

2/3"

12X

BROADCASTING TV ZOOM LENS

YJ12X6.5B IRS-A

取 扱 説 明 書

OPERATION MANUAL

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に
大切に保管してください。

Read this operation manual before using the product.
Keep the manual safe so that it can be referenced
when it is needed.

J/E

Canon

日 本 語 版

ENGLISH VERSION.....See Page 35

ENGLISH VERSION

FCC REGULATIONS

※ (NOTE) : This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference, when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the operation manual, may cause harmful interference to radio communications. Operation to this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- Use of shielded cable is required to comply with Class A limits in Subpart B of Part 15 of the FCC rules.

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

Canadian Radio Interference Regulations

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la class A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.



We, Canon Inc., in Japan and Canon Europa N. V., in The Netherlands, confirm that the **YJ12x6.5B IRS-A** series zoom lens is in conformity with the essential requirements of EC Directive(s)

89/336/EEC, and 93/68/EEC

by applying the following standards

EN55103-1, and EN55103-2

Note:

a) Applicable Electromagnetic Environment:

E1 (Residential area)

E2 (Commercial and light industrial area)

E3 (Urban outdoors area)

b) Use of shielded cable is required to comply with limits specified by above standards.

— FOREWORD —

Thank you for purchasing the Canon TV zoom lens YJ12 x 6.5B.


This operation manual consists of the operation manual for the lens and Japanese/English technical documents.

Operation manual	: Functions, operation of the lens in the standard configuration and notes on use	37
Technical documents	: External views and general circuit diagrams	69

and is applicable for the following lens models:

YJ12x6.5B IRS-A SX12

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GENERAL SAFETY INFORMATION

The safety warnings and cautions provided on the product or in this operation manual must be observed. Failure to observe warnings and cautions provided to guard against hazards 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 required.

This operation manual uses the following symbols and terms to identify hazards to protect you and others by aiming to prevent the occurrence of accidents.

 WARNING	Indicates hazardous situations which, if not heeded, may result in death or serious injury to you or other persons.
 CAUTION	Indicates hazardous situations which, if not heeded, may result in minor or moderate injury to you or other persons, or damages to your property.
※ (NOTE)	Emphasizes essential inform which, if not heeded, may render the product unworkable or cause it to function improperly. Also, provides helpful information for operation.

HANDLING THE PRODUCT



WARNING

1. Never allow water to enter or be spilled on the product. Immediately stop using the product if water enters the product. Otherwise, a fire or electric shock hazard may result.
2. Do not stare at the sun or other source of high-intensity light through the lens. Doing so may result in injury to your eyes.



CAUTION

1. Do not drop the lens when transporting it or when attaching or detaching it to or from the camera head. The lens may fall, possibly causing injury.
2. Make sure all mountings are tightened securely. If any of these mountings becomes loose, the lens may fall, possibly causing injury.
3. Always grasp the connector itself when connecting or disconnecting the lens cable. Pulling on the cable portion may result in damage to the cable, such as exposure or breakage of the conductors. Power leaking from a damaged cable may present a fire or electric shock hazard.
4. Inspect all mountings periodically (about every 6 months to 1 year) to make sure they are securely tightened, and tighten any loose portions. Otherwise, the lens may fall, possibly causing injury.
5. If it becomes necessary to repair this product, or to perform any operations or adjustments not mentioned in this operation manual, contact Canon's representative or the dealer who originally supplied lens.

※ (NOTE)

1. Protect the lens from strong impacts or shocks. Striking or dropping the lens may result in a malfunction.
2. This lens is not completely waterproof, so avoid exposing it directly to rain or snow. When the lens must be used in rain or snow, provisions should be made to prevent the lens from getting wet.
3. Under dusty conditions, the lens should be mounted or dismounted with a cover placed over the mount so as to prevent dust from entering into the interior.
4. Do not bring the lens, kept in a very cold ambient temperature, into a warm room, because the lens may fog on the inside or condensation may occur.
In these cases, the lens cannot be used until these problems clear.
If the lens must be used under such conditions, countermeasures are recommended.
(For instance, before bringing the lens into a warm room, put it in a vinyl bag with an effective desiccant, and then bring it into the room. After the temperature acclimatizes to the same level as the room temperature, take out the lens out of the vinyl bag.)
5. If the lens is to be used in adverse environments, such as in a chemical laden atmosphere, consult with Canon's representative beforehand.

DEALING WITH ABNORMALITIES



WARNING

1. Should any of the abnormalities described below occur, immediately unplug the lens cable from the camera, and then contact Canon's representative or the dealer from whom you purchased the lens.
 - Smoke, abnormal smell, or abnormal noise.
 - Entry of foreign objects (including metals and liquids) inside the lens.

MAINTENANCE AND INSPECTION



WARNING

1. Unplug the lens cable and remove the lens from the camera, before attempting to clean the lens. Never use flammable substances such as benzene or thinner for cleaning, as this may present a serious fire or electric shock hazard.

※ (NOTE)

1. Dust or fingerprints on the lens surface. Gently blow or brush away dust or dirt on the lens surface using a lens blower or a soft lens brush. Remove any fingerprints or other stains with a clean cotton cloth moistened with commercially available lens cleaning fluid or lens cleaning paper.

Gently swirl the cloth or cleaning paper over the lens surface, starting at the center area of the lens, and then circling gradually outward until whole lens surface has been covered.

Be careful not to rub dust across the lens, as the lens surface may be scratched.

2. Periodic inspection

A periodic inspection about once a year is recommended.

The inspection and maintenance interval depends on the operating conditions, the frequency of use, and the environment. If required, overhaul the lens.

STORAGE



CAUTION

1. Always attach the lens cap (or hood cap) and the dust cap before storing the lens. Storing the lens without these caps attached may present a fire hazard. (Very bright light, such as sunlight, may be focused by the lens and cause a fire.)

※ (NOTE)

1. Moisture inside the lens

If the lens becomes damp because of use in fog, mist or drizzle, wipe off the moisture with a soft dry cloth and seal the lens together with an efficient desiccant in a vinyl bag to remove moisture which has entered into the interior.

OTHER

All information contained in this operation manual, as well as the attached or supplemental materials regarding specifications, appearance, and/or product compositions, is subject to change without prior notice.

Repairing or modifying of this lens and accessories or making adjustments not mentioned in this operation manual require service manuals and training in some cases.

For further information on these adjustments, repairs or modifications, contact Canon's representative or the dealer from whom you purchased the lens.

Note that if a product is modified without consulting Canon Inc. or Canon's representative, we may be unable to service or repair that product.

Contact:
Broadcast Equipment Group
Canon Inc.
20-2 Kiyohara Kogyo Danchi,
Utsunomiya-shi, Tochigi-ken, 321-3292, Japan

TEL: 81-(028)-667-5711

FAX: 81-(028)-667-8672

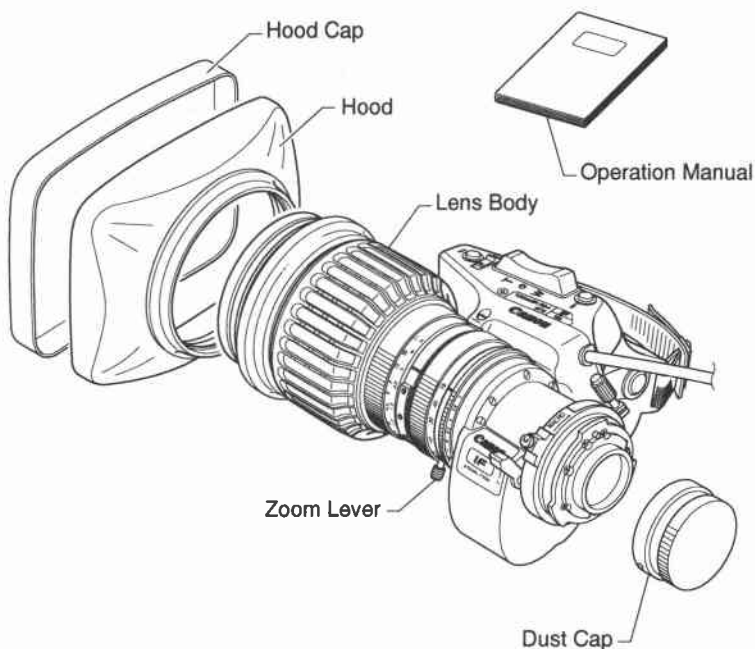
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§1. STANDARD COMPOSITION OF THE LENS

Make sure all of the following items are included in the packing box.
 (If you find any item missing, please contact the dealer from whom you purchased this product.)

