

Canon

BCTV Zoom Lens

广播电视变焦镜头

UHD XS LENSES

CJ12ex4.3B

CJ15ex4.3B

CJ20ex7.8B

CJ25ex7.6B

UHD GC LENSES

CJ14ex4.3B

CJ18ex7.6B

CJ18ex28B

CJ24ex7.5B

HD XS LENSES

HJ14ex4.3B

HJ17ex6.2B

HJ18ex7.6B

HJ18ex28B

HJ21ex7.5B

HJ24ex7.5B

HD GC LENSES

KJ10ex4.5B

KJ17ex7.7B

KJ17ex7.7B II

KJ22ex7.6B

KJ22ex7.6B II

取扱説明書 (レンズ編)

OPERATION MANUAL (LENS)

使用说明书 (镜头汇编)

ご使用の前に必ずこの取扱説明書をお読みください。

なお、取扱説明書は必要に応じてご覧になれるよう大切に保管してください。

Read this operation manual before using the product.

Keep the manual in place for future reference.

在使用本产品之前，请务必先仔细阅读本使用说明书。请务必妥善保管好本书，以便日后能随时查阅（保留备用）。请在充分理解内容的基础上，正确使用。

JP/EN/CN/RU/KZ

ENGLISH VERSION

FCC REGULATIONS

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you could be required to stop operation of the equipment.

Canon U.S.A., Inc.
One Canon Park, Melville, NY 11747, USA
Tel No. 1-800-OK-CANON (1-800-652-2666)

Canadian Radio Interference Regulations

CAN ICES-3(B)/NMB-3(B)



We, Canon Inc., in Japan and Canon Europa N.V. in the Netherlands, confirm that the BCTV zoom lens is conformity with the essential requirements of EC Directive(s) by applying the following standards:

EN55032 and EN55103-2

Note:

- a) Applicable Electromagnetic Environments:
E1 (residential), E2 (commercial and light industrial), E3 (urban outdoors) and E4 (controlled EMC environment, ex. TV studio).
- b) Use of shielded cable is required to comply with limits specified by above standards.

Canon Europa N.V.
Bovenkerkerweg 59, 1185 XB Amstelveen, The Netherlands

Dieses Produkt ist zum Gebrauch im Wohnbereich, Geschäfts- und Gewerbebereich sowie in Kleinbetrieben vorgesehen.

Only for European Union and EEA (Norway, Iceland, and Liechtenstein)



This symbol indicates that this product is not to be disposed of with your household waste, according to the WEEE Directive (2012/19/EU) and national legislation. This product should be handed over to a designated collection point, e.g., on an authorized one-for-one basis when you buy a new similar product or to an authorized collection site for recycling waste electrical and electronic equipment (EEE). Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, waste authority, approved WEEE scheme or your household waste disposal service.

For more information regarding return and recycling of WEEE products, please visit
www.canon-europe.com/weee

— FOREWORD —

Thank you for purchasing the Canon BCTV zoom lens.

This product comes with the following documents for the models mentioned below:

- ① Operation Manual "Lens" (This Booklet)
- ② Operation Manual "Information Display" (CD-ROM)

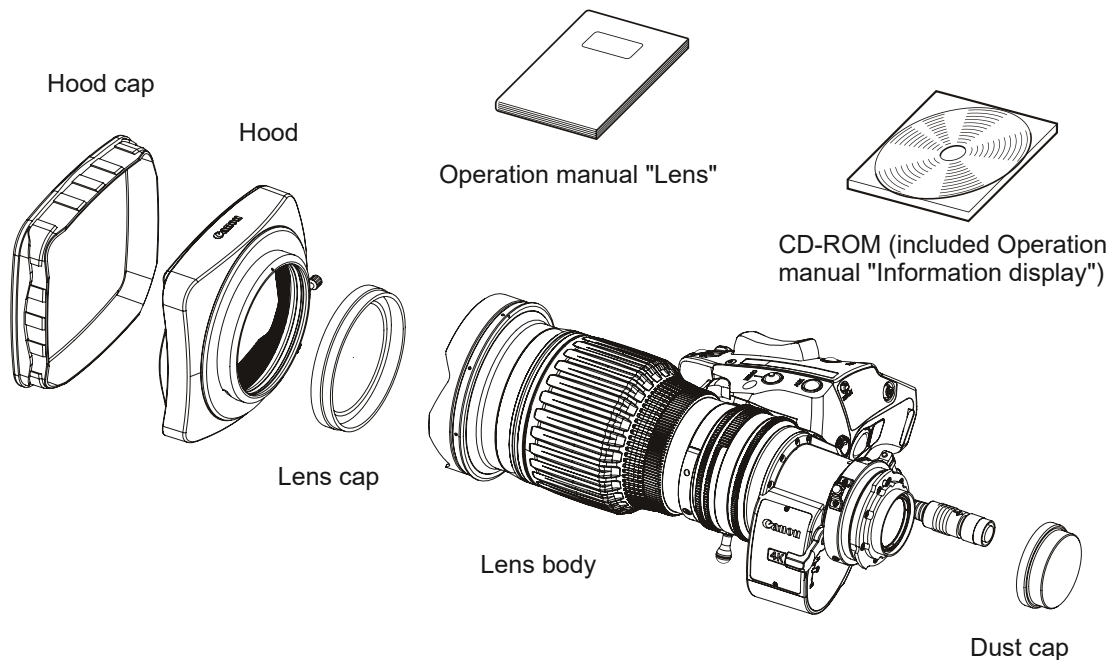
		IASE S	IRSE S	IASE-C S	IRSE-C S	IASE II S	IRSE II S	KASE S
UHDxs LENSES	CJ12ex4.3B	●	●	●	●			
	CJ15ex4.3B	●	●	●	●			
	CJ20ex7.8B	●		●				
	CJ25ex7.6B	●	●	●	●			
UHDGC LENSES	CJ14ex4.3B	●	●	●	●			
	CJ18ex7.6B	●	●	●	●			●
	CJ18ex28B	●		●				
	CJ24ex7.5B	●	●	●	●			
HDXS LENSES	HJ14ex4.3B	●	●	●	●			
	HJ17ex6.2B	●	●	●	●			
	HJ18ex7.6B	●	●	●	●			
	HJ18ex28B	●		●				
	HJ21ex7.5B	●						
	HJ24ex7.5B	●	●	●	●			
HDGC LENSES	KJ10ex4.5B	●	●					
	KJ17ex7.7B	●	●			●	●	
	KJ22ex7.6B	●	●			●	●	

The illustrations in this book show CJ12ex4.3B unless otherwise specified.

Actual forms may vary depending on models and specifications.

STANDARD PRODUCT LIST

Make sure all of the following items are included in the packing box. If you find any item missing, please contact your dealer or Canon Inc.



Accessories other than those mentioned above may be required depending on the specifications of your unit. For details, contact your dealer or Canon Inc.



GENERAL SAFETY INFORMATION

The safety warnings and cautions provided on the product or in this operation manual must be observed. Failure to observe these warnings and cautions may result in injury or accident. Read this operation manual carefully to familiarize yourself with its contents and ensure that you can operate the product properly. Also, store this manual in a safe place where it can easily be referenced whenever necessary.

This operation manual uses the following symbols and terms to identify hazards in order to prevent accidents.

 WARNING	This indicates a potentially hazardous situation which, if not heeded, may result in death or serious injury to you or others. Be sure to heed all warning notices to ensure safe operation at all times.
 CAUTION	This indicates a potentially hazardous situation which, if not heeded, may result in a minor injury to you or others, or damage to property.
NOTE	This indicates cautions and recommendations for operation. It contains information which, if not heeded, may result in this product failing to function properly. These notices also contain useful information for operation.

HANDLING THE PRODUCT



WARNING

1. Do not get this product wet or allow liquid inside. If water gets inside, stop using the product immediately. Continuing to use the product under this condition may cause a fire or electric shocks.
2. Do not stare at the sun or other bright objects through the lens. It may injure your eyes.
3. Be sure to hold the connector when disconnecting the cable. Pulling on the cable may sever or damage it and pose a risk of a fire or electric shocks from a short circuit.



CAUTION

1. Be careful not to drop the product when carrying it. Dropping the product may cause injury.
2. Ensure that all mountings are securely tightened. If a mounting becomes loose, parts may fall off and cause injury.
3. Inspect mountings regularly (about every six months to one year) to ensure they are securely tightened. If a mounting becomes loose, parts may fall off and cause injury.
4. When this product is used under a blazing sun, the inside of the unit may be heated to high temperature. When it is expected that the unit is exposed to elevated temperature, take measures against heat as appropriate on the customer's side.

