions at M.O.D.*	276.4×155.5cm (9.3mm) 3.2×1.8cm (800mm)	138.2×77.8cm (18.6mm) 1.6×0.9cm (1600mm)	290.0×163.1cm (8.8mm) 3.7×2.1cm (710mm)		
Approx. Size (WxHxL)	9.9x10x26 in. (250.6×255.5×661.5mm)				
Approx. Weight	59.3 lbs (26.8kg) ※				

HD 2/3"					
	DIGISUPER 27AF HDxs	DIGISUPER 27 HDxs	DIGISUPER 22 xs HDxs		
Appearance	 IMAGE STABILIZER	 IMAGE STABILIZER	 IMAGE STABILIZER		
Model Name	XJ27x6.5B AF		XJ22x7.3B		
Zoom Ratio	27x		22x		
Focal Length	6.5 – 180mm	13 – 360mm (2.0x)	7.3 – 161mm		
Maximum Relative Aperture	F1.5 (6.5 – 123mm) F2.2 (180mm)	F3.0 (13 – 246mm) F4.4 (360mm)	F1.8 (7.3 – 111.5mm) F2.6 (161mm)		
Angular Field of View	72.9°×45.1° (6.5mm) 3.1°×1.7° (180mm)	40.5°×23.5° (13mm) 1.5°×0.9° (360mm)	66.7°×40.6° (7.3mm) 3.4°×1.9° (161mm)		
M.O.D.*	0.6m				
Object Dimensions at M.O.D.*	106.1×59.7cm (6.5mm) 3.8×2.1cm (180mm)	53.1×29.9cm (13mm) 1.9×1.1cm (360mm)	118.1×66.4cm (7.3mm) 5.2×2.9cm (161mm)		
Approx. Size (WxHxL)	9.9x10.1x22.3 in. (250.6×255.5×567mm)				
Approx. Weight	51.4 lbs (23.3kg) ※				

※ Weight of lens body only (does not include servo module).  
\* M.O.D. = Minimum Object Distance.

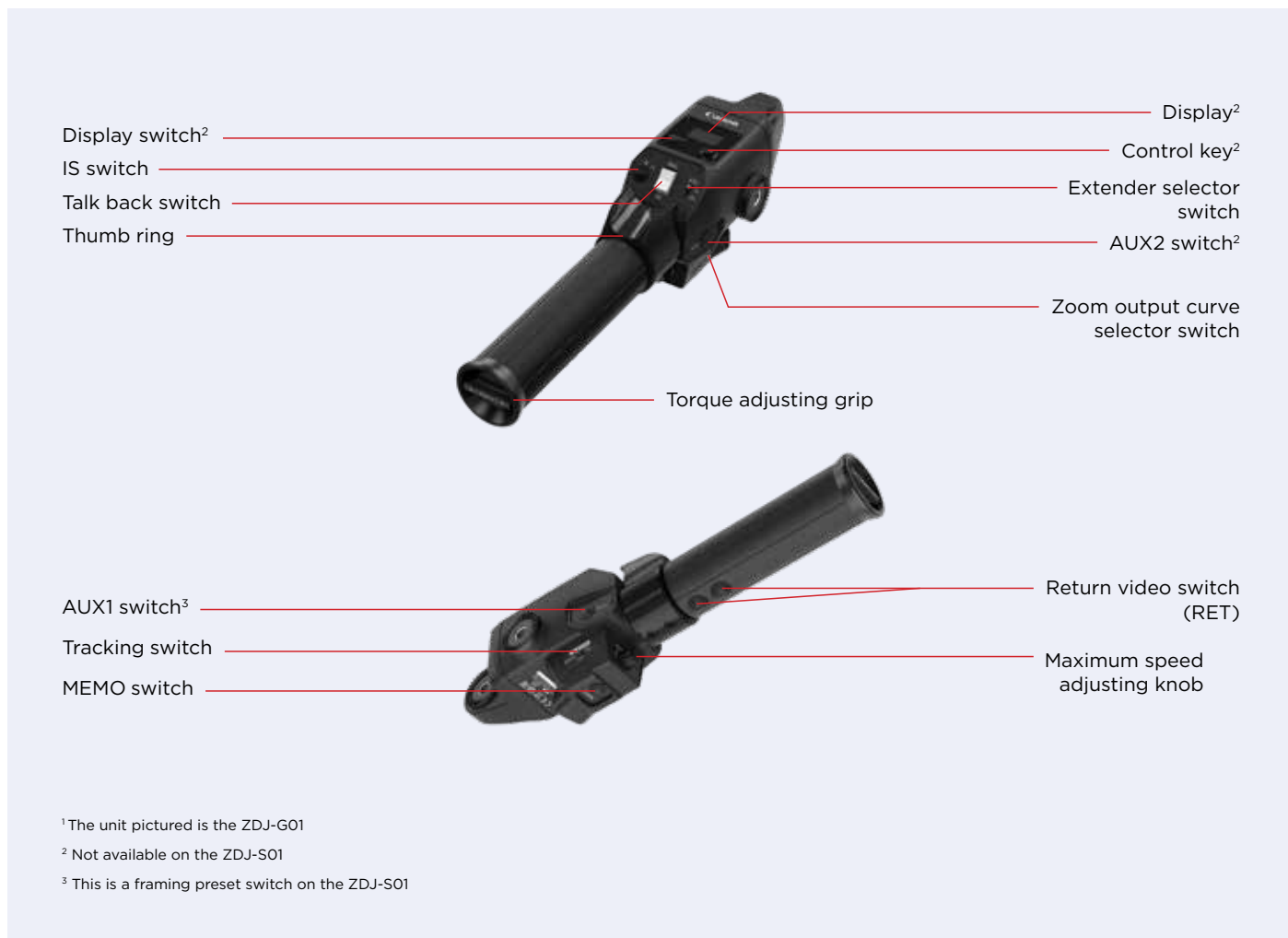


Control Accessories for Studio/Field Lenses

# Zoom Demand

ZDJ-G01

ZDJ-S01



## Main Features

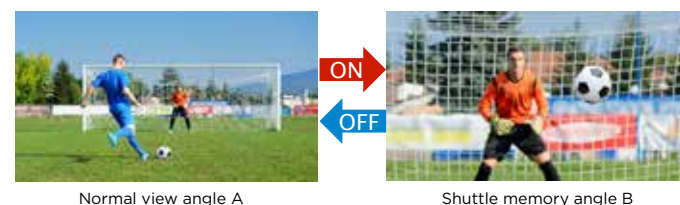
### Frame Preset/Shuttle Shot/Speed Preset

ZDJ-G01

ZDJ-S01<sup>4</sup>

This function moves to a prerecorded zoom position with the push of a switch. Frame preset and shuttle shot moves each at maximum speed, while speed preset moves at a prerecorded speed. Let go of the switch in shuttle shot to return to the original position. Moving speed with framing preset can be set with the ZDJ-G01.

<sup>4</sup> Supports framing preset only



### Zoom Track

ZDJ-G01

ZDJ-S01

Zoom control range can be set for both the wide angle and telephoto sides, to control zoom range required for actual shooting.

### Other Functions

ZDJ-G01

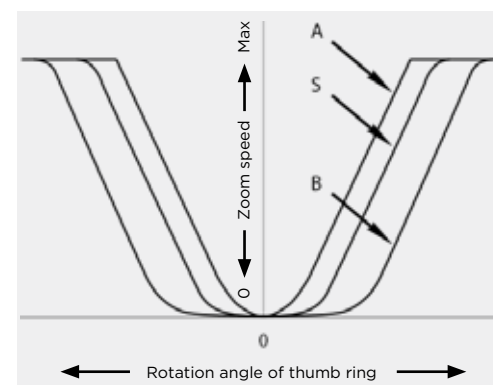
User settings can be registered and functions can be assigned to switches from the display screen. Preset speeds can also be set, and curves can be selected. Users can also check connection status and see whether various functions are on or off.

Control Accessories for Studio/Field Lenses

# Zoom Curve

With zoom demand, the zoom curve (zoom speed curve characteristics according to thumb ring rotation angle) can be selected from provided patterns. The ZDJ-S01 features three types of zoom curves in total, while the ZDJ-G01 offers a total of 19 types; from these, three types of curves can be assigned to the selector switch so users can set the optimum zoom curve for the shooting setting, such as studio recording or live sports.

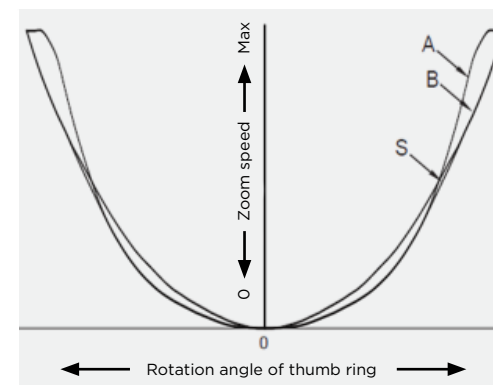
## Available Zoom Curves



### Output Curve 00\*

This is the standard zoom curve available in the ZDJ-G01/S01. Curve A offers a faster zoom speed with smaller thumb ring rotation angle, making it ideal for high-speed zoom operation. Curve B is the opposite of Curve A, making it useful for operation at lower zoom speeds. Curve S is midway between A and B.

\* Default setting on the ZDJ-G01



### Output Curve 09

This is an example of the selectable zoom curves available with the ZDJ-G01. This zoom curve is ideal for fine zoom operation at medium speed. Curve A gives more priority to fine zoom operation, while Curve B places greater emphasis on trackability. Curve S is similar to A in low speed ranges, and similar to Curve B in high speed ranges.

ZDJ-G01

ZDJ-S01

ZDJ-G01

ZDJ-S01

## Curve Selection and Settings



### Display Makes Curve Settings Simple and Clear

This is the standard zoom curve available in the ZDJ-G01/S01. Curve A offers a faster zoom speed with smaller thumb ring rotation angle, making it ideal for high-speed zoom operation. Curve B is the opposite of Curve A, making it useful for operation at lower zoom speeds. Curve S is midway between A and B.

ZDJ-G01

ZDJ-S01



### Switch Curves Directly with Switch on Side of Unit

Switch from among three zoom curves including the assigned output curves according to the situation.

ZDJ-G01

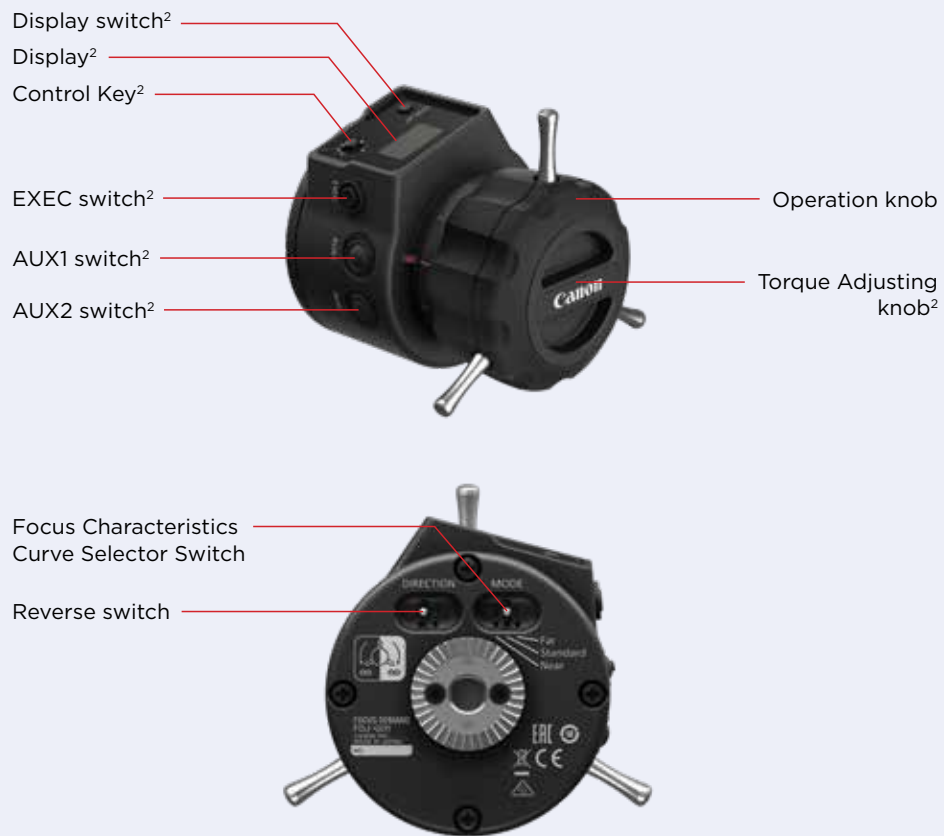
ZDJ-S01

Control Accessories for Studio/Field Lenses

# Focus Demand

FDJ-G01

FDJ-S01



<sup>1</sup> The unit pictured is the FDJ-G01

<sup>2</sup> Not available on the FDJ-S01

## Main Features

FDJ-G01

### Focus Range Limit

Focusing within the required range is made possible by limiting the focus range (subject distance). This is effective for situations such as stage performances, where focus range is fixed to some extent.



### Focus Preset

This feature lets users move from the current position to a predetermined focus position with the push of a switch. When released, focus returns to the position shown on the operation knob.