UNIT	Q'TY
LENS BODY	1
HOOD CAP	1
HOOD	1
DUST CAP	1
ZOOM LEVER (mounted on lens body)	1
OPERATION MANUAL	1

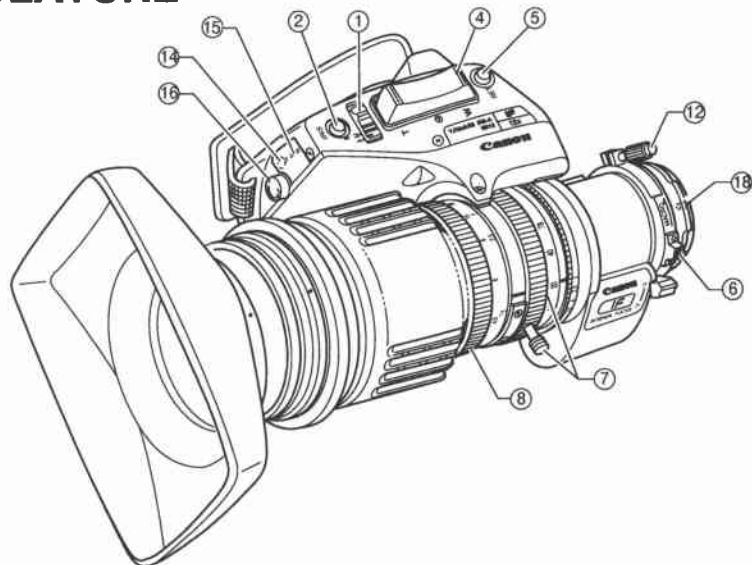


※ (NOTE): Storage environment

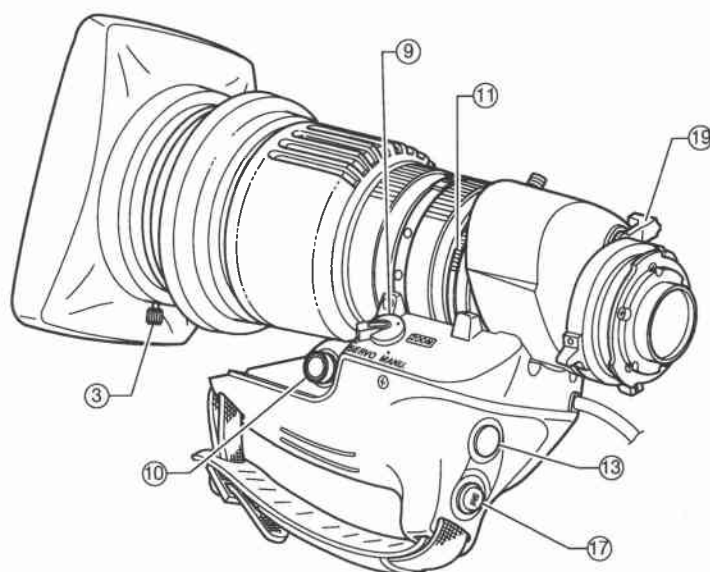
Check the following points, and make sure the place where the lens is stored satisfies the following conditions.

- a) Store the lens only under the following ambient conditions.
 - Ambient temperature: -30°C to 60°C
 - Ambient humidity: up to 60%RH (no condensation)
- b) Do not suddenly move the lens from storage at a very cold ambient temperature into a warm room. Doing so may cause the leg to fog on the inside or may cause condensation.
- c) Do not subject the lens to strong physical shocks or vibration.

§2. NOMENCLATURE



- ① **Iris Operation Mode Change-over Switch**
Use this switch to change from manual to automatic iris operation and back.
- ② **Momentary Auto-Iris Switch (Momentary Automatic Iris Switch)**
While pressing this switch, momentary automatic iris operation takes effect.
- ③ **Hood Lock Knob**
Loosen or tighten this knob to remove or fix the lens hood on the lens.
- ④ **Zoom Seesaw Switch**
Use this switch for servo zoom operation.
The zoom speed changes according to how far down the switch is pressed.
- ⑤ **RET Switch (Return Video Switch)**
While this switch is held down, the E-E image* from the VTR can be viewed in the viewfinder. When it is released, the image being recorded by the camera is restored to the viewfinder.
E-E Image*: An image whose input signals are output straight through the electrical circuitry inside the VTR without passing through the magnetic converter circuits of the heads, tape, etc.
- ⑥ **Macro Button/Macro Ring**
Use this button and ring to shoot an object which is closer than the M.O.D.
- ⑦ **Zoom Lever/Zoom Ring**
Use the zoom ring and zoom lever to operate the zoom manually.
- ⑧ **Focus Ring**
Turn this ring to focus on the object.
- ⑨ **Zoom Operation Change-over Knob**
Use this knob to change from manual to servo zoom operation or vice versa.



⑩ Connector for Remote Zoom Control

Zooming is performed by remote control when this connector is used to connect the unit to an optional control unit for zoom operations. Normally, this connector is covered with a cap.

⑪ Iris Ring

Turn the iris ring to operate the iris manually.

⑫ Flange Back Lock Screw/Flange Back Adjusting Ring

Loosen this screw and turn this ring to adjust the flange back.

⑬ VTR Switch

Use this switch to start or stop the VTR.

⑭ Iris Gain Adjusting Trimmer

Adjusts the iris gain.

⑮ DIP Switches

Use these DIP switches for the settings related to the shuttle-shot function.

⑯ Shuttle Memory Position Setting Knob

Use this knob to set the shuttle memory position.

⑰ Shtl Button (Shuttle-Shot Button)

This switch is used for shuttle-shot function.

⑱ Positioning Pin

Determines the mounting position of the lens.

⑲ Extender Lever

2X built-in extender is in and out by swing of this lever.

§3. HOW TO MOUNT THE LENS ON THE CAMERA

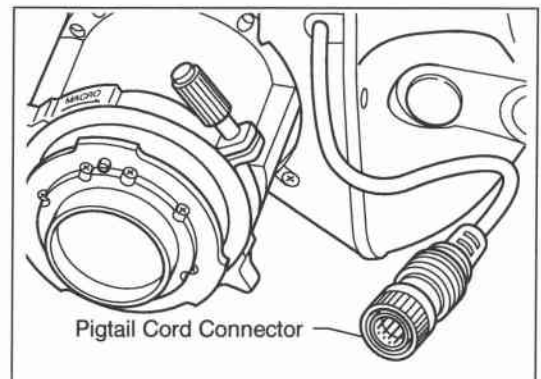
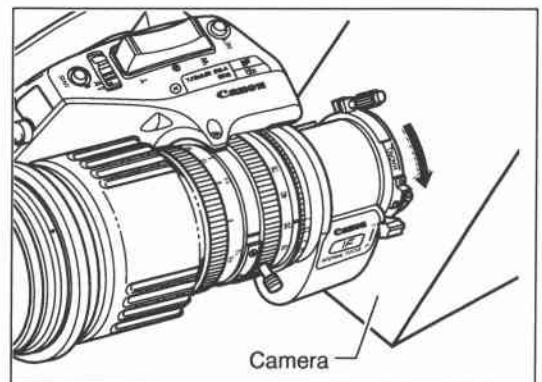
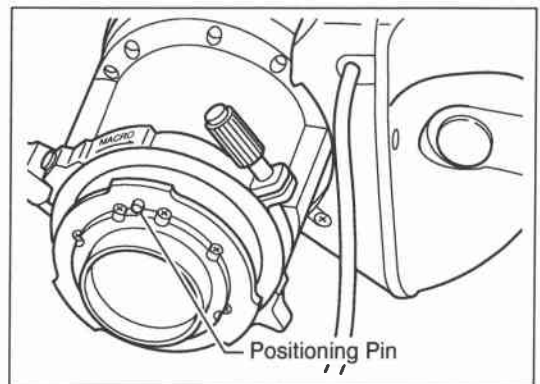
3-1. MOUNTING THE LENS ON THE CAMERA

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

1. Position the camera horizontally or tilt it up slightly.
2. Turn the bayonet ring of the camera counterclockwise.
3. Remove the dust cap from the lens.

