

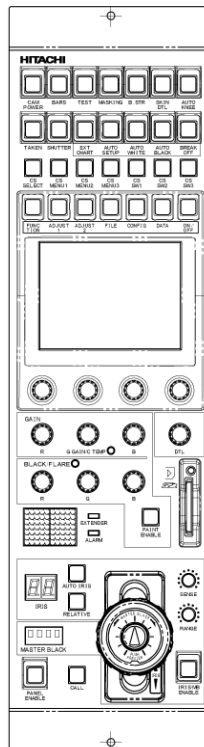
HITACHI

HD COLOR CAMERA SYSTEM

REMOTE CONTROL UNIT

RU-1500JY

OPERATING INSTRUCTIONS



Please read this operating instruction carefully for proper operation, and keep it for future reference.

Hitachi Kokusai Electric

Note: The model and serial numbers of your product are important for you to keep for your convenience and protection. These numbers appear on the nameplate located on bottom of the product. Please record these numbers in the spaces provided below, and retain this manual for future reference.

Model No. _____

Serial No. _____

SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and safety Instructions on your equipment. Follow recommended precautions and safe operating practices.

SAFETY ALERT SYMBOL



This is the "Safety Alert Symbol." This symbol is used to call your attention to items or operations that could be dangerous to you or other persons using this equipment. Read these messages and follow these instructions carefully.

It is essential that you read the instructions and safety regulations before you attempt to assemble or use this equipment.

The definitions of signal words are as follows:



WARNING: Personal danger

Warning notes indicate any condition or practice, which if not strictly observed, could result in personal injury or possible death.



CAUTION: Possible damage to equipment

Caution notes indicate any condition or practice, which if not strictly observed or remedied, could result in damage or destruction of the equipment.



NOTE: Notes indicate an area or subject of special merit, emphasizing either the product's capabilities or common errors in operation or maintenance.



WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS COLOR CAMERA TO RAIN OR MOISTURE.

AVERTISSEMENT

Afin d'éviter tout risque d'incendie ou d'électrocution, ne pas exposer l'appareil à la pluie ou à l'humidité.

Afin d'écartier tout risque d'électrocution, garder le coffret fermé.

Ne confier l'entretien de l'appareil qu'à un personnel qualifié.

VORSICHT

Um Feuergefahr und die Gefahr eines elektrischen Schlags zu vermeiden, darf das Gerät weder Regen noch Feuchtigkeit ausgesetzt werden.

Um einen elektrischen Schlag zu vermeiden, darf das Gehäuse nicht geöffnet werden.

Überlassen Sie Wartungsarbeiten stets nur einem Fachmann.

IMPORTANT SAFETY INSTRUCTIONS

1. Read Instructions

All the safety and operating instructions should be read before the product is operated.

2. Retain Instructions

The safety and operating instructions should be retained for future reference.

3. Heed Warnings

All warnings on the product and the operating instructions should be adhered to.

4. Follow Instructions

All operating and use instructions should be followed.

5. Cleaning

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

6. Attachments

Do not use attachments not recommended by the product manufacturer as they may cause hazards.

7. Water and Moisture

Do not use this product near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.

8. Accessories

Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

9. Moving

A product and cart combination should be moved with care.

Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

10. Ventilation

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered.

The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface.

This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

11. Power Sources

This product should be operated only from the type of power source indicated on the marking label. If company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

12. Grounding or Polarization

This product is equipped with a three-wire grounding-type plug a plug having a third (grounding) pin.

This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

13. Power-Cord Protection

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plug, convenience receptacles, and the point where they exit from the product.

14. Lightning

For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.

15. Overloading

Do not overload wall outlets, extension cords or integral convenience receptacles as this can result in a risk of fire or electric shock.

16. Object and Liquid Entry

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

17. Inflammable and Explosive Substance

Avoid using this product where there are gases, and also where there are inflammable and explosive substances in the immediate vicinity.

18. Heavy Shock or Vibration

When carrying this product around, do not subject the product to heavy shock or vibration.

19. Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

20. Damage Requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a. When the power-supply cord or plug is damaged.
- b. if liquid has been spilled, or objects have fallen into the product.
- c. If the product has been exposed to rain or water.
- d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- e. If the product has been dropped or damaged in any way.
- f. When the product exhibits a distinct change in performance-this indicates a need for service.

21. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part.

Unauthorized substitutions may result in fire, electric shock, or other hazards.

22. Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

23. Wall or Ceiling Mounting

The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

24. Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

WICHTIGE SICHERHEITSANWEISUNGEN

1. Alle Anweisungen lesen.

Vor Betrieb des Erzeugnisses sollten alle Sicherheits- und Bedienungsanleitungen gelesen werden.

2. Die Anweisungen aufbewahren.

Die Sicherheits- und Bedienungsanleitungen sollten fünftigen Bezug aufbewahrt werden.

3. Warnungen beachten.

Die Warnungen auf dem Erzeugnis und in den Bedienungsanleitungen sollten beachtet werden.

4. Anweisungen befolgen.

Alle Bedienungsanleitung- und Verwendungsanweisungen sollten befolgt werden.

5. Reinigung

Den Stecker des Geräts vor Reinigung aus der Steckdose ziehen. Keine flüssigen Reinigungsmittel oder Aerosolreiniger verwenden. Zum Reinigen einen feuchten Lappen verwenden.

6. Zubehör

Nur vom Hersteller des Erzeugnisses empfohlenes Zubehör verwenden, da es sonst zu Störungen kommen kann.

7. Wasser und Feuchtigkeit

Dieses Erzeugnis nicht in der Nähe von Wasser verwenden - z.B. in der Nähe einer Badewanne, eines Waschbeckens, einer Küchenspüle, eines Waschzubers, in einem nassen Keller, in der Nähe eines Schwimmbeckens usw.

8. Aufstellung

Das Erzeugnis nicht auf einen unstabilen Wagen, Stand, Dreifuß, Träger oder Tisch stellen. Das Erzeugnis kann sonst herunterfallen und ein Kind oder einen Erwachsenen schwer verletzen. Außerdem kann das Gerät schwer beschädigt werden. Nur mit einem Wagen, Stand, Dreifuß, Träger oder Tisch verwenden, der vom Hersteller empfohlen oder mit dem Erzeugnis verkauft worden ist. Für jegliche Anbringung sollten die Anweisungen des Herstellers befolgt werden, und das vom Hersteller empfohlene Anbringungszubehör sollte verwendet werden.

9. Eine Kombination von Erzeugnis und Wagen sollte vorsichtig bewegt werden.

Schneller Halt, übermäßige Krafteinwirkung und unebene Oberflächen können Umkippen der Kombination von Erzeugnis und Wagen verursachen.

10. Ventilation

Schlitze und Öffnungen im Gehäuse dienen der Ventilation. Sie sind für zuverlässigen Betrieb des Gerätes und Schutz vor Überhitzung erforderlich und dürfen nicht blockiert oder abgedeckt werden. Die Öffnungen sollten niemals dadurch blockiert werden, daß das Gerät auf ein Bett, ein Sofa, einen Teppich oder eine ähnliche Oberfläche gestellt wird. Das Gerät sollte nur dann in Einbauinstallation wie in einem Bücherschrank oder einem Gestell verwendet werden, wenn angemessene Ventilation vorgesehen ist bzw. Die Anweisungen des Herstellers befolgt worden sind.

11. Stromversorgung

Dieses Erzeugnis sollte nur an der auf dem Typenschild angegebenen Stromversorgungsart betrieben werden. Wenn Sie nicht sicher sind, was für eine Stromversorgung Sie haben, so wenden Sie sich bitte an Ihren Erzeugnishändler oder an das lokale Elektrizitätswerk. Beziehen Sie sich für Batteriebetrieb oder andere Stromquellen vorgesehene Erzeugnisse bitte auf die Bedienungsanleitungen.

12. Erdung oder Polarisierung

Dieses Erzeugnis ist mit einem Schutzkontaktstecker mit drei Leitern ausgerüstet, mit einem Erdungskontakt. Dieser Stecker paßt nur in eine schuko-Steckdose. Dies ist eine Sicherheitsmaßnahme. Wenn Sie den Stecker nicht in die Steckdose stecken können, so wenden Sie sich bitte an Ihren Elektriker, damit er die veraltete Schutz des Schutzkontaktsteckers unwirksam macht.

13. Netzkabelschutz

Netzkabel sollten so verlegt werden, daß möglichst nicht darauf getreten wird und daß sie nicht eingeklemmt werden, mit besonderer Beachtung der Kabel an Stackern, Verlängerungskabeln und dem Austritt des Kabels aus dem Erzeugnis.

14. Blitzschlag

Für zusätzlichen Schutz des Erzeugnisses während eines Gewitters oder bei Nichtverwendung für lange Zeit den Stecker aus der Steckdose ziehen. Dies verhindert Beschädigung durch Blitzschlag und Netzspannungstöße.

15. Überlastung

Wandsteckdosen, Verlängerungskabel und eingebaute Bequemlichkeitssteckdosen nicht überlasten, da dies Feuer oder elektrischen Schlag verursachen kann.

16. Eindringen von Fremdkörpern und Flüssigkeit

Niemals Objekte irgendwelcher Art durch die Öffnungen in das Gerät schieben, da diese unter hoher Spannung stehende Teile berühren oder kurzschließen können, wodurch es zu Feuer oder elektrischem Schlag kommen kann. Niemals Flüssigkeiten irgendwelcher Art auf das Erzeugnis verschütten.

17. Entflammbare und explosive Substanzen

Vermeiden Sie Verwendung dieses Erzeugnisses an Orten mit Gasen bzw. entflammbaren oder explosiven Substanzen in der direkten Umgebung.

18. Starke stöße oder Vibrationen

Setzen Sie das Erzeugnis beim Transport nicht starken Stößen oder Vibrationen aus.

19. Wartung

Versuchen Sie nicht, dieses Erzeugnis Selbst zu warten, da Sie sich durch Öffnen bzw. Entfernen von Abdeckungen hohen Spannungen und sonstigen Gefährdungen aussetzen können.

Beziehen Sie sich für jegliche Wartung auf qualifiziertes Wartungspersonal.

20. Beschädigung, die Wartung erfordert

Ziehen Sie den Stecker dieses Erzeugnisses aus der Steckdose und wenden Sie sich an qualifiziertes Wartungspersonal, wenn eine der folgenden Bedingungen vorliegt:

- a. Wenn das Netzkabel oder der Stecker beschädigt ist.
- b. Bei Eindringen von Flüssigkeit oder Fremdkörpern in das Gerät.
- c. Wenn das Erzeugnis Regen oder Wasser ausgesetzt worden ist.
- d. Wenn das Erzeugnis bei Befolgen der Bedienungsanleitungen nicht normal funktioniert.

Nur die Regelemente verstellen, die in den Bedienungsanleitungen behandelt werden, da unangemessene Einstellung anderer Regelemente Beschädigung verursachen kann und oft beträchtliche Arbeit durch einen qualifizierten Techniker erfordert, um das Erzeugnis wieder, zu normalem Betrieb zurückzubringen.

- e. Wenn das Erzeugnis fallen gelassen oder beschädigt worden ist.
- f. Wenn das Erzeugnis eine klare Änderung in der Leistung zeigt-dies weist darauf hin, daß Wartung erforderlich ist.

21. Ersatzteile

Wenn Ersatzteile erforderlich sind, darauf achten, daß der Wartungstechniker nur die vom Hersteller festgelegten Ersatzteile oder Teile mit den gleichen Charakteristiken wie die ursprünglichen Teile verwendet. Unautorisierte Ersatzteile können Feuer, elektrischen Schlag oder sonstige Gefährdungen verursachen.

22. Sicherheitsprüfung

Bitten Sie den Wartungstechniker nach der Vervollendung von Wartung oder Reparaturarbeiten an diesem Erzeugnis um die Durchführung von Sicherheitsprüfungen, um zu bestimmen, daß das Erzeugnis im angemessenen Betriebszustand ist.

23. Anbringung an der Wand oder an der Decke

Das Erzeugnis sollte nur entsprechend den Empfehlungen des Herstellers an einer Wand oder an der Decke angebracht werden.

24. Wärme

Das Erzeugnis sollte fern von Wärmequellen wie Radiatoren, Heizwiderständen, Öfen und anderen Wärme erzeugenden Erzeugnissen (einschließlich Verstärkern) aufgestellt werden.

MISES EN GARDE IMPORTANTES

1. Lire les instructions

Lire toutes les instructions de sécurité et de fonctionnement avant de faire fonctionner l'appareil.

2. Conserver ces instructions

Conserver les instructions de sécurité et de fonctionnement à des fins de référence ultérieure.

3. Tenir compte des avertissements

Tous les avertissements qui figurent sur l'appareil et dans le mode d'emploi devront être respectés.

4. Observer les instructions

Observer toutes les instructions de fonctionnement et d'utilisation.

5. Nettoyage

Avant de procéder au nettoyage, débrancher l'appareil de la prise secteur. Ne pas utiliser de produits de nettoyage liquides ou en aérosol.

Nettoyer l'appareil avec un chiffon humide.

6. Fixations

Ne pas utiliser de fixations non recommandées par le fabricant de l'appareil car elles pourraient être source de danger.

7. Eau et humidité

Ne pas utiliser l'appareil à proximité d'eau-par exemple près d'une baignoire, d'un lavabo, d'un évier ou d'un bac à lessive, dans un sous-sol humide, ou près d'une piscine, etc.

8. Accessoires

Ne pas placer l'appareil sur un chariot, un socle, un pied, un support ou une table instables. L'appareil pourrait tomber, blessant grièvement des enfants ou des adultes, et étant sérieusement endommagé.

Utiliser exclusivement le chariot, le socle, le pied, le support ou la table recommandés par le fabricant, ou vendus avec l'appareil. Pour tout montage de l'appareil, respecter les instructions du fabricant, et utiliser à cette fin l'accessoire de montage recommandé par le fabricant.

9. L'appareil monté sur son chariot devra être déplacé avec précaution.

Des arrêts brusques, une force excessive et des surfaces irrégulières pourraient provoquer le renversement de l'ensemble appareil-chariot.

10. Ventilation

Les fentes et les ouvertures du coffret sont prévues pour la ventilation ainsi que pour garantir un fonctionnement en toute sécurité de l'appareil et le protéger de toute surchauffe, et ces ouvertures ne devront donc être ni obstruées ni recouvertes. Ne jamais obstruer les ouvertures en plaçant l'appareil sur un lit, un sofa, un tapis ou toute surface similaire. Ne jamais placer l'appareil dans un support confiné, par exemple une bibliothèque ou une étagère, sans ventilation suffisante ou sans respecter les instructions du fabricant.

11. Sources d'alimentation

L'appareil devra être alimenté exclusivement sur le type d'alimentation indiqué sur l'étiquette signalétique. Si l'on n'est pas sûr du type d'alimentation du local, consulter le revendeur de l'appareil ou la compagnie d'électricité locale. Pour les appareils qui fonctionnent sur batterie ou sur d'autres sources, voir le mode d'emploi.

