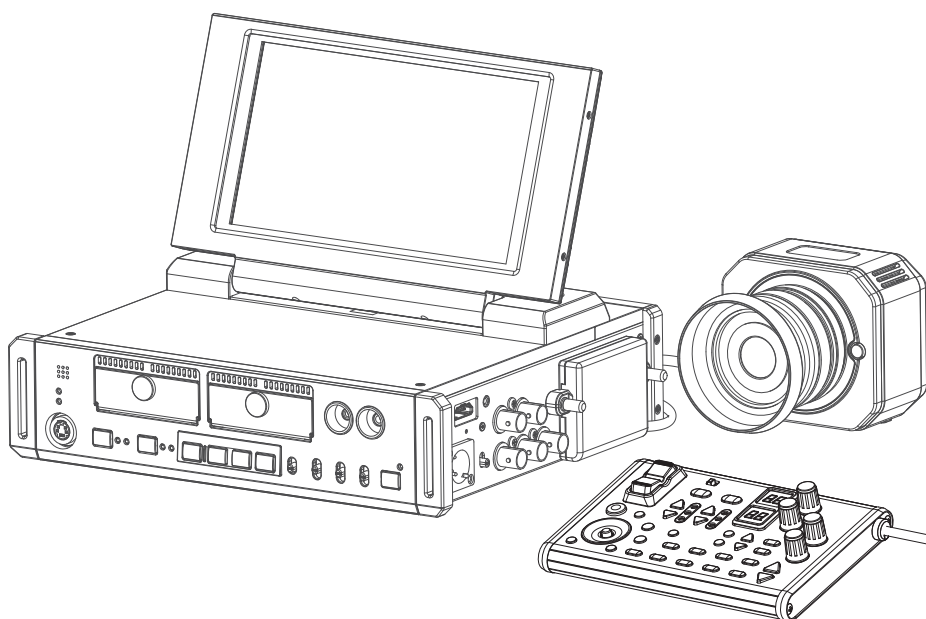




TWO-PIECE 4K CAMERA SYSTEM

GW-SP100U/GW-SP100E

INSTRUCTIONS



*This illustration shows the GW-SP100U/GW-SP100E with separately sold signal transmission cable and lens.

The specifications and appearance of this product are subject to changes for further improvement without prior notice.

Please check the latest version of the INSTRUCTIONS from our Website.

For Customer Use:

Enter below the System No. and Serial No. which is located on the bottom of the video unit.

Retain this information for future reference.

System No. _____

Serial No. _____

Please read the following before getting started:

Thank you for purchasing this product. Before operating this unit, please read the instructions carefully to ensure the best possible performance.

In this manual, each model number is described without the last letter (U/E) which means the shipping destination. (U: for USA and Canada, E: for Europe)

FOR USA

These are general **IMPORTANT SAFEGUARDS** and certain items may not apply to all appliances.

IMPORTANT SAFEGUARDS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10. Only use attachments/accessories specified by the manufacturer.
11. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel.
Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



For USA-California Only

This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material – special handling may apply.

See www.dtsc.ca.gov/hazardouswaste/perchlorate

Safety Precautions

FOR USA AND CANADA



CAUTION

RISK OF ELECTRIC
SHOCK
DO NOT OPEN



CAUTION:
TO REDUCE THE RISK OF
ELECTRIC SHOCK.
DO NOT REMOVE COVER (OR
BACK).
NO USER-SERVICEABLE PARTS
INSIDE. REFER SERVICING TO
QUALIFIED SERVICE
PERSONNEL.



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.

This device complies with Part 15 of 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.

Changes or modifications not approved by JVC could void the user’s authority to operate the equipment. 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 instructions, may cause harmful interference to radio communications. Operation of 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.

CAN ICES-3 A / NMB-3 A

POUR CANADA



ATTENTION

RISQUE
D'ELECTROCUTION
NE PAS OUVRIR



ATTENTION:
POUR EVITER TOUT RISQUE
D'ELECTROCUTION NE PAS
OUVRIR LE BOITER. AUCUNE
PIECE INTERIEURE N'EST A
REGLER PAR L'UTILISATEUR. SE
REFERER A UN AGENT QUALIFIE
EN CAS DE PROBLEME.



Le symbole de l'éclair à l'intérieur d'un triangle équilatéral est destiné à alerter l'utilisateur sur la présence d'une "tension dangereuse" non isolée dans le boîtier du produit. Cette tension est suffisante pour provoquer l'électrocution de personnes.



Le point d'exclamation à l'intérieur d'un triangle équilatéral est destiné à alerter l'utilisateur sur la présence d'opérations d'entretien importantes au sujet desquelles des renseignements se trouvent dans le manuel d'instructions.

Ces symboles ne sont utilisés qu'aux Etats-Unis.

CAUTION:

The mains plug shall remain readily operable.

- Remove the mains plug immediately if the camera functions abnormally.

WARNING:

The battery pack, the camera with battery installed, and the remote control with battery installed should not be exposed to excessive heat such as direct sunlight, fire or the like.

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

AVERTISSEMENT : POUR EVITER LES RISQUES D'INCENDIE OU D'ELECTROCUTION, NE PAS EXPOSER L'APPAREIL A LA PLUIE NI A L'HUMIDITE.

NOTES:

- The rating plate and safety caution are on the bottom and/or the back of the unit.
- The serial number plate is on the bottom and/or the back of the unit.

REMARQUES :

- La plaque d'identification et l'avertissement de sécurité se trouvent sous l'appareil et/ou au dos.
- La plaque de numéro de série est sur la partie inférieure et/ou l'arrière de l'appareil.

Caution on Replaceable lithium battery

The battery used in this device may present a fire or chemical burn hazard if mistreated.

Do not recharge, disassemble, heat above 100°C (212°F) or incinerate.

Replace battery with Panasonic, Sanyo, Sony or Maxell CR2025.

Danger of explosion or risk of fire if the battery is incorrectly replaced.

- Dispose of used battery promptly.
- Keep away from children.
- Do not disassemble and do not dispose of in fire.

When the equipment is installed in a cabinet or on a shelf, make sure that it has sufficient space on all sides to allow for ventilation (10 cm (3-15/16") or more on both sides, on top and at the rear). Do not block the ventilation holes. (If the ventilation holes are blocked by a newspaper, or cloth etc. the heat may not be able to get out.)

No naked flame sources, such as lighted candles, should be placed on the apparatus.

When discarding batteries, environmental problems must be considered and the local rules or laws governing the disposal of these batteries must be followed strictly.

The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

Do not point the lens directly into the sun. This can cause eye injuries, as well as lead to the malfunctioning of internal circuitry. There is also a risk of fire or electric shock.

CAUTION!

The following notes concern possible physical damage to this unit and to the user.

Carrying or holding this unit by the LCD monitor can result in dropping the unit, or in a malfunction.

Do not use a tripod on unsteady or unlevel surfaces. It could tip over, causing serious damage to the unit.

CAUTION!

Connecting cables (Audio/Video, etc.) to this unit and leaving it on top of the TV is not recommended, as tripping on the cables will cause the unit to fall, resulting in damage.

CAUTIONS:

- To prevent shock, do not open the cabinet. No user serviceable parts inside. Refer servicing to qualified personnel.
- When you are not using the AC adapter for a long period of time, it is recommended that you disconnect the power cord from AC outlet.

**[European Union]
Information on Disposal of
Old Electrical and Electronic
Equipment (applicable for
countries that have adopted
separate waste collection
systems)**



Products with the symbol (crossed-out wheeled bin) cannot be disposed as household waste. Old electrical and electronic equipment should be recycled at a facility capable of handling these items and their waste by products.

Contact your local authority for details in locating a recycle facility nearest to you. Proper recycling and waste disposal will help conserve resources whilst preventing detrimental effects on our health and the environment.

FOR EUROPE

This equipment is in conformity with the provisions and protection requirements of the corresponding European Directives. This equipment is designed for professional video appliances and can be used in the following environments:

- Controlled EMC environment (for example, purpose-built broadcasting or recording studio), and rural outdoors environments.

In order to keep the best performance and furthermore for electromagnetic compatibility we recommend to use cables not exceeding the following lengths:

Port	Cable	Length
DC INPUT	Exclusive Cable	1.8 m
USB Mini	Shielded Cable	3 m
AV OUT	Exclusive Cable	1.5 m
HDMI	Shielded Cable	3 m
REMOTE 1	Exclusive Cable	5 m
REMOTE 2/3	Exclusive Cable	1 m
SDI OUT / SDI(Moni) OUT	Coaxial Cable	10 m
AUDIO INPUT 1/2	Shielded Cable	3 m
HEADPHONE	Exclusive Cable	3 m
AUX	Shielded Cable	5 m
TC IN / TC OUT	Coaxial Cable	10 m
GENLOCK	Coaxial Cable	10 m

CAUTION:

Where there are strong electromagnetic waves or magnetism, for example near a radio or TV transmitter, transformer, motor, etc., the picture and the sound may be disturbed. In such case, please keep the apparatus away from the sources of the disturbance.

Dear Customer,

This apparatus is in conformance with the valid European directives and standards regarding electromagnetic compatibility and electrical safety. European representative of JVC KENWOOD Corporation is: JVC Technical Services Europe GmbH
Konrad-Adenauer-Allee 1-11
61118 Bad Vilbel
GERMANY

INFORMATION

Manufacturer :

JVC KENWOOD Corporation
3-12, Moriya-cho, Kanagawa-ku,
Yokohama-shi,
Kanagawa, 221-0022, JAPAN

Importer (EU only) :

JVC KENWOOD U.K. Limited
12 Priestley Way, London, NW2 7BA
UNITED KINGDOM

FOR EUROPEAN

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

The plastics packaging bags may cause suffocation when they are covered over the head. Tear them open, and keep them away from the reach of infants and children by ensuring that they are disposed of properly.

Batteries

- The batteries recommended for use with this camera system are as follows.
SSL-JVC50, SSL-JVC75 (IDX)
- Please make use the recommended batteries.

Précautions de sécurité

PRÉCAUTIONS :

La fiche principale doit rester fonctionnelle.

- Retirez la fiche principale immédiatement si l'appareil fonctionne anormalement.

AVERTISSEMENT :

Éviter d'exposer la batterie, le caméscope avec la batterie insérée ou la télécommande avec la batterie insérée à une chaleur excessive, telle que celle des rayons directs du soleil, d'un feu ou autre source de chaleur.

AVERTISSEMENT : POUR ÉVITER LES RISQUES D'INCENDIE OU D'ÉLECTROCUTION, NE PAS EXPOSER L'APPAREIL À LA PLUIE NI À L'HUMIDITÉ.

REMARQUES :

- La plaque d'identification et l'avertissement de sécurité se trouvent sous l'appareil et/ou au dos.
- La plaque de numéro de série se trouve sur le logement de la batterie.

Avertissement sur la pile au lithium remplaçable

La pile utilisée dans cet appareil peut présenter des risques d'incendie ou de brûlure chimique si elle est mal traitée. Ne pas recharger, démonter, chauffer à plus de 100°C ni mettre au feu. Remplacez la pile avec Panasonic, Sanyo, Sony ou Maxell CR2025. Danger d'explosion ou risque d'incendie si la pile n'est pas changée correctement.

- Jeter immédiatement les piles usées.
- Placer hors de la portée des enfants.
- Ne pas démonter ni jeter au feu.

Si le matériel est installé dans un coffret ou sur une étagère, s'assurer qu'il y a un espace suffisant sur tous les côtés pour permettre la ventilation (10 cm ou plus sur les deux côtés, au dessus et à l'arrière). Ne pas boucher les orifices de ventilation. (Si les orifices de ventilation sont bouchés par un journal, un tissu, etc., la chaleur peut ne pas s'éliminer.)

Aucune source à flamme nue, telle que des bougies allumées, ne doit être placée sur l'appareil.

En jetant des batteries aux ordures, les problèmes d'environnement doivent être pris en considération et les réglementations locales ou la législation concernant le rebut de ces batteries doivent être strictement respectées.

L'appareil ne doit pas être exposé à de l'eau ou à des éclaboussures et les objets remplis de liquide, tels que des vases, ne doivent pas être placés sur l'appareil.

Ne dirigez pas l'objectif directement vers le soleil. Vous pourriez vous abîmer la vue et l'appareil pourrait être endommagé. Il y a aussi risque d'incendie ou d'électrocution.

PRÉCAUTION !

Les remarques suivantes sont destinées à protéger l'utilisateur et le caméscope contre des dommages éventuels.

Ne pas transporter ou saisir le caméscope par l'écran LCD, car il pourrait tomber ou s'endommager.

Ne pas utiliser de trépied photographique sur des surfaces irrégulières et inclinées. Il pourrait tomber et le caméscope pourrait être sérieusement endommagé.

PRÉCAUTION !

Avec des câbles (Audio/Vidéo, etc.) raccordés, il est recommandé de ne pas laisser le caméscope sur le dessus du téléviseur, car tirer sur les câbles pourrait faire tomber le caméscope, causant des dommages.

PRÉCAUTIONS :

- Pour éviter tout risque d'électrocution, ne pas ouvrir le boîtier. Aucune pièce intérieure n'est à régler par l'utilisateur. Se référer à un agent qualifié en cas de problème.
- Si l'on ne se sert pas de l'adaptateur secteur pendant une longue période, il est recommandé de débrancher le cordon d'alimentation de la prise secteur.

[Union européenne]
Informations relatives à
l'élimination des appareils
électriques et électroniques
usagés (applicable dans les
pays ayant adopté des
systèmes de collecte sélective
des déchets)



Les produits portant ce symbole (poubelle sur roues barrée d'une croix) ne peuvent pas être éliminés en tant que déchets ménagers.

Les appareils électriques et électroniques usagés doivent être recyclés dans des installations capables de prendre en charge ces éléments et leurs sous-produits. Contactez les autorités locales pour plus d'informations sur l'emplacement de l'installation de recyclage la plus proche de chez vous. Lorsque le recyclage et l'élimination des déchets sont effectués correctement, cela contribue à préserver les ressources tout en évitant des effets nuisibles sur notre santé et notre environnement.

POUR EUROPE

Cet équipement est conforme aux clauses et exigences de protection des directives européennes correspondantes. Il est conçu pour les appareils vidéo professionnels et peut être utilisé dans les environnements suivants :

- Environnement EMC contrôlé (par exemple, studio de diffusion ou d'enregistrement intégré) et environnements extérieurs en campagne.

Afin de maintenir une performance optimale et une compatibilité électromagnétique, nous vous recommandons d'utiliser des câbles de longueur inférieure à :

Port	Câble	Longueur
DC INPUT	Câble exclusif	1,8 m
USB Mini	Câble blindé	3 m
AV OUT	Câble exclusif	1,5 m
HDMI	Câble blindé	3 m
REMOTE 1	Câble exclusif	5 m
REMOTE 2/3	Câble exclusif	1 m
SDI OUT / SDI(Moni) OUT	Câble coaxial	10 m
AUDIO INPUT 1/2	Câble blindé	3 m
HEADPHONE	Exclusive Cable	3 m
AUX	Câble blindé	5 m
TC IN / TC OUT	Câble coaxial	10 m
GENLOCK	Câble coaxial	10 m

PRÉCAUTION :

Dans les endroits où il y a des ondes électromagnétiques puissantes ou du magnétisme, par exemple près d'un émetteur radio ou d'un téléviseur, d'un transformateur, d'un moteur, etc., l'image et son peuvent être déformés. Dans ce cas, veuillez éloigner l'appareil des sources de perturbations.

Cher(e) client(e),

Cet appareil est conforme aux directives et normes européennes en vigueur concernant la compatibilité électromagnétique et à la sécurité électrique.

Représentant européen de la société
JVC KENWOOD Corporation :
JVC Technical Services Europe GmbH
Konrad-Adenauer-Allee 1-11
61118 Bad Vilbel
ALLEMAGNE

INFORMATION**Fabricant :**

JVC KENWOOD Corporation
3-12, Moriya-cho, Kanagawa-ku,
Yokohama-shi,
Kanagawa, 221-0022, JAPON

Importateur (UE seulement) :

JVCKENWOOD U.K. Limited
12 Priestley Way, London, NW2 7BA
ROYAUME-UNI

POUR L'EUROPE**ATTENTION :**

Il s'agit d'un produit de Classe A. Dans un environnement domestique, ce produit peut causer des interférences radio. Le cas échéant, l'utilisateur devra éventuellement prendre des mesures adéquates.

Les sacs d'emballage en plastique peuvent causer une asphyxie s'ils sont placés sur la tête. Déchirez-les pour les ouvrir et conservez-les hors de portée des bébés et enfants en vous assurant qu'ils sont mis au rebut de manière adéquate.

Batteries

- Les batteries recommandés pour une utilisation avec ce système de caméra sont comme suit.
SSL-JVC50, SSL-JVC75 (IDX)
- Veuillez utiliser les batteries recommandées.

Precauciones de seguridad

PRECAUCIÓN:

El enchufe de alimentación de red permanece en funcionamiento.

- Reitre el enchufe de alimentación inmediatamente si la unidad no funciona correctamente.

ADVERTENCIA:

Las baterías, incluidas las baterías de litio instaladas en la cámara y en el mando a distancia, no deben dejarse expuestas a un calor excesivo, como la luz solar directa, el fuego o una condición similar.

ADVERTENCIA: PARA EVITAR RIESGO DE INCENDIOS O ELECTROCUCIONES, NO EXPONGA ESTE APARATO A LA LLUVIA O HUMEDAD.

NOTAS:

- La placa de valores nominales y la precaución de seguridad se encuentran en la parte inferior y/o en la parte posterior de la unidad principal.
- La placa del número de serie se encuentra en el compartimiento de la batería.

Precaución relacionada con la batería de litio recambiable

La batería utilizada en este dispositivo presenta riesgos de incendio y de quemaduras químicas si no se usa correctamente.

No la recargue, ni la desmonte, ni la caliente por encima de los 100°C, ni la incinere. Reemplazar batería con Panasonic, Sanyo, Sony o Maxell CR2025. Hay peligro de explosión o riesgo de incendio si la batería se cambia de manera incorrecta.

- Deshágase de la batería usada sin demora.
- Manténgala lejos del alcance de los niños.
- No la desmonte ni la eche al fuego.

Cuando el equipo se encuentra instalado en un gabinete o en un estante, asegúrese que tenga suficiente espacio en todos los lados para permitir la ventilación (10 cm o más en cada lado, en la parte superior y en la parte trasera). No bloquee los orificios de ventilación. (Si los orificios de ventilación están bloqueados por un periódico, o paño, etc., el calor no podrá salir.)

No deberá ser colocada en el aparato ninguna fuente de llama sin protección, tales como velas encendidas. Cuando descarte las pilas, deberá considerar los problemas ambientales y respetar estrictamente las normas locales o leyes vigentes para la eliminación de estas pilas.

No se expondrá el equipo a goteos ni salpicaduras, ni se dejarán sobre él objetos que contengan líquidos, como jarrones.

No apunte el objetivo directamente hacia el sol. Esto puede causarle lesiones en los ojos así como también fallas en los circuitos internos de la cámara. Esto también puede producir riesgo de incendio o de choque eléctrico.

¡PRECAUCIÓN!

Las siguientes notas indican posibles daños a la cámara o lesiones al usuario. El transportar o sostener la cámara por el monitor LCD puede resultar en la caída o en fallas de la unidad.

No utilice el trípode sobre superficies inestables o desniveladas ya que la cámara puede caerse, produciendo graves daños a la misma.

¡PRECAUCIÓN!

Evite conectar los cables (audio/video, etc.) a la cámara y dejar la unidad sobre el TV, ya que el tropezar con uno de los cables puede derribar la cámara resultando ésta dañada.

PRECAUCIONES:

- Para evitar cortocircuitos, no abra la videocámara. No hay componentes que puedan ser reparados por el usuario. Consulte con personal de servicio cualificado.
- Cuando no utilice el adaptador de CA durante un largo período, le recomendamos desconectar el cable de alimentación de la toma de corriente.

[Unión Europea] Información sobre la eliminación de equipo eléctrico y electrónico usado (aplicable para países que han adoptado los sistemas de recogida de residuos separada)



Los productos con el símbolo (cubo de basura con ruedas tachado) no se pueden desechar como residuos domésticos. El equipo eléctrico y electrónico usado se debe reciclar en un centro capaz de manipular estos artículos y sus residuos por productos. Póngase en contacto con su autoridad local para obtener los datos para localizar el centro de reciclaje más cercano a usted. El reciclaje y la eliminación de residuos correctos ayudarán a conservar los recursos a la vez que evita los efectos perjudiciales sobre nuestra salud y el medio ambiente.

PARA EUROPA

Este equipo se ajusta a las estipulaciones y normas de protección establecidas por las correspondientes Directivas Europeas. El equipo está diseñado para aparatos de vídeo profesional y se puede utilizar en los siguientes ámbitos:

- Entornos controlados de compatibilidad electromagnética (CEM) (por ejemplo, estudios de TV o de grabación) y entornos exteriores rurales.