※(NOTE) :Once it has been removed, keep the dust cap in a safe place so that it will not be lost or misplaced.

4. Align the positioning pin on the lens mount with the slot on the camera mount and press the lens into the camera mount surface.
5. Turn the bayonet ring clockwise until the lens mount is firmly fixed in place.
6. Connect the pigtail cord connector on the back of the drive unit housing to the appropriate receptacle on the camera head.



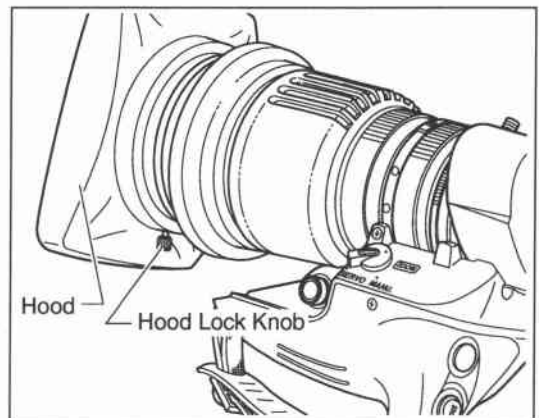
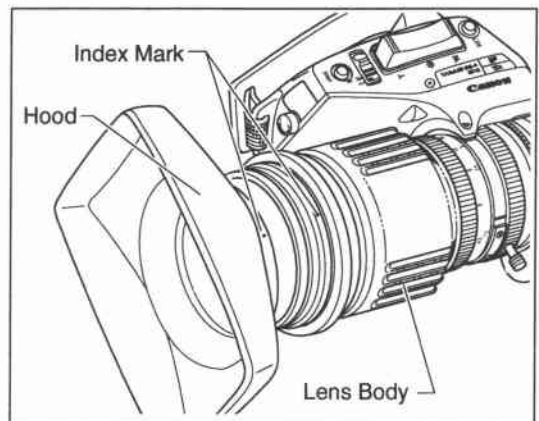
⚠ CAUTION: Never hold the lens, lens housing and band portion to support the entire weight of the camera. Excessive force to the mount portion and housing of the lens may result in damage to the lens mechanism.

※ **(NOTE):** A master key mark is provided on the pigtail cord connector. Connection can be performed smoothly by aligning the master key mark on the camera connector with this mark. For details on installation, refer to the camera's operation manual as well.

3-2. MOUNTING THE HOOD ON THE LENS

● Usually, when the lens is shipped from the factory, the hood is put on the lens. If you remove the hood in some reason, please attach it as instructed below.

1. Snap the hood on the front barrel of the lens.
2. Align the the index mark on the hood to that of the front barrel of lens.
3. Tighten the hood securely by turning the hood lock knob clockwise.



※ **(NOTE):** Be sure to keep the lens cap and hood cap in a safe place so as not to lose them.

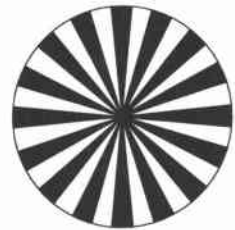
§4. ADJUSTMENT

4-1. FLANGE BACK ADJUSTMENT OF THE LENS

Adjust the flange back of the lens as follows:

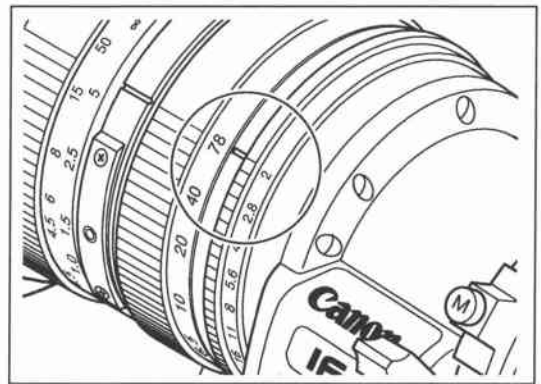
※ (NOTE): Refer to the section 5. OPERATION as for details on zooming, focusing, and iris operation performed with the flange back adjustment.

1. Select an object at an appropriate distance (2 to 3 meters recommended). A Siemens star chart is perfect for this adjustment.
If no such chart is available, use any object that offers sharp contrast to facilitate the adjustment work. A Siemens star chart is a kind of pie chart consisting of "slices" which narrow down toward the center, as shown in the figure on the right, and used to facilitate focusing.

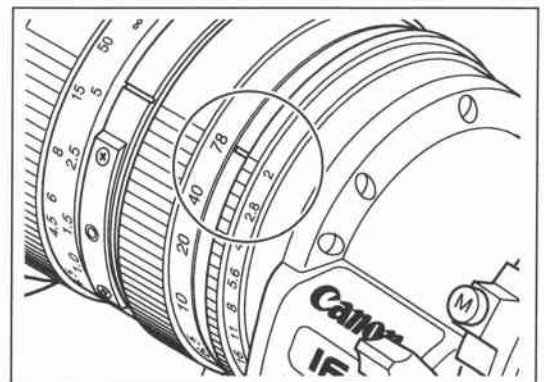


Siemens star chart

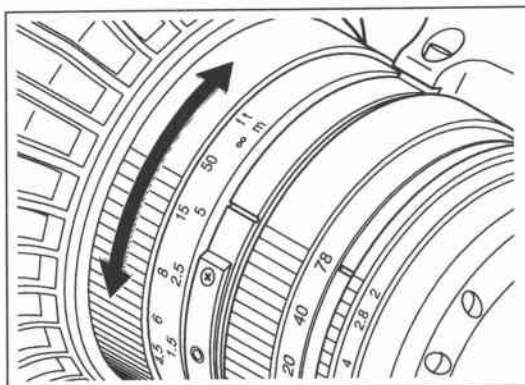
2. Open the iris of the lens fully.



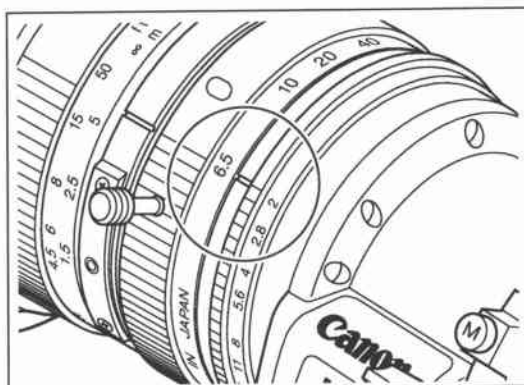
3. Set the lens to the telephoto end by turning the zoom ring.



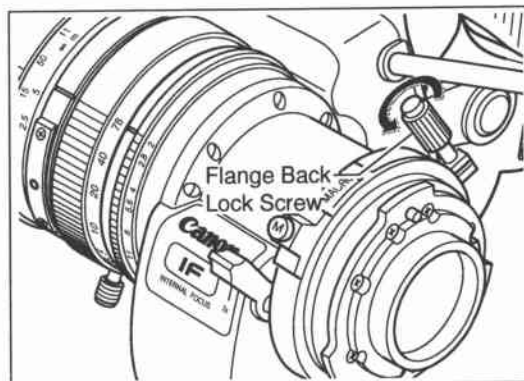
4. Bring the object into focus by turning the focus ring.



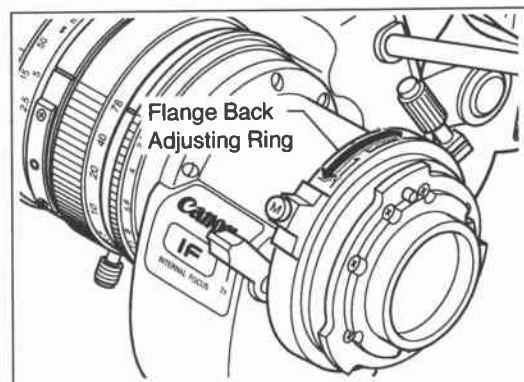
5. Set the lens to the wide end by turning the zoom ring.