12. Mise à la terre ou polarisation

L'appareil est doté d'une fiche trifilaire avec mise à la terre, dont la troisième broche assure la mise à la terre. Cette fiche ne rentrera que dans les prises trifilaires de mise à la terre. Ceci est une mesure de sécurité. Si la fiche ne rentre pas dans la prise, faire remplacer la prise défectueuse par un électricien.

Ne pas rendre vaine la mesure de sécurité assurée par cette prise avec mise à la terre.

13. Protection du cordon d'alimentation

Acheminer les cordons d'alimentation de façon qu'on ne risque pas de marcher dessus ou de les coincer sous un objet placé dessus ou contre eux.

Faire particulièrement attention aux fiches des cordons, à la proximité des prises, et à l'endroit où ils ressortent de l'appareil.

14. Foudre

Pour renforcer la protection de l'appareil pendant un orage, ou si l'on s'en éloigne ou qu'on reste longtemps sans l'utiliser, le débrancher de la source d'alimentation. Ceci permettra d'éviter tout dommage de l'appareil dû à la foudre et aux surtensions de ligne.

15. Surcharge

Ne pas surcharger les prises, rallonges et prises multiples car cela pourrait entraîner un risque de feu ou de choc électrique.

16. Pénétration d'objets et de liquides

Ne jamais enfoncer d'objets d'aucune sorte dans les ouvertures de l'appareil car ils pourraient toucher des points de tension dangereuse ou court-circuiter des pièces, ce qui pourrait provoquer un feu ou un choc électrique. Ne jamais renverser de liquide d'aucune sorte sur l'appareil.

17. Substances inflammables et explosives

Eviter d'utiliser l'appareil en présence de gaz, ainsi qu'à proximité immédiate de substances inflammables et explosives.

18. Chocs ou vibrations violents

Lorsqu'on transporte l'appareil, ne pas le soumettre à des chocs ou des vibrations violents.

19. Réparations

Ne pas tenter de réparer l'appareil soi-même car le fait d'ouvrir ou de retirer les caches risque d'exposer l'utilisateur à des tensions dangereuses notamment. Confier toute réparation à un personnel qualifié.

20. Dommages nécessitant réparations

Débrancher l'appareil de la source d'alimentation et confier les réparations à un personnel qualifié dans les cas suivants:

- a. Lorsque le cordon d'alimentation ou sa fiche sont endommagés
- b. Si du liquide s'est renversé sur l'appareil ou que des objets sont tombés dedans
- c. Si l'appareil a été exposé à la pluie ou à l'eau.
- d. Si l'appareil ne fonctionne pas normalement lorsqu'on observe les instructions d'utilisation.

Ne régler que les commandes couvertes par le mode d'emploi ; en effet, un réglage incorrect des autres commandes pourrait entraîner des dommages et nécessiteront souvent des travaux de réparation coûteux par un technicien qualifié pour remettre l'appareil en état de marche.

- e. Si l'appareil est tombé ou qu'il a été endommagé.
- f. Si l'appareil affiche une nette modification de ses performances, cela signifie qu'il a besoin d'être réparé.

21. Pièces de rechange

Si l'on a besoin de pièces de rechange, veiller à ce que le technicien de réparation utilise exclusivement les pièces de rechange spécifiées par le fabricant ou des pièces ayant les mêmes caractéristiques que les pièces d'origine. Les pièces de rechange non autorisées risquent de provoquer un feu, un choc électrique et autres dangers.

22. Vérification de sécurité

Après tout travail d'entretien ou de réparation de l'appareil, demander au technicien de réparation d'effectuer les vérifications de sécurité pour s'assurer que l'appareil est en bon état de marche.

23. Montage au mur ou au plafond

L'appareil ne pourra être monté au mur ou au plafond que de la manière recommandée par le fabricant.

24. Chaleur

Eloigner l'appareil des sources de chaleur, telles que radiateurs, appareils de chauffage, cuisinières, et de tout produit engendrant de la chaleur (y compris les amplificateurs).

IMPORTANT NOTICE

For USA

These products have 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 instruction manual, may cause harmful interference to radio communications. Operation of this product 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.

WARNING

Changes or modifications not expressly approved by Hitachi Kokusai Electric responsible for compliance could void the user's authority to operate the equipment.

For Canada

This product does not exceed the class A/class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations.

Le présent appareil n'émet pas de bruits radioélectriques dépassant les limites applicable aux appareils numériques de classe A prescrites dans le rVglement sur le brouillage radioélectrique édicté par le ministère des communications du canada.

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Outline and features

1. General

The RU-1500JY is a remote control unit that is connected with the camera system of Hitachi SK-HD1000 series and operated.

The camera can be easily adjusted using the 3.5 inch LCD panel and LED switch and rotary encoder.

2. Features

Operability

- The camera can be easily adjusted using the 3.5 inch LCD panel and LED switch and rotary encoder.
- Lens Iris, master black and preview switch can be controlled by a large, easy-to-use joystick control.
- With the one touch color temperature control function, the RU-1500JY is ideal not only Studio but also OB van use.

The main control items are:

- Camera power supply on/off
- Auto setup execution
- Data file (SCENE FILE preset, 0 to 8) selection, save
- Manual adjustment using the LCD panel and rotary encoder
- Various on/off controls

3. Standard composition

			Qty
1	Remote Control Unit	RU-1500JY	1
2	Control cable	C-102RH (10 meters)	1
3	Connector	R05-PB8M (Ext. iris)	1
4	Connector	RM12BPE-3S(71) (Preview)	1
5	Operating instructions		1

Warnings and cautions when using

CAUTION

■ Do not disassemble or modify

The camera contains precision internal components. Do not open the cover or disturb switches and controls other than designated. There is risk of impaired performance and damage.

■ Keep foreign object out of interior

Entry of water, metallic or other foreign materials can cause failure and damage.

■ Select use and storage locations carefully

Avoid using or storing the equipment in the following types of locations. Impaired performance and damage can be caused.

- Extremely hot or cold locations (exceeding 0 to 40°C), such as in enclosed vehicles.
- Subject to strong vibration.
- Humid or dusty locations.

- Salt spray or corrosive gases.
- Strong electromagnetic fields (e.g., near TV or radio transmitters).
- Where exposed to rain.

■ When connecting and disconnecting cables, grasp the connector by the body, not the attached cable. Cables can be damaged by pulling on them.

■ In event of difficulty

Disconnect from power and contact the nearest Hitachi Kokusai Electric service agency.

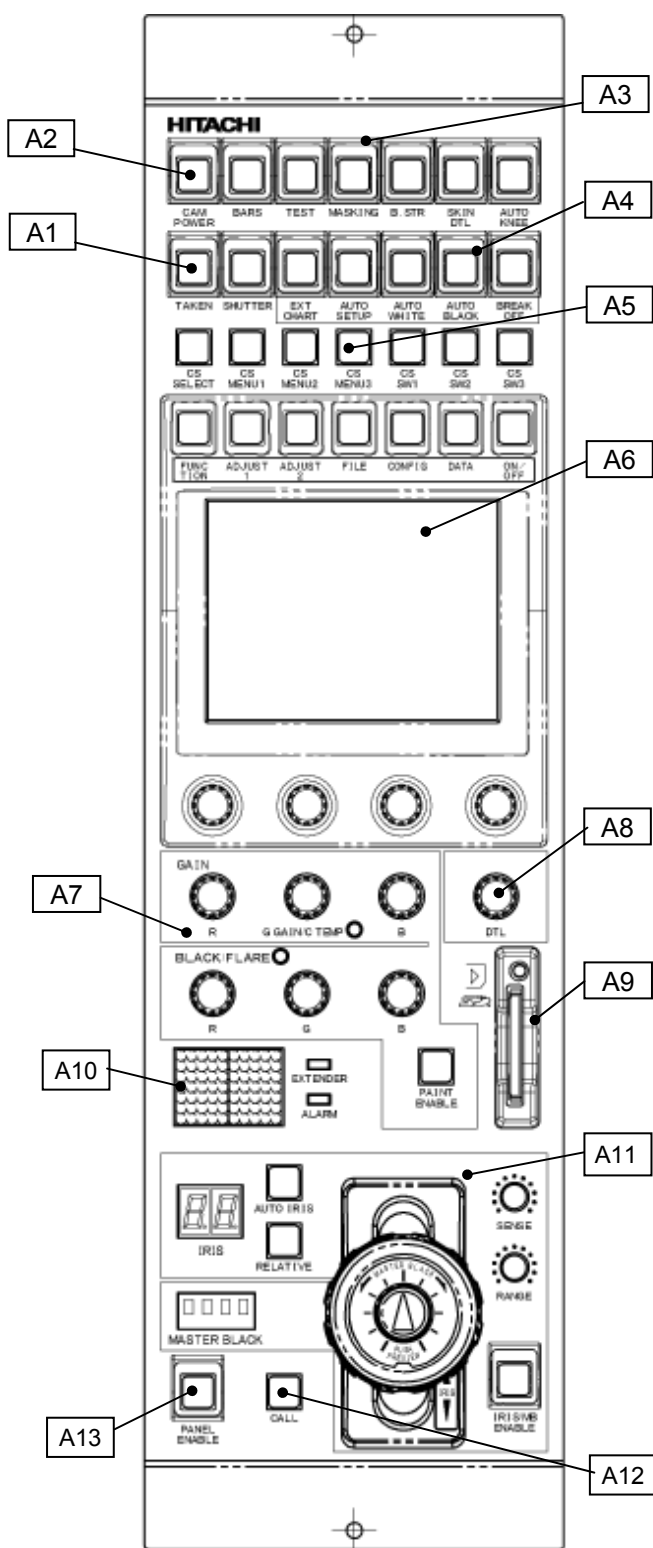
NOTE

■ Please wait for about 15 seconds until the device starts after turning on the power supply.

■ The SD card logo is a registered trademark.

Facility names and functions (Front)

FRONT VIEW



A1 Taken switch
 Lighted: Switches and controls enabled.
 Blinking: Controlled by another device.
 Press Taken for control privilege.

A2 Camera power switch
A3 ON/OFF control section
A4 Auto setup section

A5 CS(Customer Select) switch

A6 MENU control section

A7 Paint adjustment section
A8 Detail adjustment

A9 SD card slot

A10 Camera number display,
 Lens extender and Alarm indicator

A11 Iris and Master Black control section

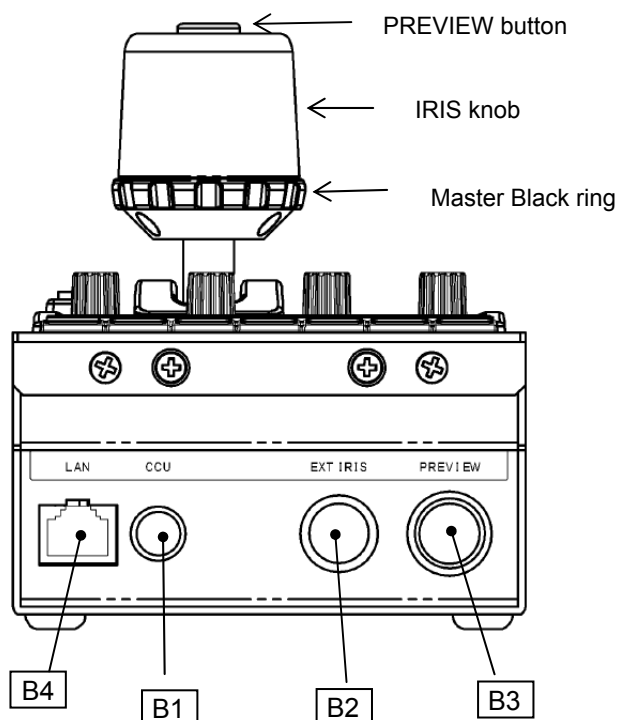
A12 Call button
 Call Camera man and CCU

A13 Panel enable switch
 Lighted: All operations enabled
 Unlighted: All operations inhibited.
 Avoids erroneous operation.

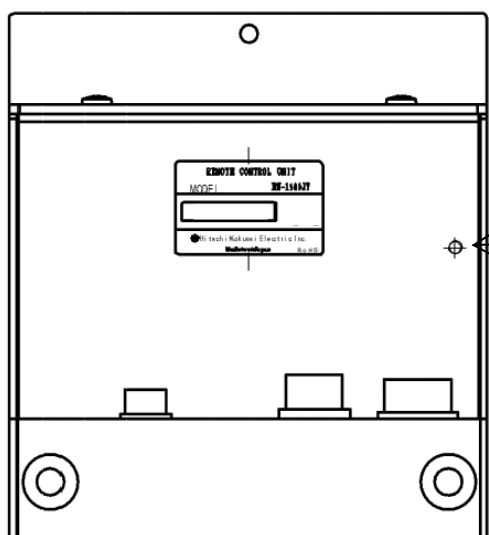
NOTE: Please wait for about 15 seconds until the device starts after turning on the power supply.

Facility names and functions (Rear)

REAR VIEW



- B1 CCU connector**
Connect to the REMOTE1 or REMOTE2 connector of camera control unit (CCU).
- B2 EXT IRIS connector**
Connect to the external iris control module (optional)
- B3 PREVIEW Connector**
Connect to preview switcher to switch the preview monitor input.
- B4 LAN connector**
For future function



- Frame Ground (FG) screw (M3)**
Connect shielding wire to the shield of the console for grounding

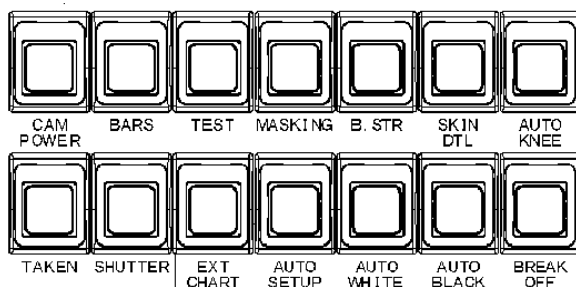
Facility names and functions (Front)

A2 Camera power switch

Press and light up this button to supply power to the camera head.

To shut down the power to the camera head, hold down the button for about 2 sec. and turn off the light.