NOTE

1. Striking or dropping the lens may cause the malfunction of the product.
2. This product is not waterproof. Take measures to avoid direct contact with rain, snow, or moisture. Otherwise it may cause the malfunction of the product.
3. In dusty environments, cover the lens mount when using, attaching or removing the lens. If dust enters inside, it may cause the malfunction of the product.
4. Take measures to avoid sudden changes in temperature where the lens is used, which may prevent operation temporarily if condensation forms in the lens.
5. Before use in particular environments, such as places where chemical products are used, contact your Canon sales representative or dealer.

DEALING WITH ABNORMALITIES



WARNING

Should any of the abnormalities described below occur, immediately dismount the lens from the camera and contact your Canon sales representative or dealer.

- Smoke, fumes, or unusual noises
- Entry of foreign objects (such as liquid or metal objects) inside the product

MAINTENANCE AND INSPECTION



WARNING

Be sure to disconnect the cable and remove the lens from the camera before cleaning outside of the lens. Do not use benzene, thinner, or other flammable substances to clean the product. Otherwise it may cause a fire or electric shocks.

NOTE

1. Clean off any dust on the lens surface using a lens blower or a soft lens brush. In case of getting fingerprints or stains on the lens, use a clean cotton cloth moistened with commercial lens cleaning fluid, or use lens cleaning paper. Gently wipe in a spiral pattern from the center of the lens. Be careful not to rub dust across the lens, which may scratch the lens surface
2. Routine inspection about once a year is recommended, depending on the conditions and environment of use. Request overhaul, if needed.

STORAGE



CAUTION

Always attach the lens cap, hood cap, dust cap or covers before storage. Storing the lens without the caps or covers attached poses a risk of fire if the lens concentrate light in direct sunlight.

NOTE

Immediately wipe off any moisture on the lens from misty or foggy environments, using a dry cloth. Seal the lens in a plastic bag with a desiccant (preferably new) to prevent moisture inside. Otherwise it may cause the mold or the malfunction of the product.

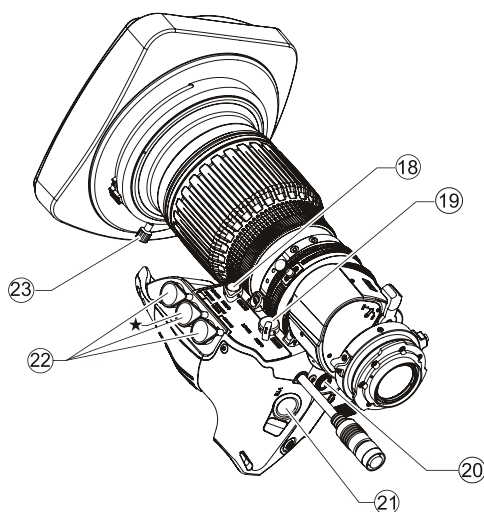
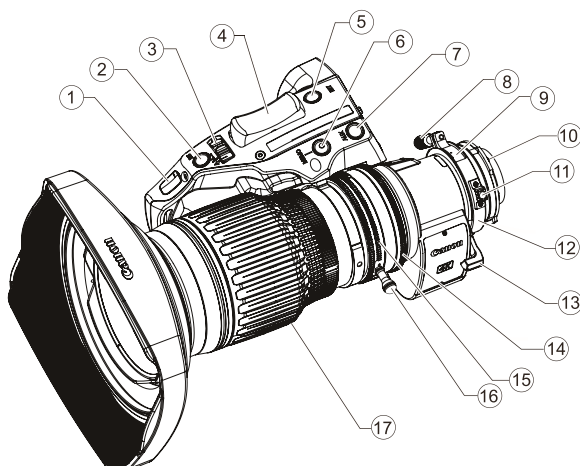
TO THE CUSTOMER

1. Canon shall bear no responsibility for damage resulting from improper operation of this product by the customer.
2. Canon shall make no guarantees about the product quality, functions, or operation manual and its marketability and suitability for the customer's purpose.
Moreover, Canon shall bear no responsibility for any damage, direct or incidental, that results from usage for the customer's purpose.
3. Canon shall make no guarantees about the results obtained using this product.
4. The product specifications, configuration, and appearance are subject to change without prior notice.
5. For further information on repairs, maintenance, or adjustments not mentioned in this operation manual, contact your Canon sales representative or dealer.
6. Note that Canon may be unable to undertake servicing or repair of a product if it is modified without consulting Canon or your Canon sales representative.

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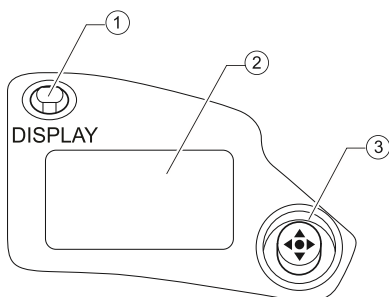
1 NOMENCLATURE		E6
2 HOW TO MOUNT	2-1. MOUNT THE LENS ON THE CAMERA 2-2. MOUNT THE HOOD ON THE LENS 2-3. TURN IT ON	E7
3 ADJUSTMENT	3-1. BACK FOCUS ADJUSTMENT OF THE LENS 3-2. IRIS GAIN ADJUSTMENT	E8
4 MODE SETTING	4-1. OPERATION MODES 4-2. SETTING ITEMS IN BASIC MODE 4-3. SETTING ITEMS IN FULL MODE 4-4. SETTING ITEMS IN ANALOG MODE	E9
5 OPERATION	5-1. ZOOM OPERATION 5-2. FOCUS OPERATION 5-3. EXTENDER OPERATION (Excluding KASE S type lens) 5-4. IRIS OPERATION 5-5. MACRO OPERATION 5-6. SWITCH OPERATIONS	E11
6 PRODUCT SPECIFICATIONS		E19
APPENDIXES	TECHNICAL INFORMATION INDEX	END

1 NOMENCLATURE



- ① Iris Gain Adjusting Trimmer
- ② Instant Auto-Iris Switch
- ③ Iris Operation Mode Change-over Switch
- ④ Zoom Rocker Seesaw
- ⑤ RET Switch (Video Return Switch)
- ⑥ Memo Switch (Memory Switch)
- ⑦ AUX Switch
- ⑧ Flange Back Lock Screw
- ⑨ Flange Back Adjusting Ring
- ⑩ Locating Pin
- ⑪ Macro Button
- ⑫ Macro Ring
- ⑬ Extender Lever
NOTE) Excluding KASE S type lens.
- ⑭ Iris Ring
- ⑮ Zoom Ring
- ⑯ Zoom Lever
- ⑰ Focus Ring
- ⑱ Focus Servo/Manual Change-over Knob
NOTE) IASE S, IASE-C S and KASE S type lenses only.
- ⑲ Zoom Servo/Manual Change-over Knob
- ⑳ Max. Zoom Speed Adjusting Volume
- ㉑ VTR Switch
- ㉒ Remote Connectors (20-pin)
NOTE) Virtual output port is Connector ★ only.
Use these connectors to connect the control accessory (equipped with a 20 pin connector) for zooming or focusing. Connector ★ is also used to connect to the interface of such as virtual system. It can output each positioning signal of zoom, focus, and iris.
- ㉓ Hood Lock Knob

Information Display (Digital Drive Unit)



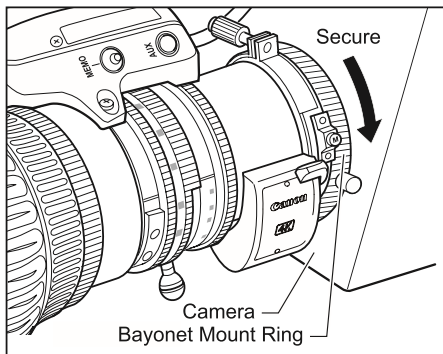
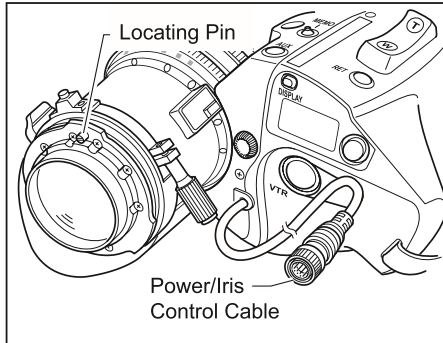
- ① Display Switch
Used to turn the display ON/OFF.
- ② Display
It turns off if left for 2 minutes without operation.
- ③ Control key
Used to move the cursor up/down/left/right. Press the center to confirm.