### Fine Focus Mode 1/2

This function adjusts precision of focusing. Setting 1 sets a range and enables fine focusing within that range. Setting 2 enables fine focusing from the current focus position.



### Other Features

User settings can be registered and functions can be assigned to switches from the display screen. Preset speeds can also be set, and curves can be selected. Users can also check connection status and see whether various functions are on or off.

Control Accessories for Studio/Field Lenses

# Focus Curve

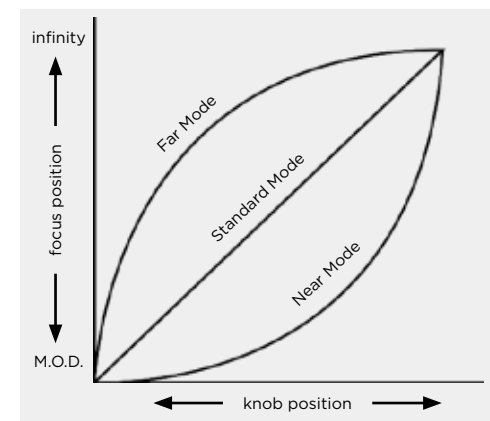
With the focus demand, the focus curve (focus position in relation to knob position) can be selected from provided patterns. The FDJ-S01 features three types of focus curves in total, while the FDJ-G01 offers a total of 19 types; users can switch between 9 types in Far mode and Near mode to choose the optimum focus curve for the shooting situation.

## Available Focus Curves

Focusing within the required range is made possible by limiting the focus range (subject distance). This is effective for situations such as stage performances, where focus range is fixed to some extent.

FDJ-G01

FDJ-S01



### Far Mode

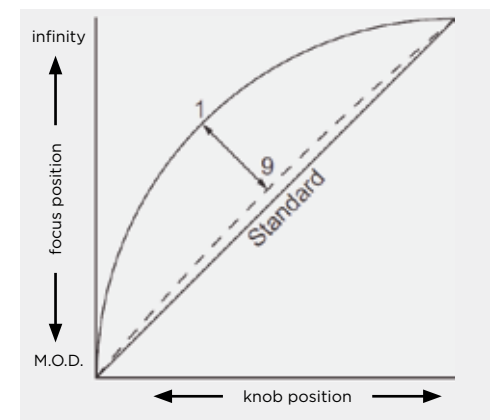
This is the curve in which the focus position changes less the more the knob is turned toward the infinity side. This makes fine adjustments easy on the infinity side.

### Standard Mode

This is the standard mode where focus position change is in direct relation to knob operation.

### Near Mode

This is the opposite of Far mode, in which focus position changes less the more the knob is turned toward the close side. This makes fine adjustments easy on the close side.



FDJ-G01

FDJ-S01

With the ZDJ-G01, users can select from nine types of curves<sup>1</sup>, numbered 1 through 9, in both Far mode and Near mode. The higher the number, the closer the curve is to a straight line. This enables fine curve adjustments for each shooting situation.

<sup>1</sup> Far and Near modes cannot be selected independently. The same curve number will be set.

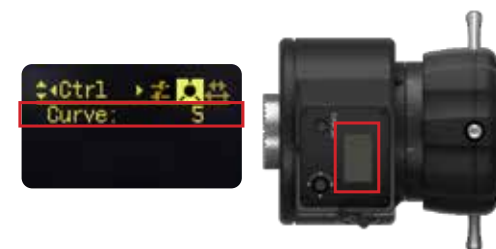
## Curve Selection and Settings

FDJ-G01

FDJ-S01

FDJ-G01

FDJ-S01



### Display Makes Curve Settings Simple and Clear

The nine types<sup>2</sup> of focus curves in Far and Near modes can be assigned to the curve selector switch easily using the display.

<sup>2</sup> The initial value is set at 5



Select using switch on side of main unit

### Switch on Side of Unit Makes Selecting Faster

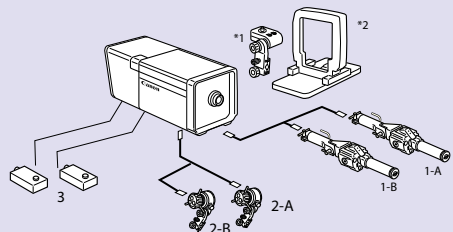
Users can switch between three assigned focus curves depending on usage situation.

Control Accessories for Studio/Field Lenses

# DIGITAL UHD-DIGISUPER/DIGISUPER Series

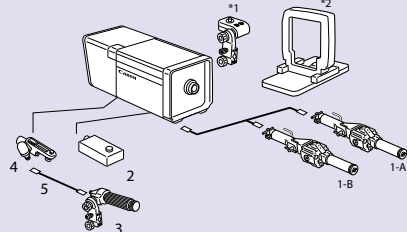
For:  
 UHD-DIGISUPER 122 / UHD-DIGISUPER 111 / UHD-DIGISUPER 90 / UHD-DIGISUPER 86 / UHD-DIGISUPER 66 /  
 UHD-DIGISUPER 27 / DIGISUPER 100 / DIGISUPER 95 TELE / DIGISUPER 95 / DIGISUPER 80 / DIGISUPER 76 /  
 DIGISUPER 27

## FULL SERVO SYSTEM



No.	DESCRIPTION
1-A.	Zoom Demand ZDJ-G01 (Digital Servo)
1-B.	Zoom Demand ZDJ-S01 (Digital Servo)
2-A.	Focus Demand FDJ-G01 (Digital Servo)
2-B.	Focus Demand FDJ-S01 (Digital Servo)
3.	Servo Module SMJ-E01 (2pcs)

## SEMI-SERVO SYSTEM



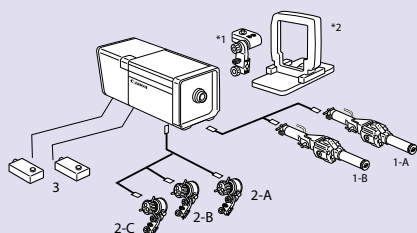
No.	DESCRIPTION
1-A.	Zoom Demand ZDJ-G01 (Digital Servo)
1-B.	Zoom Demand ZDJ-S01 (Digital Servo)
2.	Servo Module SMJ-E01
3.	Flexible Focus Controller FFP-T61
4.	Flexible Module FMJ-702
5.	Flexible Cable 36"

For:  
 DIGISUPER 100AF / DIGISUPER 86AF /  
 DIGISUPER 27AF

For:  
 All UHD-DIGISUPER /  
 DIGISUPER Lenses

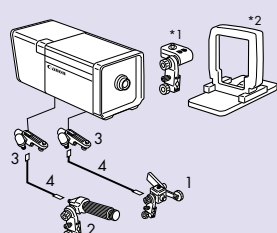
For:  
 UHD-DIGISUPER 122/  
 UHD-DIGISUPER 111

## FULL SERVO SYSTEM



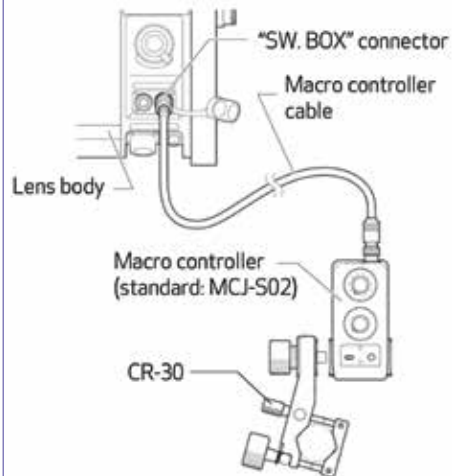
No.	DESCRIPTION
1-A.	Zoom Demand ZDJ-G01 (Digital Servo)
1-B.	Zoom Demand ZDJ-S01 (Digital Servo)
2-A.	Focus Demand FDJ-P41 (Digital Servo)*3
2-B.	Focus Demand FDJ-G01 (Digital Servo)
2-C.	Focus Demand FDJ-S01 (Digital Servo)
3.	Servo Module SMJ-E01 (2pcs)

## FULL MANUAL SYSTEM



No.	DESCRIPTION
1.	Flexible Zoom Controller FZP-T61
2.	Flexible Focus Controller FFP-T61
3.	Flexible Module FMJ-702 (2pcs)
4.	Flexible Cable 36" (2pcs)

## BOKEH EFFECT CONTROLLER

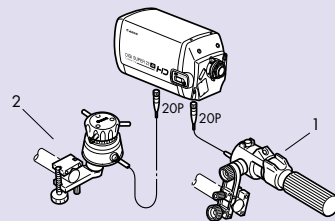


\*1: Switch Box is optionally available. The equivalent switches are integrated into Zoom Demands. It is recommended to have the Switch Box with Full Manual System.  
 \*2: Lens Supporter is necessary for portable camera mounting. Some cameras need separate power supply for zoom and focus servo operation.  
 \*3: For DIGISUPER 100AF, DIGISUPER 86AF, and DIGISUPER 27AF, FDJ-P41 is necessary to control the AF function. FDJ-P31 is also available for right hand users.  
 • Zoom Demand and Focus Demand with Pre-set Box is also available.  
 • For detail information, please contact a Canon Sales Office.

Control Accessories for Studio/Field Lenses

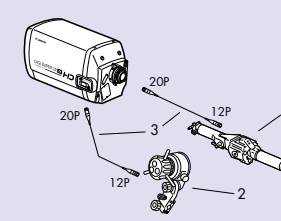
For:  
**DIGISUPER 22 xs**  
 The DIGISUPER 22 xs can be used with our current optional Studio/Field lens controllers as well as those for our ENG lenses. At the same time, the lens also offers compatibility with our Compact Studio/Field demands by use of a conversion cable.

### With Current ENG Demand (Standard)



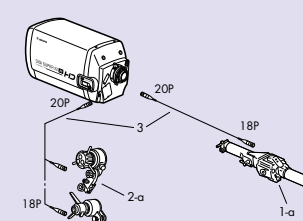
No.	DESCRIPTION	MODEL #
1	Digital Zoom Demand	ZSD-300D
2	Digital Focus Demand	FPD-400D

### With Compact Field/Studio Demand



No.	DESCRIPTION	MODEL #
1	Digital Zoom Demand	ZDJ-P01
2	Digital Focus Demand	FDJ-P01
3	Conversion Cable	BDC-21

### With Current Field/Studio Demand



No.	DESCRIPTION	MODEL #
1-a	Digital Zoom Demand	ZDJ-D02
2-a	Digital Focus Demand	FDJ-D02
2-b	Digital Focus Demand Propeller Type Conversion Cable	FDJ-D12
3	Type Conversion Cable	BDC-11

The SUP-400 SUPPORTER is included as a standard component with the lens.

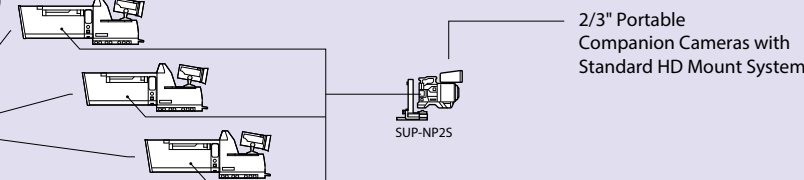
## Studio/Field Lenses Mount Compatibility

### To Use Camera Manufacturer's Original Mount Lens

Studio/Field lenses are made with mounts corresponding to each manufacturer's Studio/Field cameras. To make the lenses compatible with Portable Studio/Field Companion cameras, the correct lens Support System must be chosen from the following:

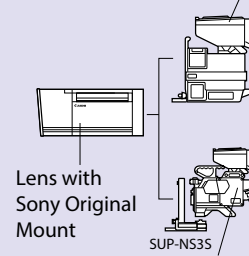
#### Standard HD Mount (BTA)

Panasonic, Ikegami, Hitachi, Thomson Grass Valley, Sony  
 Standard HD Mount Studio Camera Systems from Various Manufacturers



#### Sony

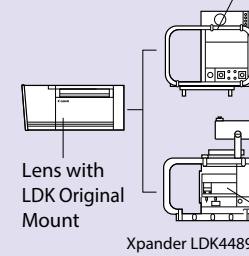
Sony 2/3" Studio Camera



Sony System Companion Portable Camera

#### Thomson Grass Valley-SDTV

LDK 2/3" Studio Camera



Xpander LDK4489/ Super Xpander LDK4488 Large Lens Adaptor  
 LDK System Companion Portable Camera

Please confirm with camera manufacturer regarding the proper supporter to use. Some manufacturers vary by camera model.