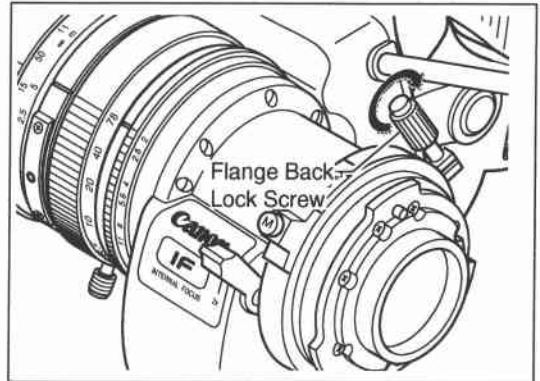
6. Loosen the flange back lock screw.



7. Turn the flange back adjusting ring to bring the object into focus.



8. Repeat steps 3 to 7 several times until the object is brought into focus at both the wide and telephoto ends.
9. After making sure that the object is in sharp focus, tighten the flange back lock screw.

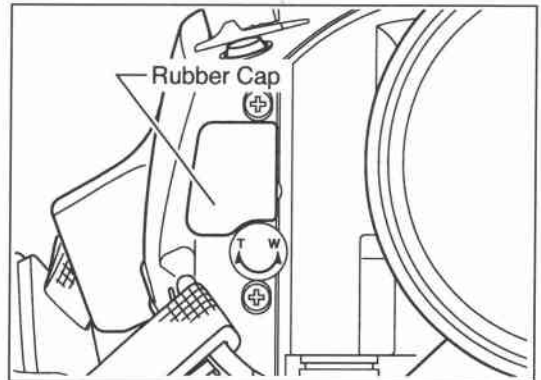


The adjustment procedure is now completed.

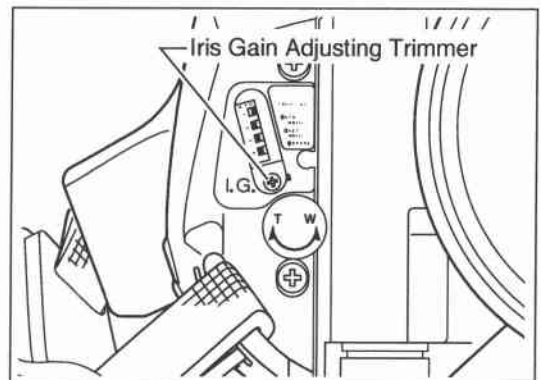
※ (NOTE): Use the Siemens star chart provided at the end of these instructions.

4-2. IRIS GAIN ADJUSTMENT

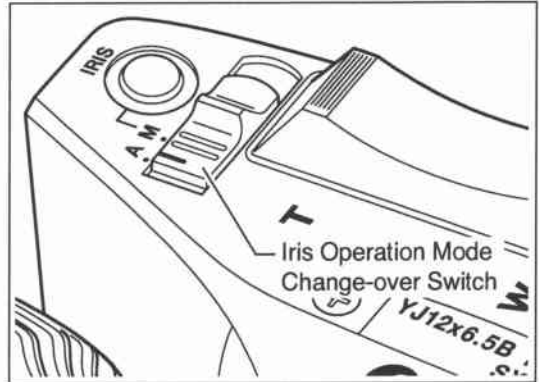
An iris gain adjusting trimmer is located on the front of the lens drive unit. The iris gain is properly set at the factory. However, if you wish to change the iris gain, adjust the trimmer through the procedure described below.



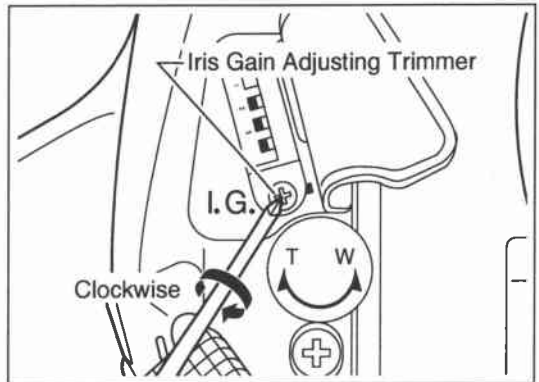
1. Peel away the rubber cap which is attached here.



- Slide the iris operation mode change-over switch to the "A" position (auto).
(also, the camera is required to set an automatic iris mode. Refer to the TV camera operation manual provided by the camera manufacturer how to change this setting.)



- Turn the iris gain adjusting trimmer (marked as "I.G." on the rubber cap), using a small screwdriver to set the level as desired. To increase the gain, turn the trimmer clockwise. To decrease the gain, turn the trimmer counterclockwise.



※ (NOTE): To determine the maximum gain, set the trimmer at a level where no hunting occurs while the iris is controlled from the camera by the automatic control mode.

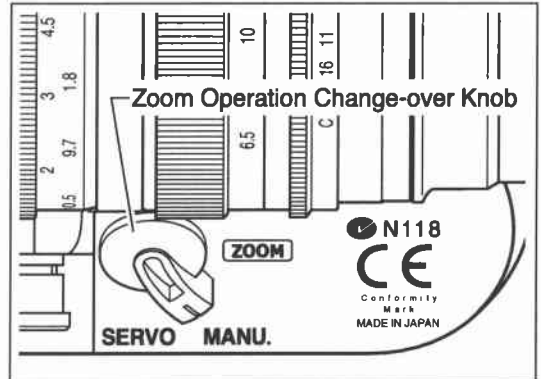
- After the adjustment is completed, put the rubber cap back on the lens drive unit.

§5. OPERATION

5-1. ZOOM OPERATION

(A) MANUAL ZOOM OPERATION

Set the zoom operation change-over knob at the bottom of the lens drive unit to “MANU.” position.

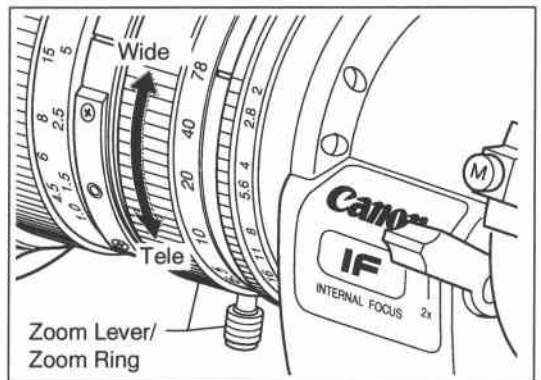


⚠ CAUTION: The zoom operation change-over knob must be set to the “MANU.” position before performing manual zoom operations. The lens may be damaged if manual zoom operations are forcibly performed with the knob at the “SERVO” position.

● Manual zoom operation with the zoom ring

Turn the zoom ring (itself or with the zoom lever) clockwise, as viewed from camera, to zoom out (to Wide-end).

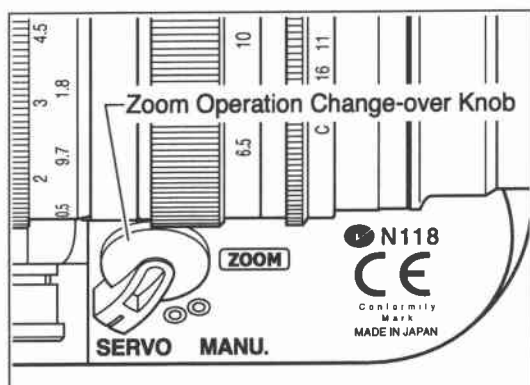
Turn it counterclockwise to zoom in (to Telephoto-end).



(B) SERVO ZOOM OPERATION

Set the zoom operation change-over knob at the bottom of the lens drive unit to "SERVO" position.

For a smooth change, turn the change-over knob while rotating the zoom ring slightly.



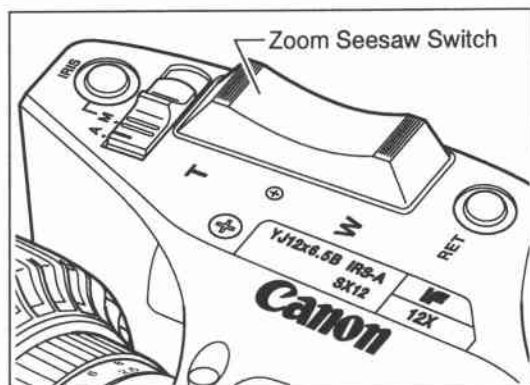
● Servo zoom operation with the zoom seesaw switch

The zoom can be operated by pressing the zoom seesaw switch located on the top of the lens drive unit.

Press "T" to zoom in (to Telephoto-end).