For the operation of the digital drive unit, refer to "Information Display Manual" in the supplied CD-ROM.

2 HOW TO MOUNT

2-1. MOUNT THE LENS ON THE CAMERA

Before mounting the lens on the camera, make sure that the camera's power is turned off.



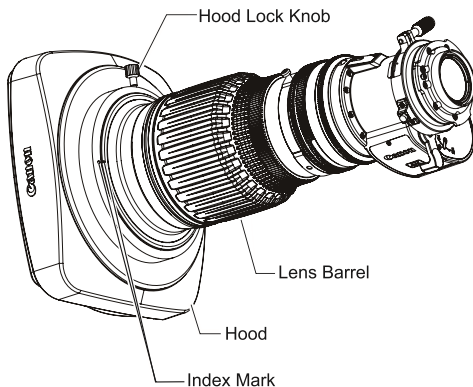
- 1** Remove the dust cap from the lens.
- 2** Align the lens locating pin to the groove on the camera mount to fit the lens to the camera mount.
- 3** Turn the bayonet mount ring on the camera to secure the lens.
- 4** Connect the power/iris control cable of the lens to the camera.

NOTE

1. Never hold the lens, drive unit and band portion to support the entire weight of the camera. Excessive force to the mount portion and drive unit of the lens may result in damage to the lens mechanism.
2. Rated voltage: 12 VDC
Normal operation range: 10 to 17 VDC
If a battery or adapter is used, the output voltage may be higher than the rated voltage depending on the manufacturers and therefore the above voltages must be observed strictly. If a voltage outside the normal operation range is used, the drive unit may be damaged. And the lens power input has the positive and negative polarities. Make sure to connect the power cable to the correct polarity when connecting the batteries or the adaptors. Connecting the cable to the incorrect polarity may cause the damage to the product.

2-2. MOUNT THE HOOD ON THE LENS

The lens cap is attached to the lens at the factory. Please remove the lens cap before mounting the hood.



- 1** Fit the hood on the front of the lens barrel.
- 2** Align the index marks on the hood and lens barrel.
- 3** Tighten the hood lock knob.

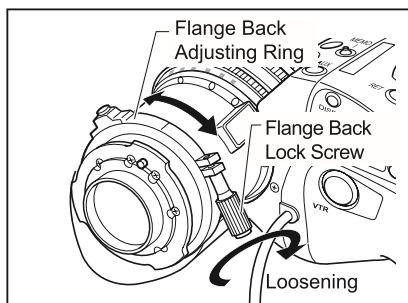
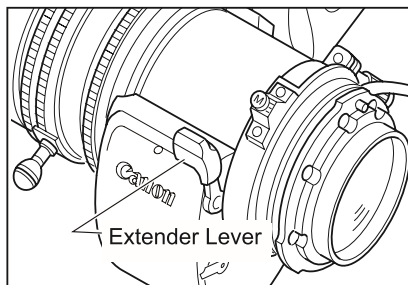
2-3. TURN IT ON

Turn on the camera, and the power of the lens will be supplied.

3 ADJUSTMENT

3-1. BACK FOCUS ADJUSTMENT

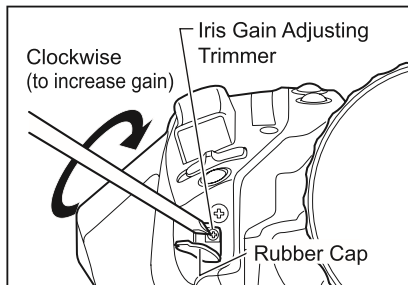
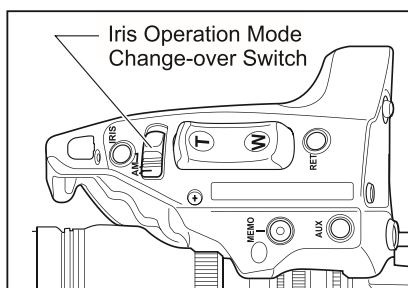
If the relationship between the image plane of the lens and the image plane of the television camera is incorrect, the object goes out of focus when the lens is zoomed. Follow the procedure below to adjust the back focus of the lens.



- 1 Select an object at an appropriate distance (CJ12ex/CJ15ex/CJ14ex/HJ14ex : approx. 1 to 3m, CJ20ex/CJ25ex/CJ18ex7.6B/CJ24ex/HJ17ex/HJ18ex7.6B/HJ21ex/HJ24ex/KJ10ex/KJ17ex/KJ17ex II/KJ22ex/KJ22ex II : approx. 2 to 5m, CJ18ex28B/HJ18ex28B : approx. 5 to 7m recommended). Use any object with sharp contrast to facilitate the adjustment work.
- 2 Set the extender lever to 1x. (Excluding KASE S type lens)
- 3 Set the iris fully open.
- 4 Set the lens to the telephoto angle by turning the zoom ring.
- 5 Bring the object into focus by turning the focus ring.
- 6 Set the lens to the widest angle by turning the zoom ring.
- 7 Loosen the flange back lock screw, and turn the flange back adjusting ring to bring the object into focus.
- 8 Repeat steps 4 to 7 a few times until the object is brought into focus both at the widest end and the telephoto end.
- 9 Tighten the flange back lock screw.

3-2. IRIS GAIN ADJUSTMENT

An iris gain adjusting trimmer is located on the front of the lens drive unit. The iris gain is set at middle of range at the factory. However, if you wish to change the iris gain, adjust the trimmer using a small screwdriver.



- 1 Set the iris operation mode change-over switch to the "A" (Auto) position.
- 2 Pull up the rubber cap on the iris gain adjusting trimmer.
- 3 Turn the iris gain adjusting trimmer, using a small screwdriver. As you look at the lens iris ring, set it to the position of maximum gain at which no iris hunting occurs.
- 4 Close the rubber cap after adjustment completes.

The adjustment and the setting can also be made on the information display. Refer to "Information Display Manual" in the supplied CD-ROM.

4 MODE SETTING

4-1. OPERATION MODES

There are three operation modes below. One of the operation modes can be selected on the display screen of the information display of this lens according to usage and preference.

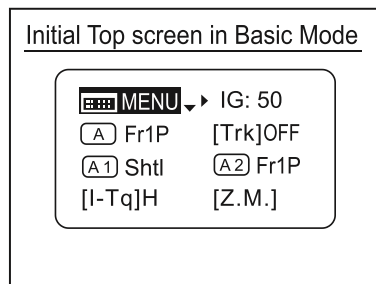
1. Basic mode : Items that can be set and viewed are limited in this mode, and are recommended to users who do not require sophisticated settings. This product is factory-set to basic mode.
2. Full mode : All items can be set and viewed in this mode.
3. Analog mode : This mode is selected when the digital functions are not used at all.
 - Switches labeled VTR, RET, IRIS A/M, and IRIS INST control the respective functions. The rocker switch serves as a regular zoom switch.
 - AUX and MEMO switches are disabled.
 - To set auto iris gain adjustment, use either display or trimmer operations.
 - Shuttle shot, framing preset, speed preset, and zoom tracking are not available.

This manual describes only the items that can be set on the Top screen in each mode.

For details on how to set them, refer to "Information Display Manual" in the supplied CD-ROM.

4-2. SETTING ITEMS IN BASIC MODE

The following eight items can be set on the top screen in Basic Mode.

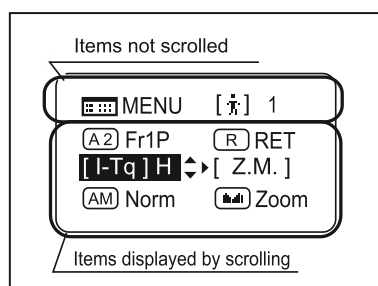
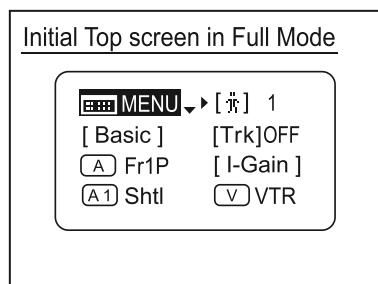


1. Go to MENU screen
2. Auto iris gain settings
3. AUX switch assignment
4. Zoom tracking ON/OFF
5. AUX1 switch assignment
6. AUX2 switch assignment
7. Iris torque settings
8. Zoom curve mode settings

For details on how to set them, refer to "Information Display Manual" in the supplied CD-ROM.