Broadcast ENG/EFP Lenses

4K UHD 2/3"			
Appearance	CJ45e×13.6B <b>UHDxs</b>	CJ45e×9.7B <b>UHDxs</b>	
Model Name	CJ45e×13.6B IASE-V H		CJ45e×9.7B IASE-V H
Zoom Ratio	45x		
Focal Length	13.6 – 612mm	27.2 – 1224mm (2.0x)	9.7 – 437mm 19.4 – 874mm (2.0x)
Maximum Relative Aperture	F1:2.8 (13.6 – 312mm) F1:5.5 (612mm)	F1:5.6 (27.2 – 624mm) F1:11.0 (1224mm)	F1:2.0 (9.7 – 224mm) F1:3.9 (437mm) F1:4.0 (19.4 – 448mm) F1:7.8 (874mm)
Angular Field of View	38.9°×22.5° (13.6mm) 0.90°×0.51° (612mm)	20.0°×11.3° (27.2mm) 0.45°×0.25° (1224mm)	52.7°×31.1° (9.7mm) 1.26°×0.71° (437mm) 27.8°×15.8° (19.4mm) 0.63°×0.35° (874mm)
M.O.D.* from Lens Front	2.8m		
Object Dimensions at M.O.D.*	182.9×102.9cm (13.6mm) 4.2×2.4cm (612mm)	91.5×51.5cm (27.2mm) 2.1×1.2cm (1224mm)	254.3×143.0cm (9.7mm) 5.8×3.3cm (437mm) 127.2×71.5cm (19.4mm) 2.9×1.7cm (874mm)
Filter Thread Size (Hood/Lens Barrel)	– / 127mm P0.75		
Approx. Size (WxHxL)	6.8×5.8×14.0 in. (173.2×147.5×355.0mm)		
Approx. Weight	12.4 lb (5.64kg)		

4K UHD 2/3"						
Appearance	CJ25e×7.6B <b>UHDxs</b>	CJ20e×7.8B <b>UHDxs</b>	CJ12e×4.3B <b>UHDxs</b>			
Model Name	CJ25e×7.6B IRSE S/IASE S		CJ20e×7.8B IASE S		CJ12e×4.3B IRSE S/IASE S	
Zoom Ratio	25x		20x		12x	
Focal Length	7.6 – 190mm	15.2 – 380mm (2.0x)	7.8 – 156mm	15.6 – 312mm (2.0x)	4.3 – 52mm	8.6 – 104mm (2.0x)
Maximum Relative Aperture	F1.8 (7.6 – 1108mm) F2.9 (190mm)	F3.6 (15.2 – 236mm) F5.8 (380mm)	F1.8 (7.8 – 108mm) F2.6 (156mm)	F3.6 (15.6 – 216mm) F5.2 (312mm)	F1.8 (4.3 – 40mm) F2.4 (52mm)	F3.6 (8.6 – 80mm) F4.8 (104mm)
Angular Field of View	64.6°×39.1° (7.6mm) 2.89°×1.63° (190mm)	35.1°×20.1° (15.26mm) 1.458°×0.81° (380mm)	63.2°×38.2° (7.8mm) 3.5°×2.0° (156mm)	34.2°×19.6° (15.6mm) 1.8°×1.0° (312mm)	96.3°×64.2° (4.3mm) 10.5°×5.9° (52mm)	58.3°×34.9° (8.6mm) 5.3°×3.0° (104mm)
M.O.D.* from Lens Front	0.8m		0.8m		0.3m	
Object Dimensions at M.O.D.*	93.9×52.8cm (7.6mm) 3.9×2.2cm (190mm)	48.1×27.1cm (15.2mm) 2.0×1.1cm (380mm)	91.7×51.6cm (7.8mm) 4.8×2.7cm (156mm)	45.9×25.8cm (15.6mm) 2.4×1.4cm (312mm)	76.4×43.0cm (4.3mm) 6.0×3.4cm (52mm)	38.2×21.5cm (8.6mm) 3.0×1.7cm (104mm)
Filter Thread Size (Hood/Lens Barrel)	105mm P1 / 94mm P1		105mm P1 / 94mm P1		127mm P0.75 / –	
Approx. Size (WxHxL)	6.8×4.5×8.8 in. (169.6×114.4×223.3mm)		6.7×4.5×9.1 in. (169.9×114.4×230.0mm)		6.4×4.3×9.8 in. (163.5×108.0×247.8mm)	
Approx. Weight	4.4 lb (1.99kg)		4.81 lb (2.18kg)		4.63 lbs (2.1kg) (IRSE S)	

4K UHD 2/3"						
Appearance	CJ24e×7.5B <b>UHDgc</b>	CJ18e×7.6B <b>UHDgc</b>	CJ14e×4.3B <b>UHDgc</b>			
Model Name	CJ24e×7.5B IRSE S/IASE S		CJ18e×7.6B IRSE S/IASE S		CJ14e×4.3B IRSE S/IASE S	
Zoom Ratio	24x		18x		14x	
Focal Length	7.5 – 180mm	15.0 – 360mm (2.0x)	7.6 – 137mm	15.2 – 274mm (2.0x)	4.3 – 60mm	8.6 – 120mm (2.0x)
Maximum Relative Aperture	F1:1.8 (7.5 – 120mm) F1:2.7 (180mm)	F1:3.6 (15 – 240mm) F1:5.4 (360mm)	F1:1.8 (7.6 – 103mm) F1:2.4 (137mm)	F1:3.6 (15.2 – 206mm) F1:4.8 (274mm)	F1:1.8 (4.3 – 40mm) F1:2.7 (60mm)	F1:3.6 (8.6 – 80mm) F1:5.4 (120mm)
Angular Field of View	65.2°×39.6° (7.5mm) 3.1°×1.7° (180mm)	35.5°×20.4° (15mm) 1.5°×0.9° (360mm)	64.6°×39.1° (7.6mm) 4.0°×2.3° (137mm)	35.1°×20.1° (15.2mm) 2.0°×1.1° (274mm)	96.3°×64.2° (4.3mm) 9.1°×5.2° (60mm)	58.3°×34.9° (8.6mm) 4.6°×2.6° (120mm)
M.O.D.* from Lens Front	0.80m		0.56m		0.30m	
Object Dimensions at M.O.D.*	96.0×54.0 cm (7.5mm) 4.1×2.3 cm (180mm)	48.0×27.0 cm (15mm) 2.1×1.2 cm (360mm)	65.5×36.8 cm (7.6mm) 3.8×2.1 cm (137mm)	32.8×18.4 cm (15.2mm) 1.9×1.1 cm (274mm)	76.4×43.0 cm (4.3mm) 5.2×2.9 cm (60mm)	38.2×21.5 cm (8.6mm) 2.6×1.5 cm (120mm)
Filter Thread Size (Hood/Lens Barrel)	105mm P1 / 94mm P1		– / 82mm P0.75		127mm P0.75 / –	
Approx. Size (WxHxL)	6.5×4.3×8.7 in. (164.6×109.1×221.4mm)		6.3×4.1×8.1 in. (160.5×105.0×206.2mm)		6.4×4.3×9.8 in. (163.5×108.0×247.8mm)	
Approx. Weight	4.0 lb (1.82kg, (IRSE S))		3.3 lb (1.65kg, (IRSE S))		4.7 lb (2.11kg, (IRSE S))	

\* M.O.D. = Minimum Object Distance.

Broadcast ENG/EFP Lenses

4K UHD 2/3"			
Appearance	CJ18e×28B <b>UHDgc</b>	CJ15e×8.5B <b>UHDgc</b>	
Model Name	CJ18e×28B IASE S		CJ15e×8.5B KRSE-V
Zoom Ratio	18x		
Focal Length	28 – 500mm	56 – 1000mm (2.0x)	8.5 – 128mm
Maximum Relative Aperture	F2.8 (28 – 286mm) F4.9 (500mm)	F5.6 (56 – 572mm) F9.8 (1000mm)	F2.5 (8.5 – 68mm) F4.7 (128mm)
Angular Field of View	19.5°×11.0° (28mm) 1.10°×0.62° (500mm)	9.8°×5.5° (56mm) 0.55°×0.31° (1000mm)	58.9°×35.2° (8.5mm) 4.3°×2.4° (128mm)
M.O.D.* from Lens Front	2.2m		
Object Dimensions at M.O.D.*	71.0×39.9cm (28mm) 4.1×2.3cm (500mm)	35.5×20.0cm (56mm) 2.1×1.2cm (1000mm)	95.8×53.9cm (8.5mm) 6.4×3.6cm (128mm)
Filter Thread Size (Hood/Lens Barrel)	127mm P0.75 / –		
Approx. Size (WxHxL)	7.0×4.8×10.6 in. (177.8×122.5×268.3mm)		
Approx. Weight	6.08 lb (2.76kg (IASE S))		

HD 2/3"						
Appearance	HJ40e×14B <b>HDxs</b>	HJ40e×10B <b>HDxs</b>	HJ21e×7.5B <b>HDxs</b>			
Model Name	HJ40e×14B IASE-V H		HJ40e×10B IASE-V H		HJ21e×7.5B IASE S	
Zoom Ratio	40x		40x		21x	
Focal Length	14 – 560mm	28 – 1120mm (2.0x)	10 – 400mm	20 – 800mm (2.0x)	7.5 – 158mm	15 – 316mm (2.0x)
Maximum Relative Aperture	F2.8 (14 – 307mm) F5.1 (560mm)	F5.6 (28 – 614mm) F10.2 (1120mm)	F2.0 (10 – 220mm) F3.65 (400mm)	F4.0 (20 – 440mm) F7.3 (800mm)	F1.9 (7.5 – 116mm) F2.6 (158mm)	F3.8 (15 – 232mm) F5.2 (316mm)
Angular Field of View	37.8°×21.8° (14mm) 1.0°×0.6° (560mm)	19.4°×11.0° (28mm) 0.5°×0.3° (1120mm)	51.3°×30.2° (10mm) 1.4°×0.8° (400mm)	27.0°×15.4° (20mm) 0.7°×0.4° (800mm)	65.2°×39.6° (7.5mm) 3.5°×2.0° (158mm)	35.5°×20.4° (15mm) 1.7°×1.0° (316mm)
M.O.D.* from Lens Front	2.8m		2.8m		0.85m	
Object Dimensions at M.O.D.*	177.1×99.5cm (14mm) 4.5×2.5cm (560mm)	88.6×49.8cm (28mm) 2.3×1.3cm (1120mm)	248.4×139.7cm (10mm) 6.2×3.5cm (400mm)	124.2×69.9cm (20mm) 3.1×1.8cm (800mm)	120.4×67.7cm (7.5mm) 5.6×3.2cm (158mm)	60.2×33.9cm (15mm) 2.8×1.6cm (316mm)
Filter Thread Size (Hood/Lens Barrel)	– / 127mm P0.75		– / 127mm P0.75		127mm P0.75 / –	
Approx. Size (WxHxL)	6.6×5.2×14 in. (167.5×133.0×355.5mm)		6.6×5.2×13.2 in. (167.5×133.0×335.4mm)		6.9×4.8×10.2 in. (175.2×122.2×260.1mm)	
Approx. Weight	12.2 lbs (5.55 kg)		12.1 lbs (5.5 kg)		5.94 lbs (2.69kg)	

HD 2/3"		
Appearance	HJ17e×6.2B <b>HDxs</b>	
Model Name	HJ17e×6.2B IRSE S/IASE S	
Zoom Ratio	17x	
Focal Length	6.2 – 106mm	12.4 – 212mm (2.0x)
Maximum Relative Aperture	F1.8 (6.2 – 65.8mm) F2.9 (106mm)	F3.6 (12.4 – 131.6mm) F5.8 (212mm)
Angular Field of View	75.5°×47.1° (6.2mm) 5.2°×2.9° (106mm)	42.3°×24.6° (12.4mm) 2.6°×1.5° (212mm)
M.O.D.* from Lens Front	0.4m	
Object Dimensions at M.O.D.*	73.3×41.2cm (6.2mm) 4.1×2.3cm (106mm)	36.7×20.6cm (12.4mm) 2.1×1.2cm (212mm)
Filter Thread Size (Hood/Lens Barrel)	105mm P1 / –	
Approx. Size (WxHxL)	6.5×4.4×9.5 in. (165.0×111.8×240.5mm)	
Approx. Weight	4.34 lbs (1.97kg (IRSE S))	

\* M.O.D. = Minimum Object Distance.

**DISCONTINUED LENSES**

Please note as of April 3, 2019 the following ENG/EFP HD 2/3" lenses have been discontinued: HJ18e×28B, HJ24e×7.5B, HJ14e×4.3 and HJ15e×8.5B.

Please consult with a Canon Account Manager regarding availability on the HJ18e×7.6B.

