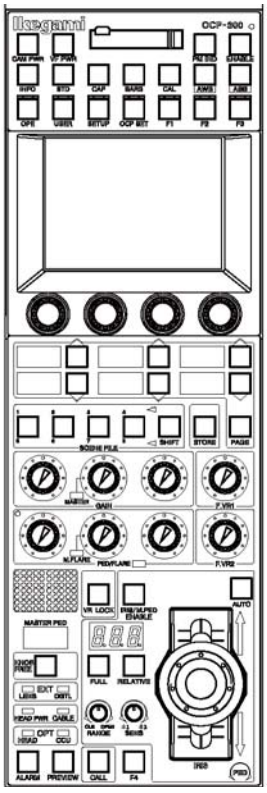
CE

Products conforming to RoHS directive



OCP-300

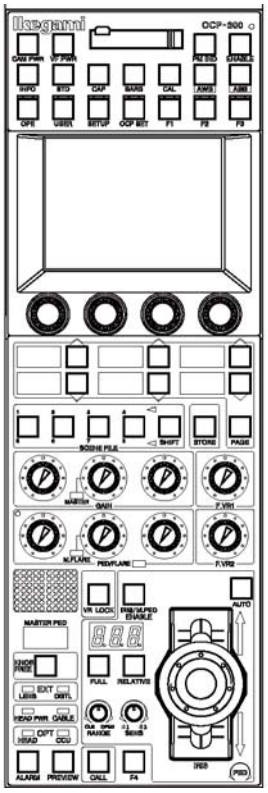
Operation Control Panel

Operation Manual

Ikegami

CE

Products conforming to RoHS directive



OCP-300

Operation Control Panel

Operation Manual

1406 1st Edition (U) (E)

Ikegami

English

Instructions for Disposal of Electric and Electronic Equipment in Private Household

Disposal of used Electric and Electronic Equipment
(Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product, or in the related documents in the package, indicates that this product shall not be treated as normal household waste. Instead, it should be taken to a proper applicable collection point or depot for the recycling of electric and electronic equipment.

By ensuring this product is disposed of correctly, you will help prevent possible negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources.
For more detailed information about recycling of this product, please contact your local city authority, your household waste disposal service or the place where you purchased the product.

Deutsch

Vorschriften für die Entsorgung von elektrischen und elektronischen Geräten in Privathaushalten

Entsorgung von gebrauchten elektrischen und elektronischen Geräten
(In der Europäischen Union und anderen europäischen Ländern mit separaten Sammelsystemen anwendbar.)

Das auf dem Produkt angebrachte Symbol, bzw. die Symbole in den in der Packung beiliegenden Dokumenten, weisen darauf hin, dass dieses Produkt nicht als normaler Haushaltsmüll behandelt werden darf. Es muss deshalb an einer dafür vorgesehenen Sammelstelle abgeliefert werden, in der das Recycling von elektrischen und elektronischen Geräten durchgeführt wird.

Durch die ordnungsgemäße Entsorgung dieses Produkts tragen Sie dazu bei, dass unsere Umwelt und unsere Gesundheit nicht durch unsachgemäße Entsorgung negativ beeinflusst wird. Mit dem Recycling von Materialien tragen wir zur Bewahrung der natürlichen Ressourcen bei.
Für nähere Informationen hinsichtlich des Recyclings für dieses Produkt sprechen Sie bitte mit Ihrer zuständigen Behörde, Ihrer Hausmüll-Entsorgungsstelle oder dem Geschäft, wo Sie das Produkt gekauft haben.

Français

Consignes de mise au rebut des appareils électriques et électroniques dans les foyers privés

Mise au rebut des appareils électriques et électroniques
(Applicable dans l'Union Européenne et autres pays d'Europe ayant un système de récupération séparé)

Ce symbole apposé sur le produit ou dans les documents liés se trouvant dans l'emballage indique que ce produit ne doit pas être traité comme un déchet ménager normal. Il doit être porté à un point de récupération correct ou à un dépôt pour le recyclage des appareils électriques et électroniques.

En vous assurant que ce produit est correctement mis au rebut, vous aiderez à empêcher les conséquences possibles pouvant affecter l'environnement et la santé humaine, pouvant être causées par une mauvaise manipulation des déchets de ce produit. Le recyclage des matériaux favorise la conservation des ressources naturelles.
Pour des informations plus détaillées concernant le recyclage de ce produit, veuillez contacter les autorités locales, votre service de mise au rebut des déchets ménagers ou le lieu d'achat de votre produit.

Español

Instrucciones para eliminar equipos eléctricos y electrónicos de una casa privada

Eliminación de equipos eléctricos y electrónicos usados
(Normas aplicables en la Unión Europea y en otros países europeos con diferentes sistemas de recogida)

Este símbolo en el producto, o en los documentos relacionados, indica que este producto no deberá ser tratado como un residuo doméstico normal. En cambio, deberá ser llevado a un punto o lugar donde los equipos eléctricos y electrónicos sean recogidos para ser reciclados.

Asegurándose de que este producto sea eliminado correctamente, usted ayudará a impedir las posibles consecuencias negativas sobre el medio ambiente y la salud humana que podrían ser causadas por el manejo inapropiado de este producto como residuo doméstico. El reciclado de los materiales ayudará a conservar los recursos naturales.
Para conocer una información más detallada acerca del reciclado de este producto, póngase en contacto con las autoridades de su localidad, con su servicio de recogida de residuos domésticos o con el comercio donde adquirió el producto.

PRODUCTS CONFORMING TO RoHS DIRECTIVE

Following products described in this manual are products conforming to RoHS directive.

•OCP-300 Operation Control Panel

Products conforming to RoHS directive include products that do not contain specified hazardous substances such as lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) in electrical and electronic equipment excluding following exemption applications based on the EU directive (Directive2002/95/EC).

* About RoHS Directive

The RoHS directive stands for "the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment" and is one of environmental directives in Europe. This directive restricts the use of specified hazardous substances in electrical and electronic equipment.

● Applications exempted from RoHS directive compliance

Followings applications are permitted as exemptions from RoHS directive compliance.

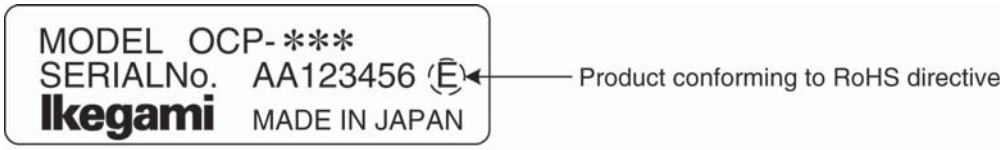
1. Mercury in compact fluorescent lamps not exceeding 5mg per lamp
2. Mercury in straight fluorescent lamps for general purposes not exceeding:
   - halophosphate 10mg
   - triphosphate with a normal lifetime 5mg
   - triphosphate with a long lifetime 8mg
3. Mercury in straight fluorescent lamps for special purposes
4. Mercury in other lamps not specifically mentioned in this Annex
5. Lead in the glass of cathode ray tubes, electronic components and fluorescent tubes
6. Lead as an alloying element in steel containing up to 0.35% lead by weight, aluminum containing up to 0.4% lead by weight and as a copper alloy containing up to 4% lead by weight
7. Lead in following items
   - Lead in high melting temperature type solders (i.e. tin-lead solder alloys containing more than 85% lead)
   - Lead in solders for servers, storage and storage array systems
   - Lead in solders for network infrastructure equipment for switching, signaling, transmission as well as network management for telecommunication
   - Lead in electronic ceramic parts (e.g. piezoelectronic devices)
8. Cadmium plating except for applications banned under Directive 91/338/EEC amending Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations
9. Hexavalent chromium as an anti-corrosion of the carbon steel cooling system in absorption refrigerators
10. Lead used in compliant pin connector systems
11. Lead as a coating material for the thermal conduction module C-ring
12. Lead and cadmium in optical and fi lter glass
13. Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80% and less than 85% by weight
14. Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages
15. Decabrominated diphenyl ether (Deca-BDE) in polymeric applications

MAINTENANCE OF PRODUCTS CONFORMING TO RoHS DIRECTIVE

Work with care about followings for maintenance of products conforming to RoHS directive.

1. Identification

· For products conforming to RoHS directive, the letter “E” is appended at the end of the serial number on the label. For models that the letter cannot be appended to the serial number, the letter “E” will be described in a distinguishable position on the label. A description example on a main label is shown below.



Label

· Print-circuit board of the products conforming to RoHS directive is manufactured by following methods.

[1] Blue resist ink is used for the print-circuit board. (The color of conventional print-circuit board is green.)

[2] Either one of the following marks is indicated by a serigraph or label.

Phase 3A

Phase 3

2. Soldering

Since the melting point of lead-free solder used for the products conforming to RoHS directive is 20 to 45 degrees Celsius higher than that of conventional solder with lead (Sn-Pb eutectic solder), a high temperature needs to be set to a soldering iron. Taking allowable temperature limit of the parts and stable work into consideration, use a soldering iron with excellent thermal recovery characteristics.

· Recommended solder composition is “Sn/3.0Ag/0.5Cu” or equivalent.

· Separate the soldering iron exclusively for RoHS products and the soldering iron for conventional use.

· Set the temperature of the soldering bit to 350 to 370 degrees Celsius.
The temperature may need to be adjusted according to the size of the copper foil land on the print-circuit board and the tip width of the soldering bit.

· Finish by a lead-free solder looks dull or whitish compared to conventional solder with lead.

3. Parts

Be sure to use parts conforming to RoHS directive.

INFORMATION TO THE USER

This equipment has been tested and found to comply with the limits for a Class A digital device, 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 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.
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The CE mark means that the following products will meet the Directives 2004/108/EC and standards EN55103-1, EN55103-2 (for the Electromagnetic environment E4-E5).

Use shielded cable except AC cable.
This equipment doesn't intend to use at residential areas, so that use in residential areas may cause interference.

The Ethernet cable, please use a shielded cable always.

Please attach a core to a cable to connect to a connector of command, EXT-1 and EXT-2 by all means.
Please make an inquiry to us about the installation of the core, if necessary.

SAFETY PRECAUTIONS

This manual describes the precautions using various pictorial symbols for you to use the product safely. Please read these precautions thoroughly before use. The symbols and meanings are as follows:

The following hazard alert symbols are used to indicate the level of impact on the body or property when you do not follow the precautions.

⚠ **WARNING**	Indicates that mishandling of the product by ignoring this label may lead to a danger resulting in a serious injury or death.
⚠ **CAUTION**	Indicates that mishandling of the product by ignoring this label may lead to a danger resulting in an injury or property damage.

The following symbols are used to indicate the expected injury or hazards when you do not follow the precautions.

	Indicates general cautions on such matters as safe work, procedure, and installation location. Mishandling may not directly lead to death, injury, or property damage.
	Indicates that mishandling may cause an electric shock.
	Indicates that mishandling may cause a fire.
	Indicates that mishandling may cause injury.

The following symbol is used to indicate other precautions to prevent damage or hazard from occurring:

	Indicates prohibited action.

■ *Handling Precautions*

⚠ WARNING

Regarding the Product

Do not disassemble or modify the product which is not described in this manual. Doing so may cause fire, electric shock, or injury.

Regarding the Power

When you disconnect the cable, be sure to hold the plug and pull. Failure to do so may cause a fire or electric shock due to a damaged cable.

To inspect or operate on the inside of the equipment, turn off the power and wait for one or two minutes before starting work. High voltage is present in some modules and connectors of this product.

⚠ CAUTION

Regarding the Product

Avoid use or storage in the following conditions:
- Extremely high/low temperature
- In direct sunlight for a long time, or near a heater
- High humidity or dusty
- Exposed to water or other liquid
- Strong vibration or shock
- Strong magneticfield or radio waves
- lightning
- In rain without the rain cover

Be sure to hold the plug and pull when you disconnect the cable.
Failure to do so may cause a fire or electric shock due to a broken cable.

Avoid moving the equipment suddenly from an extremely cold place to a warm place.
Condensation may occur in the Charged Couple Device (CCD) or other parts.

Do not drop or insert a metal object such as a pin or a foreign object into the equipment.

Do not spread or spill water or other liquid on the equipment.

Do not subject the equipment to a strong shock or vibration.
Doing so may cause damage or malfunction of the equipment.

Regarding the Modules

Pay attention to the following points when handling the modules:
- Do not let the parts of the modules or the printed wiring pattern to touch the metal parts that can be energized.
- Avoid placing or storing the modules in humid places.
- Do not touch the parts of the modules or the printed wiring pattern with dirty or wet hands. Do not touch them with hands unless necessary.

Regarding the Power and the Lithium Battery

Use the product in compliance with the rating of the fuse. Otherwise, a fault can occur.

Do not use an unspecified battery.
Wrong usage of batteries may cause liquid leak, explosion, and heat, and at worst injury or fire.
When changing or discarding a battery, please contact Ikegami's sales and service centers.

■ *Maintenance*

Regarding the product

Before performing maintenance on the product, be sure to turn off the power for safety and for protection against malfunction.

Clean the product using a dry and soft cloth.

If the stain is hard, soak the cloth with water or detergent, wring well and wipe. If you use detergent, wipe off the detergent with a cloth that is soaked in just water and wrung well.

■ *Regular Maintenance Recommended*

This product includes parts that wear out and have a limited life even in proper use or storage. Therefore, regular maintenance (once every 3 years or 8000 hours use) is recommended to extend the life and safe use of this product for a long time. Please contact Ikegami's sales and service centers or Techno Ikegami Co., Ltd. for the regular maintenance and repair of our products.

HOW TO READ THE OPERATION MANUAL

This page explains general notes on reading the BSH-300 Operation Manual, and the symbols and notations used in the manual.

■ *Notes on the Manual*

- This manual is written for readers with a basic knowledge of handling a broadcast camera, CCU, etc.
- The contents of this manual are subject to change without notice in the future.

■ *Symbols*

The symbols used in this manual are as follows.

CAUTION:	Things you have to be careful during operation. Be sure to read.
Note:	Supplementary information or guidance
Reference:	Sections where related information is available

■ *Notations*

The following notations are used in this manual.

This product, OCP	Indicates OCP-300 Operation Control Panel
Camera head	Indicates general broadcast cameras.
Camera	In this manual stands for both Camera Head and BS/CCU against Control Panel.

■ *Illustrations and Displays*

The illustrations and displays in the text are provided for explanation and may be slightly different from the actual equipment or image.

■ *Related Manuals*

Refer to the operation manuals and maintenance manuals accompanying the camera head, CCU, and each control panel to be used.

OCP-300
Operation Control Panel
Operation Manual

Contents

1. Overview

1.1 Overview

This operation control panel is used in ARCnet that is connected to BS (Base Station)/CCU (Camera Control Unit) and CP hub or in Ethernet that is connected to a commercially available network hub with LAN cable.

1.2 Features

Network compatible

Besides the control via conventional serial command, the control via ARC network connection and Ethernet network connection are also possible.

A wide range of operational configurations including panel assignment can be supported by establishing an ARC network. In addition, operational configuration with LAN cable connection can be supported by establishing an Ethernet network.

The main unit switch is used to select between serial command, ARC network and Ethernet network.

PoE+ compatible

As PoE+ (Power over Ethernet) is supported on the Ethernet network connection, power can be supplied through the LAN cable.

3.5-inch color LCD with touch panel sensor included

The LCD screen can be used not only for operation but also for advanced setting comparable to MCP.

By optimizing the menu hierarchy of LCD screen, you can easily perform operation and maintenance.

External power compatible

The power supply from the external power source can prevent the power supply from becoming unstable when the distance between devices is long.

User customization function

User can assign four function switches and two volumes to arbitrary selected functions. Some pages in the LCD screen can be arbitrarily configured by the user.

Memory backup

The status of this product can be easily reset to the factory setting or user setting.

IRIS control

IRIS control can be selected from volume (VR) or joy stick (JOY) for this product.

Optional Level display

The optical communication level between the connected BS/CCU and camera head can be checked on the panel.

Video format switch

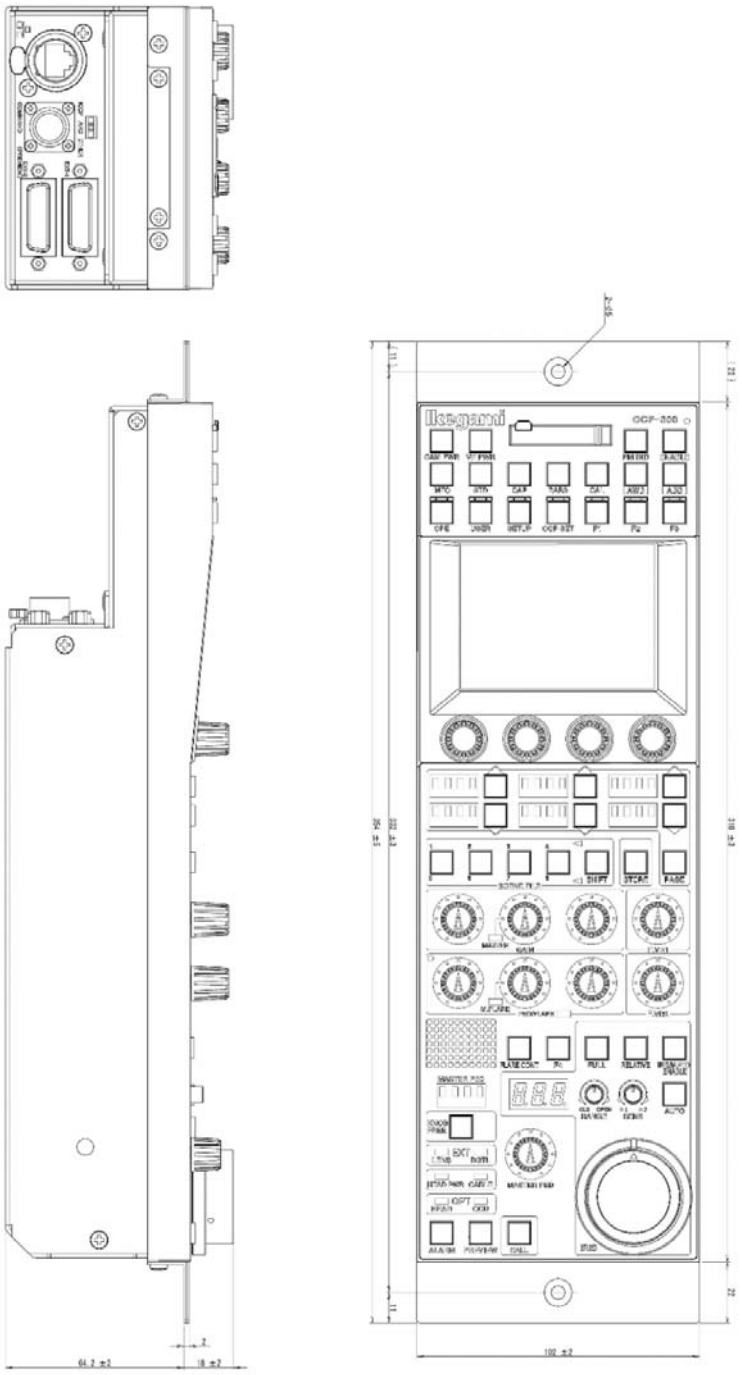
Video format of the connected device can be changed by the operation from the main unit.

Note: Switches and control function of OCP will not be effective if the connected camera does not have the functions.

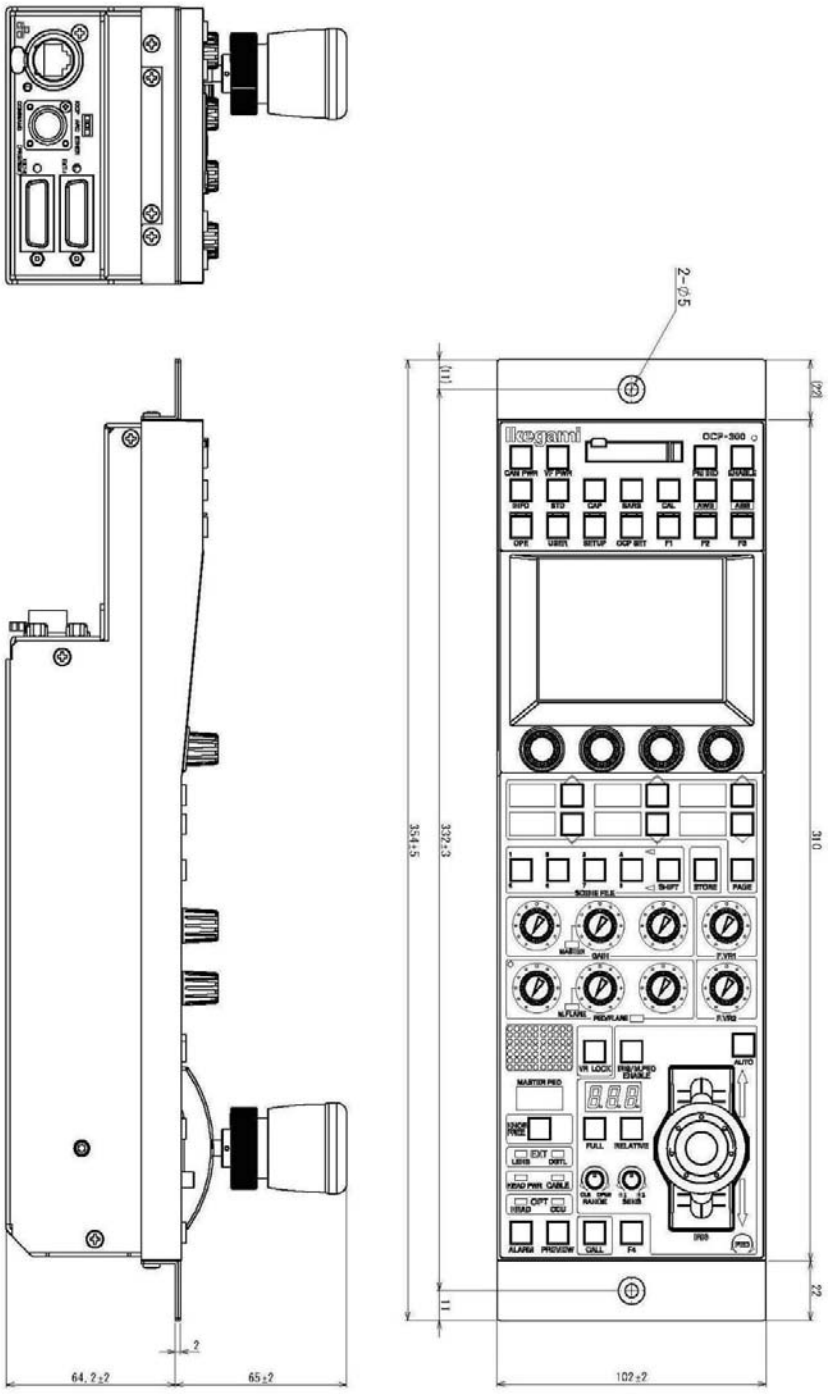
Reference: Please refer to the instruction manual of the camera for the effective functions.

1.3 External view

1) VR TYPE



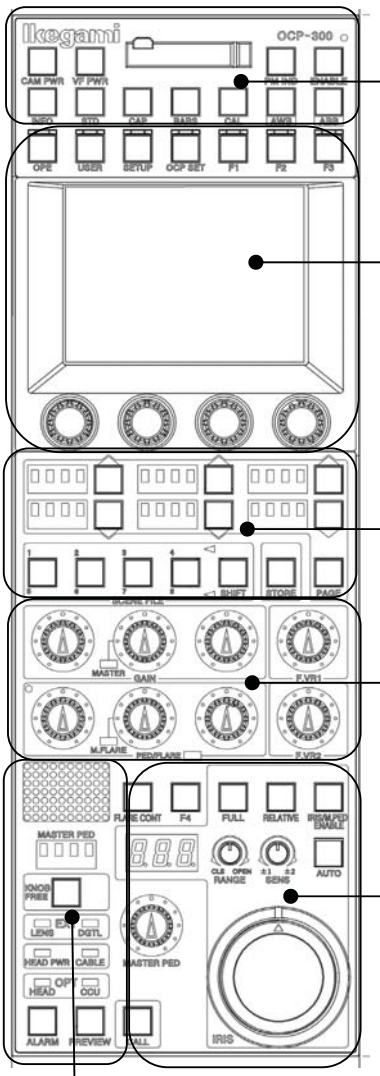
2) JOYSTICK TYPE



2. The Name and Function of Each Part

Since OCP-300 has many functions, it will be divided and explained according to the blocks.

VR TYPE



1. Camera Function Control Unit

2. LCD Menu-Operations Part

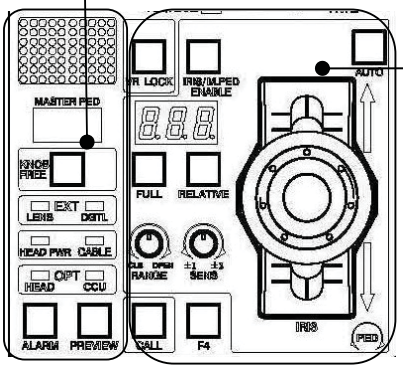
3. Selection Function Control Unit

4. Control Knob

5. Iris/Pedestal Control Section

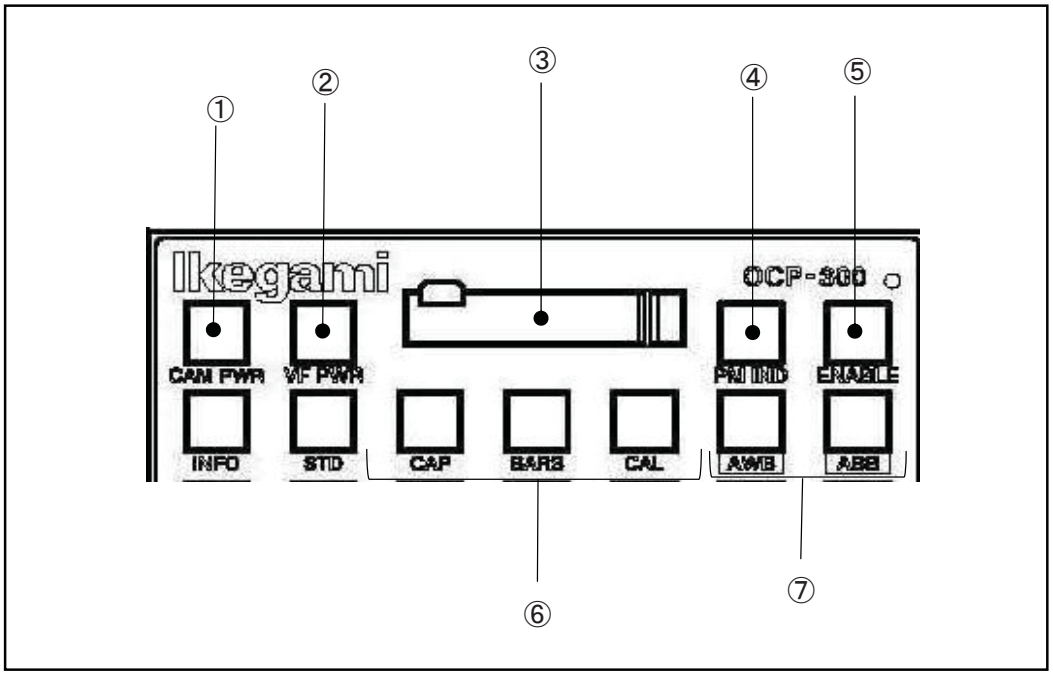
7. Status Display Part

JOYSTICK TYPE



6. Iris/Pedestal Control Section

2.1 Camera Function Control Unit



① CAM PWR switch

Remote control can perform power transmission from BS/CCU to the camera head by OCP.

Push the switch, when the power transmission is turned ON from the power transmission status of OFF (the switch goes out).

When the power transmission is turned OFF from the power transmission status of ON (the switch lights up), please continue pushing the switch for 2 seconds.

However, the remote control is possible when connecting to BS/CCU(BS-79LP, etc) which is possible to perform power transmission control to the camera head with command.

② VF PWR switch

Turn ON/OFF the power supply of the view finder (VF). The light is switched on by ON.

When you turn OFF the power supply of the view finder, please continue pushing the switch for 2 seconds.

③ Memory card slot

It is a slot for the memory card (SD card) which performs save and call of the camera head and the data of BS/CCU.

When you use the memory card, please insert the card into the slot calmly until it will be locked and not returned. Moreover, when you take out the card, please push the upper part of the inserted card in calmly. Then, the card can be lifted and pulled out.

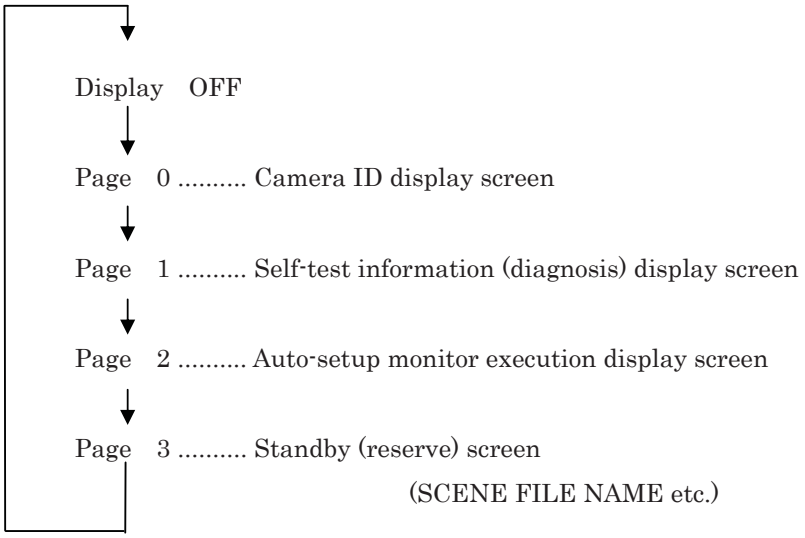
When you do not use the memory card, please attach the cover for protection against dust.

The access indicator beside the slot lights up during write and read operation. Please do not pull out the card, when the access indicator is on. Not only destruction of the data in the card is caused but the camera head and the data of BS/CCU may be destroyed.

④ PM IND/PAGE switch

Indicates the variety of information by characters at PM output of BS/CCU.

Whenever the switch is pushed, it displays as follows.



⑤ ENABLE switch

Enables operation of OCP.

When the switch is on, the control from OCP becomes possible.

⑥ MODE switch

- **CAP switch**

  Sets the optical filter in the CAP position and makes the iris of the lens closed.

- **BARS switch**

  Makes the video output signals the color bar signals.

- **CAL switch**

  Inputs 100% or 200% of the CAL signal into the graphic processing of the camera head.

  If the switch is pushed, it will change in order of CAL OFF (putting out lights) ->CAL100% (lighting) -> CAL200% (blink) -> CAL OFF (putting out lights). Moreover, the guard by long push can also be done to CAL200%.

⑦ AWB/ABB switch

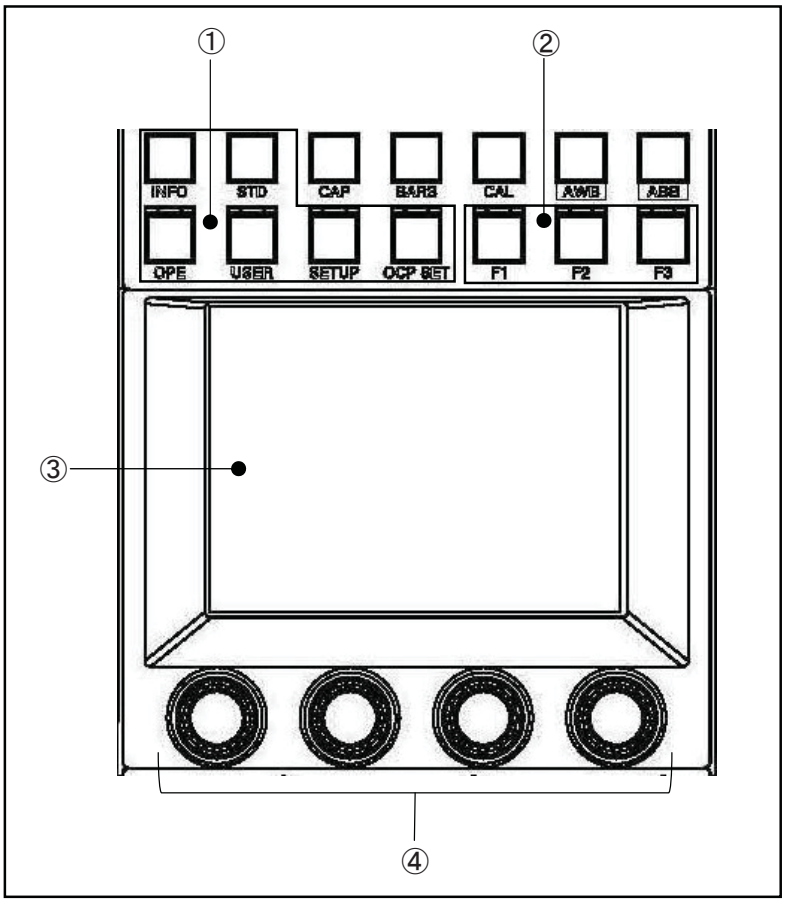
Performs AWB (automatic white balance) or ABB (auto black balance).

When the execution is completed, the lamp goes out, and when it is NG, it blinks. If NG is confirmed, please push again the blinking switch, and cancel NG status.

In addition, the execution of Quick Auto Setup/Auto Black Shade is possible by long push of the AWB switch/the ABB switch, respectively.

Caution : Depending on the setup of the camera and panel config, it may not operate by long push.

2.2 LCD Menu-Operations Part



① FUNCTION switch

It is a function selection switch of the LCD menu.

・INFO switch

Displays information, such as the camera head and the ON/OFF setting state of BS/CCU on the LCD.

・OPE switch

Lets the LCD menu be in the mode suitable for operation.

・SETUP switch

Displays the item in connection with camera adjustment on the LCD menu.

・OCP SET switch

Displays the setting item of OCP on the LCD menu.

・USER switch

Displays the selection switch which the user has set on the LCD. By registering the switch in advance, it can be called with this switch.

・STD switch

Returns the camera head and the data of BS/CCU to the standard setup. If the switch is pushed, the LCD menu will be displayed and it will be operated by the touch panel.

Reference: Refer to "13. The Standard Function" for the details of operation.

② F1, F2, F3, F4 switches

Displays the screen which the user has set on the LCD. By registering the screen into each switch in advance, it can be called with these switches.

Reference: F4 switch is in "2.5 Iris/Pedestal Control Section (VR TYPE)" and "2.6 Iris/Pedestal Control Section (JOYSTICK TYPE)."

③ LCD touch panel

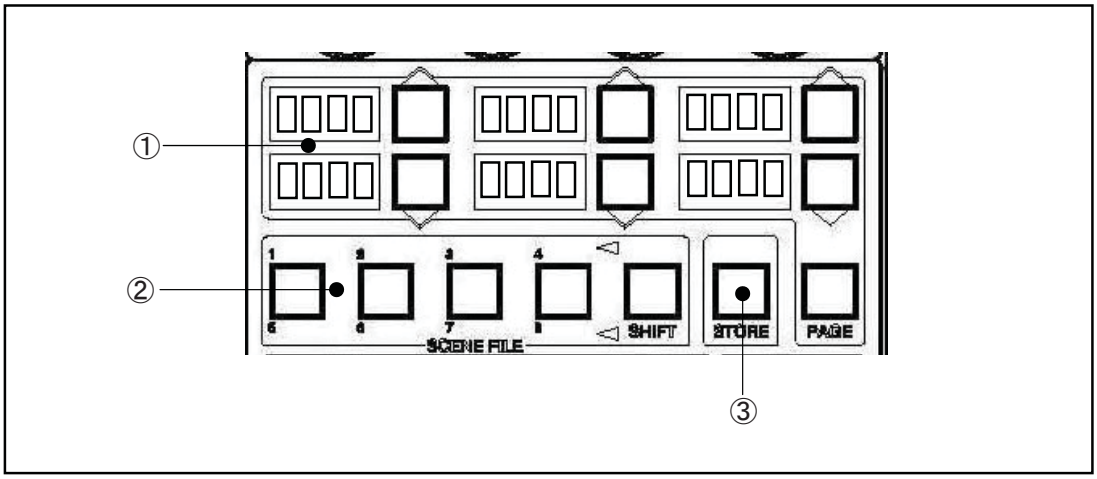
It is a control panel in which the 5-inch LCD panel and the touch switch are combined. It has the display function which displays the status of the camera and the switch function which operates the camera. Used for operating various setup.

Reference: Please refer to "4. LCD Menu" for the method of detailed operation.

④ Rotary encoder knob

Performs various setups, when displaying a function on the LCD.

2.3 Selection Function Control Unit



① SELECT switch, PAGE switch

▲ ▼ Selects each mode with the switch.

- **ND** : Change of ND filter position
- **CC** : Change of CC filter position
- **Gain** : Change of Step GAIN of the camera head
  Usually, set it to "0 dB."

- **EFF** : Change of the EFFECT filter position
- **Gamm** : Change of the GAMMA STEP of the camera head
  Usually, set it to "0.45."

- **Bkst** : Change of the black stretch/pressing action
  - Black stretch: +3, +5, +7, +9, +11%
  - Black press: -3, -5, -7, -9, -11%

  The range which can be set up changes with the camera to connect.
  Usually, set it to "OFF."

- **AWB** : Change of the AWB memory (Ach/Bch/OFF)

(When H is shown on the head, it is a setup of the camera head)

When the number of optical filter turrets is one, it is displayed as "Fltr."
Since ND, CC and EFF have an option on the camera head side ▲ ▼ when the switch has gone out, selection from OCP cannot be performed. When the camera head has an option ▲or▼ if the switch is pushed, the option can be moved to the OCP side from the camera head side.

Moreover, when OCP has an option ▲or▼, if long push is done on the switch, the switch will blink. If the switch is pushed for about 1 second after blinking, the confirm call sounds and the option can be moved from the OCP side to the camera head.

Status of the switch ▲ ▼of ND, CC and EFF

- **Lighting**: since the option is on the OCP side, the change of OCP to the filter position is possible.
- **Putting out lights**: since the option is on the camera head side, the change of OCP to the filter position is impossible.
- **Blink**: if long push is done when the option is on the OCP side, it will sound. If it is pushed for about 1 second from the wink start, the option will move to the camera head side.

As the initial state, the change of ND/CC/Gain is arranged on page 1, EFF/Gamm/Bkst on page 2 and the AWB channel on page 3, and the change of the page is performed by the PAGE switch.
By pushing the PAGE switch while pushing the KNOB FREE switch, you can also return to the front page.
Moreover, the composition for every page can be changed arbitrarily and can be created up to page 5.

Reference: Please refer to "21.2.1 UP/DOWN SEL" for the change of the composition of each page.

② SCENE FILE switch

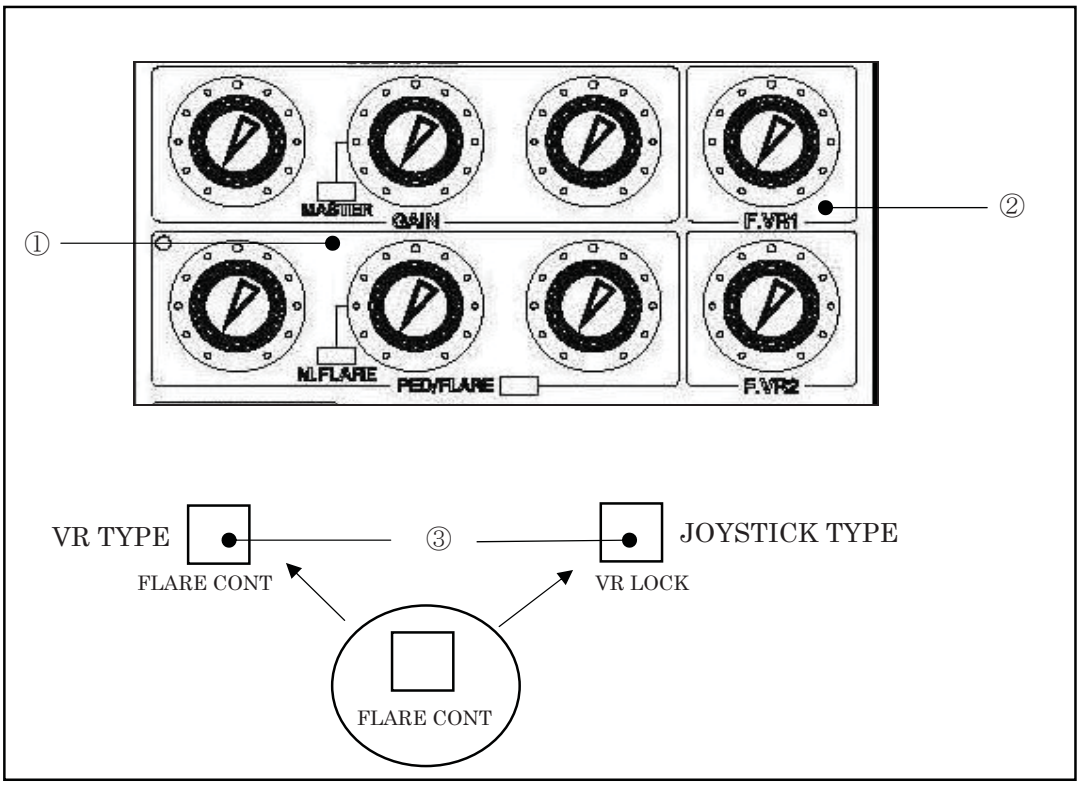
Reads the scene files 1-8. Changes the files No.1 - No.4, and the files No.5 - No.8 with the SHIFT switch. The read-out can read the scene file, if the switch of the file number to read is pushed.

Caution: Conventionally, there was a function made not to feel after the scene file read-out until the control knob is moved to the center position. Since OCP-300 differs in the disposal method of the control knob, it does not commit the function. After the scene file read-out, please use the knob free function in returning the control knob to the center.

③ STORE switch

Sets up the scene files 1-8. If the switch of the SCENE FILE number to set up is pushed in the status that the STORE switch is pushed and the switch is made to turn on, the setup will be completed and the STORE switch will go out.

2.4 Control Knob Part



① Control knob

・R/G/B GAIN control knob

Controls the gain of Red, Green and Blue channels.

The Green gain serves as operation replaced with R and B.

The control knob of the Green gain is controllable also as the master gain.

When the knob of the Green channel is set as the master gain, the MASTER indicator lights up.

The change of the master gain and G gain can be performed by the panel config (setup of the panel).

Reference: Please refer to "21.1.3. Setting Item" for the change of the master gain and G gain.

・**R/G/B PED/FLARE control knob**

Controls the pedestal or the flare of the Red, Green and Blue channels.

The FLARE CONT switch (VR TYPE) or VR LOCK switch (JOY/RE TYPE) of (3) performs the change of the pedestal and flare.

When the knob of the Green channel is set as the master flare, the M.FLARE indicator lights up.

In addition, the change of the master flare and G flare can be performed by the panel config (setup of the panel). Moreover, it becomes the master flare when it is connected with the camera having the master flare and G flare when it is connected with the camera not having the master flare when the auto setup is carried out.

Reference: Please refer to "21.1.3. Setting Item" for the change of the master flare and G flare.

② FUNCTION volume

The functions of the USER setup can be given to **F VR1 and F VR2,** respectively.

Reference: Refer to "21.2.3 FUNCTION VR" for how to assign a function.

③ FLARE CONT switch (VR TYPE)

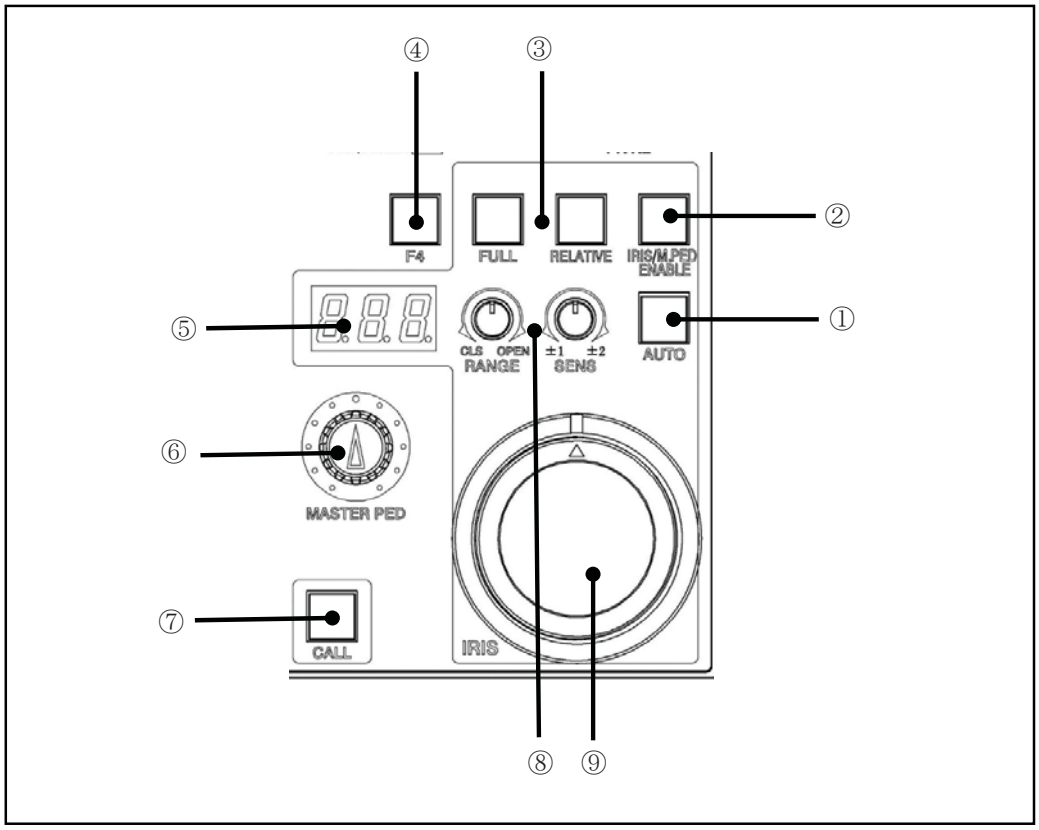
Switch whether the R/G/B PED/FLARE control knob is set as the control of the pedestal or it is set as the control of the flare. When it is flare control, PED/FLARE LED and this switch light up.

