

# TK-S241

## VIDEO CAMERA

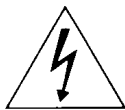
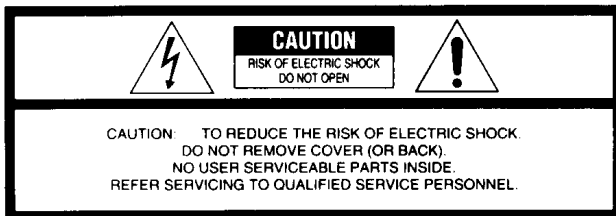
### Instructions

Thank you for purchasing the JVC TK-S241 video camera. To obtain the best results from your new camera, read this instructions carefully before use; retain the manual for future reference.

**WARNING:**  
**TO PREVENT FIRE OR SHOCK HAZARD,**  
**DO NOT EXPOSE THIS UNIT TO RAIN OR**  
**MOISTURE.**

Due to design modification, data given in this instruction book are subject to possible change without prior notice.

#### For USA and CANADA



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

#### INFORMATION (FOR CANADA) RENSEIGNEMENT (POUR CANADA)

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

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

#### Information for USA

This device complies with Part 15 of the FCC Rules. Changes or modifications not approved by JVC could void the user's authority to operate the equipment.

#### For Customer Use:

Enter below the Serial No. which is located on the top of the body.  
Retain this information for future reference.

Model No. **TK-S241**

Serial No. \_\_\_\_\_

### FEATURES

- High sensitivity; low residual image; low image distortion, resists electric and magnetic fields and vibration. The camera can be used in various fields.
- Since the camera uses AC 24V~/DC12V  $\equiv$ , it can be installed and built into system easily.
- Internal, external, and line lock synchronization (U type is 60Hz, E type is 50Hz regions only) can be selected by switch.
- The automatic electronic shutter adjusts its speed automatically to provide correct exposure even if a manual iris lens is used.
- The built-in backlight compensation function improves the image quality for backlit subjects.
- The back focus adjustment function allows easy adjustment and installation.
- C-mount or CS-mount lens can be attached to the camera with the lens mount change function.

### PRECAUTIONS

- Since this camera contains an AGC circuit, the sensitivity increases automatically in dark places, and the image looks grainy, but this is not a fault.
- If a zoom lens is used, mount it on the camera and check the back focus before mounting the camera. This also applies to lens ALC and level. (For more details, see the instructions for the lens.)
- If a high-intensity object (such as a lamp) is shot, the image on the screen may have vertical lines (smear) or blur (blooming) at its periphery (especially in AES mode). This is a characteristic of the CCD, and is not a defect.
- If an EE lens is used, set the automatic electronic shutter switch (AES) to OFF. If set to ON, flickering may occur. If a manual iris lens is used, set the AES to ON.
- Where there are strong electromagnetic waves or magnetism, for example near a radio or TV transmitter, transformer, motor, etc., the picture may contain noise.



**(2) Connection for external synchronization mode (when two cameras are used)**

→ **E**

→ **F**

**LENS**

**CAUTIONS**

- From a certain point the ring cannot be turned with fingers. Use a screwdriver or any other tool with a thin tip to turn it further. ( **G-3** )
- Dimension L of the lens shown in the illustration below must be as shown in the table below. If L exceeds the value in the table, it may damage the inside of the lens or correct mounting may be impossible; never use such lenses. Do not attach the C-mount lens when using a CS-mount.

→ **G**

**Mounting a lens**

- 1 Before mounting a lens, check whether it is a C-mount or CS-mount one. This camera has a CS-mount. ( **G-1** ) If a C-mount lens is used, turn the back focus locking screw in the direction of the arrow in the **G-1** to change mounting method. ( **G-2** shows the state for the C-mount.)
- 2 Mount the lens on the camera by turning the lens clockwise. Adjust its position.
- 3 If the lens has an auto-iris mechanism, connect the lens cable.

→ **H**

- (A) If the lens does not contain an EE amplifier, connect the cable to the DC IRIS connector on the side. If the lens cable has a different type of plug, use the 4-pin plug supplied.

→ **I**

- (B) If the lens contains an EE amplifier, connect the cable to the VIDEO IRIS terminal on the rear.