## Broadcast ENG/EFP Lenses

HD 2/3"				HD 1/3"			
KJ22ex7.6B 		KJ17ex7.7B 		KJ10ex4.5B 		KT17ex4.3B 	
   							
Appearance							
Model Name		KJ22ex7.6B IRSE S/IASE S		KJ17ex7.7B IRSE S/IASE S		KT17ex4.3B IRSE S	
Zoom Ratio		22x		17x		17x	
Focal Length		7.6-168mm 15.2-336mm (2.0x)		7.7-131mm 15.4-262mm (2.0x)		4.5-45mm 9-90mm (2.0x)	
Maximum Relative Aperture		1:1.8 at 7.6-116.3mm 1:2.6 at 168mm		1:1.8 at 7.7-102.5mm 1:2.3 at 131mm		1:1.8 at 4.5-34.5mm 1:2.35 at 45mm	
Angular Field of View		35.1°x20.1° at 15.2mm 1.6°x0.9° at 336mm		63.9°x38.6° at 7.7mm 4.2°x2.36° at 131mm		93.7°x61.9° at 4.5mm 12.2°x6.9° at 45mm	
M.O.D.* from Lens Front		0.8m		0.6m		0.3m	
Object Dimensions at M.O.D.*		95.0x53.4cm at 7.6mm 4.4x2.5cm at 168mm		68.5x38.5cm at 7.7mm 4.2x2.4cm at 131mm		74.1x41.7cm at 4.5mm 6.4x3.6cm at 45mm	
Filter Thread Size (Hood/Lens Barrel)		105mm P1 / 94mm P1		— / 82mm P0.75		127mm P0.75 / —	
Approx. Size (WxHxL)		6.5x4.4x8.6 in. (164.7x111.8x218.6mm)		6.3x4.2x7.8 in. (159.3x106.6x197.8mm)		6.6x4.4x9.4 in. (168.2x111.8x237.7mm)	
Approx. Weight (IRSE/IASE)		4.0 lbs (1.82kg)/4.19 lbs (1.90kg)		3.26 lbs (1.48kg)/3.44 lbs (1.56kg)		4.04 lbs (1.83kg)/4.22 lbs (1.91kg)	

## Pro-Video Lenses

HD 2/3"			
KJ20x8.2B 		KJ13x6B 	
  			
Appearance			
Model Name		KJ20x8.2B KRSD	
Zoom Ratio		20x	
Focal Length		8.2-164mm 16.4-328mm (2.0x)	
Maximum Relative Aperture		1:1.9 at 8.2-115.4mm 1:2.7 at 164mm	
Angular Field of View		60.7°x36.5° at 8.2mm 3.4°x1.9° at 164mm	
M.O.D.* from Lens Front		0.9m	
Object Dimensions at M.O.D.*		98.2x55.2cm at 8.2mm 5.0x2.8cm at 164mm	
Filter Thread Size (Hood/Lens Barrel)		— / 82mm P0.75	
Approx. Size (WxHxL)		6.4x4.1x8.2 in. (163.3x104.1x208.0mm)	
Approx. Weight		3.13 lbs (1.42kg)	

HD 1/2"	
KH20x6.4 	
	
Appearance	
Model Name	
Zoom Ratio	
Focal Length	
Maximum Relative Aperture	
Angular Field of View	
M.O.D.* from Lens Front	
Object Dimensions at M.O.D.*	
Filter Thread Size (Hood/Lens Barrel)	
Approx. Size (WxHxL)	
Approx. Weight	

\* M.O.D. = Minimum Object Distance.

## Remote Control Lenses

HD 2/3"		
HDTV		
 		
Appearance		
Model Name		KJ22ex7.6B ITS-ME/RE
Zoom Ratio		22x
Image Size		2/3"
Built-in Extender		2.0x
Range of Focal Length (with Extender)		7.6-168mm 15.2-336mm (2.0x)

HD 2/3"		HD 1/2"	
HDTV		 	
Appearance		Model Name: KJ20x8.2B KTS / KH20x6.4 KTS*2	
Zoom Ratio		20x	
Image Size		2/3" / 1/2"	
Built-in Extender		N/A	
Range of Focal Length		8.2-164mm / 6.4-128mm	

\*2: Specifically designed for Sony HDC-X300/X310.

### DISCONTINUED LENSES

Please note as of April 3, 2019 the following Lenses have been discontinued: HJ18ex28B, HJ15ex8.5B, HJ24ex7.5B, HJ18ex7.6B, HJ14ex4.3B, KT20x5B, and KH13x4.5.

## Broadcast ENG/EFP, Pro Video Lens Optical Accessories



### Adaptor Type Converters/Attachments

CATEGORY	MODEL	CJ45e×13.6B CJ45e×9.7B	CJ12e×4.3B CJ14e×4.3B CJ18e×8.5BB CJ18e×28B KJ10e×4.5B HJ40e×14B HJ40e×10B HJ21e×7.5B	HJ17e×6.2B KJ13×6B	CJ15e×8.5B	CJ25e×7.6B CJ20e×7.8B CJ24e×7.5B KJ22e×7.6B	CJ18e×7.6B KJ20×8.2B KT17e×4.3B KJ17e×7.7B KH20×6.4
TELESIDE CONVERTER *1	T15HG					●	●
WIDE CONVERTER *1	W80HG					●	●
WIDE ATTACHMENT *1	WA75HG					●	●
FISHEYE ATTACHMENT *1	FEA60HG					●	●
ADAPTER RING	ACC-85 III						●
	ACC-98 II					●	
CLOSE-UP LENS	82CL-UP800H				● *2		● *2
	82CL-UP1300H				● *2		● *2
	105CL-UP800HG					●	
UV FILTER	UV / 82				●		●
	UV / 94					●	
	UV / 105			●		●	
	UV / 127		●				
	UV / 127-H	●	●				
CLEAR FILTER	CL/127MM		●				
	CL/127MM-H	●	●				
POLARIZATION FILTER	PL / 82				●		●
	PL / 105			●		●	
	PL / 127		●				

\*1: An adaptor ring is necessary to attach it to the lens. \*2: Close-up lens supported for SD.  
 • The number of each filter type name, indicates the screw diameter. Screw pitch: screw diameter 82 mm = 0.75 mm, thread diameter 127 mm = 0.75 mm, thread diameter other than the left = 1.00 mm  
 The following items have been discontinued: W80H Wide Converter.  
 The following lenses have been discontinued: HJ18e×28B, HJ24e×7.5B, HJ18e×7.6B, HJ14e×4.3B, KH13×4.5B

### Mount Converters for Different Image Format Size Cameras

Canon offers a variety of Mount Converters to be used between a lens and a camera of different image format sizes. Each converter will extend the effective Angular Field of View of the associated lens according to the Shift Ratio listed below.

	Converter	Image Size Conversion			Electronic Conversion
		Lens *4	Camera	Shift Ratio to Telephoto Side	
	LO-32BMT	2/3" B4 Mount	1/2" Sony *5	Approx. 1.4x	N/A
	LCV-40B	2/3" B4 Mount	1/2 Standard Mount *6	Approx. 1.4x	N/A
	LCV-42T	2/3" B4 Mount	1/3" Standard Mount	Approx. 1.8x	N/A
	LCV-41E	2/3" B4 Mount	Sony PMW-EX3	Approx. 1.4x	Lens Cable (12 pin) EX3 Hot Shoe (14 pin)

\*4: The converters are to be used with lenses weighing less than 4.4 lbs (2.0kg). \*5: Sony's Hot Shoe mount camera, excluding PMW-EX3.  
 \*6: 1/2" Camera of standard type mount (Panasonic, JVC, Grass Valley).

## Broadcast ENG/EFP, Pro Video Lens Optical Accessories

### Converter/Attachments

#### TELE-SIDE CONVERTER



- The use of the telephoto converter would shift the focal length of a lens with a factor of 1.5x.
- F No. of the original lens is not affected.
- Only the telephoto side of the lens can be used. The picture corners are eclipsed at wide angle.
- The minimum object distance becomes 2.25x that of the original lens.

#### CHANGE IN FOCAL LENGTH

Model	M.O.D.	Eclipse Point
CJ24e×7.5B	1.8m	f:100mm
KJ17e×7.7B	1.35m	f:60mm

#### WIDE CONVERTER



- The wide converter W80/W80Y-85 would shift the focal length of a lens with a factor of 0.8x.
- F No. of the original lens is not affected.
- The minimum object distance becomes 0.64x with the W80/W80Y-85.

#### CHANGE IN FOCAL LENGTH

Model	Master Lens	With Wide Converter
CJ24e×7.5B	7.5-180mm	6.0-144mm
KJ17e×7.7B	7.7-131mm	6.2-104.8mm

#### FISH-EYE ATTACHMENT



- The zoom lens becomes a fish-eye fixed focal length lens (distorted image) with the fish-eye attachment.
- The use of a fish-eye attachment would shift the focal length of a lens with a factor of 0.6x.
- Focus is adjusted by use of the macro lever.

#### CHANGE IN FOCAL LENGTH

Model	Master Lens	With Fish-Eye Attachment
CJ24e×7.5B	7.5-180mm	4.5mm
KJ17e×7.7B	7.7-131mm	4.6mm

#### WIDE ATTACHMENT



- The zoom lens becomes a wider fixed focal length lens with the wide attachment.
- The use of the wide attachment would shift the focal length of a lens with a factor of 0.75x.
- Focus is adjusted by use of the macro lever.

#### CHANGE IN FOCAL LENGTH

Model	Master Lens	With Wide Attachment
CJ24e×7.5B	7.5-180mm	5.6mm
KJ17e×7.7B	7.7-131mm	5.8mm

#### POLARIZED LIGHT FILTER



- Used to intercept light reflected from the surface of water or glass.
- The polarizer is threaded on to a lens hood.

### Extenders



- The X2.0-B4 extender mounts in between a camera and lens to magnify an image.
- The extender doubles the focal length of the master lens and doubles the F-number.

Model	Applicable Lenses
X2.0-B4	Applicable to all B4 type mount Canon 2/3" lenses.



## Broadcast ENG/EFP, Pro Video Lens Optical Accessories

### Close-Up Lenses



- A close-up lens is used to shorten the M.O.D.\* of the master lens for close-up shooting.
- The maximum object distance becomes the focal length of the close-up lens.
- The minimum object distance is calculated by the following formula:  
 New minimum object distance =  $fc \times S / (fc + S)$   
 fc = Focal length of the close-up lens  
 S = M.O.D.\* of the master lens

### Imaging range for KJ17ex7.7B with close-up lenses

KJ17ex7.7B (16:9)	82CL-UP800H				82CL-UP1300H			
	Tele end : 131mm		Wide end : 7.7mm		Tele end : 131mm		Wide end : 7.7mm	
Focusing Scale (mm)	∞	0.6	∞	0.6	∞	0.6	∞	0.6
Object Distance (mm)	800	343	800	343	1300	411	1300	411
Object Dimensions (mm)	58x33	24x14	989x556	376x212	95x53	29x16	1634x919	455x256

Model	Applicable Lenses
82CL-UP800H <sup>1</sup>	HJ18ex7.6B, HJ15ex8.5B, KJ17ex7.7B, KJ20x8.2B, KH20x6.4, KT17ex4.3B, KT20x5
82CL-UP1300H <sup>1</sup>	HJ18ex7.6B, HJ15ex8.5B, KJ17ex7.7B, KJ20x8.2B, KH20x6.4, KT17ex4.3B, KT20x5
105CL-UP900H <sup>1</sup>	HJ24ex7.5B, KJ22ex7.6B
105CL-UP800HG	CJ20ex7.8B, CJ24ex7.5B, HJ24ex7.5B, KJ22ex7.6B

\*M.O.D. = Minimum Object Distance.  
<sup>1</sup>: Not recommended for 4K shooting.

## Broadcast ENG/EFP, Pro Video Lens Accessories

### Compatible Zoom/Focus Control List

OPERATION	CATEGORY	MODEL	CJ45ex13.6B CJ45ex9.7B HJ40ex14B HJ40ex10B	CJ25ex7.6B CJ24ex7.5B CJ20ex7.8B CJ18ex28B CJ18ex7.6B CJ15ex8.5B CJ14ex4.3B CJ12ex4.3B	HJ21ex7.5B HJ17ex6.2B KJ22ex7.6B KJ17ex7.7B KJ10ex4.5B KT17ex4.3B	KJ20x8.2B KJ13x6B KH20x6.4	
FOCUS	FOCUS DEMAND	FPD-400D	●	●		● <sup>*1</sup>	
	DRIVE UNIT	FPM-77				●	
		FPM-420D			● (IRS,KRS)		●
	FLEX CONTROLLER	FFC-200	● <sup>*3</sup>		● <sup>*2</sup>		●
		FFC-15					●
	FLEXIBLE CABLE (32 INCHES)	FC-40	● <sup>*3</sup>		● <sup>*2</sup>		●
OUTLET	FFM-100			● <sup>*2</sup>		●	
	FM-12					●	
	FFM-300		● <sup>*3</sup>			●	
ZOOM	ZOOM DEMAND	ZSD-300D	●	●		● <sup>*1</sup>	
	PROVIDEO ZOOM	ZSD-15MII				●	
	SERVO GRIP	ZSG-200M	● <sup>*1</sup>	● <sup>*1</sup>		●	

\* 1: A unit that can be attached using a conversion cable.  
 \* 2: Please be aware use of these controllers will result in a lower image quality MTF.  
 \* 3: These accessories are not recommended for use with CJ45ex9.7B and CJ45ex13.6B.