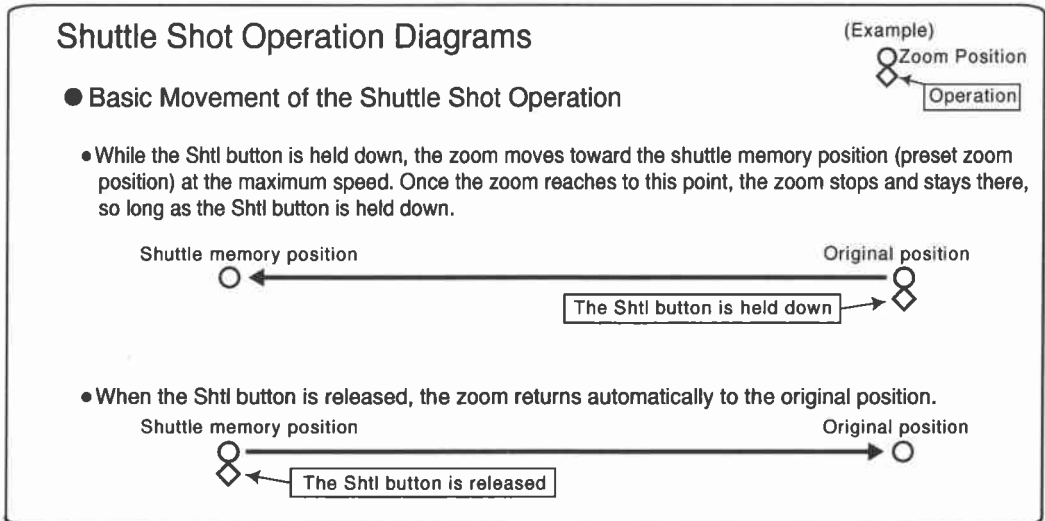
Press "W" to zoom out (to Wide angle-end).

The zoom speed changes according to how far down the switch is pressed.



● Shuttle-Shot Function

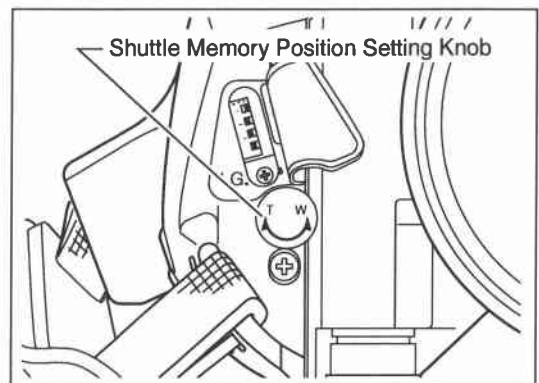
By simply pressing the Shtl button, you can zoom to a shuttle memory position (preset zoom position) at the maximum speed. When the Shtl button is released, the zoom returns to the original position. In other words, this allows the zoom to shuttle between two zoom positions (shuttle memory and original positions) at the maximum speed.



○ How to store the shuttle memory position

To set the zoom position, hold down the Shtl button and simultaneously turn the shuttle memory position setting knob either of the following positions to adjust.

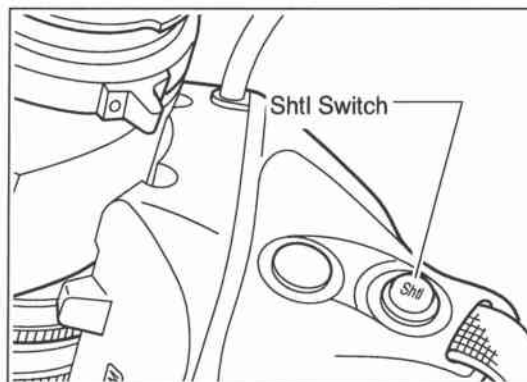
- Clockwise (T side):
The further the switch is turned clockwise, the more the focus is taken further and further away (in the telephoto mode).
- Counterclockwise (W side):
The further the switch is turned counterclockwise, the more the focus is brought closer and closer (in the wide angle mode).



◎ How to use the shuttle-shot

When holding down the Shtl button, the zoom moves toward the shuttle memory position at the maximum speed, and stops at the shuttle memory position (preset zoom position).

So long as the Shtl button is held down, the zoom stays at the shuttle memory position.



◎ How to return to the original position

The original position is not changed so long as the zoom operation is only performed using the Shtl button.

The zoom position obtained by manual or any servo zoom operations other than the Shtl button, will automatically become the new original position for the next shuttle-shot operation.

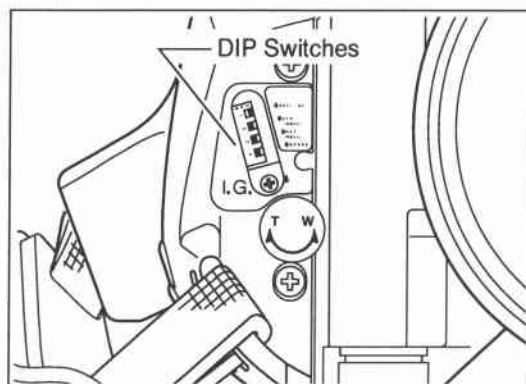
※ **(NOTE):** Since operation with the Shtl button is given priority, operation cannot be performed with the zoom seesaw switch while the Shtl button is held down.

◎ DIP switch settings

At the far end of the rubber cap covering the entire drive unit are the DIP switches which are used for the settings related to the shuttle-shot function.

By setting these switches, the Shtl button functions can be assigned to the “VTR” switch and “RET” switch. By assigning and setting these functions, the shuttle-shot functions can be used even by conventional devices which can be connected but which are not equipped with a Shtl button. The shuttle-shot functions can be turned off when they are not going to be used.

1. Peel away the rubber cap which is normally attached here.
2. The various function settings available are listed below. Set the DIP switches to the desired settings. As seen from the lens front, a switch is ON when it is set to its right-side position and OFF when it is set to its left-side position.



Setting Items	Function Selection	DIP Switch Settings (DIP Switch No.: position)
	Turning on and off the Shuttle-Shot function	ON
OFF		1: OFF
Assigning a function to the VTR switch	VTR on-off	2: OFF
	Shuttle-Shot (Shtl)	2: ON
Assigning a function to the RET switch	Return (RET)	3: OFF
	Shuttle-Shot (Shtl)	3: ON
Spare DIP switch (not used)		4: OFF

 :Initial settings

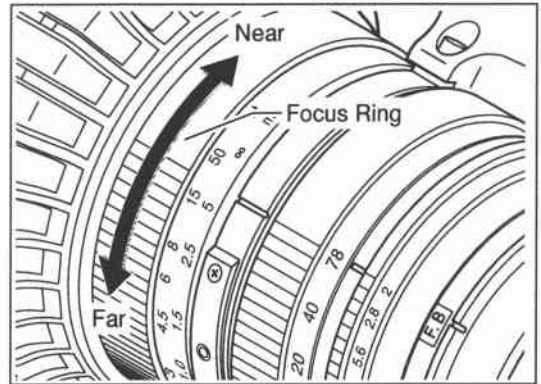
3. Upon completion of the settings, return the rubber cap to its original position and fit it into place.

5-2. FOCUS OPERATION

● Manual operation with the focus ring of the lens:

Turn the focus ring clockwise, as viewed from the camera, to focus the lens on a closer object.

Turn it counterclockwise, as viewed from the camera, to focus the lens on a farther object.



5-3. IRIS OPERATION

The iris can be operated automatically or manually by changing the position of the iris operation mode change-over switch.

A (Automatic) : Automatic iris operation by signals fed from the TV camera.

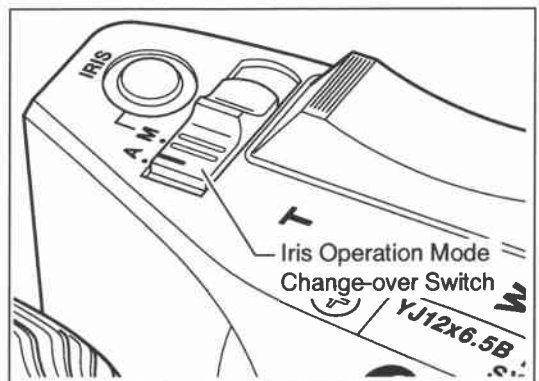
M (Manual) : Manual iris operation by the iris ring of the lens.