④ VR LOCK switch (JOYSTICK TYPE)

When this switch is pushed and turned ON, prohibition starts on each control knob of ① and ② and it does not operate even if turned. Moreover, when it is turned OFF from ON, prohibition of the control knob is canceled (without jumping of the controlled variable regardless of the position of the control knob).

Moreover, it can be switched by pushing this switch while pushing the KNOB FREE switch whether the R/G/B PED/FLARE control knob is set as the control of the pedestal or it is set as the control of the flare. When it is the flare control, LED lights up.

2.5 Iris/Pedestal Control Section (VR TYPE)



① **AUTO IRIS switch** (VR TYPE)

Makes the iris control of the lens in the auto mode.

Reference: Please refer to "6.2 Auto Iris Operation" and "7.2 Auto Iris Operation" for detailed operation.

② **IRIS/MPED ENABLE**

Please refer to "6.2 Auto Iris Operation" and "7.2 Auto Iris Operation" for detailed operation. When the switch has gone out,

IRIS of ⑨ and M PED operation of clause ⑥ become invalid. Moreover, it becomes impossible to change clauses ①, ③ and ⑧. If the switch is pushed and the light is made to switch on, IRIS and M-PED operation of ⑦ will become effective. Moreover, changes of clauses ①, ③ and ⑧. become possible.

Caution: If the switch is turned ON, IRIS may change since it will become an IRIS value corresponding to the position of the present IRIS volume.

③ FULL/RELATIVE switch

・**FULL switch**

Fixes the range of the IRIS control of clause ⑨ to the FULL range.

・**RELATIVE switch**

The iris control of the lens lights up at the time of relative-value control.

Moreover, the iris position of the lens can be matched with the IRIS control value of OCP by pushing the switch.

④ FUNCTION switch 4

It can be called by registering the screen into the switch in advance like F1, F2 and F3 switches in the LCD menu-operations part.

⑤ IRIS indicator (JOYSTICK TYPE)

Displays the F value of the lens.

After exceeding F16 until CLOSE, it becomes "---" and does not display the F value.

⑥ M. PED knob (VR TYPE)

Controls the master pedestal.

⑦ CALL switch (VR TYPE)

Makes R TALLY of the camera head and BS/CCU turn on.

The light is switched on also when the CALL switch of the camera head or BS/CCU is pushed.

⑧ RANGE/SENS control knob (VR TYPE)

・**RANGE control knob**

Sets up the center position of the IRIS control knob of clause ⑨.

・**SENS control knob**

Sets up the range of the IRIS control knob of clause ⑨. It can be set up between ±1 stop - ±2 stop with the F value.

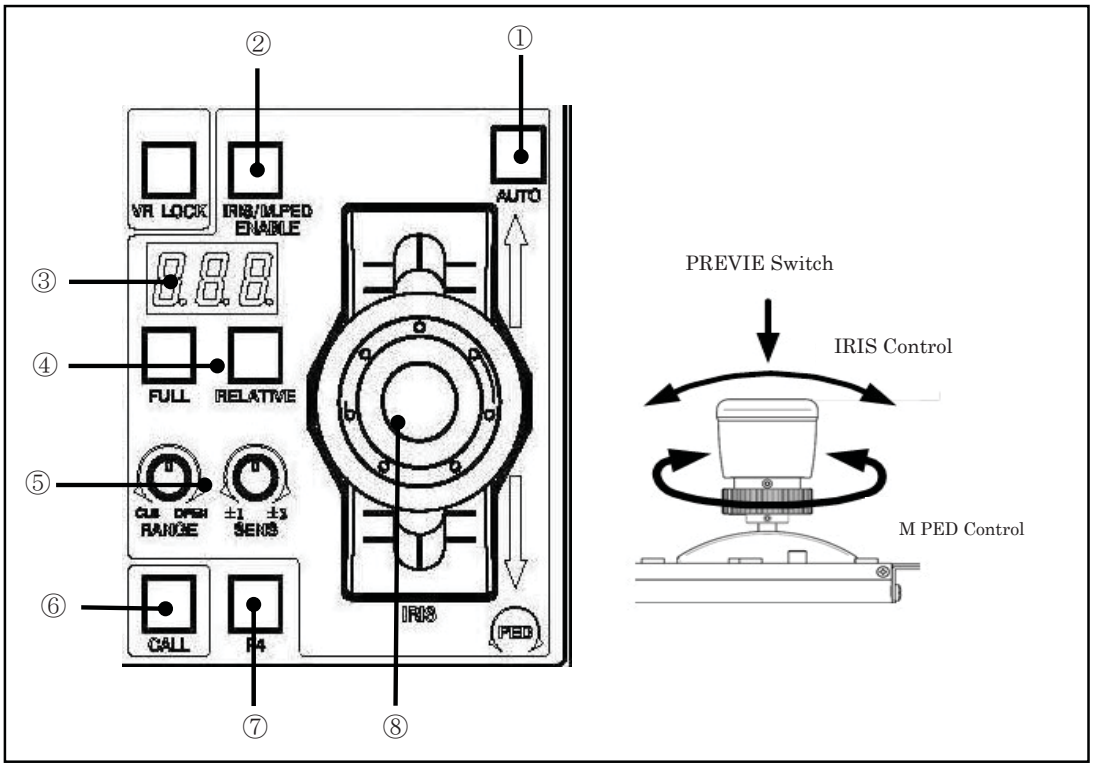
Reference: Please refer to "6.2 Auto Iris Operation" and "7.2 Auto Iris Operation" for detailed operation.

⑨ **IRIS control knob** (VR TYPE)

Controls the iris of the lens. Controls ±1 stop with the F value at the time of AUTO IRIS.

Reference: Please refer to "6.2 Auto Iris Operation" and "7.2 Auto Iris Operation" for detailed operation.

2.6 Iris/Pedestal Control Section (JOYSTICK TYPE)



① **AUTO IRIS switch** (JOYSTICK TYPE)

Makes the iris control of the lens in the auto mode.

Reference: Please refer to "6.2 Auto Iris Operation" and "7.2 Auto Iris Operation"for detailed operation.

② **IRIS/MPED ENABLE**

Enables the control of IRIS and M-PED. When the switch has gone out, IRIS and M PED operation of clause ⑦ become invalid. Moreover, it becomes impossible to change clauses ①, ④ and ⑤. If the switch is pushed and the light is made to switch on, IRIS and M-PED operation of clause ⑦ will become effective. Moreover, the change of clauses ①, ④ and ⑤ becomes possible.

Caution: If the switch is turned ON, IRIS may change since it will become the IRIS value corresponding to the position of the present JOY stick.

③ IRIS indicator (JOYSTICK TYPE)

Displays the F value of the lens.

After exceeding F16 until CLOSE, it becomes "---" and does not display the F value.

④ FULL/RELATIVE switch (JOYSTICK TYPE)

- **FULL switch**

  Fixes the range of the IRIS control of clause ⑦ to the FULL range.

- **RELATIVE switch**

  The iris control of the lens lights up at the time of relative-value control.

  Moreover, the iris position of the lens can be matched with the IRIS control value of OCP by pushing the switch.

Reference: Please refer to "6.2 Auto iris operation" and "7.2 Auto iris operation" for detailed operation.

⑤ RANGE/SENS control knob (JOYSTICK TYPE)

- **RANGE control knob**

  Sets up the center position of the IRIS control knob of clause ⑧.

- **SENS control knob**

  Sets up the range of the IRIS control knob of clause ⑧. It can be set up between ±1 stop - ±2 stop with the F value.

Reference: Please refer to "6.2 Auto Iris Operation" and "7.2 Auto Iris Operation" for detailed operation.

⑥ CALL switch (JOYSTICK TYPE)

Makes R TALLY of the camera head and BS/CCU turn on.

The light is switched on also when the camera head or the CALL switch of BS/CCU is pushed.

⑦ FUNCTION switch 4

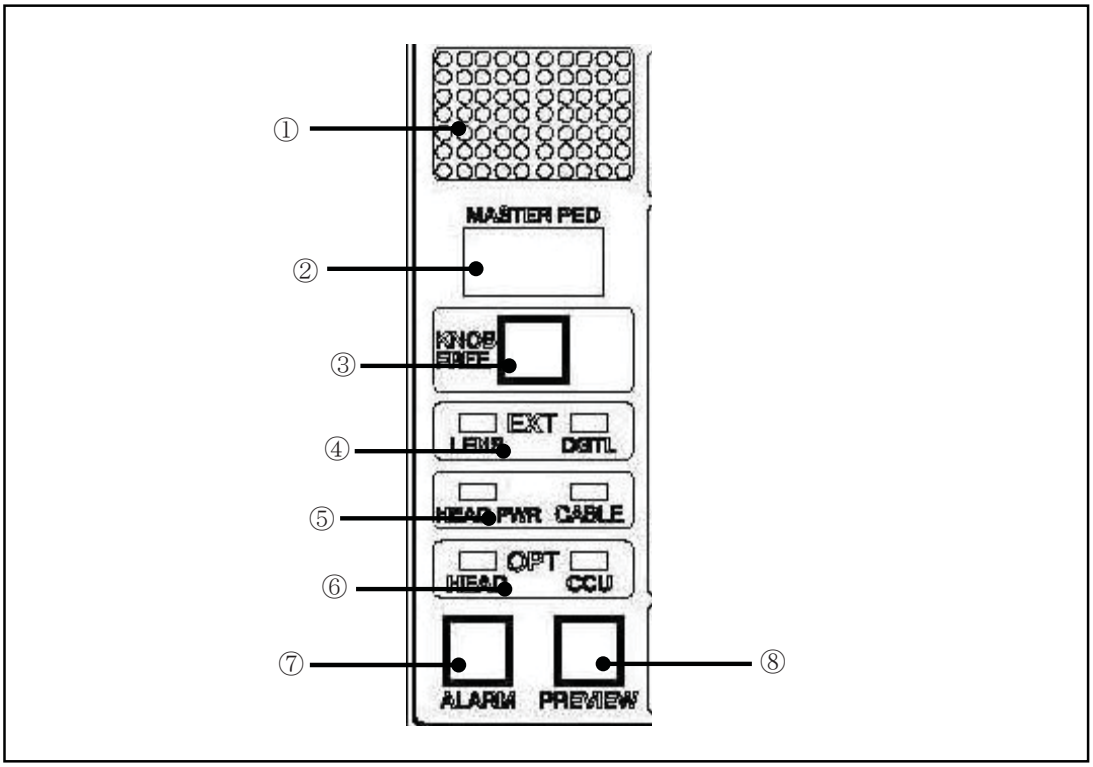
It can be called by registering the screen into the switch in advance like F1, F2 and F3 switches in the LCD menu-operations part.

⑧ **JOYSTICK** (JOYSTICK TYPE)

Controls IRIS and the master pedestal by JOYSTICK. Controls ±1 stop with the F value at the time of AUTO IRIS. Controls the master pedestal by the M-PED control. If the head of JOYSTICK is pressed down, the PREVIEW switch turns "ON". Operation turns into parallel operation with the PREVIEW switch of the preceding clause.

Reference: Please refer to "6.2 Auto Iris Operation" and "7.2 Auto Iris Operation "for detailed operation.

2.7 Status Display Part



① Camera number indicator

Displays the program number of the connected camera.

Reference: For details, please refer to "11.3 Program Number."

② MASTER PED indicator

Displays the adjustment value of the master pedestal.

③ KNOB FREE switch

While pushing this switch,

if "2.4 clause ① of the control knob part", "each control knob of clause ②,

clause ⑥ M.PED control knob of "2.5 Iris/pedestal control section (VR TYPE)", clause ⑧ IRIS SENSE control knob at the time of relative-value control and clause ⑨ IRIS control knob,

clause ⑧ M.PED control knob of "2.6 Iris/pedestal control section (JOYSTICK TYPE)", clause ⑤ IRIS SENSE control knob at the time of relative-value control and clause ⑧ IRIS control knob are set FREE and the knob is turned, the control can be held.

For example, in the case where AWB and AUTO SETUP are performed when the R/G/B GAIN knob is not in the center position, or when ABB or AUTO SETUP are performed when the R/G/BPED and M.PED knobs are not in the center positions and each knob becomes effective on one side, being effective of the amount of control on one side will be canceled if the knob is returned to the center position by pushing this switch.

Reference: Please refer to "5.4 Knob Free Function" for detailed operation.

④ EXT indicator

When the optical extender of the camera head is "ON", the indicator of LENS lights up, and when the digital extender of the camera head is "ON", the indicator of DGTL lights up.

⑤ HEAD PWR/CABLE indicator

When the power supply of the camera head is "ON", the indicator of HEAD PWR lights up.

When BS/CCU is normally connected with the camera head by the TRIAX cable or the optical cable, CABLE lights up in green. Moreover, when BS/CCU is not connected with the camera head or not normally connected due to the cable short-circuit etc., the light is switched on in red.

⑥ OPT indicator

Displays the transmission level when using the optical fiber cable. The light level from the camera head to CCU is displayed on the CCU indicator, and the optical transmission level from CCU to the camera head is displayed on the HEAD indicator. Each indicator displays the optical transmission level at five levels by lighting/blink/putting out in 3 colors of green/amber/red.

Display	Indicator		Contents
OK	Green	Lighting	The optical transmission level is good.
ATTENTION	Amber	Lighting	Operation is possible although the optical transmission level has fallen.
WARNING	Amber	Blink	The optical transmission level has fallen further. Since problems may occur in operation, please clean the optical connector.
NG	Red	Lighting	The light level is declining remarkably. Please clean the optical connector immediately.
NON CONNECTION	—	Putting out lights	The optical fiber cable is not connected.

Note: The fall of the optical transmission level occurs when there are abnormalities, such as multi stage connection of the optical connector and refraction of the optical fiber cable, in addition to the dirt of the optical connector. Please remove these abnormalities, when the OPT indicator blinks and lights up in amber or red.

⑦ ALARM indicator (switch)

It blinks when NG is detected by the self-checking function. If the switch is pushed at the time of blink, simple diagnosis will be displayed on the LCD.

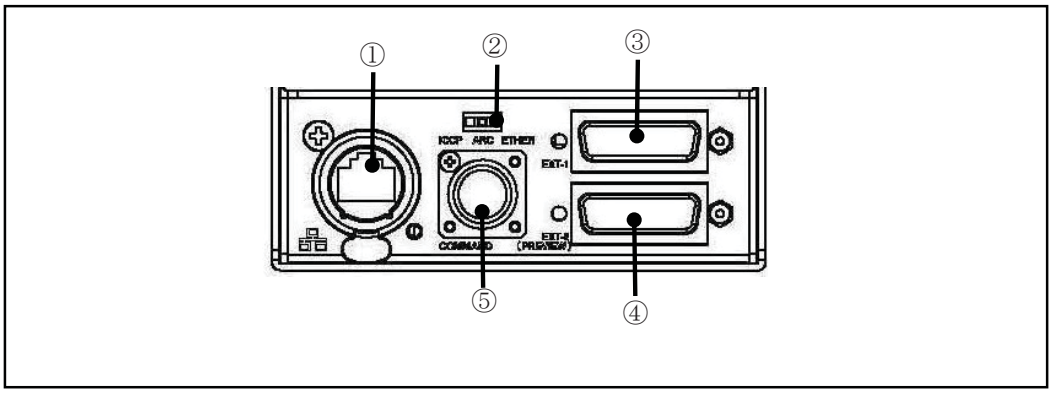
⑧ PREVIEW switch (JOYSTICK TYPE)

The PREVIEW signal is outputted from EXT-2 (PREVIEW) connector and BS hub or BS/CCU connected to the network.

When the PREVIEW switch is pushed, PV (-) of EXT-2 (PREVIEW) connector on the connector panel at the bottom short-circuits with COM. Moreover, when the PREVIEW switch is not pushed, PV (+) of EXT-2 (PREVIEW) connector short-circuits with COM.

Note: By the setup of panel config, the output of the PREVIEW signal can be forbidden from BS hub or BS/CCU.

2.8 Connector Panel



① The connector for LAN

Connects BS/CCU corresponding to Ethernet with a LAN cable.

② ICCP/ARC NET/Ethernet changeover switch

Changes ground command connection, ARC Internet connection and Ethernet connection.

ICCP : at the time of ground command (serial command) connection

ARC NET : at the time of ARC network connection

Ethernet : at the time of Ethernet connection

③ EXT-1 connector

It is a connector for extension.

There is a function of the output of the camera status, the input of the camera status and the input of camera selection enabling.

Reference : Refer to "23.2 The Pin Function of the External Connector" for the pin function.

④ EXT-2 (PREVIEW) connector

It is a connector for extension.

When the PREVIEW switch is pushed, PV (-) short-circuits with COM.

When the PREVIEW switch is not pushed, PV (+) short-circuits with COM.

Moreover, there is a function of the input/output of a tarry signal and a program number output.

Reference : Refer to "23.2 The Pin Function of the External Connector" for the pin function.

⑤ COMMAND connector

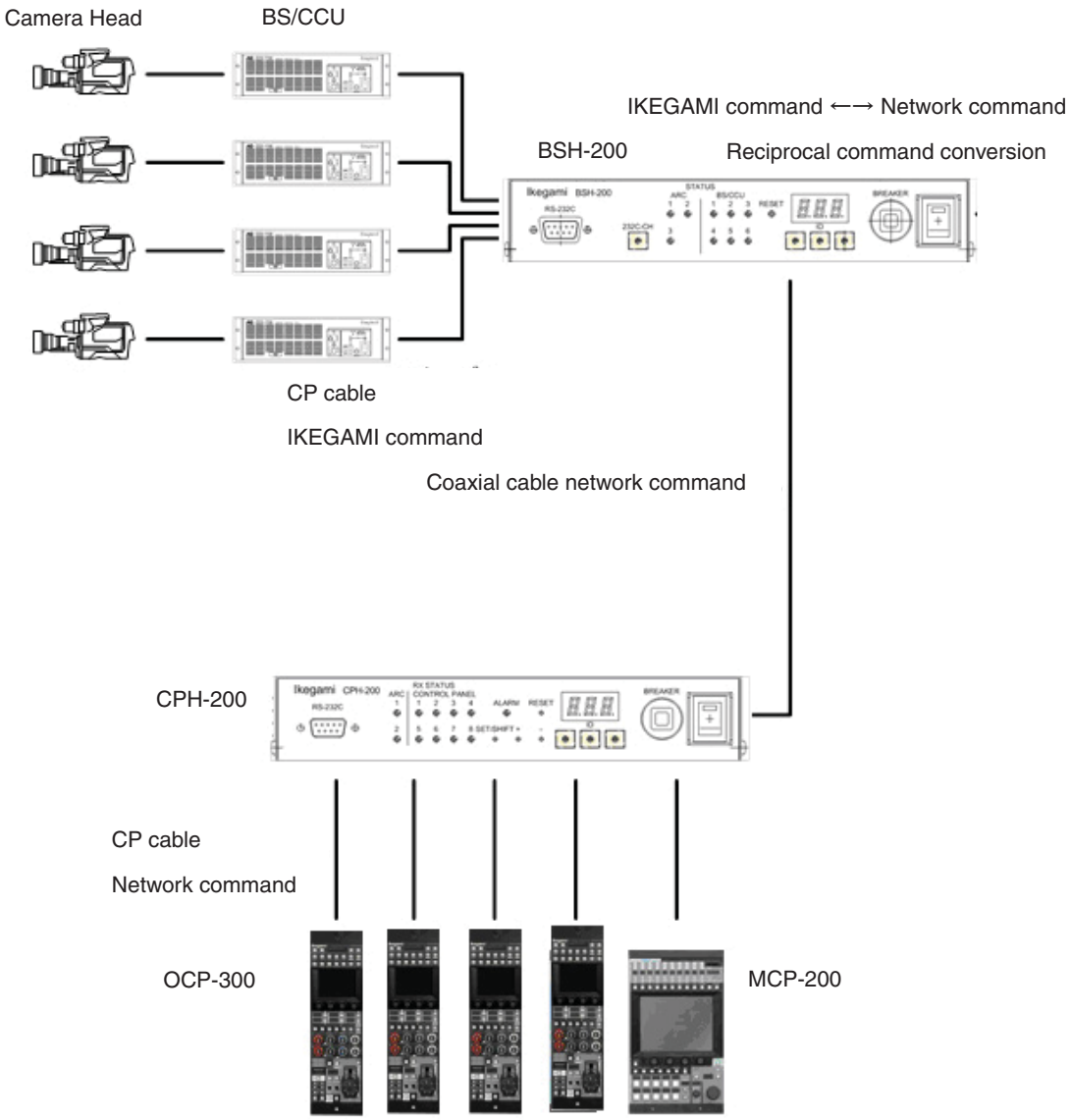
Connects CP cable.

3. About a Network

There is operation in a network as a big feature of OCP-300. This chapter describes the concept and the setting method of operation by ARC network and Ethernet.

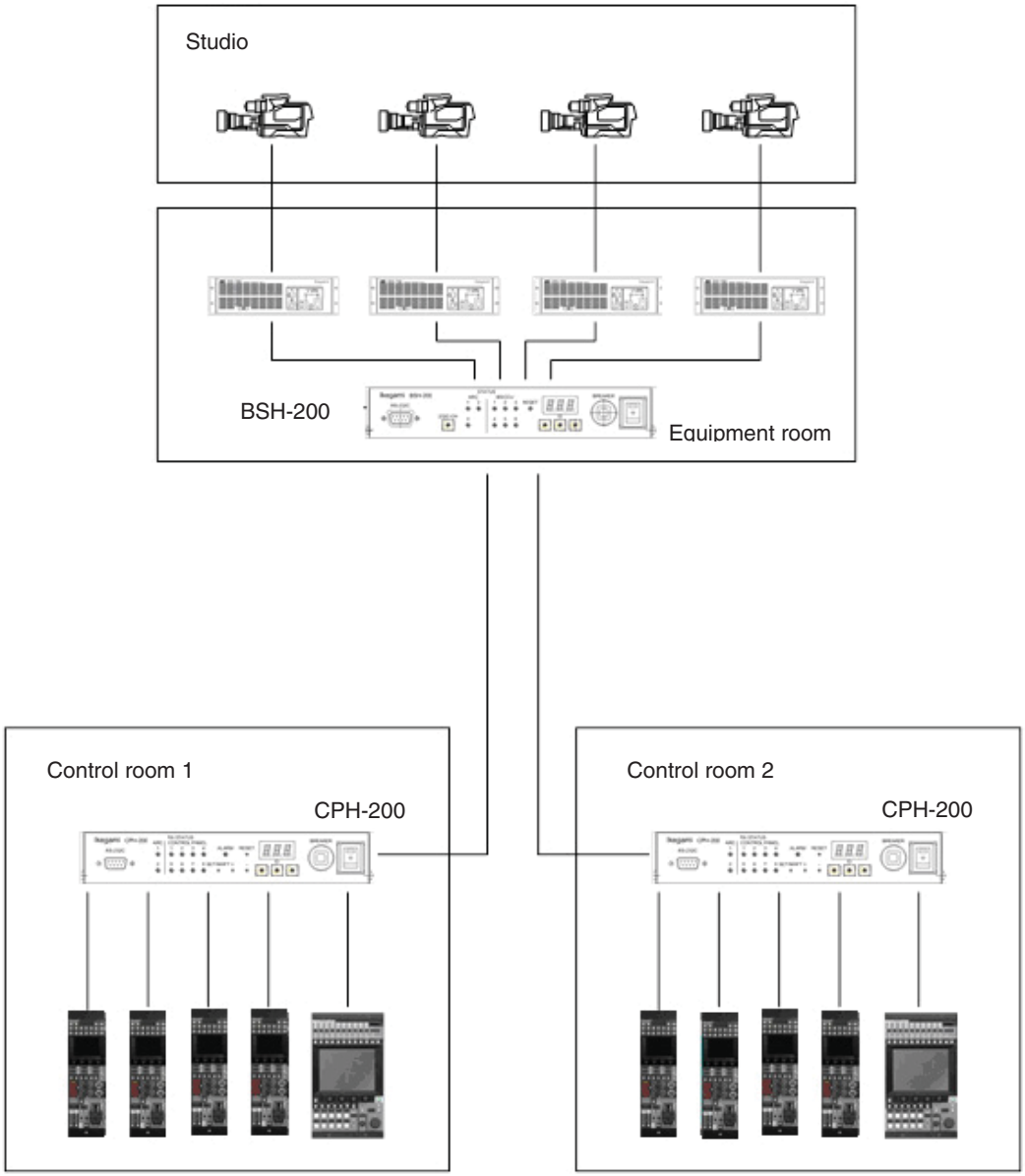
3.1 ARC Network

3.1.1 Network Key Map

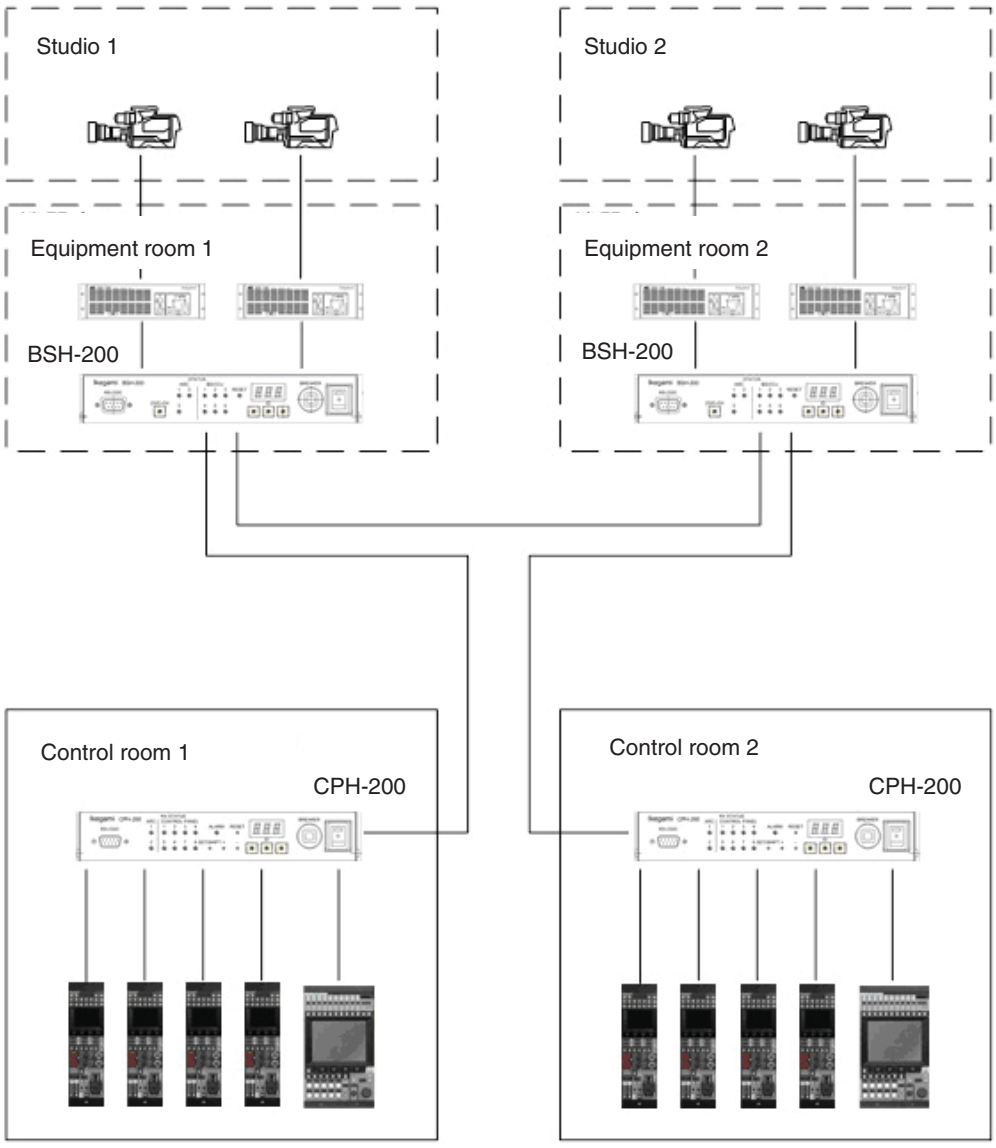


3.1.2 System Configuration Example

1) In the case of one studio and two control rooms



2) In the case of two studios and two control rooms



3.1.3 Setup of ARC Net ID

A total of 255 nodes (equipment) are connectable with one network (The node as a hub function does not count). You have to set ARC network ID to the equipment (node) connected by an ARC network command. A setup of ARC network ID is possible for 01h-FFh (in the case of decimal digit, 1-255).

Caution: Only one ARC network ID can be set to the same network. When ARC network ID overlaps, it may cause not only malfunction of duplicate equipment but malfunction of the equipment connected with the same network.

1) Setup of OCP-300

Reference: Refer to "11.1 The Setup of ARC Net ID" for the setup of ARC net ID of OCP-300.

2) Other instrument setups

Reference: Refer to the operation manual of each equipment such as "CPH-200/BSH-200 Setup Manual" etc.

3.1.4 Network Connection

On the occasion of network connection, there are bus connection, star connection and tree connection.

Reference: Refer to the operation manual of each equipment such as "CPH-200/BSH-200 Setup Manual" etc. for the details of network connection.

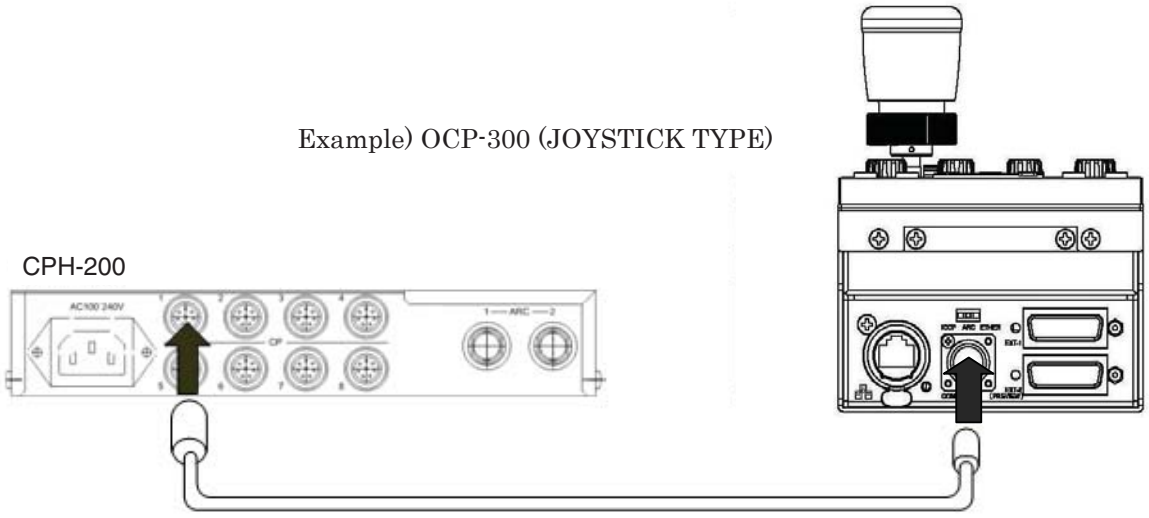
・Connection with CPH-200 (CP hub)

Connect it by a CP cable between OCP-300 and CPH-200 (CP hub).

Please connect CPH-200 to the CP connector and connect the control panel to the COMMAND connector.

The maximum length of the cable is 50 m. The minimum is 1 m.

Example) OCP-300 (JOYSTICK TYPE)

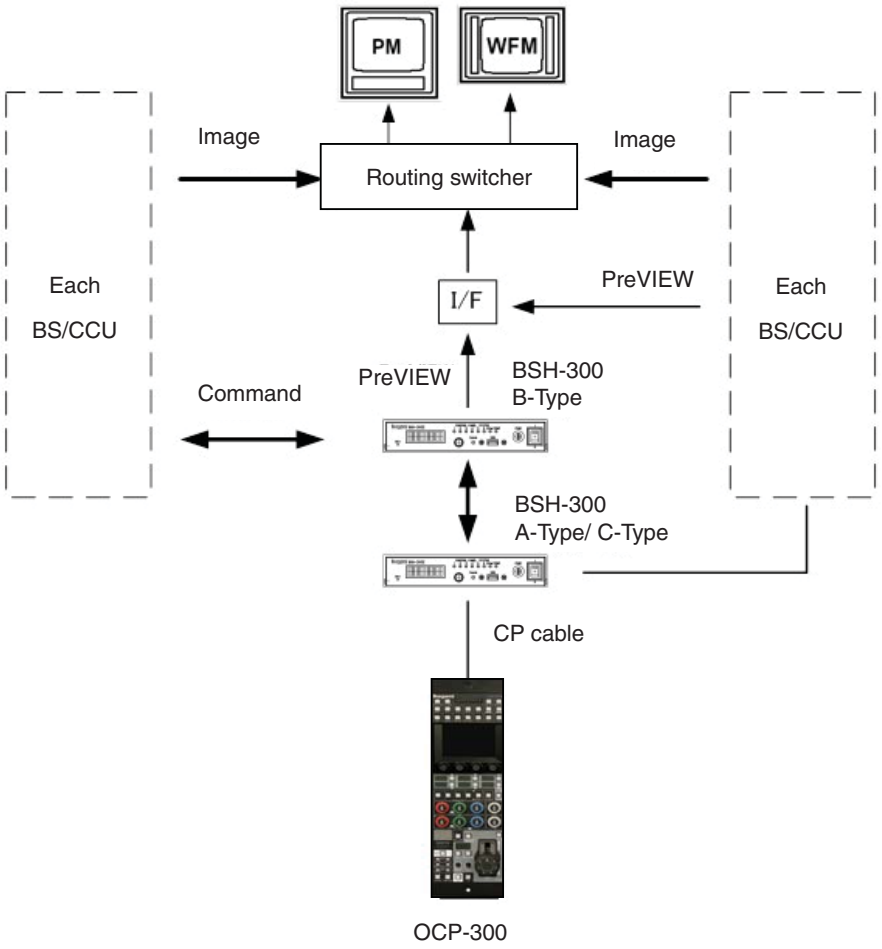


- Image linkage

  At the time of networking, a general-purpose image routing switcher can also be interlocked by using not the output of EXT-2 (PREVIEW) connector of OCP but the Preview output of each BS/CCU corresponding to network, and the Preview output of BS hub.

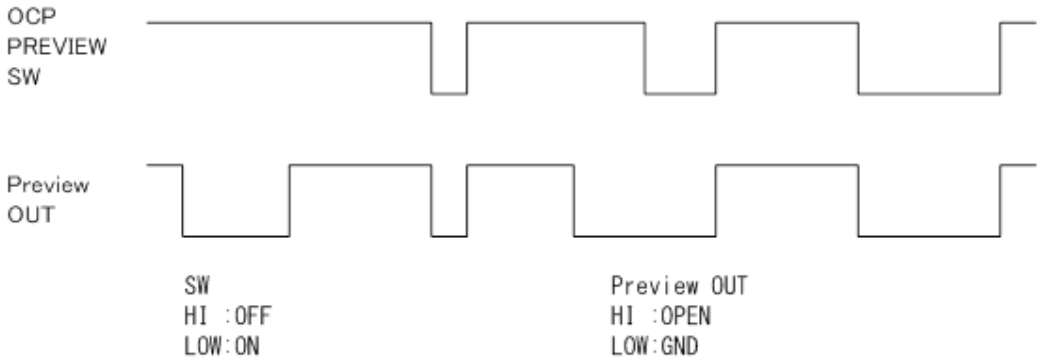
  Conversion of the interface etc. may be needed by the difference in control.

  BS/CCU corresponding to the camera network by which command connection was made or the Preview signal from BS hub is outputted when the PREVIEW switch of OCP is pressed. The video signal interlocked with the Preview switch can be obtained by using this signal and controlling the general-purpose routing switcher.



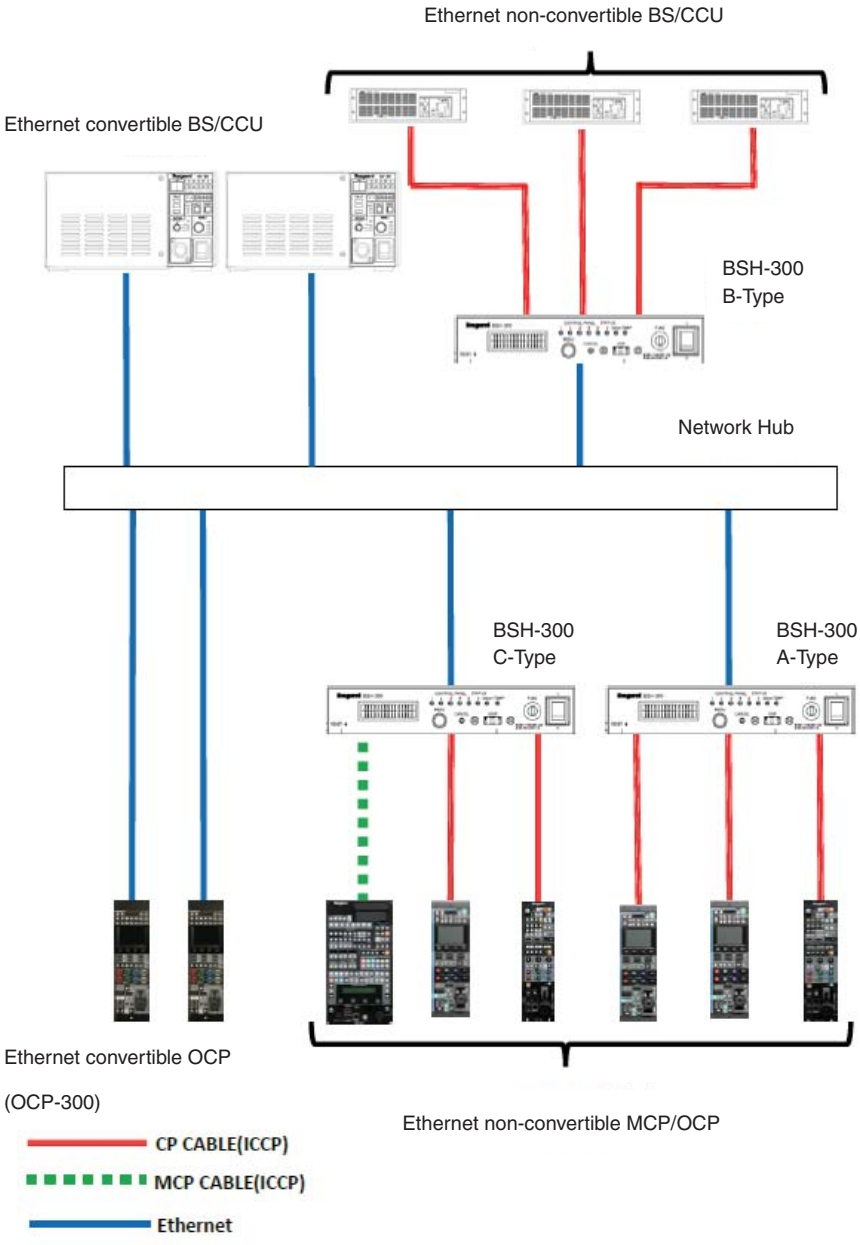
The Preview signal serves as parallel control of the PREVIEW switch operation by OCP and camera selection operation of MCP.

In the operation from OCP, it becomes ON while the PREVIEW switch is pressed, and if the switch is released, it will be set to OFF. They become complicated operation when they are used combined. Please take an interface after consulting the following timing chart.



3.2 Ethernet

3.2.1 Network Key Map



3.2.2 Ethernet Connection Method

There is the following form in Ethernet connection.

- Connect OCP-300, the Ethernet hub and BS/CCU corresponding to Ethernet with a straight LAN cable.

Note : If the Ethernet hub corresponds to POE+ (Power Over Ethernet), power supply provision is possible to OCP-300.

- When connecting OCP-300 and BS/CCU corresponding to Ethernet, connect them with a crossing LAN cable. At this time, for the power supply provision to OCP-300, connect the external power with BS/CCU by a COMMAND cable or connect it from D subconnector.

- It is necessary to set up IP Address, Subnet Mask and Default Gateway in OCP-300 at the time of Ethernet connection.

- The maximum cable length of the LAN cable is 100M. Please pass an Ethernet hub to connect it by more than 100M. In this case, the LAN cable to be used is a straight LAN cable.

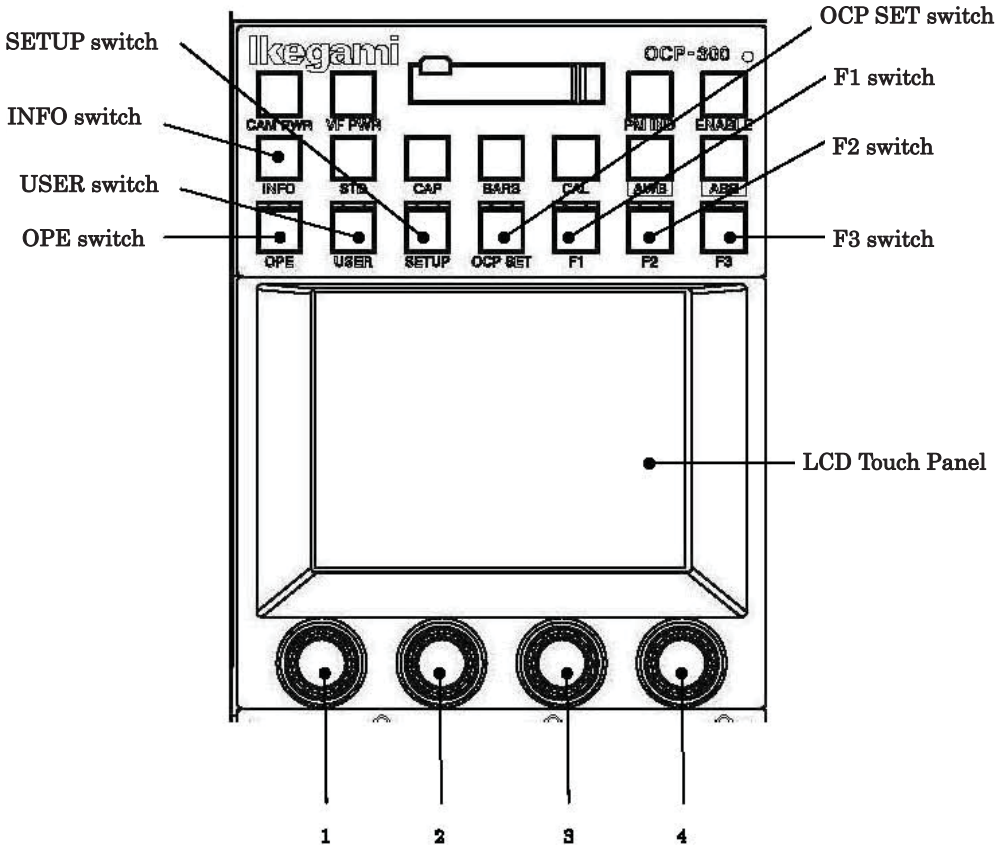
Reference : Please refer to "11.2 Setup of IP Address/Subnet Mask/Default Gateway" for the setup of IP Address, Subnet Mask and Default Gateway.

4. LCD Menu

OCP-300 has realized various functions with the menu and touch panel which are displayed on the LCD. The ON/OFF state confirmation of the camera function and the setup of various functions can be performed on the LCD by the switch and rotary encoder knob which are displayed on the screen.

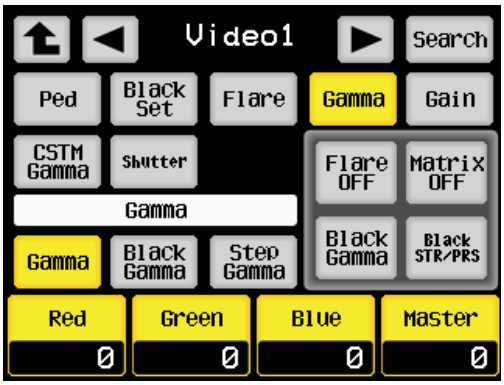
4.1 Basic Constitution and Basic Operation

Begin the operation of the LCD (menu) with the FUNCTION switch located on the top of the LCD. The FUNCTION switch is distinguished by the LCD (menu).



- INFO switch
  Displays information, such as the camera head and the ON/OFF established state of BS/CCU on the LCD.
- OPE switch
  Lets the LCD menu be in the mode suitable for operation.
- SETUP switch
  Displays the item in connection with camera adjustment on the LCD menu.
- OCP SET switch
  Displays the setting item of OCP on the LCD menu.
- USER switch
  Displays the selection switch which the user has set on the LCD. By registering the switch in advance, it can be called with this switch.
- F1, F2, F3 and F4 switches
  Displays the screen which the user has set on the LCD. By registering the screen into each switch in advance, it can be called with these switches.