## Broadcast ENG/EFP, Pro Video Lens Optical Accessories

### Focus Controller



### Zoom Controller



### Conversion Cable is Necessary When Using with the Following Combinations

Model Name	Applicable Lens	Adapter Cable	Lens Side Pin#	Control Side Pin#
FPM-420D	Analog Drive Lens	CC-1220	12	20
FPD-400D		CC-0620	6	20
ZSD-300D		CC-0820	8	20

## Control Accessories for Digital Drive ENG/EFP Lenses

CJ45ex13.6B / CJ45ex9.7B / CJ25ex7.6B / CJ20ex7.8B / CJ12ex4.3B / CJ18ex28B / CJ15ex8.5B / CJ24ex7.5B / CJ18ex7.6B / CJ14ex4.3B / HJ40ex14B / HJ40ex10B / HJ21ex7.5B / HJ17ex6.2B / KJ22ex7.6B / KJ17ex7.7B / KJ10ex7.5B / KT17ex4.3B

### Recommended Kit Configurations

#### MS-210D SEMI-SERVO KIT

for all listed IASE S/IRSE S/KRSE S Lenses

#### SS-41-D FULL SERVO KIT

for all listed IRSE S/KRSE S Lenses

#### SS-41-IASD FULL SERVO KIT

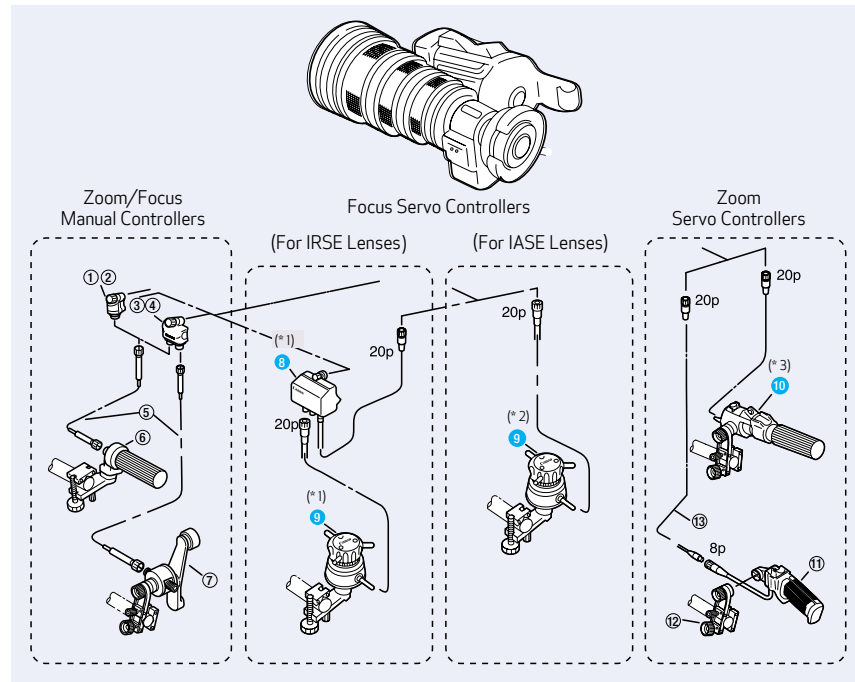
for all listed IASE S Lenses

#### SS-42-IAS FULL SERVO KIT

for all listed IASE S Lenses

## DIGITAL Control Accessories of Digital Drive ENG/EFP Lenses

### Applicable Component Detail



#	UNIT	DESCRIPTION
①	FFM-100	Flex Focus Module
②	FFM-300	Flex Focus Module
③	FFM-200 <sup>*1</sup>	Flex Dual Module
④	FFM-400 <sup>*1,2</sup>	Flex Dual Module
⑤	FC-40	Flex Cable
⑥	FFC-200	Flex Focus Controller
⑦	FZC-100 <sup>†</sup>	Flex Zoom Controller
⑧	FPM-420D <sup>†</sup>	Focus Positional Servo Module
⑨	FPD-400D <sup>†</sup>	Focus Positional Demand
⑩	ZSD-300D <sup>†</sup>	Zoom Demand
⑪	ZSG-200M	Zoom Servo Grip
⑫	CR-10	Clamper
⑬	CC-2008	20p-8p Cable

<sup>\*1</sup>: FZC-100, FFM-200, FFM-400, FPD-400, FPM-420 and ZSD-300A/M are discontinued.  
<sup>\*2</sup>: Analog FPD-400 is also applicable, however, CC-2006 conversion cable is necessary to connect between IASD/IASE Digital Drive Lens and FPD-400.  
<sup>\*3</sup>: Analog ZSD-300A/M is also applicable but CC-2008 is needed to connect between IASE S digital drive lens and ZSD-300A/M.

● The controllers support the new DD functions.

### Applicable Kit Detail

#### For IRSE S Type Lenses

	Kit Name	Zoom		Focus	
		System	Component	System	Component
Zoom Servo Only	(ZR-1D)	ZR-1D	20	—	—
	—	ZR-2(A)	21, 22, 28	—	—
Semi-Servo	MS-210D	ZR-1D	20	FR-2	2, 8, 10
	MS-220	ZR-2(A)	21, 22, 28	FR-2	2, 8, 10
Full Servo	SS-41-D	ZR-1D	20	FPS-4D	13, 17
Full Manual	—	FZC-1	6, 8, 11	FR-2 (w/o 2)	8, 10

#### For CJ45ex13.6B, CJ45ex9.7B, HJ40ex14B and HJ40ex10B

	Kit Name	Zoom		Focus	
		System	Component	System	Component
Zoom Servo Only	—	ZR-1D	20	—	—
	—	ZR-2(A)	21, 22, 28	—	—
Semi-Servo	—	ZR-1D	20	FR-2	3, 8, 10
	—	ZR-2(A)	21, 22, 28	FR-2	3, 8, 10
Full Servo	SS-41-IASD	ZR-1D	20	FPS-4D	17
	SS-42-IASD	ZR-2(A)	21, 22, 28	FPS-4D	17
Full Manual	—	FZC-1	6, 8, 11	FR-2 (w/o 2)	8, 10

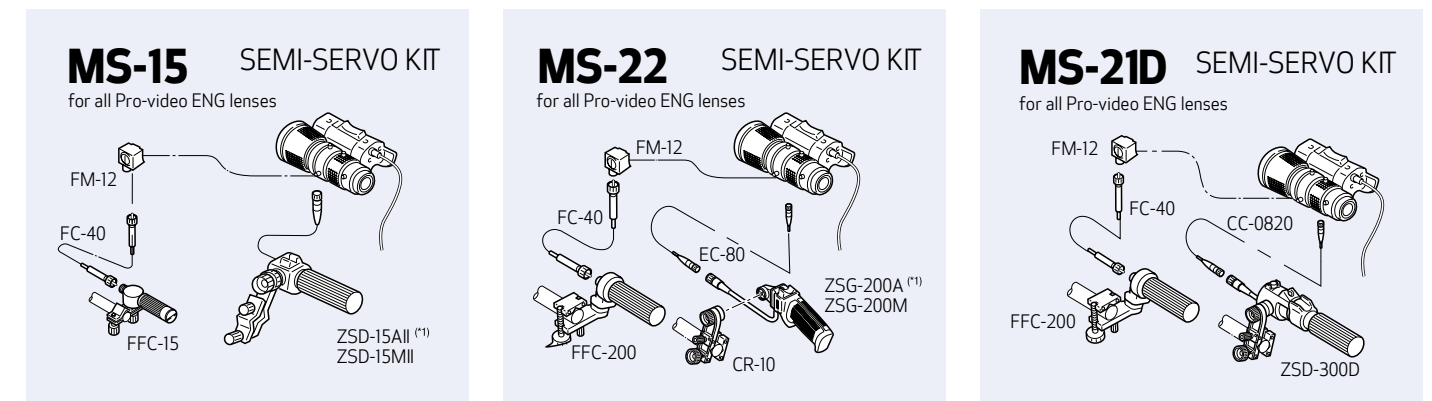
■ Recommended kit configuration.

#### For IASE S Type Lenses (Except HJ40ex, CJ45ex)

	Kit Name	Zoom		Focus	
		System	Component	System	Component
Zoom Servo Only	(ZR-1D)	ZR-1D	20	—	—
	—	ZR-2(A)	21, 22, 28	—	—
Semi-Servo	MS-210D	ZR-1D	20	FR-2	2, 8, 10
	MS-220	ZR-2(A)	21, 22, 28	FR-2	2, 8, 10
Full Servo	SS-41-IASD	ZR-1D	20	FPS-4D	17
	SS-42-IASD	ZR-2(A)	21, 22, 28	FPS-4D	17
Full Manual	—	FZC-1	6, 8, 11	FR-2 (w/o 2)	8, 10

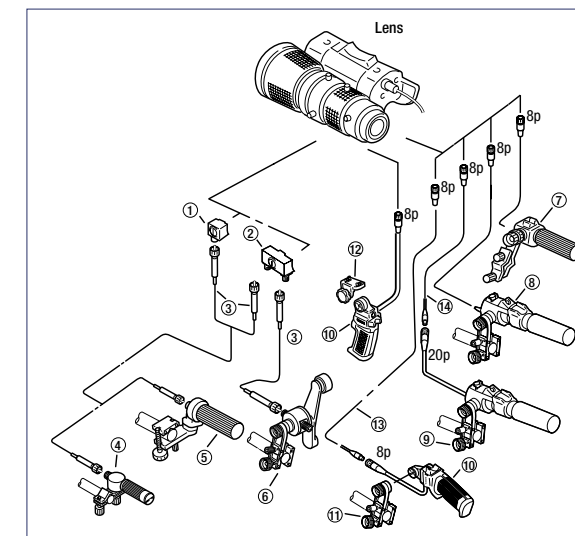
## ANALOG Control Accessories for Analog Drive HDgc Lenses

### Recommended Kit Configuration



<sup>\*1</sup>: "A" or "M" type demands depend upon camera. Type "A" demands are no longer available from Canon.

### Applicable Component Detail



#	UNIT	DESCRIPTION
①	FM-12	Flex Focus Module
②	FM-70 <sup>*</sup>	Flex Dual Module
③	FC-40	Flex Cable
④	FFC-15	Flex Focus Controller
⑤	FFC-200	Flex Focus Controller
⑥	FZC-100 <sup>†</sup>	Flex Zoom Controller
⑦	ZSD-15A II / M II	Zoom Demand <sup>‡</sup> A (A or M types, depends on applicable camera) M
⑧	ZSD-300A/M	Zoom Demand <sup>‡</sup> A (A or M types, depends on applicable camera) M
⑨	ZSD-300D	Zoom Demand
⑩	ZSG-200A/M	Zoom Servo Grip <sup>‡</sup> A (A or M types, depends on applicable camera) M
⑪	CR-10	Clamper
⑫	GA-70 <sup>†</sup>	Grip Adapter
⑬	EC-80	Zoom Extension Cable (8P)
⑭	CC-0820	Conv. Cable (8pM-20pF)

<sup>\*1</sup>FM-70, FZC-100, and GA-70 are discontinued.  
<sup>\*2</sup>: ZSD-15A II, ZSD-300A/M, ZSG-200A, and FPD-400 are no longer available from Canon stock.

### Applicable Kit Detail

	Kit Name	Zoom		Focus	
		System	Component	System	Component
Zoom Servo Only	—	ZSD-15	16	—	—
	—	ZR-1	17	—	—
	—	ZR-2(A)	19, 20, 26	—	—
	—	ZR-2(B)	19, 21 <sup>*</sup>	—	—
Semi-Servo	MS-15	ZSD-15	16 <sup>**</sup>	FRC-15	1, 8, 9 <sup>**</sup>
	MS-21	ZR-1	17	FR-2	1, 8, 10
	MS-21D	ZR-1D	18, 28	FR-2	1, 8, 10
Full Manual	MS-22	ZR-2(A)	19, 20, 26	FR-2	1, 8, 10
	FZC-1	FZC-1	5 <sup>*</sup> , 8, 11	FR-2(w/o 1)	8, 10

<sup>\*</sup> ② & ⑫ are not applicable to YH14x7.3 and YH16x7.

<sup>\*\*</sup> In USA, ⑦ and ④ are available only as MS-15 kit configuration and not as individual products.

■ Recommended kit configuration.



# CINEMA LENS LINEUP

## ZOOM Series

Canon Cinema Zoom Lenses offer superb optical performance that exceeds 4K resolution and are designed to meet the most demanding of high-end productions. They combine fluorite and aspherical lens elements, the latest in advanced optical coatings and superior lens designs for outstanding edge-to-edge image quality.



## COMPACT ZOOM Series

Canon Cinema Compact Zoom Lenses offer 4K resolution in form factors that enable more flexible, less intrusive shooting. They also feature a constant T-number (2.8) throughout their zoom ranges as well as the latest advancements in lens design for outstanding image quality and minimal distortion.



## SUMIRE PRIME Series

Canon is introducing a new line of cinema prime lenses named "SUMIRE Prime" (pronounced "Soo-mee-ray") – associated with a floral gentleness and beauty. A unique optical design introduces a nuanced look as the lens aperture approaches its maximum setting – subtly modifying the textural renderings of the human facial close-up. It also smooths the transition to the fall-off portions of the scene resulting in a pleasing bokeh. This combination adds emotional expressiveness to a memorable scene.



## PRIME Series

The flexible series of Canon Cinema Prime Lenses offers spectacular 4K-image quality and a full-frame image circle, in lightweight, compact designs. They feature high optical speed, produce remarkably sharp 4K images and superb contrast, and maintain tightly controlled focus breathing and geometric distortion. Low T-numbers enable better low-light shooting.



## CINE-SERVO Series

Canon CINE-SERVO Lenses support cinema production as well as 4K content creation for broadcast. Featuring a servo drive unit, they can be ideal for shooting scenarios where mobility is key.



## COMPACT-SERVO Series

COMPACT-SERVO lenses combine the benefits of compact size and light weight for outstanding mobility. Designed to shoot video, these lenses combine the functionality of our EF lenses with the video shooting features of our Cinema lenses.