Para lograr un mejor rendimiento y, además, conseguir compatibilidad electromagnética, se recomienda utilizar cables que no excedan las siguientes longitudes:

Puerto	Cable	Longitud
DC INPUT	Cable exclusivo	1,8 m
USB Mini	Cable blindado	3 m
AV OUT	Cable exclusivo	1,5 m
HDMI	Cable blindado	3 m
REMOTE 1	Cable exclusivo	5 m
REMOTE 2/3	Cable exclusivo	1 m
SDI OUT / SDI(Moni) OUT	Cable coaxial	10 m
AUDIO INPUT 1/2	Cable blindado	3 m
HEADPHONE	Cable exclusivo	3 m
AUX	Cable blindado	5 m
TC IN / TC OUT	Cable coaxial	10 m
GENLOCK	Cable coaxial	10 m

PRECAUCIÓN:

En lugares donde hay fuertes ondas electromagnéticas o magnetismo, como por ejemplo cerca de las transmisoras de radio y televisión, transformadores, motores, etc., es posible que la imagen y el sonido se distorsionen. Si esto ocurre, mantenga el aparato fuera del alcance de la fuente que produce la distorsión.

Apreciado cliente,

Este aparato cumple con las normativas y normas europeas respecto a la seguridad eléctrica y a la compatibilidad electromagnética.

El representante europeo de
JVC KENWOOD Corporation es:
JVC Technical Services Europe GmbH
Konrad-Adenauer-Allee 1-11
61118 Bad Vilbel
ALEMANIA

INFORMACIÓN**Fabricante :**

JVC KENWOOD Corporation
3-12, Moriya-cho, Kanagawa-ku,
Yokohama-shi,
Kanagawa, 221-0022, JAPÓN

Importador (solo la Unión Europea) :

JVCKENWOOD U.K. Limited
12 Priestley Way, London, NW2 7BA
REINO UNIDO

PARA EUROPA**ADVERTENCIA:**

Este es un producto de Clase A. En un entorno doméstico, este producto puede ocasionar interferencias de radio, en cuyo caso el usuario puede tener que adoptar las medidas adecuadas.

Las bolsas de plástico del embalaje pueden causar asfixia si son colocadas sobre la cabeza. Desgárrelas para abrirlas, y guárdelas lejos del alcance de los niños para asegurarse de que son desechadas correctamente.

Baterías

- Las baterías recomendadas para el uso con este sistema de cámaras son las siguientes.
SSL-JVC50, SSL-JVC75 (IDX)
- Utilice las siguientes baterías recomendadas.

Precauzioni di sicurezza

PRECAUZIONI :

La spina di alimentazione deve essere sempre facilmente accessibile.

- In caso di funzionamento irregolare della videocamera, estrarre subito la spina di alimentazione.

ATTENZIONE :

La batteria, la Media camera con la batteria installata e il telecomando con la batteria installata non dovrebbero essere esposti a calore eccessivo, ad esempio a luce solare diretta, fuoco e così via.

ATTENZIONE: PER EVITARE IL PERICOLO DI INCENDI O DI SCOSSE ELETTRICHE, NON LASCIARE L'APPARECCHIO ESPOSTO ALLA PIOGGIA O ALL'UMIDITÀ.

NOTE :

- La piastrina di identificazione e le avvertenze si trovano sul lato inferiore e/o posteriore dell'apparecchio.
- La piastrina con il numero di serie si trova sul supporto della batteria.

Precauzione per la batteria al litio sostituibile

La batteria usata in questo apparecchio può presentare dei pericoli di incendi o di bruciature di origine chimica in caso di erranea manipolazione.

Non ricaricarla, non smontarla, non riscaldarla oltre i 100°C, e non bruciarla.

Sostituire la batteria con Panasonic, Sanyo, Sony o Maxell CR2025.

Pericolo di esplosione o rischio di incendio se la batteria viene sostituita in modo erraneo.

- Eliminare prontamente le batterie usate.
- Tenere le batterie fuori dalla portata dei bambini.
- Non smontarle e non gettarle nel fuoco per nessun motivo.

Quando l'apparecchio è installato in un mobile o su uno scaffale, assicurarsi che rimanga spazio sufficiente su tutti i lati per consentire la ventilazione (10 cm o più sui lati, sopra e sul retro).

Non bloccare i fori di ventilazione.

(Se i fori di ventilazione sono bloccati da un giornale o stoffa, ecc. il calore può non riuscire ad emergere.)

Non collocare alcune fiamme esposte, come candele, sopra l'apparecchio.

Quando si gettano le pile, si deve tenere conto dell'ambiente e le norme o leggi locali in materia di rifiuti devono essere strettamente osservate.

L'apparecchio non deve essere esposto a gocciolamenti o schizzi e nessun oggetto con liquidi al suo interno (ad esempio, un vaso) deve essere appoggiato su di esso.

Non puntare l'obiettivo direttamente verso il sole. Ciò potrebbe causare lesioni agli occhi, o disfunzioni nei circuiti interni dell'apparecchio. Tale azione, inoltre, può anche essere all'origine di incendi o scosse elettriche.

AVVERTENZA !

Le note seguenti intendono prevenire possibili lesioni al cliente o danni materiali alla Media camera.

Non trasportare o tenere la Media camera reggendola per il monitor LCD in quanto potrebbe cadere o guastarsi.

Non usare il treppiede su superfici instabili o non perfettamente orizzontali.

La Media camera potrebbe rovesciarsi, con conseguenti possibili seri danni.

AVVERTENZA !

Si sconsiglia di collegare i cavi (Audio/Video, ecc) alla Media camera e di non lasciarla poi appoggiata al televisore poiché, se qualcuno inciampa nei cavi, l'apparecchio può cadere e rimanere danneggiato.

PRECAUZIONI :

- Per prevenire scosse elettriche evitare di aprire l'apparecchio. All'interno non vi sono parti la cui manutenzione possa essere effettuata dal cliente. Eventuali riparazioni devono venire effettuate solamente da personale qualificato.
- Se non si usa l'alimentatore CA per un periodo di tempo prolungato, si raccomanda di scollegare il cavo di alimentazione dalla presa.

[Unione Europea] Informazioni sullo smaltimento delle apparecchiature elettriche ed elettroniche obsolete (per i paesi che hanno adottato sistemi di raccolta differenziata dei rifiuti)



I prodotti con il simbolo del bidone barrato non possono essere smaltiti come rifiuti domestici. Le apparecchiature elettriche ed elettroniche obsolete devono essere riciclate presso un centro in grado di trattare questi apparecchi e i relativi sottoprodotti di scarto.

Rivolgersi alle autorità locali per informazioni sull'ubicazione del centro di riciclaggio più vicino. Mediante il riciclaggio e lo smaltimento corretti di questo prodotto, si contribuirà a preservare le risorse naturali e a prevenire potenziali effetti negativi sulla salute umana e sull'ambiente.

PER L'EUROPA

Questo apparecchio è conforme alle regolamentazioni sulla sicurezza delineate nelle direttive europee. Questo apparecchio è stato progettato per essere utilizzato con dispositivi video professionali e può essere utilizzato nei seguenti ambienti:

- Ambienti con controllo delle emissioni elettromagnetiche (adesempio, studi di trasmissione o di registrazione video) e ambienti esterni.

Per ottenere le migliori prestazioni e garantire la compatibilità elettromagnetica, si consiglia di utilizzare cavi che non superino le seguenti lunghezze:

Porta	Cavo	Lunghezza
DC INPUT	Cavo esclusivo	1,8 m
USB Mini	Cavo schermato	3 m
AV OUT	Cavo esclusivo	1,5 m
HDMI	Cavo schermato	3 m
REMOTE 1	Cavo esclusivo	5 m
REMOTE 2/3	Cavo esclusivo	1 m
SDI OUT / SDI(Moni) OUT	Cavo coassiale	10 m
AUDIO INPUT 1/2	Cavo schermato	3 m
HEADPHONE	Cavo esclusivo	3 m
AUX	Cavo schermato	5 m
TC IN / TC OUT	Cavo coassiale	10 m
GENLOCK	Cavo coassiale	10 m

PRECAUZIONE:

Quando sono presenti forti onde o magnetismo elettromagnetico, ad esempio vicino ad un televisore, radio, trasmettitore, trasformatore, motore, ecc., l'immagine e il suono potrebbero essere disturbati. In tal caso, mantenere l'apparato lontano dalle fonti dei disturbi.

Gentile Cliente,

Questa apparecchiatura è conforme alle direttive e alle norme europee relative alla compatibilità elettromagnetica e alla sicurezza elettrica.

Il rappresentante europeo di
JVC KENWOOD Corporation è:
JVC Technical Services Europe GmbH
Konrad-Adenauer-Allee 1-11
61118 Bad Vilbel
GERMANIA

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Yokohama-shi,
Kanagawa, 221-0022, GIAPPONE

Importatore (solo UE) :

JVCKENWOOD U.K. Limited
12 Priestley Way, London, NW2 7BA
REGNO UNITO

PER GLI UTENTI EUROPEI**AVVERTENZA:**

Questo è un prodotto di classe A. In un ambiente domestico, questo prodotto potrebbe provocare interferenze radio, nel cui caso è possibile che all'utente venga richiesto di adottare misure adeguate.

I sacchetti di plastica per imballaggio possono provocare soffocamento se vengono usati per coprire la testa. Aprirli stappandoli e tenerli lontani dalla portata di neonati e bambini assicurandosi che vengano smaltiti in modo corretto.

Batterie

- Le batterie consigliate per l'uso con questo sistema di videocamera sono le seguenti.
SSL-JVC50, SSL-JVC75 (IDX)
- Utilizzare le batterie raccomandati.

Sicherheitsmaßnahmen

VORSICHT :

Der Netzstecker muss jederzeit leicht zugänglich sein.

- Nehmen Sie das Gerät sofort vom Stromnetz, wenn es nicht ordnungsgemäß funktioniert.

WARNUNG :

Der Akku selbst, die Kamera mit dem eingesetzten Akku und die Fernbedienung mit der eingesetzten Batterie dürfen niemals starker Hitze wie direktem Sonnenlicht, Feuer usw. ausgesetzt werden.

ACHTUNG: SCHÜTZEN SIE DIESES GERÄT VOR NÄSSE UND FEUCHTIGKEIT, DAMIT ES NICHT IN BRAND GERÄT UND KEIN KURZSCHLUSS ENTSTEHT.

HINWEISE :

- Das Typenschild und Sicherheitshinweise befinden sich an der Unter- und/oder Rückseite des Geräts.
- Das Schild mit der Seriennummer befindet sich an der Akkuhalterung.

Warnhinweise zur auswechselbaren Lithium-Batterie

Die hier verwendete Batterie kann bei unsachgemäßer Handhabung Brandgefahr oder Ätzungen verursachen.

Die Batterie nicht wiederaufladen, zerlegen, über 100°C erhitzen oder verbrennen.

Tauschen Sie den Akku gegen einen neuen der Marken Panasonic, Sanyo, Sony oder Maxell CR2025 aus.

Bei unsachgemäßem Batteriewechsel kann es zu Brandgefahr oder zum Platzen der Batterie kommen.

- Für schnelle und sachgemäße Entsorgung der gebrauchten Batterie sorgen.
- Vor dem Zugriff von Kindern schützen.
- Nicht zerlegen oder verbrennen.

Wird dieses Gerät in ein Gehäuse oder ein Regal eingebaut, genügend Platz (jeweils 10 cm seitlich sowie hinter und über dem Gerät) lassen, um einen einwandfreien Temperatenausgleich zu gewährleisten. Niemals die Ventilationsöffnungen blockieren. (z.B. durch eine Zeitung oder eine Stoffdecke etc.) Andernfalls können die im Geräteinneren auftretenden hohen Temperaturen nicht abgestrahlt werden. Niemals offenes Feuer (z.B. eine brennende Kerze) auf oder unmittelbar neben dem Gerät platzieren. Beim Entsorgen der Batterien müssen geltende Gesetze sowie örtlich geltende Vorschriften zum Umweltschutz und zur Müllentsorgung eingehalten werden.

Dieses Gerät darf nicht mit tropfenden oder spritzenden Flüssigkeiten in Kontakt kommen und es dürfen keine mit Flüssigkeiten gefüllte Gegenstände, wie Vasen, auf dem Gerät platziert werden.

Niemals das Objektiv direkt auf die Sonne richten. Dies kann Augenschäden zur Folge haben und Geräteschäden verursachen. Zudem besteht Stromschlag- und Feuergefahr.

VORSICHT !

Die folgenden Handhabungshinweise beachten, um Kamera-Schäden und Verletzungen zu vermeiden.

Die Kamera beim Transportieren niemals am LCD-Monitor fassen. Andernfalls kann die Kamera herunterfallen oder anderweitig beschädigt werden.

Bei Verwendung eines Stativs auf stabile Aufstellung (kein schräger, unebener Untergrund etc.) achten, so dass es nicht umfällt. Die Kamera kann andernfalls schwer beschädigt werden.

VORSICHT !

Die mit dem TV-Gerät/Videorecorder verbundene (Audio/Video, etc.) Kamera sollte nicht auf dem TVGerät platziert werden. Die Kabel so verlegen, dass kein versehentliches Stolpern und Herunterreißen der Kamera möglich ist.

VORSICHTSMASSNAHMEN :

- Um elektrische Schläge zu vermeiden, das Gehäuse nicht öffnen! Dieses Gerät enthält keinerlei Teile, die vom Benutzer gewartet werden können. Überlassen Sie Wartungsarbeiten bitte qualifizierten Service-Fachleuten.
- Bei Nichtgebrauch des Netzgeräts über einen längeren Zeitraum wird empfohlen, das Netzkabel von der Netzsteckdose abzuziehen.

[Europäische Union] Benutzerinformationen zur Entsorgung elektrischer und elektronischer Altgeräte (gilt für Länder mit separaten Abfalltrennungssystemen)

Produkte mit diesem Symbol (durchgestrichene Abfalltonne auf Rädern) können nicht als normaler Haushaltsabfall entsorgt werden.

Elektrische und elektronische Altgeräte sollten zum fachgerechten Recycling in einem Wertstoffhof oder einer ähnlichen Einrichtung, die solche Wertstoffe und Abfallprodukte verarbeiten kann, abgegeben werden.

Weitere Informationen zu Sammelstellen in Ihrer Nähe erhalten Sie bei Ihrer Gemeindeverwaltung. Ein angemessenes Recycling und Abfallentsorgung helfen bei der Schonung von Ressourcen, während potenziell negative Auswirkungen auf die Umwelt sowie Gesundheitsschäden verhindert werden.



FÜR EUROPA

Dieses Gerät erfüllt die Normen und Schutzbestimmungen der zutreffenden europäischen Richtlinien. Das vorliegende Gerät wurde für professionelle Videoanwendungen entwickelt und kann in den folgenden Umgebungen eingesetzt werden:

- Umgebung mit kontrollierter elektromagnetischer Verträglichkeit (EMV) (z. B. speziell gebautes Sende- oder Aufnahmestudio) und im Freien ländlicher Umgebungen.

Um eine optimale Leistung sowie eine elektromagnetische Kompatibilität sicherzustellen, empfehlen wir die Verwendung von Kabeln, die die folgende Länge nicht übersteigen:

Anschluss	Kabel	Länge
DC INPUT	Exklusiv-Kabel	1,8 m
USB Mini	Abgeschirmtes Kabel	3 m
AV OUT	Exklusiv-Kabel	1,5 m
HDMI	Abgeschirmtes Kabel	3 m
REMOTE 1	Exklusiv-Kabel	5 m
REMOTE 2/3	Exklusiv-Kabel	1 m
SDI OUT / SDI(Moni) OUT	Koaxialkabel	10 m
AUDIO INPUT 1/2	Abgeschirmtes Kabel	3 m
HEADPHONE	Exklusiv-Kabel	3 m
AUX	Abgeschirmtes Kabel	5 m
TC IN / TC OUT	Koaxialkabel	10 m
GENLOCK	Koaxialkabel	10 m

VORSICHT:

In Bereichen mit starken elektromagnetischen Wellen oder Magnetfeldern, wie in der Nähe von Radio- oder Fernsehsendern, Transformatoren, Motoren, etc., kann es zu Verzerrungen von Bild und Ton kommen. Halten Sie in diesem Fall das Gerät von den Störquellen entfernt.

**Sehr geehrter Kunde,
Sehr geehrte Kundin,**

dieses Gerät stimmt mit den gültigen europäischen Richtlinien und Normen bezüglich elektromagnetischer Verträglichkeit und elektrischer Sicherheit überein.

Die europäische Vertretung für die
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Importeur (nur EU) :

JVCKENWOOD U.K. Limited
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VEREINIGTES KÖNIGREICH

FÜR EUROPA

WARNUNG:

Dies ist ein Produkt der Klasse A. Im häuslichen Bereich kann dieses Produkt Funkstörungen verursachen, woraufhin der Benutzer gegebenenfalls angemessene Maßnahmen zu ergreifen hat.

Die Kunststoffbeutel können zum Ersticken führen, wenn sie über den Kopf gezogen werden. Reißen Sie sie auf und entfernen Sie sie aus der Reichweite von Kindern und Kleinkindern, indem Sie sicherstellen, dass sie ordnungsgemäß entsorgt werden.

Akkus

- Folgende Akkus werden für die Verwendung mit dieser Kamera empfohlen.
SSL-JVC50, SSL-JVC75 (IDX)
- Nutzen Sie bitte die empfohlenen Akkus.

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Symbols used

- Caution** : Describes precautions concerning the operation of this product.
- Memo** : Describes reference information, such as functions and usage restrictions of this product.
- ⇒ : Indicates the reference page numbers and reference items.

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Precautions for Proper Use

Storage and Usage Locations

- Allowable ambient temperature and humidity
Be sure to use this unit within the allowable temperature range of 0 °C to 40 °C (32 °F to 104°F) and a relative humidity of 30 % to 80 %. Using this unit at a temperature or humidity outside the allowable ranges could result not only in malfunction but also serious impact on the CMOS elements as small white spots may be generated. Please exercise care during use.
- Strong electromagnetic waves or magnetism
Noise may appear in the picture or audio and/or the colors may be incorrect if this unit is used near a radio or television transmitting antenna, in places where strong magnetic fields are generated by transformers, motors, etc., or near devices emitting radio waves, such as transceivers or cellular phones.
- Use of wireless microphone near this unit
When a wireless microphone or wireless microphone tuner is used near this unit during recording, the tuner could pick up noise.
- Avoid using or placing this unit in the following places.
 - Places subject to extreme heat or cold
 - Places with excessive dirt or dust
 - Places with high humidity or moisture
 - Places subject to smoke or vapor such as near a cooking stove
 - Places subject to strong vibrations or unstable surfaces
 - In a parked car under direct sunlight or near a heater for long hours
- Do not place this unit at places that are subject to radiation or X-rays, or where corrosive gases occur.
- Protect this unit from being splashed with water. (Especially when shooting in the rain)
- Protect this unit from getting wet when shooting on a beach. In addition, salt and sand may adhere to the body. Be sure to clean the unit after use.
- Protect this unit against penetration of dust when using it in a place subject to sandy dust.

| Transportation

Do not drop or hit this unit against a hard object when transporting.

| Power Saving

When this unit is not in use, turn OFF the power in order to reduce power consumption.
(POWER Lamp is Off.)

| Maintenance

- Turn off the power before performing any maintenance.
- Wipe the external cabinet of the unit with a soft cloth. Do not wipe the body with benzene or thinner. Doing so may cause the surface to melt or turn cloudy. When it is extremely dirty, soak the cloth in a solution of neutral detergent, wipe the body with it, and then use a clean cloth to remove the detergent.

| Rechargeable Battery

- Be sure to use only the specified batteries.
We do not guarantee the safety and performance of this device if an unspecified battery is used.
- For details, refer to the "INSTRUCTIONS" of the battery.
- **ATTENTION:**



The product you have purchased is powered by a rechargeable battery that is recyclable. Please call 1-800-8-BATTERY for information on how to recycle this battery.

| Regular Inspection (Maintenance)

Under normal environment, dust will accumulate on the camera recorder when it is used over a long period. Dust may enter the camera recorder especially if it is used outdoors. This may affect the image and sound quality of the camera recorder. Check and replace the fan after every 9000 hours (suggested guideline).

You can check the usage time of the fan in [System] ➔ [System Information] ➔ [Fan Hour].