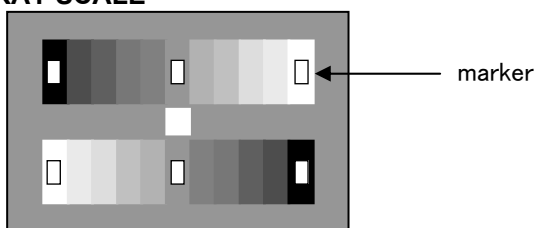
A3 ON/OFF control section



- **BARS** : CCU Color BAR on/off
- **TEST** : Camera head TEST signal on/off
- **MASKING** : Masking on/off
- **B.STR** : Black stretch on/off
- **SKIN DTL** : Skin tone detail on/off
- **AUTO KNEE** : Auto knee on/off
- **SHUTTER** : Electric shutter on/off

A4 AUTO SETUP section

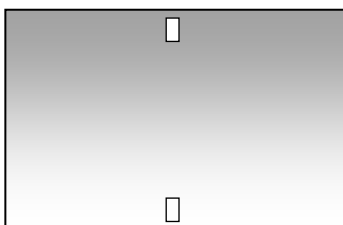
GRAY SCALE



SKIN TONE



WHITE SHADING



Auto setup selection switch

- **EXT CHART** : Displays marker for gray scale, skin tone or white shading auto setup
- **AUTOSETUP** : Executes auto setup of Gray scale setup, Skin tone setup, or White shading setup.
- **AUTO WHITE** : Executes auto white balance
- **AUTO BLACK** : Executes auto black balance
- **BREAK OFF** : Cancels auto setup execution

Auto setup instruction

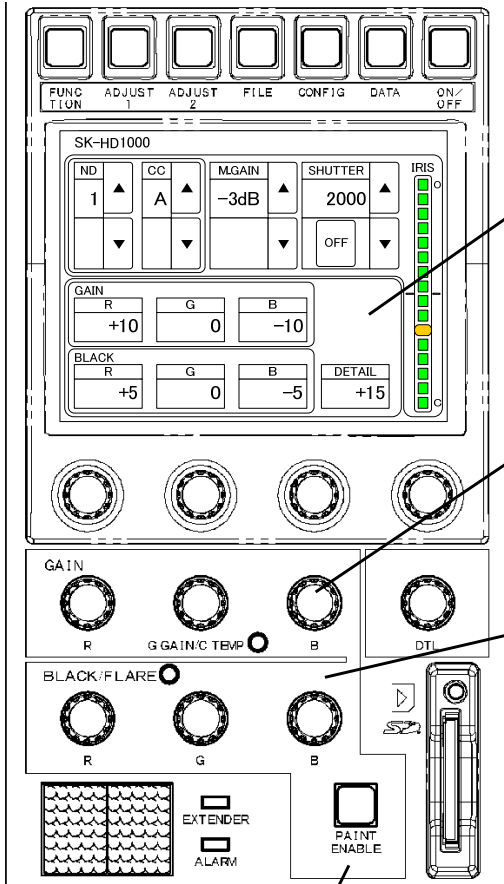
- 1) Display marker and set marker position as shown in left by moving camera position and direction.
- 2) Press the AUTO SETUP button.
- 3) After finishing the auto setup, press EXT CHART button to turn off the marker.

Caution

During auto setup execution, CALL button and BREAK OFF button are only able to operate.

Facility names and functions (Front)

A7 Paint adjustment section

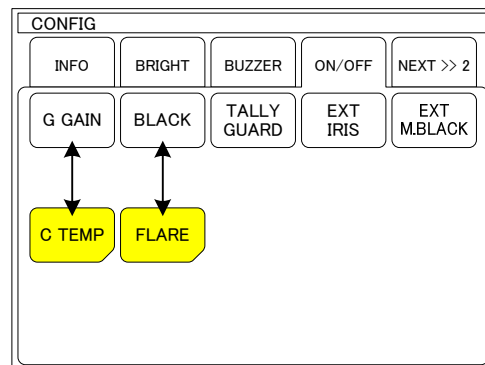


Paint Gain, Black or Flare control value is displayed on the LCD panel.

Paint Gain adjustment for white balance trimming. Either G GAIN or C TEMP control are selectable by CONFIG menu.

Paint Black or Flare adjustment. Either Black or Flare control are selectable by CONFIG menu.

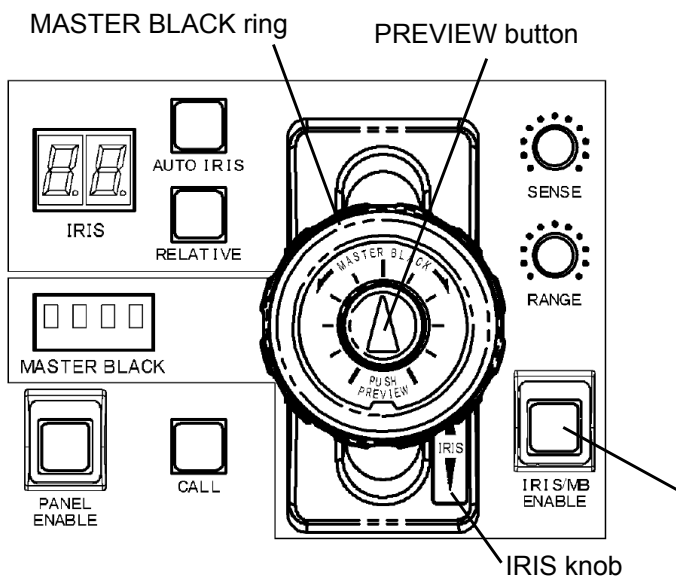
Paint Enable
when on, gain, black or Flare can be adjusted.



The C Temp control can compensate for sunlight color temperature.

Facility names and functions (Front)

A11 Iris and Master Black control section



- **IRIS knob**
Controls lens iris position.
- **MASTER BLACK ring**
Adjusts black level of video signal.
- **PREVIEW button**

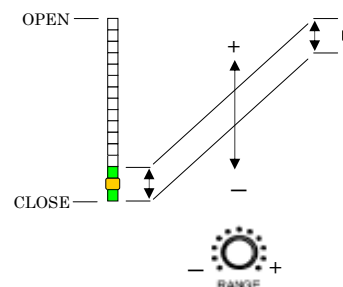
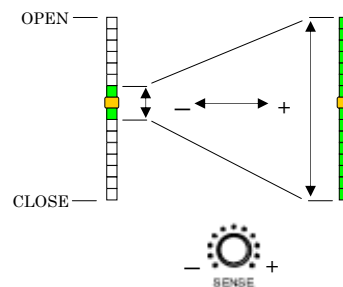
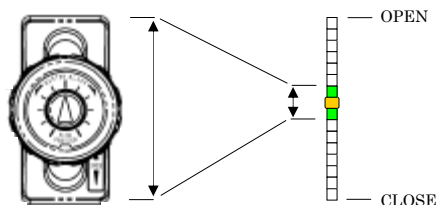
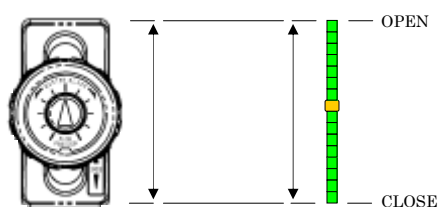
RELATIVE control of Iris and master black
Lighted: control variation is added to the present adjustment.

IRIS/MB ENABLE

Lighted: These operations enabled
Unlighted: These operations inhibited.
Avoids erroneous operation.

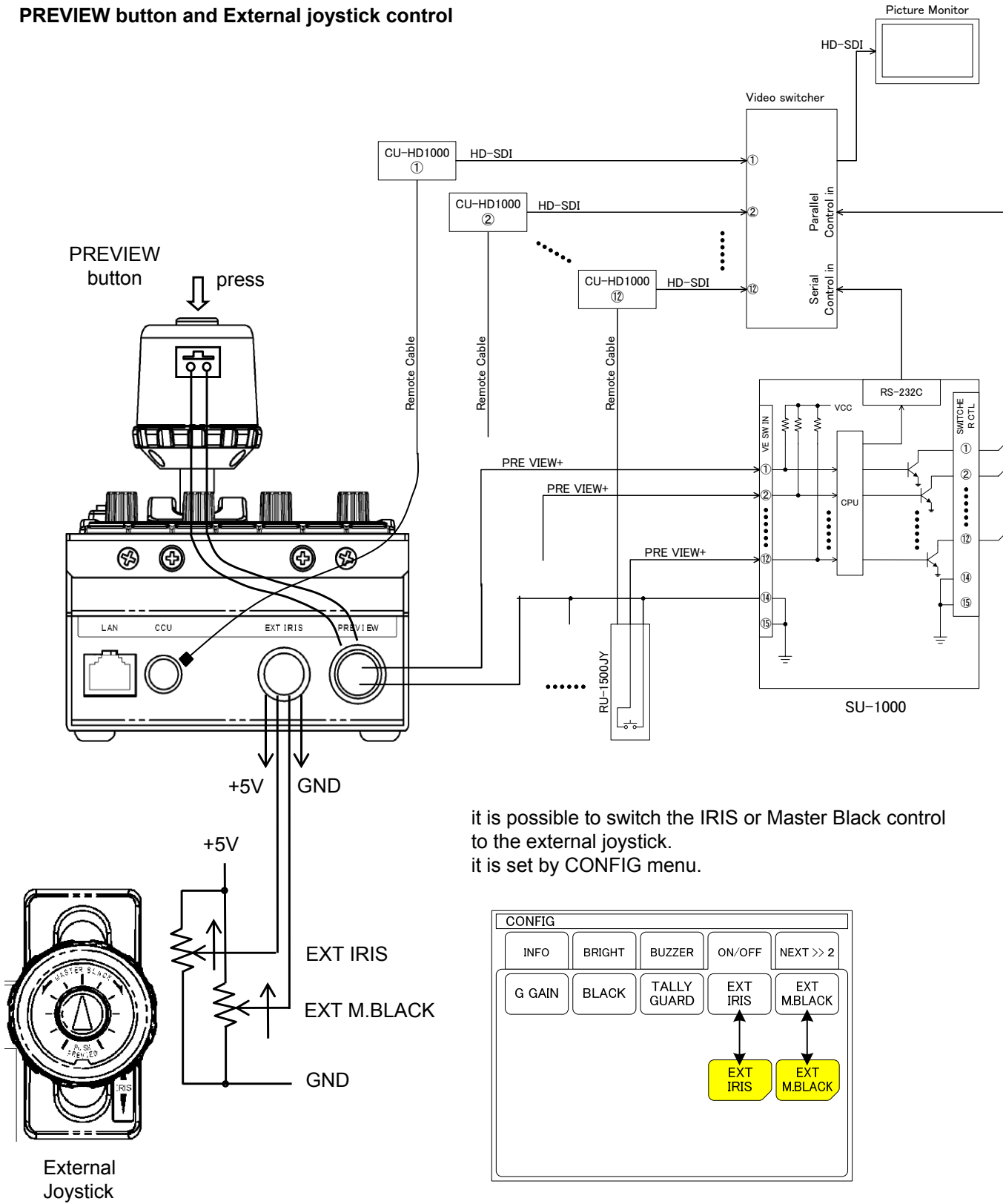
SENSE, RANGE controls

The maximum Open and Close iris values of the joystick can be adjusted with the Sense and Range controls. (when auto Iris is off)



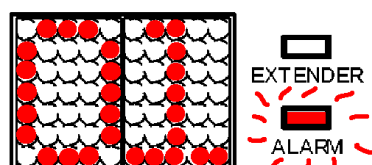
Facility names and functions (Front)

PREVIEW button and External joystick control



Facility names and functions (Front)

A10 Camera number display, Lens extender and Alarm indicator



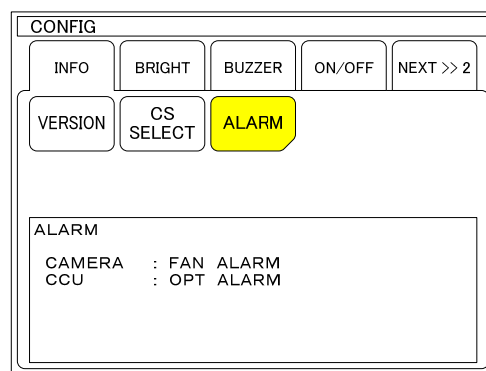
Camera number display

The display color changes by TALLY and CALL input.

Any Tally or call is off: amber
 R Tally on : red
 G Tally on : green
 Head call or RCU call on : red

ALARM LED lights when the error occurs in the camera head or CCU.

The content of the error can be confirmed by the CONFIG menu besides the CCU PIX monitor.

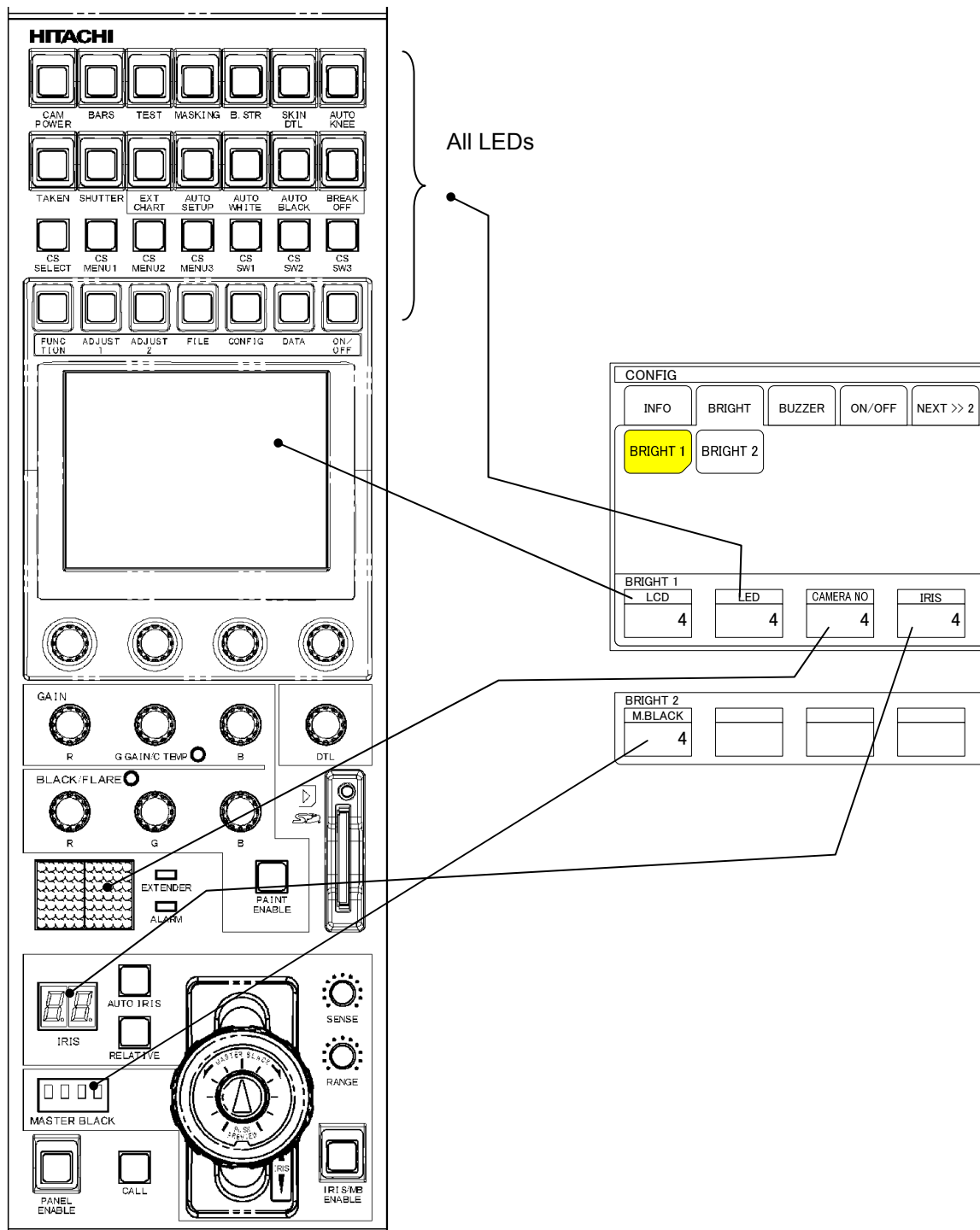


Alarm	Description
Camera alarm	
FAN ALARM	
TEMP WARNING	
OPT WARNING	optical cable is a little dusty
OPT ALARM	optical cable is a very dusty
CCU alarm	
CAMERA CABLE OPEN	
UNDER CURRENT	cable disconnect?
OVER CURRENT	cable short?
OPT WARNING	optical cable is a little dusty
OPT ALARM	optical cable is a very dusty
FAN ALARM	

Facility names and functions (Front)

Brightness adjustment

The brightness such as LCD and LED can be adjusted according to the CONFIG menu.