## ZOOM Lens Series

P. 38



CN-E14.5-60mm T2.6 L S  
CN-E14.5-60mm T2.6 L SP



CN-E30-300mm T2.95-3.7 L S  
CN-E30-300mm T2.95-3.7 L SP

## COMPACT ZOOM Lens Series

P. 38



CN-E15.5-47mm T2.8 L S  
CN-E15.5-47mm T2.8 L SP



CN-E30-105mm T2.8 L S  
CN-E30-105mm T2.8 L SP

## SUMIRE PRIME Lens Series

P. 39



CN-E14mm T3.1 FP X CN-E20mm T1.5 FP X CN-E24mm T1.5 FP X CN-E35mm T1.5 FP X CN-E50mm T1.3 FP X CN-E85mm T1.3 FP X CN-E135mm T2.2 FP X

## PRIME Lens Series

P. 39



CN-E14mm T3.1 L F CN-E20mm T1.5 L F CN-E24mm T1.5 L F CN-E35mm T1.5 L F CN-E50mm T1.3 L F CN-E85mm T1.3 L F CN-E135mm T2.2

## CINE-SERVO Lens Series

P. 40



CN7x17 KAS S/E1  
CN7x17 KAS S/P1



CN20x50 IAS H/E1  
CN20x50 IAS H/P1

## COMPACT-SERVO Lens Series

P. 40



CN-E18-80mm T4.4 L IS KAS S



CN-E70-200mm T4.4 L IS KAS S



ZSG-C10



# MEETING THE DEMANDS OF THE 4K ERA

## Canon Cinema Lens Technology

### Optical Performance

#### Crystal Clear Canon Optical Technology

##### Super 35mm,\* High quality 4K/HDR

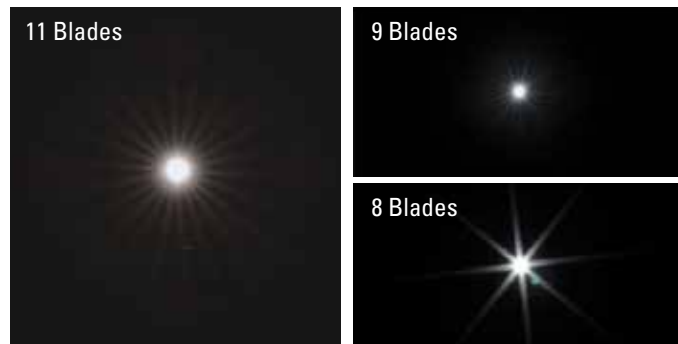
From the center to the periphery of our cinema lenses, a high-quality 4K/HDR image is achieved for both single focus and zoom lenses within the entire zoom range. Canon's optical technologies are combined to help correct various aberrations and provide high contrast while achieving a high resolution of about 80 lines/mm throughout the Super 35 mm sensor.

\*The PRIME Lens series also supports the image size of Full Frame or APS-H.



#### 11 Blade Aperture

Halos from points of light at night or from rays of sunlight in shots that show the sun take on the shape of the Iris blades. The odd number of blades make the iris aperture look circular even when the Iris is contracted, enabling beautiful, round highlight bokeh.



#### Warm Color Balance

Cinema lens color balance, ideal for movie production, reproduces warm skin tones. Color balance is strictly uniform across all Canon cinema lenses making lens substitution during the same scene possible. Anti-reflection film technology, including super spectral coatings and thorough corrections for slight color variations caused by glass components allow Canon lenses to achieve this effect.

#### Flange Back Adjustment

A flange back adjustment mechanism is installed on the lens mounts to allow for back focus adjustments.

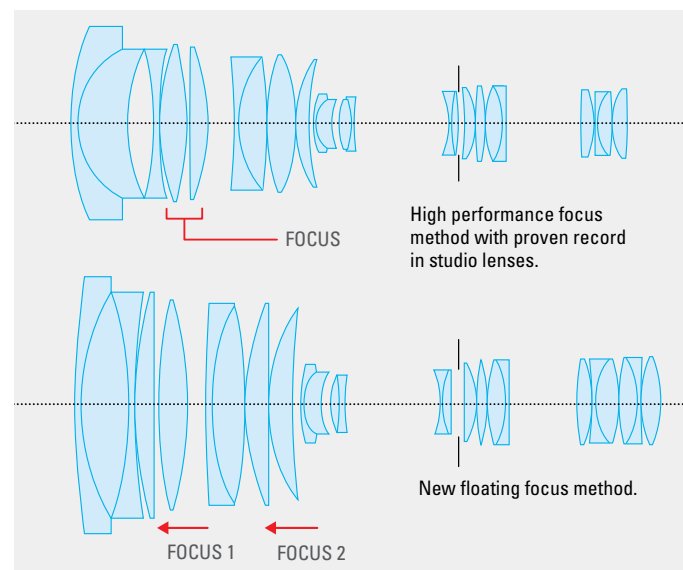


\* Excluding PRIME Lens series.



#### Focus Breathing Suppression

Focus breathing is caused when the focus group moves and exerts a "zooming" effect. In order to prevent this, cinema lenses implement a 3-group inner focus method and a new floating method to help minimize field angle fluctuation and achieve stable framing.



#### Luminous Index

The focus index on the front lens barrels is printed with luminescent paint to improve visibility at night and in dark studio conditions.



#### Dust/Splash Resistant Seals and Casing\*

Our CN-E EF prime and Sumire Prime lenses use dust and splash resistant rubber gaskets at the casing joints.

\* Lenses are not designed to be submersible in water or exposed to heavy rain.



#### Cinema Lens Focal Distance Table

##### Focal Length Table

ZOOM Lenses				
Angle of view horizontal (1.78:1)*1	79.2°	43.6°	22.6°	4.6°
Focal Distance (mm)	14.5	30	60	300
CN-E14.5-60mm T2.6 L	[Bar chart showing focal distance range]			
CN-E30-300mm T2.95-3.7 L	[Bar chart showing focal distance range]			

COMPACT ZOOM Lenses				
Angle of view horizontal (1.78:1)*2	75.5°	43.6°	28.6°	13.0°
Focal Distance (mm)	15.5	30	47	105
CN-E15.5-47mm T2.8 L	[Bar chart showing focal distance range]			
CN-E30-105mm T2.8 L	[Bar chart showing focal distance range]			

SUMIRE PRIME Lenses								
Angle of view horizontal (1.78:1)*2	82.6°	63.2°	54.3°	38.7°	27.6°	16.5°	10.4°	
Focal Distance (mm)	14	20	24	35	50	85	135	
CN-E14mm T3.1 FP X	[Dot on chart]							
CN-E20mm T1.5 FP X	[Dot on chart]							
CN-E24mm T1.5 FP X	[Dot on chart]							
CN-E35mm T1.5 FP X	[Dot on chart]							
CN-E50mm T1.3 FP X	[Dot on chart]							
CN-E85mm T1.3 FP X	[Dot on chart]							
CN-E135mm T2.2 FP X	[Dot on chart]							

PRIME Lenses								
Angle of view horizontal (1.78:1)*2	82.6°	63.2°	54.3°	38.7°	27.6°	16.5°	10.4°	
Focal Distance (mm)	14	20	24	35	50	85	135	
CN-E14mm T3.1 L F	[Dot on chart]							
CN-E20mm T1.5 L F	[Dot on chart]							
CN-E24mm T1.5 L F	[Dot on chart]							
CN-E35mm T1.5 L F	[Dot on chart]							
CN-E50mm T1.3 L F	[Dot on chart]							
CN-E85mm T1.3 L F	[Dot on chart]							
CN-E135mm T2.2 L F	[Dot on chart]							

CINE-SERVO Lenses				
Angle of view horizontal (1.78:1)*2	71.8°	27.6°	11.7°	1.4°
Focal Distance (mm)	17	50	120	1000
CN7×17 KAS S	[Bar chart showing focal distance range]			
CN20×50 IAS H	[Bar chart showing focal distance range]			

COMPACT-SERVO Lenses				
Angle of view horizontal (1.78:1)*2	68.7°	19.9°	17.5°	7.0°
Focal Distance (mm)	18	70	80	200
CN-E70-200mm T4.4 L IS KAS S	[Bar chart showing focal distance range]			
CN-E18-80mm T4.4 L IS KAS S	[Bar chart showing focal distance range]			

\*1: When the screen size is 24.0 × 13.5 mm. \*2: When the screen size is 24.6 × 13.8 mm.

**NEW**  
LINE OF CINEMA  
PRIME LENSES

# Sumire Prime



Gentle and Beautiful Skin Tone

Smooth Bokeh

Canon is introducing a new line of cinema prime lenses – appropriately named “SUMIRE Prime”. Pronounced “Soo-mee-ray” in Japanese. It is associated with a floral gentleness and beauty. In addition to bright T-stops and Canon’s renowned warm imagery, a unique optical design introduces a nuanced look as the lens aperture approaches its maximum setting – subtly modifying the textural renderings of the human facial close-up. It also smooths the transition to the fall-off portions of the scene resulting in a pleasing bokeh. This combination adds emotional expressiveness to a memorable scene.

## PL MOUNT

- CN-E14mm T3.1 FP X
- CN-E20mm T1.5 FP X
- CN-E24mm T1.5 FP X
- CN-E35mm T1.5 FP X
- CN-E50mm T1.3 FP X
- CN-E85mm T1.3 FP X
- CN-E135mm T2.2 FP X



## SUMIRE PRIME Lens Series: Highlights

### Covers Full-frame, Super 35mm and APS-C Sensors

The lenses are also compatible with the large imaging area of cameras equipped with a full-size 35mm-equivalent CMOS sensor.

### Phosphorescent Indicators

To improve visibility in nighttime and dark area shooting, indicator markings with phosphorescent paint have been adopted for the front barrel (for right-side viewing).

### Artistically Pleasing Image Rendering And Warm Colors

The original lens composition with large diameter aspheric lens and anomalous dispersion glass offers more solid and artistically pleasing image rendering. This brings out the impressive image quality of 4K cinema images in all their glory. And the warm color tones have been made consistent throughout the series to artistically pleasing capture people’s facial expressions and enable better depiction of the subject’s texture.

### Minimized Focus Breathing

The lens controls focus breathing, which realizes stability in images even when bokeh effects occur due to refocusing.

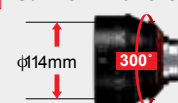
### Soft, Natural Bokeh Effects

The bright T-number of the PRIME lens and multi-blade iris diaphragm produce natural blur effects closer to a circle, from maximum to minimum aperture. This enables more three-dimensional bokeh even with super wide angle lenses that have deeper depth of field, broadening the range of visual expression.

### Unified Front Lens Diameter, Gear Position

Compact Zoom and Prime lenses have the same front lens diameter and consistent gear positions, so lenses within each series can be switched without adjusting the rig setup.

### Sumire Prime Lens Series



### 11-Blade Iris

With the increased number of iris blades, users can get natural bokeh that appears more circular, from maximum to minimum aperture. The use of an odd number of blades diffuses light rays in high-brightness subjects and renders images more artistically pleasing.

### PL Mount

PL mounts, which are in high demand in the cinema market, have been adopted to support a variety of cameras used in this market.

## ZOOM / COMPACT ZOOM Lens Series: Highlights

### Easy-to-Read Controls

Focus, Zoom, and Iris markings are provided on angled surfaces. These markings are easy to read from behind the camera.

### Support Industry-Standard Cameras

Covers Super 35mm and APS-C sensors.

### Light, Compact

Small and light to meet a variety of shooting needs.

### Marked on Both Sides

Lenses are marked on both sides. This makes markings visible from either side of the lens.

### Switchable Unit for Focus Marking

The outer piece on marked focus rings can be switched from non-metric to metric labeling.

### Comfortable Usability

Control rings maintain the right amount of resistance while offering exceptional usability with consistent operating torque.

### Inner Focus

Helps minimize focus-induced changes in the angle of view.



### Unified Front Lens Diameter, Gear Position

Uniform gear positions within the same categories eliminate the need for accessory gear position adjustment when switching lenses.

### Zoom Lens Series



### Compact Zoom Lens Series



### Flange-Back Adjustment Mechanism

A covered flange-back adjustment mechanism is included, with broadcast applications in mind.

### Attractive Bokeh

11-Blade Circular Aperture enables soft, beautiful background bokeh.

## PRIME Lens Series: Highlights

### Covers Full-frame, Super 35mm and APS-C Sensors

The lenses are also compatible with the large imaging area of cameras equipped with a full-size 35mm-equivalent CMOS sensor.

### Light, Compact

Small and light among many conventional cinema lenses, to meet a variety of shooting needs.

### Standard Accessories Supported

Supports industry-standard accessories such as power-drive devices and matte boxes.

### Accepts 105mm filters (except for 14mm)

PL or other individual filters 105mm in diameter can be attached to the end of the lens, enabling filter work in handheld shooting or other scenarios without using a matte box.

### Phosphorescent Indicators

To improve visibility in nighttime and dark area shooting, indicator markings with phosphorescent paint have been adopted for the front barrel (for right-side viewing).

### Fast Aperture

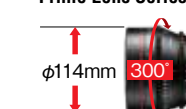
Enables shooting with the shallow DOF and broad bokeh that large sensors offer.



### Unified Front Lens Diameter, Gear Position

Compact Zoom and Prime lenses have the same front lens diameter and consistent gear positions, so lenses within each series can be switched without adjusting the rig setup.

