

#	Unit	Description
②	FFM-100	Flex Focus Module
⑥	FFM-200	Flex Dual Module
⑧	FC-40	Flex Cable
⑩	FFC-200	Flex Focus Controller
⑪	FZC-100	Flex Zoom Controller
⑫	FPM-420	Focus Positional Servo Module
⑬	FPM-420D	Focus Positional Servo Module
⑯	FPD-400 ³⁴	Focus Positional Demand
⑰	FPD-400D	Focus Positional Demand
⑲	ZSD-300M	Zoom Servo Demand
⑳	ZSD-300D	Zoom Servo Demand
㉑	ZSG-200M	Zoom Servo Grip
㉒	CR-10	Clamper
㉔	ZGA-500	Grip Adapter
㉖	EC-80	Zoom Extension Cable (8P)

※1 CC-2012 conversion cable is necessary to connect between IRSE Digital Drive Lens and FPM-420.
 ※2 CC-2006 conversion cable is necessary to connect between IASE Digital Drive Lens and FPD-400.
 ※3 For the optical accessories, the 127mm diameter P0.75 filters are applicable. The filters are to be attached to the threaded hood unit. (UV/ Clear/ Cross/ Snow Cross/ Sunny Cross/ Polarized Light/ Softon/ ND8)
 ※4 FPD-400 is not available from Canon stock.

Technical drawings of the Canon EOS R5 camera body, showing front and top views with dimensions and labels.

Front View Dimensions and Labels:

- Overall width: 146.0 mm
- Overall height: 146.0 mm
- Distance from front edge to macro button: 40.7 mm
- Distance from front edge to image plane: 268.3 mm
- Distance from macro button to image plane: 48±0.03 mm (in air)
- Labels: HOOD, CONNECTOR FOR REMOTE ZOOM CONTROL(8PIN), CONNECTOR FOR ZOOM REMOTE & FOCUS REMOTE & VIRTUAL UNIT(20PIN), CONNECTOR FOR ZOOM REMOTE & FOCUS REMOTE UNIT(20PIN), ZOOM LEVER, ZOOM OPERATION CHANGE-OVER KNOB, IMAGE PLANE, MACRO BUTTON, EXTENDER LEVER, Canon, HDX5

Top View Dimensions and Labels:

- Overall width: 176.2 mm
- Overall height: 125.6 mm
- Distance from left edge to VTR switch: 40.6 mm
- Distance from left edge to AUX1 switch: 115 mm
- Distance from left edge to AUX2 switch: 89.3 mm
- Distance from left edge to VTR switch: 40.6 mm
- Distance from left edge to AUX1 switch: 89.3 mm
- Distance from left edge to AUX2 switch: 125.6 mm
- Labels: ZOOM SPEED VOLUME, F.B. ADJUSTING LOCK SCREW, INDEX MARK, VTR SWITCH, INFORMATION DISPLAY On/Off SWITCH, INFORMATION DISPLAY, DIGITAL FUNCTION SELECTOR, AUX1 SWITCH, AUX2 SWITCH, VTR, AUX1

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HJ18ex28B

HDXS

OPEN NEW LOCATION SHOOTING CREATIVITIES WITH A PORTABLE ULTRA-TELEPHOTO HD LENS



Continuing global expansion in the volume and variety of HD productions places unceasing demands for extended flexibility and creativity in image creation. The need for dramatically increased telephoto capabilities in HD lenses to meet the creative needs of natural history production, HD newsgathering, stadium coverage, surveillance, houses of worship while also facilitating greater portability and mobility on location led to the design of the HJ18ex28B lens.

This innovative ultra-telephoto lens provides a 500mm focal range (1000mm using the built-in 2x range extender) in a compact package that weighs only 2.48 kg(IRSE A type). Despite its modest size, the overall performance of the HJ18ex28B is remarkably high – providing a maximum aperture capability of F2.5, very good picture sharpness, and tight control over chromatic aberrations.

Even the digital drive-unit is newly developed to provide streamlined ergonomics and ease of operation that further empowers camera operator shooting flexibility. (New drive is loaded with the lens that has ‘A’ at the end of its model name such as ‘IRSE A’, ‘IASE A’.)

MAIN FEATURES

Portable Ultra-Tele

Achieve a 500mm telephoto image capture with a handheld HD lens and camera. The 2x extender will take this to 1000mm opening up dramatic possibilities in wildlife shooting, special news events, sports and many other applications.



Compact Body Needless of Any Support Items

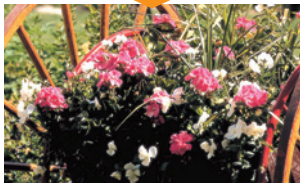
A Compact and Lightweight Optical Powerhouse

The goal of producing a lightweight handheld ultra-telephoto HD zoom lens has been realized in the HJ18ex28B. Measuring only 268.3mm long and weighing 2.48 kg(IRSE A type), this lens opens up entire new creative imaging capabilities for mobile location shooting.

Ultra long focal length



Zoom



f=1000mm at the narrowest angle with 2x extender

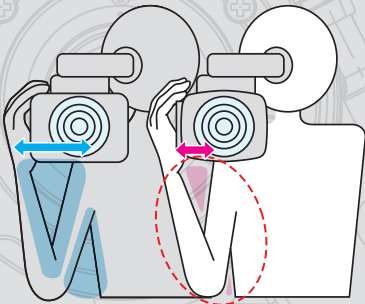
High Optical Performance

The adoption of new optical materials and contemporary optical design technologies have facilitated the production of a groundbreaking portable lens that significantly adds to the creative arsenal available to the HD production communities. The novel 3-group inner focus system design in particular was central to achieving the extra telephoto range while controlling multiple optical aberrations. High sharpness and contrast is maintained over this impressive focal range, while achieving a lightweight compact physical dimensions.