→ **J**

→ **K**

**Video Adjustment**

- Connect the camera according to the connection method, turn it on, display an image on the monitor, and check the image. The camera has been factory-adjusted to the widest range, but it may need to be adjusted according to the object conditions or combination of lenses. If the image is unnatural, adjust it as follows:

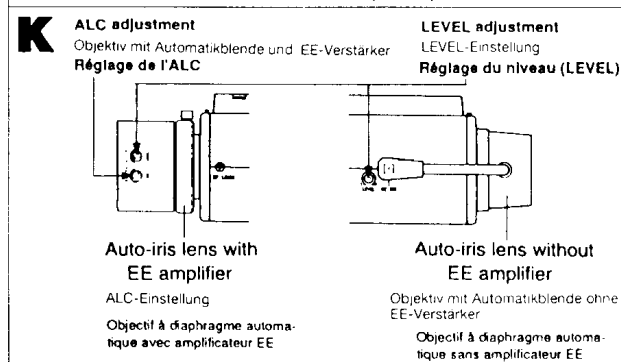
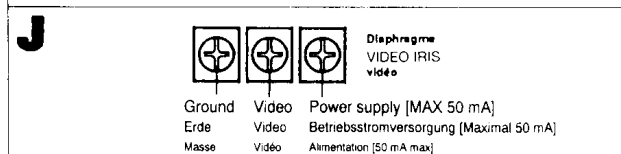
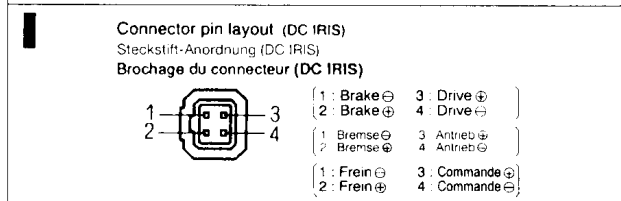
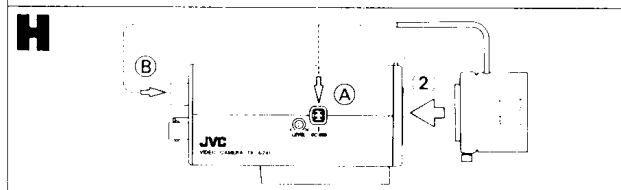
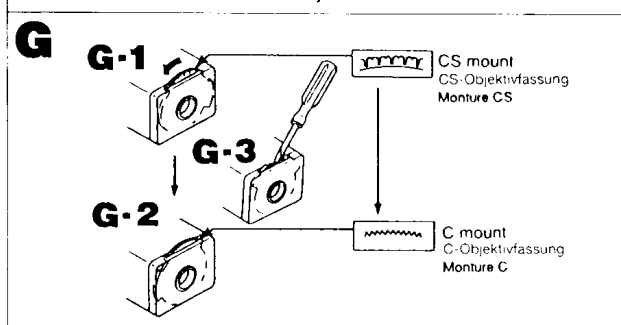
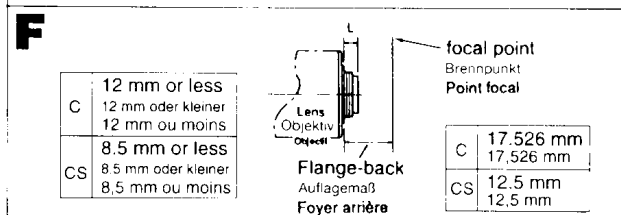
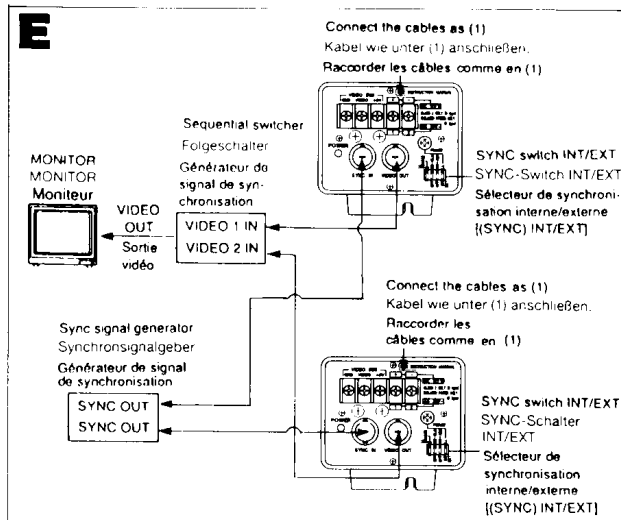
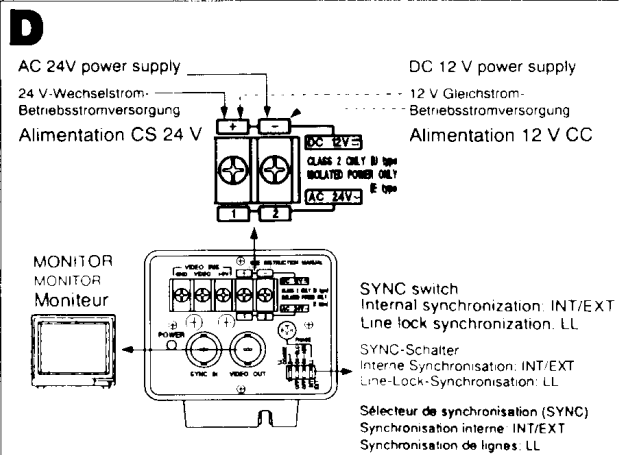
**LEVEL adjustment**