### Prime Lens Series



### 11-Blade Iris

With the increased number of iris blades, users can get natural bokeh that appears more circular, from maximum to minimum aperture. The use of an odd number of blades diffuses light rays in high-brightness subjects and renders images more artistically pleasing.

### EF Mount

Communication functions with Cinema EOS Cameras. It works seamlessly with our Cinema EOS cameras, allowing you to take full advantage of the camera’s features and functionality.

### Consistent Torque

Control Rings maintain the right amount of resistance while offering outstanding usability with consistent operating torque.

### Switchable Unit for Focus Marking

The outer piece on marked focus rings can be switched from non-metric to metric labeling.



## CINE-SERVO 50-1000mm: Highlights

### Support Industry-Standard Cameras

Covers Super 35mm and APS-C sensors.  
Covers Full Frame and APS-H with Built-in 1.5x Extender.

### Robust and Durable Housing Structure

### 20x Zoom Magnification

### Ultra Telephoto 50-1000mm Focal Range

### Removable Servo Drive Unit

Removable servo drive unit with various user setting capabilities.

### Accessory Connectors

Three 20-pin connectors for externally operated accessories and a 16-bit metadata output for virtual studio systems.



### Multiple Communication Capability with Compatible Cameras

### 11-Blade Iris Provides Natural Bokeh

### Designed for Cinema and Broadcast Applications

### Compact and Lightweight

Compact and lightweight lens available in an EF mount and PL mount that can be converted at an authorized Canon service facility.



### Support High Quality 4K/HDR Shooting

High optical performance with support for Super35mm large format cameras.

### Built-In 1.5x Optical Extender

Cover the image size of Full Frame or APS-H Camera.



## CINE-SERVO 17-120mm: Highlights

### Support Industry-Standard Cameras

Covers Super 35mm and APS-C sensors.

### High Durability and Ruggedness

### 7x Zoom Magnification

### Wide 17-120mm Focal Range

### Ergonomic Design

Ergonomically designed drive unit for ease of operation.

### Removable Servo Drive Unit

Removable servo drive unit with various user setting capabilities.

### Accessory Connectors

Three 20-pin connectors for externally operated accessories and a 16-bit metadata output for virtual studio systems.



### Multiple Communication Capability with Compatible Cameras

### 11-Blade Iris Provides Natural Bokeh

### Designed for Cinema and Broadcast Applications

### Compact and Lightweight

Compact and lightweight lens available in an EF mount and PL mount that can be converted at an authorized Canon service facility.



### Support High Quality 4K/HDR Shooting

High optical performance with support for Super35mm large format cameras.



## Drive Unit

### Removable Drive Unit

Canon CINE-SERVO lenses include a drive unit that provides the same user experience as found in our broadcast zoom lenses. Removing the drive unit allows for full manual operation of the lenses.



### No Initialization

Initialization of the drive unit is not required at power-on. Initialization is required at power-on for conventional drive units. Immediate startup helps contribute to more efficient shooting.

### Compatible With Standard Broadcast Demands

#### Demand Supported

Compatible with Canon's standard broadcast industry demands such as ZSD-300D and FPD-400D. Canon's 8-pin demand\* can be connected via a conversion cable.

### Enables High-Precision, Natural Composition

#### Virtual Studio System

A high precision 16-bit encoder (zoom and focus only) makes connection to various virtual studio systems possible. Three, 20-pin terminals allow a virtual connection even when zoom and focus demands are connected.



20-PIN CONNECTOR

\* Iris operation is also possible by connecting FDJ-P01 via conversion cable. It will be selected as either virtual output or iris operation.

### Peripheral Illumination Correction

#### EF Mount Communication Protocol Support<sup>1</sup>

Information communication is possible via CINEMA EOS SYSTEM cameras and mounts. It is possible to record lens information at the time of shooting and peripheral illumination correction<sup>2</sup>.

<sup>1</sup>: ZOOM Lenses are excluded. Only EF mounted lenses are supported.

<sup>2</sup>: Some lenses require a camera firmware update. Some lenses are scheduled to be handled by firmware update.

### Supports Broadcast Industry Standards

#### 12-Pin Serial Communication\*

Supports 12-pin serial communication which is a broadcasting communication standard.

\* Applicable lens: CINE-SERVO Lens series.

It is necessary for the camera side to support 12 pin serial communication.

### Supports Communication Standards of Film Production Industry

#### /i Technology Compatible\*

Canon's PL-mount CINE-SERVO lenses are compatible with Cooke's "/i Technology" communication standard which has been widely adopted throughout the video production industry. Focus/zoom/aperture position data can be sent to the corresponding camera, recorded and displayed.

\* Applicable lens: PL mount lens of CINE-SERVO Lens series only.

The camera side must support /i Technology.

Communication is possible when drive unit is installed.

## COMPACT-SERVO Lens Series: Highlights

### Refined Iris Mechanism

- Seamless Manual Control Capability
- 9-Blade Iris
- Iris Closing

### Compatible with EF-mount Cameras

### Practical Layout of Switches

### High Level 4K Optical Performance

### Covers Super 35mm and APS-C Sensors



### Image Stabilization

### Minimized Focus Breathing

### Supports a Wide Range of Accessories

### Compact and Lightweight for Increased Mobility

### Dual Pixel CMOS Auto-Focus (DAF)

### Enhanced Servo Drive Unit

- Servo Control Capability for all Zoom, Focus, and Iris
- Compatible with broadcast style servo lens controllers
- Optional ZSG-C10 Grip

**COMPACT-SERVO 4K**



## ZOOM Lens Series

Appearance				
Model Name	CN-E14.5-60mm T2.6 L S	CN-E14.5-60mm T2.6 L SP	CN-E30-300mm T2.95-3.7 L S	CN-E30-300mm T2.95-3.7 L SP
Mount	EF Mount	PL Mount	EF Mount	PL Mount
Zoom Ratio	4.1x		10x	
Focal Length	14.5 - 60mm		30 - 300mm	
Max. Relative Aperture (T-Number)	T2.6 14.5 - 60mm		T2.95 30 - 240mm / T3.7 300mm	
Iris Blades	11		11	
Angle of View	1.5:1 36.0x24.0mm	79.2°x49.9° 14.5mm 22.6°x12.8° 60mm *1	43.6°x25.4° 30mm 4.6°x2.6° 300mm *1	
	1.9:1 26.2x13.8mm	80.6°x50.9° 14.5mm 23.2°x13.1° 60mm *2	44.6°x25.9° 30mm 4.7°x2.6° 300mm *2	
M.O.D. (Minimum Object Distance)	0.70m/2'4"		1.5m/5'	
Object Dimensions at M.O.D.	1.5:1 36.0x24.0mm	65.2x36.7cm 14.5mm 15.0x8.4cm 60mm *1	98.8x55.6cm 30mm 9.6x5.4cm 300mm *1	
	1.9:1 26.2x13.8mm	66.9x37.5cm 14.5mm 15.4x8.6cm 60mm *2	101.3x56.8cm 30mm 9.9x5.6cm 300mm *2	
Front Diameter	136.0mm		136.0mm	
Filter Diameter	—		—	
Approx. Size (WxHxL)	5.35x6.42x12.83 in. (136.0x163.1x326.0mm)	5.35x6.42x12.52 in. (136.0x163.1x318.0mm)	5.67x6.58x13.78 in. (144.0x167.1x350.1mm)	5.67x6.58x13.47 in. (144.0x167.1x342.1mm)
Approx. Weight	9.9 lbs (4.5kg)		12.79 lbs (5.8kg)	

※ Lenses compatible with Super 35mm Sensor cameras.  
\*1: Aspect ratio 1.78:1, Screen size 24.0 x 13.5 mm. \*2: Aspect ratio 1.78:1, Screen size 24.6 x 13.8 mm

## COMPACT ZOOM Lens Series

Appearance				
Model Name	CN-E15.5-47mm T2.8 L S	CN-E15.5-47mm T2.8 L SP	CN-E30-105mm T2.8 L S	CN-E30-105mm T2.8 L SP
Mount	EF Mount	PL Mount	EF Mount	PL Mount
Zoom Ratio	3x		3.5x	
Focal Length	15.5 - 47mm		30 - 105mm	
Max. Relative Aperture (T-Number)	T2.8 15.5 - 47mm		T2.8 30 - 105mm	
Iris Blades	11		11	
Angle of View	1.5:1 36.0x24.0mm	75.5°x47.1° 15.5mm 28.6°x16.3° 47mm *1	43.6°x25.4° 30mm 13.0°x7.4° 105mm *1	
	1.9:1 26.2x13.8mm	80.4°x48.0° 15.5mm 31.1°x16.7° 47mm *2	47.2°x25.9° 30mm 14.2°x7.5° 105mm *2	
M.O.D. (Minimum Object Distance)	0.50m/1'8"		0.60m/2'	
Object Dimensions at M.O.D.	1.5:1 36.0x24.0mm	43.6x24.5cm 15.5mm 14.1x7.9cm 47mm *1	32.3x18.2cm 30mm 9.3x5.2cm 105mm *1	
	1.9:1 26.2x13.8mm	47.6x25.1cm 15.5mm 15.4x8.1cm 47mm *2	35.3x18.6cm 30mm 10.2x5.4cm 105mm *2	
Front Diameter	114mm		114mm	
Filter Diameter	UV/105 P1		UV/105 P1	
Approx. Size (WxHxL)	4.49x4.92x8.74 in. (114.0x125.0x222.0mm)	4.49x4.92x8.43 in. (114.0x125.0x214.0mm)	4.49x4.92x8.58 in. (114.0x125.0x218.0mm)	4.49x4.92x8.26 in. (114.0x125.0x210.0mm)
Approx. Weight	4.85 lbs (2.2kg)		4.85 lbs (2.2kg)	

※ Lenses compatible with Super 35mm Sensor cameras.  
\*1: Aspect ratio 1.78:1, Screen size 24.0 x 13.5 mm. \*2: Aspect ratio 1.78:1, Screen size 24.6 x 13.8 mm

## SUMIRE PRIME Lens Series

## Sumire Prime

						
CN-E14mm T3.1 FP X	CN-E20mm T1.5 FP X	CN-E24mm T1.5 FP X	CN-E35mm T1.5 FP X	CN-E50mm T1.3 FP X	CN-E85mm T1.3 FP X	CN-E135mm T2.2 FP X
PL Mount	PL Mount	PL Mount	PL Mount	PL Mount	PL Mount	PL Mount
—	—	—	—	—	—	—
14mm	20mm	24mm	35mm	50mm	85mm	135mm
T3.1	T1.5	T1.5	T1.5	T1.3	T1.3	T2.2
11	11	11	11	11	11	11
104.3°x81.2° *1	84.0°x61.9° *1	73.7°x53.1° *1	54.4°x37.8° *1	39.6°x27.0° *1	23.9°x16.1° *1	15.2°x10.2° *1
82.6°x52.5° *2	63.2°x38.1° *2	54.3°x32.1° *2	38.7°x22.3° *2	27.6°x15.7° *2	16.5°x9.3° *2	10.4°x5.9° *2
0.20m / 8"	0.30m / 12"	0.30m / 12"	0.30m / 12"	0.45m / 18"	0.95m / 3'2"	1.0m / 3'3"
25.2x16.8cm *1	33.8x22.5cm *1	28.8x19.2cm *1	20.2x13.5cm *1	25.0x16.7cm *1	34.4x22.9cm *1	21.1x14.1cm *1
17.2x9.7cm *2	23.1x13.0cm *2	19.7x11.0cm *2	13.8x7.7cm *2	17.1x9.6cm *2	23.5x13.2cm *2	14.4x8.1cm *2
114mm	114mm	114mm	114mm	114mm	114mm	114mm
—	UV/105 P1 filter	UV/105 P1 filter	UV/105 P1 filter	UV/105 P1 filter	UV/105 P1 filter	UV/105 P1 filter
4.66x4.66x3.39 in. (118.4x118.4x86.0mm)	4.66x4.66x3.68 in. (118.4x118.4x93.5mm)	4.66x4.66x3.68 in. (118.4x118.4x93.5mm)	4.66x4.66x3.68 in. (118.4x118.4x93.5mm)	4.66x4.66x3.68 in. (118.4x118.4x93.5mm)	4.66x4.66x3.68 in. (118.4x118.4x93.5mm)	4.66x4.66x4.24 in. (118.4x118.4x107.6mm)
2.65 lbs (1.2kg)	2.65 lbs (1.2kg)	2.65 lbs (1.2kg)	2.43 lbs (1.1kg)	2.43 lbs (1.1kg)	2.87 lbs (1.3kg)	3.09 lbs (1.4kg)

※ Lenses compatible with Full-frame and Super 35mm Sensor cameras.  
\*1: Aspect ratio 1.5:1, Screen size 36.0 x 24.0 mm. \*2: Aspect ratio 1.78:1, Screen size 24.6 x 13.8 mm.