4-3. SETTING ITEMS IN FULL MODE

The following 14 items can be set on the top screen in Full Mode.



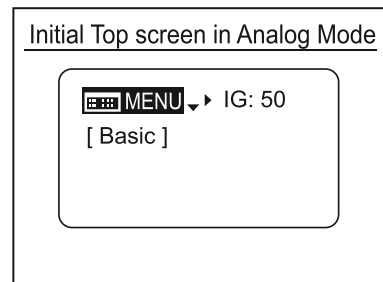
Items displayed by scrolling

1. Go to MENU screen
2. Switch users
3. Switch to Basic Mode
4. Zoom tracking ON/OFF
5. AUX switch assignment
6. Iris gain settings
7. AUX1 switch assignment
8. VTR switch assignment
9. AUX2 switch assignment
10. RET switch assignment
11. Iris torque settings
12. Zoom curve mode settings
13. Iris A/M switch setting
14. Seasaw switch assignment

For details on how to set each setting item, refer to "Information Display Manual" in the supplied CD-ROM.

4-4. SETTING ITEMS IN ANALOG MODE

The following three items can be set on the top screen in Analog Mode.



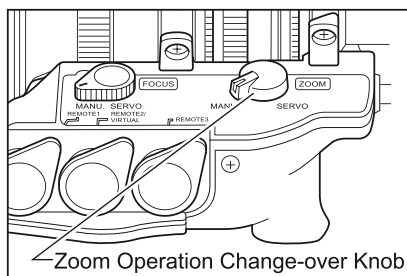
1. Go to MENU screen
2. Auto iris gain settings
3. Switch to Basic Mode

For details on how to set each setting item, refer to "Information Display Manual" in the supplied CD-ROM.

5 OPERATION

5-1. ZOOM OPERATION

5-1-1. Manual Zoom Operation

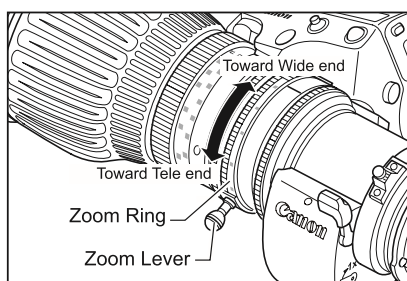


- 1 Set the zoom operation change-over knob at the bottom of the lens drive unit to MANU. position.
- 2 Turn the zoom ring (or zoom lever) to perform zoom operation.

NOTE

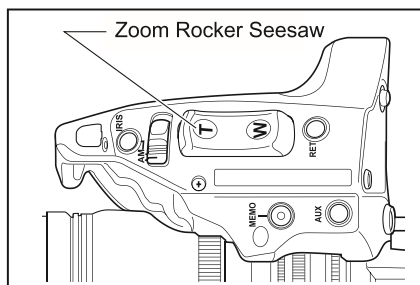
The zoom operation change-over knob must be set to the MANU. position before performing manual zoom operations.

The lens may be damaged if manual zoom operations are forcibly performed with the knob at the SERVO position.



5-1-2. Servo Zoom Operation

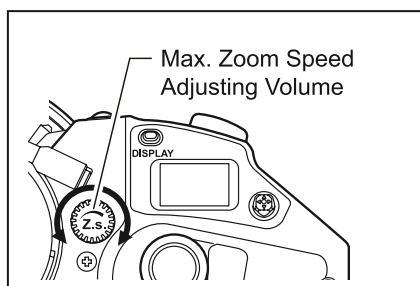
Zoom operation can be performed by driving the built-in motor in the lens.



- 1 Set the zoom operation change-over knob to SERVO position.
- 2 Press the zoom rocker seesaw to perform zoom operation. Zoom speed changes by the depth of the switch being pressed. The deeper the switch is pressed the faster the zoom speed.

5-1-3. Maximum Zoom Speed Adjustment

The maximum speed of zoom when the zoom rocker seesaw is pressed can be adjusted with the max. zoom speed adjusting volume.

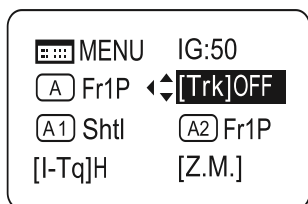


The adjustment and the setting can also be made on the information display. Refer to "Information Display Manual" in the supplied CD-ROM.

5-1-4. Zoom Track Function (only for servo zoom)

The zoom control range (zoom track) position can be set as desired to set the virtual zoom limit in the telephoto end and the widest angle end. To use the zoom track function, the function should be enabled in advance.

A : Setting ON or OFF on the information display (In case of basic mode)



- 1** Press the DISPLAY switch to turn on the display.
- 2** Select [Trk] using the control key, and then press the Set key. [Trk] and the previous setting now blink on the display.
- 3** Press the left or right key to select ON or OFF.
- 4** Press the Set key. This completes the setting.

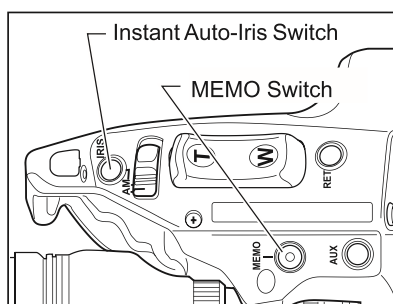
For details on how to set each setting item, refer to "Information Display Manual" in the supplied CD-ROM.

B: Setting ON or OFF by operating the switches

	Selection method	Operation	How to ascertain the selection
To set the function to "ON"	Hold down MEMO switch and Instant auto-iris switch simultaneously for at least 3 seconds.	The zoom control range is fixed to the zoom range set last. (If there is no previous setting, it is set to the mechanical end.)	Automatic zooming from current zoom position to the closer of the two set positions.
To set the function to "OFF"		The zoom range is set to the mechanical end.	Automatic zooming from current zoom position to the closer of the two mechanical ends.

Setting the Zoom Track Positions

Set the zoom track function to ON before setting the zoom track position.



- 1** Zoom to the zoom track position to be set.
- 2** Keeping this zoom position, press the Instant Auto-Iris switch while holding down the MEMO switch. If the zoom position is at the telephoto end, the position is stored as the zoom track position for the telephoto limit. If position is at the widest angle end, it is stored as the widest end.
- 3** Repeat step 1 and 2 to set both the telephoto end and the widest end. It is possible to set only one end. To change the setting, perform step 1 to 3. (The position set last overwrites the setting in the memory.)

1. If the zoom track position is to be set again, the zoom position cannot move beyond the end point setting toward the mechanical end by performing servo zoom operations. To move the zoom, set the zoom track function to OFF, then take one of the steps below.
 - Proceed with the zooming operation at the setting established by operating the zoom rocker seesaw.
 - Perform the zooming operation manually.
2. Although up to two zoom track positions (the telephoto end and the widest angle end) can be set, two positions cannot be set that are on the same side of the center position of the zoom range of this lens. (In this case, the latest setting is stored as the zoom track position of this side.)

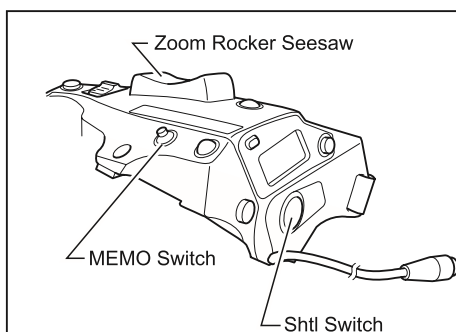
5-1-5. Shuttle-Shot Function

This function allows you to switch between the current zoom position and the preset zoom position at the maximum speed.



Before using shuttle-shot function, the shuttle function must be assigned to the VTR, RET, or AUX switch of the drive unit, or the AUX1 or AUX2 switch on the zoom demand. This manual describes the Shtl function assigned to the VTR switch. For details, refer to "5-6 SWITCH OPERATIONS".

Setting the shuttle memory position



Zoom to the position to be set. Keeping this position, press the Shtl switch while holding down the MEMO switch.

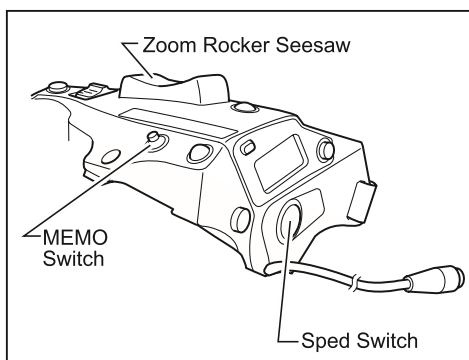
1. The position you stored here is different from the one you set in "Framing Preset" mentioned later. The stored position set here is retained even after the power is turned off.