Facility names and functions (Front)

A5 CS(Customer Select) switch

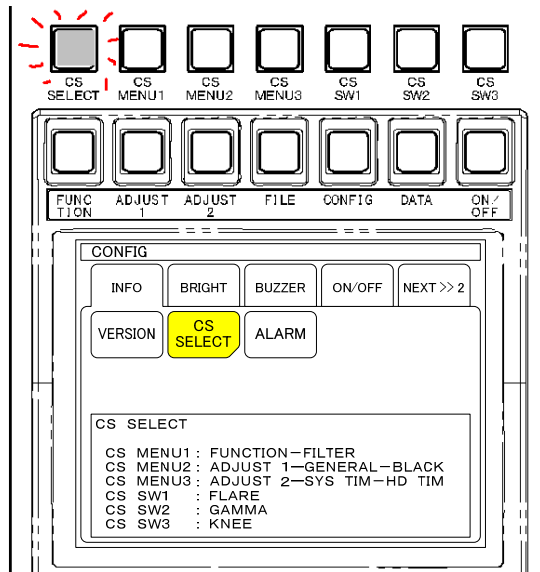
The functions of CS MENU1 ~ 3, CS SW1 ~ 3 can be assigned to operator preferences.

CS MENU1 ~ 3: assigns the MENU frequently used

CS SW1 ~ 3: assigns the ON/OFF frequently used

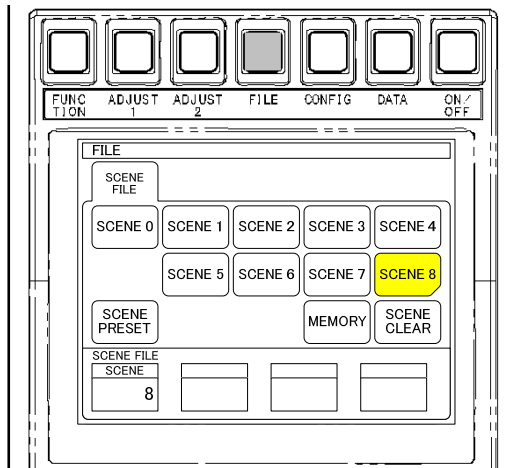
The assigned function can be confirmed by pressing CS SELECT SW.

Note: For how to assign, please refer to page 29.



FILE operation

SCENE FILE select.



Press SCENE0, 1, ... , 8, or PRESET button, then the file data is set to a camera immediately.

SCENE PRESET: this data is factory adjustment value, and it is shown in preset value on menu list.

SCENE 0: when this file is selected, the adjusted data is stored to memory automatically.

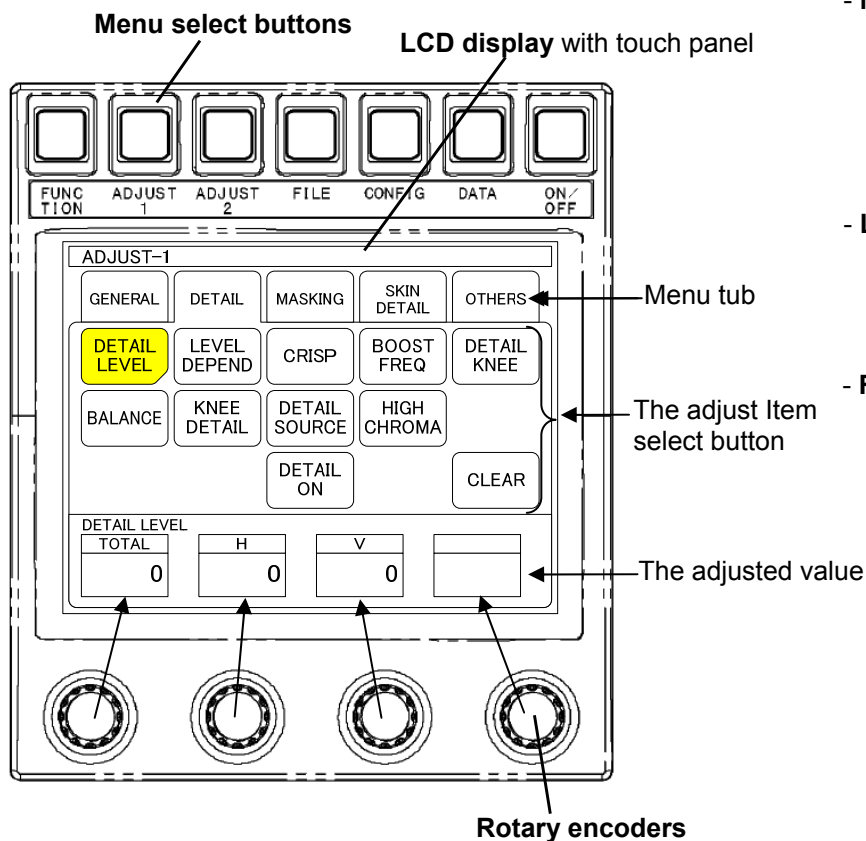
SCENE 1 to 8: it is necessary to press MEMORY button for storing the adjusted data in these files.

Note: For Details, please refer to page 27.

LCD menu operation

MENU operation

Various adjustments are possible by the use of the menu operation.



- Menu select buttons

Each menu is selected according to seven buttons.

When each button is not selected, the status menu is displayed.

- LCD display with touch panel

Various menus are displayed.

The item of details can be selected by operating the touch panel.

- Rotary encoders

The adjusted value is changed with the rotary encoders.

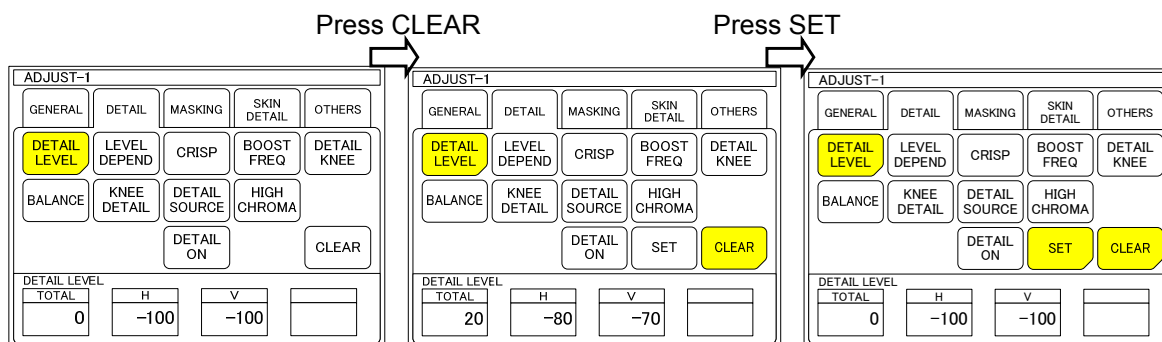
The method of CLEAR operation

Changed parameter value can be set to previous value by using CLEAR button.

1) Press CLEAR button, then SET button appears.

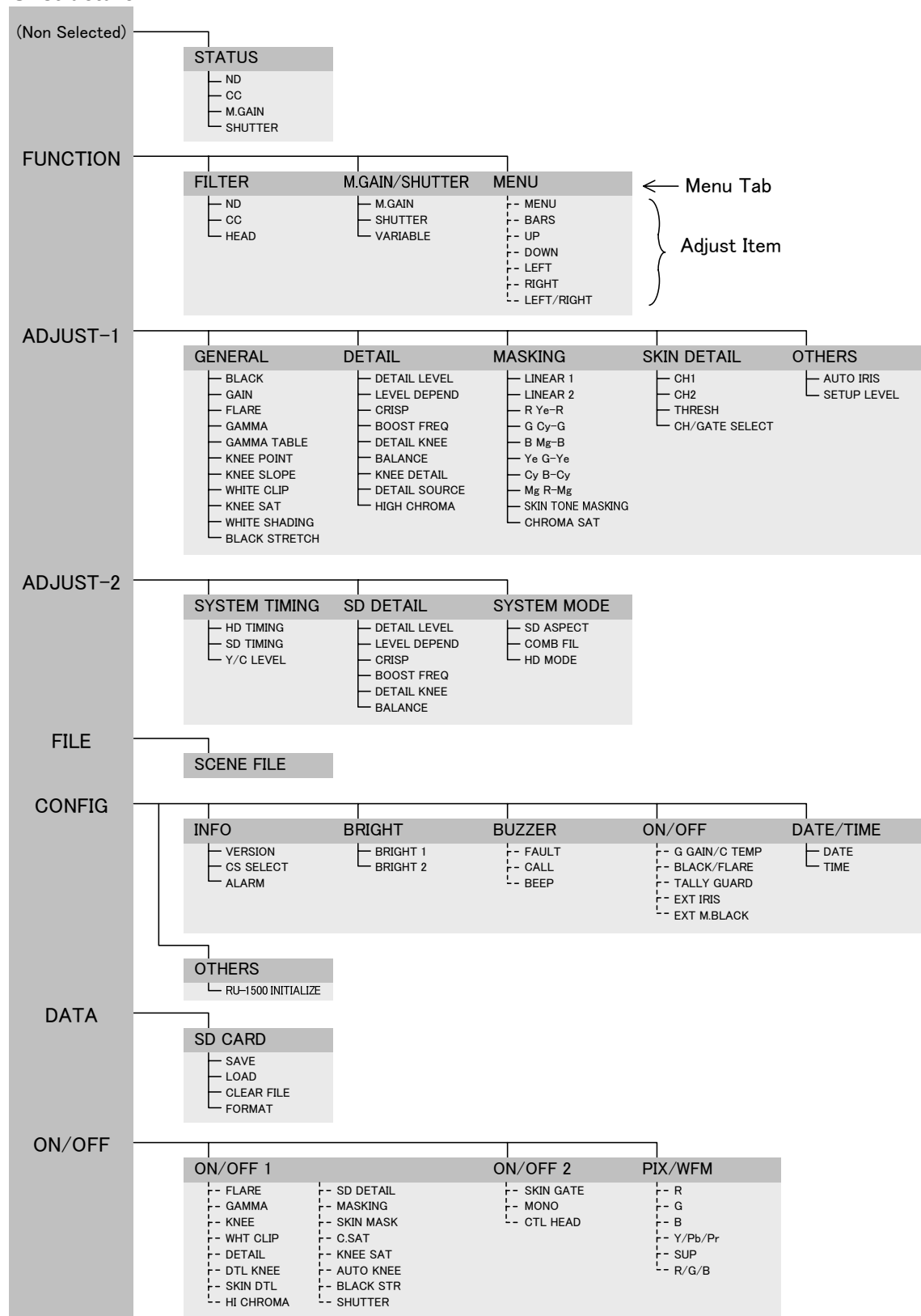
2) Press SET button, then previous setting data are set again.

*If the parameter disappeared before CLEAR operation, the previous value can not be recalled.



LCD menu operation

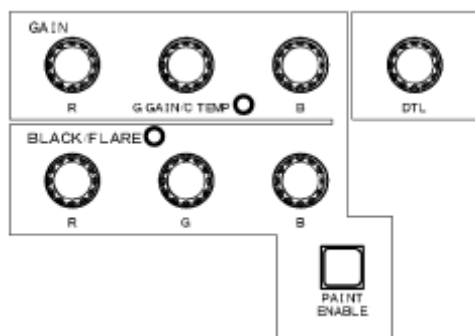
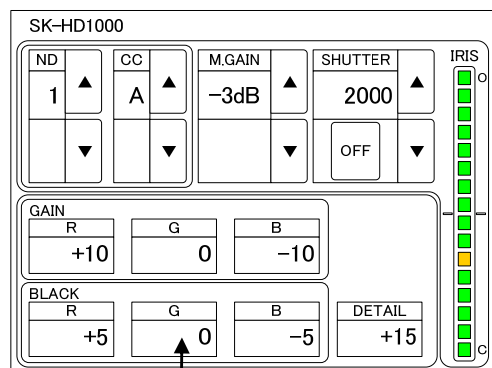
MENU structure



LCD menu

5.0 STATUS MENU

When any Menu select button has not been selected, the LCD display becomes the status display of the figure below.