## PRIME Lens Series

						
CN-E14mm T3.1 L F	CN-E20mm T1.5 L F	CN-E24mm T1.5 L F	CN-E35mm T1.5 L F	CN-E50mm T1.3 L F	CN-E85mm T1.3 L F	CN-E135mm T2.2 L F
EF Mount	EF Mount	EF Mount	EF Mount	EF Mount	EF Mount	EF Mount
—	—	—	—	—	—	—
14mm	20mm	24mm	35mm	50mm	85mm	135mm
T3.1	T1.5	T1.5	T1.5	T1.3	T1.3	T2.2
11	11	11	11	11	11	11
104.3°x81.2° *1	84.0°x61.9° *1	73.7°x53.1° *1	54.4°x37.8° *1	39.6°x27.0° *1	23.9°x16.1° *1	15.2°x10.2° *1
82.6°x52.5° *2	63.2°x38.1° *2	54.3°x32.1° *2	38.7°x22.3° *2	27.6°x15.7° *2	16.5°x9.3° *2	10.4°x5.9° *2
0.20m / 8"	0.30m / 12"	0.30m / 12"	0.30m / 12"	0.45m / 18"	0.95m / 3'2"	1.0m / 3'3"
24.8x16.5cm *1	33.8x22.5cm *1	28.8x19.2cm *1	20.1x13.4cm *1	24.9x16.6cm *1	34.3x22.9cm *1	21.1x14.1cm *1
16.9x9.5cm *2	23.1x13.0cm *2	19.7x11.0cm *2	13.7x7.7cm *2	17.0x9.5cm *2	23.4x13.1cm *2	14.4x8.1cm *2
114mm	114mm	114mm	114mm	114mm	114mm	114mm
—	UV/105 P1 filter	UV/105 P1 filter	UV/105 P1 filter	UV/105 P1 filter	UV/105 P1 filter	UV/105 P1 filter
4.66x4.66x3.70 in. (118.4x118.4x94.0mm)	4.66x4.66x4.0 in. (118.4x118.4x101.5mm)	4.66x4.66x4.0 in. (118.4x118.4x101.5mm)	4.66x4.66x4.0 in. (118.4x118.4x101.5mm)	4.66x4.66x4.0 in. (118.4x118.4x101.5mm)	4.66x4.66x4.0 in. (118.4x118.4x101.5mm)	4.66x4.66x4.55 in. (118.4x118.4x115.6mm)
2.65 lbs (1.2kg)	2.65 lbs (1.2kg)	2.65 lbs (1.2kg)	2.43 lbs (1.1kg)	2.43 lbs (1.1kg)	2.87 lbs (1.3kg)	3.09 lbs (1.4kg)

※ Lenses compatible with Full-frame and Super 35mm Sensor cameras.  
\*1: Aspect ratio 1.5:1, Screen size 36.0 x 24.0 mm. \*2: Aspect ratio 1.78:1, Screen size 24.6 x 13.8 mm.

## CINE-SERVO Lens Series

		CN7×17 KAS S/E1 CN7×17 KAS S/P1		CN20×50 IAS H/E1 CN20×50 IAS H/P1	
Appearance					
Model Name		CN7×17 KAS S/E1	CN7×17 KAS S/P1	CN20×50 IAS H/E1	CN20×50 IAS H/P1
Mount		EF Mount	PL Mount	EF Mount	PL Mount
Zoom Ratio		7x		20x	
Focal Length		17 ~ 120mm		50 ~ 1000mm	75 ~ 1500mm <sup>3</sup>
Max. Relative Aperture (T-Number)		T2.95 17 ~ 91mm / T3.9 120mm		T5.0 (50-560mm) / T8.9 (1000mm)	T7.5 (75-840mm) / T13.35 (1500mm) <sup>3</sup>
Iris Blades		11			
Angle of View	1.5:1 36.0x24.0mm	71.8°×44.2° 17mm 11.7°×6.6° 120mm <sup>1</sup>		27.6°×15.7° 50mm 1.4°×0.8° 1000mm <sup>1</sup>	
	1.9:1 26.2x13.8mm	75.2°×44.2° 17mm 12.5°×6.6° 120mm <sup>2</sup>		29.4°×15.7° 50mm 1.5°×0.8° 1000mm <sup>2</sup>	
M.O.D. (Minimum Object Distance)		0.85m/2.8'			
Object Dimensions at M.O.D	1.5:1 36.0x24.0mm	86.3×48.4cm 17mm 12.0×6.7cm 120mm <sup>1</sup>		139.3×78.1cm 50mm 7.3×4.1cm 1000mm <sup>1</sup>	
	1.9:1 26.2x13.8mm	92.1×48.5cm 17mm 12.7×6.7cm 120mm <sup>2</sup>		148.3×78.1cm 50mm 7.8×4.1cm 1000mm <sup>2</sup>	
Front Diameter		114mm		136.0mm	
Filter Diameter		CL/112mm			
Approx. Size (WxHxL)		6.86x4.92x10.35 in. (174.2x125.0x262.9mm)	6.86x4.92x10.04 in. (174.2x125.0x254.9mm)	6.89x6.72x16.27 in. (175.0x170.6x413.2mm)	6.89x6.72x15.95 in. (175.0x170.6x405.2mm)
Approx. Weight		6.39 lbs (2.9kg)		14.55 lbs (6.6kg)	

※ Lenses compatible with Super 35mm Sensor cameras.

\*1: Aspect ratio 1.78:1, Screen size 24.6 x 13.8 mm. \*2: Aspect ratio 1.9:1, Screen size 26.2 x 13.8 mm. \*3: When using the built-in extender.

## CINE-SERVO Lens / COMPACT-SERVO Lens Accessories

Category	Model	Notes	CN7×17 KAS S/E1 CN7×17 KAS S/P1	CN20×50 IAS H/E1 CN20×50 IAS H/P1	CN-E18-80mm CN-E70-200mm
Focus Demand	FPD-400D	There is no need for an optional cable.	●	●	● ※1 ※2
	FDJ-D02	BDC - 11 cable (20p - 18p) is required.	●	●	—
	FDJ-P01	BDC - 21 cable (20p - 12p) is required.	●	●	—
	FDJ-S01	BDC - 21 cable (20p - 12p) is required.	●	●	—
Zoom Demand	ZSD-300D	There is no need for an optional cable.	●	●	● ※1 ※2
	ZSD-15MII	CC-2008 Cable (20p - 8p) is required.	●	●	● ※1 ※2
	ZDJ-D02	BDC-11 cable (20p-18p) is required.	●	●	—
	ZDJ-P01	BDC - 21 cable (20p - 12p) is required.	●	●	—
Iris Demand	ZDJ-S01	BDC - 21 cable (20p - 12p) is required.	●	●	—
	FDJ-D02	BDC - 11 cable (20p - 18p) is required.	●	●	—
Demand Cable	FDJ-P01	BDC - 21 cable (20p - 12p) is required.	●	●	—
	BDC-21	20p-12p cable. Required for FDJ-P01 / ZDJ-P01.	●	●	—
Clear Filter	BDC-11	20p - 18p cable. Required for FDJ-D02 / ZDJ-D02.	●	●	—
	CC-2008	20p - 8p cable. Required for ZSD-15II	●	●	●
	77MM Protect Filter	77MM Protect filter	—	—	●
Polarization Filter	CL/127MM-H	CL/127MM-H	●	●	—
	CL/112MM	CL/112MM	●	—	—
Close-Up Lens	PL-C B 77MM	PL-C B 77MM	—	—	●
Lens Holder	CL-UP500D 77MM	CL-UP500D 77MM	—	—	●
Power Cable	LH-CN7/02	Used when you want to improve the degree of freedom of Focus ring rotation operation. (The lens support attached to the main unit is supported on the front side.)	●	—	—
	C-ZLPR*	For power supply from external battery. 12-pin - Dtap cable.	●	●	—

\* Made by IDX.

※1: Multiple controllers can not be connected at the same time (because there is only one connector). When installing the ZSG - C10 and enabling the operation on the grip side, you can not connect the external controller.

※2: For use in studio configurations, an optional Zacuto Z-CNYC. Y-cable can be used to connect zoom and focus controllers to each lens. This configuration allows for simultaneous zoom and focus operation with COMPACT-SERVO lenses.

※3: Some vignetting occurs when used in combination with RED's Epic system.

## COMPACT-SERVO Lens Series


		CN-E18-80mm T4.4 L IS KAS S	CN-E70-200mm T4.4 L IS KAS S
Appearance			
Model Name		CN-E18-80mm T4.4 L IS KAS S	CN-E70-200mm T4.4 L IS KAS S
Mount		EF Mount	EF Mount
Zoom Ratio		4.4x	2.8x
Focal Length		18 ~ 80mm	70 ~ 200mm
Max. Relative Aperture (T-Number)		T4.4 18 ~ 80mm	T4.4 70 ~ 200mm
Iris Blades		9	
Angle of View	1.5:1 36.0x24.0mm	68.7°×41.9° 18mm 17.5°×9.9° 80mm <sup>1</sup>	19.9°×11.3° 70mm 7.0°×4.0° 200mm <sup>1</sup>
	1.9:1 26.2x13.8mm	72.1°×41.9° 18mm 18.6°×9.9° 80mm <sup>2</sup>	21.2°×11.3° 70mm 7.5°×4.0° 200mm <sup>2</sup>
M.O.D. (Minimum Object Distance)		0.5m/1.7'	1.2m/4.0'
Object Dimensions at M.O.D	1.5:1 36.0x24.0mm	43.4×24.3cm 18mm 9.5×5.3cm 80mm <sup>1</sup>	31.3×17.5cm 70mm 11.5×6.4cm 200mm <sup>1</sup>
	1.9:1 26.2x13.8mm	46.2×24.3cm 18mm 10.1×5.3cm 80mm <sup>2</sup>	33.3×17.5cm 70mm 12.2×6.4cm 200mm <sup>2</sup>
Front Diameter		84mm	
Filter Diameter		77MM Protect Filter, PL-C B 77MM	
Approx. Size (WxHxL)		3.67x4.22x7.18 in. (93.4x107.2x182.3mm)	3.67x4.22x7.18 in. (93.4x107.2x182.3mm)
Approx. Weight		2.65 lbs (1.2kg) (including servo unit)	

※ Lenses compatible with Super 35mm Sensor cameras.

\*1: Aspect ratio 1.78:1, Screen size 24.6 x 13.8 mm.

\*2: Aspect ratio 1.9:1, Screen size 26.2 x 13.8 mm.

### COMPACT-SERVO Lens Accessories



**ZSG-C10**

- Rocker seesaw
- Start/Stop button<sup>1</sup>
- ONE-SHOT AF button<sup>1</sup>
- 20 PIN cable<sup>2</sup>
- Flexible mounting angle.


※ Sold separately.

※ Support strut, bracket, hex wrench included.

\*1: For compatible cameras, please visit our website: [cinemaeos.usa.canon.com](http://cinemaeos.usa.canon.com)


\*2: For connection to the lens body.

### Focus Controller



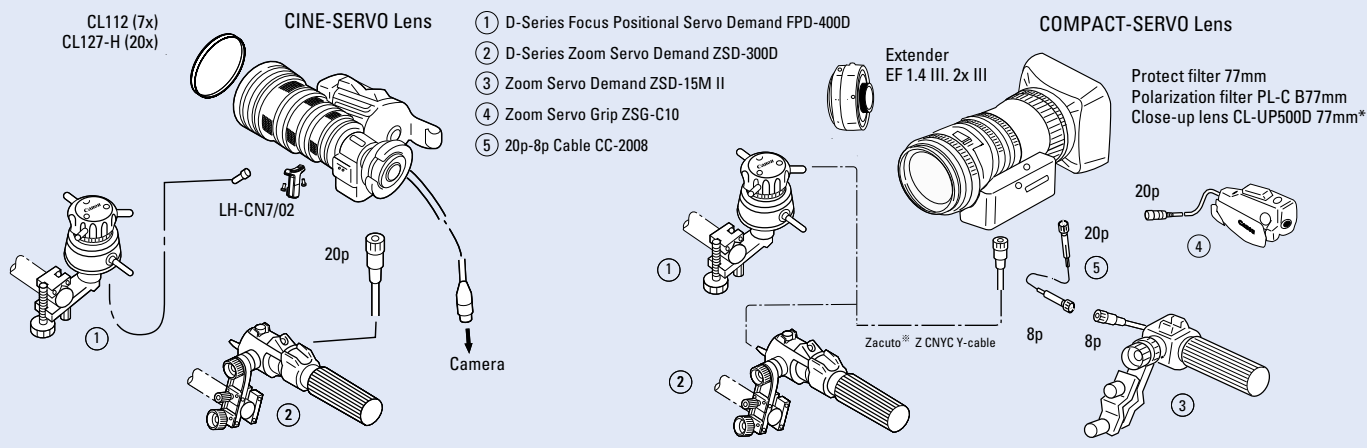
FPD-400D      FDJ-S01

### Zoom Controller



ZSD-15M II      ZSD-300D      ZDJ-S01

### Lens System Basic Configuration



**CINE-SERVO Lens**

- 1 D-Series Focus Positional Servo Demand FPD-400D
- 2 D-Series Zoom Servo Demand ZSD-300D
- 3 Zoom Servo Demand ZSD-15M II
- 4 Zoom Servo Grip ZSG-C10
- 5 20p-8p Cable CC-2008

**COMPACT-SERVO Lens**

Extender EF 1.4 III. 2x III

Protect filter 77mm  
Polarization filter PL-C B77mm  
Close-up lens CL-UP500D 77mm\*

\* Some vignetting occurs when used in combination with RED's Epic system.

※ The optional Zacuto® Z-CNYC-Y-cable allows for simultaneous use of zoom and focus controllers with both Compact-Servo lenses.