* In Joystick Type, F4 switch is on the right of the CALL switch, and in RE and VR Type, it is on the right of the FLARE CONT switch.



The functional display of the switch and rotary encoder knob currently displayed on the LCD is classified by color. It changes automatically according to the existence and status of the function of the connected camera head and BS/CCU.

Item	Background color	Status	
Switch	Yellow	Function ON	Special status
	Gray (light)	Function OFF	Normal operation state
	Gray (dark)	Function None	
Rotary encoder (Caution)	Yellow	Effective	
	Gray (light)	With no effect	

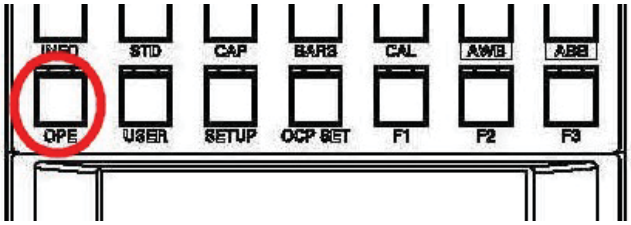
Caution: The background color of the rotary encoder part serves as a guide.
In an effectless display, operation with the rotary encoder knob may be possible according to the connected camera head, the type of BS/CCU and the function item. On the other hand, operation with the rotary encoder knob may not be possible in the effective display.

4.2 INFO

Displays the status, such as the camera head and the ON/OFF established state of BS/CCU on the LCD.

4.3 OPE

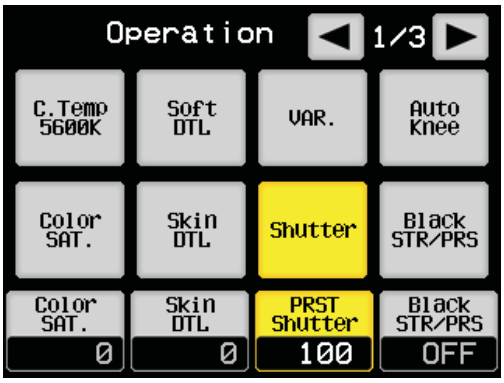
Although edit of adding and deleting an item is possible on the Operation screen, this clause describes the explanation at the time of initial setting.
Press the OPE switch by the FUNCTION switch on the top of the LCD.



A screen suitable for operation is displayed on the LCD.
The screen serves as 3 page configuration in the initial state and the ◀ ▶ switch on the top right of the screen can perform the change of the page.
The composition of the Operation screen is arbitrarily customizable and it is possible to create the composition of a maximum of 5 pages.

Reference: Please refer to "16. OPERATION Screen Setting" for customization.

1) Page 1



- **C.Temp 5600K**

  Turn on and off the electric color temperature filter 5600K.

- **Color SAT.**

  Turn on and off the color saturation control.

  At the time of "ON", turn the rotary encoder knob 1 and control the level.

  Displays Control Data under an item.

- **Soft DTL**

  Turn on and off the soft DTL compensation.

- **Skin DTL**

  Turn on and off the skin DTL compensation.

  At the time of "ON", turn the rotary encoder knob 2 and control the level.

  Displays Control Data under an item.

- **VAR**

  Changes preset shutter mode and variable shutter mode.

- **Shutter**

  Turn on and off the electronic shutter.

  At the time of "ON", turn the rotary encoder knob 3 and control the shutter speed.

- **Auto Knee**

  Turn on and off the Auto Knee correction mode.

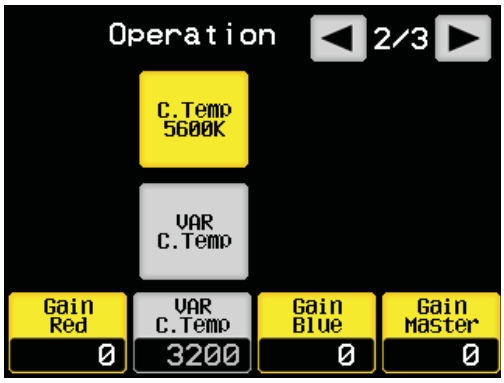
- **Black STR/PRS**

  Turn on and off the black stretch/press operation.

  At the time of "ON", turn the rotary encoder knob 4 and select the mode.

  Displays the mode under an item.

2) Page 2



- **Gain Red**

  Turn the rotary encoder knob 1 and control the level of R Gain.

- **C.Temp 5600K**

  Turn on and off the electric color temperature filter 5600K.

- **VAR C.Temp**

  Turn on and off the variable color temperature.

  At the time of "ON", turn the rotary encoder knob 2 and control the variable color temperature.

  Displays the color temperature under an item.

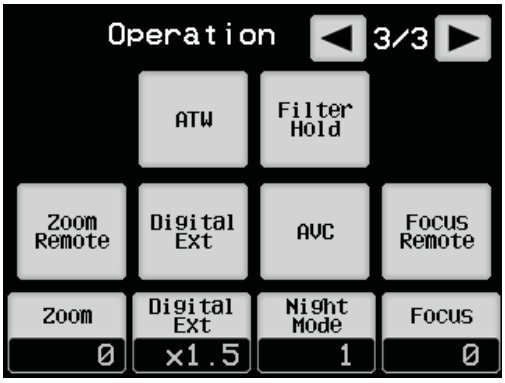
- **Gain Master**

  Turn the rotary encoder knob 3 and control the level of the master gain.

- **Gain Blue**

  Turn the rotary encoder knob 4 and control the level of B Gain.

3) Page 3



- **Zoom Remote**

  Turn on and off the remote of the zoom control of the lens at the time of serial lens connection.

  At the time of "ON", turn the rotary encoder knob 1 and control the zoom.
- **ATW**

  Turn on and off the automatic color temperature tailing function.
- **Digital EXT**

  Turn on and off the digital extender.

  Turn the rotary encoder knob 2 and control magnification.

  Displays magnification under the item.
- **Filter HOLD**

  Turn on and off the filter change invalidation function.
- **AVC**

  Turn on and off the automatic image level adjustment function.
- **Night Mode**

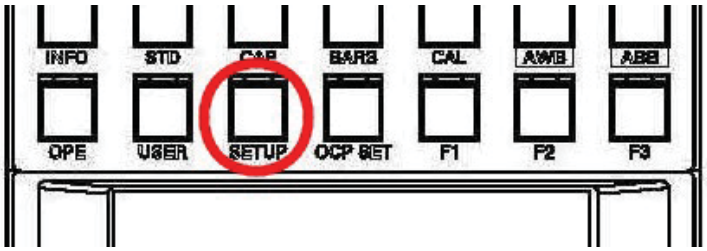
  When AVC is "ON", turn the rotary encoder knob 3 and switch the mode of AVC in a dark place.
- **Focus Remote**

  Turn on and off the remote of the focus control of the lens at the time of serial lens connection.

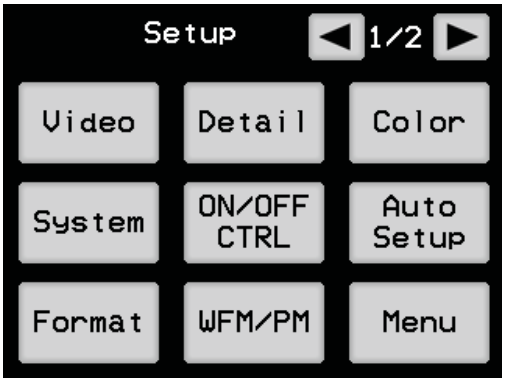
  At the time of "ON", turn the rotary encoder knob 4 and control the focus.

4.4 SETUP

Press the SETUP switch from the FUNCTION switch on the top of the LCD.

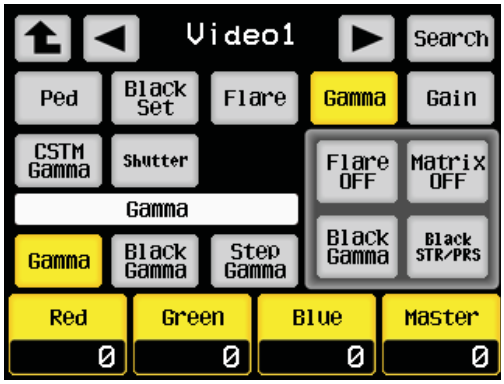


A screen as shown in the following figure is displayed on the LCD.
The screen serves as 2 page configuration. The switch ◀ ▶ on the top right of the screen can perform the change of the page.



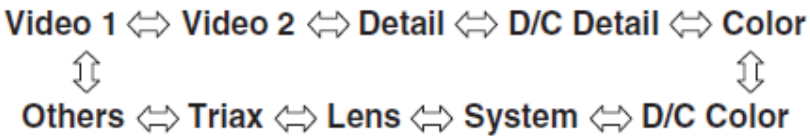
1) Video (Setup 1/2)

Pressing the VIDEO switch will display a screen as shown in the following figure.



Press the ↑ switch, when returning to the front screen.

The page can be switched as follows by pressing the ◀ ▶ switch.



Pressing any one selection switch of Ped, Black Set, Flare, Gamma, Gain, Flexible Mode and Shutter of Video1 will display the adjustment item on the white bar part. The sub selection switch control data or mode will be displayed on the bottom of it and the related ON/OFF switch on the right. Turn the rotary encoder knobs (RE) 1, 2, 3, and 4 and adjust it. The control data is the number expressed in percentage of -100 to +100 except for some items. (at the time of normal display mode).

Moreover, the deflection from the settings (or value adjusted automatically in auto setup mode) registered by the manual set by setup can also be displayed (at the time of offset display mode). It can be checked how much it is adjusted from the settings registered by the manual set at the time of this mode at a glance. When the display is "0", it means being in the registered established state.

The number becomes white at the time of normal display mode and the number becomes blue at the time of offset display mode.

Video1 screen 1/2

Selection	Sub selection	ON/OFF, Control item	Control content
Ped		Red/Green/Blue/Master	Pedestal adjustment
Black Set		Red/Green/Blue	Black set adjustment
		Gain Wobble	Gain wobbling ON/OFF
Flare		Red/Green/Blue/Master	Flare adjustment
		Flare OFF	Flare ON/OFF
		Matrix OFF	Matrix ON/OFF
		BLK Gamma	Black gamma ON/OFF
		BLK STR/PRS	Black stretch/press
Gamma	Gamma	Red/Green/Blue/Master	Gamma adjustment
		Flare OFF	Flare ON/OFF
		Matrix OFF	Matrix ON/OFF
		BLK Gamma	Black gamma ON/OFF
		BLK STR/PRS	Black stretch/press
	Black Gamma	Red/Green/Blue/Master	Black gamma adjustment
		Flare OFF	Flare ON/OFF
		Matrix OFF	Matrix ON/OFF
		BLK Gamma	Black gamma ON/OFF
		BLK STR/PRS	Black stretch/press
	Step Gamma	Gamma Step	Step gamma selection
		Gamma Mode	Gamma mode selection
		Flare OFF	Flare ON/OFF
		Matrix OFF	Matrix ON/OFF
		BLK Gamma	Black gamma ON/OFF
		BLK STR/PRS	Black stretch/press

A gray item is adjusted by the rotary encoder knob.

2/2

Selection	Sub selection	ON/OFF, Control item	Control content
Gain	Gain	Red/Green/Blue/Master	Gain adjustment
		W.Clip OFF	White clip ON/OFF
		Matrix OFF	Matrix ON/OFF
		Knee OFF	Knee ON/OFF
		DTL OFF	Detail ON/OFF
	AWB ch	AWB ch	The change of the AWB channel
		W.Clip OFF	White clip ON/OFF
		Matrix OFF	Matrix ON/OFF
		Knee OFF	Knee ON/OFF
		HEAD	Filter head ON/OFF
Flexible Mode		Width	Custom gamma width adjustment
		Point	Custom gamma positioning
		Level	The amount adjustment of custom gamma
		Gamma Mode	Custom gamma type change
		Zebra IND	Zebra ON/OFF
		Default Clear	The adjustment value of custom gamma is initialized.
		Gamma OFF	Gamma ON/OFF

A gray item is adjusted by the rotary encoder knob.

Video2 screen 1/2

Selection	Sub selection	ON/OFF, Control item	Control content
Black Shade	Red	H Saw/H para/V Saw/V para	Black shading adjustment
		Matrix OFF	Matrix ON/OFF
		B.Shade OFF	Black shading ON/OFF
		W.Shade OFF	White shading ON/OFF
	Green	H Saw/H para/V Saw/V para	Black shading adjustment
		Matrix OFF	Matrix ON/OFF
		B.Shade OFF	Black shading ON/OFF
		W.Shade OFF	White shading ON/OFF
	Blue	H Saw/H para/V Saw/V para	Black shading adjustment
		Matrix OFF	Matrix ON/OFF
		B.Shade OFF	Black shading ON/OFF
		W.Shade OFF	White shading ON/OFF
White Shade	Red	H Saw/H para/V Saw/V para	White shading adjustment
		W.Clip OFF	White clip ON/OFF
		Matrix OFF	Matrix ON/OFF
		Knee OFF	Knee ON/OFF
		W.Shade OFF	White shading ON/OFF
	Green	H Saw/H para/V Saw/V para	White shading adjustment
		W.Clip OFF	White clip ON/OFF
		Matrix OFF	Matrix ON/OFF
		Knee OFF	Knee ON/OFF
		W.Shade OFF	White shading ON/OFF
	Blue	H Saw/H para/V Saw/V para	White shading adjustment
		W.Clip OFF	White clip ON/OFF
		Matrix OFF	Matrix ON/OFF
		Knee OFF	Knee ON/OFF
		W.Shade OFF	White shading ON/OFF

A gray item is adjusted by the rotary encoder knob.

2/2

Selection	Sub selection	ON/OFF, Control item	Control content
WHT Clip		Red/Green/Blue	White clip adjustment
		W.Clip OFF	White clip ON/OFF
		Matrix OFF	Matrix ON/OFF
		Knee OFF	Knee ON/OFF
		Auto Knee	Auto Knee ON/OFF
Knee	Point	Red/Green/Blue/Total	Knee point adjustment
		W.Clip OFF	White clip ON/OFF
		Matrix OFF	Matrix ON/OFF
		Knee OFF	Knee ON/OFF
		Auto Knee	Auto Knee ON/OFF
	Slope	Red/Green/Blue/Total	Knee Slope adjustment
		W.Clip OFF	White clip ON/OFF
		Matrix OFF	Matrix ON/OFF
		Knee OFF	Knee ON/OFF
		Auto Knee	Auto Knee ON/OFF
	Others	Smooth Knee	Smooth Knee Select
		Super Knee	Super Knee Select
		W.Clip OFF	White clip ON/OFF
		Matrix OFF	Matrix ON/OFF
		Knee OFF	Knee ON/OFF
		Auto Knee	Auto Knee ON/OFF

A gray item is adjusted by the rotary encoder knob.

2) Detail, D/C Detail (Setup 1/2)

The following operation will be possible if it is moved to the Detail or D/C Detail screen. Basic operation is the same as the Video screen. The D/C Detail screen works only when it is connected with the camera head and BS/CCU having a down converter.
Moreover, Hi-Light works only at the time of Detail screen selection.

1/2

Selection	Sub selection	ON/OFF, Control item	Control content
DTL (D/C DTL)	DTL 1	Gain	Detail gain adjustment
		FREQ.	Detail boost frequency adjustment
		B↔W	Detail black-and-white balance adjustment
		Balance	Detail balance adjustment
		Diagonal DTL	Diagonal detail ON/OFF
		DTL OFF	Detail ON/OFF
		Slim DTL	Slim detail ON/OFF
	DTL 2	Thresh	Detail thresh adjustment
		Fine	Fine detail adjustment
		Noise SUP.	Noise suppress adjustment
		Z.TrackGain	Zoom track detail adjustment
		Z. Track DTL	Zoom track detail ON/OFF
		DTL OFF	Detail ON/OFF
Soft (D/C Soft)		White SUP.	White suppress adjustment
		Black SUP.	Black suppress adjustment
		DTL OFF	Detail ON/OFF
		Soft DTL	Soft detail ON/OFF

A gray item is adjusted by the rotary encoder knob.

2/2

Selection	Sub selection	ON/OFF, Control item	Control content
Skin (D/C Skin)	Gain	Gain	Skin detail gain adjustment
		R Hue	Rch Hugh adjustment
		B Hue	Bch Hugh adjustment
		Z. Track Gain	Zoom track skin detail
		Zebra IND.	Zebra indicator ON/OFF
		Z.Track Skin	Zoom track skin detail ON/OFF
		DTL OFF	Detail ON/OFF
		Skin DTL	Skin detail ON/OFF
	Skin Hue	Hue Marker	Hue marker ON/OFF
		AHD Start	AHD start
		DTL OFF	Detail ON/OFF
		Skin DTL	Skin detail ON/OFF
Color (D/C Color)	Level	Gain	Color detail adjustment
		DTL OFF	Detail ON/OFF
		Color DTL	Color detail ON/OFF
	Object Clip	Size	Hue marker size adjustment
		H POS.	Hue marker H positioning
		V POS.	Hue marker V positioning
		Hue Marker	Hue marker ON/OFF
		AHD Start	AHD start
		DTL OFF	Detail ON/OFF
		Color DTL	Color detail ON/OFF
	Clip ADJ.	Phase	Hue rough tuning
		Fine	Hue fine tuning
		Width1	Hue range 1 adjustment
		Width2	Hue range 2 adjustment
		Key INV.	Key reversal
		Zebra IND.	Zebra indicator ON/OFF
		DTL OFF	Detail ON/OFF
		Color DTL	Color detail ON/OFF
HI-Light		Gain	Highlight detail gain
		Limit	Highlight detail limit
		DTL OFF	Detail ON/OFF
		HI-Light DTL	Highlight detail ON/OFF

A gray item is adjusted by the rotary encoder knob.

3) Color, D/C Color (Setup 1/2)

The following operation will be possible if it is moved to Color or D/C Color screen. Basic operation is the same as the Video screen. The D/C Color screen works only when it is connected with the camera head having a down converter and BS/CCU.

Moreover, Custom Color 1, Custom Color 2, Color CORR, Color Temp and Color Hue work only at the time of Color screen selection.

1/3

Selection	Sub selection	ON/OFF, Control item	Control content
Matrix (D/C matrix)	Red	R-G	R-G adjustment
		R-B	R-B adjustment
		Matrix Select	Matrix selection
		Matrix OFF	Matrix ON/OFF
	Green	G-R	G-R adjustment
		G-B	G-B adjustment
		Matrix Select	Matrix selection
		Matrix OFF	Matrix ON/OFF
	Blue	B-R	B-R adjustment
		B-G	B-G adjustment
		Matrix Select	Matrix selection
		Matrix OFF	Matrix ON/OFF
Color SAT. (D/C C.SAT.)		Color SAT.	Color saturation adjustment
		Chroma OFF	Chroma ON/OFF
		Color SAT. ON/OFF	Color saturation ON/OFF

A gray item is adjusted by the rotary encoder knob.

Color, D/C Color screen 2/3

Selection	Sub selection	ON/OFF, Control item	Control content
Custom Color 1	Object Clip	Size	Hue marker size adjustment
		H POS.	Hue marker H positioning
		V POS.	Hue marker V positioning
		Hue Marker	Hue marker ON/OFF
		AHD Start	AHD start
		CSTM Color 1	Custom color 1 ON/OFF
	Clip ADJ.	Phase	Hue rough tuning
		Fine	Hue fine tuning
		Width1	Hue range 1 adjustment
		Width2	Hue range 2 adjustment
		Key INV.	Key reversal
		Zebra IND.	Zebra indicator ON/OFF
		CSTM Color 1	Custom color 1 ON/OFF
	Color	Hue	Hue adjustment
		SAT.	Saturation adjustment
		Value	Lightness adjustment
		DTL	Detail adjustment
		DTL OFF	Detail ON/OFF
		CSTM Color 1	Custom color 1 ON/OFF
Custom Color 2	Object Clip	Size	Hue size adjustment
		H POS.	Hue H positioning
		V POS.	Hugh V positioning
		Hue Marker	Hue marker ON/OFF
		AHD Start	AHD start
		CSTM Color 2	Custom color 2 ON/OFF
	Clip ADJ.	Phase	Hue rough tuning
		Fine	Hue fine tuning
		Width1	Hue range 1 adjustment
		Width2	Hue range 2 adjustment
		Key INV.	Key reversal
		Zebra IND.	Zebra indicator ON/OFF
		CSTM Color 2	Custom color 2 ON/OFF

	Color	Hue	Hue adjustment
		SAT.	Saturation adjustment
		Value	Lightness adjustment
		DTL	Detail adjustment
		DTL OFF	Detail ON/OFF
		CSTM Color 2	Custom color 2 ON/OFF

A gray item is adjusted by the rotary encoder knob.

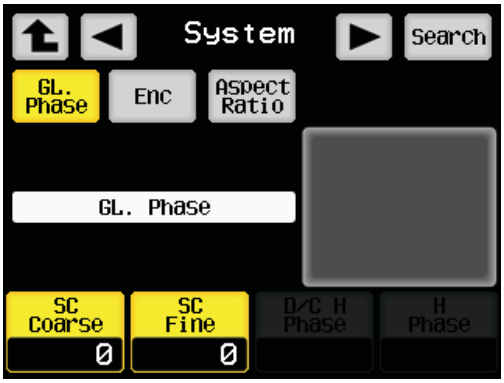
3/3

Selection	Sub selection	ON/OFF, Control item	Control content
Color CORR.	R / Yl	R Hue	Red Hue adjustment
		R SAT.	Red saturation adjustment
		Yl Hue	Yellow Hue adjustment
		Yl SAT.	Yellow saturation adjustment
		Color CORR.	Color corrector ON/OFF
	G / Cy	G Hue	Green Hue adjustment
		G SAT.	Green saturation adjustment
		Cy Hue	Cyan Hue adjustment
		Cy SAT.	Cyan saturation adjustment
		Color CORR.	Color corrector ON/OFF
	B / Mg	B Hue	Blue Hue adjustment
		B SAT.	Blue saturation adjustment
		Mg Hue	Magenta Hue adjustment
		Mg SAT.	Magenta saturation adjustment
		Color CORR.	Color corrector ON/OFF
Color Temp.		Red/Blue/Master	Gain adjustment
		VAR C.Temp	Variable color temperature adjustment
		ATW	ATW ON/OFF
		Matrix OFF	Matrix ON/OFF
		C.Temp 5600K	C.Temp 5600K ON/OFF
		VAR C.Temp	Variable color temperature ON/OFF
Color Hue		Color Hue	Color hue adjustment
		Color Hue ON/OFF	Color hue ON/OFF

A gray item is adjusted by the rotary encoder knob.

4) System (Setup 1/2)

The adjustment item concerning the system is arranged.



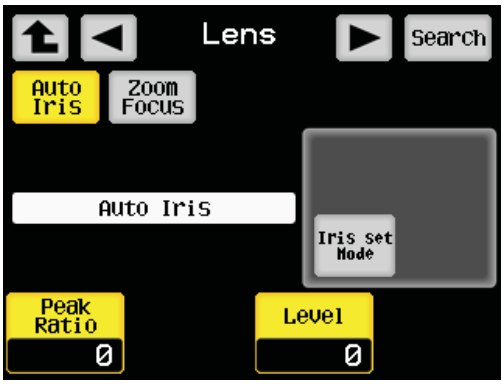
System

Selection	ON/OFF, Control item	Control content
GL. Phase	SC Coarse	SC rough tuning
	SC Fine	SC fine tuning
	D/C H Phase	Down converter H phase adjustment
	H Phase	H phase adjustment
ENC	Gain	ENC gain adjustment
	Chroma	Chroma adjustment
Aspect Ratio	Mode Select	Angle-of-view selection of SDTV

A gray item is adjusted by the rotary encoder knob.

5) Lens

The adjustment item concerning the lens is arranged.



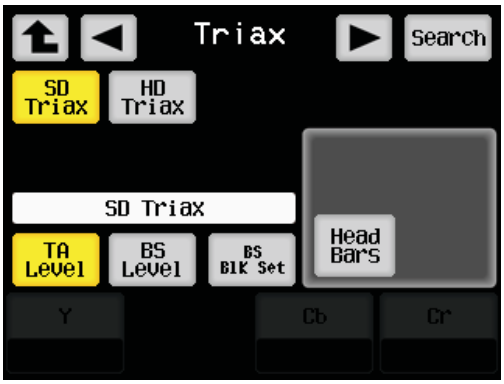
Lens

Selection	ON/OFF, Control item	Control content
Auto Iris	Peak Ratio	Peak ratio adjustment
	Level	Iris level adjustment
	Iris Set Mode	Iris set mode ON/OFF
Zoom Focus	Zoom	Zoom adjustment
	Focus	Focus adjustment
	Zoom Remote	Zoom remote ON/OFF
	Focus Remote	Focal remote ON/OFF

A gray item is adjusted by the rotary encoder knob.

6) Triax

The adjustment item concerning Triax is arranged.



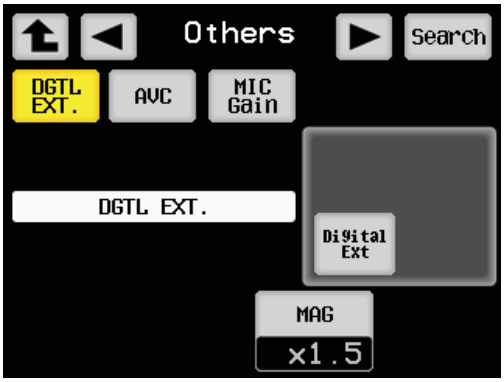
Triax

Selection	Sub selection	ON/OFF, Control item	Control content
SD Triax	TA Level	Y/Cb/Cr	TA level adjustment
		Head Bars	Head Bars ON/OFF
	BS Level	Red/Green/Blue	BS level adjustment
		Head Bars	Head Bars ON/OFF
	BS BLK Set	Red/Green/Blue	BS black set adjustment
		Head Bars	Head Bars ON/OFF
HD Triax	TA Level	Y/Pb/Pr	TA level adjustment
		Head Bars	Head Bars ON/OFF
	TA Black	Y/Pb/Pr	TA black adjustment
		Head Bars	Head Bars ON/OFF

A gray item is adjusted by the rotary encoder knob.

7) Others

The adjustment item with comparatively low frequency in use is arranged.



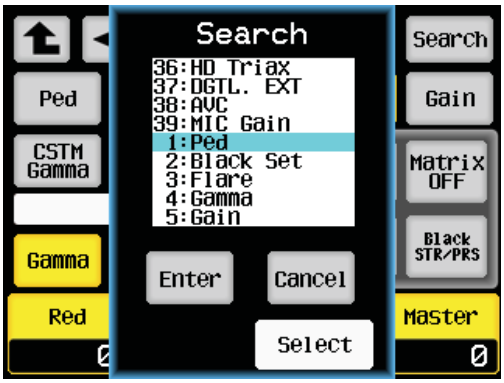
Others

Selection	ON/OFF, Control item	Control content
DGTL. EXT.	MAG	Digital extender magnification change
	Digital EXT	Digital extender ON/OFF
AVC	Night Mode	AVC night mode change
	AVC	AVC ON/OFF
	Filter Hold	Filter change invalidity ON/OFF
MIC	MIC1 Fine	Adjust the output of MIC1.
	MIC1Step	Preset change of the output of MIC1.
	MIC2 Fine	Adjust the output of MIC2.
	MIC2 Step	Preset change of the output of MIC2.

A gray item is adjusted by the rotary encoder knob.

8) Search

Search Window can be displayed when the Search button on the top right of Video 1 - Others is pressed.

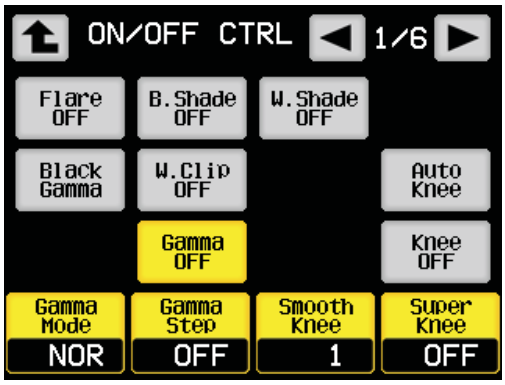


The name of each selection switch shown on the screen of Video1 - Others can be changed when the rotary encoder 3 is operated in the status where Search Window is open, and if the Enter switch is pressed under the name of the selection switch currently looked for, Search Window closes and switches to the screen on which the selected switch is.

9) ON/OFF CTRL (Setup 1/2)

If ON/OFF CTRL is pressed, selection of ON/OFF of the function to which the camera head and BS/CCU correspond can be performed. It has 6 page configuration according to the function and item. The ◀ ▶ switch on the top right of the screen can perform the change of the page.

It can return to the Setup screen with the ⬑ switch.



Note: When it has been moved to the ON/OFF CTRL screen by the direct jump function from the information screen, it can return to the information screen with the ⬑ switch.

When the ◀ ▶ switch is pressed and the page is changed, it returns to the Setup screen instead of the information screen.

ON/OFF CTRL 1/3

Page	ON/OFF, Control item	Control content
1/6	Flare OFF	Flare ON/OFF
	Gamma OFF	Gamma ON/OFF
	BLK Gamma	Black gamma ON/OFF
	B.Shade OFF	Black shading ON/OFF
	W.Shade OFF	White shading ON/OFF
	W.Clip OFF	White clip ON/OFF
	Knee OFF	Knee ON/OFF
	Auto Knee	Auto Knee ON/OFF
	Gamma Mode	Gamma mode select
	Gamma Step	Gamma selection
	Smooth Knee	Smooth Knee selection
	Super Knee	Super Knee selection
2/6	DTL OFF	Detail ON/OFF
	Soft DTL	Soft detail ON/OFF
	Skin DTL	Skin detail ON/OFF
	Slim DTL	Slim detail ON/OFF
	Diagonal DTL	Diagonal detail ON/OFF
	Z.Track DTL	Zoom track detail ON/OFF
	Z.Track Skin	Zoom track skin detail ON/OFF
	Color DTL	Color detail ON/OFF
	Hi-Light DTL	Highlight detail ON/OFF

A gray item is adjusted by the rotary encoder knob.

ON/OFF CTRL 2/3

Page	ON/OFF, Control item	Control content
3/6	Color SAT.	Color saturation ON/OFF
	Chroma OFF	Chroma ON/OFF
	Color CORR.	Color corrector ON/OFF
	C.Temp 5600K	Electric color-temperature-correction 5600-degree ON/OFF
	CSTM Color 1	Custom color 1 ON/OFF
	CSTM Color 2	Custom color 2 ON/OFF
	Matrix OFF	Matrix ON/OFF
	ATW	ATW ON/OFF
	VAR C.Temp	Variable color temperature ON/OFF
	Matrix Select	Matrix selection
4/6	Diascope	Diascope ON/OFF
	Test Pulse	Test pulse ON/OFF
	Super V	Super V ON/OFF
	Shutter	Electronic shutter ON/OFF
	VAR.	Variable shutter ON/OFF
	Black STR/PRS	Black stretch/press ON/OFF
	Color HUE	Color Hue ON/OFF
	Lens File No.	Lens file number selection
	Super V	Super V selection
	Shutter	Electronic-shutter-speed selection
	Black STR/PRS	Black stretch/press selection

A gray item is adjusted by the rotary encoder knob.

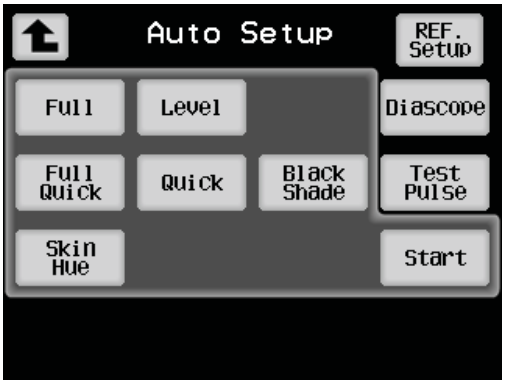
ON/OFF CTRL 3/3

Page	ON/OFF, Control item	Control content
5/6	Head	Filter head ON/OFF
	Filter Hold	Filter hold ON/OFF
	AVC	AVC ON/OFF
	ND Filter	ND filter change
	CC Filter	CC filter change
	EFF Filter	Effect filter change
	Night Mode	Night mode change
6/6	Zoom Remote	Zoom remote ON/OFF
	Focus Remote	Focal remote ON/OFF
	Digital EXT.	Digital extender ON/OFF
	Head	AWB channel head ON/OFF
	MAG	Digital extender magnification
	AWB ch	AWB channel change
	Gain	Step gain change

A gray item is adjusted by the rotary encoder knob.

10) Auto Setup (Setup 1/2)

Auto setup of the camera (automatic adjustment) can be performed by pressing the Auto Setup switch.



- **Full (Full Auto Setup)**

  All auto setup items are performed and the camera is initialized. Mainly it is performed at the time of maintenance check.

- **Level (Level Auto Setup)**

  Carries it out by auto setup of the image level at the time of operation every day.

- **Full Quick (Full Quick Auto Setup)**

  Does not use a chart because a built-in electrical signal is used. The camera can be set up even when the chart cannot be photoed. Since there are many adjustment items compared with Quick Auto Setup, it requires time.

- **Quick (Quick Auto Setup)**

  Does not use a chart because a built-in electrical signal is used. The camera can be set up even when the chart cannot be photoed.

- **Black Shade (Auto Black Shade)**

  Adjusts Black Shade automatically.

- **Skin Hue (Auto Hue Detect)**

  Acquires automatically the hue which operates SKIN DTL.

Please select the item with the switch and press the start switch. Moreover, please turn on and off "Test Pulse" and "Diascope" if needed.

When the auto setup is set to NG, the START switch blinks. It can be canceled by pressing again. Moreover, the auto setup can be stopped by pressing it during execution. In addition, Quick Auto Setup can be performed by long pressing of the AWB switch and Auto Black Shade the ABB switch, respectively.

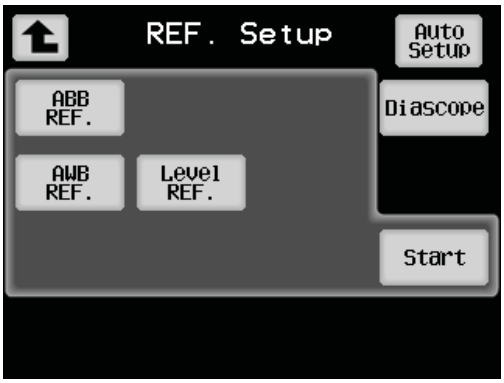
Caution Performs Color DETAIL and the Auto Hue Detect function of Custom Color 1/2 on each adjustment screen.
In old BS/CCU, a different display may be done on the execution screen on PM at the time of Full Quick Auto Setup.

Reference: For the contents of each auto setup, please refer to the operation manual of the camera to be used.

11) REF. Setup

Pressing the REF. Setup switch on the top right of the Auto Setup screen will display the REF.Setup screen. (If the Auto Setup switch on the top right of the REF.Setup screen is pressed, it will return to the Auto Setup screen)

Creates and updates the reference file which is a convergence value of the auto setup of the camera.



- **Level REF.**

  Creates the reference data of the auto setup.

- **ABB REF.**

  Creates the reference data of PEDESTAL at the time of ABB. It is common to the reference data of PEDESTAL of the auto setup.

- **AWB REF.**

  Creates the reference data of GAIN at the time of AWB. It is independent of the reference of the auto setup.

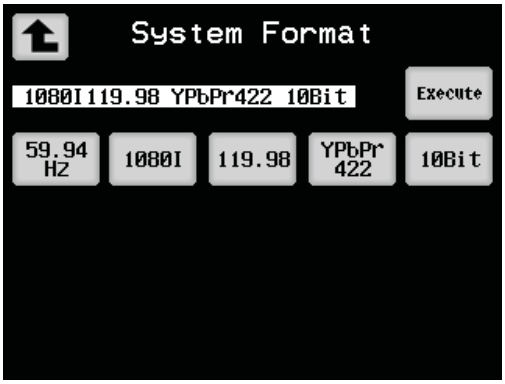
Please select the item with the switch and do long press of the start switch. Moreover, please turn on and off "Diascope" if needed.

When the reference setup is set to NG, the START switch blinks. It can be canceled by pressing it again. Moreover, the reference setup can be stopped by pressing it during execution.

12) System Format (Setup 1/2)

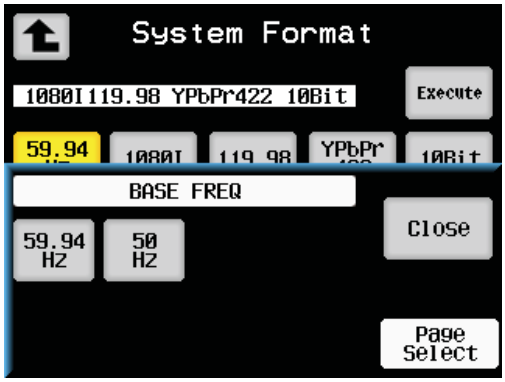
If it is moved to the System Format screen, the connected camera and the video image format which becomes the main of BS/CCU can be changed.

If the camera which does not correspond to the video image format change function from OCP-300 and BS/CCU are connected and the Format button of the Setup screen is pressed, an error sound sounds and it cannot move to the System Format screen.



If it moves to the System Format screen, the contents of the camera currently connected with the white belt and the video image format used as the BS/CCU main will be displayed.

Pressing the selection button on the screen will display Window where the status concerning the video image format can be set up.

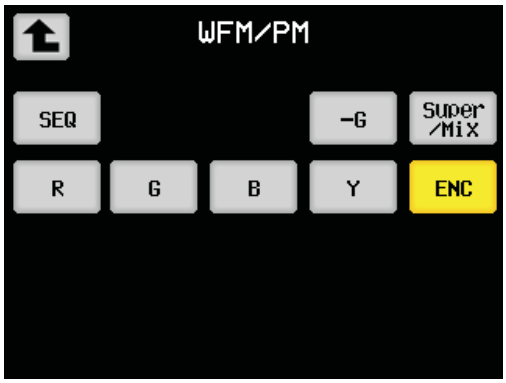


The selection switches are buttons which can set up [BASE FREQ], [IMAGE SIZE], [FIELD FREQ], [SUB SAMPLING] and [SAMPLING BIT] from the left.

If Window is displayed, the button on which the selectable setup of the connected device is indicated is displayed. If the button is pressed, Window will close and it becomes the display of the status which the display of the selection switch has set up. If the status of the video image format to set up is determined, the connected camera and the BS/CCU will be rebooted, and it will switch to the set-up video image format if the Execute switch on the top right of the screen is pressed.

13) WFM/PM (Setup 1/2)

If WFM/PM is pressed, the signal of the camera head, the WFM (Waveform Monitor) output of BS/CCU and PM output can be selected.

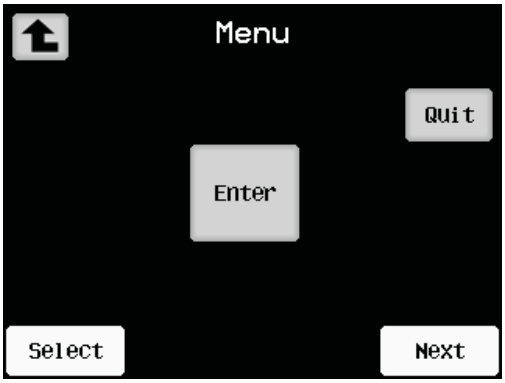


"R", "G", "B", "Y", "ENC" and "-G" can be outputted to the WFM output and PM output (however, there are also devices which do not correspond to -G). When "SEQ" is selected, 3 waves of R, G and B are outputted as the WFM output. PM output holds the output before selecting. To display 3 waves on the waveform monitor, it is necessary to connect the WFM REMOTE connector and waveform monitor of BS/CCU by a WFM remote cable.

When Super/Mix is "ON", the selected signal is outputted to PM and WFM. Moreover, if "OFF", only the signal of one channel is outputted to PM and WFM by latter pressing priority. However, this switch operates only when it is connected with BS/CCU. It becomes "off" if the camera is not connected to BS/CCU (at the time of self-contain operation).

14) Menu (Setup 1/2)

The main menu will be displayed if long pressing of the Menu switch is done.



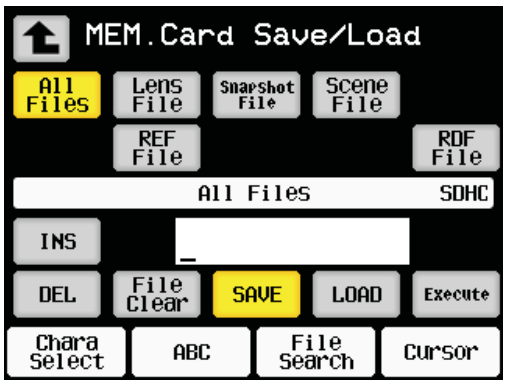
At the time of BS/CCU connection, the menu operations for the function settings of BS/CCU can be performed.

The menu operation of the camera head can be performed at the time of camera head connection.

Turn the Select knob or Next knob, set the blink cursor to the target item and determine it by the Enter switch.

15) Memory Card (Setup 2/2)

If it moves to the MEM.Card Save/Load screen, SAVE/LOAD of the various files concerning the connected camera and BS/CCU will be performed to the SD card inserted in the card slot of OCP-300.



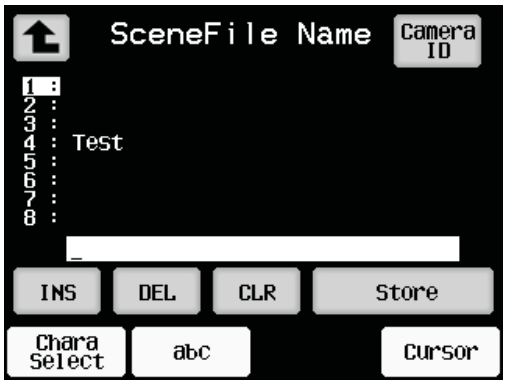
16) Name Entry (Setup 2/2)

◆ **Scene File**

If the Name Entry switch is pressed, it moves to the SceneFile Name screen and the name can be registered into each scene file.

Since the registered name can always be displayed on PM, you can perform the check of on what kind of scene each scene file is set.

Only the LCD of the panel is possible for registration.



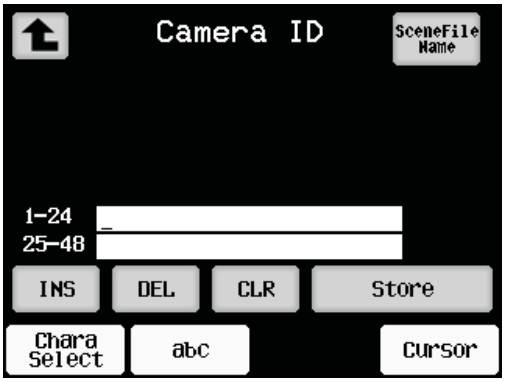
◆ **Camera ID**

If the Camera ID switch on the top right of the SceneFile Name screen is pressed, it will move to the Camera ID screen. (If the SceneFile Name switch on the top right of the Camera ID screen is pressed, it will move to the SceneFile Name screen)

Camera ID can be registered on this screen.

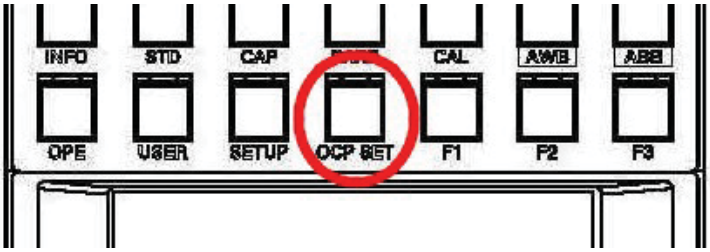
Registered Camera ID can always be displayed on PM. By inputting the camera name, cameraman's name, etc., VE (video engineer) can know which camera the image currently displayed belongs to at a glance.

Only the LCD of the panel is possible for registration.

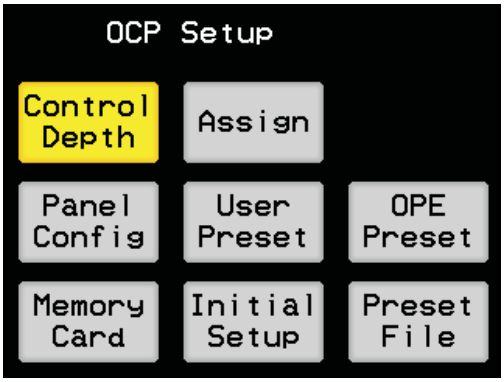


4.5 OCP Setup

Press the OCP SET switch from the FUNCTION switch on the top of the LCD.

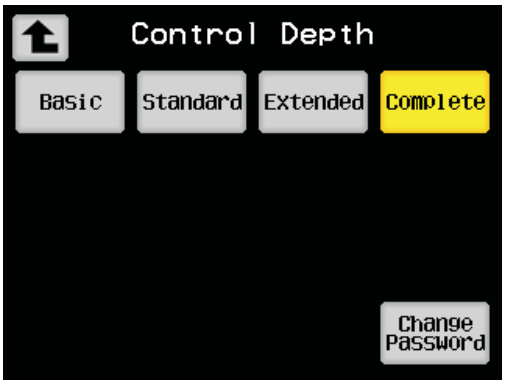


A screen as shown in the following figure will be displayed on the LCD.



1) Control Depth

OCP-300 can set up the operation range. The setting range is protected by a password.