Improved Operability & Reduced Operator Fatigue

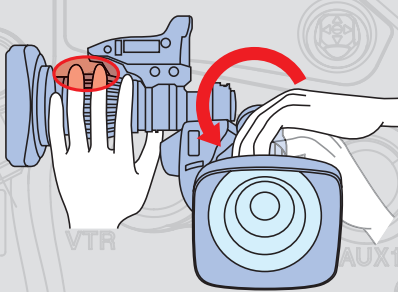
Coupled with innovations in optical performance, is a totally new design of the digital drive unit. Refined by long-term market research and worldwide experience, Canon mobilized the latest in 3D CAD-CAM design to significantly improve the human tactile interface to the control of zoom, iris, and focus.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

Reduced Physical Stress



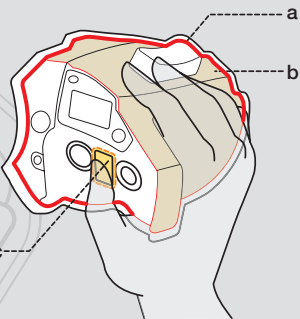
By reducing the width of the drive unit, the palm of the camera operator's hand is positioned closer to the optical axis, thus reducing the degree of arm bend which in turn lessens physical stress during prolonged shooting.

Improved Ease of Operation



The spacing between the focus ring and drive unit has been changed to avoid accidental interference with the drive unit while manipulating the focus control.

Ergonomic Design



The size and curvature size have been optimized to more comfortably fit in the palm of the operator's hand (a). Newly developed coatings improve the tactile interface between the user and the drive unit (b) together with the new Rubber Grip Support (c).

Enhanced Digital Drive Unit

Information Display

Zoom Speed Volume in New Location

New Rubber Grip Support



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

- Precision control of all lens operations
- Precise digital repeatability of zoom, focus and iris control that support innovative image creation
- Simple and direct digital integration into virtual studio systems
- Precision zoom control over a total speed range of 0.5 sec. to more than 5 min.

Moreover, Canon's unique Information Display provides easy, precise customization of the enhanced digital functions.

Enhanced Digital Functions

Shuttle Shot

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

Frame Preset

An angle of view can be preset in either of two memories and the lens will zoom at the highest speed or in a preset zoom speed to the preset position by pushing a simple button.

Speed Preset

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

Portable Ultra Telephoto Lens (No lens supporter required)



Newly Designed Ergonomic Drive Unit

2.0x Extender

Ultra Long Focal Length of 28-500mm (56-1000mm with 2x extender)

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

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



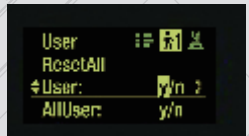
Starting Point Preset Position Starting Point



Starting Point Frame 1 Frame 2



Zooming in same speed



Information Display

SPECIFICATIONS

HJ18ex28B	16:9		NORMAL 4:3		SWITCHABLE 4:3	
Built-in extender	1.0×	2.0×	1.0×	2.0×	1.2×	2.4×
Zoom Ratio	18×					
Range of Focal Length	28~500mm	56~1000mm	28~500mm	56~1000mm	28~500mm	56~1000mm
Maximum Relative Aperture	1:2.8 at 28~286mm 1:4.9 at 500mm	1:5.6 at 56~572mm 1:9.8 at 1000mm	1:2.8 at 28~286mm 1:4.9 at 500mm	1:5.6 at 56~572mm 1:9.8 at 1000mm	1:2.8 at 28~286mm 1:4.9 at 500mm	1:5.6 at 56~572mm 1:9.8 at 1000mm
Angular Field of View	19.5°×11.0° at 28mm 1.10°×0.60° at 500mm	9.8°×5.5° at 56mm 0.60°×0.30° at 1000mm	17.9°×13.4° at 28mm 1.00°×0.80° at 500mm	9.0°×6.7° at 56mm 0.50°×0.40° at 1000mm	14.7°×11.0° at 28mm 0.80°×0.60° at 500mm	7.4°×5.5° at 56mm 0.40°×0.30° at 1000mm
Minimum Object Distance (M.O.D)	2.2m (10mm with Macro)					
Object Dimensions at M.O.D	71.1×40.0cm at 28mm 4.10×2.30cm at 500mm	35.6×20.0cm at 56mm 2.10×1.20cm at 1000mm	65.4×49.1cm at 28mm 3.80×2.90cm at 500mm	32.7×24.6cm at 56mm 1.90×1.50cm at 1000mm	53.5×40.1cm at 28mm 3.10×2.30cm at 500mm	26.8×20.1cm at 56mm 1.60×1.20cm at 1000mm
Approx. Size	W×H×L=176.2×123.6×268.3mm					
Approx. Mass (IRSE A / IASE A)	2.48Kg (5.47 lbs) / 2.56Kg (5.65 lbs)					

HJ18ex28B IRSE A Zoom: Servo / Manual Focus: Manual
HJ18ex28B IASE A Zoom: Servo / Manual Focus: Servo / Manual