(A) AUTOMATIC IRIS OPERATION

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

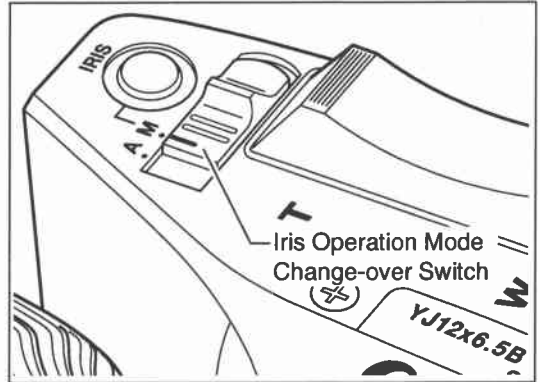
The video level (or the iris) is automatically adjusted by signals sent from the camera side.

The iris ring rotates automatically (driven by a motor in the drive unit) so that the video signal is kept at a constant level.



(B) MANUAL IRIS OPERATION

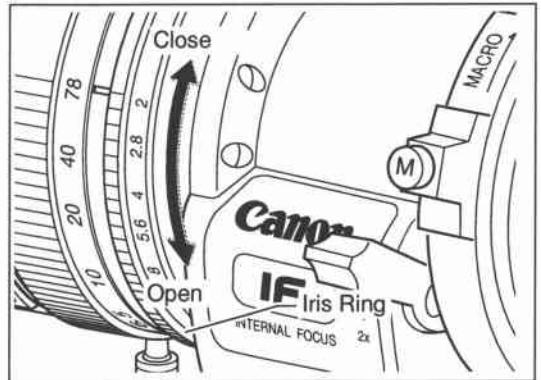
Slide the iris operation mode change-over switch to the "M" position.



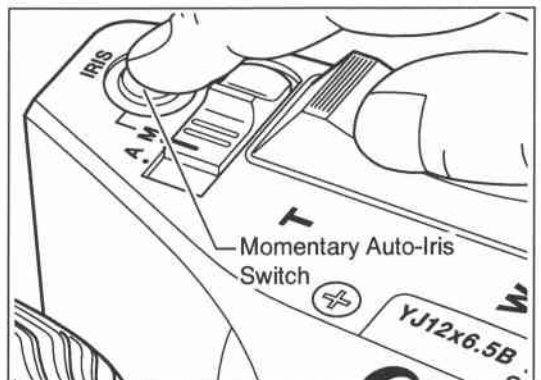
CAUTION: The iris operation mode change-over switch must be set to the "M" position before performing manual iris operations. The lens may be damaged if manual iris operations are forcibly performed with the knob at the "A" position.

- Adjust the video level by rotating the iris ring of the lens manually.

Turn the iris ring clockwise, as viewed from the camera, to lower the video level. Turn the iris ring counterclockwise, as viewed from the camera, to increase the video level.



- Momentary auto-iris switch
When the momentary auto-iris switch is pressed during manual iris operation mode, the iris changes to automatic operation mode while the switch is held down. This feature is helpful when the correct iris setting is required momentarily.



5-4. Extender OPERATION

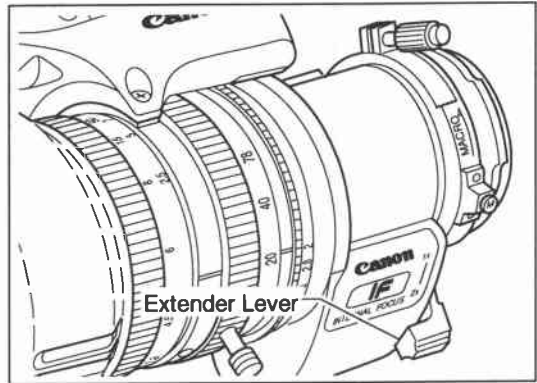
The 2X extender built in the lens change the focal length of the lens by the factor of 2time. Note that the extender decreases the F number by its magnification.

	<u>Master Lens</u>	<u>With 2X Extender</u>
Focal Length	6.5-78 mm	13-156 mm
Max. Relative Aperture	1:2.0 (6.5-60 mm) 1:2.6 (78 mm)	1:4.0 (13-102 mm) 1:5.2 (156 mm)

● Operation

The 2x extender is inserted into the lens optical system by swinging the extender lever on the rear of the lens to the 2x indication side.

By swinging back the extender lever to the original position (1x position), 2X extender is pulled out from the lens optical system.



5-5. MACRO OPERATION

When the macro function of the lens is used, macro shooting is enabled.

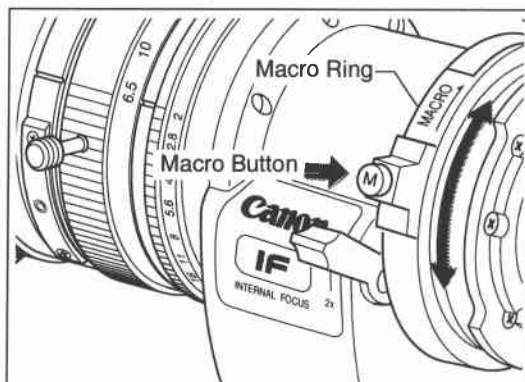
In macro shooting, the object distance becomes shorter than the normal minimum object distance (M.O.D.).

The minimum object distance by macro operation for this lens is only 50 mm at wide end of the focal length and maximum macro position.

● Operation

To operate the macro, manually turn the macro button at the back of the lens.

Press the macro button to unlock the macro ring. While holding it down, turn the macro ring clockwise as viewed from the camera side to allow macro shooting.



1. Set the lens to wide-end by manual or servo zoom operation.
2. Bring the object into focus by turning the macro button (macro ring).

● Object distance and object dimensions in macro shooting

	Zoom position	Position of macro ring or button	Minimum object distance*	Object dimensions
Normal operation	6.5 mm	Locked	0.4 m	63.3 × 47.5 cm
	78 mm	Locked	0.4 m	5.0 × 3.8 cm
Macro operation	6.5 mm	Macro position**	50 mm	12.9 × 9.7 cm

* : The object distance is measured from the front lens vertex.

** : Macro shooting is possible, regardless of where the macro ring is positioned between the locked position and maximum macro rotated position. At the intervening positions, the above data vary.

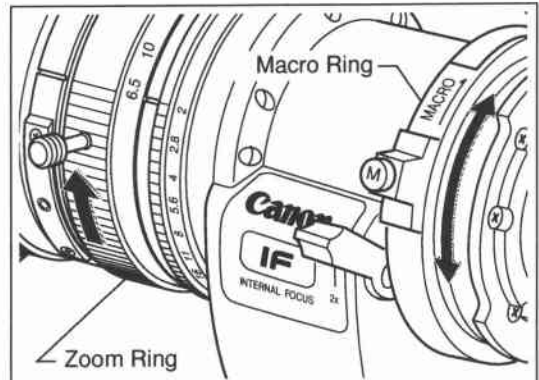
※ (NOTE): Macro operation is also possible at any zoom position other than the wide end of the focal length, but the object distance increases.

● 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 :

Setting procedure

Step 1 : Zoom in to a far object, and bring it into focus by normal focus operation.

Step 2 : Zoom out to a near object and bring it into focus by macro operation.

Step 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.

When steps 1 to 3 have been performed, the setting for multi-point focus shooting is completed.

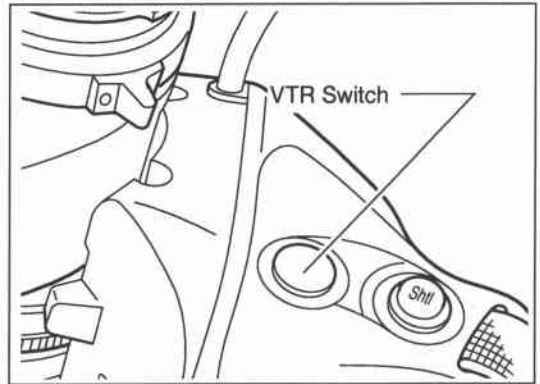
When zooming in, the focal point is shifted from the object in the foreground to the farther object in the background continuously.

or, when zooming out, the focal point is shifted from the farther object in the background to the object in the foreground continuously.