2. The operation with the Shtl switch is given the priority over that with the zoom rocker seesaw. The operation with the zoom rocker seesaw is disabled while the Shtl switch is pressed.

5-1-6. Speed Preset

This function allows you to call the preset zoom speed any time you zoom. Assign the Sped function to the VTR, RET, or AUX switch of the drive unit, or AUX1 or AUX2 switch on the zoom demand. This manual describes the Sped function assigned to the VTR switch.

1. Storing the zoom speed and direction



Operate the zoom rocker seesaw to determine the zoom speed and direction (toward the telephoto angle or the widest angle) which you want to store, and press the MEMO switch while holding this position.

The stored zoom speed is applied to the Framing Preset.

5 OPERATION

2. How to operate the speed preset function

When the "Sped" switch is pressed, the zoom starts to move at the preset speed and to the determined direction (toward the telephoto angle or the widest angle) stored in section 1 and stops at the zoom end.

3. How to cancel movement in Speed Preset

Movement in Speed Preset can be canceled by any of the following operations.

- 1) Press the Sped switch again.→ Zooming stops.
- 2) Performing zoom operation with the zoom rocker seasaw / Shtl switch / Fr1P switch / Fr2P switch / Fr1F switch / Fr2F switch.

5-1-7. Framing Preset

There are three framing preset types based on how the settings are combined.

[Zoom]

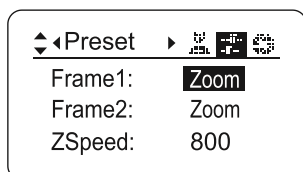
This enables a predetermined picture angle and movement speed (zoom speed) to be reproduced easily.

[Focus] IASE S, IASE-C S and KASE S type lenses only

This enables a predetermined focus to be reproduced easily.

[Z+F] IASE S, IASE-C S and KASE S type lenses only

This enables the movement speed (focus speed, zoom speed) to a predetermined focus and picture angle to be reproduced easily.



The framing preset setting is changed on the Preset screen on the information display. The Frame1 setting is changed to Zoom, Focus, or Z+F.

Up to two framing presets, Frame1 and Frame2, can be stored in the memory. Only Frame1 is described in the description given on the following pages. Frame1 is indicated as Fr1P.

How to set the zoom speed to the framing memory position

Movement speed to the framing position is selected by assigning the Fr1P or Fr1F switch.

Fr1P-----For the preset speed setting (preset speed) (Assigned to the AUX switch at the factory.)

Fr1F-----For the maximum speed setting (fast speed)

For details on how to assign the functions to the switches, refer to "5-6. SWITCH OPERATIONS".

Setting combinations

Frame preset control	Control content	Movement speed setting	
		Fr1P, Fr2P (speed settable)	Fr1F, Fr2F (maximum speed)
Zoom	Zoom operation control	The zoom moves at the preset speed.	The zoom moves at the maximum speed.
Focus	Focus operation control	The focus moves at maximum speed. ^{*1}	The focus moves at maximum speed.
Z+F	Zoom + focus operation control	The zoom and focus move at the preset speeds. ^{*2}	The zoom and focus move at the maximum speed.

^{*1} : Focus speed is fixed at maximum speed.

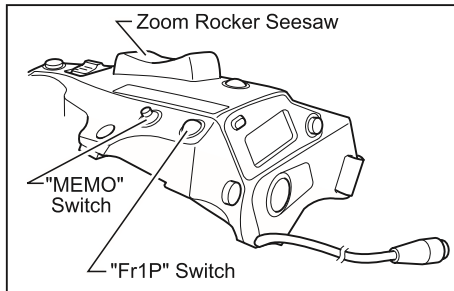
^{*2} : The zoom and focus are controlled in such a way that they start and stop simultaneously.

Framing Preset [Zoom] / [Focus] / [Z+F] Setting

The following figure below is shown as an example. Actual state of the switch may look different if the function is allocated to the different switch.

- Fr1P function-----Assigned to the AUX switch by factory default.

1. Setting the framing memory position



Zoom (and focus) to the position that you want to store, while holding this zoom (and zoom focus) position, press the Fr1P switch while holding down the MEMO switch.

This framing memory position is different from the shuttle memory position (Refer to "5-1-5. Shuttle-Shot Function"). The stored zoom position remains in the memory, even after the power is turned off.

2. Moving to the framing memory position

Once the Fr1P switch is pressed, the zoom starts to move toward the framing memory position at the preset speed and stops at the framing memory position. When the zoom reaches the framing memory position, it stops and stays there.

3. Canceling the movement to the framing memory position or switching to other zoom operation

During movement to the framing memory position, the movement can be canceled and/or switched to other zoom operation by any of the following operations.

[Zoom Framing Preset]

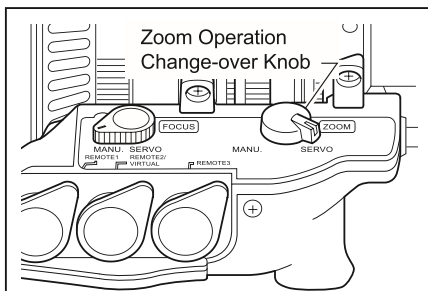
- Press the Fr1P switch again.
- Perform zoom operation with the zoom rocker seesaw.
- Perform zoom operation with the Shtl switch.

[Focus Framing Preset]

[Zoom, Focus Framing Preset]

- Operate a connected focus demand. Movement to the memory position stops, and movement to the operating position of the focus demand takes place.

5-1-8 Clutchless Zoom (Only models with clutchless zoom mechanism)



Set the zoom operation change-over knob to the SERVO position to activate the clutchless zoom mechanism.

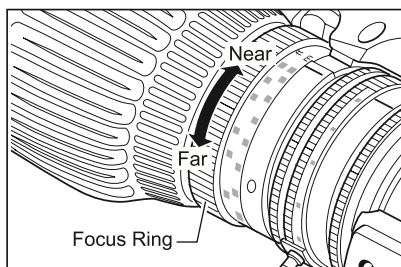
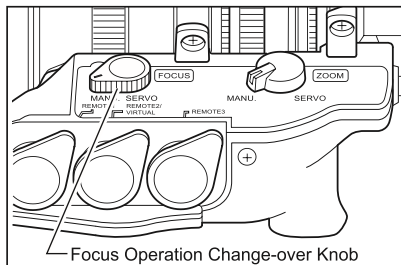
NOTE

The lens may be damaged if manual zoom operation is performed during the servo zoom operation.

Zoom operation change-over knob	Clutchless zoom mechanism	Operation
SERVO	ON	Setting used when both servo and manual operations are needed Without operating a clutch, you can switch between the servo zoom and manual zoom.
MANU.	OFF	Set to MANU. when using only the manual zoom.

5-2. FOCUS OPERATION

5-2-1. Manual Focus Operation



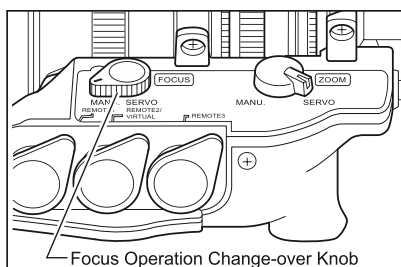
- 1 When IASE S, IASE-C S or KASE S type lens is used, set the focus operation change-over knob to MANU. position.

NOTE

When using IASE S, IASE-C S or KASE S type lens, the camera may be damaged if excessive force is applied to turn the focus ring with the knob is at the SERVO position.

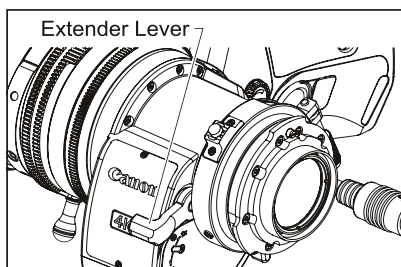
- 2 Turn the focus ring to bring the near or far object into focus.

5-2-2. Servo Focus Operation



- 1 When IASE S, IASE-C S or KASE S type lens is used, set the focus operation change-over knob to SERVO position.
- 2 Mount the accessory such as focus demand. For the details, refer to the operation manual of accessories.