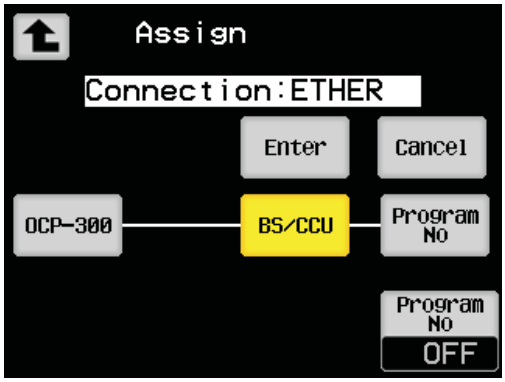


Reference: For details, please refer to a "12.1. Operation Delimitation Function."

2) Assign

The program number of the camera for program operation can be set up.

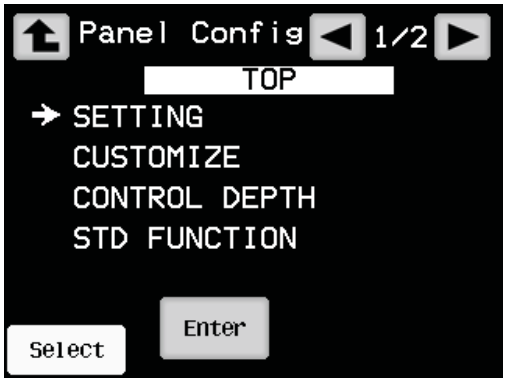
Moreover, set up the number of BS/CCU to connect at the time of network connection.



Reference: For details, please refer to "11 Setup of Panel Assignment and the Program number."

3) Panel Config

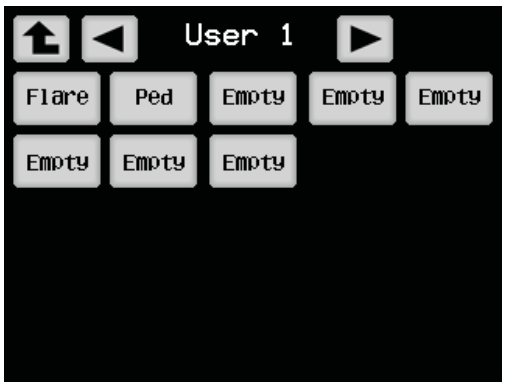
OCP-300 can carry out setting and changing the specification according to the system to be used and user-friendliness.



Reference: For details, please refer to "21 Panel config (Setup of the Panel)."

4) User Preset

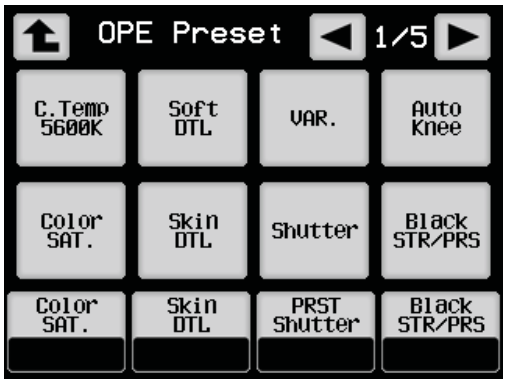
Perform a setup when FUNCTION switch USER on the top of the LCD is pressed.



Reference: For details, please refer to "15 USER Menu."

5) OPE Preset

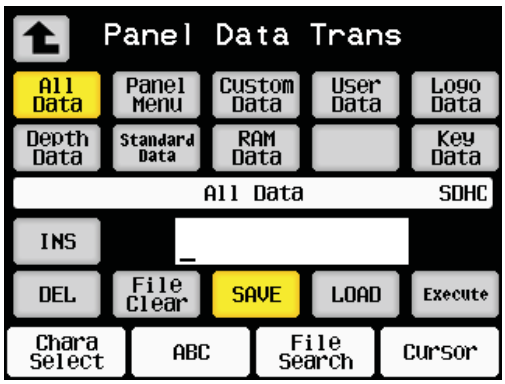
Performs a setup when the FUNCTION switch OPE on the top of the LCD is pressed.



Reference: For details, please refer to "16 OPERATION Screen Setting."

6) Memory Card

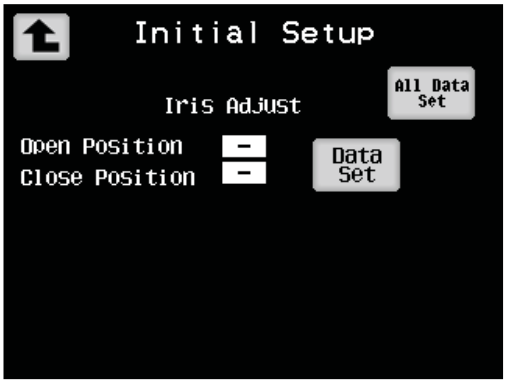
Panel data can be saved on an SD memory card, and it can be read if needed. It comes to simplify not only saving as backup data but copying the data created by one set to other OCPs or to be able to have different data for a program and video engineer.



Reference: For details, please refer to "17 Saving Method of the Setting of the Control Panel."

7) Initial Setup

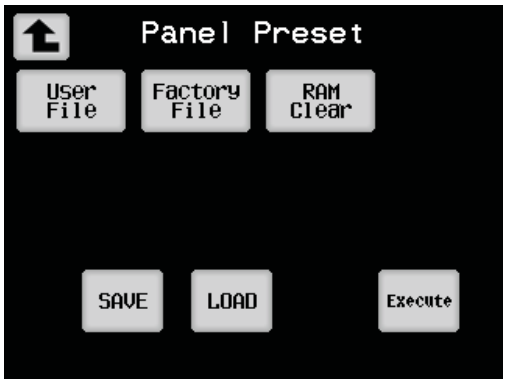
Sets up the position of the OPEN edge of Iris and the position of the CLOSE edge.



Reference: For details, please refer to "18 IRIS Positioning Function."

8) **Panel Preset**

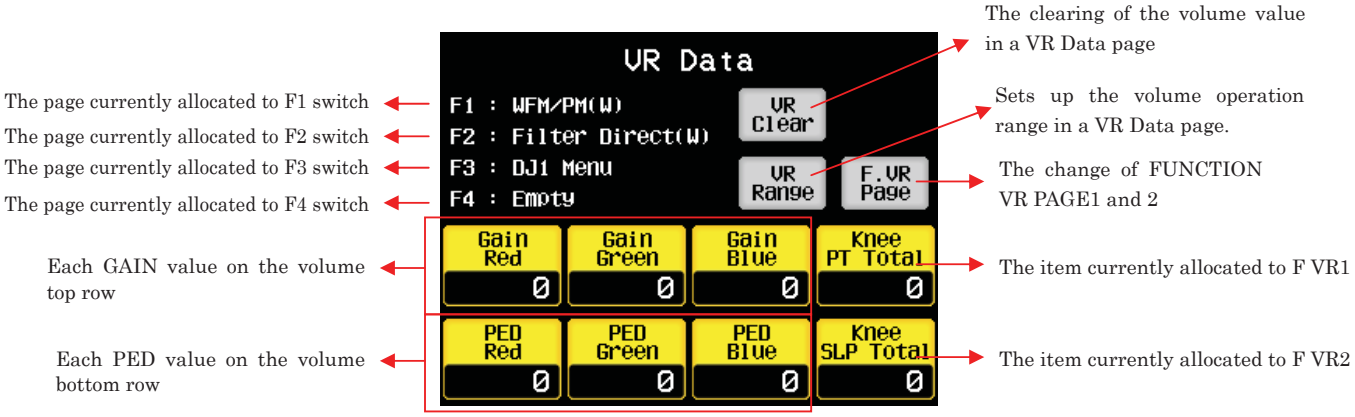
The panel data can be SAVE/LOAD as a preset file. Moreover, it is also possible to initialize all the setups by RAM Clear.



Reference: For details, please refer to "17.2 Saving Method of the Setting in the Main Part of the Control Panel."

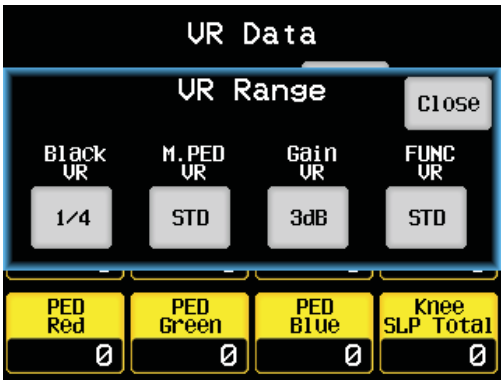
4.6 VR Data

OCP-300 displays the contents of the FUNCTION switch currently assigned, and the status of main part volume when no LCD are selected.



With the switch on the top right of the LCD, the [VR Clear] switch can clear the adjustment value of the volume on the screen by long pressing. [F.VR Memory] switch changes the function of F.VR1 and F.VR2 which were set up arbitrarily. Pressing [VR Range] switch will display VR Range Window which sets up the variable range of each volume.

Reference: Please refer to "21.2.3 FUNCTION VR" for the function assignment of F.VR1 and F.VR2.



If Window is displayed, the variable range of the corresponding volume can be changed by pressing each switch.

Variable range which can be set up by VR Range

Setting items	Selections	Functional description
Black VR	STD,1/2,1/4,1/8,1/16	The change of the variable range of PED/FLARE
M.PED VR	STD,1/2,1/4,1/8,1/16	The change of the variable range of M PED
Gain VR	1.5dB,3dB,6dB	The change of the variable range of GAIN
FUNC VR	STD,1/2,1/4,1/8,1/16	The change of the variable range of F.VR1 and F.VR2

"STD" is a variable range of ±100 on the panel notation, and the variable quantity can be narrowed from this range.

5. Operation of the Control Knob

5.1 Camera Data Adjustment

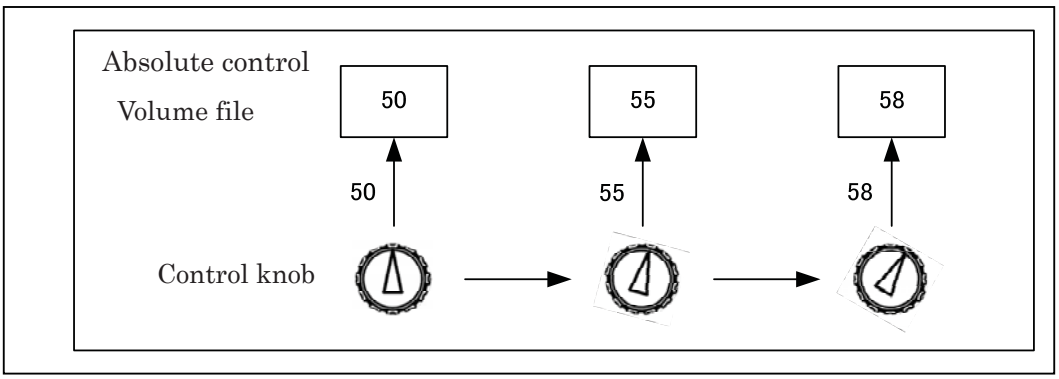
There are generally two types of data control of the camera, which are the absolute control and the relative control.

(There are data control of the camera head and BS/CCU; however, we will use the term "camera" for both data controls in this manual for convenience.)

1) Absolute Control

Conventionally, this control is applied to the OCP/RCP. When the control knob is operated, the variation of the potentiometer is converted from analog to digital, and the data is transferred to the camera. The camera volume file is rewritten according to the transferred data (absolute data).

The value of the sending data is determined according to the turned angle of the control knob. Therefore, the knob operation and the movement match to each other, and it provides the good operation feeling.



Several control panels for the absolute control cannot be connected at the same time.

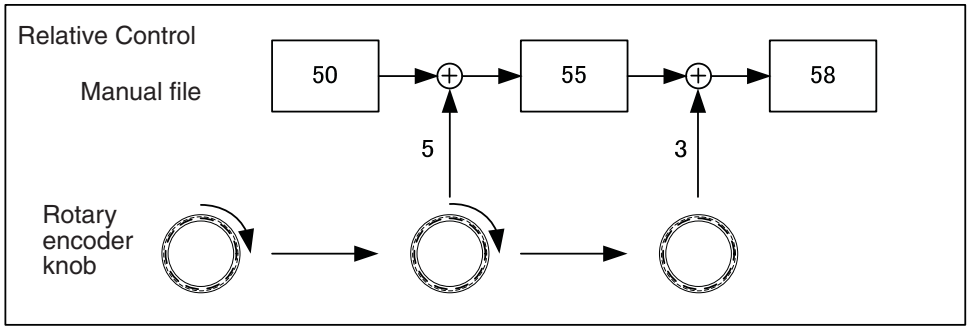
2) Relative Control

Conventionally, this control is applied to the MCP. When the rotary encoder knob is operated, the pulse is output in proportion to the turning angle. The CPU counts the number of pulses within the specified time and sends the counted number as the data.

Turning clockwise provides the positive data, and turning counterclockwise provides the negative data (relative).

The sent data (relative data) is added to the camera manual file.

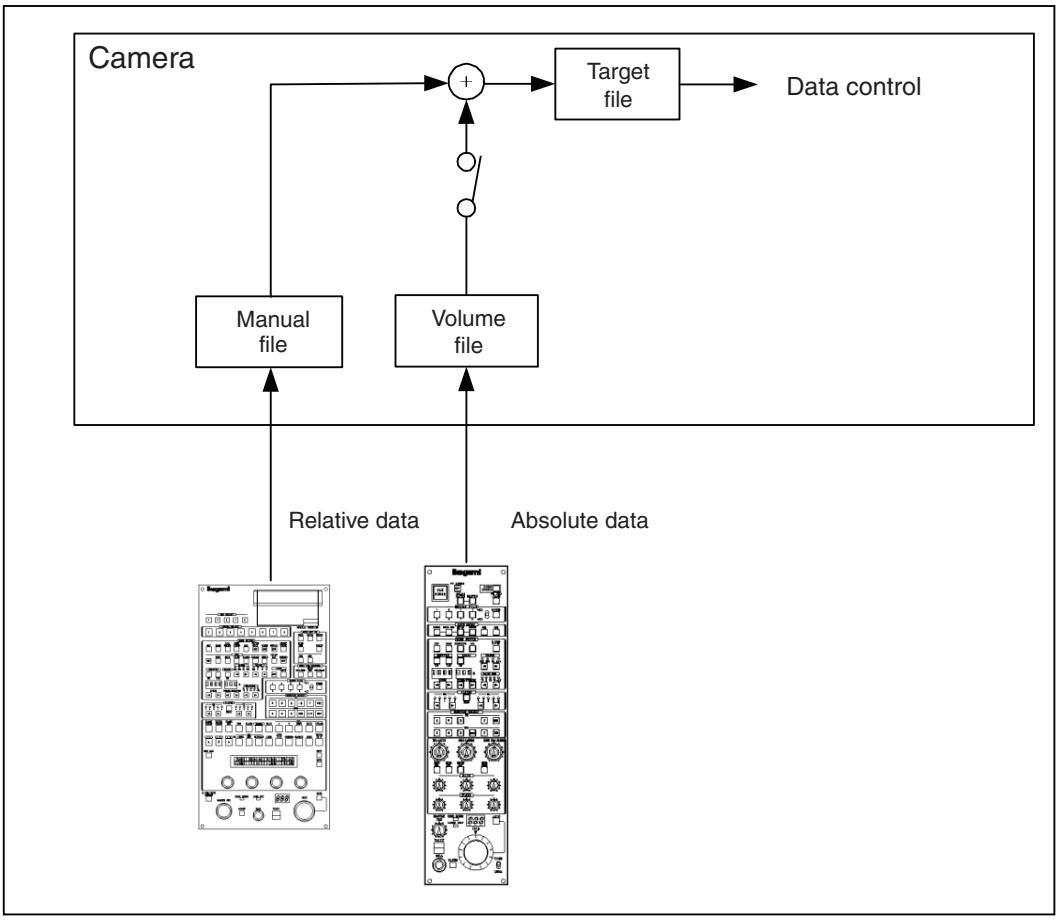
When operating the rotary encoder knob, the amount of sending data varies according to the turning speed. When the knob is turned quickly, the device recognizes as the coarse adjustment, causing the large amount of data. When the knob is turned slowly, the device recognizes as the fine adjustment, causing the small amount of data. The operability is improved with this system.



Several control panels for the relative control can be connected at the same time.

3) Camera Data Processing

The camera calculates the volume file and the manual file according to the sent relative data and absolute data respectively. The camera controls the data by using the target file, of which the volume file, manual file, and other files are added. (Actually, there are many kinds of files. However, the following figure is using the volume file, the manual file, and the target file as representatives for convenience.)



4) Advantages and Disadvantages of the Absolute Control and the Relative Control

Both absolute control and relative control have advantages and disadvantages respectively.

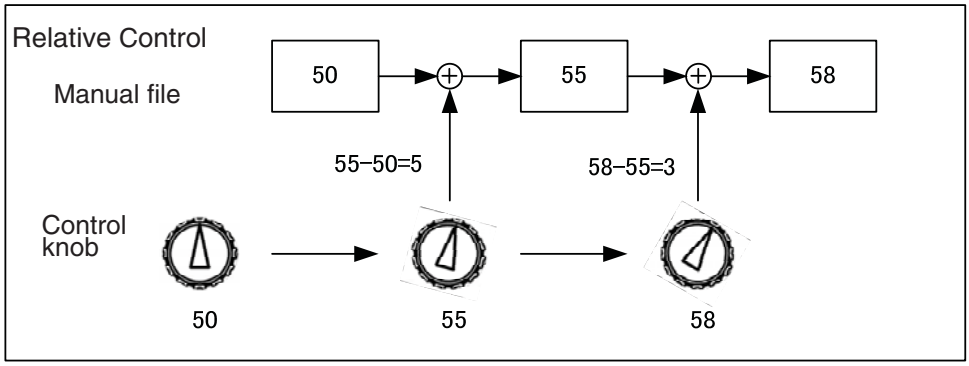
	Advantage	Disadvantage	Application
Absolute control	The control amount is determined according to the turned angle of the control knob. Therefore, it provides the good operation feeling. When the control knob is returned to the previous position, the data returns to the previous value.	Only one control device can be connected to one camera. Not suited for fine adjustments.	Suited for operations.
Relative control	Connection to several control panels is possible. In addition, the camera data do not jump at the time of the connection change or the disconnection. Fine adjustment is possible.	The operation does not depend on the knob turning angle; therefore, the operation feeling is bad. To return the changed data to the previous data, looking at the image and the answer indication on the control panel is required.	Suited for maintenance.

5.2 Control Method with OCP-300

The OCP-300 is the control panel that has the both advantages of the absolute control operation by the conventional OCP potentiometer and the relative control operation by the MCP rotary encoder. It can have the both good operation feeling by the potentiometer and the function that can prevent jumping of the camera data at the control panel switching by the rotary encoder.

While operating the control knob, the potentiometer value is converted from analog to digital at a certain interval. At this time, OCP-300 does not transfer the data as an absolute value. Rather, it compares the A/D conversion value with the former A/D conversion value and transfers the difference of the values as an relative data. The camera conducts processing by the same manner as the control by the rotary encoder.

In addition, the rotary encoder knob operation using the LCD screen is the relative data control as the MCP.

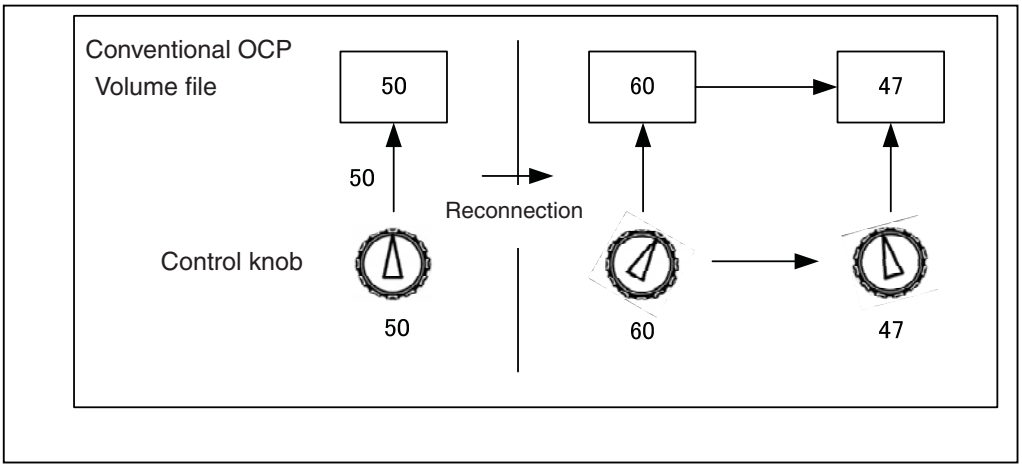


The panel configuration can switch the iris control between the conventional method, "absolute value iris control," and this new control method, "relative value iris control."

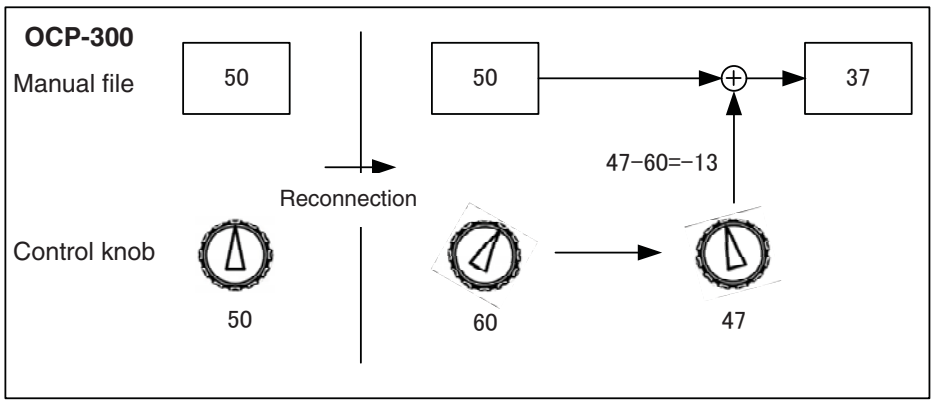
Reference: Refer to "6. Absolute value Iris Control" and "7. Relative Value Iris Control" for details of the operation. Refer to "21.1.3 Setting Item" for details of the setting change.

5.3 Reconnection Process

The control knob position is sent to the camera as the absolute data. Therefore, with the conventional OCP, when the command between the camera and the control panel is reconnected after turning on/off the camera power supply or the panel enable, jumping of the camera data occurs if the control knob position is different between before and after the reconnection.



With OCP-300, the operation amount of the control knob is sent as the relative data. Therefore, jumping of the camera data does not occur even when the control knob positions are different between before and after the reconnection.



With this function, you can switch the connection of the control panel or assign the setting without worrying about the control knob positions. Thus, an adjustment after the connection becomes unnecessary. (However, the iris may move depending on the setting.)

In addition, this function is valid for reading of scene files. The camera data does not jump after reading of the file. Therefore, starting the operation from the current control knob position becomes possible. You can read the scene file after setting the control knob to the center position by using the knob free function that is described in the following section.

Reference: Refer to "5.4 Knob Free Function" for the detailed operations.
Refer to "6. Absolute Value Iris Control" and "7. Relative Value Iris Control" for details of the iris operation.

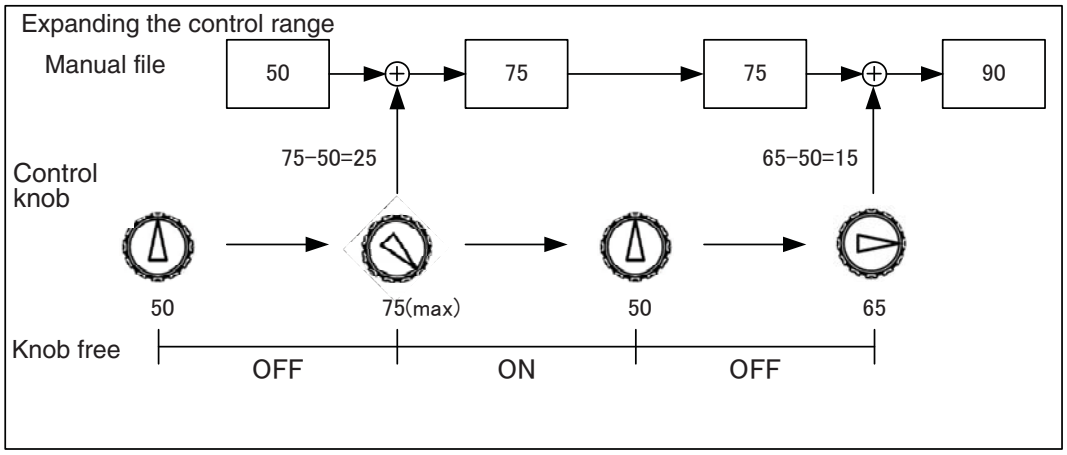
5.4 Knob Free Function

OCP-300 has the knob free function. With this function, the control knob operation becomes invalid while the knob free switch is being pressed. Therefore, this function is useful for preventing the control knob to be effective on only one side or for expanding the operation range of the control knob.

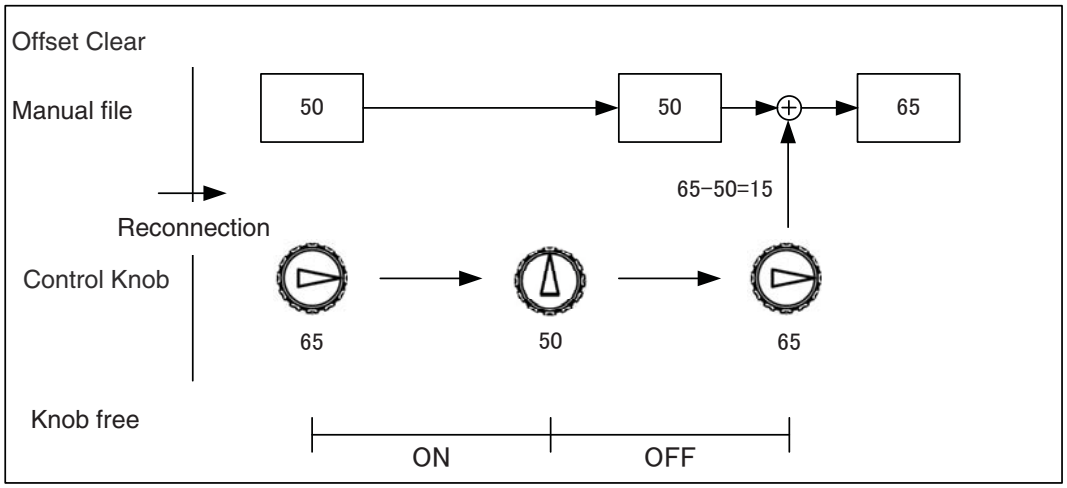
1) Operation Concept

When the control knob is operated, there are cases that the internal potentiometer becomes the maximum or the minimum mechanically, and further control becomes impossible. In that case, return the control knob to the center while keep pressing the knob free switch. By releasing the knob free switch, control becomes possible for the range, where the operation was unavailable due to the control knob status at the maximum or the minimum position.

However, expanding the control range of the camera itself is not possible even when the knob free function is used.



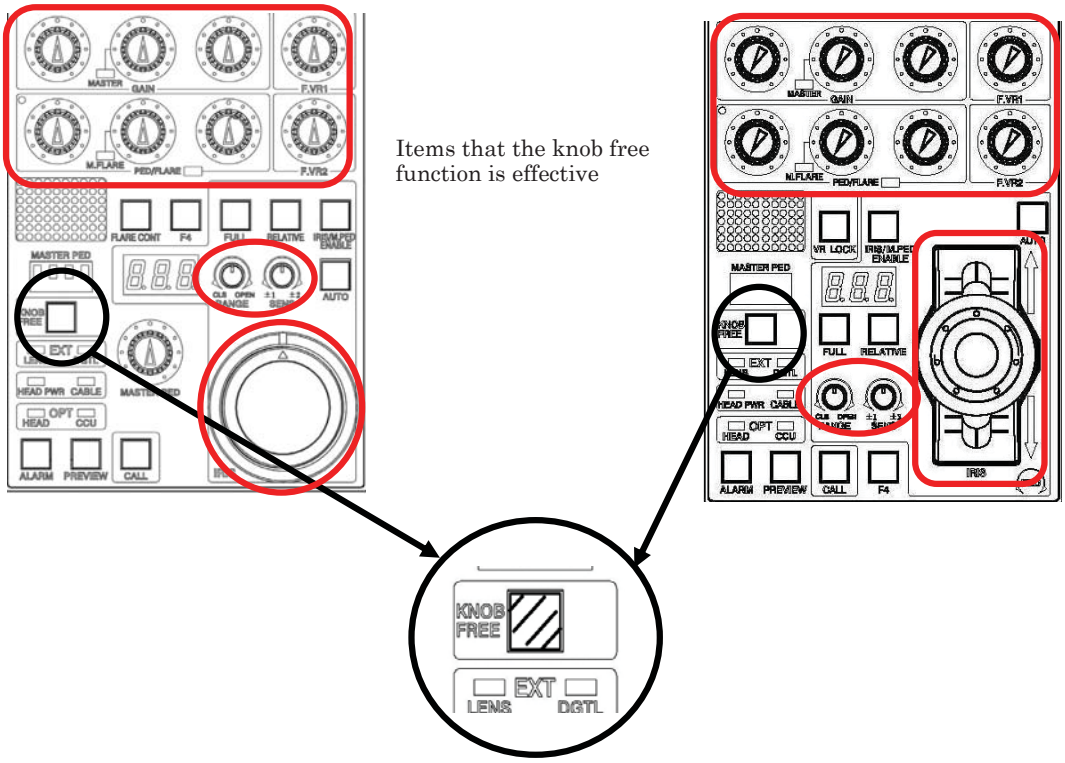
When the command between the camera and the control panel is reconnected after turning on the power or the panel enable, there is a case that the control range becomes effective at only one side depending on the control knob position. After the reconnection, set the control knob to the center while keep pressing the knob free switch. In that way, the condition that the control range is effective only on one side can be resolved.


Offset Clear
Manual file
50
50
65
65−50=15
Reconnection
Control Knob
65
50
65
Knob free
ON
OFF

2) Knob Free Item

VR TYPE

JOYSTICK TYPE



Items that the knob free function is effective are as follows.

- R/G/B GAIN
- R/G/B PED
- MASTER PED
- R/G/B FLARE
- MASTER FLARE
- F.VR1/F.VR2
- IRIS (at the time of the relative control only)
- IRIS RANGE/SENSE (at the time of the relative control only)

3) Knob Free Lock Function (VR TYPE only)

The VR TYPE has the knob free lock function. With the standard knob free function, the control knob becomes invalid while the knob free switch is being pressed. On the contrary, with the knob free lock function, the control knob becomes invalid even when the knob free switch is released.

When the knob free switch is released within approximately 0.5 sec. from when the switch is pressed, the knob free becomes locked. Operations of pressing the switch, checking the click sound, and releasing the switch require approximately this specified time. Therefore, the knob free lock function becomes effective.

In addition, you can check that the knob free switch lights on while the knob free lock function is working. Press the switch again to release the lock.

Caution The knob free lock is released when the power is turned on, when the enable is turned on, or when the assignment setting is conducted.

Note: Whether or not the knob free lock function becomes effective depends on the time duration before releasing the switch. This duration is counted on by the operator's feeling. Try operating the switch for several times before actually using the knob free lock function, so the operator can acquire the feeling for the time duration for releasing the switch.

6. Absolute Value Iris Control

With the absolute value iris control, the iris is controlled by the absolute data as the control of the conventional OCP. During the absolute value iris control, the RELATIVE switch lights off. This control method is adopted for the initial setting of the Ikegami command. You can switch between "absolute value iris control" and "relative value iris control" by using the panel configuration.

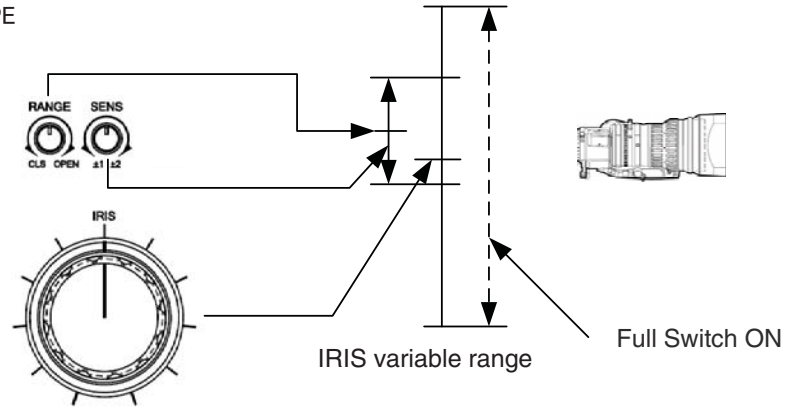
The actual iris control uses the additional value from other control panel.

Switch	IRIS variable range setting knob		IRIS control knob
FULL	RANGE	SENSE	
Light off	It sets the center position of the iris control.	It sets the oscillation from the center position that is set with the RANGE knob.	Iris adjustment is available within the range set with the RANGE and SENSE knobs.
Light on	Invalid	Invalid	Controlling the entire iris operation range is possible.

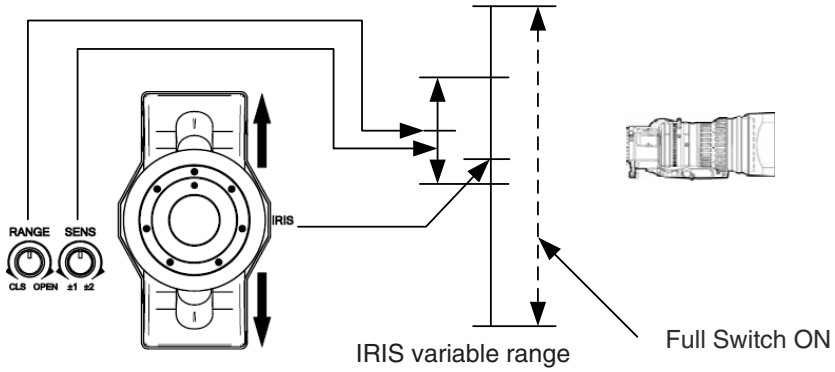
When the FULL switch is on, controlling the entire iris operation range is possible by using the IRIS control knob.

When the FULL switch is off, iris adjustment is possible within the range that is set with the IRIS variable range setting knob. Set the center position of the iris operation by using the RANGE knob. Set the oscillation from the center position, where is set with the SENSE knob. Iris adjustment is available within the range set with the RANGE and SENSE knobs by using the IRIS control knob.

VR TYPE



JOYSTICK TYPE



6.1 Clearing the Iris Manual File

Conventionally, the iris manual files controlled by the MCP had been automatically cleared as required when the MCP and the BS/CCU of OCP is connected in parallel.
In case of OCP-300, there are cases that the manual files are not automatically cleared depending on the network connection and the control panel concurrently connected. This is not a failure and is a proper system operation. In addition to automatic clearing, it is also possible to clear manually.
When the manual file is added in other panel, the OCP IRIS control value and the lens iris position become different, and the failure may occur during the operation. In that case, you can clear the manual file by pressing the RELATIVE switch.
In addition, when valid/invalid of the IRIS variable range setting knob is switched by pressing the FULL switch, the manual file is cleared.

▪ Blinking of the RELATIVE switch

Adding of the relative data from other control panel (condition that the data is in the manual file) can be indicated by blinking the OCP-300 RELATIVE switch depending on the camera head firmware version. Even in this condition, the manual file can be cleared by pressing the RELATIVE switch or the FULL switch.
In addition, the blinking function of the RELATIVE switch can be disabled.

Reference: Refer to "21.1.3 Setting Items" for detailed description of the setting.

6.2 Auto Iris Operation

During the auto iris operation, fine adjustment of approximately ± 1 stop for the F value for auto iris control value is possible by using the IRIS control knob regardless of the FULL switch condition. In addition, the actual fine adjustment is the additional value with the control from other control panel.

6.3 Initial Mode

In the power supply is OFF, and during OFF of the enable, the FULL switch status is kept the same. Because this mode uses the absolute data control, there is a case that the iris value jumps depending on the IRIS control knob position.

7. Relative Value Iris Control

With the relative value iris control, the iris is controlled by the relative data as the control of the MCP. During the relative value iris control, the RELATIVE switch lights on. This control method is adopted for the initial setting of the network. You can switch between "absolute value iris control" and "relative value iris control" by using the panel configuration.

The actual iris control uses the additional value from other control panel.

When adding of the relative data is not conducted on other panel, the operation becomes the same on a superficial level as the absolute value iriscontrol.

Switch	IRIS variable range setting knob		IRIS control knob
FULL	RANGE	SENSE	
Light off	It sets the center position of the iris control.	It sets the oscillation from the center position, where is set with the RANGE knob.	Iris adjustment is available within the range set with the RANGE and SENSE knobs.
Light on	Invalid	Invalid	Controlling the entire iris operation range is possible.

When the FULL switch is on, controlling the entire iris operation range is possible by using the IRIS control knob.

When the FULL switch is off, iris adjustment is possible within the range that is set with the IRIS variable range setting knob. Set the center position of the iris operation by using the RANGE knob. Set the oscillation from the center position, where is set with the SENSE knob. Iris adjustment is available within the range set with the RANGE and SENSE knobs by using the IRIS control knob.

7.1 Clearing the Data of Other Control Panel

When the relative data from other control panel is added, the OCP IRIS control value and the lens iris position becomes different, and the failure such as the knob becomes effective only one side may occur during the operation. You can solve this condition by using the knob free function. However, you can also solve this condition by clearing the relative data from other control panel to match the OCP IRIS control value and the lens iris position.

You can send the command that clears the manual file by pressing the RELATIVE switch. After clearing the manual file, send the IRIS control value, which is determined by the OCP IRIS control knob and the IRIS variable range setting knob positions, as the relative data. By executing this operation, the camera manual file can be set to the control value from the OCP only.

In addition, when valid/invalid of the IRIS variable range setting knob is switched by pressing the FULL switch,you can match the OCP IRIS control value and the lens iris position.

Reference: Refer to "5.4 Knob Free Function" for the detailed description of the knob free function.

- **Blinking of the RELATIVE switch**

  When the lens iris position and the OCP IRIS control value become different, the OCP-300 can indicate that condition with the RELATIVE switch blinking, depending on the camera head firmware version. In this case, you can match the OCP IRIS control value and the lens iris position by pressing the RELATIVE switch.
  In addition, the blinking function of the RELATIVE switch can be disabled.

  Reference: Refer to "21.1.3 Setting Items" for detailed description of the setting.

- **Difference in camera head operation depending on whether or not the camera head supports the command**

  The camera head operation after pressing the REALTIVE switch partially varies depending on whether or not the camera head supports the command. When the camera head does not support the command, the OCP IRIS control value is sent as the relative data after the manual file clearance is sent. Therefore, there is a case that the position moves greatly once from the iris position. On the other hand, when the camera head supports the command, the difference between the lens iris position and the OCP IRIS control value is subtracted from the manual file without clearing the manual file. With this operation, the lens iris position and the OCP IRIS control value can be matched without any additional movement.

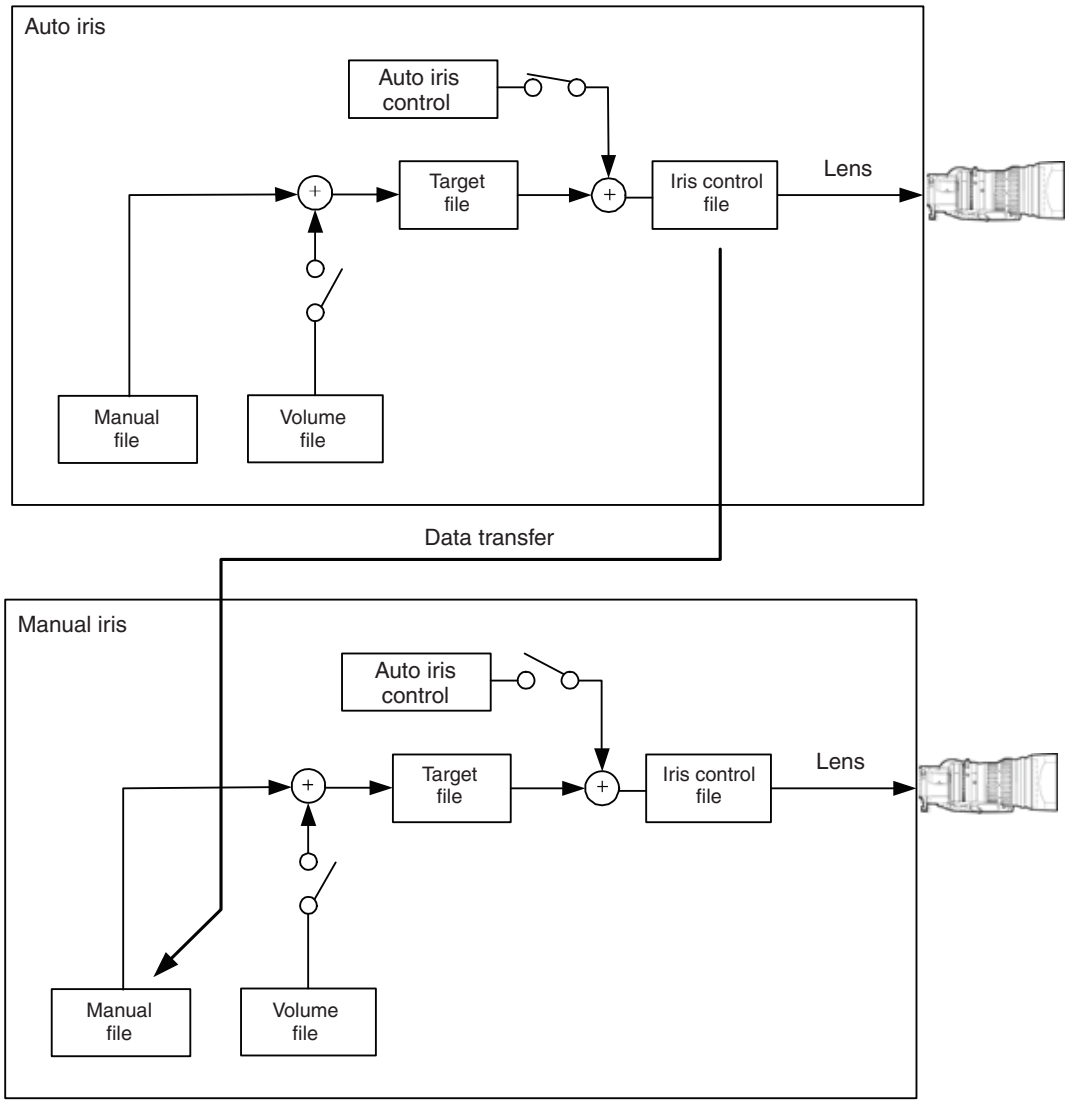
7.2 Auto Iris Operation

During the auto iris operation, fine adjustment of approximately ± 1 stop for the F value for auto iris control value is possible by using the IRIS control knob regardless of the FULL switch condition. In addition, the actual fine adjustment is the additional value with the control from other control panel.

- **Iris value retaining function**
  Some cameras have the function to keep the iris value when the value is switched from the auto iris to the manual iris.

Caution Check whether or not your camera has such function and fully understand about the camera functions before start operating.

When the auto iris is switched to the manual iris, replacement to the manual file is executed by inversely calculating from the iris control file. By conducting this operation, the iris control file value becomes almost the same to the auto iris value, and the variation of the iris value during switching can be kept to the minimum level.



After switching, you can start the operation from the IRIS control knob position at that time. When the FULL switch is on, the IRIS variable range setting knob becomes invalid. When the FULL switch is off, the IRIS variable range setting knob becomes valid.
With this function, switching from the auto iris to the manual iris without jumping of the iris value becomes possible. When looked from a specific OCP, there are cases that the knob becomes effective only on one side. In that case, the lens iris position and the OCP IRIS control value become different, and the occasion such as unavailability of the full range operation while the FULL switch lit occurs. To solve this problem, use the knob free function or press the FULL switch or the RELATIVE switch.

Caution When the auto iris is switched to the manual iris, the amp gain in the lens changes. With this condition, there are cases that the lens iris minutely changes. Try and check the performance of your camera and fully understand before start operating.

7.3 Initial Mode

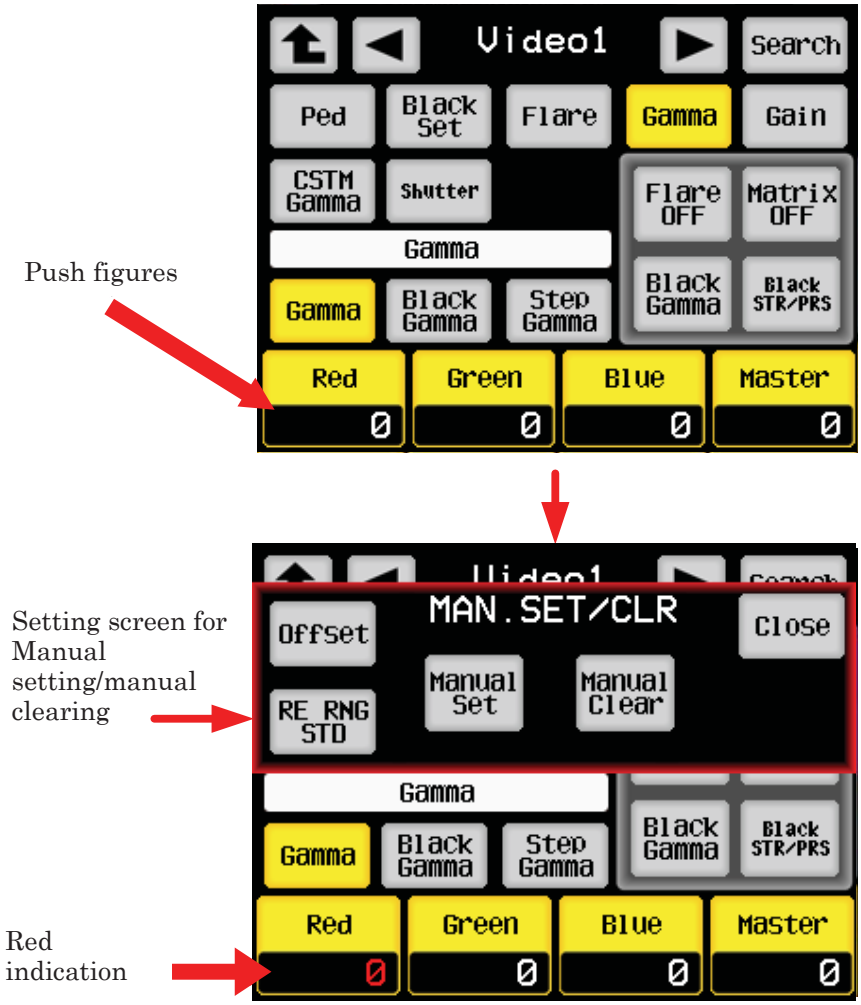
In the power supply is OFF, and during OFF of the enable, the FULL switch status is kept the same. Because this mode uses the relative data control, the iris value does not jump regardless of the IRIS control knob position.
There are cases that the lens iris position and the OCP IRIS control value become different from each other and the knob becomes effective only on one side. To solve this problem, use the knob free function or press the FULL switch or the RELATIVE switch.