5-6. VTR SWITCH AND RET SWITCH OPERATIONS

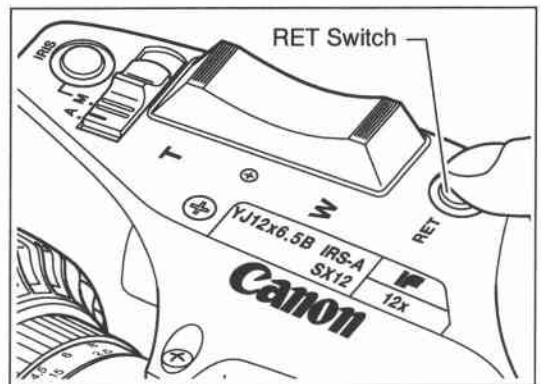
● VTR Switch

Press VTR switch to execute the operation of VTR and press again to stop the operation of VTR.



● RET Switch (Return Video Switch)

While the RET switch is pressed, the external video picture sent to the TV camera head can be seen on the viewfinder.



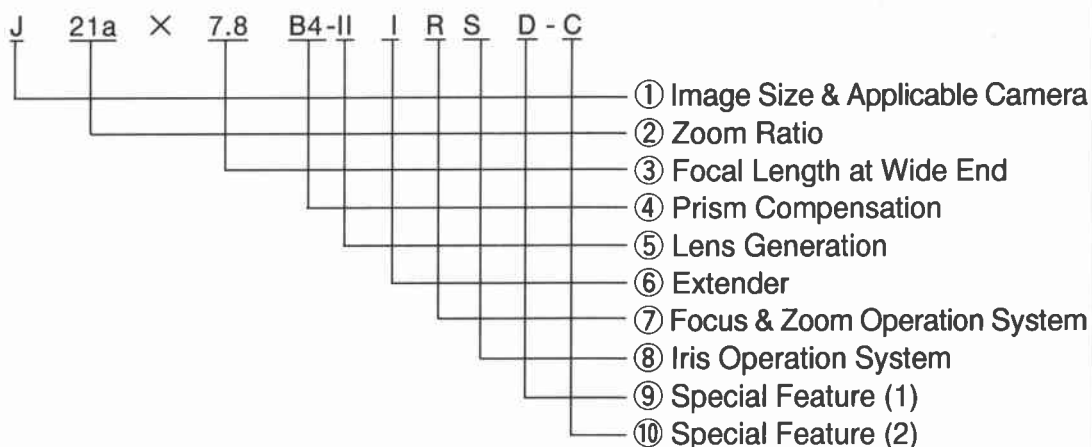
§6. PRODUCT SPECIFICATIONS

		1 ×	2 ×
Application		For 2/3" image tube and CCD TV cameras	
Focal length		6.5~78mm	13~156mm
Zoom ratio		12 ×	
Maximum relative aperture		1:2.0 (f=6.5~60mm)	1:4.0 (f=13~120mm)
		1:2.6 (f=78mm)	1:5.2 (f=156mm)
Image format		8.8× 6.6 ; Dia.11mm	
Angular field of view	Wide	68.2° × 53.8°	37.4° × 28.5°
	Tele	6.5° × 4.8°	3.2° × 2.4°
Minimum object distance		0.4m (50mm from front lens vertex)	
Minimum shooting rang	Wide	63.3cm× 47.5cm	31.4cm× 23.6cm
	Tele	5.0cm× 3.8cm	2.6cm× 2.0cm

Size	: 234.8 mm x ϕ 86 mm
Weight	: Approx. 1.93 kg (without hood)
Flange back	: 48 mm (in air)
Thread for filters	: ϕ 105 mm P1.0
Zoom (speed)	: 1.7 sec \pm 0.5 sec
Iris	: Camera-controlled or manual operation possible
Mount	: Special bayonet mount
Power (input)	: DC12 V (DC10 to 17 V)
Power consumption	: 240 mA (in case of DC12V)
Operating temperature	: -10°C to +45°C

Reference : Lens Designation (For Portable Type Zoom Lens)

A Canon TV zoom lens model name is designated by image size, zoom ratio, focal length at wide end, operation system (focus, zoom and iris), and other information as shown below.



① Image Size & Applicable Camera

- J : 11mm Dia. & for 2/3" SDTV portable camera
- HJ : 11mm Dia. & for 2/3" HDTV portable camera
- YJ : 11mm Dia. & for 2/3" Pro-video portable camera
- H : 8mm Dia. & for 1/2" SDTV portable camera
- YH : 8mm Dia. & for 1/2" Pro-video portable camera

② Zoom Ratio

- 16 : 16x zoom
- 21 : 21x zoom

③ Focal Length at Wide End

- 8 : 8 mm
- 7.8 : 7.8 mm

④ Prism Compensation

- B : Compensated for prism
- B3 : Compensated for B3 prism
- B4 : Compensated for B4 prism
- C : Without prism compensation
(*In case of 1/2" prism, designation for prism compensation may be omitted, since only one type of prism exists.)

⑤ Lens Generation

- (none) : First generation
(*In case of first generation, hyphen (-) will also be omitted.)
- II : Second generation
(*In stead of Roman numerals, may also be exhibited by Arabic numerals.)

⑥ Extender

- I : Built-in extender (s)
- K : No Built-in extender
- V : Built-in COU* unit (0.8x extender)
- W : Built-in extender (s) and COU* unit (0.8x extender)

⑦ Focus & Zoom Operation System

- A — Focus : Servo/Manual
(with built-in motor for servo)
- A — Zoom : Servo/Manual
- L — Focus : Manual (Rotation)
- L — Zoom : Manual (Rotation)
- R — Focus : Manual
- R — Zoom : Servo/Manual
- T — Focus : Remote/Servo
- T — Zoom : Remote/Servo

⑧ Iris Operation System

- L : Manual
- S : Servo

⑨ Special Feature (1)

- (none) : No special feature
- D : Digital servo

⑩ Special Feature (2)

- (none) : No special feature
- A : Pro-video shuttle shot
- C : Clutch-less
- V : Image stabilizing by Vari-angle prism
(*In case of no special feature (2), hyphen (-) will also be omitted.)

*COU:Crossover unit

§7. OPTIONAL ACCESSORIES (SOLD SEPARATELY)

To maximize the performance of the lens and provide more flexibility in operation, Canon provides the following accessories (sold separately). Refer to the operation manual for the respective accessory for installation, connection, and operating procedures.

7-1. AVAILABLE ACCESSORIES

(1) CONTROL ACCESSORIES

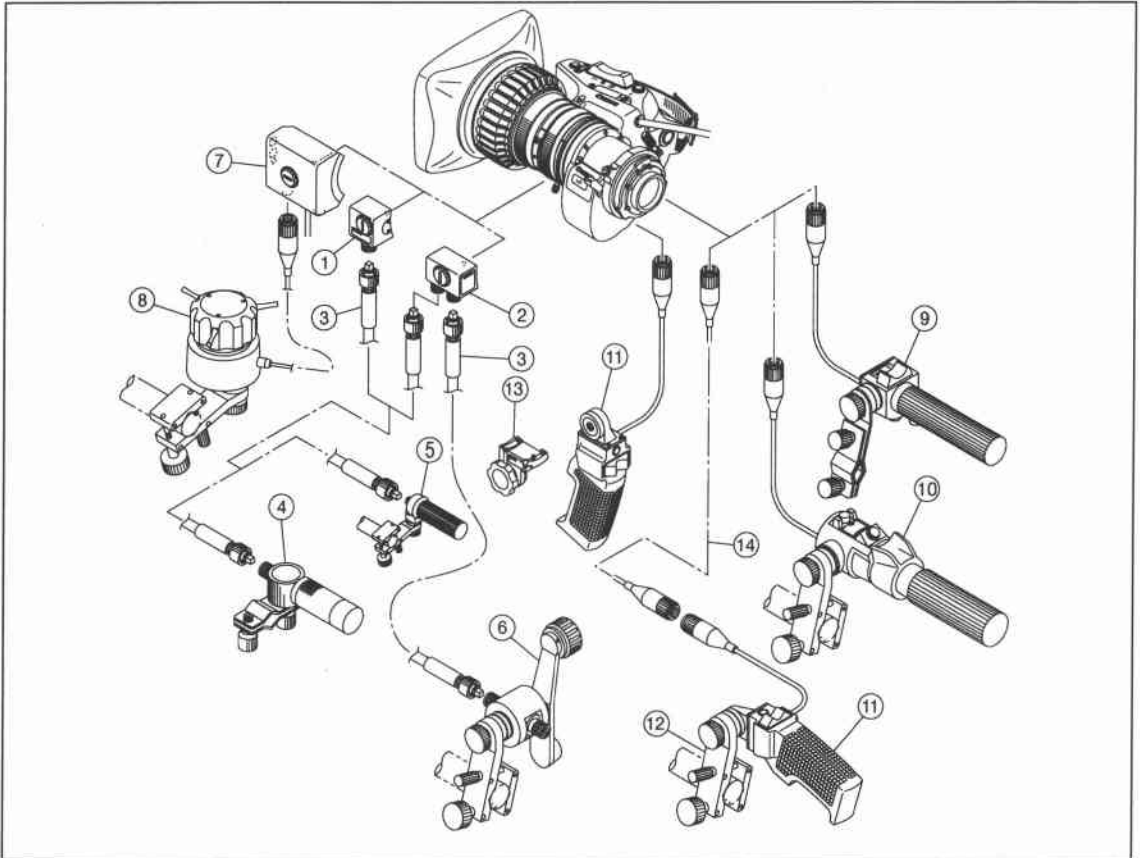
FM-12	FLEXIBLE FOCUS MODULE
FM-70	FLEXIBLE DUAL MODULE made-to-order
FC-10,FC-40	FLEXIBLE CABLE
FFC-15,FFC-200	FLEXIBLE FOCUS CONTROL UNIT
FZC-100	FLEXIBLE ZOOM CONTROL UNIT
FPM-77	FOCUS SPEED SERVO MODULE
FPD-400	SERVO FOCUS DEMAND
GA-70	ZOOM GRIP ADAPTOR made-to-order
ZSG-200M	ZOOM SERVO GRIP
ZSD-15M	ZOOM SERVO DEMAND
ZSD-300M	ZOOM SERVO DEMAND
CR-10	CLAMP
EC-80	EXTENSION CABLE