5-3. EXTENDER OPERATION (Excluding KASE S type lens)



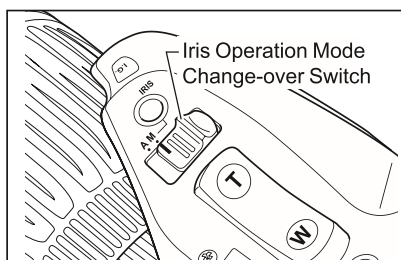
The lens with built-in extender has the built-in 2x extender. Use the extender lever to switch between 1x and 2x.

When the extender is used, note that the light quantity may decrease by the zoom ratio depending on the iris correction setting.

5-4. IRIS OPERATION

The iris operation mode can be switched between auto and manual with the iris operation mode change-over switch.

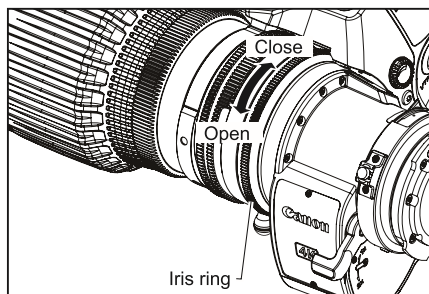
5-4-1. Automatic Iris Operation



Slide the iris operation mode change-over switch to the "A" position.

The iris operation is performed automatically by the instruction from the camera, to keep the video signal level constant.

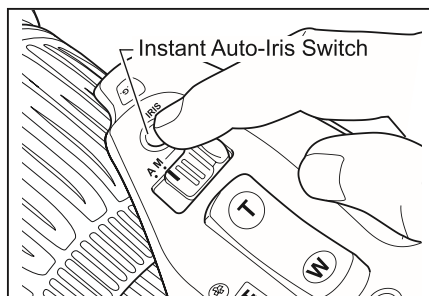
5-4-2. Manual Iris Operation



Slide the iris operation mode change-over switch to the "M" position. The iris operation is performed by turning the iris ring on the lens body.

NOTE

The iris operation mode change-over switch must be set to the M position before performing manual iris operations. The lens may be damaged if manual iris operations are forcibly performed with the knob at the A position.

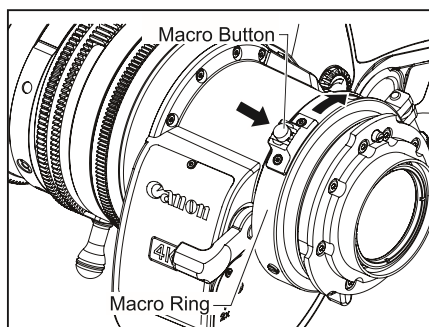


When the instant auto-iris switch is pressed during manual iris operation mode, the iris changes to automatic operation mode while the switch is held down.

The adjustment and the setting can also be made on the information display. Refer to "Information Display Manual" in the supplied CD-ROM.

5-5. MACRO OPERATION

In macro shooting, the object distance becomes shorter than the normal minimum object distance (M.O.D.). The minimum object distance by macro operation for this lens is 10mm at the widest angle.



To operate the macro, press the macro button to unlock the macro ring. While holding it down, turn the macro ring at the rear of the lens clockwise as viewed from the camera side to allow macro shooting.

- 1** Set the lens to the widest angle by manual or servo zoom operation.
- 2** Bring the object into focus by turning the macro ring.

Macro operation is also possible at any zoom position other than the widest angle, but the object distance increases.

Multi-point Focus Shooting

In macro shooting, when zooming to change the focal length, the focal point varies.

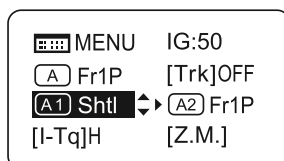
The multi-point focus shooting technique uses this characteristic. The focal point is shifted by the zoom operation. Follow the steps below :

- 1** Zoom in to a far object, and bring it into focus by normal focus operation.
- 2** Zoom out to a near object and bring into focus by macro operation.
- 3** Zoom in to the far object again while not touching the macro button set by above step 2, and bring into focus again by normal focus operation.

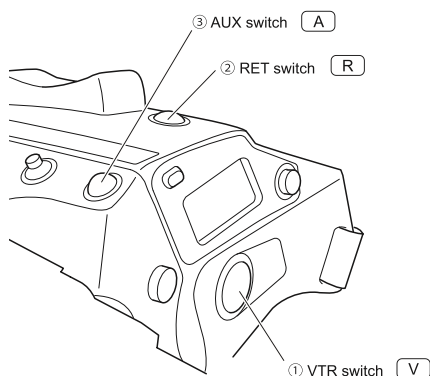
5-6. SWITCH OPERATIONS

Functions can be assigned to the five switches: the VTR, RET, AUX switches, or AUX1 and AUX2 switches on the information display. VTR, RET, Shtl, and Fr1P functions are assigned respectively by default. The following steps explain how to assign the functions to the switches in basic mode.

For details, refer to "Information Display Manual" in the supplied CD-ROM.



- 1** Press the DISPLAY switch to turn on the display.
- 2** After using the control key to select the name of the switch key to which the function is to be allocated, press the Set key. The name of the switch and the default or the previous setting now blink on the display.
- 3** Press the left or right key until the function to be changed to appears on the display.
- 4** Press the Set key. This completes the setting.



Switch	Default value	Functions								
		Fr1P	Fr1F	Fr2P	Fr2F	Sped	Shtl	NON	VTR	RET
① V	VTR	●	●	●	●	●	●		●	●
② R	RET	●	●	●	●	●	●		●	●
③ A	Fr1P	●	●	●	●	●	●	●	●	●
④ A1	Shtl	●	●	●	●	●	●	●	●	●
⑤ A2	Fr1P	●	●	●	●	●	●	●	●	●

"●" indicates a combination of an assignable function and a switch.
(4) and (5) are AUX1 and AUX2 switches on the zoom demand.

Switch name	Description
VTR	Start/stop VTR operation.
RET	Hold down to view the main-line video on the view finder.
Fr1P, Fr2P	Press to move to the stored zoom/focus position. One position can be stored/called for Fr1P and Fr1F, and another for Fr2P and Fr2F.
Fr1F, Fr2F	
Sped	Press to move in the stored zoom direction (toward the telephoto end or the widest angle end) at the stored zoom speed.
Shtl	Press to move to the stored zoom position at the maximum speed. Release to return to the previous zoom position at the maximum speed.
NON	No function

6 PRODUCT SPECIFICATIONS

UHDxs LENSES

Model Name			CJ12ex4.3B	CJ15ex4.3B	CJ20ex7.8B
Focal Length		1×	4.3-52mm	4.3-65mm	7.8-156mm
		2×	8.6-104mm	8.6-130mm	15.6-312mm
Zoom Ratio			12 ×	15 ×	20 ×
Maximum Relative Aperture		1×	1:1.8 (at 4.3-40.0mm) 1:2.4 (at 52mm)	1:1.8 (at 4.3-40mm) 1:2.9 (at 65mm)	1:1.8 (at 7.8-108mm) 1:2.6 (at 156mm)
		2×	1:3.6 (at 8.6-80.0mm) 1:4.8 (at 104mm)	1:3.6 (at 8.6-80mm) 1:5.8 (at 130mm)	1:3.6 (at 15.6-216mm) 1:5.2 (at 312mm)
Image Format			Dia. 11mm (9.6 × 5.4 mm)		
Angular Field of View	Wide	1×	96.3°×64.2°	96.3°×64.2°	63.2°×38.2°
		2×	58.3°×34.9°	58.3°×34.9°	34.2°×19.6°
	Tele	1×	10.5°×5.9°	8.4°×4.8°	3.5°×2.0°
		2×	5.3° ×3.0°	4.2° ×2.4°	1.8° ×1.0°
Minimum Object Distance (M.O.D) (Macro: 10mm from the lens vertex)			0.3m		0.8m
Object Dimensions at M.O.D	Wide	1×	76.4 × 43.0cm	76.1 × 42.8cm	91.7 × 51.6cm
		2×	38.2 × 21.5cm	38.1 × 21.4cm	45.9 × 25.8cm
	Tele	1×	6.0 × 3.4cm	4.9 × 2.8cm	4.8 × 2.7cm
		2×	3.0 × 1.7cm	2.5 × 1.4cm	2.4 × 1.4cm
Flange Back			48mm (in air)		
Thread for Filters			127mm P0.75 (Hood Unit Thread Size)		94mm P1.0 (Lens Barrel Thread Size) or 105mm P1.0 (Hood Unit Thread Size)
Zoom Speed for Full Range			Max. 0.5s ± 0.2s		
Focus Speed for Full Range			1.3s ± 0.3s		1.5s ± 0.3s
Iris			Control from camera		
Mount			B4		
Power Source			DC12V (DC10 ~ 17V)		
Current Consumption	R type	Max 300mA		-	
	A type	Max 500mA			
Operating Temperature			Temperature : − 20℃ ~ + 45℃ Humidity : 5% to 95%RH (no condensation)		
Mass without Hood	IRSE S	Approx. 2.10kg		Approx. 2.11kg	-
	IASE S	Approx. 2.18kg		Approx. 2.19kg	Approx. 2.18kg