If the fan is used for more than 9000 hours without replacement, "FAN MAINTENANCE REQUIRED" will be displayed every time you turn on the power.

| SDHC/SDXC Cards

- SDHC/SDXC card is referred to as "SD card" in this manual.
- This camera system saves the recorded images and audio sound on the SD card (sold separately) in the card slot.
- When shooting 4K images, use a UHS Speed Class 3 SD card formatted by this unit.
- When shooting HD images, use a Class 10 or higher SD card formatted by this unit.
- For AVCHD, Class4 or higher compatible SD card is also available.
- * Using cards other than those from Panasonic, TOSHIBA or SanDisk may result in recording failure or data loss.
- * If an UHS-I card with no classification indication is used, it may not be possible to perform HD recording.
- If the SD card contains files recorded by devices other than this camera system or files that are saved from a PC, the recordable time may be shorter or data may not be properly recorded. In addition, the remaining space on the card may not increase even when files are deleted using a PC.
- Do not use a miniSD card or microSD card (even if the card is inserted in an adapter). It may cause malfunction to the camera system.

| Handling of SD Cards

- The status indicator lights up in red when data on the SD card is being accessed. Do not remove the SD card during data access (such as recording, playback, or formatting). Do not turn off the power or remove the battery and AC adapter during access either.
- Do not use or store the SD card in a place that is subject to static electricity or electrical noise.
- Do not place the SD card near locations that are exposed to strong magnetic fields or radio waves.
- Inserting the SD card incorrectly may result in damage of this unit or the SD card.

■ We are not liable for any accidental loss of data stored on the SD card. Please back up any important data.

■ Make use of the SD card within the prescribed conditions of use.

Do not use it at the following locations.

Places that are subject to direct sunlight, high humidity or corrosion, places near thermal equipment, sandy or dusty places, or in a car under the sun with the doors and windows closed.

■ Do not bend or drop the SD card, or subject it to strong impact or vibration.

■ Do not splash the SD card with water.

■ Do not dismantle or modify the SD card.

■ Do not touch the terminals with your hands or with a metal object.

■ Do not allow dust, dirt, water, or foreign objects to adhere to the terminals.

■ Do not remove the labels or stick other labels or stickers on the SD cards.

■ Do not use pencils or ballpoint pens to write on the SD cards. Always use oil-based pens.

■ If you format (initialize) the SD card, all data recorded on the card, including video data and setup files, will be deleted.

■ You are recommended to use cards that are formatted (initialized) on this camera recorder.

- The SD card may be damaged if the camera recorder is not operated correctly. Formatting (Initializing) the SD card may allow it to operate correctly.
- SD cards that have been formatted (initialized) on other cameras, computers or peripheral equipment may not operate correctly. In this case, format (initialize) the SD card on this camera recorder.

■ If you want to wipe out all information by completely erasing the data, we recommend either using commercially available software that is specially designed for that purpose, or by physically destroying the SD card with a hammer, etc. When formatting or erasing data using the camera recorder, only the file administration information is changed. The data is not completely erased from the SD card.

■ Some commercially available SD cards may be harder to be removed from this unit. Remove them by hooking onto the groove on the cards.

- It will be easier to remove the cards after several times.
- Do not stick any stickers on the cards.



■ The SD card may pop out when it is being removed. Be careful not to lose the card.

Lens

■ This camera system is an interchangeable lens camera. Please have the interchangeable lens ready before use.

■ Read the "INSTRUCTIONS" of the interchangeable lens to be attached to get a full understanding before use.

■ Optical performance of lens

Due to the optical performance of the lens, color divergence phenomena (magnification chromatic aberration) may occur at the periphery of the image. This is not a camera malfunction.

■ Depending on the lens attached, there are function limitations on the lens with this camera recorder or the lens may not function properly.

■ The lens operation sound may be recorded.

■ Depending on the lens used, auto focus does not function during zoom operation.

■ The actual zoom speed may not change even if the zoom speed of the zoom lever are changed.

■ The position moved may be different from the position stored in the preset zoom.

■ If there is an AF/MF switch on the lens used, set the switch to AF. If the switch is set to MF, some camera functions cannot be used. If you prefer to use manual focus, set the [AF/MF] selection button on the camera recorder to MF before using.

■ Depending on the lens used, the approximate distance to the subject during manual focus may not be displayed.

■ There can be a large variation in the light intensity during Auto Iris mode, Manual Iris mode and zoom mode.

■ Even if the lens come with a button or custom switch which you can assign functions to, it is not possible to assign a function to it. The button or switch works as a switching to manual focus temporarily during Auto Focus.

| LCD Monitor

- The LCD monitor is manufactured using high-precision technology. Black spots may appear on the LCD monitor, or red, blue, and/or white spots may not disappear. However, this is not a malfunction and these spots are not recorded on the SD card.
- If you use this unit in a cold place, the images may appear to lag on the screen, but this is not a malfunction. Retained images are not recorded on the SD card.
- Do not press against the surface with force or subject it to strong impact. Doing so may damage or break the screens.

| Copyright

Any recordings made on this camera recorder that are played back for profit or public preview may infringe on the rights of the owner of the recordings. Do not use the recordings for purpose other than personal enjoyment without prior consent from the owner.

| License Notices

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| Others

- Do not insert objects other than the memory card into the card slot.
- Do not block the vent on the unit. Blocking of the vent causes internal heating and may lead to burns and fires.
- Do not remove the battery or power cable during recording or playback.
- The camera system may not show stable pictures for a few seconds immediately after the power is turned on, but this is not a malfunction.
- Do not drop this unit or subject it to strong impact or vibration as it is a precision equipment.
- Noise may appear in the image when switching modes.
- When using a tripod, to prevent the camera from falling off, which may result in injuries or damages, read the instruction manual of the tripod to be used and make sure that it is securely attached.
- Use the tripod on a stable surface.
- This camera system makes use of fonts by Fontworks Inc.
- This camera system makes use of M+ FONTS.

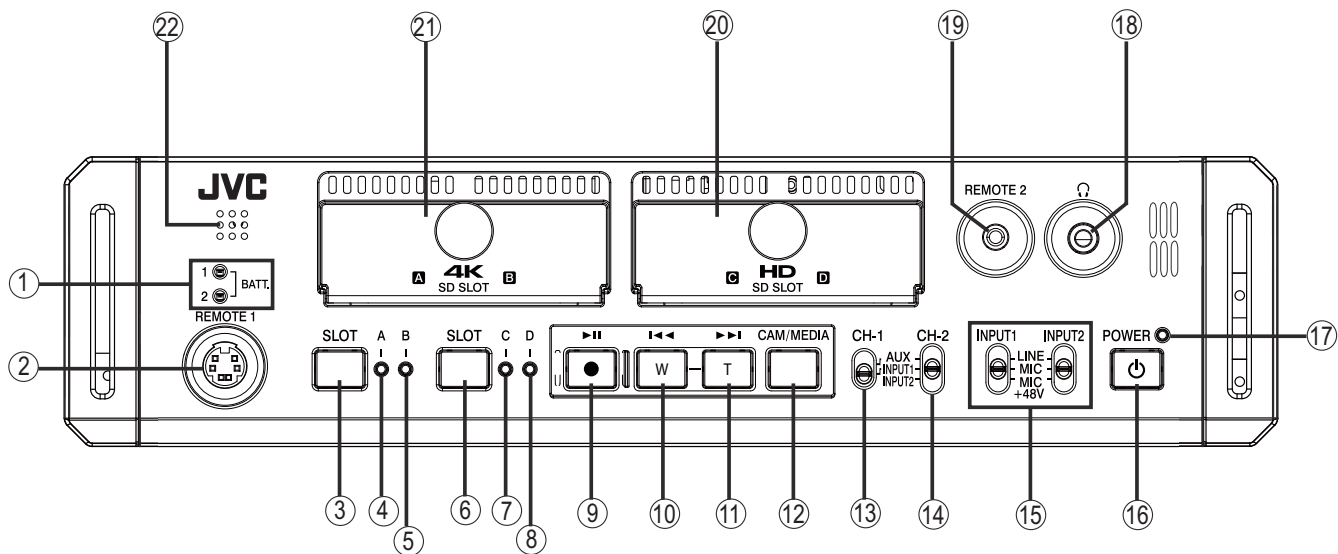
Operation Modes

This camera system has three operation modes - Camera mode, Media mode and USB mode.

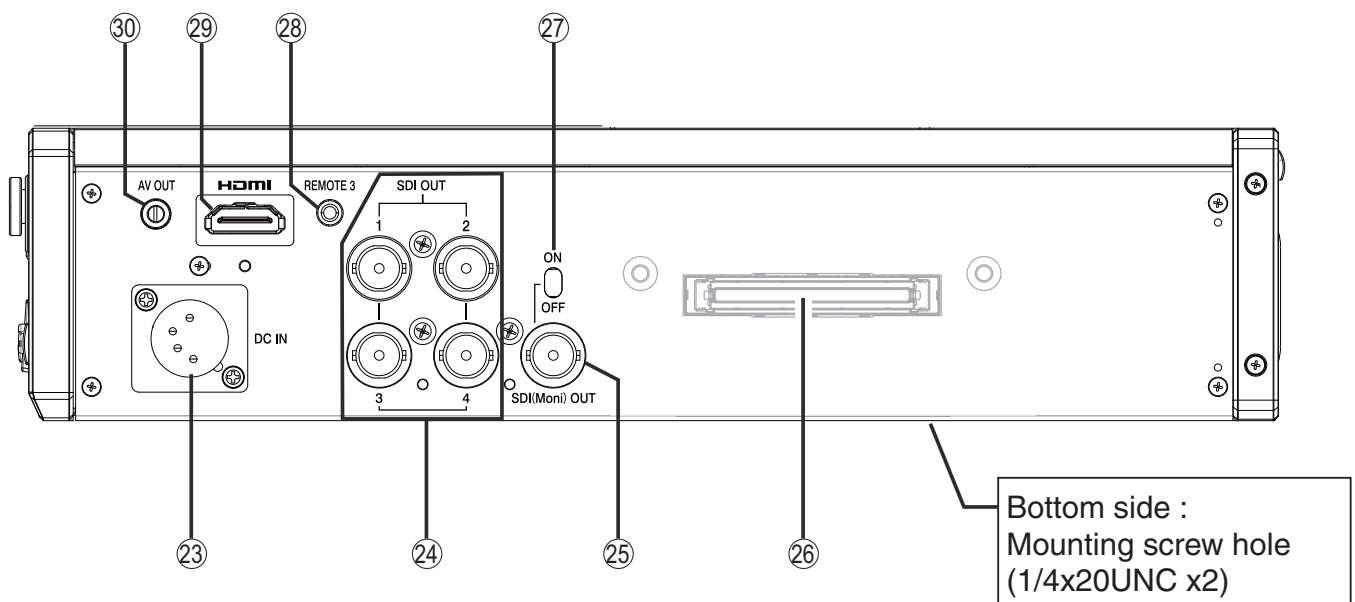
Operation Mode	Description
Camera Mode	<ul style="list-style-type: none">• This is the camera shooting mode. The camera system starts up in Camera mode when the power is turned on.• Press the [REC] trigger button to start recording. <p>Memo : _____</p> <ul style="list-style-type: none">• The fan is turned on to protect inside of the video unit. <p>Avoid shooting with the microphone heading towards the video unit, as operating sounds may be recorded.</p>
Media Mode	<ul style="list-style-type: none">• This mode allows you to play back or delete clips recorded on the SD card.• Press and hold the [CAM/MEDIA] button to enter Media mode when you are not shooting in Camera mode. Once the camera system is in Media mode, thumbnails of the selected media slot are displayed. <p>Memo : _____</p> <ul style="list-style-type: none">• Files recorded with other devices may not be playable. Use files recorded with this unit.
USB Mode	<ul style="list-style-type: none">• This mode allows you to connect to a PC and transfer the files on an SD card to the PC.• When the camera system is connected to a USB cable, the message "Change to USB Mode?" appears. <p>Select [Change] and press the Set button to switch to USB mode.</p> <ul style="list-style-type: none">• In USB mode, the camera system is recognized by the connected PC as a peripheral drive. (USB mass storage class only) <p>Disable the connection on the PC and remove the USB cable from the camera system to switch to Camera mode.</p> <p>Memo : _____</p> <ul style="list-style-type: none">• When a USB cable is connected during recording, the message appears after recording stops.• If playback is in progress, the message appears once the files are closed automatically, such as when playback stops.• Files on the PC cannot be written to the SD card.

Names of Parts

| Video Unit (GW-VU100)



- | | |
|--|---|
| ① Battery Lamp
The battery lamp turns red when the battery power becomes low.
And it starts blinking if the power becomes lower. | ⑮ Audio Input Signal Selection Switch |
| ② Remote 1 Terminal
Connect the control unit. | ⑯ Power Button |
| ③ Card Slot Selection Button (A/B) | ⑰ Power Lamp |
| ④ Card Slot A Status Indicator | ⑱ Headphone Jack (Φ 3.5 mm) |
| ⑤ Card Slot B Status Indicator | ⑲ Remote 2 Terminal
Connect the handle control unit. |
| ⑥ Card Slot Selection Button (C/D) | ⑳ SD Card Cover (C/D)
Card slot for recording/playing HD videos. |
| ⑦ Card Slot C Status Indicator | ㉑ SD Card Cover (A/B)
Card slot for recording/playing 4K videos. |
| ⑧ Card Slot D Status Indicator | ㉒ Monitor Speaker |
| ⑨ Record Trigger/Playback/Pause Button | |
| ⑩ Zoom W/Backward Skip Button | |
| ⑪ Zoom T/Forward Skip Button | |
| ⑫ Camera/Media Mode Selection Button | |
| ⑬ CH1 Audio Input Signal Selection Switch | |
| ⑭ CH2 Audio Input Signal Selection Switch | |



②③ DC Input Terminal
Input terminal for DC 12 V power supply.

②④ SDI Output Terminal (BNC) (*)
When HD video is output, images are output only from the SDI-OUT 1 terminal.

②⑤ SDI(Moni) Output Terminal (BNC) (*)

②⑥ Cable Connector for Camera

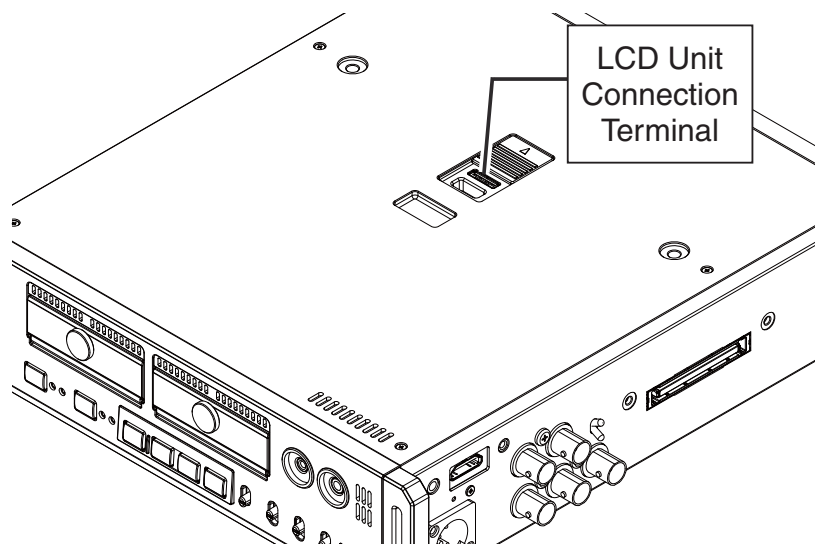
②⑦ SDI (Moni) ON/OFF Switch
When this switch is set to "ON", images are output from the SDI (Moni) output terminal.

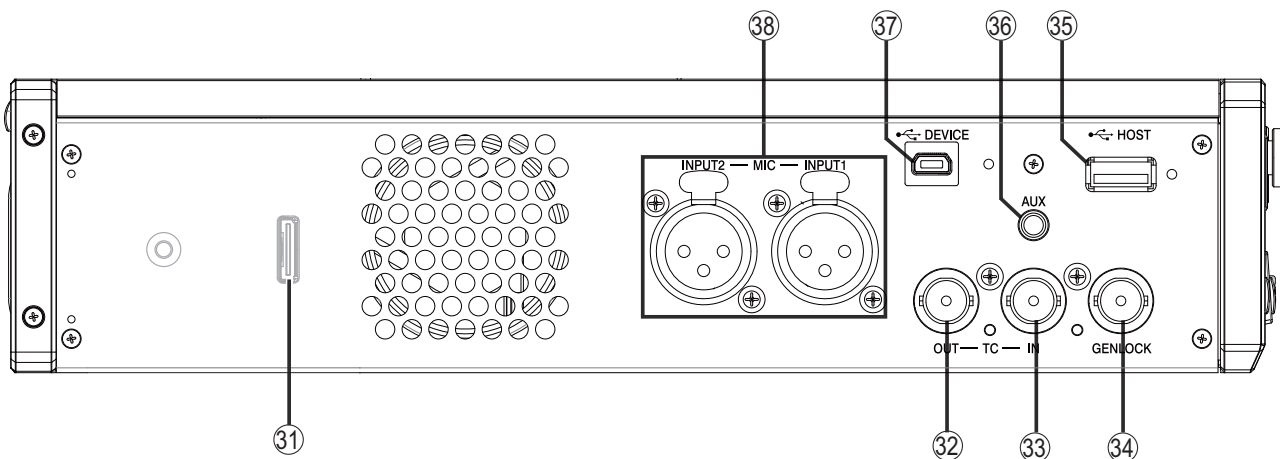
②⑧ Remote 3 Terminal
Future upgrade will allow use of this.

②⑨ HDMI Output Terminal (*)

③⑩ AV Output Terminal (*)

(*) When LCD unit is used without DC power supply, video is not output from the terminal.





③① Cable Connector for Gimbal Unit

③② TC Output Terminal (BNC)
Future upgrade will allow use of this.

③③ TC Input Terminal (BNC)
Future upgrade will allow use of this.

③④ Genlock Terminal (BNC)
Future upgrade will allow use of this.

③⑤ USB Host Terminal
Future upgrade will allow use of this.

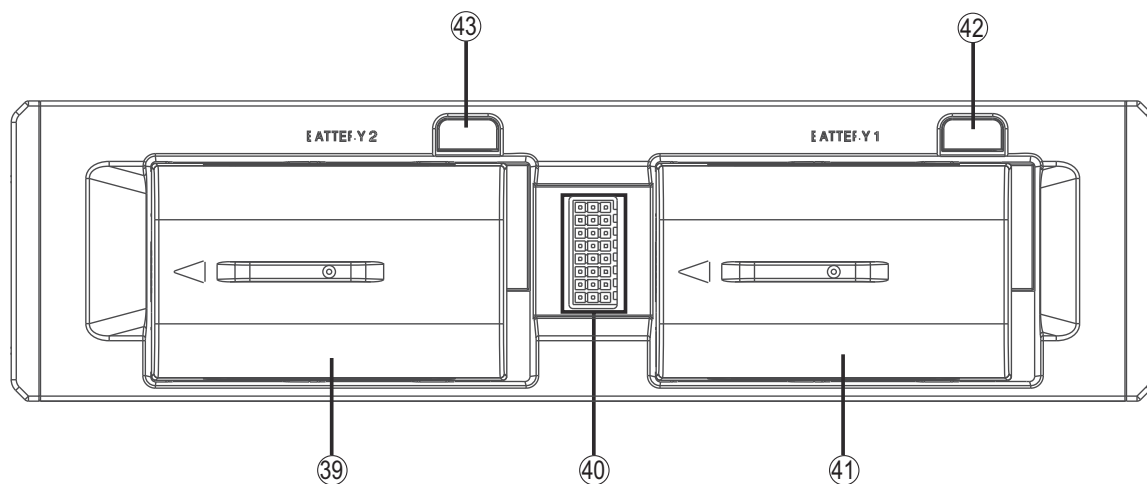
③⑥ AUX Input Terminal (Φ 3.5 mm)

③⑦ USB Mini Terminal

Memo : _____

- Operation by the control unit is required to switch to the USB mode.

③⑧ Audio Input Terminal 1, 2
(XLR 3pin x 2)



③⑨ Battery 2

④① Gimbal Control Terminal
Future upgrade will allow use of this.