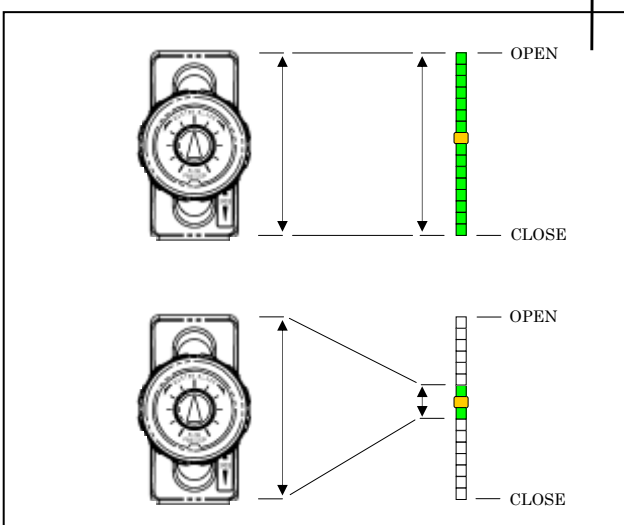


Standard SK-HD1000 (w/ 1 filter wheel)

Item	Setting	Description
ND	C:IRIS Close	Selects ND filters
	1: CLEAR	
	2: CROSS	
	3: 1/16ND	
CC	4: 1/64ND	Selects ECC filters
	A: 3200K	
	B: 4300K	
	C: 5600K	
	D: 6300K	
MASTER GAIN	E: 8000K	Selects the Master gain
	-3dB, 0dB, 3dB ~ +21dB, +24dB	

Optional SK-HD1000-S4 (w/ 2 filter wheels)

Item	Setting	Description
ND	C: CAP	Selects ND filters
	1: CLEAR	
	2: 1/4ND	
	3: 1/16ND	
CC	4: 1/64ND	Selects CC filters
	A: CROSS	
	B: 3200K	
	C: 4300K	
	D: 6300K	
	E: 8000K	
MASTER GAIN	F: 5600K	Selects the Master gain
	-3dB, 0dB, 3dB ~ +21dB, +24dB	



HDTV system: native 1080i

SHUTTER	CC FRM ⇄	Adjusts shutter speed
	100/60 ⇄ 250 ⇄ 500 ⇄	
	1000 ⇄ 2000 ⇄	
	VARIABLE ⇄ AES	

HDTV system: native 720p

SHUTTER	CC FRM ⇄	Adjusts shutter speed
	100/60 ⇄ 250 ⇄ 500 ⇄	
	1000 ⇄ 2000 ⇄	
	VARIABLE ⇄ AES	

LCD menu

5.1 FUNCTION MENU

5.1.1 FILTER menu (FUNCTION) & description.

FUNCTION				
FILTER	M.GAIN/ SHUTTER	MENU		
ND				
CAP	1	2	3	4
CC				
A	B	C	D	E
HEAD				5600K

Standard SK-HD1000 (w/ 1 filter wheel)

Item	Setting	Preset value	Description
ND	CAP:IRIS Close 1: CLEAR 2: CROSS 3: 1/16ND 4: 1/64ND	1	Selects ND filters
CC	A:3200K B:4300K C:5600K D:6300K E:8000K	A	Selects ECC filters
5600K	C:5600K		
HEAD	ON, OFF	OFF	

Optional SK-HD1000-S4 (w/ 2 filter wheels)

Item	Setting	Preset value	Description
ND	CAP:CAP 1: CLEAR 2: 1/4ND 3: 1/16ND 4: 1/64ND	1	Selects ND filters
CC	A: CROSS B: 3200K C: 4300K D: 6300K E: 8000K	B	Selects CC filters
5600K	F: 5600K (ECC)		
HEAD	ON, OFF	OFF	

5.1.2 M.GAIN/SHUTTER menu (FUNCTION) & description.

FUNCTION			
FILTER	M.GAIN/ SHUTTER	MENU	
M.GAIN			
M.GAIN	▲	▲	
-3dB			
▼		▼	
SHUTTER			
SHUTTER	▲	VARIABLE	▲
2000		59.94	
OFF	▼		▼
CLEAR			

HDTV system: native 1080i

Item	Setting	Preset value	Description
MASTER GAIN	-3dB, 0dB, 3dB ~ +21dB, +24dB	0dB	Selects the Master gain
SHUTTER	CC FRM 100/60 □ 250 □ 500 □ 1000 □ 2000 □ VARIABLE □ AES	100(60Hz) 60(50Hz)	Selects shutter mode
VARIABLE	60Hz: 59.94 ~ 1983 50Hz: 50.00 ~ 2000	59.94(60Hz) 50.00(50Hz)	Adjusts shutter speed
SHUTTER	ON, OFF	OFF	Shutter on/off button

HDTV system: native 720p

Item	Setting	Preset value	Description
MASTER GAIN	-3dB, 0dB, 3dB ~ +21dB, +24dB	0dB	Selects the Master gain
SHUTTER	100/60 □ 250 □ 500 □ 1000 □ 2000 □ VARIABLE □ AES	100(60Hz) 60(50Hz)	Selects shutter mode
VARIABLE	60Hz: 59.94 ~ 2043 50Hz: 50.00 ~ 1973	59.94(60Hz) 50.00(50Hz)	Adjusts shutter speed
SHUTTER	ON, OFF	OFF	Shutter on/off button

5.1.3 MENU menu (FUNCTION) & descri.

FUNCTION	
FILTER	M.GAIN/ SHUTTER
MENU	
BARS OFF	
▲ ◀ ▶ ▼ ◀▶	

Item	Setting	Preset value	Description
MENU	ON, OFF	-	
UP▲, DOWN▼	-	-	Selects menu item.
RIGHT▶, LEFT◀	-	-	Changes setting of menu item.
LEFT RIGHT◀▶	-	-	To operate LEFT and RIGHT button simultaneous pressing. At initializing in a menu, press this button over 2 sec.
BARS	ON, OFF	OFF	Displays color bars.

* Press MENU button at Bars off for camera menu adjustment.
Press MENU button at Bars on for CCU menu adjustment.

LCD menu

5.2 ADJUST-1 MENU

5.2.1 GENERAL menu (ADJUST-1) & description.

ADJUST-1														
GENERAL	DETAIL	MASKING	SKIN DETAIL	OTHERS										
BLACK	GAIN	FLARE	GAMMA	GAMMA TABLE										
KNEE POINT	KNEE SLOPE	WHITE CLIP	KNEE SAT	WHITE SHADING										
BLACK STRETCH				CLEAR										
<table border="1"> <thead> <tr> <th>BLACK</th> <th>R</th> <th>G</th> <th>B</th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>0</td> <td>0</td> <td>0</td> <td></td> </tr> </tbody> </table>					BLACK	R	G	B			0	0	0	
BLACK	R	G	B											
	0	0	0											

GAIN			
R	G	B	
0	0	0	

FLARE			
R	G	B	
0	0	0	

GAMMA			
R	G	B	
0	0	0	

GAMMA TABLE			
TOTAL			
4.0			

KNEE POINT			
R	TOTAL	B	
0	0	0	

KNEE SLOPE			
R	TOTAL	B	
0	+6	0	

WHITE CLIP			
TOTAL			
+20			

KNEE SATURATION			
TOTAL			
0			

WHITE SHADING V-SAW			
R	G	B	
0	0	0	

BLACK STRETCH			
LEVEL			
16			

Item	Setting	Preset value	Description
BLACK			
R	-128 to +127	*1	Adjusts the black balance manually.
G	-128 to +127		
B	-128 to +127		
GAIN			
R	-128 to +127	*1	Adjusts the white balance manually.
G	-128 to +127		
B	-128 to +127		
FLARE			
R	-128 to +127	*1	Adjusts the flare correction manually.
G	-128 to +127		
B	-128 to +127		
GAMMA			
R	-128 to +127	*1	Adjusts the gamma balance manually.
G	-128 to +127		
B	-128 to +127		
GAMMA TABLE			
TOTAL	3.0,3.5,4.0,4.5,5.0,5.5,6.0,6.5,7.0,7.5,8.0	4.0	Selects gamma curve table.
KNEE POINT			
R	-128 to +127	0	Adjusts the knee point level.
TOTAL	-128 to +127	+7	
B	-128 to +127	0	
KNEE SLOPE			
R	-128 to +127	0	Adjusts the knee slope.
TOTAL	-128 to +127	+3	
B	-128 to +127	0	
WHITE CLIP			
TOTAL	-128 to +127	-16	Adjusts the white clip level.
KNEE SATURATION			
TOTAL	-128 to +127	+24	Adjusts the knee correcting area saturation level.
WHITE SHADING			
V-SAW			Adjusts the white shading, that cause by optical characteristic, manually (vertical saw).
R	-128 to +127	0	
G	-128 to +127	0	
B	-128 to +127	0	
BLACK STRETCH			
LEVEL	0 to 31	16	Adjusts the black(dark area) stretch level.

*1: These preset values are decided by the auto setup.

LCD menu

5.2.2 DETAIL menu (ADJUST-1) & description.

ADJUST-1				
GENERAL	DETAIL	MASKING	SKIN DETAIL	OTHERS
DETAIL LEVEL	LEVEL DEPEND	CRISP	BOOST FREQ	DETAIL KNEE
BALANCE	KNEE DETAIL	DETAIL SOURCE	HIGH CHROMA	
DETAIL ON			CLEAR	
DETAIL LEVEL				
TOTAL	H	V		
0	0	0		

LEVEL DEPEND			
POINT			
0			

CRISP			
H	V		
0	0		

BOOST FREQUENCY			
FREQ			
17MHz			

DETAIL KNEE			
WHITE	BLACK		
0	0		

BALANCE			
POS/NEGA			
8/8			

KNEE DETAIL			
SLOPE			
0			

DETAIL SOURCE			
SOURCE			
R+G			

HIGH CHROMA DETAIL			
R	G	B	
0	0	0	

Item	Setting	Preset value	Description
DETAIL LEVEL			
TOTAL	-128 to +127	0	Adjusts the detail level. Horizontal (H) and Vertical (V) detail level can be adjusted independently or together.
H	-128 to +127	-100	
V	-128 to +127	-100	
LEVEL DEPEND POINT	-128 to +127	-40	Adjusts the level depend point of detail to decrease dark objects or scene noise.
CRISP			
H	-128 to +127	+60	Adjusts the crisp level to decrease slight detail signal.
V	-128 to +127	+60	
BOOST FREQUENCY	13MHz-19MHz,	17MHz	Adjusts the detail boost frequency.
DETAIL KNEE		(720p)	Adjusts the detail knee point. Detail knee can compress large detail signal.
WHITE	-128 to +127	+50	
BLACK	-128 to +127	+50 (-110)	
BALANCE	4/8,5/8,6/8,8/8		Selects the detail balance of positive and negative.
POGI/NEGA	8/6,8/5,8/4	8/8	
KNEE DETAIL LEVEL	-128 to +127	-70	Adjusts the knee detail level. Knee detail is a detail signal for knee corrected area.
DETAIL SOURCE			Selects the detail source signal.
SOURCE	G, R+G, R+G+B	R+G	
HIGH CHROMA			Adjusts the detail of high saturation color area.
R	-128 to +127		
G	-128 to +127		
B	-128 to +127		

LCD menu

5.2.3 MASKING menu (ADJUST-1) & description.

ADJUST-1				
GENERAL	DETAIL	MASKING	SKIN DETAIL	OTHERS
LINEAR 1	LINEAR 2	R Ye-R	G Cy-G	B Mg-B
SKIN TONE MASKING	CHROMA SAT	Ye G-Ye	Cy B-Cy	Mg R-Mg
MASKING OFF				CLEAR
LINEAR MASKING 1				
R-G	R-B	G-R		
0	0	0		

LINEAR MASKING 2			
G-B	B-R	B-G	
0	0	0	

R	Ye-R		
SAT	HUE	SAT	HUE
0	0	0	0

G	Cy-G		
SAT	HUE	SAT	HUE
0	0	0	0

B	Mg-B		
SAT	HUE	SAT	HUE
0	0	0	0

Ye	G-Ye		
SAT	HUE	SAT	HUE
0	0	0	0

Cy	B-Cy		
SAT	HUE	SAT	HUE
0	0	0	0

Mg	R-Mg		
SAT	HUE	SAT	HUE
0	0	0	0

SKIN TONE MASKING			
SAT	HUE		
0	0		

CHROMA SATURATION			
TOTAL			
0			

Item	Setting	Preset value	Description
LINEAR 1			
R-G	-64 to +63	+19	Adjusts the linear masking part 1.
R-B	-64 to +63	+3	
G-R	-64 to +63	+1	
LINEAR 2			
G-B	-64 to +63	+3	Adjusts the linear masking part 2.
B-R	-64 to +63	0	
B-G	-64 to +63	+6	
R Ye-R			Adjusts the 12 vector masking of R area and Ye-R area. SAT: Color saturation HUE: Color hue
R SAT	-64 to +63	0	
R HUE	-64 to +63	0	
Ye-R SAT	-64 to +63	0	
Ye-R HUE	-64 to +63	0	
G Cy-G			Adjusts the 12 vector masking of G and Cy-G area. SAT: Color saturation HUE: Color hue
G SAT	-64 to +63	0	
G HUE	-64 to +63	0	
Cy-G SAT	-64 to +63	0	
Cy-G HUE	-64 to +63	0	
B Mg-B			Adjusts the 12 vector masking of B and Mg-B area. SAT: Color saturation HUE: Color hue
B SAT	-64 to +63	0	
B HUE	-64 to +63	0	
Mg-B SAT	-64 to +63	0	
Mg-B HUE	-64 to +63	0	
Ye G-Ye			Adjusts the 12 vector masking of Ye and G-Ye area. SAT: Color saturation HUE: Color hue
Ye SAT	-64 to +63	0	
Ye HUE	-64 to +63	0	
G-Ye SAT	-64 to +63	0	
G-Ye HUE	-64 to +63	0	
Cy B-Cy			Adjusts the 12 vector masking of Cy and B-Cy area. SAT: Color saturation HUE: Color hue
Cy SAT	-64 to +63	0	
Cy HUE	-64 to +63	0	
B-Cy SAT	-64 to +63	0	
B-Cy HUE	-64 to +63	0	
Mg R-Mg			Adjusts the 12 vector masking of Mg and R-Mg area. SAT: Color saturation HUE: Color hue
Mg SAT	-64 to +63	0	
Mg HUE	-64 to +63	0	
R-Mg SAT	-64 to +63	0	
R-Mg HUE	-64 to +63	0	
SKIN TONE MASKING			Adjusts the skin tone masking.
SAT	-64 to +63	0	
HUE	-64 to +63	0	
CHROMA SATURATION			Adjusts the chroma saturation.
TOTAL	-64 to +63	0	

LCD menu

5.2.4 SKIN DETAIL menu (ADJUST-1) & description.

ADJUST-1

GENERALDETAILMASKINGSKIN DETAILOTHERS

CH1CH2THRESHCH/GATE SELECT

SKIN DTL OFFCLEAR

SKIN DETAIL (CH1)

LEVEL	PHASE	PHASE FINE	WIDTH
0	Ye-R	0	0

SKIN DETAIL (CH2)

LEVEL	PHASE	PHASE FINE	WIDTH
0	Ye-R	0	0

THRESHOLD

LEVEL			
0			

CH/GATE SELECT

CH	GATE		
CH1+2	CH1		

Item	Setting	Preset value	Description
CH1 LEVEL PHASE PHASE FINE WIDTH	-128 to +127 Ye-R,R-Mg,Mg-B,B-Cy,Cy-G,G-Ye -128 to +127 -128 to +127	-128 Ye-R +97 0	Adjusts the CH1 skin tone detail parameter manually.
CH2 LEVEL PHASE PHASE FINE WIDTH	-128 to +127 Ye-R,R-Mg,Mg-B,B-Cy,Cy-G,G-Ye -128 to +127 -128 to +127	0 Ye-R 0 0	Adjusts the CH2 skin tone detail parameter manually.
THRESHOLD LEVEL	-128 to +127	-96	Adjusts the threshold level of the skin tone detail.
CH/GATE SELECT CH GATE	OFF,CH1,CH2,CH1+2 CH1,CH2	CH1 CH1	Selects the Channel of the skin tone detail and gate.