8. Manual Setting/Manual Clearing

You can teach the values, which are adjusted by the OCP rotary encoder knob and the control knob (manual setting). In addition, you can also return to those taught values (manual clearing).

8.1 Manual Setting/Manual Clearing on the LCD Screen

On the screen, where adjustment with the rotary encoder knob is available, press the control data section of the item, of which you conduct the manual setting or manual clearing.



The control data indication section turns to red, and the manual set/clear screen opens over the original screen. Press the control data section of the item, of which you want to add the manual setting or manual clearing. The color turns to red, which indicates that the item is properly selected. You can cancel the selection by pressing the control data section of the selected item (red number) one more time.
After selecting the item, execute manual setting or clearing by pressing the manual setting or manual clearing switch (for the manual setting, keep pressing the switch for a while). After completion of the operation, the setting screen closes, and the screen returns to the previous screen. In addition, you can also close the setting screen by pressing the [Close] switch.

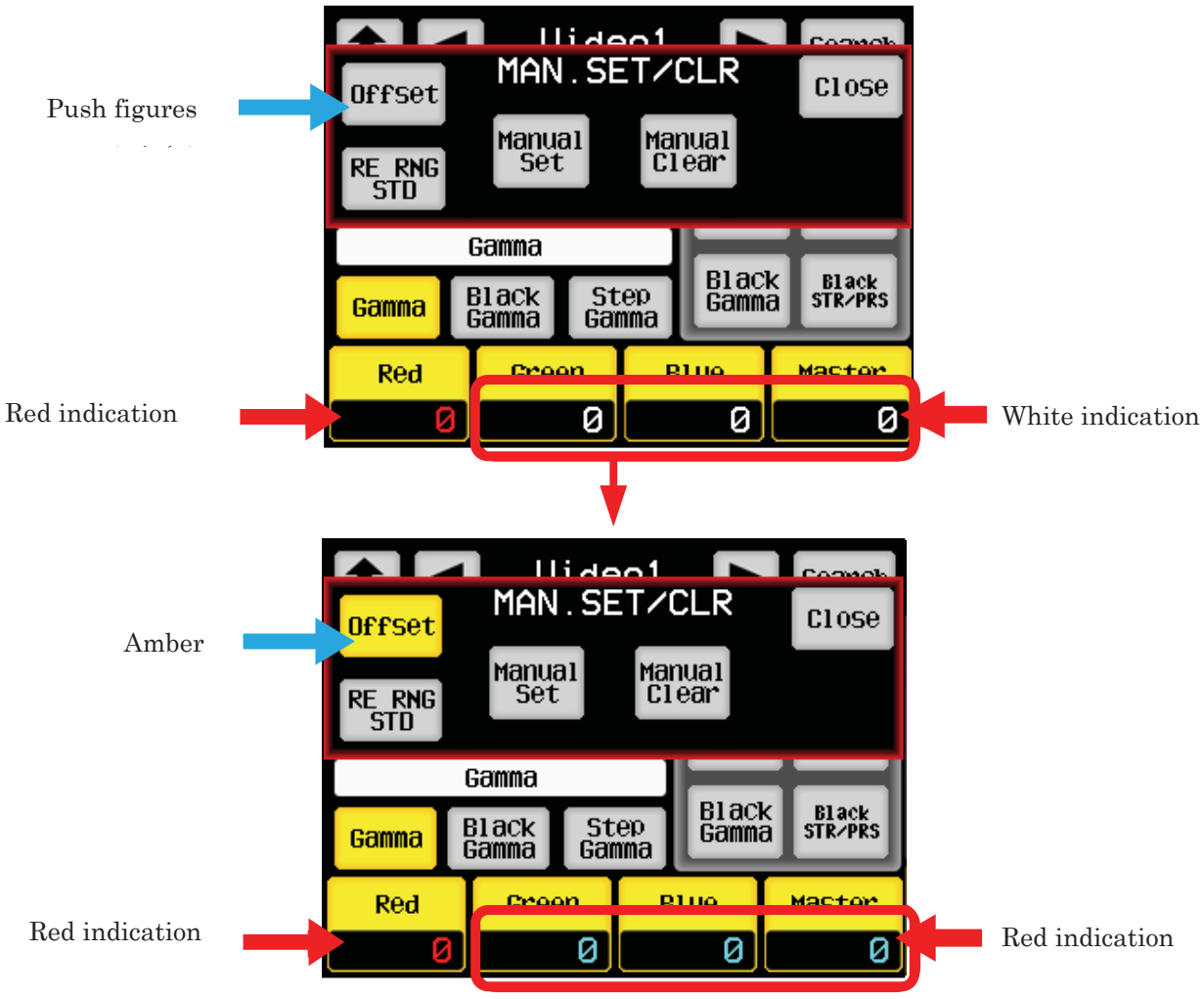
Caution When the function is off, neither operation of manual setting/manual clearing is operable.

8.2 Indication of the Control Data Offset

When the [Offset] switch on the MAN. SET/CLR screen is turned to "ON" (amber), the control data indication value becomes the deviation from the value registered by the manual setting (or the value automatically adjusted by the automatic setup) (offset indication mode). When this mode is on, you can check the adjusted amount from the set value registered in the manual setting at a glance. If the indication value is "0," that means the registered setting is used.

You can switch ON and OFF of the offset indication mode alternately by pressing the [Offset] switch.

When the offset indication mode is on, the control data is indicated in blue. The indication of the selected item remains in red.



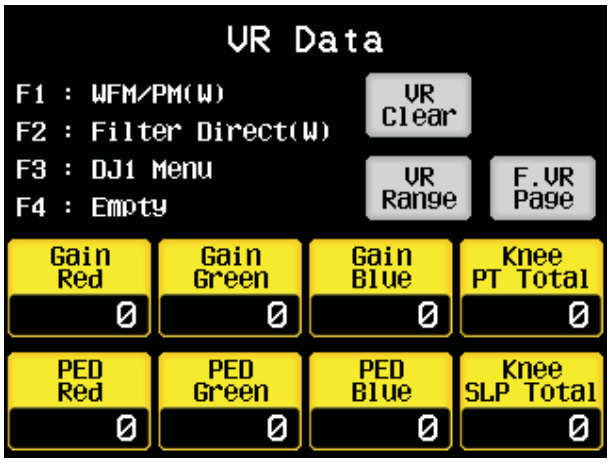
In addition, the offset indication mode ON/OFF status set on this setting screen is also valid on the screens without indication of the setting screen. At that time, the control data indication is blue when the offset indication mode is on.

You can set the ON/OFF of the offset indication mode also from the panel configuration.

Reference: Refer to "21.1.3 Setting Items" for detailed description of the setting.

8.3 Manual Bulk Clearing by the Control Knob Operation

Manual bulk clearing is available for all items of the control knob.
When nothing is selected on the LCD screen indication, the VR Data screen opens on the LCD screen.



When the [VR Clear] switch on the VR Data screen is kept pressed for a while, manual clearing is conducted to all items of the control knob.

Reference: Refer to "4.6 VR Data" for the description of each item on the VR Data screen.

The items to be cleared are different depending on the PED/FLARE control knob setting on the panel configuration.

The items to be cleared by the PED/FLARE control knob setting

Clearing item	Panel configuration setting						
	Black Knob						
	(SELECT)			(PED)	(FLARE)		
	Center Flare				Center Flare		
	(AUTO)	(G CH)	(MASTER)		(AUTO)	(G CH)	(MASTER)
R/G/B PED	○	○	○	○	×	×	×
R/B FLARE	○	○	○	×	○	○	○
G FLARE	※2	○	×	×	※2	○	×
MASTER FLARE	※1	×	○	×	※1	×	○

○: To be cleared

×: Not to be cleared

※1: It is cleared when a camera that corresponds to MASTER FLARE is connected.

※2: It is cleared when a camera that does not correspond to MASTER FLARE is connected.

Clearing item	Clearing condition
R/B GAIN	・ AWB data are cleared (when not corresponding to the camera head command)
	・ AWB data are not cleared (when corresponding to the camera head command)
G GAIN	・ Processed by transferred with R/B GAIN ・ When the MASTER LED on the GAIN VR lights off
M GAIN	・ When the MASTER LED on the GAIN VR lights on
MASTER PED	・ Always cleared
R/G/B PED	・ When the PED/FLARE LED on the PED/FLARE VR lights off
R/B FLARE	・ When the PED/FLARE LED on the PED/FLARE VR lights on
G FLARE	・ When the M.FLARE LED on the PED/FLARE VR lights off
MASTER FLARE	・ When the M.FLARE LED on the PED/FLARE VR lights on
FVR1, FVR2	・ Data of the allocated function are cleared
IRIS (Including RANGE/SENSE)	・ Match the IRIS control knob position and the lens iris position. ・ When the IRIS/MPED ENA switch lights on

Caution The data to be cleared are the items of the control knob. However, the data operated with the rotary encoder knob are also cleared. For example, if the R GAIN item is operated both with the control knob and the rotary encoder knob, the data for the control knob operation and the data for the rotary encoder operation are both cleared.
The items, of which function is off, are not subject of manual clearing by this operation.

・ Clearing the GAIN data

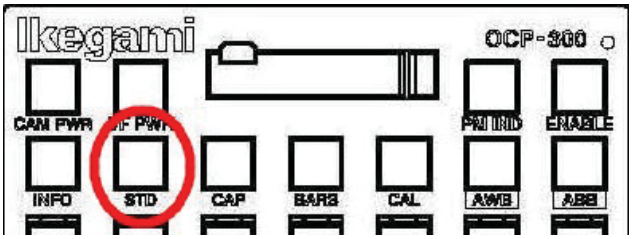
When the bulk manual clearing is conducted with the control knob operation, the clearing operation of the GAIN data varies depending on the camera head type and the firmware version.
In case of the conventional camera, the AWB data is also cleared. In case of the camera that corresponds to the command, you can clear the control data of the control knob and the rotary encoder knob without clearing the AWB data.

Caution Try and check the GAIN data clearing performance of your camera before start operating.

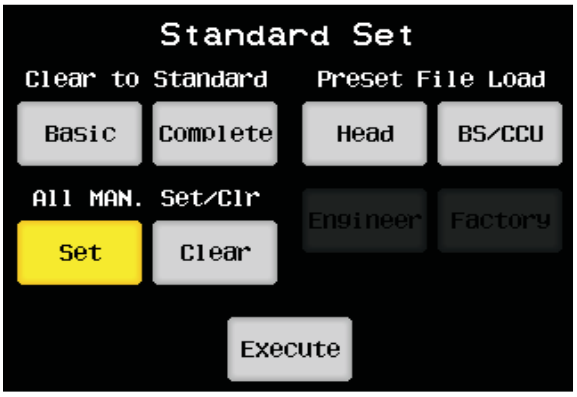
8.4 All Manual Setting/All Manual Clearing

Manual setting and manual clearing are available for all operation items of the camera head and the BS/CCU.

1. Press the [STD] switch from the FUNCTION switches on the top of LCD screen.



2. Press the [Set] switch at the ALL MAN Set/Clr section for conducting the all manual setting. Press the [Clear] switch for conducting the all manual clearing. The switch starts blinking. Press the [Execute] switch indicated on the bottom of the LCD screen. At this time, you can cancel the operation by pressing the [Set] or [Clear] switch that is lighted on.



3. When the [Execute] switch is pressed, the dialog screen opens. Select [Yes] when executing, and select [No] when canceling.

Caution In this operation, the bulk manual setting and clearing are possible even when the function is off. There are items that manual setting and clearing are not available depending on the camera head and the BS/CCU specifications.

9. How to Use the Memory Card

You can write the contents of control items of the camera (camera data file, reference file that is the reference data at the time of automatic setup, scene file, lens file, and snapshot file) to the memory card.
Reading the above data files, which are written to the memory card, to the camera is possible.
In addition, one memory card can be used for writing and reading of various data file of several cameras. Therefore, you can use the memory card for daily operations and for the backup.

In addition, upgrading the version of the OCP-300, connected camera, and BS/CCU firmware is possible by using the memory card.

Reference: Refer to "24. Updating the Firmware" for details.

9.1 Types and Capacities of Memory Cards

OCP-300 uses the SD memory cards, which are generally used for the digital cameras.
Depending on the firmware version, the upper limit of the usable SD memory card capacity differs. The upper limit of the usable SD memory card capacity also differs depending on the updating program version that is used for updating the firmware.
The upper limit of the capacity for OCP-300 is 32 G byte of the SDHC memory card.

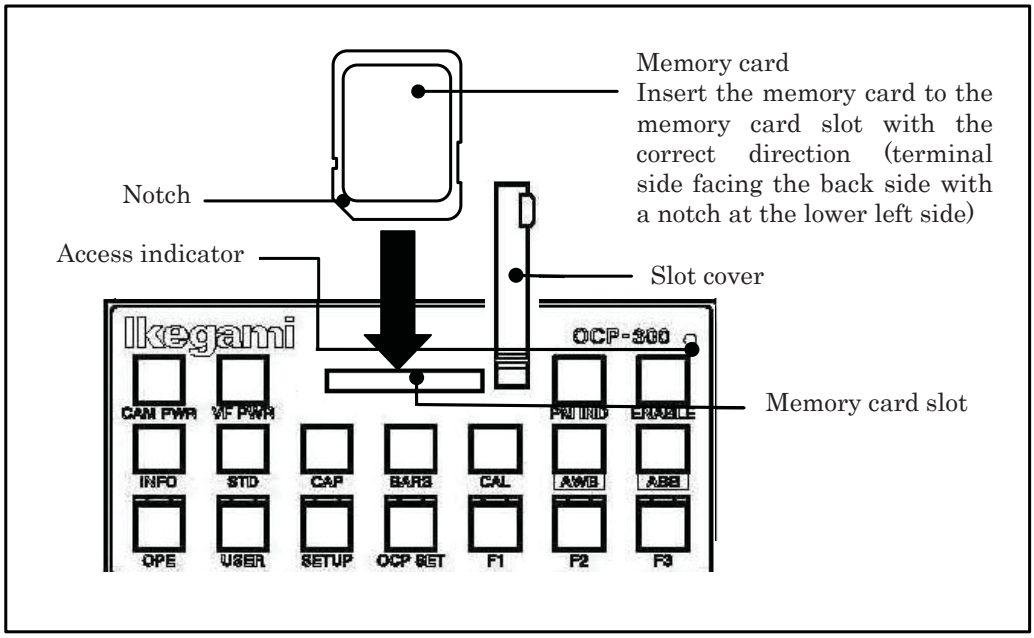
Note: The mini SD cards and micro SD cards with application of the adapter are out of operation warranty range.

Caution Use the SD memory card that is formatted to the format compatible with the SD memory card standard. There are cases that the memory card formatted with the standard format software of the computer OS are not compatible with the SD memory card standard. If such SD memory card is used on OCP-300, malfunctions may occur. In addition, check the upper limit capacity for usage before start using.

9.2 Inserting and Removing the Memory Card

When using the memory card, raise the left side of the slot cover and turn clockwise. Carefully insert the memory card to the memory card slot with the correct direction (terminal side facing the back side with a n at the lower left side) until a clicking sound is made. A buzzer is output.

When removing the memory card from the card slot, lightly push the card upper section until a clicking sound is heart. The card is pushed out. Slowly draw out the card until the removal detection buzzer sounds. After usage, attach the slot cover in order to prevent foreign objects such as dust from entering the slot.

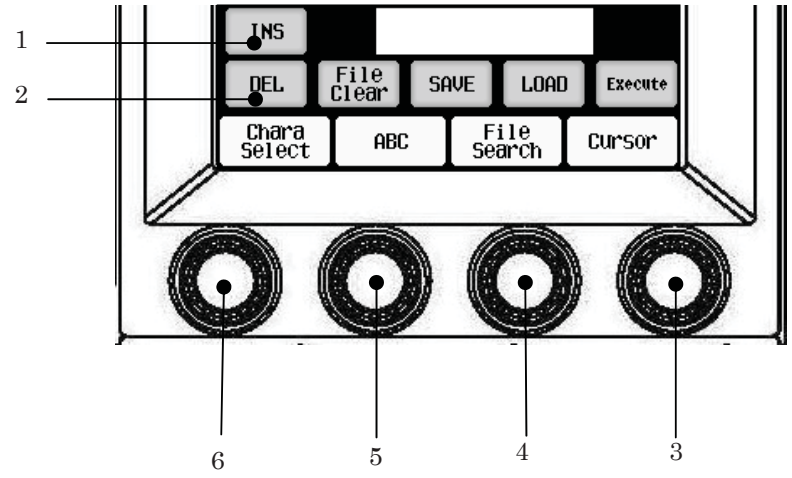


Caution Never remove the memory card from the slot while the access indicator next to the memory card slot is lighted on or while saving or invoking the data to the memory card. The internal data or the card itself may get damaged.

Note: When "Click Volume" of the panel configuration is set to "OFF," be careful that the removal detection buzzer does not sound.

9.3 Creating the Memory Card Name and File Name

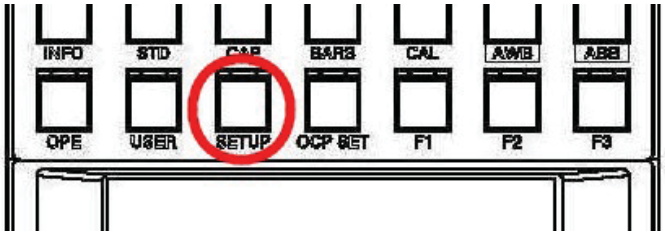
You can name a file to be saved in the memory card.
Up to 11 characters can be used for the extension of the memory card, and up to 8 and 3 characters can be used for the extension of the file.
The following alphanumeric characters and special characters can be input.
Input characters:
ABCDEFGHIJKLMNOPQRSTUVWXYZ!#$%&'(-)+-=@[ ]^_{}0123456789
In addition, the file name is automatically set when no file name is set. The set file name will be NONAME01.



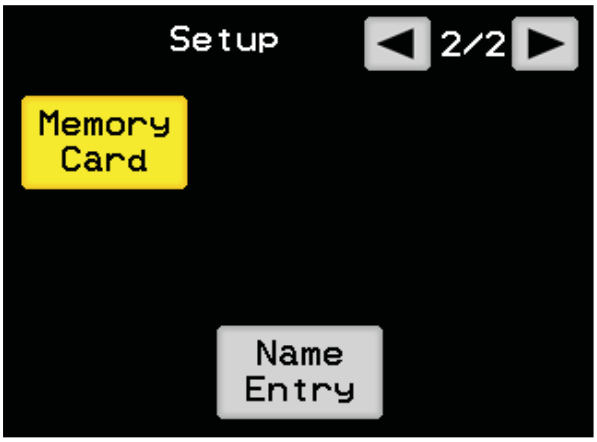
1. Insert switch : Inserts one character (_) between characters.
2. Delete switch : Deletes one character.
   In addition, when the switch is kept pressed, all characters after the cursor are deleted.
   (When inputting the file name, the extension is handled separately.)
3. Cursor control knob : Moves the cursor.
4. File search control knob : Searches the file.
5. Character type selection knob
   : Inputs lower case characters with [abc], upper case characters with [ABC], numbers with [012], and symbols with [#%&].
6. Character selection control knob
   : Selects the character to input from alphanumeric characters and special characters.

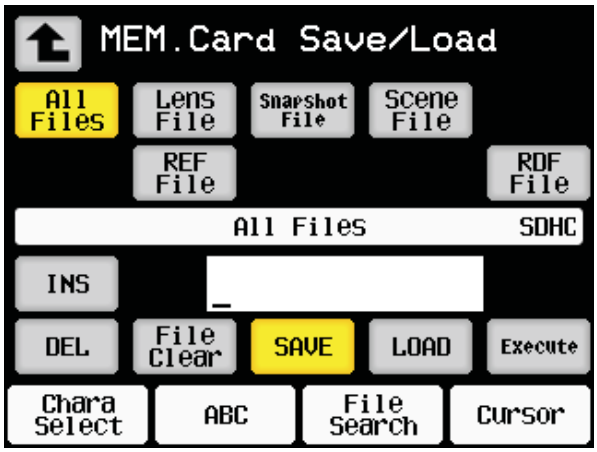
9.4 Saving the File Data to the Memory Card

1. Insert the memory card to the memory card slot with the correct direction (terminal side facing the back side with a notch at the lower left side).
2. Press the SETUP switch from the FUNCTION switches on the top of the LCD screen.



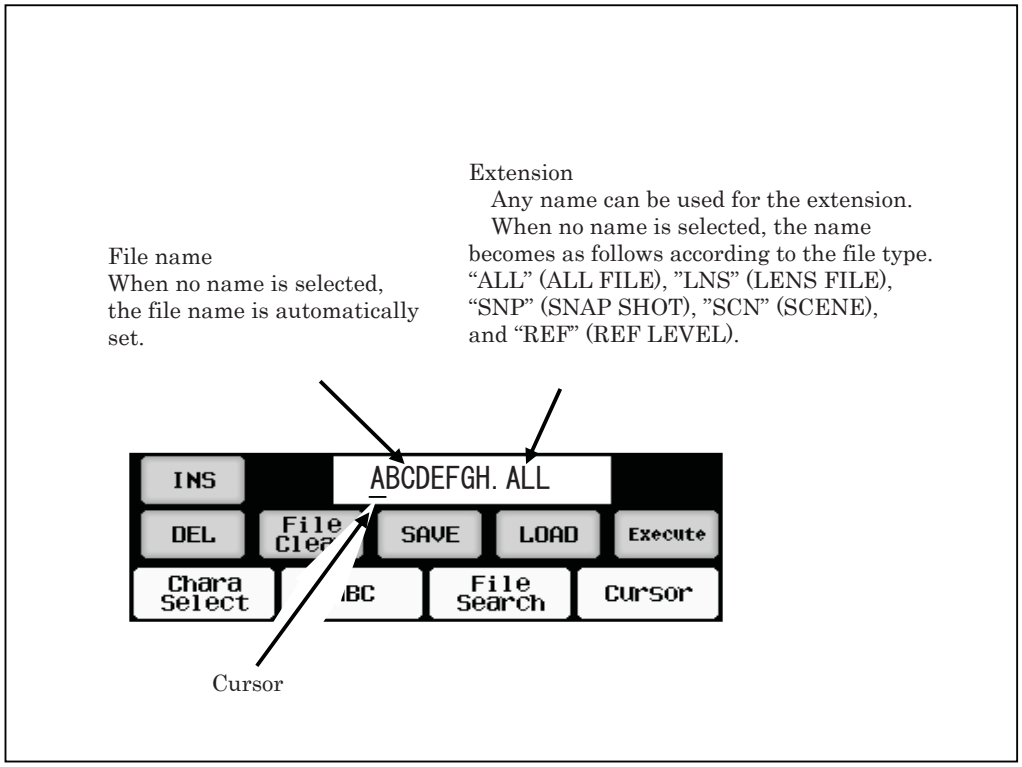
3. Switch the page to the page 2/2 by using the ◀ ▶ switch at the upper right side of the LCD screen and press the [Memory Card] switch.





4. Select the switch according to the file data type to be saved.
   - Press the [All Files] switch in case of the all data file.
   - Press the [Lens File] switch in case of the lens file.
   - Press the [Snapshot File] switch in case of the snapshot file.
   - Press the [Scene File] switch in case of the scene files.
   - Press the [REF File] switch in case of the reference level file.

5. Turn on the [Save] switch.



6. Input the file name by using the switch and the rotary encoder knob on the LCD screen.
7. Press the [Execute] switch.
   The [Execute] switch light on. The LCD screen displays the file name and the execution status, and the file data is saved.

After the completion, the LCD screen indicates the completion status, and the buzzer sounds. The indication lasts for approximately 1.5 seconds and disappears.

Note: When the file data with the same data exists, the following warning is indicated. Pressing "Yes" overwrites the file data. Pressing "No" cancels the saving operation.

Caution When saving the data, check the clock on the information screen. The checked time is used as the time stamp on the SD card.

9.5 Invoking the File Data from the Memory Card

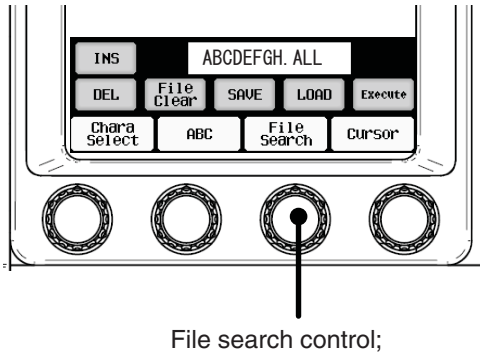
1. Insert the memory card to the memory card slot.
2. Press the [SETUP] switch from the FUNCTION switches on the top of the LCD screen. Press the [Memory Card] switch at the item selecting switch section on the LCD screen page 2/2.

3. Select the switch according to the file data type to be invoked.
   - Press the [All Files] switch in case of the all data file.
   - Press the [Lens File] switch in case of the lens file.
   - Press the [Snapshot File] switch in case of the snapshot file.
   - Press the [Scene File] switch in case of the scene files.
   - Press the [REF File] switch in case of the reference level file.
   - Use the [RDF File] switch when updating the firmware of the connected device.

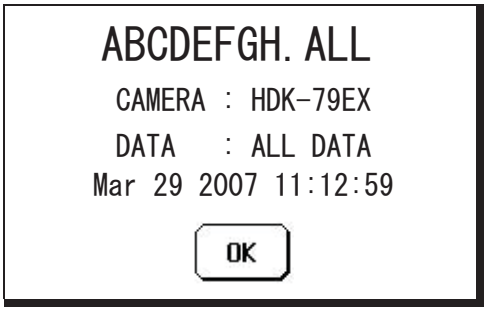
Reference: Refer to "24.2 Updating the Firmware of the Connected Device" for details of the operation.

4. Turn on the [Load] switch.
5. Turn the file search control knob to select the desired file. Or input the file name by using the switch, cursor control, and the character select control on the LCD screen.

Note: Selecting a desired file is possible by using the search function. For example, input "AB" to the file name and rotate the file search control. The search function automatically starts and searches the files that start with "AB." This search function is also available for the extension.



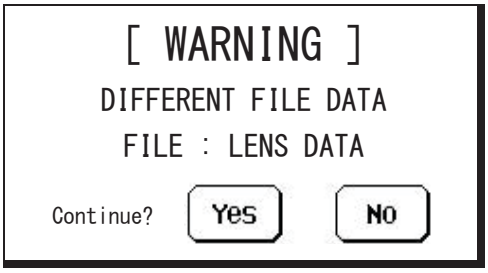
Note: Pressing the file data name on the LCD screen displays the file data information. You can check the model name of the camera and the file type. In addition, turning the file search control knob in this condition displays the information of the file data in the card continuously.



6. Press the [Execute] switch.
   The [Execute] switch lights up. The LCD screen displays the file name and the execution status, and the file data is read.

   After the completion, the LCD screen indicates the completion status, and the buzzer sounds. The indication lasts for approximately 1.5 seconds and disappears.

Note: When the file data type is different, there are cases that invoking is not possible.
For example, if you try to invoke the file data, which is saved as the LENS DATA, as the SNAP SHOT data, the following warning appears.



When "Yes" is pressed, the following warming is indicated. In that case, invoking the data is not possible. Press "OK".

You can invoke the file data, which is saved as ALL DATA, as the data other than ALL DATA. (In the following sample figure, you can invoke the SNAP SHOT data in ALL DATA.) In that case, press "Yes" on the screen as in the following figure.

If you try to read the RDF file, the following warning is indicated. In that case, invoking the data is not possible. Press "OK".

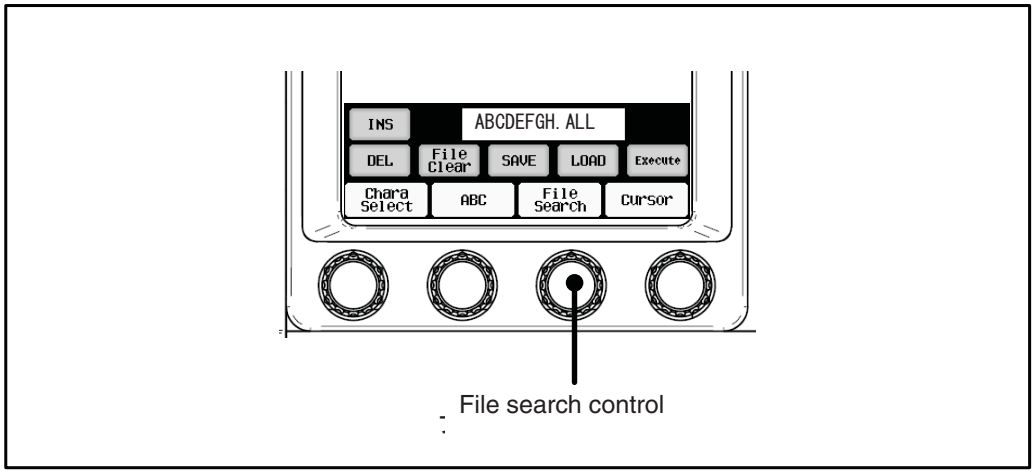
9.6 Deleting the File Data from the Memory Card

When deleting the file data that are saved in the memory card, take the following procedure.

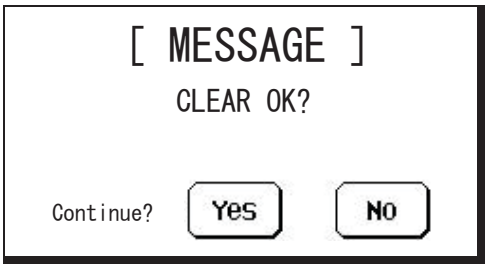
You cannot restore the deleted file data. Therefore, pay utmost care when deleting the file data.

1. Insert the memory card to the memory card slot.
2. Press the [SETUP] switch from the FUNCTION switches on the top of the LCD screen. Press the [Memory Card] switch at the item selecting switch section on the LCD screen page 2/2.

3. Select the switch according to the file data type to be deleted.
   - Press the [All Files] switch in case of the all data file.
   - Press the [Lens File] switch in case of the lens file.
   - Press the [Snapshot File] switch in case of the snapshot file.
   - Press the [Scene File] switch in case of the scene files.
   - Press the [REF File] switch in case of the reference level file.
4. Turn on the [FileClear] switch.
5. Turn the file search control knob to select the desired file. Or input the file name by using the switch, cursor control, and the character select control on the LCD screen.



6. Press the [Execute] switch.



7. Pressing "Yes" deletes the file data. Pressing "No" cancels the deletion.

Caution Be careful that the file data is deleted even the file data type is different.

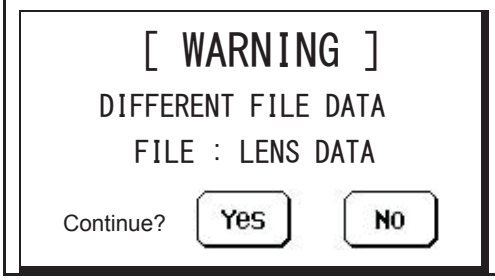
9.7 Updating the Firmware by Using a Memory Card

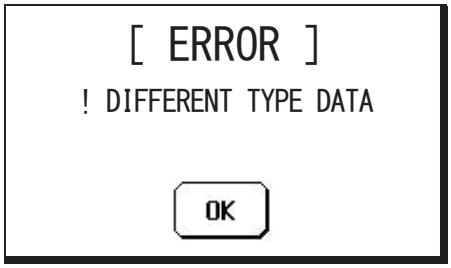
You can upgrade the version of OCP-300, connected camera, and BS/CCU firmware by using a memory card.

Reference: Refer to "24. Updating the Firmware" for details.

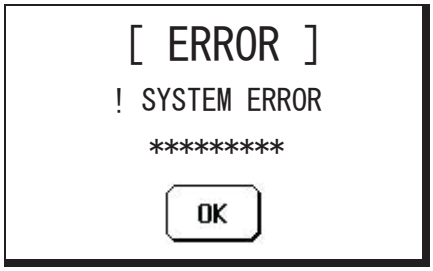
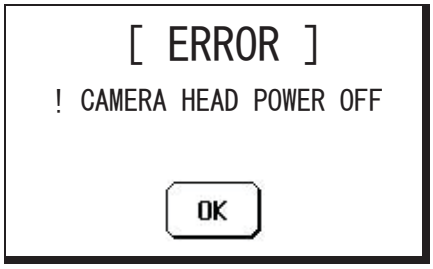
9.8 Indicating the Message of Each Type

There are cases that some messages open while saving, invoking, or deleting the data by using a memory card. The contents are as follows.
In case of [ERROR] indication, pressing "OK" cancels the indication.

Message	Explanation
[WARNING] 	This message appears when a user tries to save the data with the name that is already in use by other file data in the memory card. Pressing "Yes" overwrites the existing file.
	This message appears when a user tries to invoke the data in the memory card but the file data is created by a different camera. Pressing "Yes" invokes the data.
	This message appears when a user tries to invoke the data in the memory card but the file data type is different.

Message	Explanation
[ERROR] 	This message appears when a user cannot invoke the data because the file data type in the memory card is different.
	This message appears when a user tries to invoke the data when there is no file data in the memory card.
	This message appears when an abnormal condition occurs in the memory card system.
	This message appears when the data format is different.

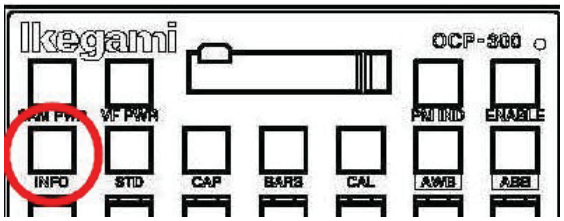
Message	Explanation
[ERROR] 	This message appears when a user tries to invoke the data in the memory card but there is no formal data.
	This message appears when a user tries to invoke the data in the memory card but the file data in the memory card are broken.
	This message appears when a user tries to save the data but cannot create a file data in the memory card.
	This message appears when the name format of the file data is not supported.

Message	Explanation
[ERROR] 	This message appears when an abnormal condition occurs during the file data processing in the camera system. ・“COMMAND TROUBLE” : When there is a trouble in the communication processing system ・“CAMERA DATA NOT FOUND” : When there is no desired data in the camera head to be saved ・“FILE CLEAR” : When the existing file data is accidentally deleted by some trouble while saving the data by overwriting
	This message appears when the memory card write prohibit switch is at [LOCK] when saving or deleting the data.
	This message appears when the camera head power supply is off when a user tries to save or invoke the data.
	This message appears when the scene file is on when a user tries to save or invoke the data. Save or invoke the data after turning off the scene file.

10. Information

There is an information function that displays the list of statuses such as ON/OFF setting status of camera head and BS/CCU and the status of this control panel on the LCD screen.

To load the information screen, press INFO switch from the FUNCTION switches on the top of the LCD screen.

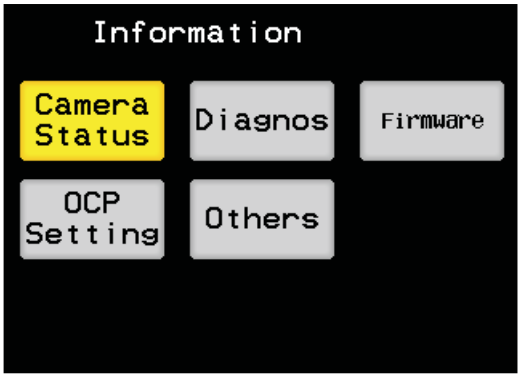


10.1 Screen Description

Information screen consists of 5 items.

・Camera Status

Press [Camera Status] switch on the LCD screen to open the Camera Status screen.



When the Camera Status display screen is open, the ON/OFF setting status of the camera function will be displayed. The Camera Status display screen is shown on the page 3. The pages can be switched using ◀ ▶ switch on the top right of the screen.

The characters are displayed in white for the standard setting and in red on white background for the other settings. "—" is displayed for the function that does not exist in the camera or BS/CCU. "—" is also displayed when the information could not be obtained because power of camera is turned off, etc.

The standard setting can be arbitrarily changed.

Caution The Camera Status display screen does not include all camera functions. Some items are not displayed if their switches are in the camera function operating section on the top of the LCD screen are not displayed. For example, BARS ON/OFF, etc.

Camera Status (1/3) List of standard settings

Item	Initial standard settings	Item	Initial standard settings
Flare	ON	DTL	ON
Gamma Mode	NOR	Soft DTL	OFF
Step Gamma	0.45	Skin DTL	OFF
Black Gamma	OFF	Slim DTL	OFF
White Clip	ON	Diagonal DTL	OFF
Knee	ON	Color DTL	OFF
Auto Knee	ON *1	Z.Track DTL	OFF
Smooth Knee	OFF	Z.Skin DTL	OFF
Super Knee	OFF	Hi-Light DTL	OFF
BLK/WHT Shade	ON		

Camera Status (2/3) List of standard settings

Item	Initial standard settings	Item	Initial standard settings
Color SAT.	OFF	Color Hue	OFF
Chroma	ON	Super V	OFF
Color CORR.	OFF	Shutter	OFF
C.Temp 5600K	OFF	Speed	-
Var C.Temp	OFF	DIASCOPE	OFF
Custom Color1	OFF	TEST PULSE	OFF
Custom Color2	OFF	Black STR/PRS	OFF
Matrix	OFF	Lens File No.	OFF
Matrix SEL	1		
ATW	OFF		

Camera Status (3/3) List of standard settings

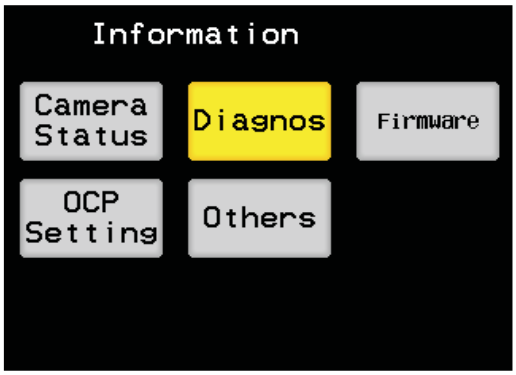
Item	Initial standard settings	Item	Initial standard settings
Filter CONT	-	Step Gain	0
ND	-	Digital EXT	OFF
CC	-	Zoom Remote	OFF
EFF	-	Focus Remote	OFF
AVC	-	AWB Memory	REM
Filter Hold	-	AWB CH	Ach
Night Mode	-		

Note: The content of standard setting is the same as the content that is set in Clear to Standard of the standard function.

Reference: Please refer to "21.4 STD FUNCTION" for the detail information on how to change the standard setting.

・Diagnostic

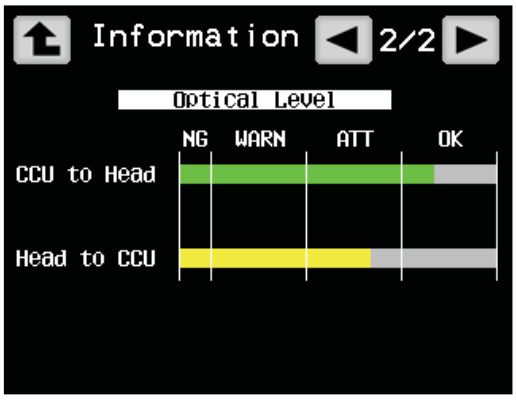
Press [Camera Status] switch on the LCD screen to open the Camera Status screen.



This display allows a simple diagnosis even in the system that cannot connect the PM to the BS/CCU output.

Caution The diagnosis may not be displayed ("—" is displayed) on this screen for BS/CCU even when the diagnosis is displayed on the PM. SWThe reason for this is that the connected BS/CCU does not support a command and the OCP cannot obtain the information. Hence, this is not malfunction.

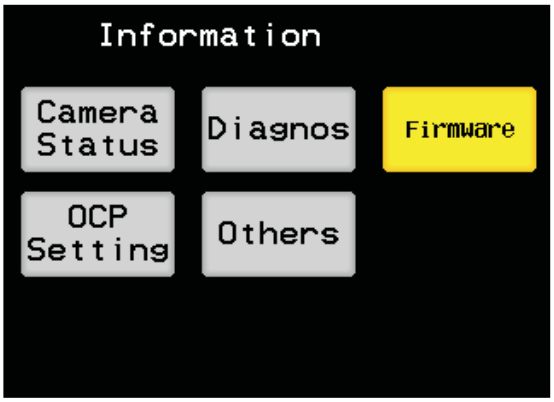
The second page of Diagnostic shows the OPT level status between the connected camera and BS/CCU.



OK is displayed in green, ATT (Attention) in yellow, and WARN (Warning) and NG in red. When the OPT level status gets lower than ATT, the display of OPT level status on the first page of Diagnostic will be inverted.

・Firmware

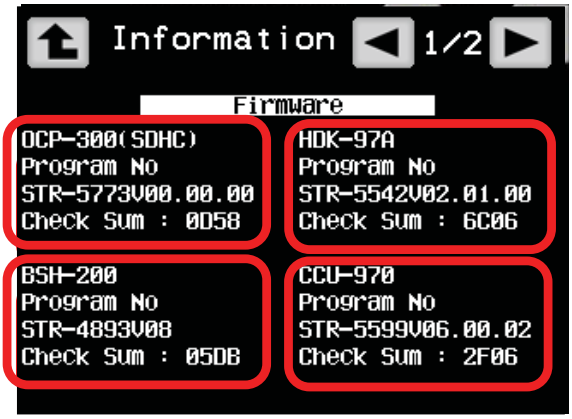
Press [Firmware] switch to open the Firmware screen.



It can display the program number of firmware for both OCP-300 and the connected devices. The each version of FPGA for this OCP-300 is also displayed on the second page.

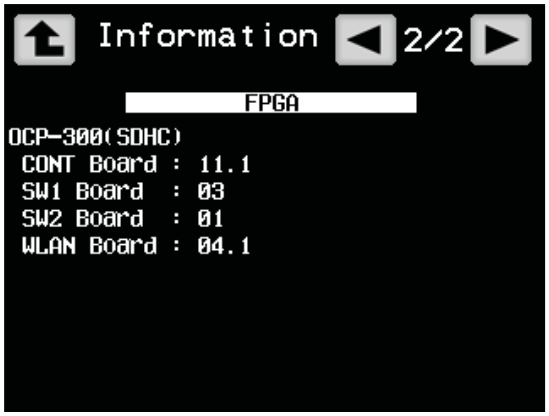
OCP-300

BS HUB



HEAD

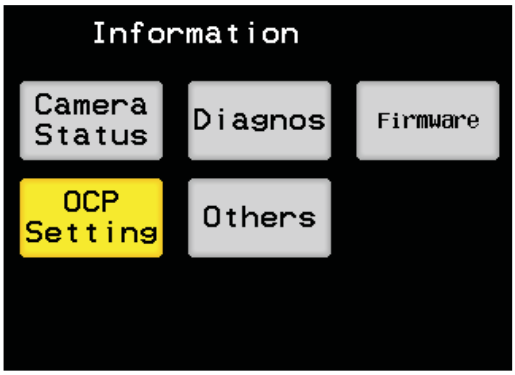
BS/CCU



Caution This would be displayed only for the devices that support command.
"SDHC" for the usable SD memory card is displayed on the back of OCP-300.

OCP Setting

Press [OCP Setting] switch on the LCD screen to open the OCP Setting screen.



When the OCP Setting screen is opened, the information on each setting for this control panel will be displayed. The OCP Setting display screen is shown on the page 10. The pages can be switched using ◀ ▶ switch on the top right of the screen.

◆ Setting

It is displayed on the pages 1/10, 2/10, and 3/10.

It shows the settings that are set in the panel configuration for this device.

Reference: Please refer to "21. Panel Configuration (Panel Settings)" for the detailed information on the panel configuration.

◆ Customize

It is displayed on the pages 4/10, 5/10, and 6/10.

It shows the assigned functions for the SELECT switch, FUNCTION switch, and FUNCTION volume of this device in which functions are arbitrarily assigned.

Reference: Please refer to "21.2 CUSTOMIZE" for the assignment of arbitrary functions.

◆ Control Depth

It is displayed on the pages 7/10 and 8/10.

It shows the items that are prohibited to operate in Control Depth.

BASIC : Operation is prohibited by executing the Basic in Control Depth.
STD : Operation is prohibited by executing the Standard in Control Depth.
EXTD : Operation is prohibited by executing the Extender in Control Depth.
COMP : Operation is prohibited by executing the Complete in Control Depth.