④② Battery 1

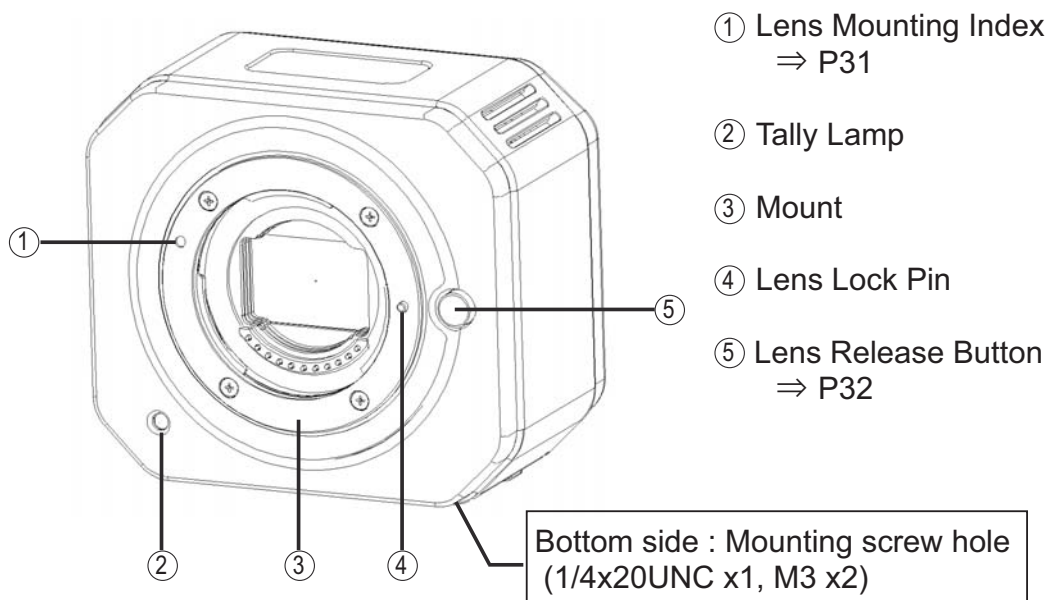
④③ Battery 1 Lock Release Button

④④ Battery 2 Lock Release Button

Caution : _____

- This unit does not work if two batteries are not loaded.

Camera Unit (GW-CU100)



Lenses that Can be Used with This Unit (The lens is sold separately.)

Interchangeable lenses dedicated to the Micro Four Thirds™ System can be used.

The following tested lenses are recommended for use with this camera system:

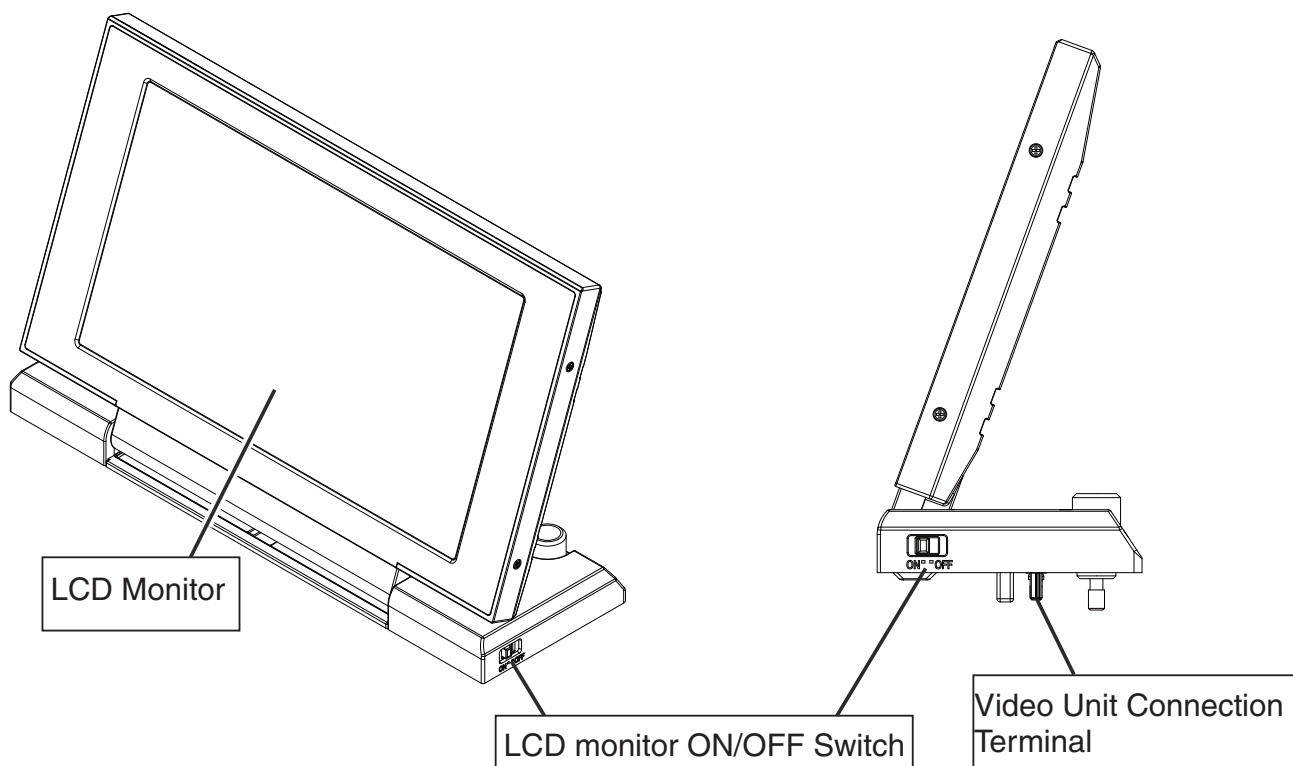
- OLYMPUS M.ZUIKO DIGITAL 17mm f1.8
- OLYMPUS M.ZUIKO DIGITAL 45mm f1.8
- OLYMPUS M.ZUIKO DIGITAL ED 75-300mm/F4.8-6.7 II (*)

(*)When this unit is used with a gimbal unit, this lens is not usable.

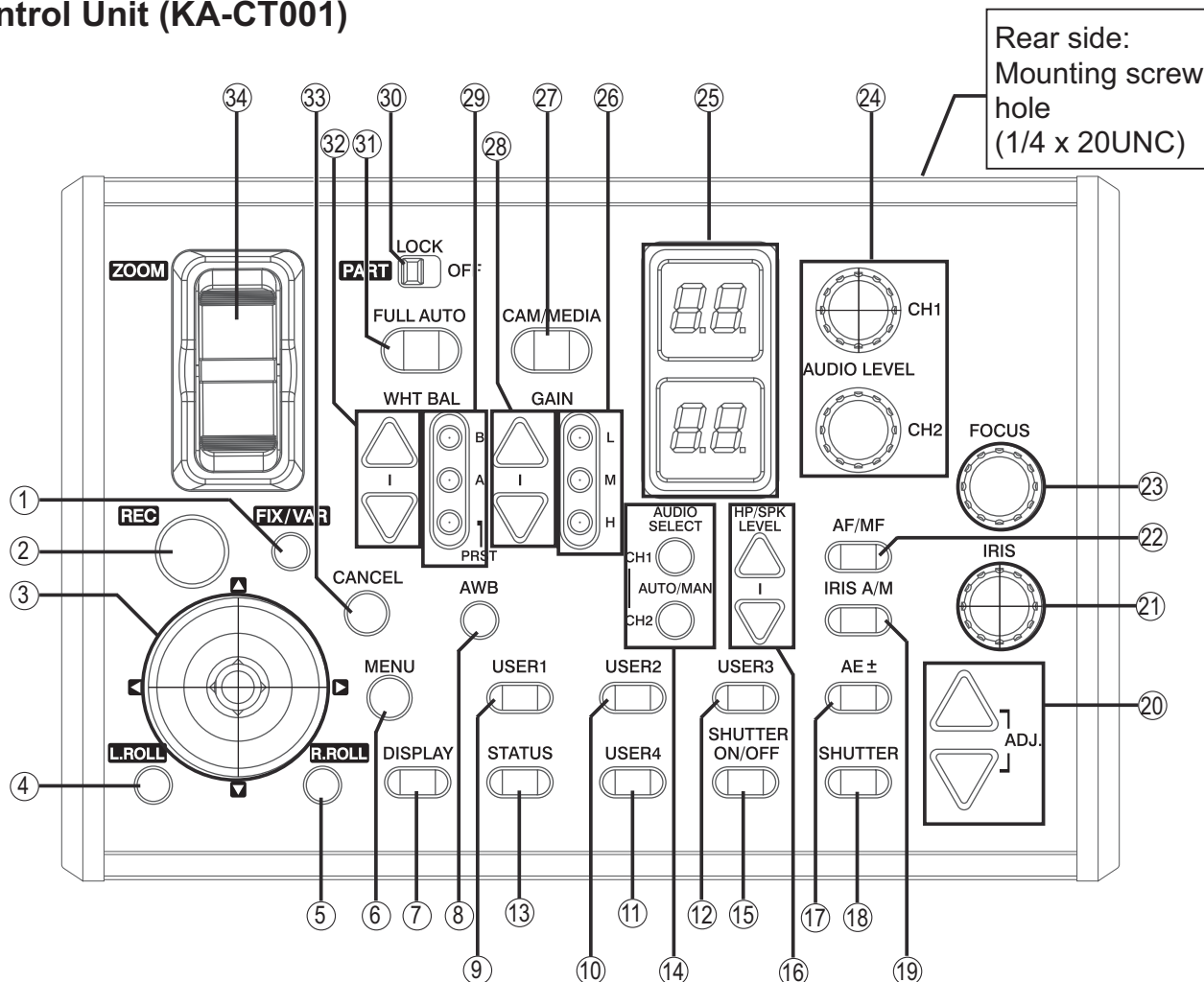
Memo :

- This camera system is not guaranteed to operate with all lenses.
- 4 corners of the screen may become dark depending on a lens.

LCD Unit (GW-DP100)



Control Unit (KA-CT001)



① Zoom Speed Switch Button

② Record Trigger Button

③ Cross-Shaped Button /Set Button

- During menu operation
Set Button : Confirms menu items and setting values.
Cross-Shaped Button : Selects menu items and setting values.
- When a thumbnail screen is displayed
Set Button : Plays back the selected clip.
Cross-Shaped Button : Moves the cursor.
- During playback
Set Button : Plays back/pauses the clip.
Cross-shaped Button Up/Down :
Skips in the reverse or forward direction.
Cross-shaped Button Left/Right :
Fast forwards in the reverse or forward direction.

- When the gimbal unit is connected
Cross-shaped Button Up/Down : Tilting
Cross-shaped Button Left/Right : Panning

When a User button is assigned an "Operating Speed Select" function, you can select the operation speed between the speed selected from the menu and the double speed.

④ Left Roll Button

⑤ Right Roll Button

⑥ Menu Button

⑦ Display Button

- Press the [DISPLAY] button to switch to the display screen during normal screen display (when the menu screen is not displayed).
- Switches between [Main Menu] and [Favorites Menu] when the [DISPLAY] button is pressed while the menu screen is displayed.

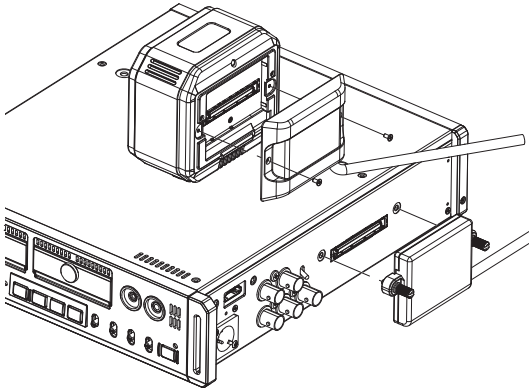
⑧ Auto White Balance Button

- ⑨ - ⑫ User Button
Each button can be assigned a specific function from the menu.
- ⑬ Status Screen Display Button
- ⑭ CH1/CH2 Audio Recording Mode Switch
- ⑮ Shutter Mode Switch Button
- ⑯ Headphone/Speaker Volume Adjustment Button
- ⑰ Exposure button
- ⑱ Shutter Speed button
- ⑲ Iris mode selection button
- ⑳ Adjustment Button
For adjusting the shutter speed and exposure.
- ㉑ Iris dial
- ㉒ Focusing mode selection button
- ㉓ Focus Dial
- ㉔ CH1/CH2 Recording Level Adjustment Dial
- ㉕ CH1/CH2 Recording Level
- ㉖ Gain Selection Lamp
- ㉗ Camera/Media Mode Selection Button
- ㉘ Gain Selection Button
- ㉙ White Balance Selection Lamp
- ㉚ Operation Lock switch
- OFF : All buttons and switches can be used.
 - PART : Only the following buttons can be used.
[ZOOM], [FIX/VAR], [REC],
[Cross-Shaped Button/Set Button],
[L.ROLL], [R.ROLL]
- ㉛ Full Auto Button
- ㉜ White Balance Selection Button
- ㉝ Cancel Button
Cancels various settings and stops playback.
- ㉞ Zoom Lever

Settings and Adjustments Before Use

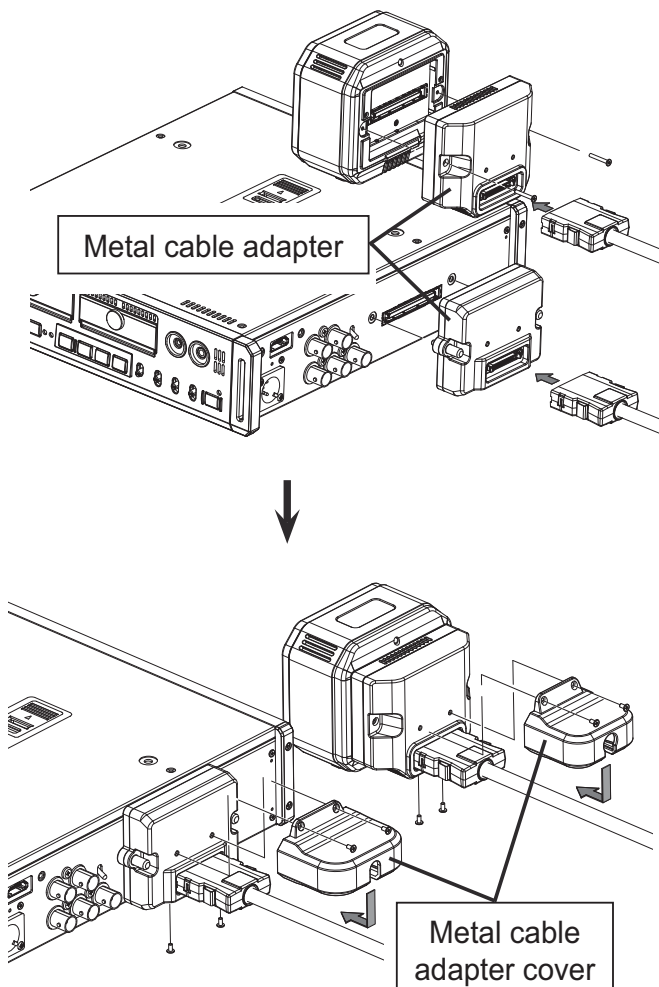
Connect the video unit to the camera unit.

(1) When the signal transmission cable is used.



(2) When the camera unit cable is used.

When the camera unit cable is used, metal cable adapter set is required.
(This set contains two metal cable adapters and two metal cable adapter covers.)

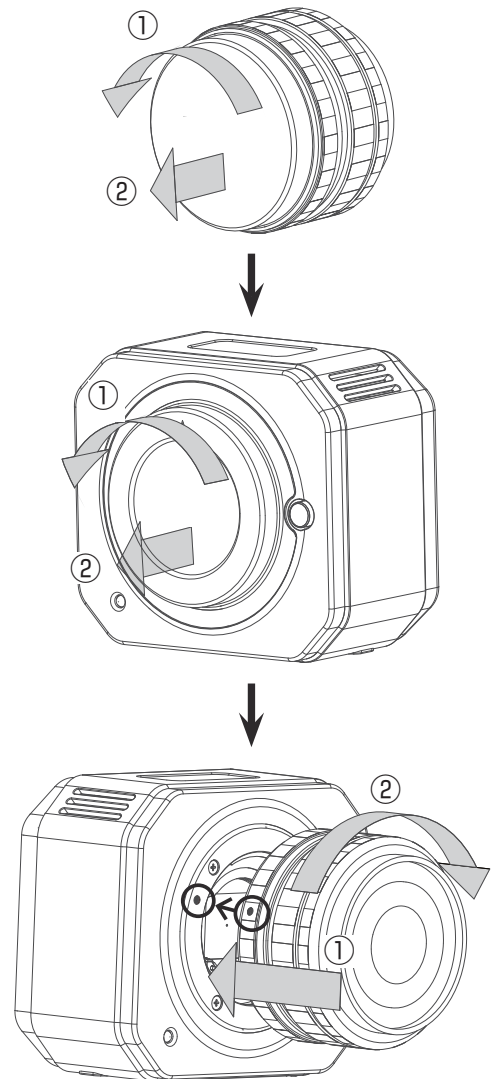


Caution : _____

- When connecting the video unit to the camera unit with a cable, remove the battery and power cable in advance.
- Select the length of the camera unit cable to be used in [Main Menu]→[System]→[Camera Cable Length]. Restart will be required after changing the setting.
When the signal transmission cable is used, you do not need to set the cable length.
- To protect the connector, make sure to attach the metal cable adapter cover.
- Since the cable may be damaged, do not bend it tightly.

Mount the lens. (The lens is sold separately.)

Before mounting the lens, remove the caps of camera unit and lens.

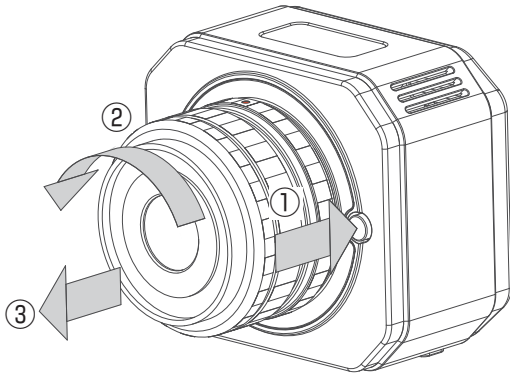


Caution : _____

- Turn the lens clockwise until a “click” sound is heard.
- Do not press the lens release button.

Remove the lens.

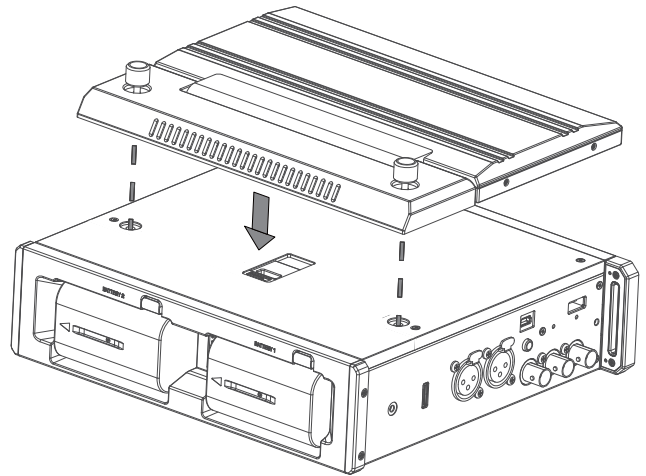
To remove the lens, turn it counterclockwise while holding down the lens release button.



Caution : _____

- Be sure to turn OFF the power before mounting or removing the lens.
- Avoid exchanging lenses in a dusty place to prevent dust from entering the camera unit.
- When no lens is mounted to the camera unit, be sure to attach a cap on the camera unit to prevent dirt and dust from sticking to the filter inside the camera unit.
- If there is dust on the filter inside the camera unit, just blow it away with a commercially available air blower.
- Hold the air blower so that its nozzle does not enter the space inside the lens mount.
- Be careful not to touch the filter.

Mount the LCD unit.

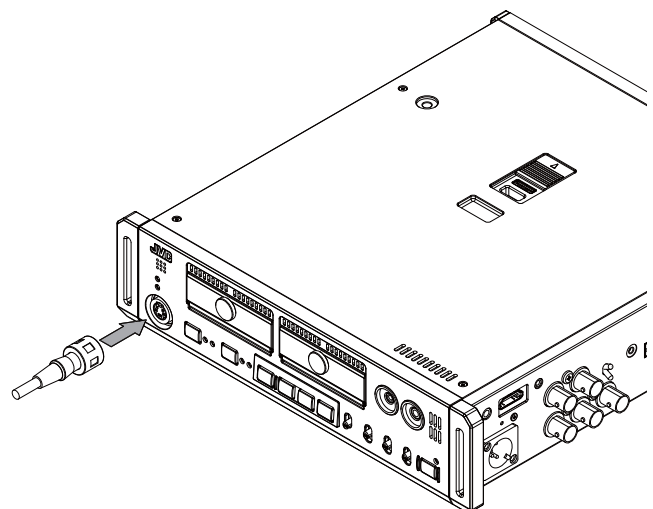


Caution : _____

- Be sure to turn OFF the power before mounting or removing the LCD unit.
- Do not press against the surface with force or subject it to strong impact. Doing so may damage or break the screens.

Connect the control unit.

Connect the control unit to configure video settings such as brightness adjustment (iris, gain, shutter) and white balance adjustment or to adjust the audio input settings and audio recording level for audio recording.



Power Supply

To use this camera system, you can attach two battery packs or connect an AC adapter to it.

Caution : _____

- Turn OFF the power before changing the power supply for operating this unit.