5.2.5 OTHERS menu (ADJUST-1) & description.

ADJUST-1

GENERALDETAILMASKINGSKIN DETAILOTHERS

AUTO IRISSETUP LEVEL

IRIS GATE OFFAUTO IRIS OFFCLEAR

AUTO IRIS

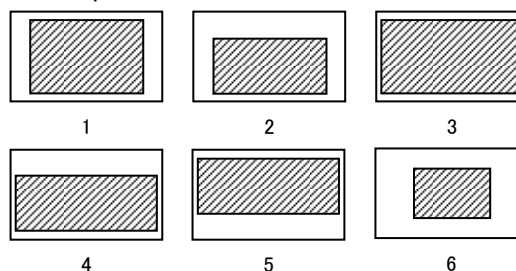
GATE	PEAK/AVE	SPEED	
1	2/8	0	

SETUP LEVEL

BLACK	FLARE	GAMMA	
5.00%	12.00%	58.00%	

Item	Setting	recommended value	Description
AUTO IRIS GATE PEAK/AVE SPEED	1,2,3,4,5,6 0/10 1/9 ...4/6,5/5 -128 to +127	1 0/10 0	Selects the auto iris gate pattern and the peak/average ratio Adjusts the auto iris speed.
SETUP LEVEL BLACK FLARE GAMMA	0.0% ... 12.35% 0.0% ... 24.70% 42.20% ... 67.70%	5.00% 12.00% 58.00%	Adjusts the black setup level the flare reference level the gamma cross point

* When the AUTO IRIS menu is selected, an IRIS GATE is displayed on the PIX output of the CCU.



LCD menu

5.3 ADJUST-2 MENU

5.3.1 SYSTEM TIMING menu (ADJUST-2) & description.

ADJUST-2

SYSTEM TIMING	SD DETAIL	SYSTEM MODE
HD TIMING	SD TIMING	Y/C LEVEL

CLEAR

HD TIMING
H PHASE

0

Item	Setting	Preset value	Description
HD TIMING H PHASE	-128 to +127	-	Adjusts the HDTV horizontal timing for external sync
SD TIMING SDI H PHASE VBS H PHASE SC COARSE SC FINE	-128 to +127 -128 to +127 0° 90° 180° 270° -128 to +127	- - - -	Adjusts the SDTV timing for Genlock signal.
Y/C LEVEL Y C	-128 to +127 -128 to +127	- -	Adjusts Y and C signal level of CCU output.

SD TIMING

SDI H PHASE	VBS H PHASE	SC COARSE	SC FINE
0	0	0°	0

Y/C LEVEL

Y	C		
0	0		

5.3.2 SD DETAIL menu (ADJUST-2) & description.

ADJUST-2

SYSTEM TIMING	SD DETAIL	SYSTEM MODE
DETAIL LEVEL	LEVEL DEPEND	CRISP
BALANCE	BOOST FREQ	DETAIL KNEE

SD DETAIL ON

CLEAR

DETAIL LEVEL (SD)

TOTAL	H	V	
0	0	0	

Item	Setting	Preset value	Description
DETAIL LEVEL(SD) TOTAL H V	-128 to +127 -128 to +127 -128 to +127	0 0 0	Adjusts detail level Total : Horizontal and Vertical H : Horizontal V : Vertical
LEVEL DEPEND(SD) POINT SLOPE	-128 to +127 -128 to +127	-128 -128	Adjusts level depend POINT : Threshold point SLOPE : correction ratio
CRISP(SD) H V	-128 to +127 -128 to +127	-128 -128	Adjusts crisp threshold H : Horizontal V : Vertical
BOOST FREQUENCY(SD)	4MHz, 5MHz, 6MHz	5MHz	Selects Boost frequency
DETAIL KNEE(SD) WHITE BLACK	-128 to +127 -128 to +127	-110 -110	Adjusts detail knee point.
BALANCE(SD) POGI/NEGA	8/4, 8/5, 8/6, 8/7, 8/8 7/8, 6/8, 5/8, 4/8	8/8	Adjusts detail balance.

LEVEL DEPEND (SD)

POINT	SLOPE		
0	0		

CRISP (SD)

H	V		
0	0		

BOOST FREQUENCY (SD)

FREQ			
6MHz			

DETAIL KNEE (SD)

WHITE	BLACK		
0	0		

BALANCE (SD)

POGI/NEGA			
8/8			

LCD menu

5.3.3 SYSTEM MODE menu (ADJUST-2) & description.

ADJUST-2		
SYSTEM TIMING	SD DETAIL	SYSTEM MODE
SD ASPECT 16:9	COMB FIL OFF	HD MODE 1080i

Item	Setting	Preset value	Description
SD ASPECT	16:9 4:3	-	Selects aspect ratio.
COMB FILTER	ON OFF	OFF	Selects comb filter on/off.
HD MODE	1080i 720P	-	Selects HDTV scan mode.

ADJUST-2		
SYSTEM TIMING	SD DETAIL	SYSTEM MODE
SD ASPECT 4:3	COMB FIL ON	HD MODE 720p

LCD menu

5.4 CONFIG MENU

5.4.1 INFO menu (CONFIG) & description.

CONFIG

INFO

BRIGHT

BUZZER

ON/OFF

NEXT >> 2

VERSION

CS SELECT

ALARM

CS SELECT

CS MENU1 : FUNCTION-FILTER
CS MENU2 : ADJUST 1-GENERAL-BLACK
CS MENU3 : ADJUST 2-SYS TIM-HD TIM
CS SW1 : FLARE
CS SW2 : GAMMA
CS SW3 : KNEE

Item	Setting	RU-1500 Initialize	Description
CS MENU1	-	FUNCTION-FILTER	
CS MENU2	-	ADJUST1-GENERAL-BLACK	
CS MENU3	-	ADJUST2-SYS TIM-HD TIM	
CS SW1	-	FLARE ON/OFF	
CS SW1	-	GAMMA ON/OFF	
CS SW1	-	KNEE ON/OFF	

CONFIG

INFO

BRIGHT

BUZZER

ON/OFF

NEXT >> 2

VERSION

CS SELECT

ALARM

VERSION

SOFT Ver : *. **
SW FPGA Ver : *. **

CONFIG

INFO

BRIGHT

BUZZER

ON/OFF

NEXT >> 2

VERSION

CS SELECT

ALARM

ALARM

CAMERA : FAN ALARM
CCU : OPT ALARM

Alarm	Description
Camera alarm	
FAN ALARM	
TEMP WARNING	
OPT WARNING	optical cable is a little dusty
OPT ALARM	optical cable is a very dusty
CCU alarm	
CAMERA CABLE OPEN	
UNDER CURRENT	cable disconnect?
OVER CURRENT	cable short?
OPT WARNING	optical cable is a little dusty
OPT ALARM	optical cable is a very dusty
FAN ALARM	

LCD menu

5.4.2 BRIGHT menu (CONFIG) & description.

CONFIG

INFO

BRIGHT

BUZZER

ON/OFF

NEXT >> 2

BRIGHT 1

BRIGHT 2

BRIGHT 1

LCD

4

LED

4

CAMERA NO

4

IRIS

4

BRIGHT 2

M.BLACK

4

Item	Setting	RU-1500 Initialize	Description
LCD	1 to 8	4	Adjusts LCD back light brightness
LED	1 to 8	4	Adjusts LED brightness
CAMERA NO	1 to 8	4	Adjusts Camera number LED brightness
IRIS	1 to 8	4	Adjusts Iris LED brightness
M.BLACK	1 to 8	4	Adjusts Master black LED brightness

5.4.3 BUZZER menu (CONFIG) & description.

CONFIG

INFO

BRIGHT

BUZZER

ON/OFF

NEXT >> 2

FAULT ON

CALL ON

BEEP ON

CONFIG

INFO

BRIGHT

BUZZER

ON/OFF

NEXT >> 2

FAULT OFF

CALL OFF

BEEP OFF

Item	Setting	RU-1500 Initialize	Description
FAULT	ON, OFF	ON	Auto setup fault alarm ON/OFF
CALL	ON, OFF	ON	CALL sound ON/OFF
BEEP	ON, OFF	ON	Button pressing sound ON/OFF

LCD menu

5.4.4 ON/OFF menu (CONFIG) & description.

CONFIG				
INFO	BRIGHT	BUZZER	ON/OFF	NEXT >> 2
G GAIN	BLACK	TALLY GUARD	EXT IRIS	EXT MBLACK

Item	Setting	RU-1500 Initialize	Description
PAINT G GAIN	G GAIN	G GAIN	
	C TEMP		
PAINT BLACK	BLACK	BLACK	
	FLARE		
TALLY GUARD	ON, OFF	OFF	
EXT IRIS	ON, OFF	OFF	
EXT M.BLACK	ON, OFF	OFF	

CONFIG				
INFO	BRIGHT	BUZZER	ON/OFF	NEXT >> 2
C TEMP	FLARE	TALLY GUARD	EXT IRIS	EXT MBLACK

Tally guard (ON AIR guard)

If this setting is ON, this unit prohibits the following operations when there is tally input.

Execution of all autoseup.
 (Gray scale setup, Skin tone setup, White shading setup, auto white, auto black, and setup marker on)
 Camera power off, color bars on, test on, and control head on.

5.4.5 DATE/TIME menu (CONFIG) & description.

CONFIG			
1 << BACK	DATE/TIME	OTHERS	
DATE	TIME		
			SET
DATE			
YEAR	MONTH	DAY	
2010	01	26	

Item	Setting	Factory setting	Description
YEAR	2000 to 2100	-	
MONTH	01 to 12	-	
DAY	01 to 31	-	
HOUR	00 to 23	-	24 hours indication only
MINUTE	00 to 59	-	

To adjust date and time

- 1) Adjust date and time by control knob.
- 2) After adjustment, press SET to be active the date and time.

Notes

Date and Time are not stored even if the SET is not pressed after adjusting.

TIME			
HOUR	MINUTE		
21	24		

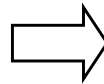
LCD menu

RU-1500 initializing

Press RU-1500 INITIALIZE button,
then SET button appears.

CONFIG		
1 << BACK	DATE/TIME	OTHERS
RU-1500 INITIALIZE		
		SET
RU-1500 INITIALIZE ?		

Press SET button, then RU-1500 is initialized.



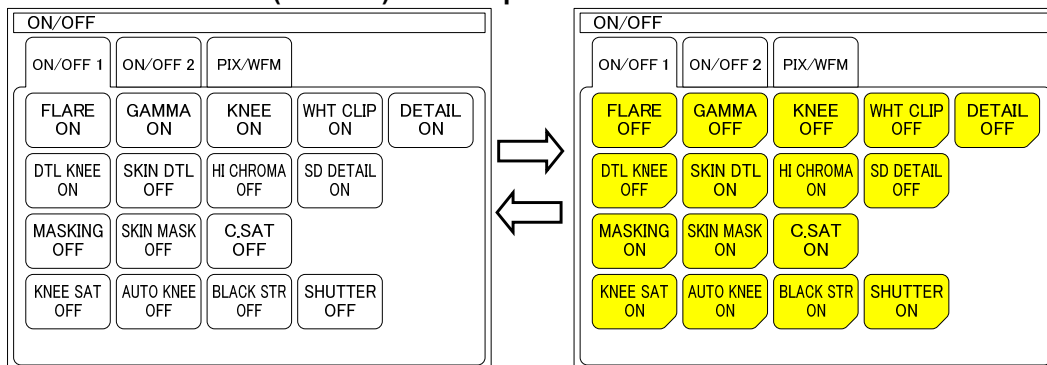
CONFIG		
1 << BACK	DATE/TIME	OTHERS
RU-1500 INITIALIZE		
		SET
RU-1500 INITIALIZE:OK		

Initialize item
CONFIG menu
cs select of INFO menu
bright1,2 of BRIGHT menu
All item of BUZZER menu
All item of ON/OFF menu

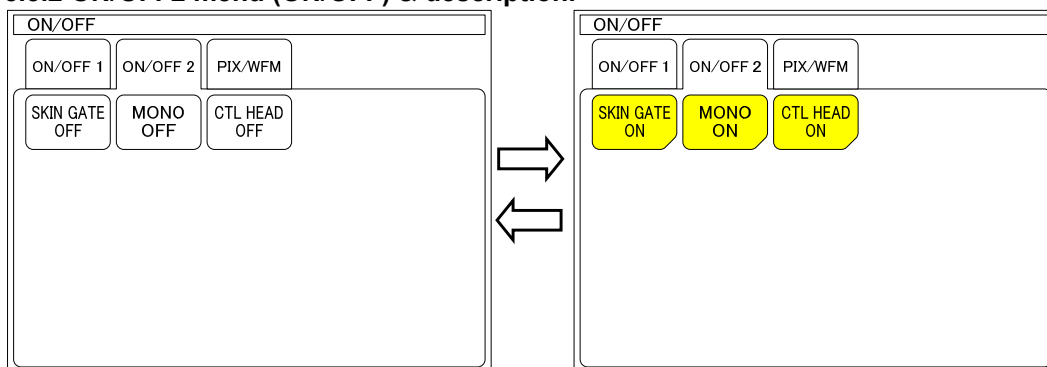
LCD menu

5.5 ON/OFF MENU

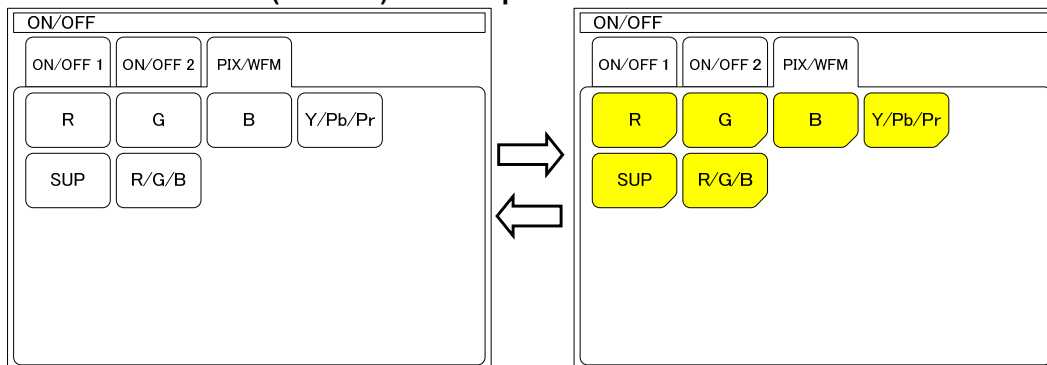
5.5.1 ON/OFF1 menu (ON/OFF) & description.



5.5.2 ON/OFF2 menu (ON/OFF) & description.



5.5.3 PIX/WFM menu (ON/OFF) & description.



LCD menu

5.6 FILE MENU

SCENE FILE select.

FILE				
SCENE FILE				
SCENE 0	SCENE 1	SCENE 2	SCENE 3	SCENE 4
	SCENE 5	SCENE 6	SCENE 7	SCENE 8
SCENE PRESET			MEMORY	SCENE CLEAR
SCENE FILE				
SCENE				
8				

(1) Press SCENE0, 1, ... , 8, or PRESET button, then the file data is set to a camera immediately. (ex. the SCENE8 data is selected)

SCENE PRESET: this data is factory adjustment value, and it is shown in preset value on menu list.