6 PRODUCT SPECIFICATIONS

Model Name			CJ25ex7.6B
Focal Length		1×	7.6-190mm
		2×	15.2-380mm
Zoom Ratio			25 ×
Maximum Relative Aperture		1×	1:1.8 (at 7.6-118mm) 1:2.9 (at 190mm)
		2×	1:3.6 (at 15.2-236mm) 1:5.8 (at 380mm)
Image Format			Dia. 11mm (9.6 × 5.4 mm)
Angular Field of View	Wide	1×	64.6°×39.1°
		2×	35.1°×20.1°
	Tele	1×	2.89°×1.63°
		2×	1.45° ×0.81°
Minimum Object Distance (M.O.D) (Macro: 10mm from the lens vertex)			0.8m
Object Dimensions at M.O.D	Wide	1×	93.9 × 52.8cm
		2×	48.1 × 27.1cm
	Tele	1×	3.9 × 2.2cm
		2×	2.0 × 1.1cm
Flange Back			48mm (in air)
Thread for Filters			94mm P1.0 (Lens Barrel Thread Size) or 105mm P1.0 (Hood Unit Thread Size)
Zoom Speed for Full Range			Max. 0.5s ± 0.2s
Focus Speed for Full Range			1.5s ± 0.3s
Iris			Control from camera
Mount			B4
Power Source			DC12V (DC10 ~ 17V)
Current Consumption		R type	Max 300mA
		A type	Max. 500mA
Operating Temperature			Temperature : - 20°C to + 45°C Humidity : 5% to 95%RH (no condensation)
Mass without Hood		IRSE S	Approx.1.91kg
		IASE S	Approx.1.99kg

UHD_{Gc} LENSES

Model Name			CJ14ex4.3B	CJ18ex7.6B*	CJ18ex28B
Focal Length		1×	4.3-60mm	7.6-137mm	28-500mm
		2×	8.6-120mm	15.2-274mm	56-1000mm
Zoom Ratio			14 ×	18×	18×
Maximum Relative Aperture		1×	1:1.8 (at 4.3-40mm) 1:2.7 (at 60mm)	1:1.8 (at 7.6-103mm) 1:2.4 (at 137mm)	1:2.8 (at 28-286mm) 1:4.9 (at 500mm)
		2×	1:3.6 (at 8.6-80mm) 1:5.4 (at 120mm)	1:3.6 (at 15.2-206mm) 1:4.8 (at 274mm)	1:5.6 (at 56-572mm) 1:9.8 (at 1000mm)
Image Format			Dia. 11mm (9.6 × 5.4 mm)		
Angular Field of View	Wide	1×	96.3°×64.2°	64.6°×39.1°	19.5°×11.0°
		2×	58.3°×34.9°	35.1°×20.1°	9.8°×5.5°
	Tele	1×	9.1°×5.2°	4.0°×2.3°	1.10°×0.62°
		2×	4.6° ×2.6°	2.0° ×1.1°	0.55° ×0.31°
Minimum Object Distance (M.O.D) (Macro: 10mm from the lens vertex)			0.3m	0.56m	2.2m
Object Dimensions at M.O.D	Wide	1×	76.4 ×43.0cm	65.5 ×36.8cm	71.0×39.9cm
		2×	38.2 ×21.5cm	32.8 ×18.4cm	35.5×20.0cm
	Tele	1×	5.2 ×2.9cm	3.8 ×2.1cm	4.1×2.3cm
		2×	2.6 ×1.5cm	1.9 ×1.1cm	2.1×1.2cm
Flange Back			48mm (in air)		
Thread for Filters			127mm P0.75 (Hood Unit Thread Size)	82mm P0.75 (Lens Barrel Thread Size)	127mm P0.75 (Hood Unit Thread Size)
Zoom Speed for Full Range			Max. 0.5s ± 0.2s		
Focus Speed for Full Range			1.3s ± 0.3s		1.5s ± 0.3s
Iris			Control from camera		
Mount			B4		
Power Source			DC12V (DC10 ~ 17V)		
Current Consumption	R type	Max. 300mA			-
	A type	Max. 500mA			
Operating Temperature			Temperature : - 20°C to + 45°C Humidity : 5% to 95%RH (no condensation)		
Mass without Hood		IRSE S	Approx. 2.11kg	Approx. 1.65kg	-
		IASE S	Approx. 2.19kg	Approx. 1.73kg	Approx. 2.76kg
		KASE S	-	Approx. 1.68kg	-

*CJ18ex7.6B KASE S : No built-in extender

6 PRODUCT SPECIFICATIONS

Model Name			CJ24ex7.5B
Focal Length		1×	7.5-180mm
		2×	15-360mm
Zoom Ratio			24×
Maximum Relative Aperture		1×	1:1.8 (at 7.5-120mm) 1:2.7 (at 180mm)
		2×	1:3.6 (at 15-240mm) 1:5.4 (at 360mm)
Image Format			Dia. 11mm (9.6 × 5.4 mm)
Angular Field of View	Wide	1×	65.2°×39.6°
		2×	35.5°×20.4°
	Tele	1×	3.1°×1.7°
		2×	1.5°×0.9°
Minimum Object Distance (M.O.D) (Macro: 10mm from the lens vertex)			0.8m
Object Dimensions at M.O.D	Wide	1×	96.0 ×54.0cm
		2×	48.0 ×27.0cm
	Tele	1×	4.1 ×2.3cm
		2×	2.1 ×1.2cm
Flange Back			48mm (in air)
Thread for Filters			94mm P1.0 (Lens Barrel Thread Size) or 105mm P1.0 (Hood Unit Thread Size)
Zoom Speed for Full Range			Max. 0.5s ± 0.2s
Focus Speed for Full Range			1.5s ± 0.3s
Iris			Control from camera
Mount			B4
Power Source			DC12V (DC10 ~ 17V)
Current Consumption	R type	Max. 300mA	
	A type	Max. 500mA	
Operating Temperature			Temperature : - 20℃ to + 45℃ Humidity : 5% to 95%RH (no condensation)
Mass without Hood		IRSE S	Approx. 1.82kg
		IASE S	Approx. 1.90kg

HDXS LENSES

Model Name			HJ14ex4.3B	HJ17ex6.2B	HJ18ex7.6B
Focal Length		1×	4.3-60mm	6.2-106mm	7.6-137mm
		2×	8.6-120mm	12.4-212mm	15.2-274mm
Zoom Ratio			14 ×	17×	18×
Maximum Relative Aperture		1×	1:1.8 (at 4.3-40mm) 1:2.7 (at 60mm)	1:1.8 (at 6.2-65.8mm) 1:2.9 (at 106mm)	1:1.8 (at 7.6-103mm) 1:2.4 (at 137mm)
		2×	1:3.6 (at 8.6-80mm) 1:5.4 (at 120mm)	1:3.6 (at 12.4-131.6mm) 1:5.8 (at 212mm)	1:3.6 (at 15.2-206mm) 1:4.8 (at 274mm)
Image Format			Dia. 11mm (9.6 × 5.4 mm)		
Angular Field of View	Wide	1×	96.3°×64.2°	75.5°×47.1°	64.6°×39.1°
		2×	58.3°×34.9°	42.3°×24.6°	35.1°×20.1°
	Tele	1×	9.1°×5.2°	5.2°×2.9°	4.0°×2.3°
		2×	4.6° ×2.6°	2.6° ×1.5°	2.0° ×1.1°
Minimum Object Distance (M.O.D) (Macro: 10mm from the lens vertex)			0.3m	0.4m	0.56m
Object Dimensions at M.O.D	Wide	1×	76.4 ×43.0cm	73.3 ×41.2cm	65.5 ×36.8cm
		2×	38.2 ×21.5cm	36.7 ×20.6cm	32.8 ×18.4cm
	Tele	1×	5.2 ×2.9cm	4.1 ×2.3cm	3.8 ×2.1cm
		2×	2.6 ×1.5cm	2.1 ×1.2cm	1.9 ×1.1cm
Flange Back			48mm (in air)		
Thread for Filters			127mm P0.75 (Hood Unit Thread Size)	105mm P1.0 (Hood Unit Thread Size)	82mm P0.75 (Lens Barrel Thread Size)
Zoom Speed for Full Range			Max. 0.5s ± 0.2s		
Focus Speed for Full Range			1.3s ± 0.3s	1.5s ± 0.3s	1.3s ± 0.3s
Iris			Control from camera		
Mount			B4		
Power Source			DC12V (DC10 ~ 17V)		
Current Consumption		R type	Max. 300mA		
		A type	Max. 500mA		
Operating Temperature			Temperature : - 20°C to + 45°C Humidity : 5% to 95%RH (no condensation)		
Mass without Hood		IRSE S	Approx. 1.99kg	Approx. 1.97kg	Approx. 1.58kg
		IASE S	Approx. 2.07kg	Approx. 2.05kg	Approx. 1.66kg