Using a Battery Pack

Recommended Batteries

SSL-JVC50, SSL-JVC75 (IDX)

Caution : _____

- Make use of the recommended batteries.
- This unit does not work if two batteries are not loaded.
- For details on how to charge the battery, please refer to the instructions that comes with the battery charger.
- Before use, please read the instructions that comes with the battery and the battery charger, and "SAFETY MANUAL FOR CHARGER" that comes with the battery charger.

Battery Operating Time

The following are the approximate times for continuous operation on fully-charged batteries.

Battery	Continuous Recording Time
SSL-JVC50 x2	Approx. 1hrs 35mins
SSL-JVC75 x2	Approx. 2hrs 25mins

Memo : _____

- Actual operating times may differ depending on the age of the battery, charging condition, and operating environment.
- Operating time is shortened in cold environment.
- The operating time may shorten when power zoom is used, accessories are connected, or when the LCD monitor is frequently used.

Precautions for Batteries

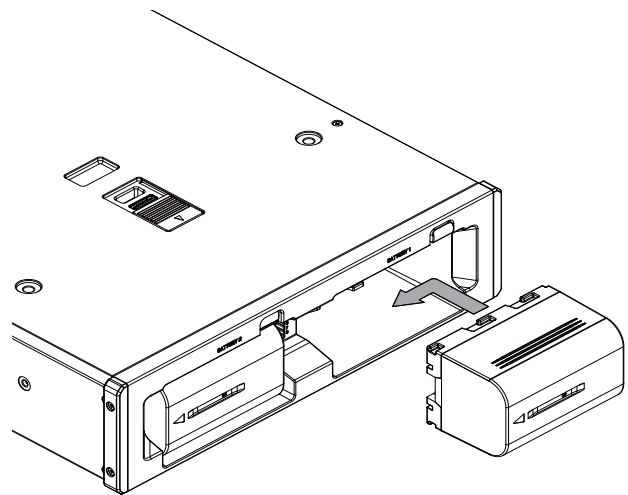
- Store the battery in a cool and dry place when not in use. Do not expose the battery to high temperatures (such as in a car under direct sunlight). This will cause battery leakage and shorten the battery life.
- If the operating time shortens drastically even after charging, the battery may be reaching the end of its life. Replace the battery with a new one.

Attaching the Battery

1 Turn off the power of the camera system.

2 **Attach the battery.**

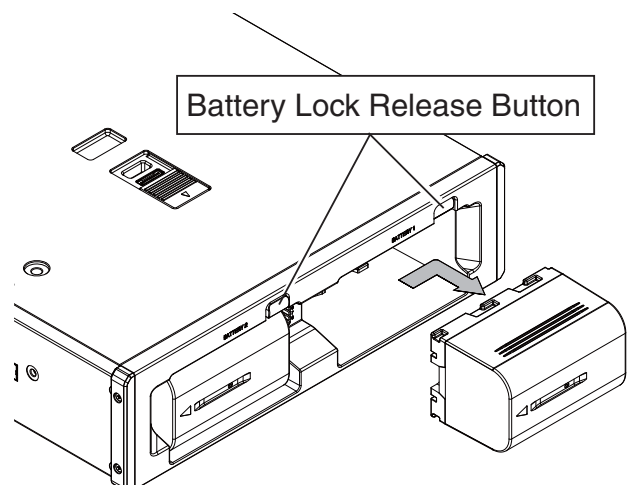
Slide it in until you hear a click.



Removing the Battery

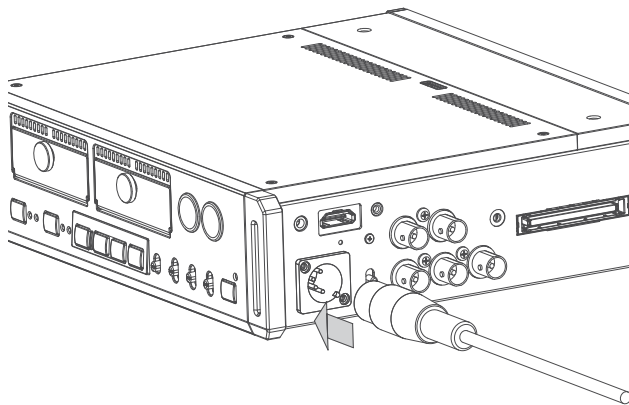
1 Turn off the power of the camera system.

2 **Press the battery lock release button and slide the battery to the right.**



Using AC Power (DC IN Power)

Use a separately sold AC adapter to operate this unit with AC power.



Caution :




- Do not insert or remove the DC cable during recording.
- Do not use power supply of high voltage fluctuation, containing noise such as ripple, or with insufficient capacity.

Charging the Built-In Battery

- The date/time and time code data are stored using the built-in rechargeable battery.
- When power is connected to the camera recorder, the built-in battery always gets charged. When the power is disconnected, the battery gradually discharges.
- The battery will be totally discharged if left unused for 3 months and the date/time and time code data will be reset.

Power Status Display

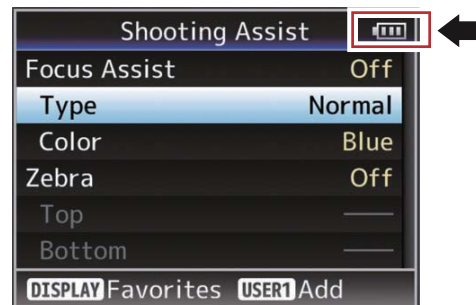
The power status is displayed on the display and menu screens.

Display	Description
 100min  RES	Currently powered by a battery. When the battery power runs out, the battery mark appears hollow, and "RES" (yellow) is displayed.
	Currently powered by an AC adapter.

Display Screen



Menu Screen



Memo :

- Since this unit does not work if only one battery is loaded, battery icon displays the power status of only the battery with less amount of charge.
Replace both batteries as soon as possible when the remaining battery power and time are low.
- If the recommended battery is not used, the battery mark which indicates the battery level may not appear.
- The remaining battery power and time are displayed as they are from the battery information. Accurate data may not be displayed depending on the battery condition.

Warnings by Lamp and Warning Tone

Warning status is indicated by tally lamp and warning tone.

- The tally lamp blinks.
- The warning tone is output from the monitor speaker or [⊗] terminal.
(⇒ P64 [Tally Lamp])
(⇒ P65 [Warning Tone])

Memo :

- If you continue to use the camera system while the power warning is displayed, the camera recorder will stop automatically when the battery or supplied voltage from the AC adapter becomes lower.

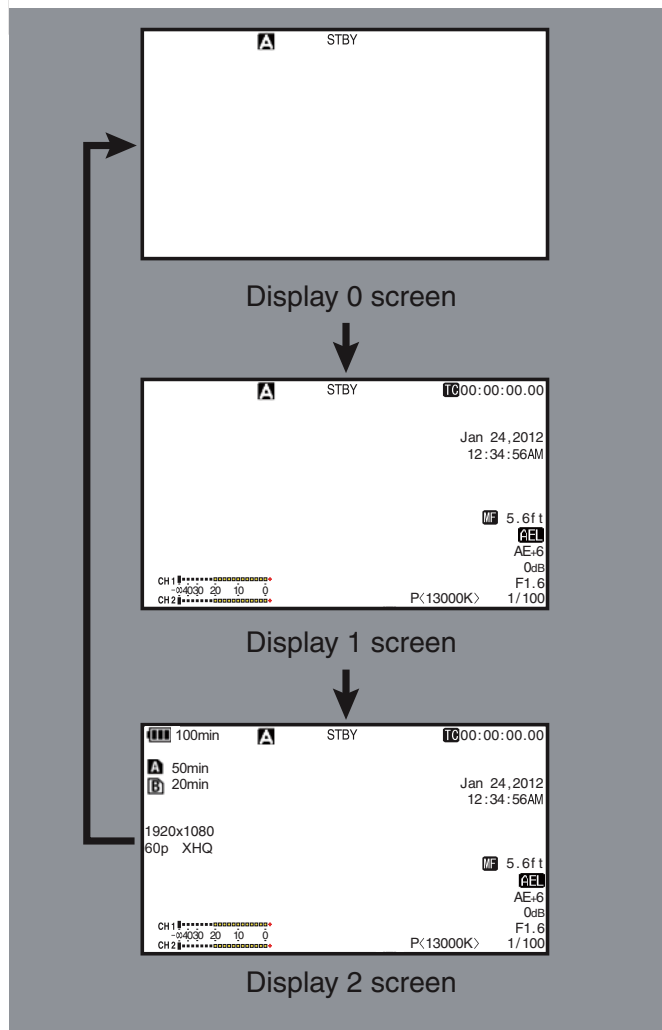
Displays on the Monitor

You can display the camera status, media information, zebra pattern, and various markers in the video image on the monitor screen during shooting.

Display Screen

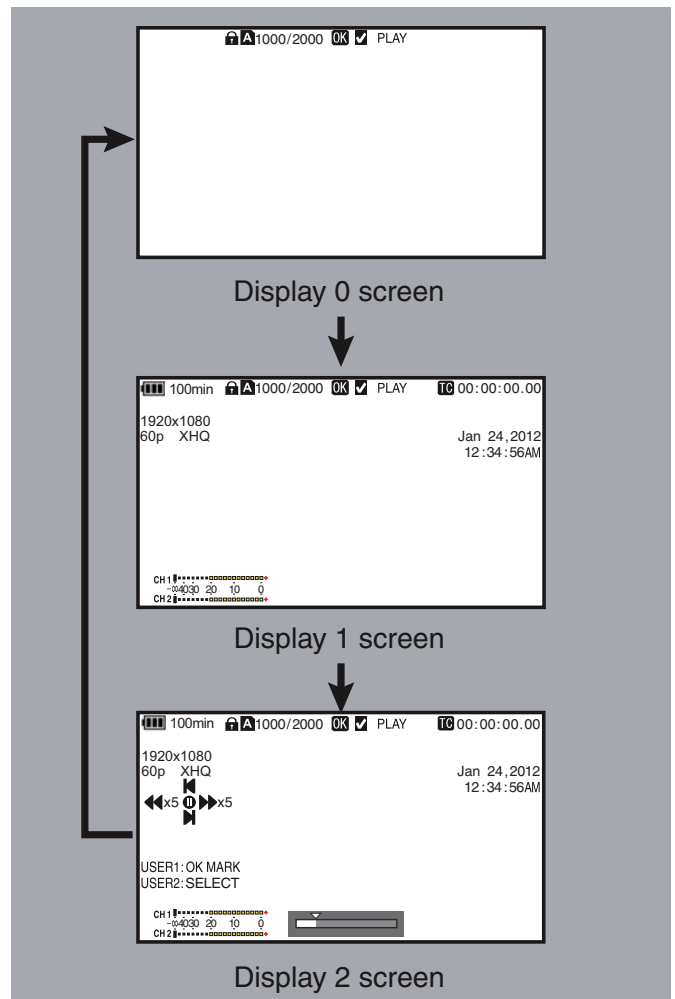
Display Screen in Camera Mode

- The display switches between three screen types with every press of the [DISPLAY] button. (Display 0 → 1 → 2 → 0)
- Press the [STATUS] button to switch to the status screen.



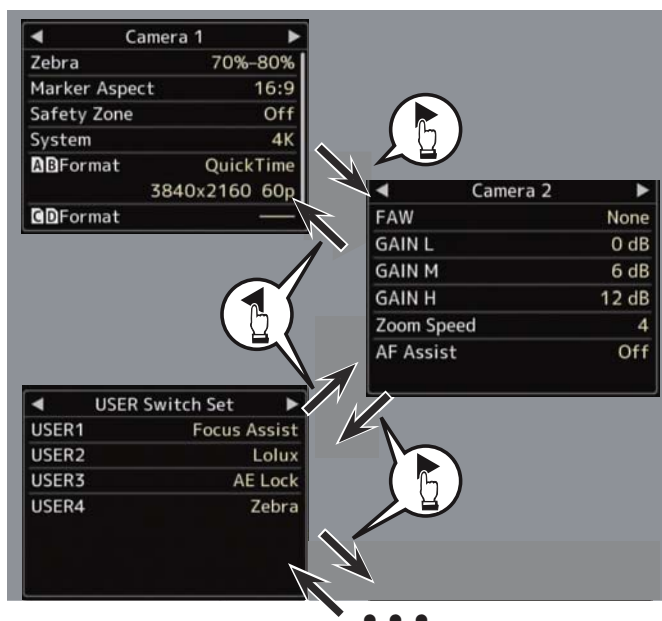
Display Screen in Media Mode

- This is the screen display during clip playback in Media Mode.
- The display switches between three screen types with every press of the [DISPLAY] button. (Display 0 → 1 → 2 → 0)



Status Screen

- This screen allows you to check the current settings.
- To display the status screen, press the [STATUS] button in the normal screen.
- The status display differs according to the operation mode (two types).
- Press the [STATUS] button to switch to the display screen.
- Press the [MENU] button at each status screen (other than the [Camera 1] screen) to enter the setting screen.
- Use the cross-shaped button (◀▶) to switch screens as follows:



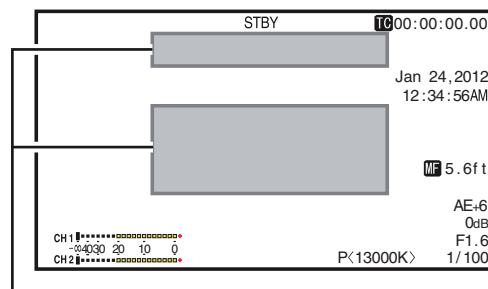
USB Mode Screen

This screen displays the USB mode.



Warning Display

Warning display is displayed in the display screen (Camera mode, Media mode).



Warning Display Area

Assignment of Functions to User Buttons

You can assign functions to the following buttons and use them as user buttons. By assigning functions to the buttons, the usability of the camera recorder can be enhanced.

Perform settings in the menu items corresponding to each button.

1 Assign functions to the buttons from the menu.

Set items in [Main Menu] → [Camera Function] → [User Switch Set] → [USER1]-[USER4].

Memo : _____

- Operations of the user buttons are interlocked with the menu settings.
- When the menu screen is displayed, these buttons function as the menu operation buttons.

SD Card

This camera system saves the recorded images and audio sound on the SD card (sold separately) in the card slot.

Usable Cards

When shooting 4K images, use a UHS Speed Class 3 SD card formatted by this unit.

When shooting HD images, use a Class 10 or higher SD card formatted by this unit.

For AVCHD, Class4 or higher compatible SD card is also available.

Caution : _____

- Using cards other than those from Panasonic, TOSHIBA or SanDisk may result in recording failure or data loss.
- Do not use a miniSD card or microSD card (even if the card is inserted in an adapter). It may cause malfunction to the camera system.
- If an UHS-I card with no classification indication is used, it may not be possible to perform HD recording.

Estimated Recordable Time of SD Cards

The estimated recordable time is only a guide. Differences may occur depending on the SD card in use and the battery condition.

	QuickTime 4K
16GB (UHS-I Speed Class 3)	12
32GB (UHS-I Speed Class 3)	25
64GB (UHS-I Speed Class 3)	50
128GB (UHS-I Speed Class 3)	100

(Unit: minute)

	AVCHD		
	HQP	HQ	SP
4GB	16	19	25
8GB	33	39	50
16GB	67	78	100
32GB	135	156	200
64GB (SDXC)	270	312	400
128GB (SDXC)	540	632	800

(Unit: minute)

	QuickTime HD
	XHQ 422 / XHQ
4GB	9
8GB	18
16GB	36
32GB	72
64GB (SDXC)	145
128GB (SDXC)	290

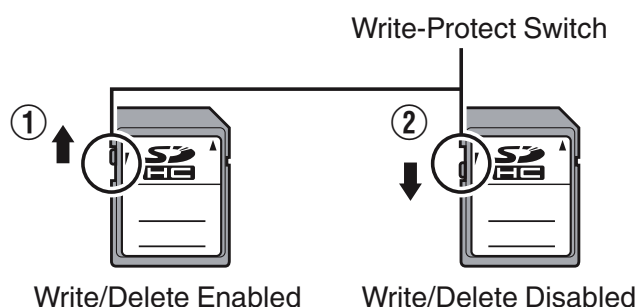
(Unit: minute)

Memo : _____

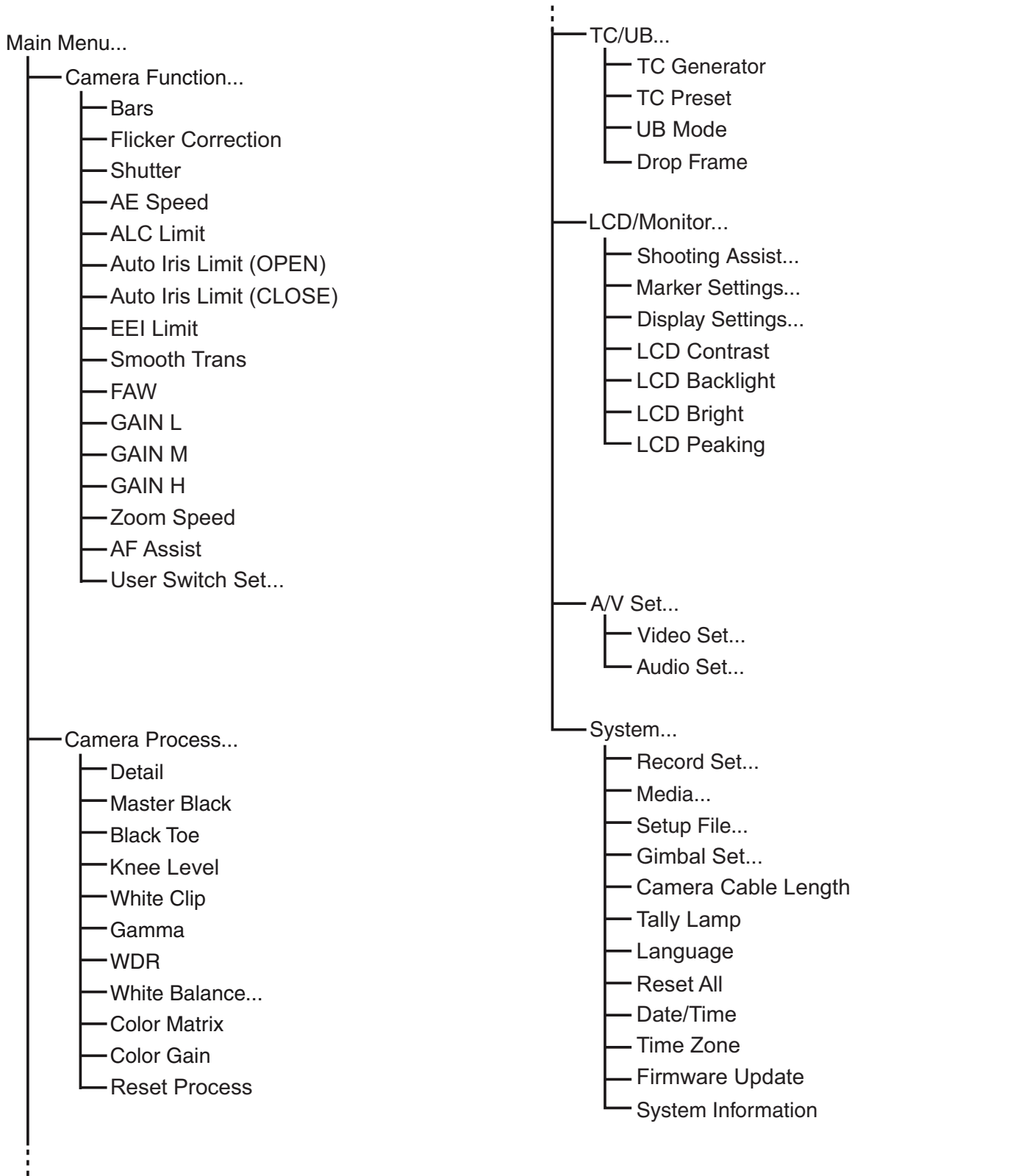
- If the SD card contains files recorded by devices other than this camera system or files that are saved from a PC, the recordable time may be shorter or data may not be properly recorded.
- For each file format, up to 600 clips can be recorded to one SD card on this camera system. When 600 clips are recorded to one card, the remaining space is displayed as 0 min regardless of the estimated recordable time, and no further recording can be performed.
- When the file format is set to "AVCHD", up to 4000 clips can be recorded to one SD card.

Write-Protect Switch on the SD Card

- ① Slide the write-protect switch upward to enable writing or deleting.
- ② Slide the write-protect switch downward to prevent writing or deleting. (Images in the card are protected.)



Menu Screen Hierarchical Chart



Memo :

- Some menus cannot be set depending on the operating mode or status of the camera recorder. These items are displayed in gray, and they cannot be selected.
- When the gimbal is connected, "Gimbal Set..." is displayed to allow you to set up the gimbal.

Camera Function Menu

Menu screen for specifying operation settings during shooting.