(2) OPTICAL ACCESSORIES

UV/105mm	UV (ULTRA VIOLET) FILTER 105mm
SKY/105mm	SKYLIGHT FILTER 105mm
ND4/105mm	ND4 FILTER 105mm
ND8/105mm	ND8 FILTER 105mm
SFT/105mm	SOFTON FILTER 105mm
CRS/105mm	CROSS SCREEN FILTER 105mm
SNW/105mm	SNOW CROSS FILTER 105mm
SNY/105mm	SUNNY CROSS FILTER 105mm
PL/105mm	POLARIZED FILTER 105mm

7-2.SYSTEM CONFIGURATION FOR ZOOM AND FOCUS OPERATIONS

Select the necessary accessories for operating the zoom and focus functions from the following table.



- ① Flexible Focus Module
- ② Flexible Dual (Zoom/Focus) Module made-to-order
- ③ Flexible Cable
- ④ Flexible Focus Control Unit
- ⑤ Flexible Focus Control Unit
- ⑥ Flexible Zoom Control Unit
- ⑦ Focus Speed Servo Module
- ⑧ Servo Focus Demand
- ⑨ Servo Zoom Demand
- ⑩ Servo Zoom Demand
- ⑪ Servo Zoom Grip
- ⑫ Clamp
- ⑬ Zoom Grip Adapter..... made-to-order
- ⑭ Extension Cable

Operation combinations

Operation			Accessories used	
Focusing	Remote Manual	Zoom operation change-over Knob	Focusing	Zooming
Remote Manual	Remote Manual	MANU	②③④ / ②③⑤	②③⑥
Remote Manual	Servo	SERVO	①③④ / ①③⑤	⑨ / ⑩ / ⑪⑫⑭ / ⑪⑬
Servo	Servo	SERVO	⑦⑧	⑨ / ⑩ / ⑪⑫⑭ / ⑪⑬

資料集

TECHNICAL DOCUMENTS

— 資料集の目次 —

— TABLE OF THE CONTENTS FOR THE EXCLUSIVE BROCHURE —

資料集として「総合回路図と製品の外観図」をまとめてあります。
必要に応じてご使用ください。

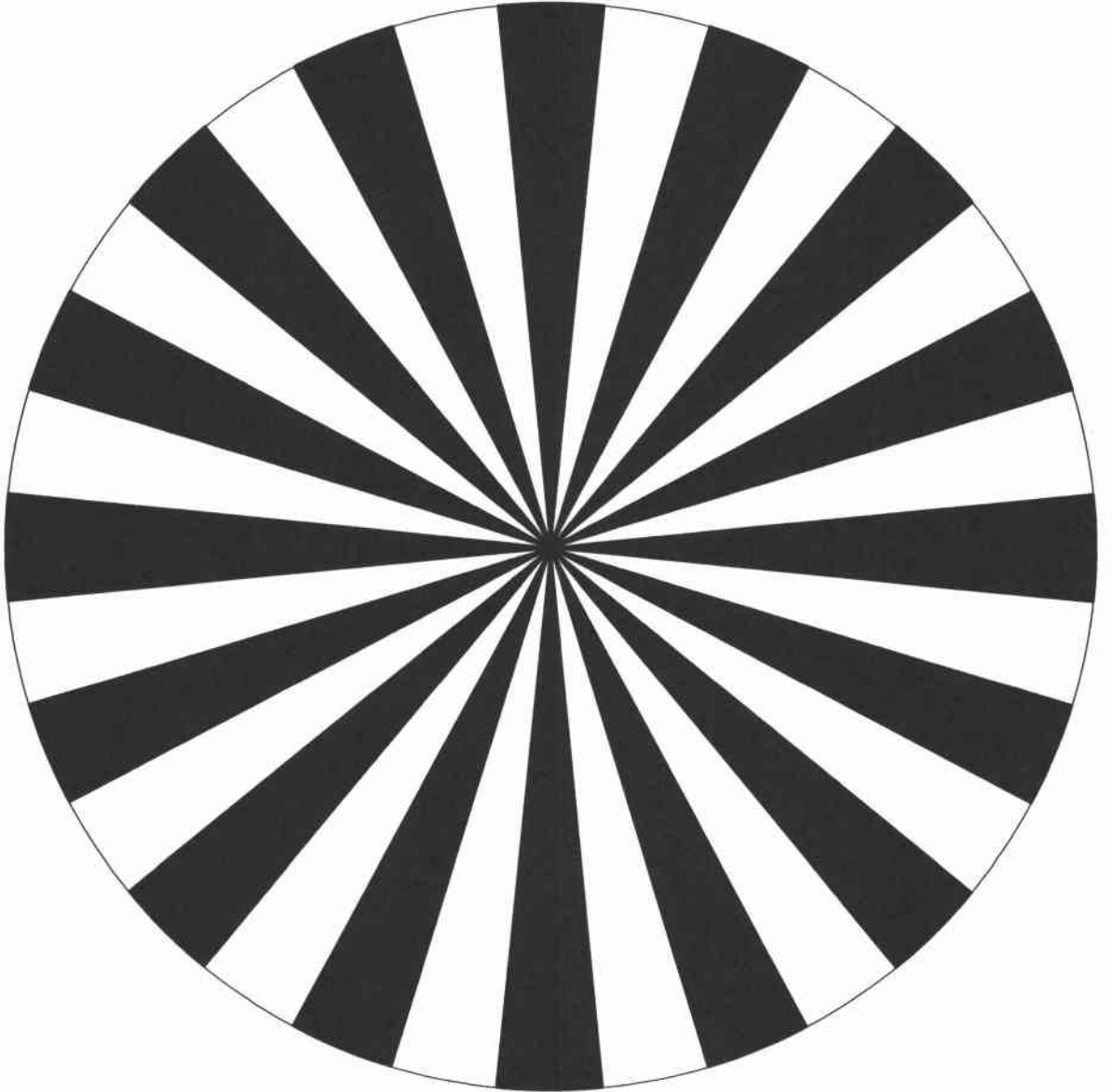
The exclusive brochure consists of a general circuit diagram, lens external view. They should be referenced as required.

外観図 71
YJ12x6.5B IRS-A SX12

EXTERNAL VIEW 71
YJ12x6.5B IRS-A SX12

総合結線図 72
YJ12x6.5B IRS-A SX12

GENERAL CIRCUIT DIAGRAM 72
YJ12x6.5B IRS-A SX12



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