6 PRODUCT SPECIFICATIONS

Model Name			HJ18ex28B	HJ21ex7.5B	HJ24ex7.5B
Focal Length		1×	28-500mm	7.5-158mm	7.5-180mm
		2×	56-1000mm	15-316mm	15-360mm
Zoom Ratio			18×	21×	24×
Maximum Relative Aperture		1×	1:2.8 (at 28-286mm) 1:4.9 (at 500mm)	1:1.9 (at 7.5-116mm) 1:2.6 (at 158mm)	1:1.8 (at 7.5-120mm) 1:2.7 (at 180mm)
		2×	1:5.6 (at 56-572mm) 1:9.8 (at 1000mm)	1:3.8 (at 15-232mm) 1:5.2 (at 316mm)	1:3.6 (at 15-240mm) 1:5.4 (at 360mm)
Image Format			Dia. 11mm (9.6 × 5.4 mm)		
Angular Field of View	Wide	1×	19.6°×11.1°	65.2°×39.6°	65.2°×39.6°
		2×	9.9°×5.6°	35.5°×20.4°	35.5°×20.4°
	Tele	1×	1.1°×0.6°	3.5°×2.0°	3.1°×1.7°
		2×	0.6° ×0.3°	1.7° ×1.0°	1.5°×0.9°
Minimum Object Distance (M.O.D) (Macro: 10mm from the lens vertex)			2.2m	0.85m	0.8m
Object Dimensions at M.O.D	Wide	1×	71.1×40.0cm	120.4×67.7cm	96.0 ×54.0cm
		2×	35.6×20.0cm	60.2×33.9cm	48.0 ×27.0cm
	Tele	1×	4.1×2.3cm	5.6×3.2cm	4.1 ×2.3cm
		2×	2.1×1.2cm	2.8×1.6cm	2.1 ×1.2cm
Flange Back			48mm (in air)		
Thread for Filters			127mm P0.75 (Hood Unit Thread Size)		94mm P1.0 (Lens Barrel Thread Size) or 105mm P1.0 (Hood Unit Thread Size)
Zoom Speed for Full Range			Max. 0.5s ± 0.2s		
Focus Speed for Full Range			1.5s ± 0.3s		
Iris			Control from camera		
Mount			B4		
Power Source			DC12V (DC10 ~ 17V)		
Current Consumption	R type	-	-	Max. 300mA	
	A type	Max. 500mA			
Operating Temperature			Temperature : - 20°C to + 45°C Humidity : 5% to 95%RH (no condensation)		
Mass without Hood	IRSE S	-	-	Approx. 1.78kg	
	IASE S	Approx. 2.56kg	Approx. 2.69kg	Approx. 1.86kg	

HDGC LENSES

Model Name			KJ10ex4.5B	KJ17ex7.7B	KJ17ex7.7B II	
Focal Length		1×	4.5-45mm	7.7-131mm	7.7-131mm	
		2×	9-90mm	15.4-262mm	15.4-262mm	
Zoom Ratio			10×	17×		
Maximum Relative Aperture		1×	1:1.8 (at 4.5-34.5mm) 1:2.35 (at 45mm)	1:1.8 (at 7.7-102.5mm) 1:2.3 (at 131mm)	1:1.8 (at 7.7-103mm) 1:2.3 (at 131mm)	
		2×	1:3.6 (at 9-68.9mm) 1:4.7 (at 90mm)	1:3.6 (at 15.4-205mm) 1:4.6 (at 262mm)	1:3.6 (at 15.4-206mm) 1:4.6 (at 262mm)	
Image Format			Dia. 11mm (9.6 × 5.4 mm)			
Angular Field of View		Wide	1×	93.7°×61.9°	63.9°×38.6°	
			2×	56.1°×33.4°	34.6°×19.9°	
		Tele	1×	12.2°×6.9°	4.2°×2.4°	
			2×	6.1° ×3.4°	2.1°×1.2°	2.1°×1.2°
Minimum Object Distance (M.O.D) (Macro: 10mm from the lens vertex)			0.3m	0.6m		
Object Dimensions at M.O.D		Wide	1×	74.1 ×41.7cm	68.5 ×38.5cm	67.3×37.9cm
			2×	37.0 ×20.8cm	34.3 ×19.3cm	33.7×19.0cm
		Tele	1×	6.4 ×3.6cm	4.2 ×2.4cm	4.2×2.4cm
			2×	3.2 ×1.8cm	2.1 ×1.2cm	2.1×1.2cm
Flange Back			48mm (in air)			
Thread for Filters			127mm P0.75 (Hood Unit Thread Size)	82mm P0.75 (Lens Barrel Thread Size)		
Zoom Speed for Full Range			Max. 0.5s ± 0.2s			
Focus Speed For Full Range			1.3s ± 0.3s			
Iris			Control from camera			
Mount			B4			
Power Source			DC12V (DC10 ~ 17V)			
Current Consumption		R type	Max. 300mA			
		A type	Max. 500mA			
Operating Temperature			Temperature : - 20°C to + 45°C Humidity : 5% to 95%RH (no condensation)			
Mass without Hood		IRSE S	Approx. 1.83kg	Approx. 1.48kg	Approx. 1.65kg	
		IASE S	Approx. 1.91kg	Approx. 1.56kg	Approx. 1.73kg	

6 PRODUCT SPECIFICATIONS

Model Name			KJ22ex7.6B	KJ22ex7.6B II
Focal Length		1×	7.6-168mm	7.6-168mm
		2×	15.2- 336mm	15.2- 336mm
Zoom Ratio			22×	
Maximum Relative Aperture		1×	1:1.8 (at 7.6-116.3mm) 1:2.6 (at 168mm)	1:1.8 (at 7.6-120mm) 1:2.6 (at 168mm)
		2×	1:3.6 (at 15.2-232.6mm) 1:5.2 (at 336mm)	1:3.6 (at 15.2-240mm) 1:5.2 (at 336mm)
Image Format			Dia. 11mm (9.6 × 5.4 mm)	
Angular Field of View	Wide	1×	64.6°×39.1°	64.6°×39.1°
		2×	35.1°×20.1°	35.1°×20.1°
	Tele	1×	3.3°×1.8°	3.27°×1.84°
		2×	1.6°×0.9°	1.64°×0.92°
Minimum Object Distance (M.O.D) (Macro: 10mm from the lens vertex)			0.8m	
Object Dimensions at M.O.D	Wide	1×	95.0 ×53.4cm	94.7×53.3cm
		2×	47.5 ×26.7cm	47.4×26.7cm
	Tele	1×	4.4 ×2.5cm	4.4×2.5cm
		2×	2.2 ×1.3cm	2.2×1.3cm
Flange Back			48mm (in air)	
Thread for Filters			94mm P1.0 (Lens Barrel Thread Size) or 105mm P1.0 (Hood Unit Thread Size)	
Zoom Speed for Full Range			Max. 0.5s ± 0.2s	
Focus Speed For Full Range			1.5s ± 0.3s	
Iris			Control from camera	
Mount			B4	
Power Source			DC12V (DC10 ~ 17V)	
Current Consumption	R type	Max. 300mA		
	A type	Max. 500mA		
Operating Temperature			Temperature : - 20°C to + 45°C Humidity : 5% to 95%RH (no condensation)	
Mass without Hood		IRSE S	Approx. 1.82kg	Approx. 1.82kg
		IASE S	Approx. 1.89kg	Approx. 1.90kg