This item can only be selected in the Camera mode.

Bars

For setting whether to output color bars.

Memo : _____

- The audio test signals (1 kHz) can be output simultaneously with the color bar output.
- When [System] is set to "4K", color bars cannot be recorded.
- When the FULL AUTO is set to "On", color bars are not output.

Flicker Correction

For setting whether to adjust image flicker that occurs under a fluorescent light.

Shutter

For specifying shutter-related settings. Use this item to set to "Step" (fixed value) or "Variable".

- Variable:

Sets to variable scan. Use this setting such as when shooting a PC monitor.

- Step:

Sets to step shutter, which switches the shutter speed by a fixed value.

AE Speed

For setting the convergence speed during AE (Auto Exposure).

ALC Limit

For setting the maximum gain value of "ALC", which electrically boosts the sensitivity level according to the brightness automatically.

Auto Iris Limit (OPEN)

For setting the limit value of the OPEN end when auto iris is enabled.

Auto Iris Limit (CLOSE)

For setting the limit value of the CLOSE end when auto iris is enabled.

EEI Limit

For setting the shutter speed control range when the Automatic Shutter mode (EEI) is enabled.

Smooth Trans

For setting the shock reduction function, which slows down the sudden change when switching with the [GAIN] or [WHT BAL] selection.

Memo : _____

- However, this function is disabled when the [FULL AUTO] switch is set to "ON", or when switching the gain selection switch that was set to "ALC".

FAW

For determining the [WHT.BAL] selection switch position to which the FAW (Full Auto White Balance) function is to be assigned.

GAIN L/GAIN M/GAIN H

For setting the gain value of each position on the [GAIN] selection.

This is fixed at "ALC" when the [FULL AUTO] switch is set to "ON".

Zoom Speed

This function allows you to set the zoom speed of the zoom lever when the [FIX/VAR] switch is set to "FIX".

AF Assist

For setting whether to allow temporary manual focus adjustment by turning the focus dial in the AF mode.

Memo : _____

- This setting is effective only when the [FOCUS] is set to "AUTO".
- The manual focus adjustment mode is temporarily activated by turning the focus dial in the AF mode. If the focus dial is not operated for a certain time, the camera system returns to the AF mode.

User Switch Set...

For specifying user button related settings.
(⇒ P40 [User Switch Set Item])

User Switch Set Item

USER1 - USER4

By assigning one of the following functions to each of the [USER1], [USER2], [USER3], [USER4] buttons, these buttons can be used to control the assigned function (on/off, start, switch).

Set according to the shooting conditions. Usable only in the Camera mode.

[Setting Values: None, Bars, Lolux, AE Lock, Preset Zoom1, Preset Zoom2, Preset Zoom3, White Balance, Zebra, Marker, Focus Assist, Expanded Focus, LCD Backlight, Clip Cutter Trig, OK Mark, Load Picture File, Histogram, Spot Meter, Operating Speed Select, TC Preset]

Lolux

To increase the sensitivity when in dim surroundings, set a value in the Lolux mode.

Spot Meter

For specifying the operation when any of the [USER1]-[USER4] items is set to "Spot Meter".

- Max & Min:
Displays the brightest and darkest areas of the image.
- Max:
Displays the brightest area of the image.
- Min:
Displays the darkest area of the image.
- Manual:
Displays the image brightness at a specified position.

AE Lock

For specifying the operation when any of the [USER1]-[USER4] items is set to "AE Lock".

- AE:
Use this feature to fix a value to the Auto function of Gain, Iris, or Shutter when the user button that is assigned "AE Lock" is pressed.
- AE/WB:
Use this feature to fix a value to White Balance and the Auto function of Gain, Iris, or Shutter when the user button that is assigned "AE Lock" is pressed.

Memo : _____

- This feature only works when Iris, Shutter or Gain is set to Auto mode.
- "AE Lock" is canceled when the button assigned with "AE Lock" is pressed, or when any of the functions that can be locked is operated regardless of the mode (Manual or Auto).

Camera Process Menu

Menu screen for adjusting the quality of camera images.
This item cannot be selected in the Media mode.

Detail

For adjusting the contour (detail) enhancement level.
Increasing the value increases the sharpness of the contour.

↳ V/H Balance

For setting the H/V balance to enhance contour (detail) in the horizontal (H) or vertical (V) direction.

- H+1 to H+4:
Increasing the value enhances contour in the horizontal direction.
- V+1 to V+4:
Increasing the value enhances contour in the vertical direction.

Master Black

For adjusting the pedestal level (master black) that serves as the reference black.
Increasing the value increases the pedestal.

Black Toe

Process the dark areas according to the balance of bright and dark areas in the image to adjust the overall balance of contrast.

For altering the gain of dark areas. Adjust this item according to the condition of the captured video signals.

- Stretch:
Increases the gain of dark areas in an image to stretch the signals of these areas only, thereby showing the contrast between bright and dark areas more clearly.
Specify the amount of stretch with [Stretch Level].
- Normal:
Normal condition.
- Compress:
Compresses the gain of dark areas to increase the contrast when the entire image appears bright and contrast is weak. Specify the compression amount with [Compress Level].

Memo : _____

- When [WDR] is set to other than "Off", this item appears as "---" and cannot be selected.

↳ Stretch Level

Stretch amount increases when a larger value is specified.

Memo : _____

- This item is displayed only when [Black Toe] is set to "Stretch". Otherwise, this item appears as "---" and cannot be selected.

↳ Compress Level

Compression amount increases when a larger value is specified.

Memo : _____

- This item is displayed only when [Black Toe] is set to "Compress". Otherwise, this item appears as "---" and cannot be selected.

Knee Level

For specifying the "Knee" operation, which compresses video signals beyond a certain level to show the gradation of the highlighted portion.

For setting the starting point (knee point) of knee compression.

Memo : _____

- When [WDR] is set to "On", this item appears as "---" and cannot be selected.

White Clip

For setting the point to apply white clip for input video signals with a high luminance level.

- 108%:
Applies white clip at the point where the luminance level is 108 %.
- 103%:
Applies white clip at the point where the luminance level is 103 %.
- 100%:
Applies white clip at the point where the luminance level is 100 %. Set to this value when the system in use limits Y output signals within 100 %.

Memo : _____

- When [WDR] is set to other than "Off", this item appears as "108%" and cannot be selected.

Gamma

For adjusting the gamma curve that determines the gradation expression.

- Cinema:
Sets to a gamma curve with similar gradation to the screen characteristics of movies.
- Standard:
Sets to a standard gamma curve.

Memo : _____

- When [WDR] is set to other than "Off", this item appears as "---" and cannot be selected.

↳ Gamma Level

This item can be specified separately when [Gamma] is set to "Standard" or "Cinema".

- Increase the number:
Enhances the gradation of black. However, the gradation of bright areas deteriorates.
- Decrease the number:
Enhances the gradation of bright areas. However, the gradation of black deteriorates.

WDR

For setting the WDR (Wide Dynamic Range) function.

When shooting object with wide dynamic range due to backlight conditions, this function compresses the dynamic range while maintaining image contrast through providing gradation compensation to the input video signals.

- On:
Sets the wide dynamic range function to "On".
- Off:
Sets the wide dynamic range function to "Off".

Memo : _____

- When [WDR] is set to "On", [Black Toe], [Knee], [Gamma] and [White Clip] cannot be selected.

White Balance...

Menu for adjusting white balance.
(⇒ P43 [White Balance Item])

Color Matrix

For setting the color matrix.

- **Cinema Subdued:**
Sets to a subdued color matrix that is similar to the screen characteristics of movies.
- **Cinema Vivid:**
Sets to a vivid color matrix that is similar to the screen characteristics of movies.
- **Standard:**
Sets to a standard color matrix.
- **Off:**
Sets the color matrix function to Off.

Color Gain

For adjusting the video signal color level.
Increasing the value deepens the color.

Memo : _____

- Images are displayed in black-and-white when this is set to "Off".

Reset Process

Restores all items in the [Camera Process] menu to their default settings.

White Balance Item

Preset Temp.

For specifying the color temperature when the White Balance Selection button is set to "PRST".

Alternative Temp.

For setting the alternative color temperature in the Preset mode.
When the White Balance Selection button is set to "PRST", pressing the [AWB] button each time switches between color temperature settings in the Preset mode.

AWB Paint

For adjusting the R (red)/B (blue) component in the AWB (Auto White Balance) mode.

- **Increase the number:**
Strengthens the red/blue.
- **Decrease the number:**
Weakens the red/blue.

Memo : _____

- This item is selectable when the White Balance Selection button is set to "A" or "B". When "PRST" is set, this item appears as "---" and cannot be selected.
- Different values can be specified for "A" and "B".
- After the [AWB](Auto White Balance) button is pressed to readjust the white balance while [Clear Paint After AWB] is set to "On", R and B values switch automatically to "0".

Clear Paint After AWB

For specifying whether to clear the [AWB Paint] (R value and B value) settings after executing AWB (Auto White Balance).

- **On:**
Sets the [AWB Paint] (R value and B value) settings to "0" after executing AWB (Auto White Balance).
- **Off:**
Does not change the [AWB Paint] (R value and B value) settings after executing AWB (Auto White Balance).

FAW Paint

For adjusting the R (red)/B (blue) component during FAW (Full Auto White Balance) mode.

- **Increase the number:**
Strengthens the red/blue.
- **Decrease the number:**
Weakens the red/blue.

TC/UB Menu

Menu screen for setting time code and user's bit.
This item cannot be selected in the Media mode, or during recording.

TC Generator

For setting the operation of the time code.

- **Free Run:**
The time code operates in the run mode at all times regardless of the recording status. It continues to run even when the power of the camera system is turned off.
- **Rec Run:**
The time code operates in the run mode during recording. It continues to run in the order of the recorded clips as long as the SD card is not replaced. If the SD card is removed and recording is made on another card, time code will be recorded on the new card from where it was left off in the previous card.
- **Regen:**
The time code operates in the run mode during recording. When the SD card is replaced, the last time code recorded on the card is read and recorded on a new card so that the time code continues in running order.

TC Preset

For setting the time code (hour, minute, second, frame).

Display : Drop setting 02:02:25.20
 : Non Drop setting 02:02:25:20

Memo : _____

- When [TC Generator] is set to "Regen", the parameter is displayed as "Regen" and cannot be selected.

UB Mode

For setting the recording mode of the user's bit.

↳ Preset

For setting the user's bit.

Display : AB CD EF 01

Memo : _____

- When [UB Mode] is set to "Date" or "Time", this item appears as "---" and preset is disabled.
- When [TC Generator] is set to "Regen", the parameter is displayed as "Regen" and cannot be selected.

Drop Frame

For setting the framing mode of the time code generator.

- **Non Drop:**
Internal time code generator works in the non-drop-frame mode. Use this setting when placing emphasis on the number of frames.
- **Drop:**
Internal time code generator works in the drop-frame mode. Use this setting when placing emphasis on the recording time.

Memo : _____

- This item can be set only when the frame rate is set to "60p", "60i" or "30p".
When the frame rate is "50p", "50i" or "25p", this item appears as "---" and cannot be selected.

LCD/Monitor Menu

This menu screen can be used to specify settings related to the LCD monitor and the settings related to the data displayed over the images output from the SD(Moni) output terminal and AV output terminal.

Shooting Assist...

Menu for setting the Shooting Assist function.
(⇒ P45 [Shooting Assist Item])

Marker Settings...

For setting items such as the safety zone and center mark.
(⇒ P46 [Marker Settings Item])

Display Settings...

For specifying display-related settings.
(⇒ P46 [Display Settings Item])

LCD Contrast

For setting the difference in luminance between the darkest and brightness areas in the LCD monitor.
Increasing the value increases the contrast.

LCD Backlight

For setting the brightness of the LCD monitor backlight.

LCD Bright

For setting the brightness of the LCD monitor.

LCD Peaking

For adjusting the contour of the LCD monitor. The larger the value, the more the contour is corrected.

| Shooting Assist Item

Focus Assist

For setting whether to add color to the contour of the focused image upon switching the image to black-and-white.

↳ Type

For specifying the operation to be performed when the Focus Assist function is enabled.

- ACCU-Focus:
Enables the Focus Assist and ACCU-Focus (forced focus) functions. The depth of field of the object becomes shallower to enable easier focusing. The ACCU-Focus function switches automatically to “Off” after about 10 seconds.
- Normal:
Enables only the Focus Assist function. The focused area is displayed in color to enable easier focusing. Display color can be specified with [Color].

↳ Color

For setting the display color of the focused area when Focus Assist is activated.
Selecting “Multicolor” changes the contour color in sequence from red to green, and then blue according to the sharpness of the focus.

Zebra

For selecting whether to display zebra patterns at the bright areas of the subject.
Select “On” to display zebra patterns or “Off” to hide.

↳ Top

For setting the maximum luminance level for the zebra pattern display.

↳ Bottom

For setting the minimum luminance level for the zebra pattern display.

Memo : _____

- The relation between Top and Bottom is such that Top>Bottom always holds. To maintain this relation when setting Top, the Bottom value is automatically corrected.

Marker Settings Item

For setting the marker and safety zone, which are useful in helping you determine the angle of view for the image according to the shooting purpose.

Memo : _____

- When in the Media mode, the markers do not appear regardless of the setting.

Marker Settings

For setting whether to display marker, safety zone, and center marks on the screen.

↳ Grid Marker

For setting whether to display a 3x3 grid on the screen.

Memo : _____

- When [Grid Marker] is set to "On", [Aspect Ratio], [Aspect Marker], and [Safety Zone] do not function.

↳ Aspect Ratio

For selecting the final image aspect ratio to be used from the overall angle of view.

↳ Aspect Marker

For specifying how boundary markers are to be used to indicate the parts of an image that are beyond the range of the aspect ratio selected in [Aspect Ratio].

- Line+Halftone:
Displays the boundary using lines, and areas outside the boundary in halftone.
- Halftone:
Displays areas outside the boundary in halftone.
- Line:
Displays the boundary using lines.
- Off:
Hides the boundary markers.

Memo : _____

- When [Aspect Ratio] is set to "16:9" or "16:9(+4:3)", this item is fixed at "Off" and cannot be selected.

↳ Safety Zone

For setting the percentage of area that is to be deemed as valid area (Safety Zone) within the boundary of the aspect ratio selected in [Aspect Ratio].

↳ Center Mark

For specifying whether to display a mark to indicate the screen center within the aspect ratio selected in [Aspect Ratio].

Display Settings Item

This menu is used to set the displays on the LCD unit and monitor screen.

Zoom

For setting the display method of the zoom position.

- Number:
Displays the zoom position in numbers (0-99).
- Bar:
Displays the zoom position in a bar.
- Off:
Does not display the zoom position.

Focus

For setting the display method of the focal length during manual focus.

- Feet:
Displays the focus in feet.
- Meter:
Displays the focus in meters.
- Off:
Does not display the focal length during focus.

Record Format

For setting whether to display the video format during recording or playback.

Media Remain

For setting whether to display the remaining space of the recording SD card.

Memo : _____

- When the remaining space warning is displayed, the information appears even when "Off" is selected.
- The displayed time is an estimate.

TC/UB

For specifying whether to display the time code (TC) or the user's bit (UB).

Histogram

For setting whether to display the histogram, which shows the distribution of different points with different levels of brightness in an image.

Memo : _____

- When the histogram is displayed, the audio level meter display is turned off temporarily.

↳ Top

For selecting the maximum brightness limit for changing the histogram display color.

↳ Bottom

For selecting the minimum brightness limit for changing the histogram display color.

Audio Meter

For specifying whether to display the audio level meter.





Battery

For specifying whether to display the remaining battery power.

The battery information appears only on the Display 2 screen in Camera mode.

- Time:
Displays the remaining battery power in minutes. (min)
- [Off]:
The remaining battery power is not displayed.

Memo : _____

- The battery mark that appears before the "Time" value changes according to the remaining battery power.
 -  : 13 % and below
 -  : 13% or higher
 -  : 30% or higher
 -  : 60% or higher
- When the remaining battery power is low, "RES" instead of the value is displayed.
Replace the battery as soon as possible.
- The remaining battery power and remaining time are intended as reference values for the shooting duration.

Date/Time

For specifying whether to display the date and time.

Date Style

For specifying the display order of date elements.

Display examples of the setting values are as follows.

- DMY2: 30 Jun 2015
- DMY1: 30-06-2015
- MDY2: Jun 30, 2015
- MDY1: 06-30-2015
- YMD: 2015-06-30

(Default values: MDY2 (U model), DMY1 (E model))

Time Style

For setting the time display.

Shutter

For setting the shutter display type.

- DEG:
Displays the shutter speed in degrees in the same way as film cameras.

- SEC:
Displays the shutter speed in seconds.

Memo : _____

- "DEG" is selectable only when [Frame Rate] is set to "25p".
When [Frame Rate] is not set to a value other than "25p", this setting is fixed at "SEC" and no setting value can be selected.

A/V Set Menu

Menu screen for video output and audio.

Video Set...

For specifying video output-related settings.
(⇒ P48 [Video Set Item])

Audio Set...

For specifying audio-related settings.
(⇒ P49 [Audio Set Item])

| Video Set Item

HDMI/SDI Out

For setting the terminal to output the video.
Factory default is "Off".

↳ SDI Out Resolution

For setting the resolution of the video output from the SDI output terminal according to the type of the monitor to be connected.

Memo : _____

- When [Record Format] → [System] is set to "HD", a setting value can be selected from [1080i, 1080p].

↳ HDMI Out Res.

For setting the resolution of the video output from the HDMI output terminal.
If the video is not displayed correctly when "Auto" is selected, select "480p/576p".

↳ HDMI Color

- For setting the color format of HDMI signals.
- This item is selectable only when [HDMI/SDI Out] is set to "HDMI".

↳ HDMI Enhance

- For setting the color range of HDMI signals.
When connecting to a PC monitor, set this to "On".
- This item is selectable only when [HDMI/SDI Out] is set to "HDMI".

↳ SDI Rec Trigger

For setting whether to superimpose trigger signals in tandem with the [SDI OUT] or [SDI(Moni) OUT] terminal as well as the [REC] button on this camera system.

When a compatible device is connected, recording/stop control signals are output in tandem with the operation of the [REC] button.

SDI(Moni) Out Res.

For setting the resolution of the video output from the SDI (Moni) output terminal according to the type of the monitor to be connected.

SD Set Up

For selecting whether to add a setup signal to the video signal output from the [AV OUT] terminal.

Setup signals are added when "7.5%" is selected.

(Default values: 7.5% (U model), fixed at "0.0%" (E model))

Memo : _____

- Depending on the menu settings of the camera system and the condition of the cable connected to it, the setup signal setting may be fixed at "0.0%". "---" is displayed in gray in this case.

HDMI/SDI Out Character

For specifying whether to display the characters displayed on the display screen and menu screen over the screens output from the [SDI] and [HDMI] output terminals.
Factory default is "Off".

Audio Set Item

Input1 Mic Ref.

For setting the reference input level when the [INPUT1] selection switch is set to "MIC" or "MIC +48V".

Input2 Mic Ref.

For setting the reference input level when the [INPUT2] selection switch is set to "MIC" or "MIC +48V".

Ref. Level

For setting the audio reference level to be recorded to the SD card. (Applies to both [CH1/CH2].)

XLR Manual Level

For setting whether to link manual audio adjustment operation between [INPUT1] and [INPUT2] terminals.
Select "Link" to link or "Separate" to separate.
When this item is set to "Link", adjust the recording level using the [CH1] recording level adjustment knob.

Memo : _____

- Enabled only when both the [INPUT1/INPUT2] input terminals are set to "LINE" or "MIC", and both [CH1]/[CH2] of the [CH1/CH2 AUTO/MANUAL] selection switches are set to "MANUAL".
- When this item is set to "Link", [CH2] recording level adjustment knob is disabled.

Limiter Mode

For setting whether to link the limiter operation of [CH1] and [CH2].
Select "Link" to link or "Separate" to separate.

Memo : _____

- Enabled only when [INPUT1/INPUT2] input terminal are set to "LINE" or "MIC", and CH1/CH2 of the [CH1/CH2 AUTO/MANUAL] switch is set to "AUTO".

↳ CH1 Limiter/CH2 Limiter

Sets the limiter operation for [CH-1] and [CH-2] separately.

↳ Threshold Level

Sets the maximum recording level of [CH-1] and [CH-2] respectively.

↳ Attack Time

Sets the time to activate the limiter for [CH-1] and [CH-2] respectively.

↳ Decay Time

Sets the time to deactivate the limiter operation for [CH-1] and [CH-2] respectively.

INPUT1 Mic Wind Cut

For specifying whether to cut low frequencies of the audio signals input to the [INPUT1] terminal.
Select "On" to reduce wind noise.