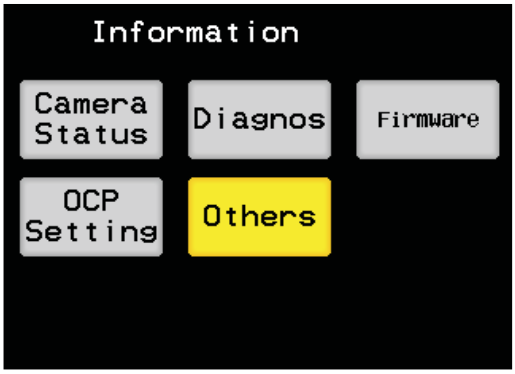
Reference: Please refer to "21.3 Control Depth" for the detailed information on the Control Depth.

◆ STD Function
It is displayed on the pages 9/10 and 10/10.
It shows the standard setting displayed on the Camera Status screen of Information.

Reference: Please refer to "21.4 STD FUNCTION" for the detail information on how to change the standard setting.

Others

Press [Others] switch to open the Others screen.



When the Others screen is opened, other information for this control panel will be displayed. The Others display screen is shown on the page 3. The pages can be switched using ◀ ▶ switch on the top right of the screen.

◆ Others
It is displayed on the pages 1/3.
Others shows the clock, battery status of the clock, the connection status of OCP and the information on the firmware.

◆ Assign
It is displayed on the pages 2/3.
It shows the connection status of the ARC network and Ethernet.

Reference: Please refer to "11. Setting the Panel Assignment and Program Number" for the detailed information on Assign.

◆ Key Data

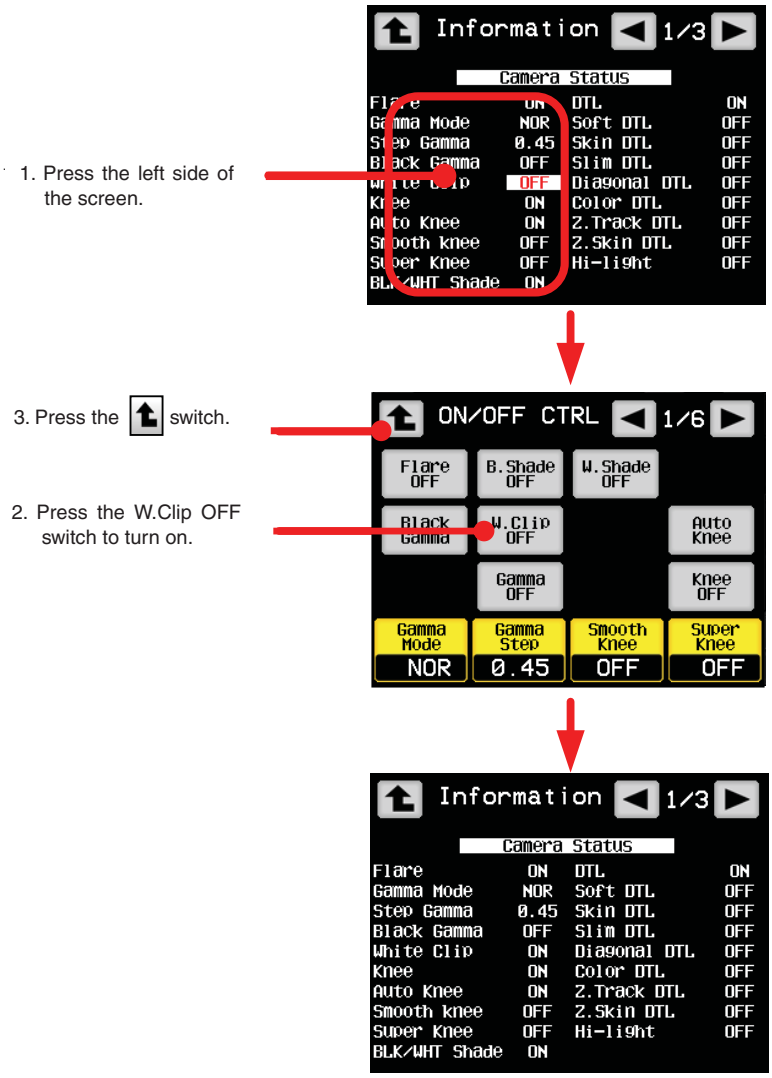
It is displayed on the pages 3/3.

It shows the ON/OFF status for the optional functions of this control panel.

10.2 Direct Jump Function

There is a direct jump function on the Camera Status display screen. Large switches are hidden in the right half and left half of the LCD screen. You can directly jump to the screen in which you can operate the ON/OFFCTRL screen (SETUP) by clicking the screen. You can also return to the previous Camera Status display screen from the ON/OFFCTRL screen (SETUP) that you have jumped to by just operating the switch.

For example, if you want to change the WHT Clip from OFF to ON in the Camera Status display screen, click the left side of the screen. The screen switches to the page 1/6 of the ON/OFFCTRL screen. Set the WHT Clip to ON with the ⬑ switch in the screen and return to the Camera Status display screen.



The left side of Camera Status (1/3) is corresponding to the ON/OFFCTRL (1/6) screen.
The right side of Camera Status (1/3) is corresponding to the ON/OFFCTRL (2/6) screen.
The left side of Camera Status (2/3) is corresponding to the ON/OFFCTRL (3/6) screen.
The right side of Camera Status (2/3) is corresponding to the ON/OFFCTRL (4/6) screen.
The left side of Camera Status (3/3) is corresponding to the ON/OFFCTRL (5/6) screen.
The right side of Camera Status (3/3) is corresponding to the ON/OFFCTRL (6/6) screen.
Each of them are corresponding to their functions.

Caution If the page is switched by operating the direct jump function in the ON/OFFCTRL screen, it will not return to the Camera Status display screen even when  switch is pressed. To return to the Camera Status display screen, press INFO switch from FUNCTION switches on the top of LCD screen.

11. Setting the Panel Assignment and Program Number

The command connection between the BS/CCU and control panel can be changed in the ARC network connection and Ethernet connection. You can the number of BS/CCU to be connected.

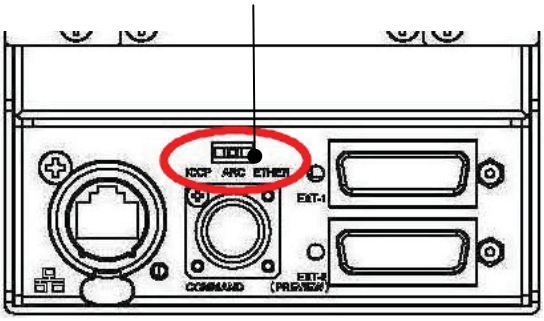
You can also set the program number of camera for program operation and maintenance.

11.1 Setting the ARCnet ID

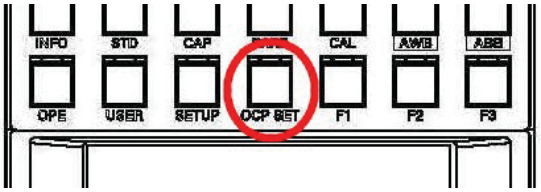
The command connection between the BS/CCU and control panel can be changed with ARC ID for the ARC network connection.

1. Set the ICCP/ARC/ETHER selector switch on the top of the COMMAND cable connector of OCP-300 to ARC.

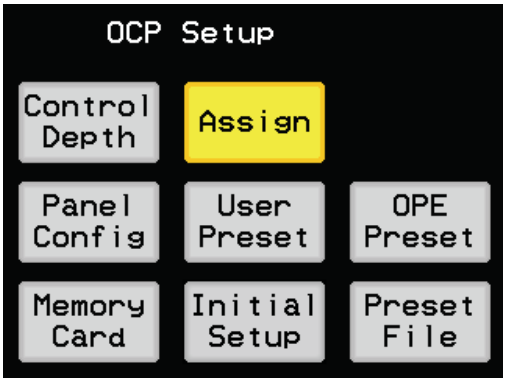
Communication setting



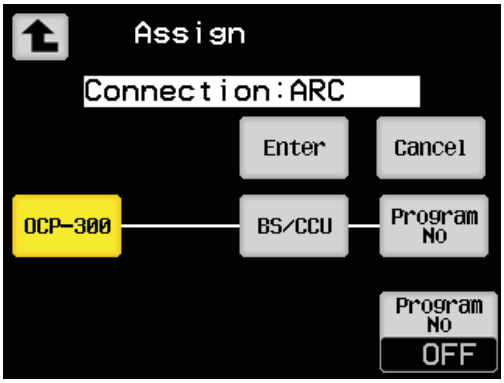
2. Press OCP Set from FUNCTION switches on the top of LCD screen.



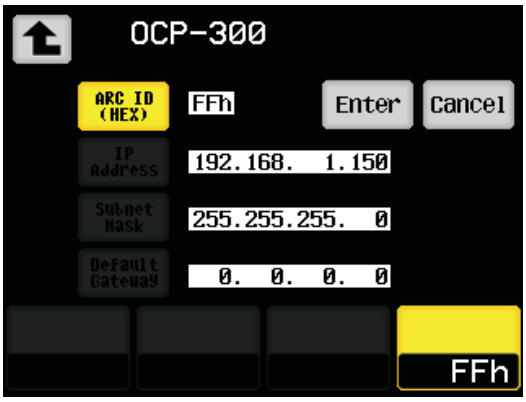
3. Press [Assign] switch from the LCD screen.



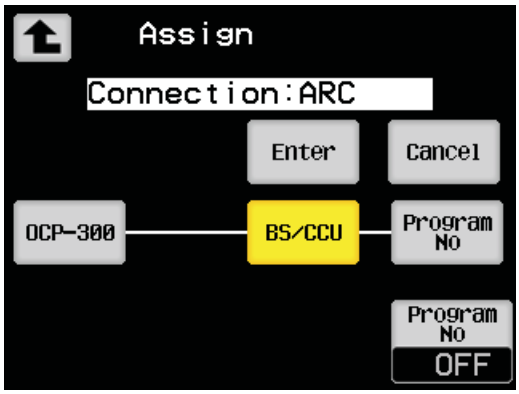
4. Press [OCP-300] switch from the LCD screen.



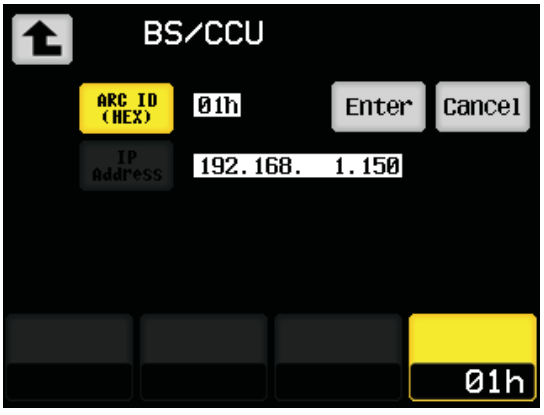
5. ARC ID of this control panel can be set in [OCP-300] screen. If you press [ARC ID(HEX)] switch in the LCD screen and operate the rotary encoder 4, you can operate the displayed ARC network ID. The ARC network ID can be set to a value between 01h and FFh (1 to 255 in case of decimal value). If [Enter] switch is pressed in the LCD screen after the setting has been complete, the ARC network ID will be confirmed. If [Cancel] switch is pressed while setting the ID, the operation will be canceled.



6. Press [↑] switch on the top of LCD screen to return to the Assign screen, and then press [BS/CCU] switch.



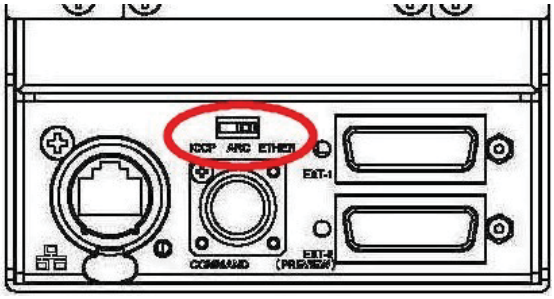
7. Enter the ARC ID (HEX) of BS/CCU that has been connected through the same operation as 5.



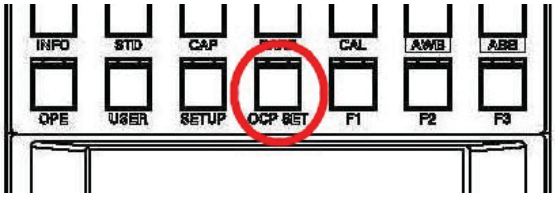
8. If the ARC IDs of the control panel and BS/CCU on the network of the camera system are not duplicated, they can be connected normally.

11.2 Setting the IP Address/Subnet Mask/Default Gateway

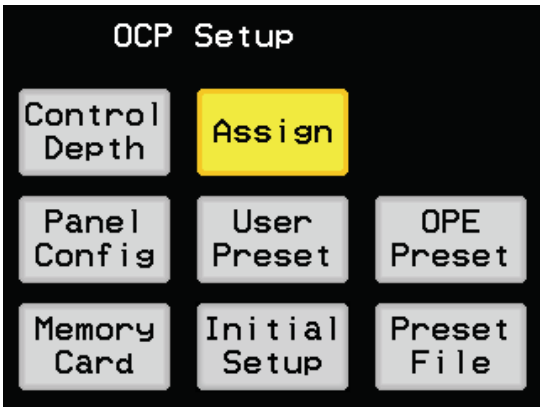
1. Set the ICCP/ARC/ETHER selector switch on the top of the COMMAND cable connector of OCP-300 to ETHER.



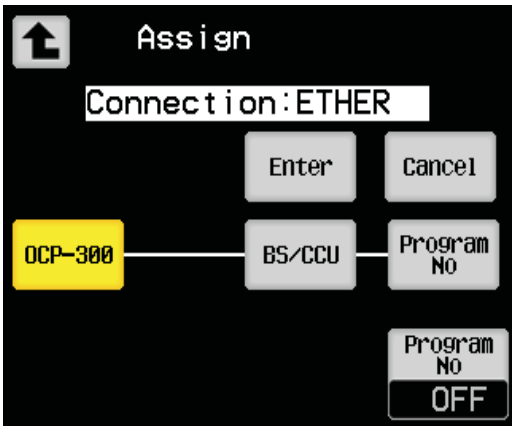
2. Press OCP Set from FUNCTION switches on the top of LCD screen.



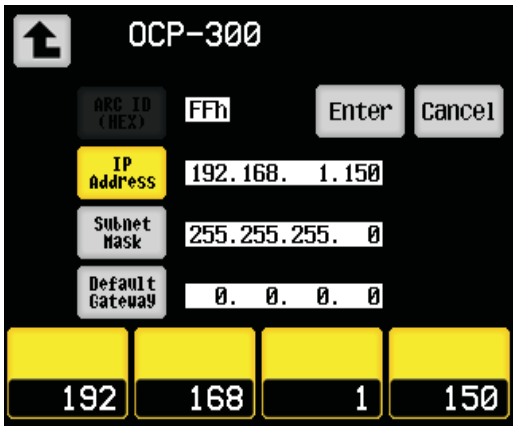
3. Press [Assign] switch from the LCD screen.



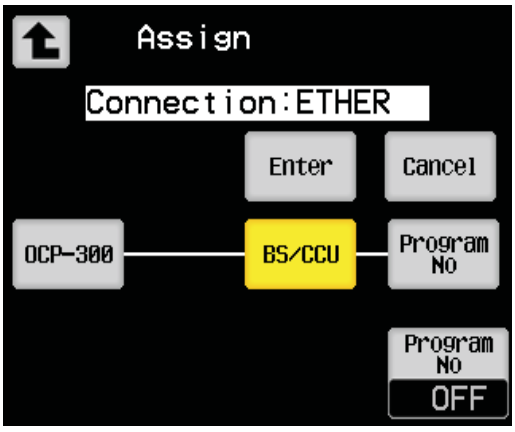
4. Press [OCP-300] switch from the LCD screen.



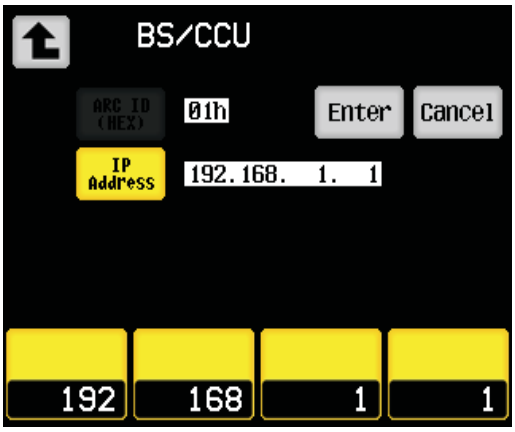
5. IP Address, Subnet Mask, Default Gateway ARC ID of this control panel can be set in [OCP-300] screen. If you press the item you want to set for [IP Address], [Subnet Mask], and [Default Gateway] switches and operate the rotary encoders 1 to 4, you can operate each value of displayed addresses. The each value of addresses can be set to a value between 0 and 255. If [Enter] switch is pressed in the LCD screen after the setting has been complete, the address will be confirmed. If [Cancel] switch is pressed while setting the address, the operation will be canceled.



6. Press  switch on the top of LCD screen to return to the Assign screen, and then press [BS/CCU] switch.



7. Enter the IP Address of BS/CCU that has been connected through the same operation as 5.



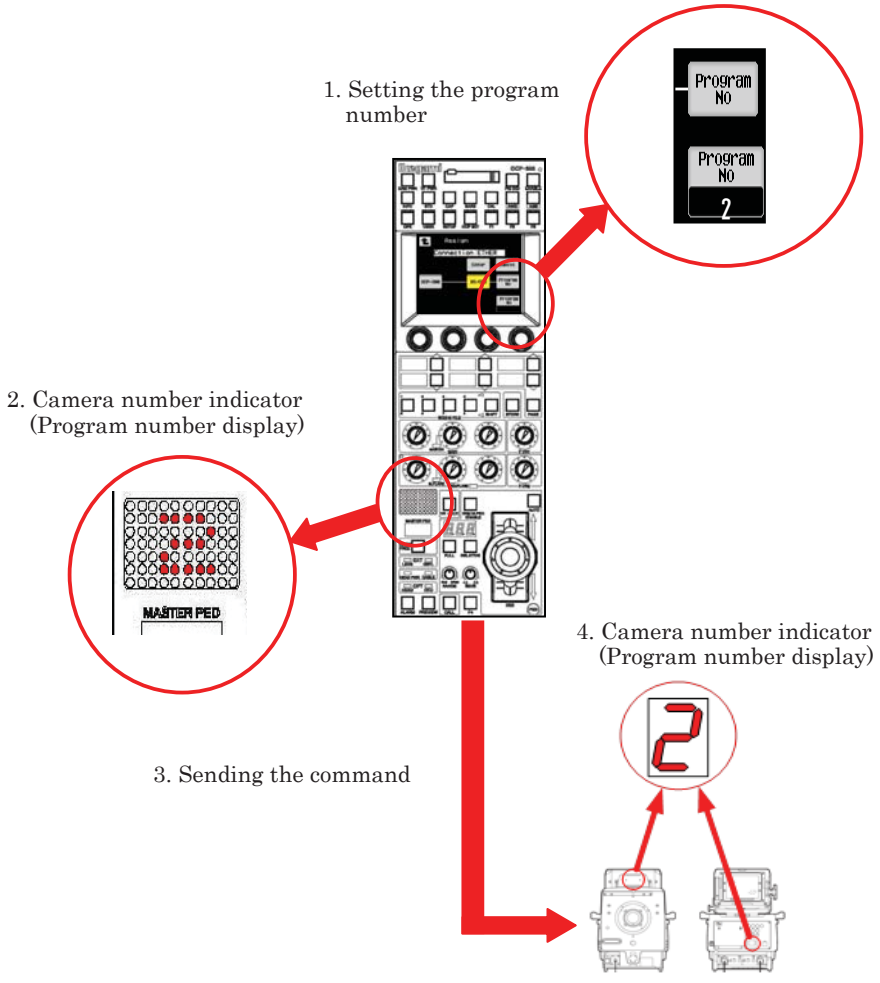
8. If the IP Addresses of the control panel and BS/CCU on the network of the camera system are not duplicated, they can be connected normally.

11.3 Program Number

You can set the program number, which is also the camera number for program operation and maintenance.

The program number you have set is displayed in the camera number indicator and also sent to the camera head with a command. Then it is displayed on the camera number indicator of the camera head.

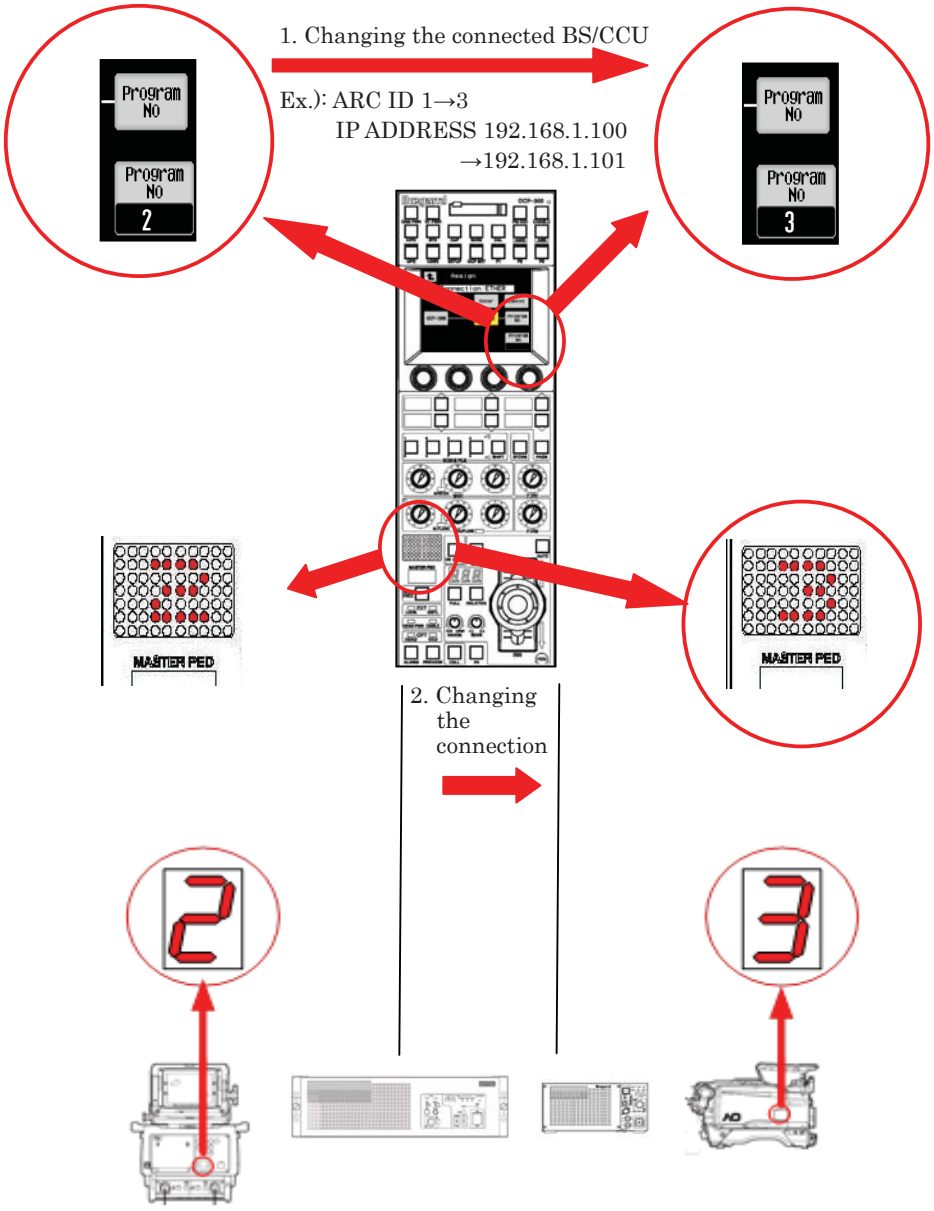
Press [Program NO] switch on the Assign screen and set the program number with the rotary encoder 4. Then press [Enter] switch to confirm the program number.



Note: The OCP number display can be deleted with the camera head and camera number indicator of OCP by setting the program number to OFF.

11.4 Program Number for Changing the Panel Assignment

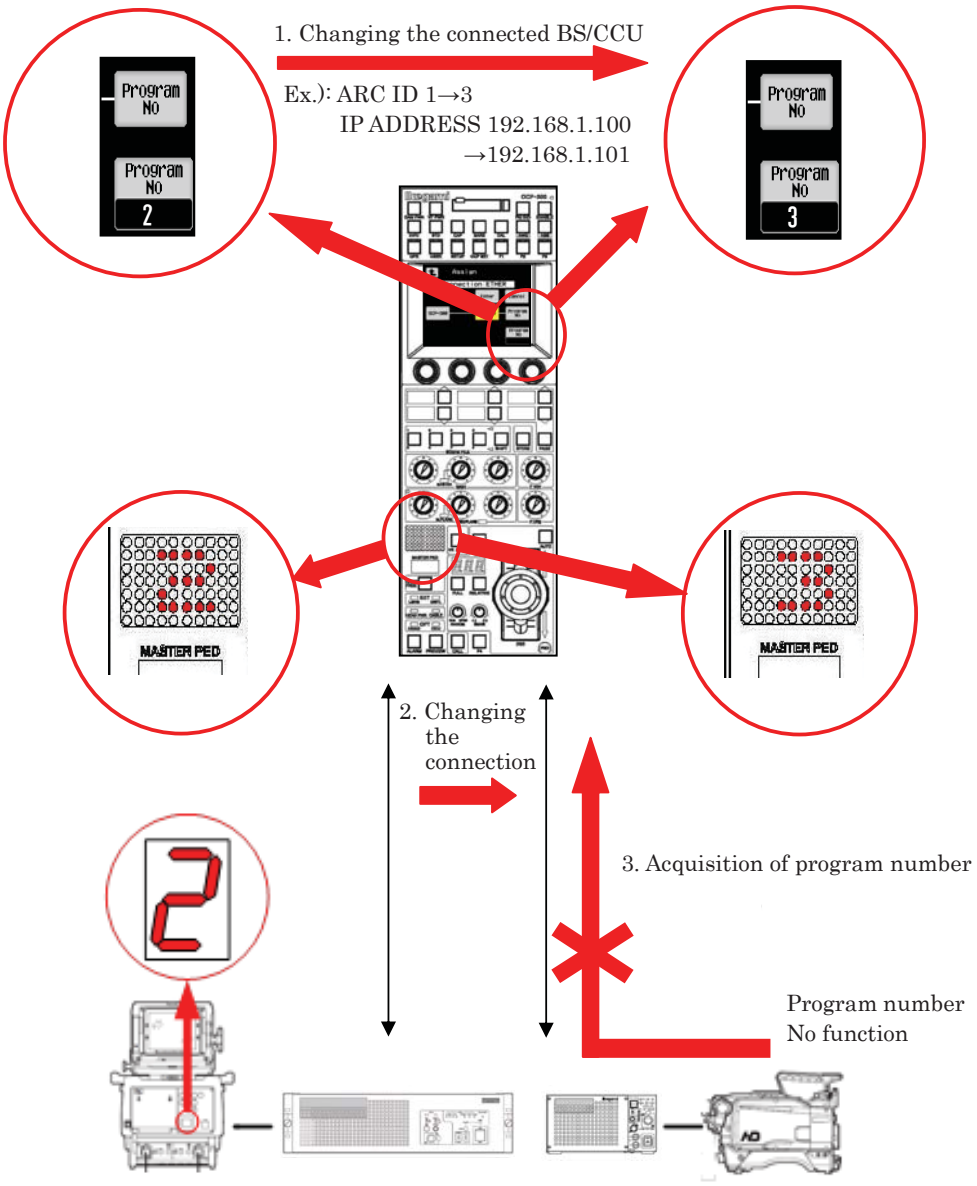
When you change the panel assignment and the connection of triax cable or fiber cable between the BS/CCU and camera head, the program number is obtained from the camera head, and the program number of OCP is changed to the number of the camera head.



Note: The program number function is used to store the program number. The program number display function is used to display the number.

11.5 Display Mode of Program Number

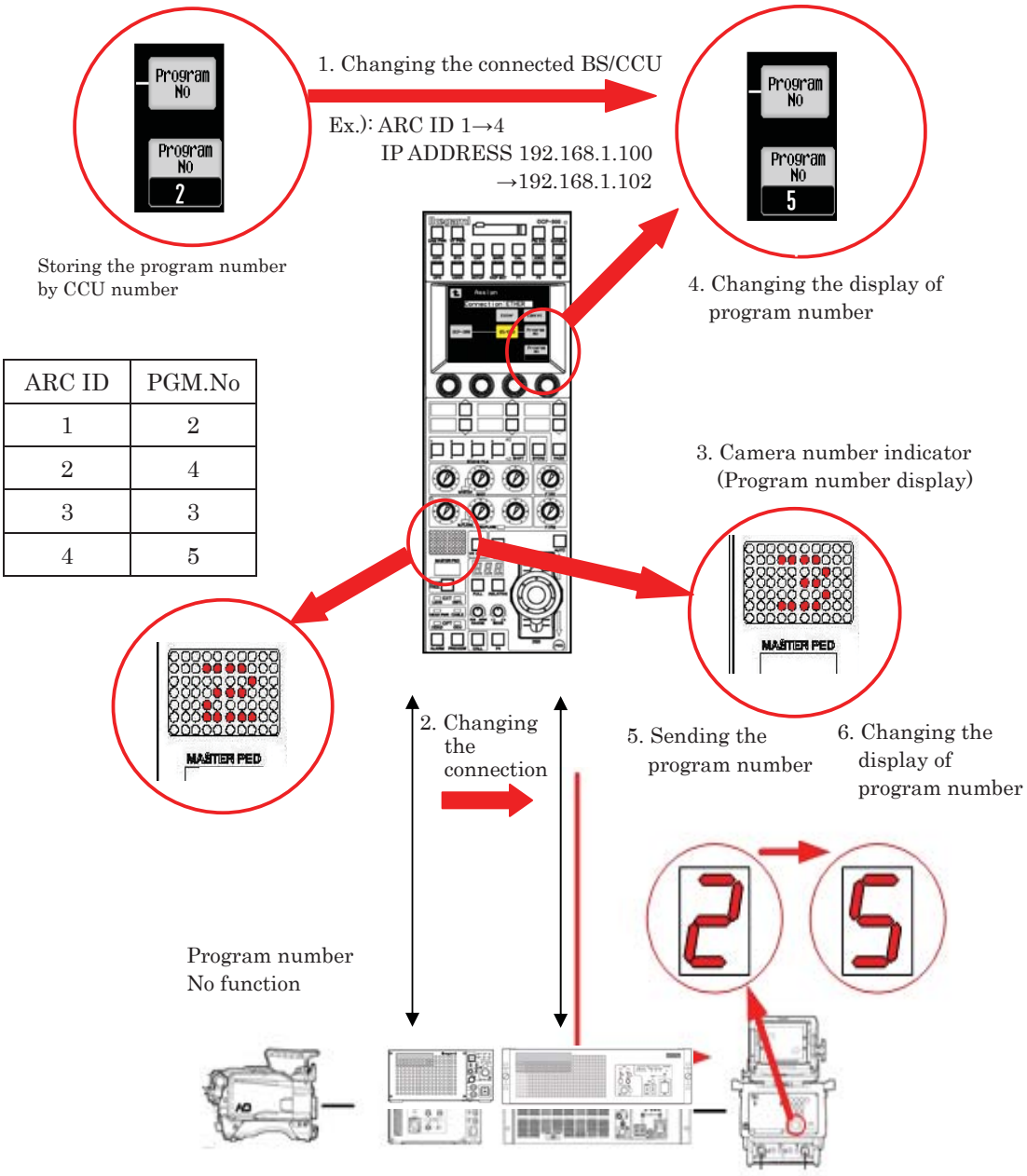
If the control panel is connected to the camera head without program number function (the number is stored even when the display function is not available), the program number will be retained because it cannot be obtained from the camera head. For this reason, some inconvenience may occur.



The number can be stored for the connection setting (Assign setting) of BS/CCU only when the network is connected. The operation described in the previous section "11.2 Program Number for Changing the Panel Assignment" is for CAM mode while the operation that stores the number with the Assign setting is for SELF mode. You can switch between CAM mode and SELF mode in the panel configuration (panel setting).

Reference: Please refer to "21.1.3 Setting Items" for operation procedures.

In the SELF mode, if the Assign setting is changed, the program number of the camera number indicator in the control panel will be changed to the stored number, and the program number will be sent to the camera head by a command.



ARC ID	PGM.No
1	2
2	4
3	3
4	5

▪ CAM mode (CAMERA has priority)

The number stored in the camera head has priority for the program number display. The display of camera number indicator of OCP is changed based on the answer from the camera head when the power is turned on or the assignment is set, etc. If there is no answer, the number stored in OCP will be displayed.

▪ OCP mode (OCP has priority)

The number stored in OCP has priority for the program number display. The number stored in OCP is displayed on the camera number indicator and the command is sent to the camera head when the power is turned on or the assignment is set, etc.

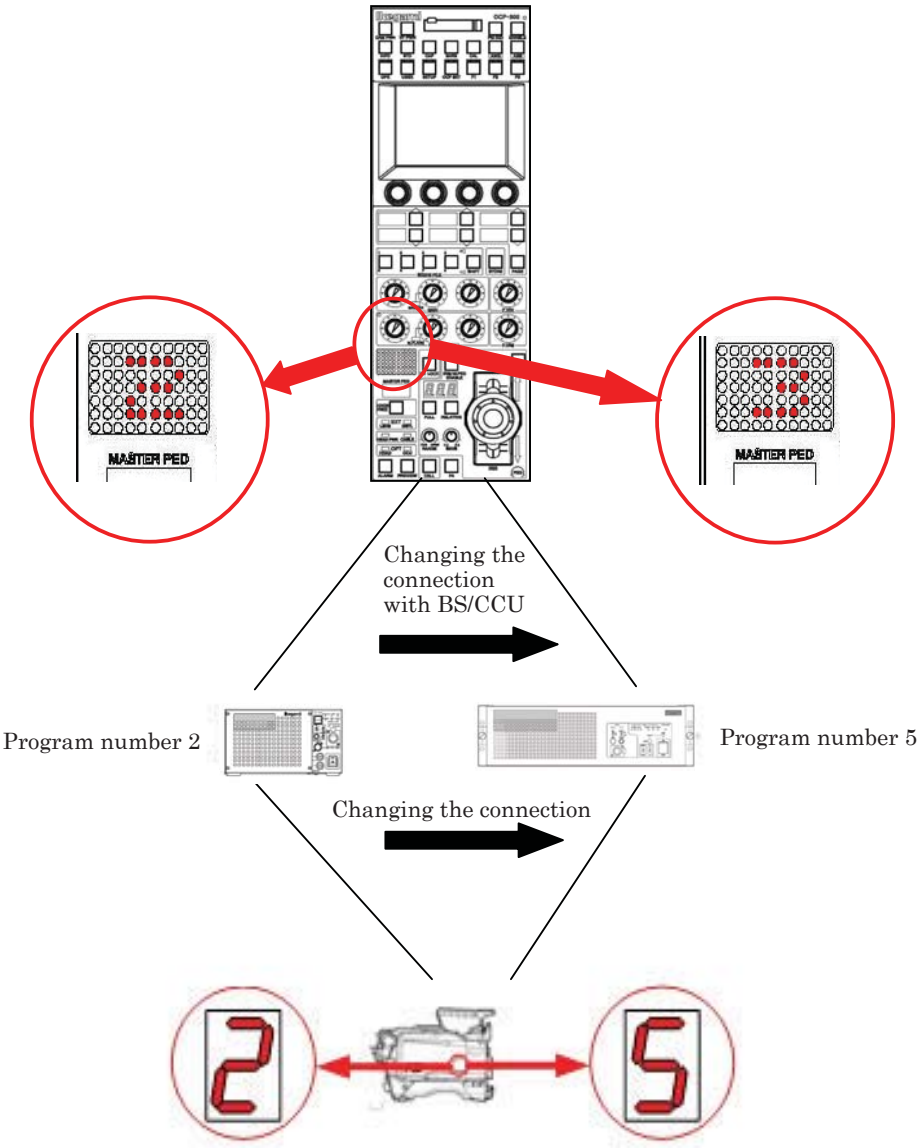
▪ FIX mode

You can set only program number display of OCP without involving the camera head and BS/CCU.

11.6. Setting the program number function for BS/CCU

Some BS/CCUs have a program number function. The program number function can be enabled with the menu setting of BS/CCU. If the OCP is connected to the BS/CCU in which the program number function is enabled, the number stored in the BS/CCU has priority for the program number display. The display of camera number indicator of OCP is changed based on the answer from the BS/CCU when the power is turned on or the assignment is set, etc. When the BS/CCU and camera head are connected by a command, the camera head number will be the number store din the BS/CCU.

In addition, the program number to be stored in the BS/CCU can be set by operating OCP.



Note: If you want to use the program number together with the input of system switcher, set the program number function of BS/CCU to be enabled.

Caution When the program number of BS/CCU is enabled, make sure to set the display mode of OCP to the CAM mode. If it is set to the SELF mode, a malfunction may occur.

11.7. Availability of Display Mode and Program Number Function

Operation is different in the camera with program number function and the camera head without the function. You need to decide which mode (either CAM mode or SELF mode) should be used based on the frequency of the control panel assignment or whether the camera connection is changed or not.

You may also need to set the enabled/disabled of the program number function for BS/CCU depending on the user's intention for the program number.

The CAM mode is the standard setting.

If you want to display the number only in OCP without involving the camera head and BS/CCU, you should set to the FIX mode.

Connection	Display mode	Program number function		Compatibility
		BS/CCU	Camera head	
ICCP	CAM (CAMERA has priority)	Disabled (not available)	Available	◎ ※1※2
		Disabled (not available)	Not available	× ※3
		Enabled	Available	◎ ※1※2※4
		Enabled	Not available	○ ※1
	SELF (OCP has priority)	Disabled (not available)	Available	△ ※4
		Disabled (not available)	Not available	× ※3
ARC NET/ Ethernet	CAM (CAMERA has priority)	Disabled (not available)	Available	◎ ※1※2
		Disabled (not available)	Not available	× ※3
		Enabled	Available	◎ ※1※2※4
		Enabled	Not available	○ ※1
	SELF (OCP has priority)	Disabled (not available)	Available	○ ※1※4
		Disabled (not available)	Not available	○ ※1

※1 Supports the assignment between OCP and BS/CCU.

※2 Supports the assignment between BS/CCU and head.

※3 Number display only in the panel

※4 The panel and display may not be consistent when the number is changed in the camera head.

Caution When the program number of BS/CCU is enabled, make sure to set the display mode of OCP to the CAM mode. If it is set to the SELF mode, a malfunction may occur.

Note: In general, we recommend that you set to CAM if the system consists of only the camera with program number function, and to SELF if the system includes a camera without the program number function

The program number function is used to store the program number. The program number display function is used to display the number.

12. Operation Range Setting Function

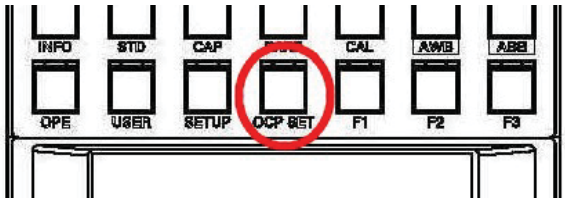
12.1 Function Overview

The operation range of OCP-300 can be set to four levels as shown below.
The setting range is protected by a password.

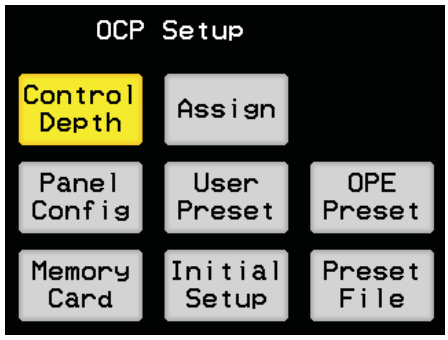
① **Basic** : Operation of the LCD related to operation is prohibited.
② **Standard** : Operation range equivalent to OCP-790.
③ **Extended** : Operation range equivalent to OCP + MCP.
(Except operations related to system, reference file creation, and advanced setting of the control panel)
④ **Complete** : No restriction on the operation.

12.2 Setting Procedure of Operation Range

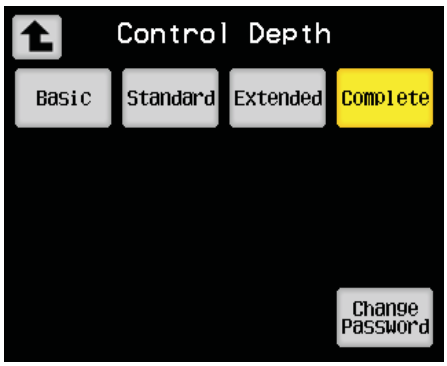
1. Press [OCP SET] switch from FUNCTION switches on the top of LCD screen.



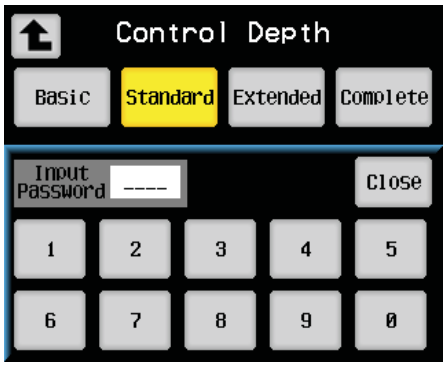
2. Press [CONTROL DEPTH] switch from the LCD screen.



3. [Complete] switch is selected as the factory default setting, and there is no restriction on the operation.
   Press ⬆ to return to the OCP SET screen.

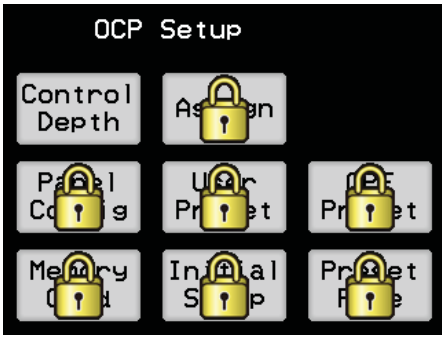


4. Press [Basic], [Standard], [Extended], or [Complete] switch to change the operation range. The following password input screen will be displayed.



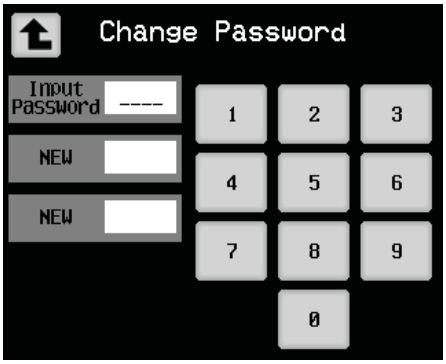
5. Enter the 4-digit password. Once the password is confirmed, the operation range can be set to the selected range.
   If the password is not correct, the input field will be cleared.
   Press Close switch to close the password input screen.
   The screen will return to the operation range as before the selection.
   *** The factory default password is set to [0] [0] [0] [0].**
   Please note that it is prohibited to accept the switches related to LCD screen switching except ⬆ when this screen is displayed.

The prohibited functions are marked with key icons. If these functions are pressed, the buzzer will sound and the operation will not be accepted. This is same for the prohibited hard switches. If they are pressed, the buzzer will sound and the operation will not be accepted.


OCP Setup
Control
Depth

12.3 How to Change the Password

If [Change PASSWORD] switch in the CONTROL DEPTH screen is pressed, the following screen will be displayed.



Enter the old 4-digit password ([0] [0] [0] [0] for the factory default setting). Once the password is confirmed, you can enter a new password.

Re-enter the new password to confirm. If it is confirmed, the setting will be completed. Then, the screen will return to the CONTROL DEPTH screen.

If the password is not correct, the input field will be cleared.

Press  to return to the CONTROL DEPTH screen without entering a password.

Caution Please note that it is prohibited to accept the switches related to LCD screen switching except  when this screen is displayed.

Note: If you forget the password or you urgently need to unlock the restriction on the operation when the person who set the password is absent, the control panel can be reset to the initial setting.

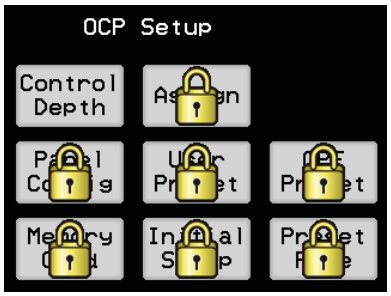
Reference: Please refer to "22.3 Initial Setting" for resetting to the initial setting.