Monitor screen	LEVEL turning direction
Too dark	Counterclockwise (Toward L)
Too bright	Clockwise (Toward H)

**ALC adjustment**

Monitor screen	ALC turning direction
Part (high-intensity part) of the screen halates.	Clockwise (Toward Pk)
Other part of screen (except high-intensity part) darkens.	Counterclockwise (Toward Av)

**CAUTION:** If the sensitivity adjustment [LEVEL] is turned excessively to L, the sensitivity increases because of the AGC function of the camera, and the image looks grainy.



## Back focus adjustment → L

The back focus has been factory-adjusted to the best point for CS-mount lenses, but it may need to be adjusted if the mount is changed to the C-mount or if a lens is used. If required, adjust it as follows.

### <With a fixed-focus lens>

If the focus is not adjusted correctly by rotating the lens focus ring, adjust the back focus.

1. Loosen the back focus securing screw by turning it counterclockwise (↺) with a screwdriver.
2. Turn the back focus adjustment ring to focus the lens at the best point.
3. Tighten the back focus securing screw by turning it clockwise (↻).

### <With a zoom lens>

If the image is out of focus when zooming (wide-angle - telephoto), adjust the camera as follows:

- ① Shoot a comparatively back scene with thin lines about three meters away from the camera.
- ② Set the lens to the maximum telephoto position, and adjust the lens focus.
- ③ Set the lens to the maximum wide-angle position, and adjust the back focus.
- ④ Repeat steps ② and ③ two or three times.

## Installing the EE cable → M

If the cable is too long, arrange it in the camera mounting basket.

## INSTALLATION OF CAMERA → N

Special precautions must be taken for ganging the camera on a wall or a ceiling.

We are by no means liable for any dropping or other accident due to improper installation.

### • Mounting from the bottom

This camera is originally designed to be mounted from the bottom, as shown 1. The hole is standard photographic pan-head screw size (1/4 inch-20). Example the Fixing unit or Pan/Tilt unit.

### • Mounting from the top

Remove the CAMERA MOUNTING BRACKET from the bottom of the camera by removing three fixing screws as shown 2. Attach the CAMERA MOUNTING BRACKET to the top, then mount the camera on the Fixing Unit as shown 3. Make sure that three original screws are used when mounting the CAMERA MOUNT BRACKET; longer type screws (over 5mm) may damage inner components.

(This camera is used indoor and under similar conditions.)

## SPECIFICATIONS

<b>Image pickup device</b>	: 1/3-inch interline-transfer CCD
<b>Number of effective pixels</b>	: U type : 250 000 (512(H) × 492(V)) E type : 300 000 (512(H) × 582(V))
<b>Synchronization method</b>	: External, internal, and line lock (U type is 60 Hz, E type is 50 Hz regions only.)
<b>Scanning frequency</b>	: U type : (H) 15.734 kHz (V) 59.94 Hz E type : (H) 15.625 kHz (V) 50 Hz
<b>Resolution</b>	: 380 TV lines (H)
<b>Video S/N</b>	: 50 dB
<b>Minimum illumination</b>	: 0.3 lx (F1.4)
<b>Lens mount</b>	: C/CS mount
<b>Power supply</b>	: AC 24 V ~ 60 Hz (U type) 50/60 Hz (E type) DC 12 V $\overline{\text{---}}$
<b>Power consumption</b>	: 3 W (type U), 250 mA (type E)
<b>Ambient temperatures</b>	: -10°C to 50°C (operation) 0°C to 40°C (recommended)
<b>Weight</b>	: 510 g (1.13 lbs)