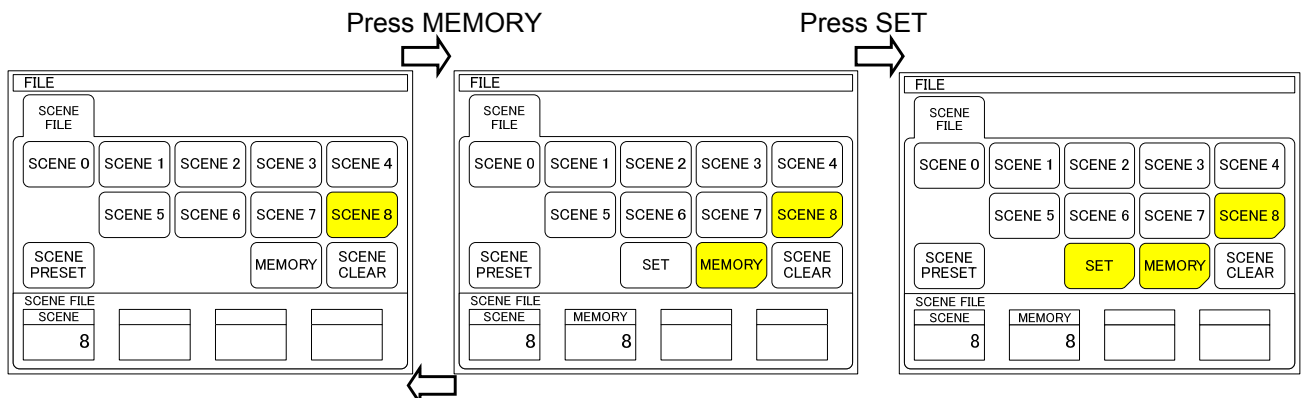
SCENE 0: when this file is selected, the adjusted data is stored to memory automatically.

SCENE 1 to 8: it is necessary to press MEMORY button for storing the adjusted data in these files.

SCENE FILE memory

(1) Press MEMORY and SET button, then the data is memorized to the selected scene file.

If the MEMORY button is pressed again before the SET is pressed, the memory action is canceled.



SCENE FILE transfer

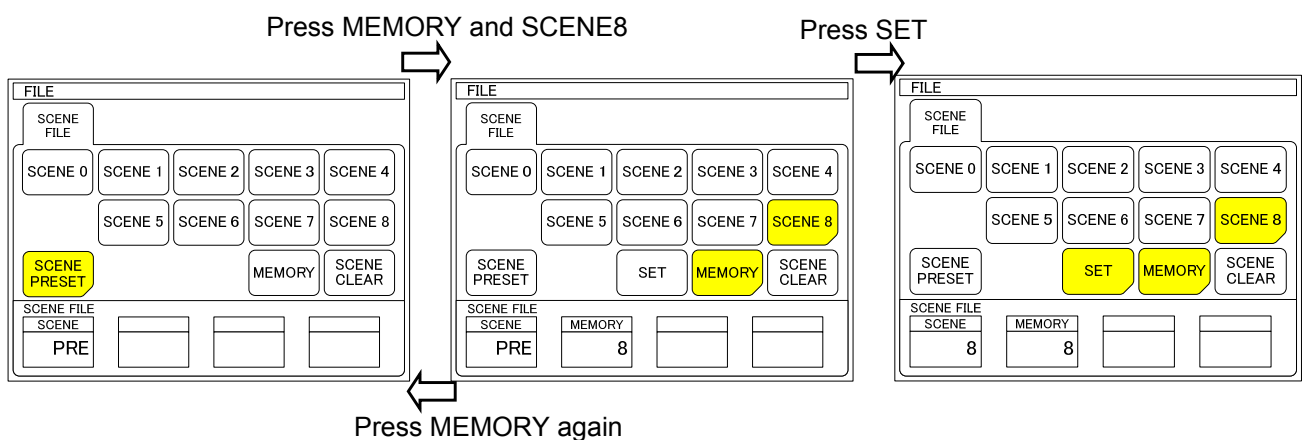
(ex. The SCENE PRESET data is transferred to the SCENE8)

(1) Press SCENE PRESET button, then the file is selected.

(2) Press MEMORY, then press the SCENE8.

(3) Press SET, then the data is transferred to the SCENE8.

If the MEMORY button is pressed again before the SET is pressed, the transfer action is canceled.

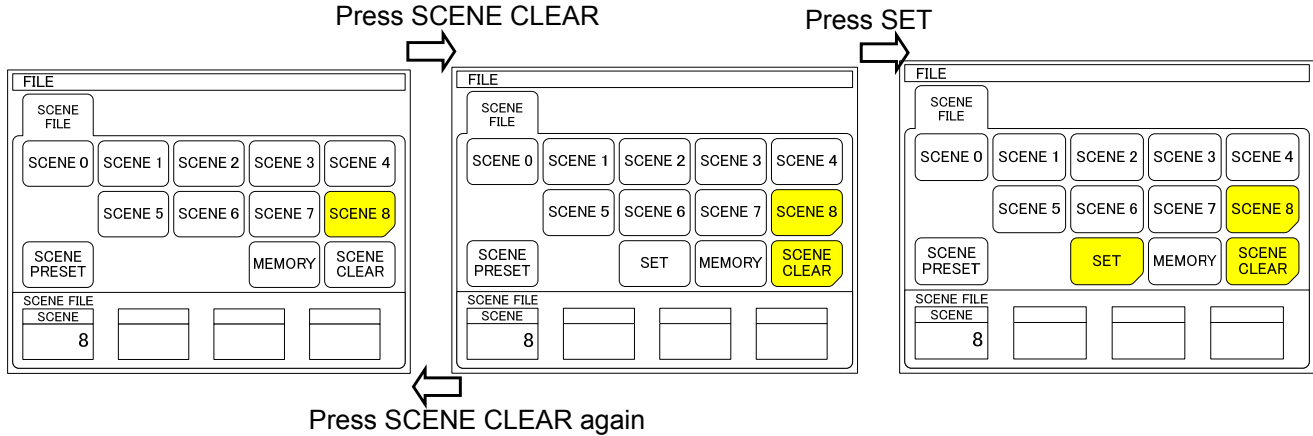


LCD menu

SCENE FILE clear

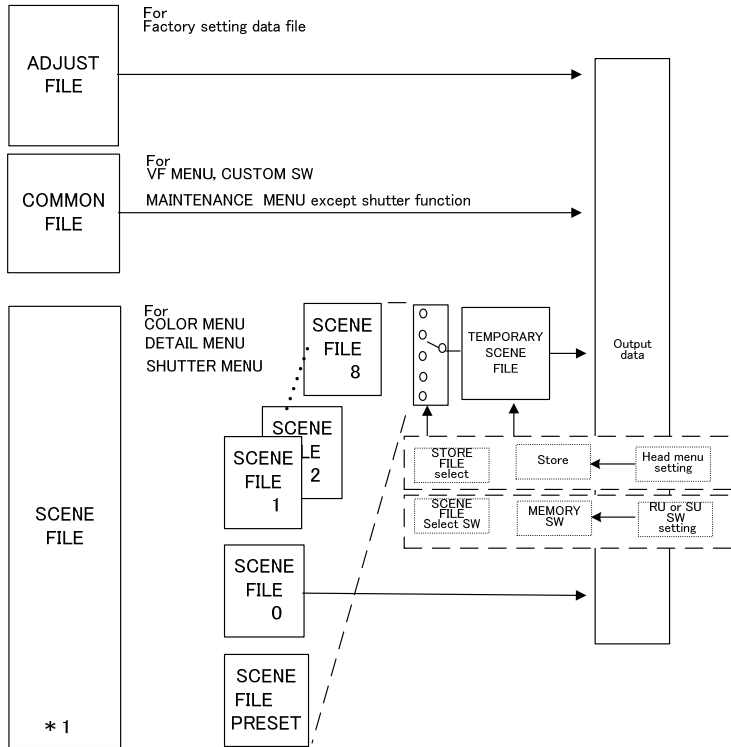
(1) Press SCENE CLEAR and SET button, then the file is cleared.

If the SCENE CLEAR button is pressed again before the SET is pressed, the clear action is canceled.



SK-HD1000 FILE STRUCTURE

There are Adjust, Common and Scene three major data files in the camera head memory.



* 1: This scene file is indicated at top right corner in the each menu box in the OP manual

1. COMMON FILE and TEMPORARY SCENE FILE data values are stored to the memory automatically.
2. When SCENE FILE 0 is selected, adjusted value data is stored to memory automatically.
3. SCENE FILE 1~8: After selected scene file, adjusted value data is kept in TEMPORARY SCENE file but required to push the memory switch for storing data to scene file.
4. SCENE FILE PRESET: This PRESET data is factory adjustment value & condition. Push memory switch and store the PRESET data to SCENE 1 to 8 for restore new scene file setting.
5. When power OFF to ON, the data hold previous condition.

LCD menu

5.7 CS(Customer Select) switch operation

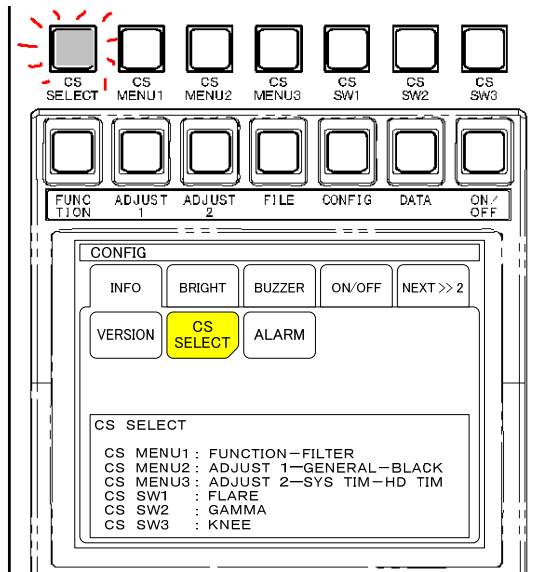
The functions of CS MENU1 ~ 3, CS SW1 ~ 3 can be assigned to operator preferences.

CS MENU1 ~ 3: assigns the MENU frequently used

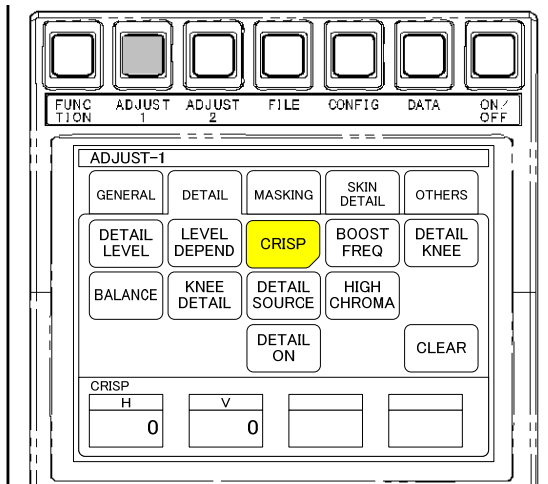
CS SW1 ~ 3: assigns the ON/OFF frequently used

How to assign CS MENU1 ~ 3

1. Press the CS SELECT switch, then the switch blinks.



2. Select the MENU Select button, menu tab and adjust item, that you prefer to assign on the CS MENU button.



No	Assignable MENU display
1	STATUS menu
2	All menu tab of FUNCTION menu
3	All menu tab & item of ADJUST-1 menu
4	All menu tab & item of ADJUST-2 menu
5	All menu tab of FILE menu
6	All menu tab & item of CONFIG menu
7	All menu tab of DATA menu
8	All menu tab & item of ON/OFF menu

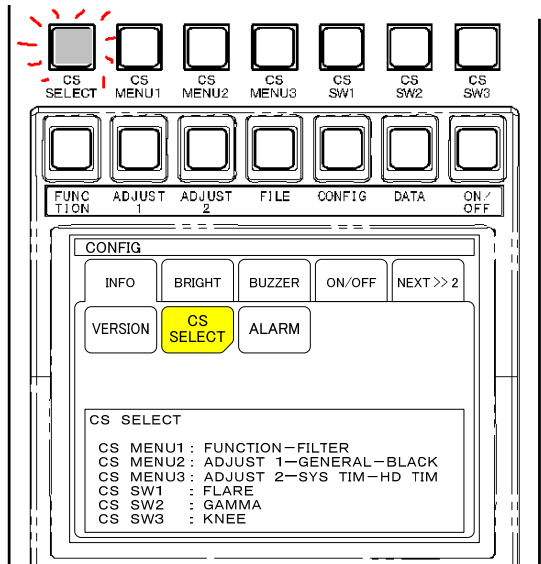
3. To memorize the assignment, hold down the button of CS MENU1, CS MENU2 or CS MENU3 for about two seconds.



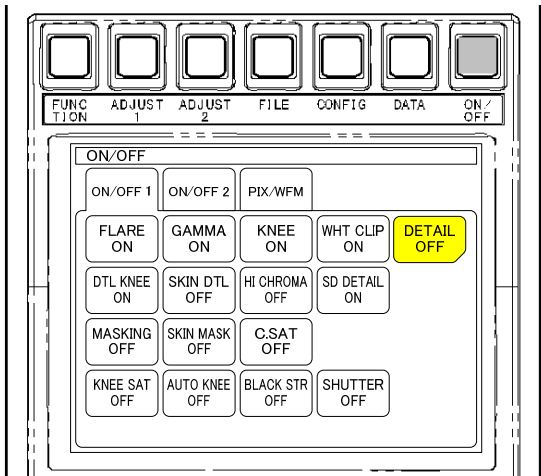
LCD menu

How to assign CS SW1 ~ 3

1. Press the CS CELECT switch, then the switch blinks.

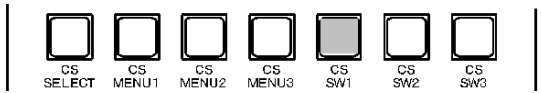


2. Select the on/off button, that you prefer to assign on the CS SW button.



No	Assignable ON/OFF button
1	FUNCTION menu CAP,HEAD,5600K SHUTTER on/off BARS on/off
2	ADJUST-1 menu All on/off item
3	ADJUST-2 menu SD DETAIL on/off All of SYSTEM MODE menu
4	CONFIG menu All of BUZZER menu All of ON/OFF menu
5	ON/OFF menu All of ON/OFF 1 menu All of ON/OFF 2 menu All of PIX/WFM menu

3. To memorize the assignment, hold down the button of CS SW1, CS SW2 or CS SW3 for about two seconds.



LCD menu

5.8 SD CARD

Camera system setting data can be stored to a SD card memory.

Notes

- 1) Maximum memory size is 2GB.
- 2) If no SD card is inserted, "NO CARD" is displayed on LCD.
- 3) If the SD card has some problem, "SD CARD ERROR" is displayed on LCD.

The method of SAVE to SD card

- 1) Select file number by pressing  or  button.

To role up or down page, press **BACK PAGE** or **NEXT PAGE** button.

The selected file is displayed with reverse.

Notes: If the selected number has already data, the data will be overwritten.