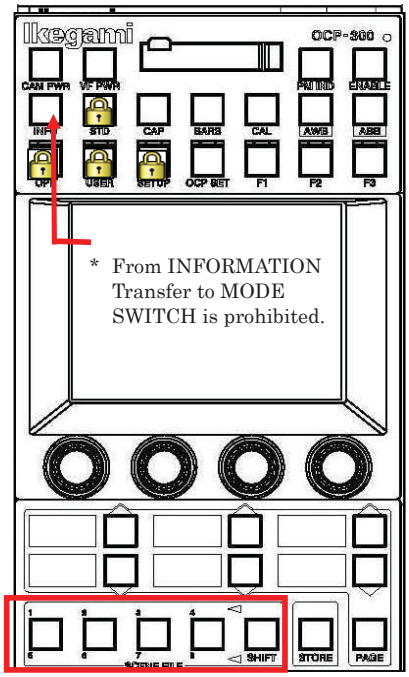
12.4 Detailed Information on the Initial Operation Range

Function	Switch position	Basic	Standard	Extended	Complete
MAN SET	Manual Set (LCD)	×	×	○	○
MAN CLR	Manual Clear (LCD)	×	○	○	○
ALL MAN SET	Set (LCD Standard Set)	×	×	○	○
ALL MAN CLR	Clear (LCD Standard Set)	×	×	○	○
STD Basic	Basic (LCD Standard Set)	×	×	×	○
STD Complete	Complete (LCD Standard Set)	×	×	×	○
STD User	Basic (LCD Standard Set)	×	×	×	○
STD Factory	Factory (LCD Standard Set)	×	×	×	○
Scene Load	SCENE FILE (Switch)	○	○	○	○
Scene Store	STORE (Switch)	×	○	○	○
Camera Setup	SETUP (Switch)	×	×	○	○
Camera Mainte	OCP SETUP (Switch)	×	×	×	○
ON/OFF CTRL	ON/OFF CTRL (LCD Setup)	×	×	○	○
Menu	Menu (LCD Setup)	×	×	×	○
Auto Setup	Auto Setup (LCD Setup)	×	○	○	○

Function	Switch position	Basic	Standard	Extended	Complete
Assign	Asign (LCD Setup)	×	○	○	○
File OPE	Memory Card (LCD Setup)	×	×	○	○
System Format	Format (LCD Setup)	×	×	×	○
Operation	OPE (Switch)	×	○	○	○
User	USER (Switch)	×	×	×	○
WFM/PM	WFM/PM (LCD)	×	○	○	○
AWB/ABB	ABB, AWB (Switch)	○	○	○	○
Power SW	CAM PWR, VF PWR (Switch)	○	○	○	○
Select SW	Select switch on the top of SCENE FILE switch	○	○	○	○
FUNC SW	F1, F2, F3, F4 (Switch)	○	○	○	○
IRIS SW	FULL, RELATIVE, IRIS/MPED ENA, AUTO (Switch)	○	○	○	○
Others SW	CAP, BAR, PM IND, CAL (Switch)	○	○	○	○
White VR	GAIN volume	○	○	○	○
Black VR	PED/FLARE volume	○	○	○	○
FUNC VR	F VR1, F VR2	○	○	○	○

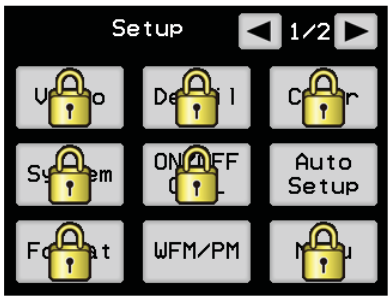
① Basic

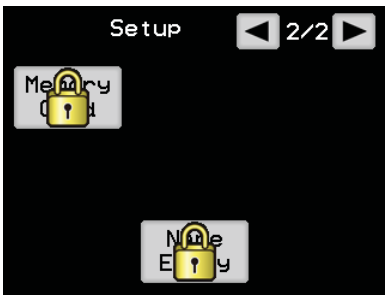


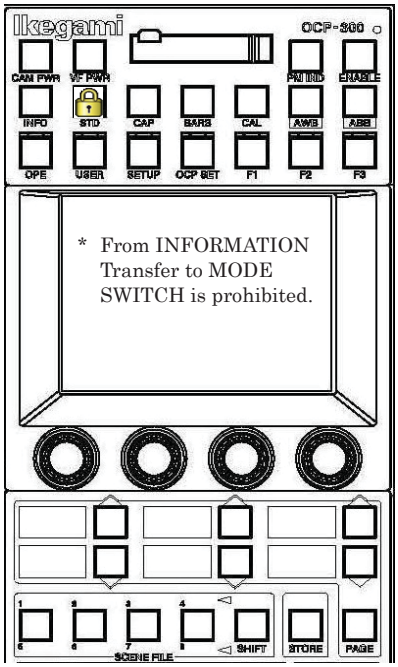


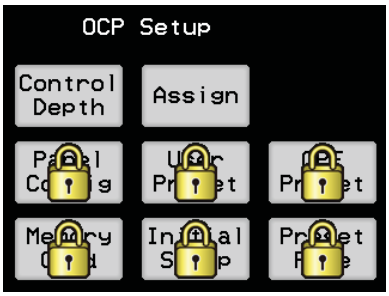
* Saving SCENE FILE is prohibited.

② Standard

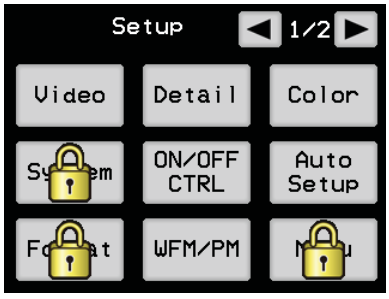


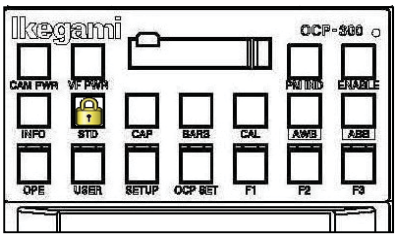


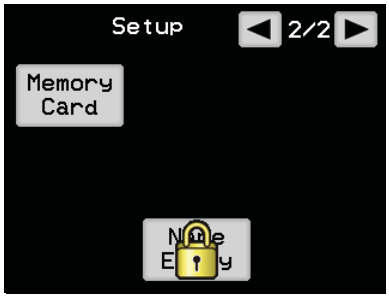




③ Extended







④ Complete

There is no restriction on the operation.

12.5 Changing the Operation Range

Each item of the operation range can be arbitrarily changed.

Reference: Please refer to "21.3 Control Depth" for changing the operation range.

13. Standard Function

13.1 Function Overview

Standard function is used to reset the BS/CCU setting to the standard setting by controlling the control panel. OCP-300 has two main standard functions, “Clear to Standard” and “Recall Preset File".

“Clear to Standard” can be executed by individually sending a conventional command.

“Recall Preset File” can be executed by sending a new specialized command.

1) Clear to Standard

Clear to Standard can reset the camera to the standard setting by sending an individual command from OCP-300. Therefore, the items that can be reset to the standard setting are the items that can be operated by a normal panel operation.

If a special function is turned on, it will be formed to be turned off. The control data can be also cleared by individually sending a manual clear command. Therefore, the control data after the execution will be returned to the state at the end of auto-setup and also the state being manually set.

Clear to Standard has 2 modes, Basic and Complete.

- **Basic mode**

  Basic mode resets the item for the picture making to a standard setting.

- **Complete mode**

  Complete mode resets the items related to the system up to the phase adjustment, etc., in addition to the Basic item, to a standard setting.

The standard function can be operated even in the camera head and BS/CCU that do not have the Preset File function, by individually sending this command.

Each item of the standard setting can be arbitrarily changed in Clear to Standard.

Reference: Please refer to "20.4 STD FUNCTION" for the detail information on how to change the standard setting.

<Clear to Standard function List of items>

Function processed with Basic Mode (1/2)

Function	State	Manual Clear functions
CAP	OFF	
SCENE FILE	OFF	
DIAGNOS	OFF	
FILE TRANSFER	OFF	
AUTO FUNCTIONS	OFF	
SUPER PED	OFF	
TEST PULSE	OFF	
BARS	REMOTE ON OFF	
AWB	REMOTE ON AWB ON, AWB A channel	
SUPER V	OFF	
AUTO COLOR SETUP CHART	OFF	
DIASCOPE	OFF	
BLACK STRETCH/PRESS	OFF	
MENU	OFF	
STEP GAIN	0 dB	R/G/B GAIN
GAIN WOBBLING	OFF	R/G/B/MASTER PED, R/G/B BLACK SET
BLACK SHADING	ON	R/G/B H/V/SAW/PARA BLACK SHADING
WHITE SHADING	ON	R/G/B H/V/SAW/PARA WHITE SHADING
FLARE	ON	R/G/B FLARE
GAMMA	0.45	R/G/B/MASTER GAMMA
BLACK GAMMA	OFF	R/G/B/MASTER BLACK GAMMA
KNEE	ON	R/G/B/TOTAL KNEE POINT R/G/B/TOTAL KNEE SLOPE
AUTO KNEE	ON	R/G/B/TOTAL KNEE POINT, R/G/B/TOTAL KNEE SLOPE
SUPER KNEE	OFF	
SMOOTH KNEE	OFF	

Function	State	Manual Clear functions
WHITE CLIP	ON	R/G/B WHITE CLIP
DTL	ON	DTL GAIN, DTL Freq, DTL B/W Bal, DTL EDGE Bal, DTL THRESH, FINE DTL
SOFT DTL	OFF	WHT SUP, BLK SUP
SKIN DTL	OFF	R/B HUE, SKIN DTL GAIN
SLIM DTL	OFF	
DIAGONAL DTL	OFF	
COLOR DTL	OFF	COLOR DTL GAIN, PHASE, FINE, WIDTH 1/2
ZOOM TRACK DTL	OFF	ZOOM TRACK DTL
ZOOM TRACK SKIN DTL	OFF	ZOOM TRACK SKIN DTL
NOISE SUP	ON	DTL NOISE SUP
HI-LIGHT DTL	OFF	GAIN, LIMIT
MATRIX	OFF	R-G, R-B, G-R, G-B, B-R, B-G
MATRIX SELECT	1	
COLOR CORRECTOR	OFF	R/Yl/G/Cy/B/Mg Hue, SAT.

Function processed with Basic Mode (2/2)

Function	State	Manual Clear functions
SHUTTER	OFF	
VARIABLE SUHTTER	OFF	VARIABLE SHUTTER
IRIS REMOTE	ON	
AUTO IRIS	ON	PEAK, LEVEL
CHROMA	ON	
COLOR SATURATION	OFF	COLOR SATURATION, COMB FILTER
ZOOM/FOCUS REMOTE	OFF	ZOOM, FOCUS
CUSTOM COLOR 1	OFF	HUE, SAT., VAL, DTL, PHASE, FINE, WIDTH 1/2, ADH X/Y
CUSTOM COLOR 2	OFF	HUE, SAT., VAL, DTL, PHASE, FINE, WIDTH 1/2, ADH X/Y
COLOT MATCH	OFF	
C.TEMP 5600K	OFF	
Digital Extender	OFF	
AVC	OFF	
ATW	OFF	
Filter Hold	OFF	
VAR C.Temp	OFF	

Color Hue	OFF	
AVC Night Mode	Night1	

Function processed with Complete mode in addition to the above

Function	State	Manual Clear functions
SC PHASE		SC Corse, SC FINE
H PHASE		H PHASE
MIC GAIN REMOTE	OFF	MIC GAIN
VIDEO LEVEL		
SD TRIAX		TA_LVL Y/Cb/Cr,BS_LVL Y/Cb/Cr
HD TRIAX		TA_LVL Y/Pb/PR,,TA_BLK Y/Pb/Pr
SDTV ASPECT	4:3	

2) Recall Preset File

Recall Preset File can read Preset File that is saved in the backup memory in advance, by sending a special command from the control panel.

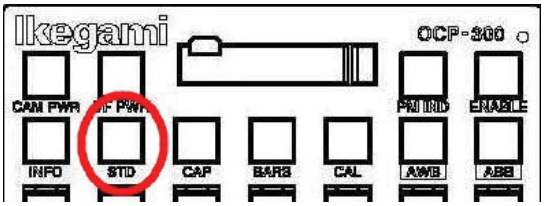
Some Preset File may contain factory data and user data depending on the specifications of camera head and BS/CCU. Preset File is individually loaded for the camera head and BS/CCU.

Caution This function can be used only for the camera head and BS/CCU supporting the command. The factory data cannot be rewritten by a user because it is data for the factory default setting.

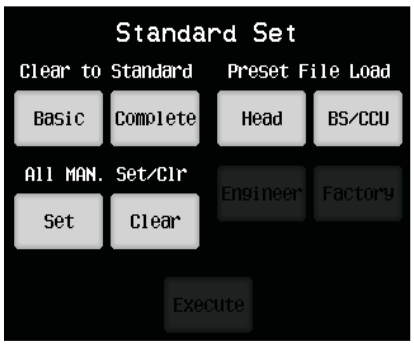
Reference: Please refer to the instruction manual of the camera head and BS/CCU for the procedure to save the user data.

13.2 Operation Procedure

1. Press STD switch on the camera function operation panel at the top of the LCD screen.

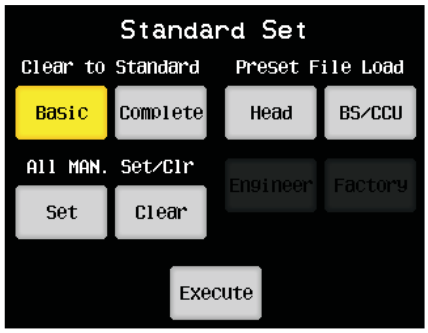


2. As the following operation screen is displayed on the LCD screen, you can select two functions for each Clear to Standard and Recall Preset File.

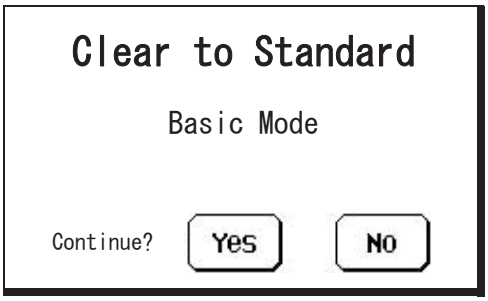


1) Clear to Standard

1. Basic or Complete can be selected for Clear to Standard. If it selected, [Execute] switch will be displayed on the bottom of the LCD screen.



2. If [Execute] switch is pressed, a pop-up screen will appear on the LCD screen to call your attention. If “No” is selected, it will return to the previous screen without execution.



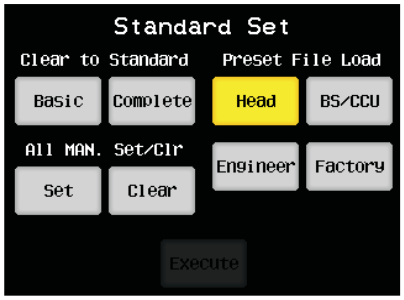
3. If “Yes” is selected, the execution will be started.

4. As a pop-up screen is displayed until the process is complete, you can check if it is executing or not.

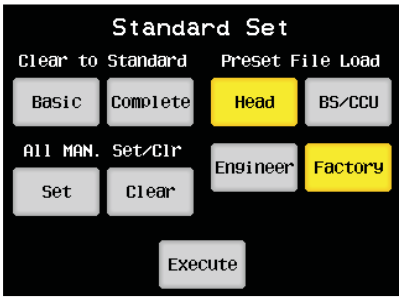
Caution It takes about 5 seconds due to the process executed by individually sending a command. For this reason, if it is operated on the parallel-connected panel during the execution, the standard function may not work properly.

2) Recall Preset File

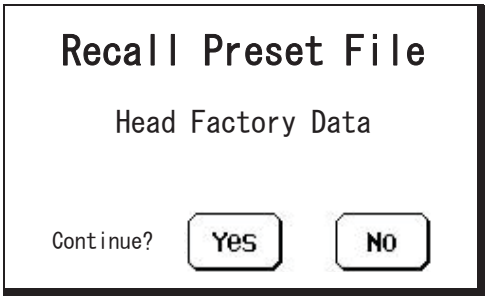
1. Recall Preset File can load the preset file for each HEAD and BS/CCU.



If the item is selected, [Engineer] and [Factory] switches will appear on the bottom of the screen. There you can select whether to load the engineering data or to load the factory data. If either of switches is pressed, [Execute] switch will be displayed on the bottom of the LCD screen. If there is no function, the switch is displayed in gray (dark) and cannot be selected.



2. If [Execute] switch is pressed, a pop-up screen will appear on the LCD screen to call your attention. If “No” is selected, it will return to the previous screen without execution.



3. If “Yes” is selected, the execution will be started.

As a pop-up screen will be displayed until the process is complete, you can check if it is executing or not.

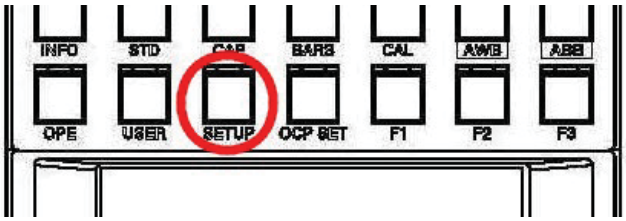
4. The camera head and BS/CCU may not be able to execute for some reason. In this case, a pop-up screen will appear on the LCD screen to call your attention. Once you confirmed, press "OK".

If an error occurs while loading data, a pop-up screen will appear. Once you confirmed, press "OK".

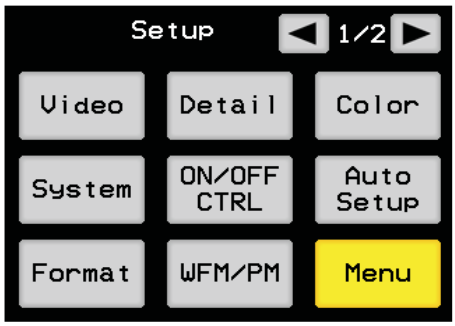
Caution After loading Preset File, the camera head and BS/CCU may be reset to enable state restoration. If the camera head and BS/CCU are reset, OCP may be temporarily disabled or the LCD screen may disappear. However, this is not a malfunction. This is due to the command being cut off, and it is a normal reaction.

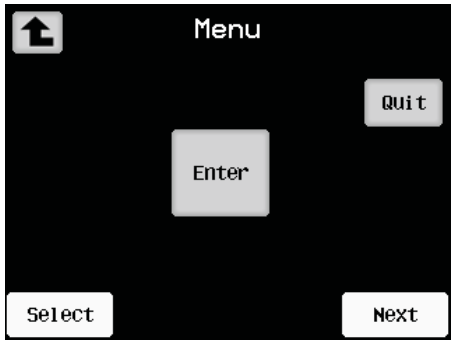
14. Character Setting

1. Press [OCP SET] switch from FUNCTION switches on the top of LCD screen and press Setup switch.



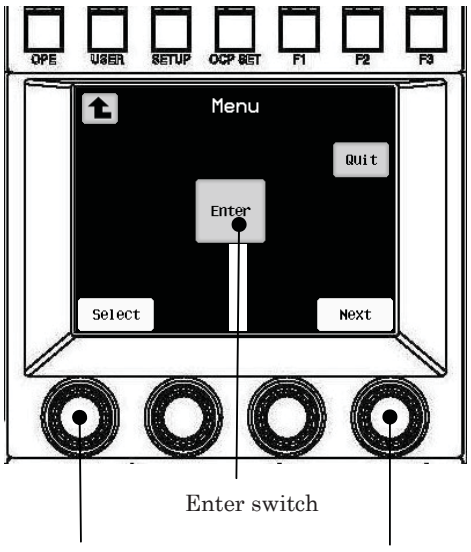
2. The menu (including BARS TITLE) of the camera can be set by pressing and holding the [Menu] switch.





14.1 Setting the Camera Menu

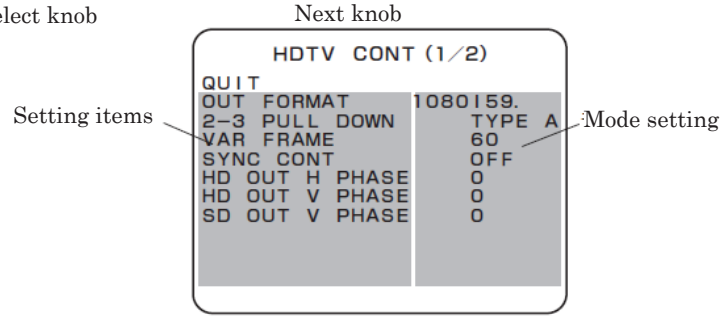
OCP-300



1. Press and hold Menu switch. Main menu will be displayed. When the BS/CCU is connected, the menu operation can be performed for the function setting of BS/CCU. When the camera head is connected, the menu operation can be performed for the camera head.

```
*** CCU-790A MENU ***
QUIT
BARS TITLE
HDTV/DC/UC CONT
RET VIDEO FORMAT
INFORMATION
OTHERS
   --- OPE.  GUIDE ---
 SELECT    :   [SEL]  KNOB
 SELECT    :  [NEXT]  KNOB
 ENTER     :  [ENTER]  KEY
```

2. Turn Select knob or Next knob to move the flashing cursor over to the target item, and then press Enter switch. Sub-menu will be displayed.



3. Turn Select knob or Next knob to move the flashing cursor over to the target setting item, and then press Enter switch. The flashing cursor shifts to the mode setting.

4. Turn Select knob or Next knob to change the mode. Depending on the function, some items can change the settings when the knob is turned while other items can change the settings when the Enter switch is pressed.

5. It quits when all settings are changed.
   To quit,
   - Select QUIT on the PM screen by operating the menu.
   - Press Quit switch on the LCD screen.
   - Press FUNCTION switch on the top of the LCD screen.

   The above procedures can be used to quit.

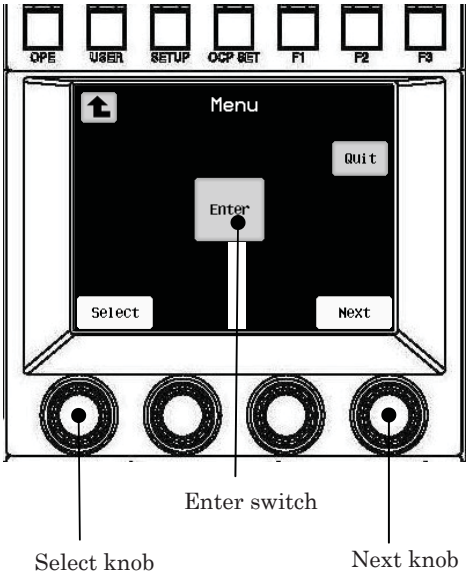
Note: The menu may not appear unless it is set to BARS ON depending on the model of camera head and BS/CCU.

14.2 Setting the BARS TITLE

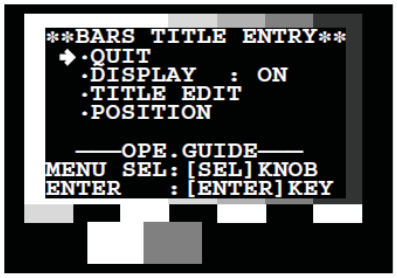
Select BARS TITLE from the main menu of BS/CCU by performing the operation described in the previous section "14.1 Setting the Camera Menu".

1) How to switch ON/OFF the character display of BARS TITLE

OCP-300

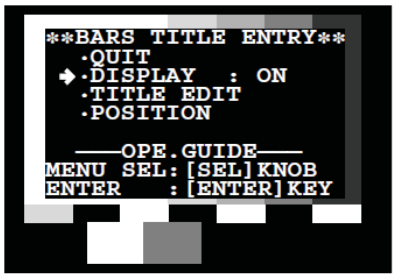


1. Select BARS TITLE from the main menu, and display the BARS TITLEENTRY screen on the PM.



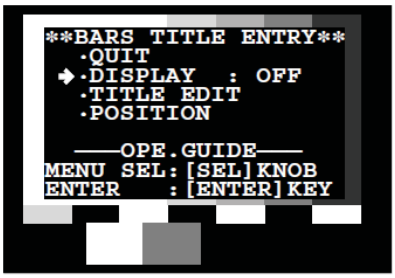
BARS TITLE ENTRY screen

2. Turn the Select knob and select ”DISPLAY”.



Select DISPLAY

3. If Enter switch is pressed, it will turn into the ON/OFF switching mode, showing the current status (ON or OFF) with flashing.



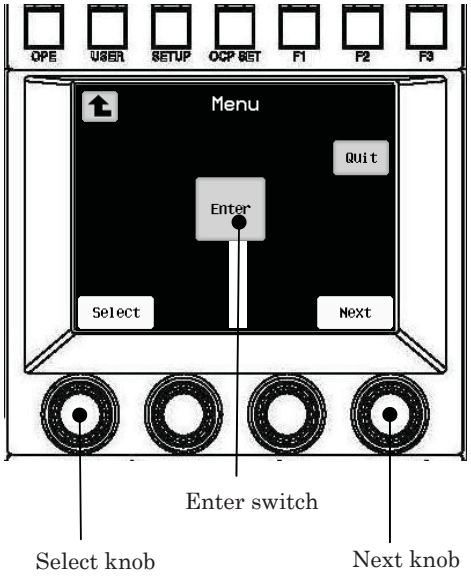
ON/OFF switching mode

4. Turn Select knob to switch between ON and OFF for the display.

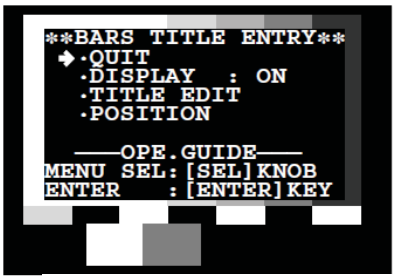
5. If Enter switch is pressed, it will cancel the ON/OFF switching mode for the display.

2) How to edit the characters of BARS TITLE

OCP-300

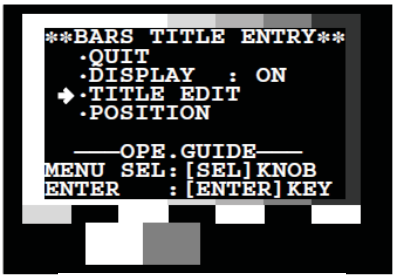


1. Select BARS TITLE from the main menu, and display the BARS TITLE ENTRY screen on the PM.



BARS TITLE ENTRY screen

2. Turn the Select knob and select "TITLE EDIT".



TITLE EDIT selection

3. If Enter switch is pressed, it will turn into the edit mode and the screen will be switched.

BARS TITLE input area

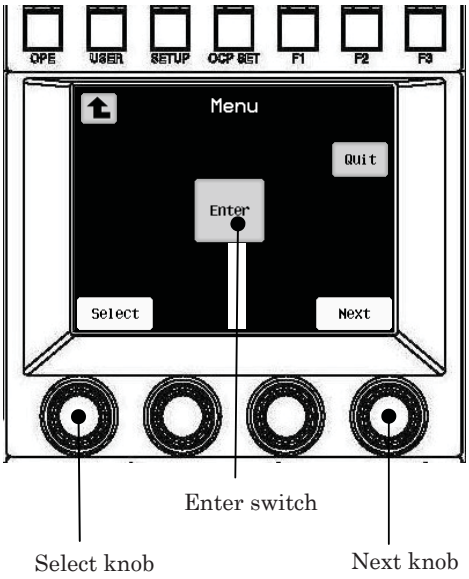
Edit mode

4. The following shows the functions of Select knob, Next knob, and Enter switch on the top of the LCD screen.
   - Select knob : Used to select the characters to enter.
   - Next knob : Used to specify the digit position of the characters to be entered or select "[QUIT]", "[CLR]", or "[ENTRY]".
   - Enter knob : Enabled when either one of "[QUIT]", "[CLR]", "[ENTRY]" is selected by IRIS control.

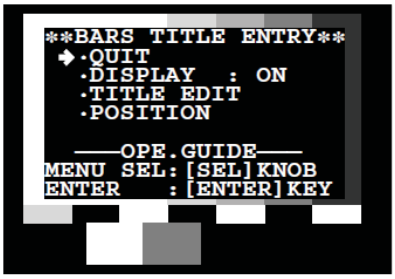
5. If Enter switch is pressed, the following operation is performed.
   - [QUIT] : Used to disable the BARS TITLE that has been input and edited and cancel the edit mode (BARS TITLE remains in the previous status).
   - [CLR] : Used to clear all of the BARS TITLES that have been input.
   - [ENTRY] : Used to register new BARS TITLE that has been input and edited and cancel the edit mode. Then, the characters displayed in the BARS TITLE from this point will be the newly registered title.

3) Setting the display position of BARS TITLE characters

OCP-300

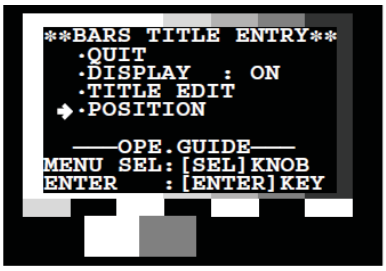


1. Select BARS TITLE from the main menu, and display the BARS TITLE ENTRY screen on the PM.



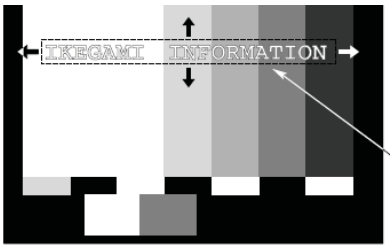
BARS TITLE ENTRY screen

2. Turn the Select knob to select "POSITION".



Display position setting mode (POSITION selection)

3. If Enter switch is pressed, it will turn into the display position setting mode and the screen will be switched.



BARS TITLE position display

The title registered in [How to edit the characters of BARS TITLE] will be displayed on the color bar.

4. The following shows the functions of Select knob, Next knob, and Enter switch on the top of the LCD screen.
   - Select knob : Used to set the horizontal position of BARS TITLE.
   - Next knob : Used to set the vertical position of BARS TITLE.
   - Enter knob : Used to cancel the display position setting mode.

5. If Enter switch is pressed, it will cancel the display position setting mode.

14.3 Setting the Scene File Name

You can register a name for each scene file.

Since the registered name can be always displayed on the PM, you can check what kind of scene is set for each scene file.

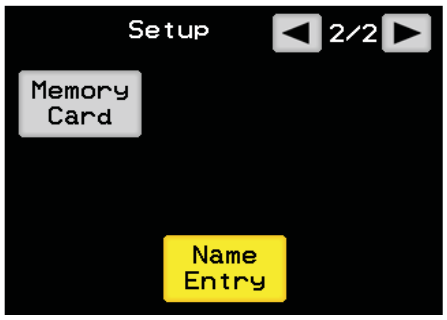
Up to 31 characters (alphanumerical and special characters) can be registered for a name.

◆ Creating the scene file can automatically change to the scene file name registration screen.

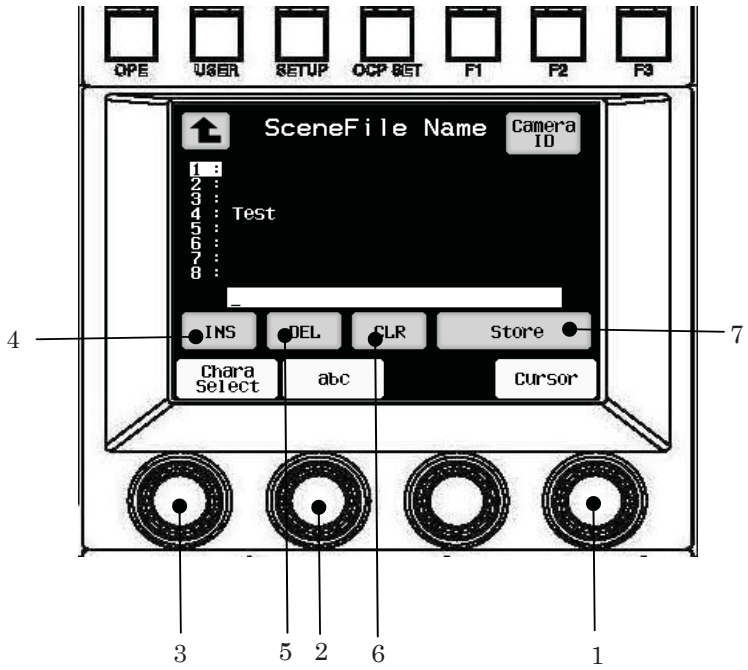
Reference: Please refer to "21.1.3 Setting Items" for detailed information.

◆ If you want to register the name later or change the registered name, follow the procedure below to register.

1. Change the page to 2/2 with ◀ ▶ switch on the top right corner of the Setup screen.
2. Press Name Entry switch on the page 2/2 of the Setup screen.



3. The registered name of Scene File Name will be displayed.



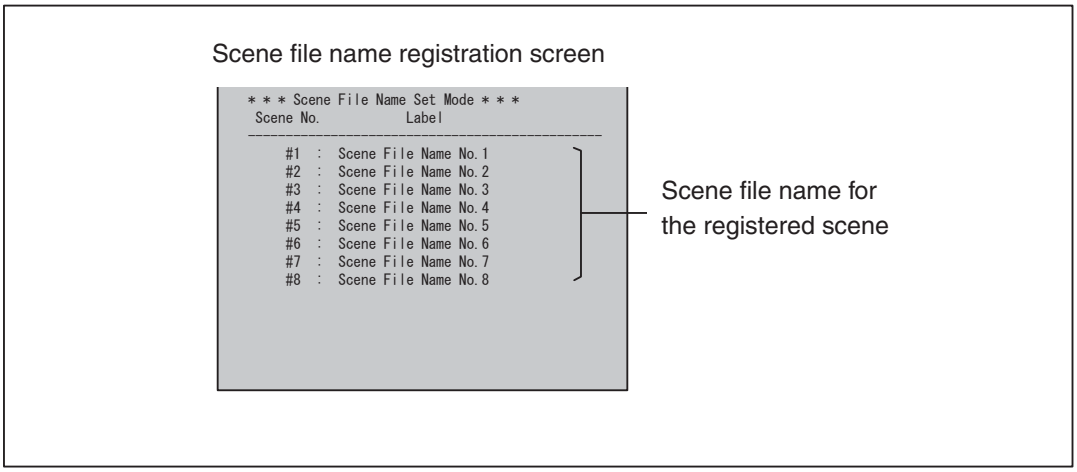
1. Cursor knob : Move the cursor left and right to select a character.
2. Character type select knob : Used to input the small alphabet for [abc], large alphabet for [ABC], number for [012], and symbols for [#%&].
3. Character Select knob : Move the scene file name registration area cursor.
4. INS switch : Insert 1 character between characters.
5. DEL switch : Delete 1 character.
6. Clear switch : Delete all characters.
7. Store switch : Register the scene file name in camera memory.

4. When input is complete, press [Store] switch. The scene file name that has been input will be registered in the camera memory.

Note: If you navigated from other screen by setting the auto-load function for the SF name registration screen to ON and saving the scene file, press [Quit] switch to return the original screen.

If you navigated from the CamID screen or Menu screen, it will return to the CHARACTER screen.

5. Press PM IND/PAGE switch several times. The screen of PM is changed to the scene file name display screen, and the scene file name that you have just input will be displayed on the screen.



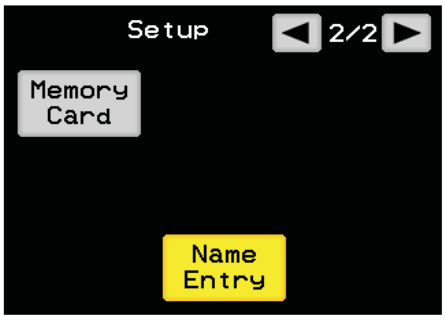
Perform Step 3 to 4 to re-register.

Note: If it is not connected to the camera and BS/CCU that support the scene file name function, it cannot display and register.
If the scene file is switched in other control panel while registering the scene file name, the registration screen will be automatically canceled.
If the Camera ID and scene file name are set at the same time in multiple control panels, a malfunction may occur.

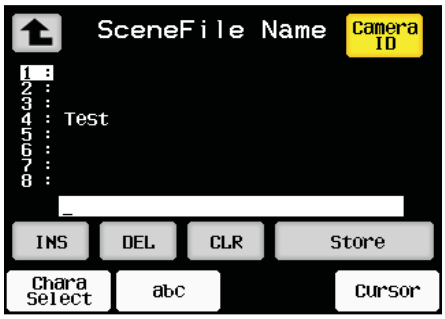
14.4 Setting the Camera ID

Camera ID can be registered.
The registered Camera ID can be always displayed on the PM. If you input the names of camera and camera operator, VE (Video Engineer) can tell the currently displayed image is from which camera.
Up to 48 characters (alphanumerical and special characters) can be registered for a name.

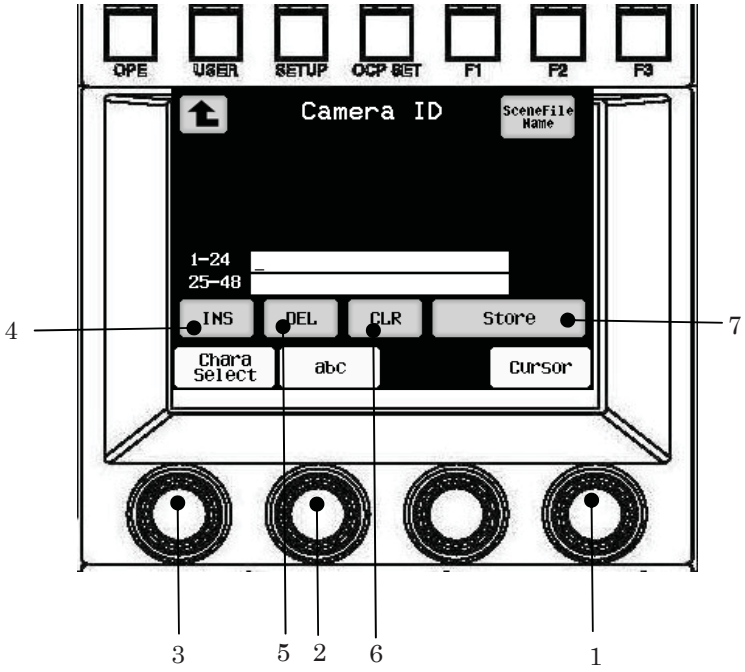
1. Change the page to 2/2 with ◀ ▶ switch on the top right corner of the Setup screen.
2. Press Name Entry switch on the page 2/2 of the Setup screen.



3. When the Scene File Name screen is displayed, press [Camera ID] switch on the top right corner of the screen.

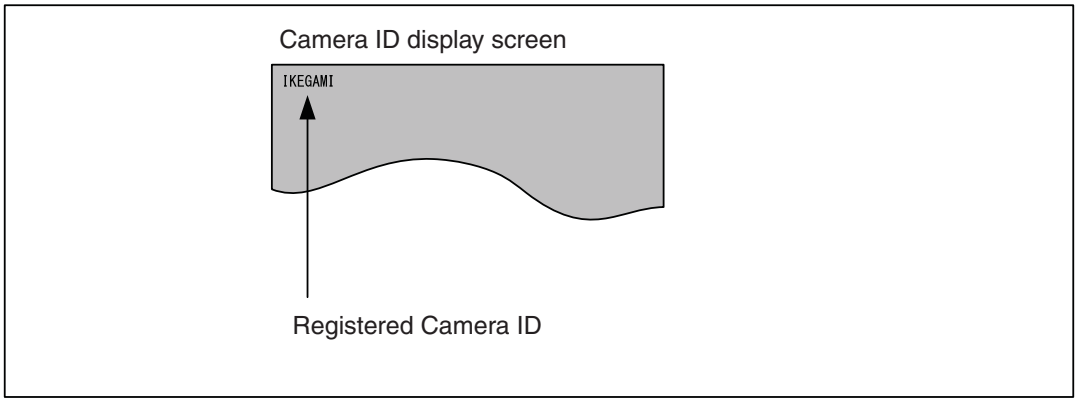


4. The screen to register the Camera ID will be displayed.



1. Cursor knob : Move the cursor left and right to select a character.
2. Character type select knob : Used to input the small alphabet for [abc], large alphabet for [ABC], number for [012], and symbols for [#%&].
3. Character Select knob : Move the cursor of Camera ID registration area.
4. INS switch : Insert 1 character between characters.
5. DEL switch : Delete 1 character.
6. Clear switch : Delete all characters.
7. Store switch : Register Camera ID in camera memory.

5. When input is complete, press [Store] switch to register Camera ID in the memory.
6. When the PM IND/PAGE switch is pressed, the PM screen will be changed to the Camera ID display screen. The Camera ID that you just input will be displayed on the top left corner of the screen.

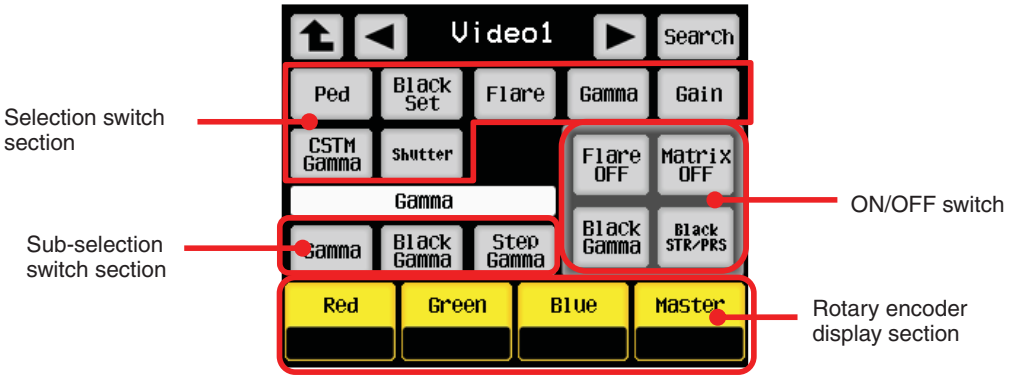


Perform Step 3 to 4 to re-register.

Note: If it is not connected to the camera and BS/CCU that support the Camera ID function, it cannot display and register.
If the Camera ID and scene file name are set at the same time in multiple control panels, a malfunction may occur.

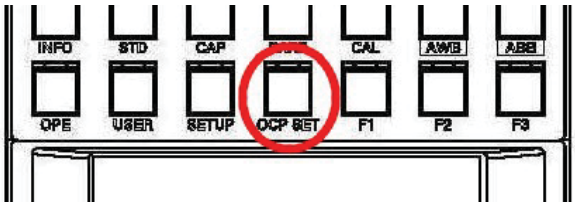
15. USER Menu

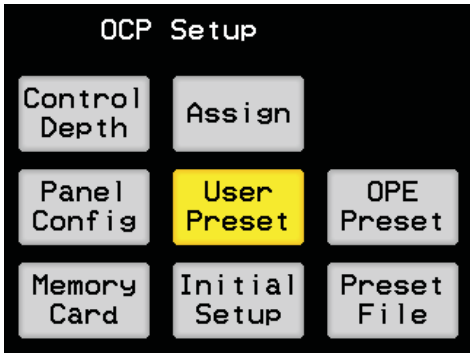
OCP-300 can arbitrarily assign the selection switches on the Setup screen to the USER menu. The USER menu can be switched between 5 pages, and up to 8 selection switches can be assigned per 1 page.

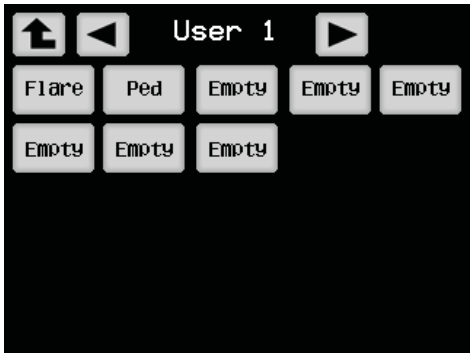


15.1 USER MENU Assignment Procedure

1. Press OCP Setup switch from FUNCTION switches on the top of LCD screen and press [User Preset] switch.

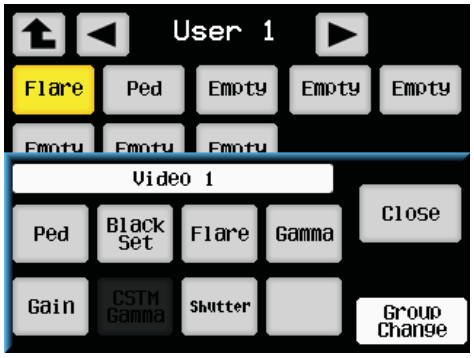






2. The pages you want to assign can be switched between [USER 1], [USER 2], [USER 3], [USER 4], and [USER 5] with the ◀ ▶ on the top of LCD screen.

3. If the switch of the item that you want to assign is pressed, the window for the selection switch will appear. Then, turn the rotary encoder 4 times to switch the pages. The page can be selected from the [Video1～Others] pages on the Setup screen.



List of assignable functions

Group name	Selection switch display
Video1	Ped
	Black Set
	Flare
	Gamma
	Gain
	CSTM Gamma
	Shutter
Video2	Black Shade
	White Shade
	White Clip
	Knee
Detail1	DTL
	Soft
	Skin
	Color
	Hi-Light
D/C Detail	D/C DTL
	D/C Soft
	D/C Skin
	D/C Color

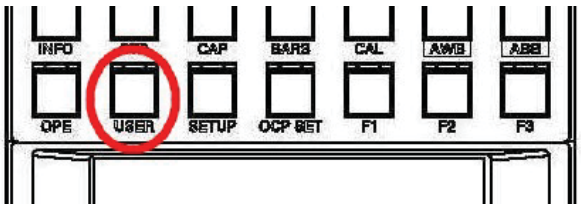
List of assignable functions

Group name	Selection switch display
Color	Matrix
	Color SAT.
	CSTM Color1
	CSTM Color2
	Color CORR
	Color Temp
	Color Hue
D/C Color	D/C Matrix
	D/C C.SAT.
Lens	Auto Iris
	Zoom Focus
Others	DGTL.EXT.
	AVC
	MIC Gain
	Auto Setup
Default	Empth (no display)

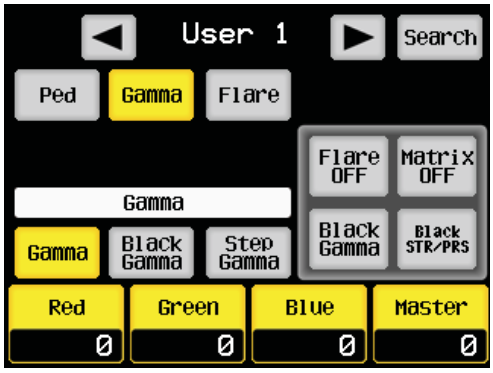
Reference: The function group supports each of the SETUP screen. Please refer to the function tables in "4.4 SETUP" for the detailed adjustment items that are assigned to each selection switch.