INPUT2 Mic Wind Cut

For specifying whether to cut low frequencies of the audio signals input to the [INPUT2] terminal.
Select "On" to reduce wind noise.

Monitor

For selecting the audio sound to be output from the monitor speakers and headphones.

Memo : _____

- Even if "Stereo" is selected when the monitor speaker is selected in the MEDIA mode, mixed audio sound is output.

Alarm Level

For selecting whether to turn on the warning tone as well as setting the volume.
The warning tone is output from the monitor speaker or Headphone terminal.

Test Tone

For specifying whether to output the audio test signals (1 kHz) during color bar output.

Audio On FULL AUTO

For setting whether to enable Auto for audio when [FULL AUTO] is set to "ON".

- SW Set:
Sets the audio recording mode following the [CH1/CH2 AUTO/MANUAL] selection switch setting.
- Auto:
Sets audio recording mode to the forced auto mode.

System Menu

This menu screen allows system-related settings.

For specifying recording settings, formatting and restoring of SD card, tally lamp settings, date/time, time zone, and other settings.
It can also be used to reset the menu settings to their default values.

Record Set...

For specifying recorded video-related settings.
(⇒ P52 [Record Set Item])

Media

↳ Format Media

For formatting (initializing) an SD card.
Select a card slot, select [Format] from [Cancel]/[Format], and press the Set button (●) to format (initialize) the card.

↳ Restore Media

For restoring an SD card.
Select a card slot, and press the Set button (●) to restore the SD card.

Memo : _____

- This option is not selectable when recording in Camera mode and in the Media mode.

Setup File

This allows you to save the menu settings as well as the performance results of shutter speed and AWB.

It is useful to save settings according to different shooting conditions.

↳ Load File...

Loads the settings.

↳ Store File...

Saves the settings.

Memo : _____

- Files can be stored only in the SD card in slot C or D.

Gimbal Set...

For specifying settings related to gimbal operation.

(⇒ P55 [Gimbal Set Item])

Camera Cable Length

For selecting the length of the camera unit cable to be used.

When the signal transmission cable is used, you do not need to set the cable length.

Tally Lamp

For specifying whether to light up the tally lamp during recording or when a remaining free space warning occurs.

Language

Switches between languages in the menu screen.

Reset All

Resets all menu settings.

Memo :

- [Date/Time] and [Time Zone] cannot be reset.
- This item is not selectable when recording in Camera mode and in Media mode.

Date/Time

For setting the year, month, day, hour, and minute.

Memo : _____

- The display order of the date (year, month, day) follows the setting in [Display Settings] → [Date Style]. However, the 24-hour format is used for the hour display regardless of the [Time Style] setting.

Time Zone

For setting the UTC time difference in units of 30 minutes.

Memo : _____

- If [Date/Time] is already set, the [Date/Time] item is automatically adjusted when [Time Zone] is altered.

Firmware Update

This allows you to update the functions of this unit to the latest ones.

(No explanation will be provided on the website until the program for updating this Video Unit's firmware is released.)

Memo : _____

- Any slot other than slot D cannot be used for firmware update.
- In the HD mode, the firmware cannot be updated.
- Turn OFF the power, and then turn ON the power again, and the firmware update screen will change to the normal screen.

System Information

↳ Version

Displays information on the firmware version.

↳ Fan Hour

For displaying the usage time of the internal fan.

Memo : _____

- Under normal environment, dust will accumulate on the internal fan when the camera recorder is used over a long period. Dust may enter the camera recorder especially if it is used outdoors. This may affect the image and sound quality of the camera recorder. Check and replace the fan after every 9000 hours (suggested guideline).

↳ Open Source License

Displays the license for the open source software used by this camera recorder.

Record Set Item

Record Format

After setting of all items in the [Record Format] menu is complete, select [Set] at the bottom of the screen to apply the new settings on the camera recorder and switch the record format. A "Please Wait..." message appears during switching.

↳ System

For selecting a system definition.

- 4K:
Records in "4K" quality.
- HD:
Records in "HD" (high definition) quality

↳ A B Format

For displaying the format of the file to be recorded in the the SD card in slot A or B.

Memo : _____

- When [System] is set to "HD", "---" is displayed as the setting value and no setting value can be selected.

↳ A B Resolution

For displaying the size of the image to be recorded in the SD card in slot A or B.

Memo : _____

- When [System] is set to "HD", "---" is displayed as the setting value and no setting value can be selected.

↳ A B Frame Rate

For selecting the frame rate of the video to be recorded in the SD card in slot A or B.

Memo : _____

- When [System] is set to "HD", "---" is displayed as the setting value and no setting value can be selected.

↳ C D Format

For selecting the format of the file to be recorded in the the SD card in slot C or D.

Memo : _____

- When [System] is set to "4K", "---" is displayed as the setting value and no setting value can be selected.

↳ C D Resolution

For displaying the size of the image to be recorded in the SD card in slot C or D.

Memo : _____

- When [System] is set to "4K", "---" is displayed as the setting value and no setting value can be selected.

↳ C D Frame Rate

For selecting the frame rate of the video to be recorded in the SD card in slot C or D.

The selectable options vary according to the [C D Format] setting.

Memo : _____

- When [System] is set to "4K", "---" is displayed as the setting value and no setting value can be selected.

↳ C D Bit Rate

For displaying the bit rate for encoding the image to be recorded in the SD card in slot C or D.

The selectable options vary according to the [C D Format] setting.

Memo : _____

- When [System] is set to "4K", "---" is displayed as the setting value and no setting value can be selected.

Slot Mode

For setting the operation of the card slot.

- **Series:**
Mode that activates the two slots sequentially.
- **Dual:**
Mode that activates the two slots at the same time.

Memo : _____

- When this is set to "Series", and recordable media are inserted in both slots, pressing the [REC] button starts recording only to the card in the selected slot (active slot).
- When "Series" is selected, and [Record Format] → [**C D** Format] is set to "AVCHD", the clips are recorded over the slots seamlessly without interruption in the video.
- When this is set to "Dual", and recordable media are inserted in both slots, pressing the [REC] button starts simultaneous recording to the cards in both slots.

4GB File Spanning(SDXC)

A recording file is automatically split when the size exceeds 4 GB, but you can record clips larger than 4 GB by setting this option to "Off". (Up to a maximum of 64 GB or 4 hours)

- **On:**
Splits a file when it exceeds 4 GB or 30 minutes.
- **Off:**
Splits a file when it exceeds 64 GB or 4 hours.

Memo : _____

- "Off" can be used if the SD card used for recording is the SDXC format.
- During simultaneous recording, such as Dual Rec, this option is valid only when the SD cards in both slots are of the SDXC format.
- This option is valid only when [Record Format] → [**A B** Format]/[**C D** Format] is set to "QuickTime".

QuickTime Audio

For selecting an audio sound property when [System] is set to "4K" or "HD" and that [**C D** Format] is set to "QuickTime".

Memo : _____

- This item cannot be selected when [**C D** Format] is set to "AVCHD".

Clip Set

↳ Clip Name Prefix

For setting the first four characters of the name of the clip file to be recorded to the SD card.

Enter any of the 36 characters including alphabets (upper case) and numbers (0 to 9) using the software keyboard.

Memo :

- When [Main Menu] → [System] → [Record Set] → [Record Format] → [**C D**Format] is set to "AVCHD", this setting is not reflected in the file name of the clip.
However, it is recorded as the display name of the clip in the thumbnail display.

↳ Reset Clip Number

For assigning a new number (Clip Number) by resetting it (0001).

Select [Reset] and press the Set button (●) to reset the number.

When [**C D**Format] is set to "AVCHD", the clip number is reset to "00000".

When other clips exist on the SD card, the smallest available number is used after reset.

- Example:
If the [Clip Name Prefix] is "ABCD", and "ABCD0001" already exists on the SD card, "ABCD0002" will be assigned.

Clip (Recorded Data) and Clip Name

- When recording is stopped, the images, audio and accompanying data which are recorded from start to stop are recorded as one "clip" on the SD card.
- An 8-character clip name is automatically generated for the recorded clip.
("Clip Name Prefix" + "Clip Number")
- When [Main Menu] → [System] → [Record Set] → [Record Format] → [**C D**Format] is set to "AVCHD", the clip name generated consists of only the Clip Number (5-digit number).

Example: In the case of QuickTime

ABCG0001

Clip Number

A number in automatic ascending order is assigned in the recording order.

The Clip Number can be reset by using "Reset Clip Number".

Clip Name Prefix (any four alphanumeric characters)

This is set to "xxxG" ("xxx" denotes the last 3 digits of the serial number) by default.

Memo : _____

- Before recording starts, you can set any characters for the clip name prefix by using [Clip Name Prefix].
- Changes cannot be made after recording.

Gimbal Set Item

When the gimbal is connected, "Gimbal Set..." is displayed to allow you to set up the gimbal.

Operation Mode

For specifying a gimbal operation mode.

- **User Control:**
Mode for manually specifying the camera position (pointing direction) in relation to the position of the gimbal.
- **Follow Mode:**
Mode for automatically changing the pointing direction of the camera according to the position of the gimbal when the gimbal moves.

Flip Vertical

For changing the setting according to the camera unit mounting position.
Select "Flip" to mount the camera unit on the upper side of the video unit.

Stabilized Area

For specifying the operation range of the gimbal where the camera is held at the initial pointing direction even if the gimbal moves.
This value can be specified for each of panning, tilting, and rolling.

↳ Pan/Tilt/Roll

Memo : _____

- When [Operation Modes] is set to "User Control", a setting value of Pan can be selected from [0, 7] and a setting value of Tilt/Roll can be selected from [0, 2].

Operating Speed

- At the "User Control":
For specifying the speed at which the camera pans, tilts, or rolls horizontally in response to the control unit operation.
- At the "Follow Mode":
For specifying the speed at which the camera pans, tilts, or rolls horizontally in response to the gimbal moves.

This value can be specified for each of panning, tilting, and rolling.

↳ Pan/Tilt/Roll

Delay

For specifying the time that lapses until the camera starts moving after the gimbal moves.
This value can be specified for each of panning, tilting, and rolling.

↳ Pan/Tilt/Roll

Motor Adjust

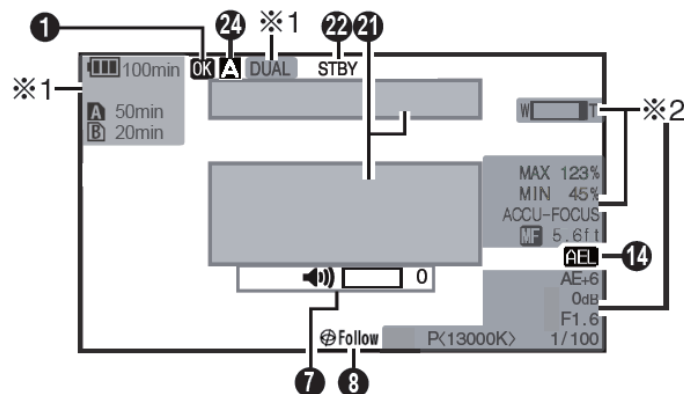
For adjusting the power of the motor for panning, tilting, and rolling according to the weight of the camera that changes with the type of lens.
This value can be specified for each of panning, tilting, and rolling.

↳ Pan/Tilt/Roll

Display Screen in Camera Mode

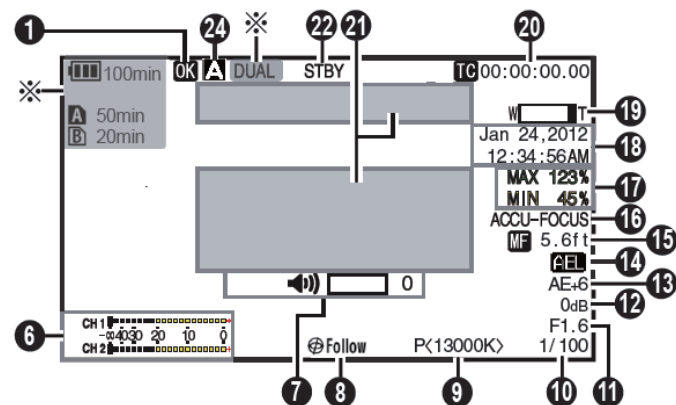
Display 0 screen

This screen displays the event. It is also used to display warnings only.



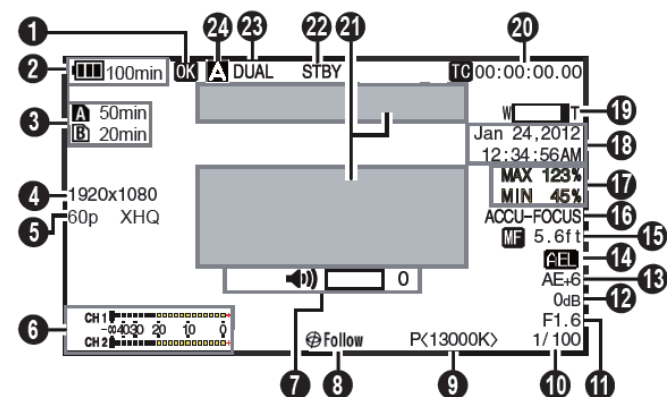
- *1 Appears only during warnings
- *2 Appears only during operation

Display 1 screen



- * Appears only during warnings

Display 2 screen



- 1 OK Mark
Displayed when OK mark has been appended.
- 2 Battery Power
Displays the current status of the power supply in use.
(⇒ P34 [Power Status Display])

Memo :

- Displayed in the Display 0 and Display 1 screens during warnings only.

- 3 Remaining Space on Media
Displays the remaining recording time of the SD cards.

- A : Currently selected slot. (White card)
- A : Write-protect switch of SD card is set.
- A!INVALID : SD card cannot be read or written to, or restored.
- A!FORMAT : SD card requires formatting.
- A!RESTORE : SD card requires restoring.
- A!INCORRECT :

- When the inserted SD card does not comply with the required speed class.
- When the SD card is not supported.

A!REC INH :

- When attempting to record in 50p or 50i to an SD card recorded in [AVCHD]60p or 60i (or vice versa).
- When attempting to record a large clip while a media that does not support large clip recording is inserted.
(⇒ P53 [4GB File Spanning(SDXC)])

Memo :

- This item is not displayed when [Main Menu] → [LCD/Monitor] → [Display Settings] → [Media Remain] is set to "Off". However, warnings will be displayed.

- Displayed in the Display 0 and Display 1 screens during warnings only. (When the remaining time is shorter than 3 minutes)
- The displayed time is an estimate.

- ④ Resolution
Displays the video image resolution.


Memo : _____

- This item is not displayed when [Main Menu] → [LCD/Monitor] → [Display Settings] → [Record Format] is set to "Off".

- ⑤ Frame Rate/Bit Rate
Displays the frame rate and bit rate in pairs.

Memo : _____

- This item is not displayed when [Main Menu] → [LCD/Monitor] → [Display Settings] → [Record Format] is set to "Off".

- ⑥ Audio Level Meter
- Displays the audio levels of CH1 and CH2.
 -  appears on the screen when in the Manual mode.



Memo : _____

- This item is not displayed when [Main Menu] → [LCD/Monitor] → [Display Settings] → [Audio Meter] is set to "Off".

- ⑦ Volume Operation Indicator
Displayed when there are changes made to the volume of the headphone, speaker (0 to 15).




Memo : _____

- There is no audio output from the speaker in Camera mode.

- ⑧ Gimbal Operation Mode Mark
Displayed when the gimbal is connected.

 USER : When [Operation Modes] is set to "User Control"

 Follow : When [Operation Modes] is set to "Follow Mode"


9 White Balance Mode


Displays the current white balance mode.
(*****K indicates color temperature)

A<*****K> : When the white balance is set to Auto A.

B<*****K> : When the white balance is set to Auto B.

P<*****K> : When the white balance is set to Preset.

 <FAW> : During Full Auto White Balance mode.

 <FAW> : Locked in the Full Auto White Balance mode.

Memo : _____

- Displayed in the Display 0 screen only when there is a change.

10 Shutter

- The current shutter speed is displayed when the shutter is set to "On".

Memo : _____

- The variable range of the shutter speed varies according to the video format settings.
- Displayed in the Display 0 screen only when there is a change.
- If the shutter speed is not displayed, the shutter is AUTO.

11 Iris F-Number

Displays F-number of the lens iris.

12 Gain

- Displays the gain value.
- "LUX30" or "LUX36" is displayed when in the low-light shooting mode.

Memo : _____

- Displayed in the Display 0 screen only when there is a change.

13 AE Level

- Displayed when the AE level is adjusted manually.
- When operated while manual operation is disabled, "AE" blinks for about 5 seconds.

14 AE Lock

- Displayed when AE LOCK is set to "ON".

15 Focus Display

- Displays the value of the focal length during manual focus.

Memo : _____

- You can specify whether to display the focus value ("Feet"/"Meter") or turn off the display in [Main Menu] → [LCD/Monitor] → [Display Settings] → [Focus].
This item will not be displayed when "Off" is selected.
- Displayed in the Display 0 screen only when there is a change.

- 16 Focus Assist**
- “FOCUS” is displayed when focus assist is activated.
 - When ACCU-Focus is enabled, “ACCU-FOCUS” blinks for about 10 seconds while Focus Assist starts up, after which the “FOCUS” indicator lights up.
 - If recording starts while [ACCU-Focus] is active, [ACCU-Focus] will be forcibly deactivated.

Memo : _____

- Displayed in the Display 0 screen only when there is a change.

- 17 Luminance Information**
Displayed when the Spot Meter function is activated.

MAX : Maximum luminance
MIN : Minimum luminance

- 18 Date/Time Display**
Displays the current date and time.

Memo : _____

- The date/time display style can be specified in [Main Menu] → [LCD/Monitor] → [Display Settings] → [Date Style]/[Time Style].
- This item is not displayed when [Main Menu] → [LCD/Monitor] → [Display Settings] → [Date/Time] is set to “Off”.

- 19 Zoom Display**
- Displays the zoom position. (Zoom bar or value)
 - The zoom bar will only be displayed for 3 seconds after the zoom operation is activated.
 - The value will always be displayed. (0 to 99)

Memo : _____

- You can specify the display method (Number/Bar) and whether to turn off the display in [LCD/Monitor] → [Display Settings] → “Zoom”. This item will not be displayed when “Off” is selected.
- Displayed in the Display 0 screen only when there is a change.

- 20 Time Code (TC)/User’s Bit (UB) Display**
- Displays the time code (hour: minute: second: frame) or user’s bit data.
 - Example of time code display:

TC00:00:00:00
 ⌞
 ※

* Colon (:) denotes non-drop frames and dot (.) denotes drop frames.

- Example of user’s bit display:

UBFF EE DD 20

Memo : _____

- You can specify whether to display the time code, user’s bit, or turn off the display in [LCD/Monitor] → [Display Settings] → [TC/UB]. This item will not be displayed when “Off” is selected.

- 21 Event/Warning Display Area**
Displays error messages.

- 22 Media Status**
- : No card found in the selected slot
 - STBY : Recording standby
 - REC : Recording
 - STOP : Unable to record to the card in the slot
 - P.OFF : Power OFF

- 23 Dual Rec Display**
“DUAL” is displayed in the Dual Rec mode

Memo : _____

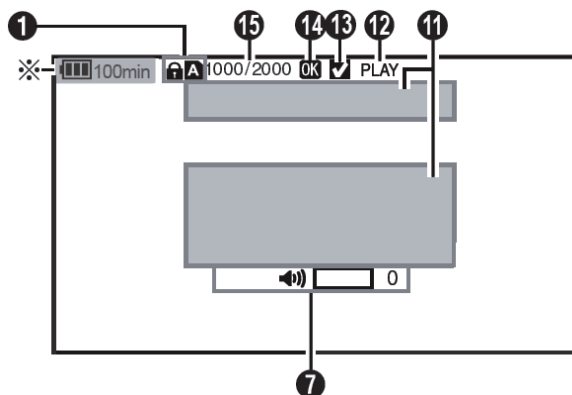
- This item is not displayed when [Slot Mode] is set to “Series”.
- This item is not displayed when [Main Menu] → [LCD/Monitor] → [Display Settings] → [Media Remain] is set to “Off”. However, warnings will be displayed.
- Displayed in the Display 0 and Display 1 screens during warnings only. (When the remaining time is shorter than 3 minutes)

- 24 FULL AUTO mode Display**
- A** is displayed when the FULL AUTO is set to “On”.
 - M** is displayed when the FULL AUTO is set to “Off”.