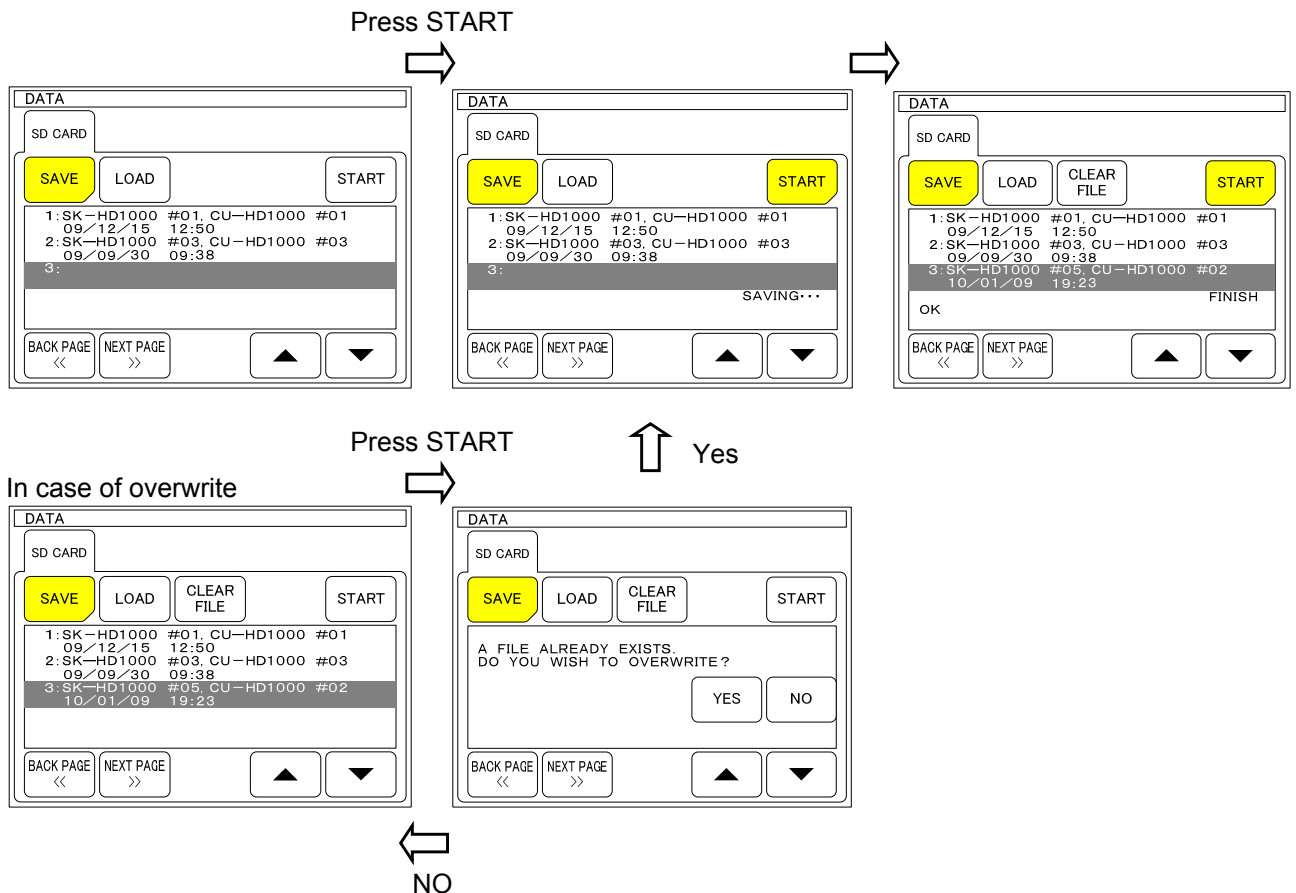
- 2) Press **SAVE** and **START** to begin saving data from the selected camera to SD card.

- 3) If saving was success, "OK" appears, and file information is displayed.

The information has camera type, CCU type, date, and time.

Date and time are stored by the RCU's clock setting.

If saving was fail, "NG" appears.



LCD menu

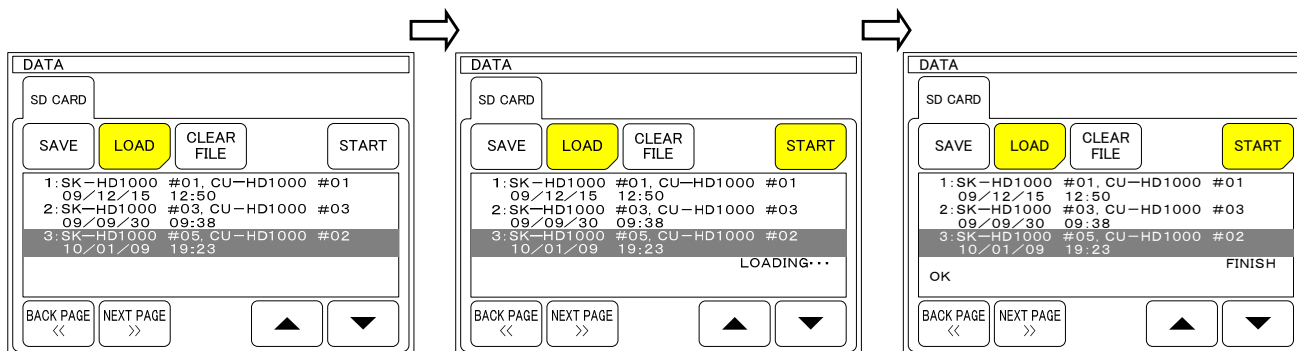
The method of LOAD from SD card

- 1) Insert an SD card that has already be stored SK-HD1000 camera system data.
- 2) Select the SD card data by pushing ▲ or ▼ button and **BACK PAGE** or **NEXT PAGE** button.

The reversed file is the selected data.

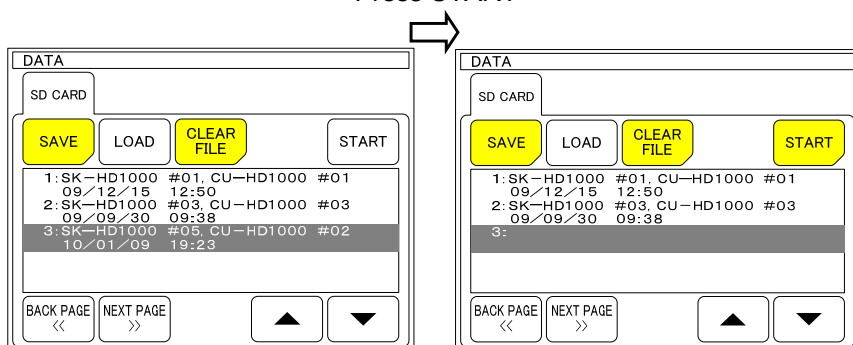
- 3) Press **LOAD** and **START** to begin loading data from SD card to the camera.
- 5) If the loading was success, "OK" appears.
If the loading was fail, "NG" appears.

Press START



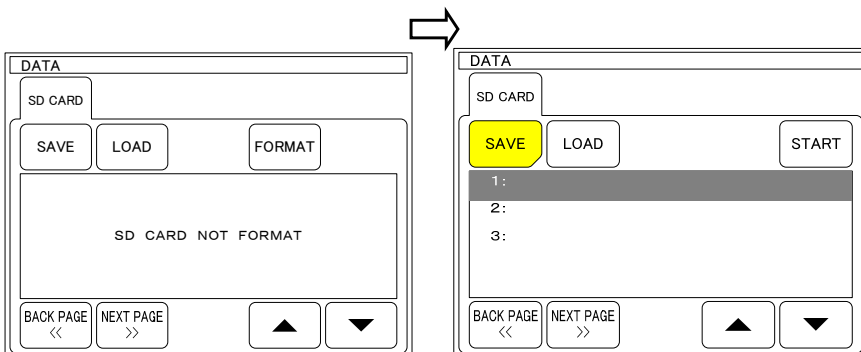
The method of CLEAR file

Press START



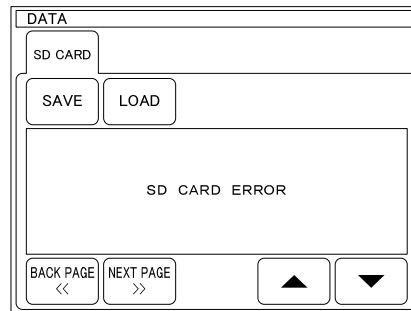
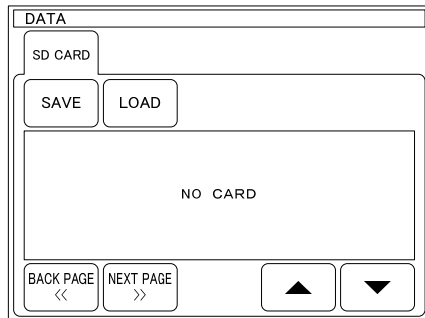
The method of SD card FORMAT

Press START



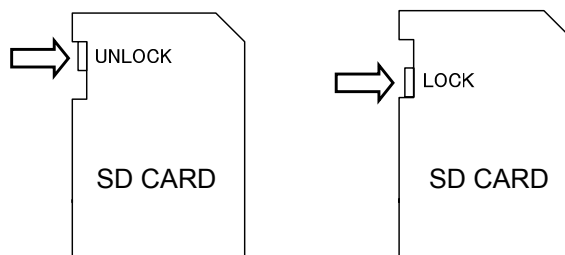
LCD menu

Error message



SD CARD writing protection

SD CARD has a lock to protect stored data.



- 1) UNLOCK
SAVE and LOAD are available.
- 2) LOCK
LOAD is available. If SAVE is executed with LOCK, "SD CARD ERROR" message appears on LCD.

NOTE: The SD card logo is a registered trademark.

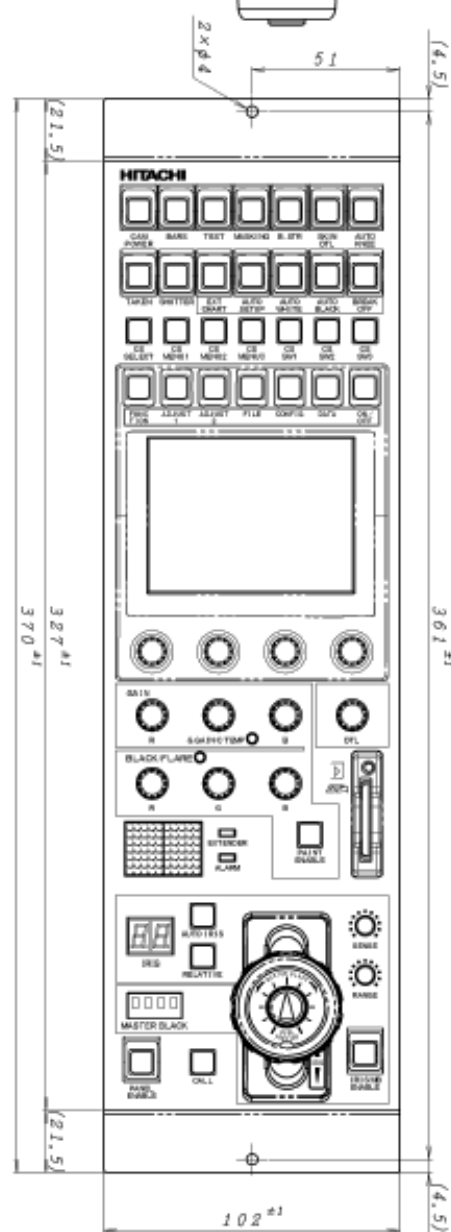
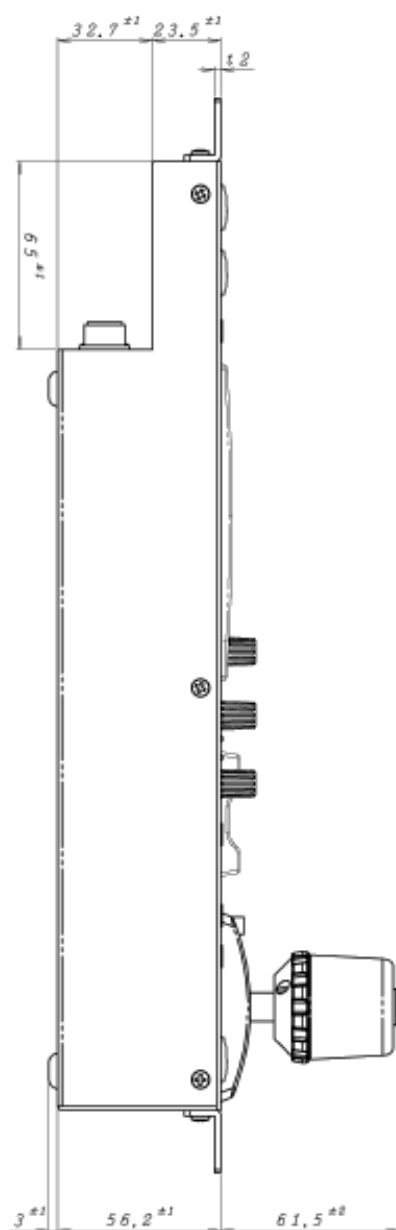
Specifications

Specifications

- (1) Dimensions: 102 (W) x 370 (H) x 56.2 (D) mm, excluding protrusions
- (2) Mass: Approx. 1.3 kg
- (3) Power input: DC+12V
- (4) Power consumption: Approx. 4.8W typ. 5.5W max.
- (5) Maximum cable length: 30m (When C-302RH cable is used)
- (6) Ambient temperature: 0 to +40 °C

Dimensions

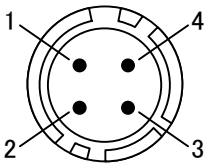
A diagram showing the rear panel of the machine with four circular ports. The second port from the left is labeled 'WATER' and the third is labeled 'WASTE'. A waste container is shown connected to the 'WASTE' port.



Service information

Connector pin diagram

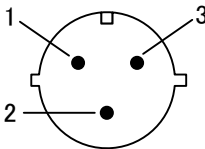
CCU



Plug:HR10A-7P-4S Chassis side:HR10A-7R-4P

Pin	Signal
1	+12V
2	SD(TX)
3	SD(RX)
4	GND

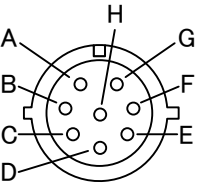
PREVIEW



Plug:RM12BPE-3S Chassis side:RM12BRD-3PH

Pin	Signal
1	NC
2	PREVIEW+
3	PREVIEW-

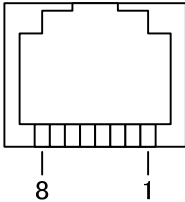
EXT IRIS



Plug:R05-PB8M Chassis side:R05-R8F

Pin	Signal
A	EXT M.BLK
B	NC
C	EXT IRIS
D	NC
E	NC
F	NC
G	A.+5V
H	A.GND

LAN



Chassis side:RJ-45 type connector

Pin	Signal
1	TD+
2	TD-
3	RD+
4	NC
5	NC
6	RD-
7	NC
8	NC