Display Screen in Media Mode

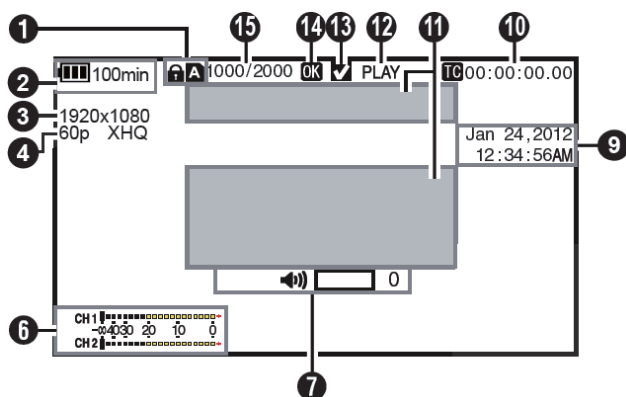
Media Display 0 Screen

This screen displays the media status or event. It is also used to display warnings only.

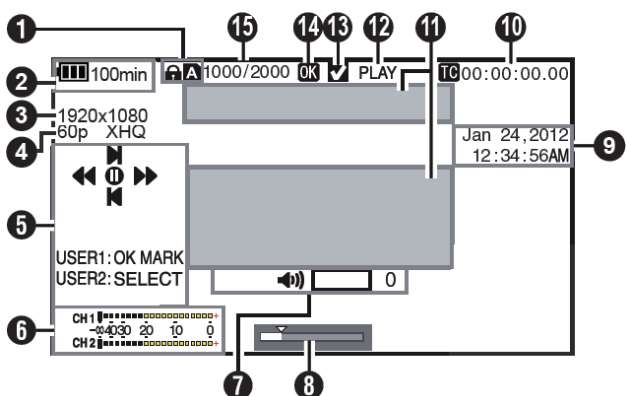


* Appears only during warnings

Media Display 1 Screen



Media Display 2 Screen



1 Media

- Displays the media slot of the currently played clip.
- Lock icon appears when the write-protect switch of the SD card is set.

2 Battery Power

Displays the current status of the power supply in use.

(⇒ P34 [Power Status Display])

Memo :

- Displayed in the Media Display 0 screen during warnings only.

3 Resolution

Displays the video image resolution.

4 Frame Rate/Bit Rate

Displays the frame rate and bit rate in pairs.

5 Operation Guide

Displays a guide for the current operation buttons.

6 Audio Level Meter

Displays the audio levels of CH1 and CH2.



Memo :

- This item is not displayed when [Main Menu] → [LCD/Monitor] → [Display Settings] → [Audio Meter] is set to "Off".

7 Volume Operation Indicator

- Displayed when the volume (0-15) of the headphones or speakers is changed

8 Position bar

Displays the current position in the video.

During trimming, the position bar appears in green, and icons for the in and out points are displayed.

- ▼ : Current position of the video
- ▲ : Position to start trimming (In point)
- ▲ : Position to end trimming (Out point)

- 9 Date/Time Display
Displays the date/time that is recorded on the currently played SD card.

Memo : _____

- The date/time display style can be specified in [LCD/Monitor] → [Display Settings] → [Date Style]/[Time Style].

- 10 Time Code (TC)/User's Bit (UB) Display
- Displays the time code (hour: minute: second: frame) or user's bit data.
 - Example of time code display:

TC00:00:00:00
※

* Colon (:) denotes non-drop frames and dot (.) denotes drop frames.

- Example of user's bit display:

UBFF EE DD 20

Memo : _____

- You can specify whether to display the time code, user's bit, or turn off the display in [TC/UB] of [Main Menu] → [LCD/Monitor] → [Display Settings].

- 11 Event/Warning Display Area
Displays error messages.

- 12 Media Status

PLAY : Playing
STILL : Still picture playback mode
FWD * : High-speed playback in the forward direction (* playback speed: 5x, 15x, 60x, or 360x)
REV * : High-speed playback in the reverse direction (* reverse playback speed: 5x, 15x, 60x, or 360x)
P.OFF : Power OFF

- 13 Check Mark
Displayed when the currently played clip is selected.

- 14 OK Mark
Displayed when OK mark has been appended.

- 15 Clip Information
Displays current clip number/total number of clips.

Managing/Editing Clips on a PC

Loading Clips to the PC (USB Connection Mode)

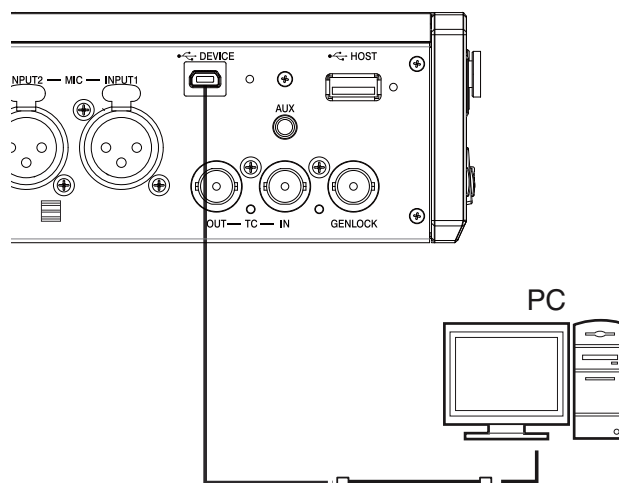
- You can load clips to a PC by connecting the camera recorder to the PC via the USB port. Doing so enables clips stored in the SD card to be managed and edited on the PC.
- Files on the SD card can be managed/edited on the connected PC in this mode only for USB mass storage class devices that are recognized by the said PC as a peripheral drive.

Memo : _____

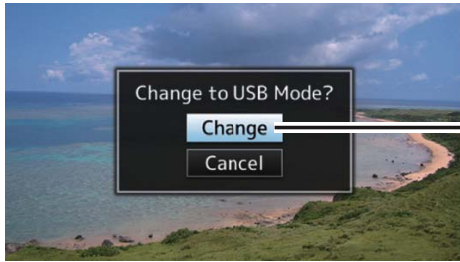
- Files cannot be written to the SD card.

1 Connect the camera recorder to the PC using a USB cable.

A confirmation message "Change to USB Mode?" to enable the USB connection appears.



- 2 Select [Change] using the cross-shaped button (▲▼), and press the Set button (●).
The camera recorder switches to USB mode.



2

Memo : _____

- If recording is in progress, the “Change to USB Mode?” message appears after recording stops.
- If playback is in progress, the camera recorder switches to USB mode after the file closes automatically, such as when playback stops.

Disconnecting

- Disable the connection on the PC, then remove the USB cable from the camera recorder.
- Doing so exits the USB mode and switches the camera recorder to Camera mode.

Memo : _____

- The procedure for disabling the USB connection varies according to the PC in use. For details, refer to the instruction manual of the PC.

When your PC cannot recognize the SD card

Confirm and update the OS of your PC.

OS	Description
Windows Vista	Necessary to update to SP1 or higher.
Windows Vista SP1/ Windows Vista SP2	<p>Necessary to download the update software. (KB975823)</p> <ul style="list-style-type: none"> • 32 bit version http:// www.microsoft.com/downloads/en/details.aspx?FamilyID=2d1abe01-0942-4f8aabb2-2ad529de00a1 • 64 bit version http:// www.microsoft.com/downloads/en/details.aspx?FamilyID=7d54c53f-017c-4ea5-ae08-34c3452ba315
Windows 7	<p>Necessary to download the update software. (KB976422)</p> <ul style="list-style-type: none"> • 32 bit version http:// www.microsoft.com/downloads/en/details.aspx?FamilyID=3ee91fc2-a9bc-4ee1-aca3-2a9aff5915ea • 64 bit version http:// www.microsoft.com/downloads/en/details.aspx?FamilyID=73f766dd-7127-4445-b860-47084587155f

Error Messages and Actions

Warning display on the monitor, tally lamp indication and warning tone are as follows according to the error status.

Memo : _____

- This camera recorder makes use of a microcomputer. Noise interference from external sources may prevent it from functioning properly. When this occurs, turn off and on the power of the camera recorder again.

Error Message	Status	Action
Turn Power Off Turn Back On Later	System error. * The warning tone sounds and the tally lamp blinks twice every second.	Turn off the power, and turn it on again. If the error persists, please contact the local dealers in your area.
Fan Maintenance Required	Usage time of the fan has exceeded 9000 hours.	Check the fan and replace accordingly. For more details, please contact the local dealers in your area. Memo : _____ <ul style="list-style-type: none"> • You can check the usage time of the fan in [System] ➔ [System Information] ➔ [Fan Hour].
Getting Overheated. Please Turn Power Off.	<ul style="list-style-type: none"> • The battery has exceeded the specified temperature. • The power turns off automatically after about 15 second. 	<ul style="list-style-type: none"> • Wait until the temperature drops or replace the battery. • If the error persists, please contact the local dealers in your area.
Camera is Getting Overheated. Please Turn Power Off.	<ul style="list-style-type: none"> • The internal temperature of the camera unit or video unit has exceeded the specified temperature. • The power turns off automatically after about 15 second. 	<ul style="list-style-type: none"> • Wait until the temperature drops. • If the error persists, please contact the local dealers in your area.
Please Check the Lens.	<ul style="list-style-type: none"> • Initialization of the lens failed. • The lens cannot perform focus operation. 	<ul style="list-style-type: none"> • Turn OFF the power, and then turn ON the power again. • Turn OFF the power, remove the lens, mount the lens again, and then turn ON the power.
Gimbal Initialization Failed. Turn Power Off Turn Back On Later	The gimbal cannot be initialized correctly due to an obstacle. An external force is applied to the gimbal during initialization.	Turn OFF the power, make sure that there is no obstacle around the gimbal unit, and then turn ON the power again.
Rec Inhibited	[REC] button is pressed when the write-protect switch of the SD card is set.	Turn off the write-protect switch of the SD card, or insert a recordable SD card.

Error Message	Status	Action
Lost Media Info	<ul style="list-style-type: none"> • Card is removed while recording is in progress. • Card is removed while formatting is in progress. • Card is removed while restoring is in progress. • Card is removed while adding the OK mark. • Card is removed while writing a setup file. • Card is removed while deleting a clip. 	Restore the card using this camera recorder.
Media Full	<ul style="list-style-type: none"> • [REC] button is pressed when the media in use has no remaining space. • Remaining space ran out during recording. 	Replace the SD card with a new one.
No Media	[REC] button is pressed when an SD card is not inserted.	Insert an SD card.
No Media	No SD card is found in Media mode or when the thumbnail screen is displayed.	Insert an SD card.
No Clips	No clips are found on the inserted SD card in Media mode or when the thumbnail screen is displayed.	Insert an SD card that contains playable clips.
12h Continuation Record	The continuous recording time in AVCHD mode exceeds 12 hours and recording stops automatically.	To continue recording, press the [REC] button again.
Update Can't Be Executed!	Update cannot be executed.	Check whether the update file is for the target model.
Update Error!	Update cannot be completed normally.	The probable cause is an hardware error. Please consult your nearest JVC dealer.

Tally Lamp

The tally lamp start blinking when the remaining space on the SD card is running out during recording, or when the battery power is running low.

Blinking Mode	Remaining Battery Power/SD Card Space
Blinks slowly (once every second)	<ul style="list-style-type: none"> • Battery power is low • Remaining recording time on SD card is less than 3 minutes (during recording)
Blinks quickly (2 times per second)	<ul style="list-style-type: none"> • Remaining recording time on SD card is zero (during recording) • Error on the camera recorder

Warning Tone

- Warning tone is output from the monitor speaker and [Q] terminal when the battery level is low.
- Warning tone is also output when an error occurs in the camera recorder.

Memo :

- You can specify whether to turn on the warning tone as well as setting the volume in [A/V Set] ➔ [Audio Set] ➔ [Alarm Level].

Troubleshooting

Symptom	Action
Power does not turn on.	<ul style="list-style-type: none">• Is the AC adapter properly connected?• Is the battery charged?• Is the power turned on immediately after it is turned off? Make sure to wait for an interval of at least 5 seconds before turning on the power again.
Unable to start recording.	<ul style="list-style-type: none">• Is the write-protect switch of the SD card turned on? Make sure that the write-protect switch is turned off.• Is the camera recorder set to the Camera mode? Use the [CAM/MEDIA] selection button to switch to the Camera mode.
Camera image is not output on the LCD monitor.	Is the camera recorder set to the Camera mode? Use the [CAM/MEDIA] selection button to switch to the Camera mode.
Camera image is not output from the video output terminal.	Is [A/V Set] ➔ [Video Set] ➔ [HDMI/SDI Out] set to "Off"?
Playback does not start after selecting a clip thumbnail and pressing the Set button (●).	Is the selected clip a playable clip? Playback is not possible if the clip has a different video format setting.
The [CH1/CH2] recording level adjustment knob does not work.	<ul style="list-style-type: none">• Is the [CH1/CH2 AUTO/MANUAL] switch set to "AUTO"?• Is the camera unit set to the FULL AUTO mode?• Is [A/V Set] ➔ [Audio Set] ➔ [Audio On FULL AUTO] set to "Auto"?
SD card cannot be initialized (formatted).	Is the write-protect switch of the SD card turned on? Make sure that the write-protect switch is turned off.
Battery alarm appears even after loading a charged battery.	Is the battery too old?
The time code and user's bit are not displayed.	<ul style="list-style-type: none">• Even in Camera mode or Media mode, the time code and user's bit may not be displayed depending to the type of display.• Is [LCD/Monitor] ➔ [Display Settings] ➔ [TC/UB] set to "Off"? To display the time code and user's bit, set it to "TC" or "UB".
The date and time are not displayed.	The date and time are only displayed on the Display 1 and Display 2 screens in the Camera mode (during shooting).
The actual recording time is shorter than the estimated time.	The recordable time may be shorter depending on the shooting conditions or the subject.

Specifications

General

Item	Description
Power	Using battery pack : DC 7.4 V (IDX) Using AC adapter : DC 11 V - 17V
Power consumption	Approx. 29.6 W (*1) (When the signal transmission cable(KA-SC001G) is used) Approx. 37.0 W (*1) (When the camera unit cable (KA-CC010G) is used)
Allowable operating temperature	0 °C to 40 °C (32 °F to 104 °F)
Allowable operating humidity	30 %RH to 80 %RH
Allowable storage temperature	-20 °C to 50 °C (-4 °F to 122 °F)

(*1) When [System] is set to "4K".

Terminal Section

Item	Description
SDI Output Terminal	BNCx4 3G-SDI : Compliant with SMPTE ST424 HD-SDI : Compliant with SMPTE ST292
HDMI Output Terminal	HDMI TypeA
SDI(Moni) Output Terminal	BNC 3G-SDI : Compliant with SMPTE ST424 HD-SDI : Compliant with SMPTE ST292
AV Output Terminal	4-pin 3.5 mm mini jack Video : 1.0V(p-p) Audio : 300mV(rms), 1k Ω

Item	Description
[INPUT1/INPUT2] terminal	MIC : -50 dBu, 3 k Ω , XLR (balanced), +48 V output (phantom power supply) LINE : +4 dBu, 10 k Ω , XLR (balanced)
AUX Terminal	3.5 mm stereo mini jack -22dBu, 10 k Ω
USB Terminal	DEVICE : Mini USB-B type, USB 2.0, slave function (mass storage class) only HOST(*) : USB-A type, USB2.0
Headphone terminal	3.5 mm mini jack (stereo)
Remote 1 Terminal	6-pin Mini DIN
Remote 2 Terminal	ϕ 2.5 mm wired remote control
Remote 3 Terminal (*)	3-pin 2.5 mm mini jack
Genlock Terminal(*)	1.0 V(p-p), 75 Ω
TC Input Terminal(*)	1.0 V(p-p) to 4.0 V(p-p) high impedance
TC Output Terminal(*)	2.0 V(p-p) low impedance
Gimbal Control Terminal(*)	3.0V \pm 5%(p-p)
DC INPUT Terminal	XLR 4-pin

(*) Future upgrade will allow use of this.

Camera Unit

Item	Description
Image pickup device	Super 35mm 13.5 megapixels (CMOS)
Lens Mount	Micro Four Thirds Mount
Gain	0dB, 3dB, 6dB, 9dB, 12dB, 15dB, 18dB, 21dB, 24dB, Lolux (30dB, 36dB), ALC
Electronic shutter	1/50 to 1/10000, EEI

Storage Section

Item	Description
Supported media	SDHC/SDXC
Slots	4K : x2 HD : x2

Video/Audio

Item	Description
4K mode (MOV)	
Video recording file format	QuickTime File Format
Video	MPEG-4 AVC/H.264, VBR, 150Mbps (Max) 3840x2160/59.94p, 29.97p, 50p, 25p
Audio	LPCM 2ch, 48 kHz/16 Bit
HD mode (MOV)	
Video recording file format	QuickTime File Format (For Final Cut Pro)
Video	
XHQ 422 Mode, XHQ Mode	MPEG-4 AVC/H.264, VBR, 50Mbps (Max) 1920x1080/59.94p, 59.94i, 29.97p, 50p, 50i, 25p
Audio	LPCM 2ch, 48 kHz/16 Bit
HD mode (AVCHD)	
Video recording file format	AVCHD File Format
Video	
HQP Mode	MPEG-4 AVC/ H.264, VBR, 28Mbps (Max) 1920x1080/59.94p, 50p
HQ Mode	MPEG-4 AVC/ H.264, VBR, 24Mbps (Max) 1920x1080/59.94i, 50i
SP Mode	MPEG-4 AVC/ H.264, VBR, 18Mbps (Max) 1920x1080/59.94i, 50i
Audio	Dolby Digital 2ch, 48 kHz/16 Bit, 256kbps

Dimensions/Mass

Item	Description
Video Unit	
Dimensions (W x H x D)	248mm x 62mm x 265mm
Mass	Approx. 1580 g
Video Unit (including LCD Unit)	
Dimensions (W x H x D)	248mm x 82mm x 265mm (LCD Unit close) 248mm x 196mm x 265mm (LCD Unit open)
Mass	Approx. 2120 g
Camera Unit	
Dimensions (W x H x D)	89mm x 80mm x 51mm
Mass	Approx. 265 g (without Lens)
LCD unit	
Dimensions (W x H x D)	216mm x 29mm x 187mm
Mass	Approx. 540 g
Control Unit	
Dimensions (W x H x D)	150mm x 100mm x 30mm
Mass	Approx. 235 g

Accessories

Accessories	
Warranty Card (U model only)	1
Instructions	1

Components (GW-SP100U)

Components	
Video Unit (GW-VU100U)	1
Camera Unit (GW-CU100U)	1
LCD Unit (GW-DP100U)	1
Control Unit (KA-CT001U)	1

Components (GW-SP100E)

Components	
Video Unit (GW-VU100E)	1
Camera Unit (GW-CU100E)	1
LCD Unit (GW-DP100E)	1
Control Unit (KA-CT001E)	1

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In case the User falls under any of the events described in the following items, the Licensor may immediately terminate this Agreement or claim that the User compensates for the damage incurred by the Licensor due to such event:

- (1) when the User violated any provision of this Agreement; or
- (2) when a petition has been filed against the User for an attachment, provisional attachment, provisional disposition or any other compulsory execution.

Article 9 Destruction of the Licensed Software

If this Agreement is terminated pursuant to the provision of Article 8, the User shall destroy the Licensed Software, any related documents and copies thereof within two (2) weeks from such date of termination.

Article 10 Export Restriction

1. The User shall understand that the Licensed Software shall be subject to the export restrictions adopted by the country of User and any other countries.
2. The User shall agree that the software will be subject to any and all applicable international and domestic laws including the export control regulation of the country of User and any other countries, and any restrictions concerning the end-users, the use by end-users and importing countries to be provided by the country of User and any other countries, and any other governmental authorities.
3. If the User is an agency of the United States of America (the "Government"), the User acknowledge Licensor's representation that the Licensed Software is a "Commercial Item" as defined in Federal Acquisition Regulation (FAR) part 2.101(g) consisting unpublished "Commercial Computer Software" as those items are used at FAR part 12.212 and is only license the User with the same use right Licensor grants all commercial end users pursuant to the terms of this Agreement.

Article 11 Miscellaneous

1. In the event any part of this Agreement is invalidated by operation of law, the residual provisions shall continue in force.
2. Matters not stipulated in this Agreement or any ambiguity or question raised in the construction of this Agreement shall be provided or settled upon good-faith consultation between the Licensor and the User.
3. The Licensor and the User hereby agree that this Agreement is governed by the laws of Japan, and any dispute arising from, and relating to the rights and obligations under, this Agreement shall be submitted to the exclusive jurisdiction of the Tokyo District Court for its first instance.

Important Notice concerning the Software

The Software embedded in the Product is composed of several independent software components, and in each of such individual components (hereinafter the "Licensed Software"), a copyright of either JVC KENWOOD Corporation (hereinafter "JKC") or a third party subsists. The Product uses the software component designated in the End-User License Agreement that was executed between JKC and a third party (hereinafter "EULA").

Since the terms and conditions of individual licenses are provided by parties other than JKC, the original English version will be displayed by the Product.

- ① Turn on the power.
- ② Press the [MENU] button.
- ③ Select [Main Menu] ➡ [System] ➡ [System Information] ➡ [Open Source License].