4. If the switch that you want to assign is pressed in the Window for the selection switch, the Window will be closed, and the name of the switch will be changed to that of the assigned selection switch.

5. If the USER switch of the FUNCTION switches is pressed, the USER menu will be displayed on the LCD screen.



6. The selection switch that is set in [User Preset] will be arranged in the User menu. If a switch is pressed, the ON/OFF button and adjustment item for the switch will be displayed on the bottom of the LCD screen. The pages of the USER menu with the ◀ ▶ on the top of LCD screen can be switched.



15.2 USER MENU SEARCH

If [Search] switch on the top right of the screen for the User menu is pressed, the Search Window will be displayed.

If the rotary encoder 3 is operated while the Search Window is open, the names of switches on the screens from [User 1] to [User5] can be switched. If the Enter switch is pressed over the name of the selection switch you are looking for, the Search Window will be closed and the screen will be changed to the screen with the selected switch in the User menu.

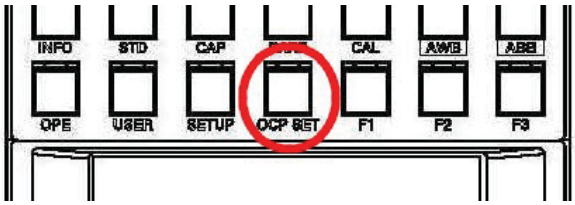
16. OPERATION Screen Setting

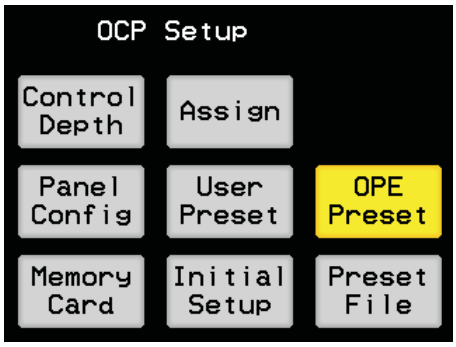
In the OCP-300, you can arbitrarily add and edit (delete, etc.) the items on the Operation screen.

You can assign 8 ON/OFF switches and 4 analog items per 1 page and create up to 5 pages on the Operation screen.

16.1 OPERATION Screen Assignment Procedure

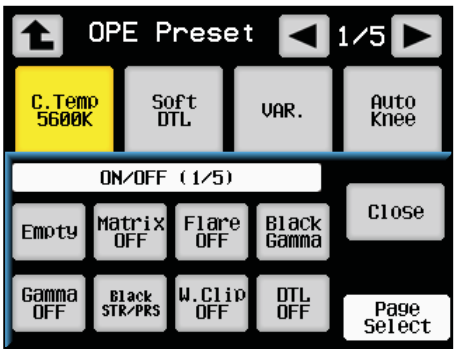
1. Press OCP Setup switch from FUNCTION switches on the top of LCD screen and press [OPE Preset] switch.





2. The pages you want to assign can be switched between [1/5], [2/5], [3/5], [4/5], and [5/5] with the ◀ ▶ on the top of LCD screen.

3. If the ON/OFF switch of the item that you want to assign is pressed, the window for the selection switch will appear. Then, turn the rotary encoder 4 times to switch the pages. If the [Close] switch is pressed, the Window will be closed.



List of assignable functions

Group name	Selection switch display
ON/OFF (1/5)	Empty (no display)
	Matrix OFF
	Flare OFF
	Black Gamma
	Gamma OFF
	Black STR/PRS
	W.Clip OFF
	DTL OFF
ON/OFF (2/5)	Soft DTL
	Skin DTL
	Slim DTL
	Diagonal DTL
	Z.Track DTL
	Z.Track Skin
	Color DTL
	Hi-Light DTL
ON/OFF (3/5)	Knee OFF
	AUTO Knee
	Super V
	VAR.
	Shutter
	Digital EXT.
	C.Temp 5600K
	Color SAT.

ON/OFF (4/5)	Color Hue
	ZOOM Remote
	Focus Remote
	VAR C.Temp
	ATW
	AVC
	Filter HOLD
	Chrome
ON/OFF (5/5)	CSTM Color1
	CSTM Color2
	CSTM CORR

4. If the ON/OFF switch that you want to assign is pressed in the Window for the selection switch, the Window will be closed, and the name of the switch will be changed to that of the assigned selection switch.

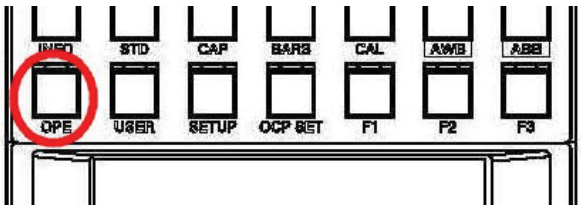
5. In addition, if the analog switch of the item that you want to assign is pressed, the window for the selection switch will appear. Then, turn the rotary encoder 4 times to switch the pages.

List of assignable functions

Group name	Selection switch display
RE (1/4)	Empty (no display)
	Color SAT.
	Color Hue
	Skin DTL
	Z.Skin DTL
	DTL
	Z.Track DTL
	Color DTL
RE (2/4)	Hi-Light DTL
	PRST Shutter
	Black STR/PRS
	Gain Red
	Gain Blue
	Gain Maste
	VAR C.Temp
	ZOOM
RE (3/4)	FOCUS
	Digital EXT
	Gamma Master
	Knee PT(T)
	KNEE SLP(T)
	Smooth Knee
	Super Knee
	Matrix Select
RE (4/4)	Night Mode

6. If the analog item switch that you want to assign is pressed in the Window for the selection switch, the Window will be closed, and the name of the switch will be changed to that of the assigned selection switch.

7. If the OPE switch of the FUNCTION switches is pressed, the Operation menu will be displayed on the LCD screen.



8. The selection switch and analog items that are set in [OPE Preset] will be arranged on the Operation menu. If there is nothing set in a page, that page will not be able to display.

The C.Temp5600K will be changed to MATRIX OFF.

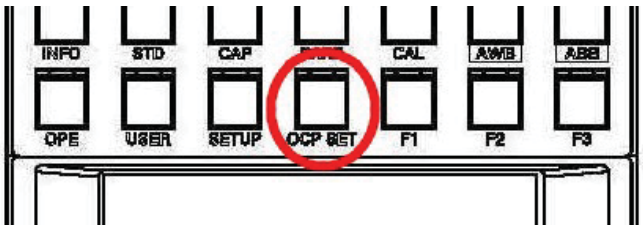
17. Setting Procedure of Control Panel

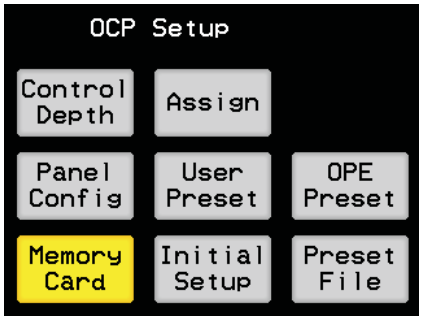
OCP-300 can save or load the settings of this control panel in or from a memory card or control panel itself as necessary.
In case of a memory card, it can easily save backup data, copy the data that is created with one device to another OCP, and have different data for each program or video engineer.

Reference: Please refer to "9. Procedure for using memory card" for the procedure of using the memory card.

17.1 Procedure of Setting and Saving the Memory Card

1. To use a memory card for saving or loading data, press the OCP SET switch from the FUNCTION switches on the top of the LCD screen, and then press the [Memory Card] switch in the item selection switch section.





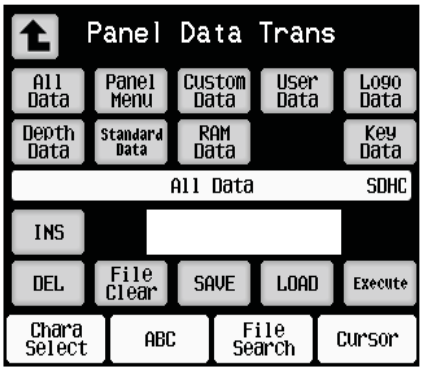
2. The following 9 methods can be selected to save or load the panel data:

- **ALL Data**
  Data for the panel configuration and user screen setting.
- **Panel Menu**
  Data for the panel configuration [SETTING].
- **Custom Data**
  Data for the panel configuration [CUSTOMIZE].
- **User Data**
  Data for the User screen setting.
- **Logo Data (Optional function)**
  Data for the logo mark that is displayed during power-up and ENABLE OFF.
- **Depth Data**
  Data for the panel configuration [Control Depth].

- **Standard Data**
  Data for the panel configuration [STD FUNCTION].

- **RAM Data**
  All data that is saved in the control panel.

- **Key Data**
  Optional function enabled data.
  It is read-only.



As with camera data, individual data can be loaded from the data saved in ALL Data. For example, only the data for User screen setting can be loaded from the data that is saved in ALL Data.
When the data is loaded, it is checked if it is consistent with the saved version. It is possible to load the data with a different version; however, the difference in function due to the version, etc., will not be changed. If loading the data with a different version, please check the panel configuration and User screen setting.

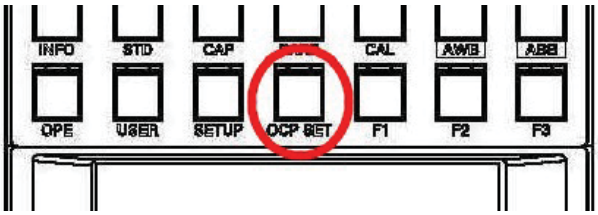
Loading data from the SD memory card is completed instantly due to the small data size. The panel will be reset after loading the data.

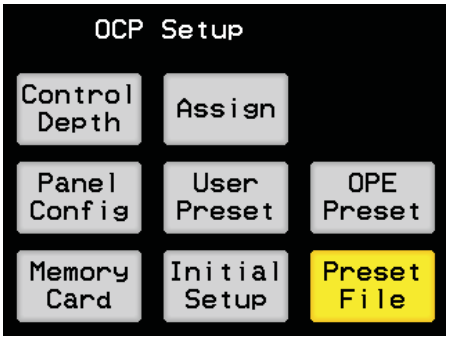
Reference: Please refer to "9. Procedure for using memory card" for the procedure of using the memory card.
Please refer to "9. Procedure for using memory card" for more detail.

Note: [KEY Code] switch is used to load the KEY Code file for the optional setting and client specific setting. Please refer to the manual accompanied with the KEY Code file for a detailed procedure for using a memory card.

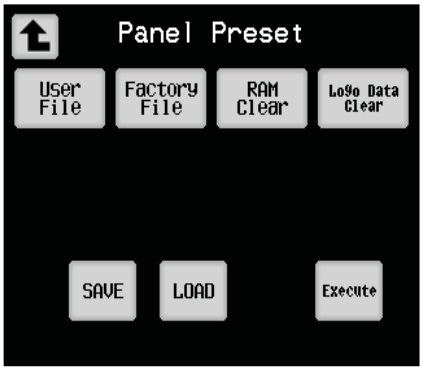
17.2 Setting Procedure at the Control Panel

1. To use a memory card for saving or loading data, press the OCP SET switch from the FUNCTION switches on the top of the LCD screen, and then press the [Preset File] switch in the item selection switch section.

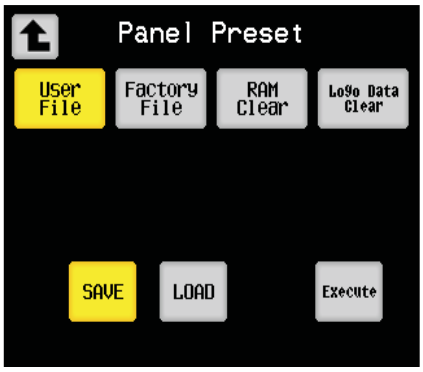




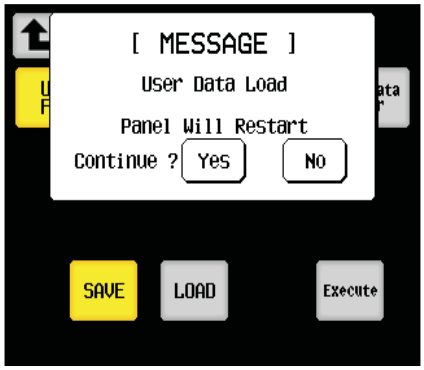
2. The following methods can be selected to save or load the panel data:
   - **User File**
     Data for the panel configuration and user screen setting.
     It can be saved and loaded.
   - **Factory File**
     Data for the panel configuration and user screen setting at the factory.
     It is read-only.
   - **RAM Clear**
     If this is executed, all statuses of the control panel will be reset to the initial setting.
     Use this when there is an abnormality found on the device.



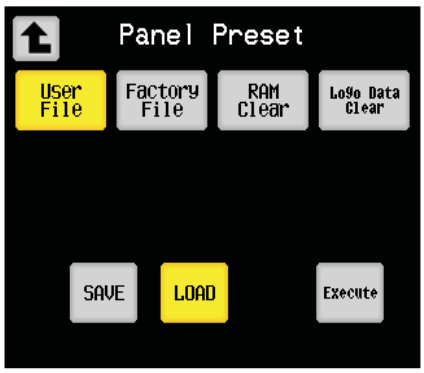
3. When saving the User File, set the [User File] switch to ON and press the [Save] switch that is displayed on the bottom of the LCD screen.



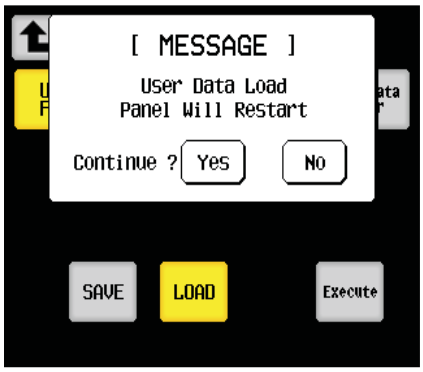
4. If the [Execute] switch displayed on the bottom right of the LCD screen is pressed, the confirmation window will appear. Then, press [Yes] to save the User File. If [NO] is pressed, the Window will disappear.



5. When loading the User File, set the [User File] switch to ON and press the [Load] switch that is displayed on the bottom of the LCD screen.



6. If the [Execute] switch displayed on the bottom right of the LCD screen is pressed, the confirmation window will appear. Then, press [Yes] to load the User File and restart the control panel. If [NO] is pressed, the Window will disappear.



7. If loading the Factory File, set the [Factory File] switch to ON, and follow the steps 4 and 5. As the Factory File cannot be saved, the [Save] switch will not be displayed.

8. If executing the RAM Clear, set the [RAM Clear] switch to ON, and press the [Execute] switch. After the confirmation window is displayed, press [Yes] to initialize and restart the control panel setting. If [NO] is pressed, the Window will disappear.

18. IRIS position adjustment function

The lens iris of the camera head may not fit in the OPEN/CLOSE end even if the lens iris of the control panel shows the OPEN/CLOSE end with full range.

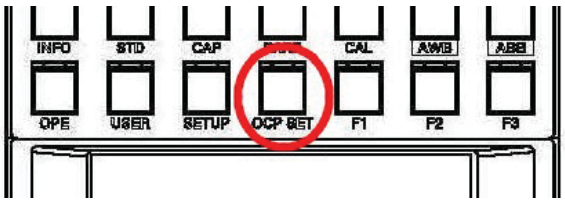
OCP-300 has a function that makes the OPEN/CLOSE end position of lens iris recognized and fills the difference with the lens iris value of the camera head by operating the LCD screen.

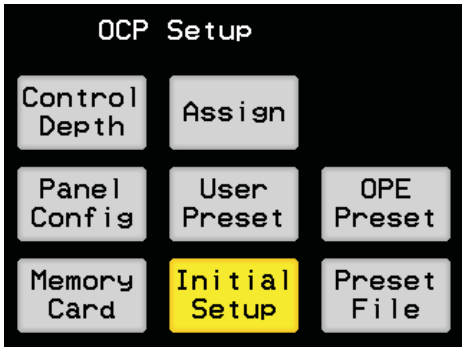
Caution Before using this function, please check if the F value of the iris is not deviated on the camera side using the LENS ADJUST function of the camera head. The position of OPEN/CLOSE end has been adjusted at the factory.

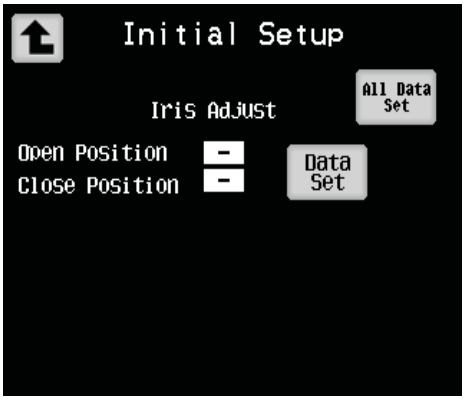
Reference: Please refer to the operation manual of the connected camera head for the LENS ADJUST function. Some cameras may not have the LENS ADJUST function.

18.1. Adjustment procedure

1. Press [OCP SET] switch from FUNCTION switches on the top of LCD screen and select [INITIAL SETUP]. The menu for panel settings will be displayed.

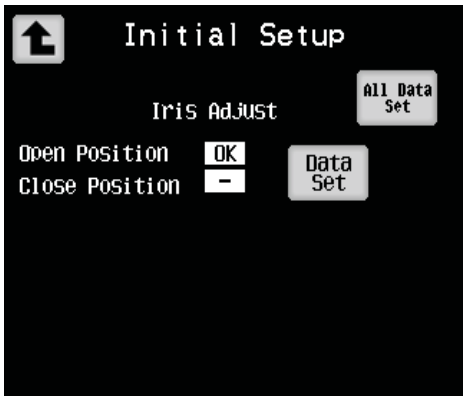






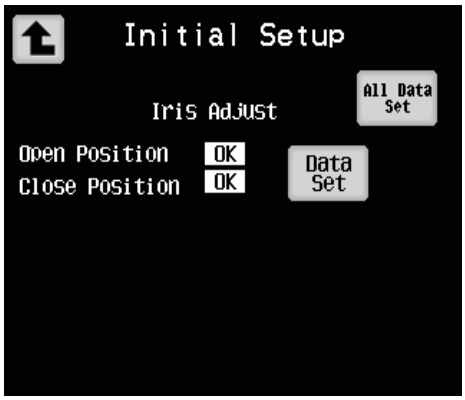
2. Set the IRIS position of the control panel to OPEN end.

3. Press [Data Set] switch on the Initial Setup screen. If the switch is pressed, the status of Open Position will be changed to [OK].



4. Set the IRIS position of the control panel to CLOSE end.

5. Press [Data Set] switch on the Initial Setup screen. If the switch is pressed, the status of Close Position will be changed to [OK].



6. If both statuses of Open Position and Close Position are changed from [-] to [OK], [All Data Set] switch on the top right corner of LCD screen will flash. If [All Data Set] switch is pressed, the confirmation screen will appear. Then, select [Yes]. The control panel is restarted and the OPEN/CLOSE end position of IRIS is set again. If [NO] is selected on the confirmation screen, it will return to the original screen.
   If the  switch is pressed, the screen will return to the OCP Setup screen, and then all the previous operation will be canceled.

19. Parallel Connection

OCP-300 uses Relative control for operation of the control knob. Control of iris can be selected from either absolute control or increment control in accordance with control configuration.

Traditional OCP (RE Type, Joystick Type) was not capable of parallel connection (parallel operation) in which multiple OCPs can be connected simultaneously due to absolute control. The parallel connection (parallel operation) is enabled in OSP-300 by setting to the absolute iris control.

Reference: Please refer to "21.1.3 Setting Item" for setting method.
Please refer to "6. Absolute Iris Control" and "7. Relative Iris Control" for details of iris operation in absolute control and Relative control.

The following table shows available combinations of different iris control methods.

		MCP	OCP-200/IRP-100/RM-51A		Traditional OCP
		Relative	Relative	Absolute	Absolute
MCP	Relative	○	○	○	○
OCP-300 /IRP-100 /RM-51A	Relative	○	○	×	×
	Absolute	○	×	×	×
Traditional OCP	Absolute	○	×	×	×

○: Parallel connection (parallel operation) enabled

×: Parallel connection (parallel operation) disabled

IRP-100/RM-51A has selection of Relative/absolute not only for iris, but also for all control knobs.

19.1 Restriction of Number of Connection for ARC Network

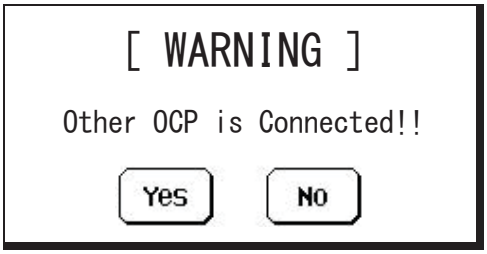
You can connect maximum of 8 units of the MCP/OCPs to a single BS/CCU. The MCP/OCPs including over 9 units does not operate. The MCP is counted as 1 unit regardless of selection of camera. If the network contains a single MCP, the number of OCPs available to connect to BS/CCU becomes 7, and if the number of the MCP is 2 the number of the OCPs available to connect simultaneously becomes 6.

19.2 Warning for ARC Network

You can connect the multiple OCPs to the BS/CCU for ARC network. Connecting the OCP to the BS/CCU which is operated under other OCP nay cause trouble when it is operated.

Connecting the BS/CCU to the OCP to which any other BS/CCU has been connected may cause warning on LCD screen to confirm the connection, depending on setting of configuration. Whether any other OCU is connected to the BS/CCU or not is confirmed when the enable is turned ON, or the assignment setting is changed.

If the other OCP is connected, the following message appears on the LCD screen:



Pressing [YES] makes connection and pressing [NO] turns the panel enable to OFF.

If connection is made from other panel to the network, the following message appears on the LCD screen:

Caution Operation is disabled if this message appears.
The warning may not appear when power supply is ON for connected CPH-300, or when entire power supply is ON simultaneously by the system.

Reference: Please refer to "21.1.3 Setting Item" for setting method.

20. Optional Function

Paid optional functions are available for the OCP-300. The optional functions are enabled by loading the KEY File.

Reference: Please refer to the "17. Setting Procedure of Control Panel" for how to load the KEY File.

20.1. 3D Camera Control

Individual control of Lch/Rch cameras for maintenance purpose and simultaneous control for operation purpose are available by using the OCP-300 when 2 cameras are configured as a 3D camera. Paid 3D KEY file needs to be loaded in order to enable the 3D camera control.

Caution The 3D camera control is available only during operation in ARC network or Ethernet network.

20.1.1 Setting for 3D Control Mode

Panel configuration has to be set for the 3D camera control.

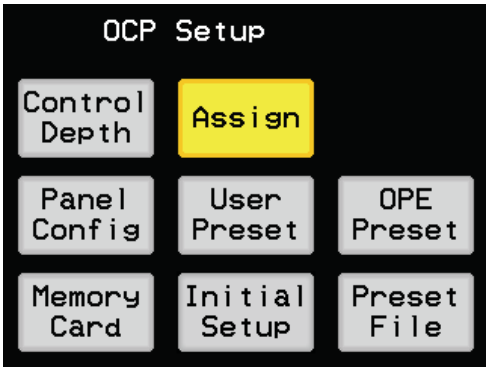
The 3D control becomes available by setting the [OCP Mode] setting on Control in the panel configuration to [3D].

Reference: Please refer to "21.1.3 Setting item" for detail setting method.

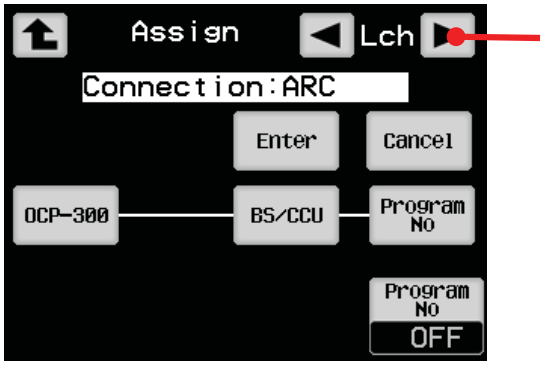
20.1.2 Lch Camera/Rch Camera Assignment Initial Setting

It is necessary to select the camera for Lch or for Rch from multiple cameras connected in network for the 3D camera control.

1. Press MAINTE switch from FUNCTION switches on the top of LCD screen and [ASSIGN] switch for the LCD screen.



2. Set assignment for which camera is to be assigned for Lch camera and Rch camera. Switching over of Lch and Rch to be set is selected by ◀ ▶ switch on the top right corner of screen

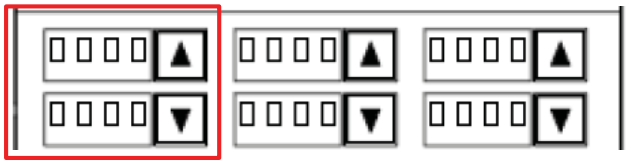


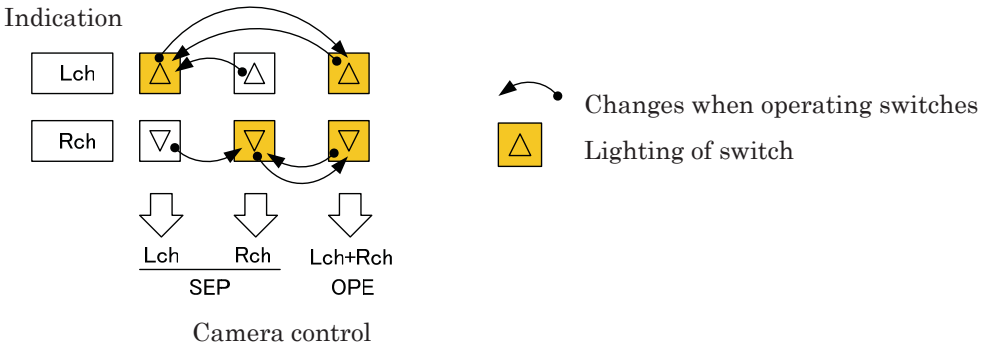
Reference: Please refer to "11. Setting of Panel Assignment and Program Number" for detail setting method.

20.1.3 Switching Lch/Rch/Operation Control

Individual control of Lch/Rch cameras for maintenance purpose and simultaneous control for operation purpose are available by selecting ether one of these two modes. Configuration of the select function control section is changed at the 3D control mode to enable the left side select switch to function as the 3D camera select switch. Selection can be switched between Lch/Rch /Operation by operating the up/down switch (▲ ▼).

Select function control section





Select function control section (3D)

PAGE	LEFT	CENTER	RIGHT
1	3D	ND	Gain
2	3D	ND	CC
3	3D	Gamma	Bkst
4	3D	EFF	AWB

20.1.4 Function Operation Restriction in Operation Mode

Operation range setting becomes “Standard” in the operation mode to prevent erroneous operation. Returning to the separate mode resume the setting set at the operation range setting screen.

The setting is unchanged even in the operation mode if it is set as "Basic".

20.1.5 Status Check of Lch/Rch Camera

There may be a case that statuses of Lch/Rch cameras (items that are switched by ON/OFF or STEP) do not match each other immediately after switching to the 3D mode or when mode is switched to the operation mode after adjustment in the separate mode. It may disturb 3D operation depending on item of mismatch.

Mismatch of status between Lch camera and Rch camera can be checked.

This can be checked by the following 2 method.

- **Status check by operation of select function control section**

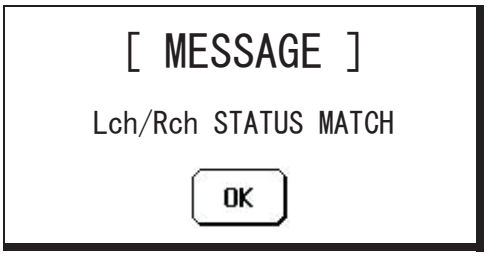
  Following list shows status check items.

Status check items list

CAP ON/OFF	KNEE ON/OFF
DIASCOPE ON/OFF	AUTO KNEE ON/OFF
FILTER REMOTE ON/OFF	SMOOTH KNEE SELECT
ND FILTER SELECT	SUPER KNEE SELECT
CC FILTER SELECT	DTL ON/OFF
ECC FILTER SELECT	SOFT DTL ON/OFF
BARS ON/OFF	SKIN DTL ON/OFF
TEST PULSE ON/OFF	SLIM DTL ON/OFF
AWB REMOTE ON/OFF	DIAGONAL DTL ON/OFF
AWB Ach	ZOOM TRACK DTL ON/OFF
AWB ON/OFF	ZOOM SKIN DTL ON/OFF
SCENE FILE SELECT	COLOR DTL ON/OFF
SHUTTER SELECT	HI-LIGHT DTL ON/OFF
VARIABLE SUHTTER ON/OFF	COLOR SATURATION ON/OFF
SUPER V SELECT	CHROMA ON/OFF
BLACK SHADE ON/OFF	COLOR CORRECTOR ON/OFF
WHITE SHADE ON/OFF	C.TEMP 5600K ON/OFF
GAIN SELECT	CUSTOM COLOR 1 ON/OFF
FLARE ON/OFF	CUSTOM COLOR 2 ON/OFF
GAMMA SELECT	BLACK STRETCH/PRESS SELECT
BLACK GAMMA SELECT	ZOOM REMOTE ON/OFF
WHITE CILP ON/OFF	FOCUS REMOTE ON/OFF
MATRIX ON/OFF	
MARTIX SELECT	

Pressing left switches ▲ ▼ illuminating at the select function control section simultaneously during operation mode enables checking mismatch of statuses of 2 cameras.

The following message will be displayed on LCD screen if there is no mismatch.



The following message will be displayed on LCD screen if there is any mismatch.

Change setting of each camera so as to match both statuses in the separate mode.

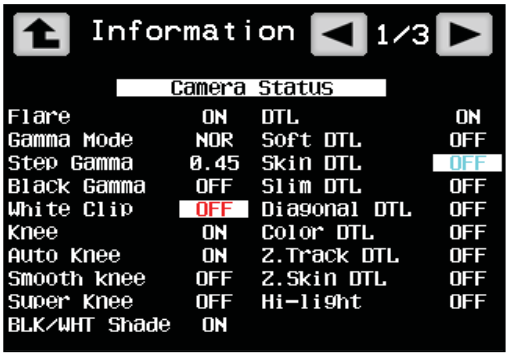
- **Status check by information screen**

Display the Camera Status screen of information in the operation mode.

Display color indicates match and mismatch of statuses of Lch/Rch.

Mismatch : Background [White], text [Dark Cyan]

Status to be displayed is for Lch camera.



If there is no mismatch,

Ikegami standard setting : Background [Black], text [White]

Other than Ikegami standard setting : Background [White], text [Red]

Note: Using the function "Clear to Standard" for each Lch/Rch camera is another effective way to eliminate mismatch.

Caution Checking function of status is not necessarily ensured for all items. Some new functions and some functions added by user are not able to be compared.

Reference: Please refer to "10. Information" for Items for status check by the information screen and method to operate it.

20.1.6 Operation in Operation Mode

Operations in operation mode in the 3D control mode have some differences compared to normal operations.

- Operation range setting becomes "Standard".
- Various displays of the panel are for Lch camera.
- Blinking ALARM indicator (switch) becomes action that follows OR of alarm information from the both cameras. However, transiting to the diagnosis screen by pressing switch while blinking is not available.

  Pressing the switch during the ALARM indicator (switch) is blinking displays the following message on LCD screen.

20.2. Camera Selection Function and Multi Function

OCP-300 is equipped with the camera selection function with which you can select a single camera to operate from 10 cameras, and the multi function with which you can select multiple cameras to operate simultaneously.

Enabling each function requires downloading the paid Camera Select KEY file for the camera selection function, and the paid Multi KEY file for the multi function.

Caution The Multi KEY filemust be loaded in a state that the Camera Select KEY is enabled.

Caution The camera selection function and the multi function are available only during operation in ARC network or Ethernet network.

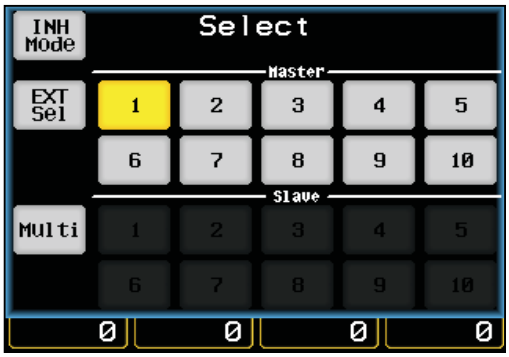
20.2.1 Setting of Camera Selection Function

Panel configuration has to be set for using the camera selection function and the multi function.

The camera selection function and the multi function becomes available by setting the [OCP Mode] setting located on Control of SETTING page in the panel configuration to [SEL].

Assign [SEL] to either one of F1, F2, F3 or F4 with the SW located on CUSTOMIZE page in the panel configuration, followed by pressing the switch to display the window for [Select] which enables setting of the camera selection function and the multi function, in order to display the setting screen.

Reference: Please refer to "21.1.3 Setting Item" for detail setting method.



Press the number of camera to be selected from either one of switches 1 through 10 located on [Master] of the window. Assignment of camera with respective number is selected in the Assign screen. The number of the camera is displayed on the top right corner of the Assign screen, which can be switched by ◀ ▶ switch to assign respective numbers.

Reference: Please refer to "11. Setting of Panel Assignment and Program Number" for assignment of network.

20.2.2 External Camera Selection

You can input a signal for external camera selection from the EXIT-1 connector.

Reference: Please refer to "23.2 Pin Function of External Connector" for specification of EXT-1.

The [EXT Sel] switch on the [Select] window is enabled when the external selection enable is set to ON.

The external camera selection is enabled when the [EXT Sel] switch is set to ON, which prohibits selection of camera from the LCD screen, changing the Assign, and operation of the Enable switch.

Setting the external camera selection to OFF turns OFF the [EXT Sel] switch, which enables selection of camera from the LCD screen.

20.2.3 Prohibition Mode

Press and hold the [INH MODE] switch until color of the switch change to yellow activates the prohibition mode.

Pressing either one of switches 1 through 10 in the [Master] during the prohibition mode switches status of enabling or disabling selection of the number. Color of the switch of disabled number is changed to black and can not be selected. Pressing the [INH MODE] switch again release the prohibition switch select mode.

20.2.4 Setting of Multi Function

Pressing the [Multi] switch on the LCD screen enables selection of respective switched 1 through 10 located on the [Slave]. The camera assigned to the selected number and the camera with the number elected by the [Master] can be operated simultaneously.
Status to be displayed on the panel becomes for the camera selected by the [Master].
The following items are disabled when the [Multi] switch is set to ON.

- Diagnos screen
- Firmware screen
- Camera Setup screen
- Mode SW
- Menu switch
- Name Entry screen
- STANDARD screen
- ALL MAN SET/CLEAR screen
- Assign screen
- File Operation screen
- Panel Setting screen
- Camera Mainte screen
- System Format screen
- User screen
- MAN.SET function
- FUNC SW (excluding Camera Select Window)
- VR Clear function

20.3. Changing Logo Mark

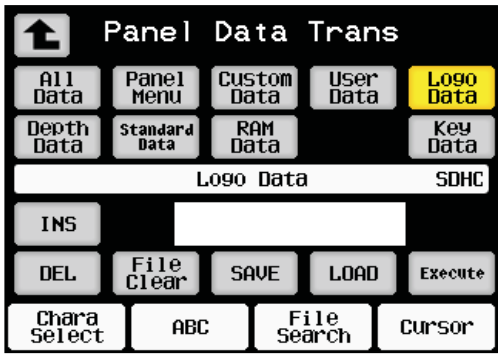
Leaving the system without any selection for the LCD screen will display a logo mark on the LCD screen. You can change this logo mark to any desired image in OCP-300. Paid Logo Key file needs to be loaded in order to enable changing logo mark.

20.3.1 Logo Mark Setting

Create a file under the following condition by any painting software of PC for logo mark.

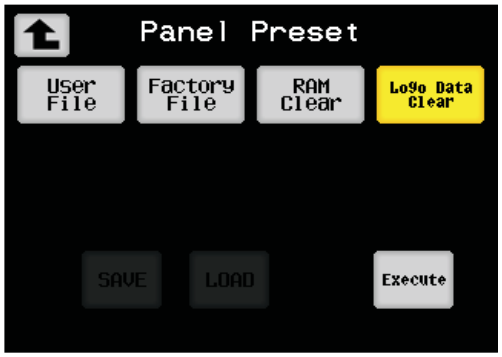
File format	Bit map
Size	320×240
Bit depth	24bit

Save the created file to a SD card and load [Logo Data] of the Panel Data Trans screen.



20.3.2 Logo Mark Initialization

If you desire to resume initial data (Ikegami logo) for logo mark, pressing the [Logo Data Clear] switch on the Preset File screen in the LCD screen followed by pressing [Execute] initializes the screen.



21. Panel configuration (Panel setting)

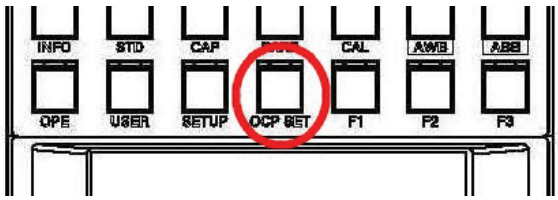
OCP-300 is capable of various functions, which enables you to change operation method and setting in accordance with operation form or adjustment method. It also includes a setting which enables user to assign function to any desired switch or volume, to change prohibited item of Control Depth, and to change standard setting displayed on the Information screen from the panel configuration.

21.1. SETTING

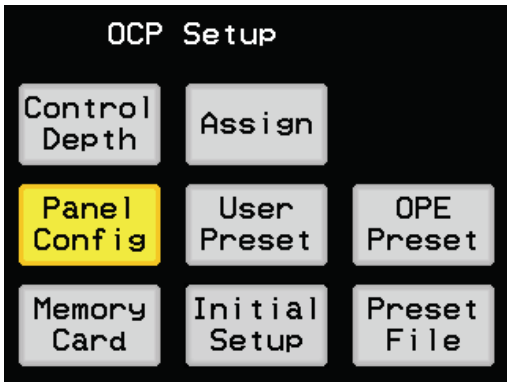
You can change operation method and setting of OCP-300 in accordance with operation form or adjustment method.

21.1.1. Operation method

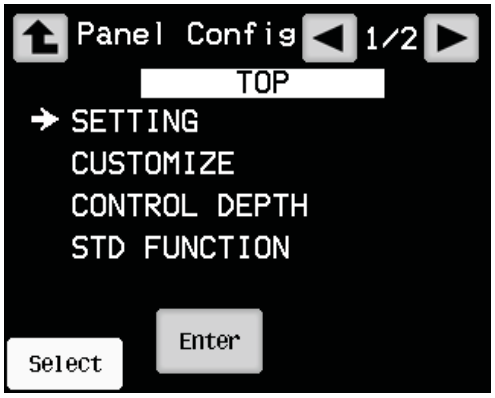
1. Press [OCP SET] switch among the FUNCTION switches on top of the LCD screen.



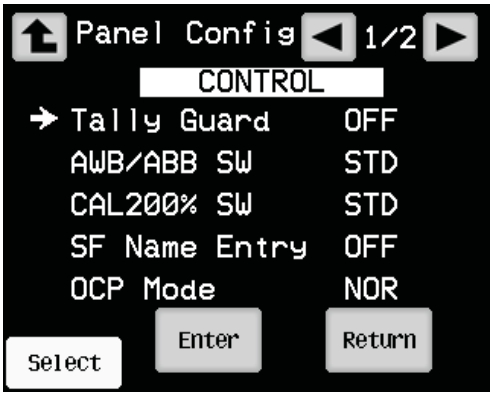
2. Select [PANEL CONFIG.] on the LCD screen. The menu for panel settings will be displayed.



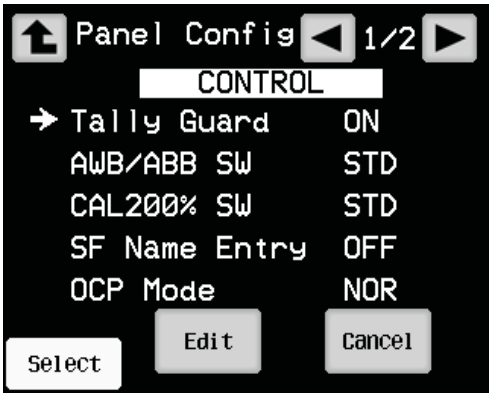
3. Rotating the rotary encoder on left side moves → up and down. Align → on the left side to the menu item of [SETTING] and then press [Enter] switch. The menu page can be switched by ◀ ▶ switch.



4. Rotating the rotary encoder 1 on left side moves → up and down. Align → on the left side to desired menu item and then press [Enter] switch. The menu page can be switched by ◀ ▶ switch.



5. Align → on the left side to setting item with the rotary encoder on the left side and then press [Enter] switch. Enter is changed to Edit. and the set content blinks.



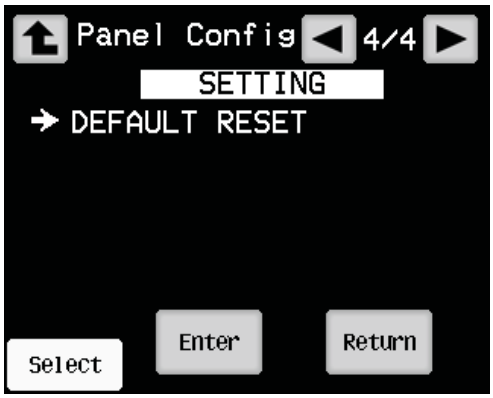
6. Select the set content with the rotary encoder, and then press [Edit] switch. The content of setting is confirmed at this moment. The change is canceled by pressing [Cancel] switch.

Note: Pressing [RETURN] return switch on lower right corner of the LCD screen returns the one in the layer one 1 step higher than PANEL CONFIG.

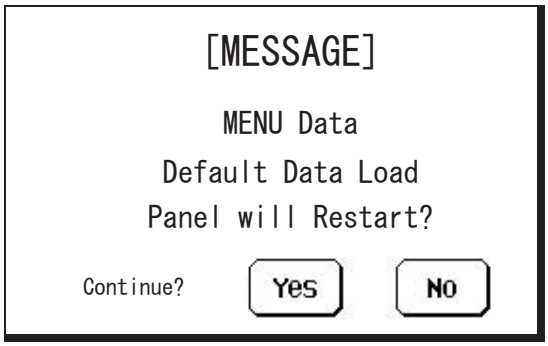
21.1.2. Initialization of SETTING

You can resume each setting on [SETTING] of the panel configuration to the initial setting.

1. Select DEFAULT RESET located in page 4/4 from the menu and then press [Enter].



2. A pop-up screen is displayed on the LCD screen to prompt caution.



3. Selecting "Yes" resumes initial setting for each setting on [SETTING], and then this control panel re-starts. Selecting "No" from the pop-up screen resumes the previous state.

Caution In consideration to function that may disturb operation, DATE/TIME and items relating to system are exempt from this initialization.

Reference: Please refer to the next paragraph "21.1.3 Setting item" for initial setting values.
Refer to "22.3 Initial setting" for initialization for all.

21.1.3. Setting Items

Setting items list (1/6)

Menu	Setting items	Setting details	Functional description
IRIS CONTROL			*Iris control setting*
	ICCP ※2		Sets iris control method in Ikegami command
		ABS ※1	Command in absolute value
		REL	Command in increment value
	Network ※2		Iris control method in network is set here
		REL ※1	Command in increment value
		ABS	Command in absolute value
	Add Data DISP ※2		Display when iris position of OCP lens differs
		BLINK ※1	RELATIVE switch blinks
		OFF	No display
	RANGE/SENSE ※2		Sets enable/disable RANGE/SENSE knobs
		ENA ※1	Enabled (available)
		DIS	Disabled (not available)
	IRIS SW		Switch relating to iris is set here.
		STD ※1	Standard
		GUARD	It provides guard by press and hold
	Para OFF CLR		Setting whether to send clear of IRIS when parallel connection is released (in ABS only)
		ON ※1	Clear
		OFF	Not clear

※1: Initial setting

※2: No display if RE type

Setting items list　(2/6)

Menu	Setting items	Setting details	Functional description
CONTROL			***Control setting***
	Tally Guard		Usage of tally guard is set.
		OFF　※1	No tally guard is set
		LIMIT	Tally guard is set to limited items
		ALL	Tally guard is set to all items
	AWB/ABB　SW		AWB/ABB switch is set
		STD　※1	AWB/ABB is executed when switch is pressed
			Quick Auto Setup/Auto Black Shade is executed when switch is pressed and held.
		GUARD	Guard is set to switch
			Press and hold switch for executing AWB/ABB
			Quick Auto Setup/Auto Black Shade is not available
		NOTAT	AWB/ABB is executed when switch is pressed
			Quick Auto Setup/Auto Black Shade is not available
	CAL200% SW		Switch guard for CAL200% is set
		STD　※1	NO guard
		GUARD	Press and hold CAL switch to turn ON CAL200%
	SF Name Entry		Move to registration screen of scene file name at scene file registration
		OFF　※1	No loading of registration screen
		ON	Load registration screen of scene file name at scene file registration
	OCP Mode		Setting of OCP mode (required to KEY compatibility)
		NOR　※1	Normal mode
		3D	Available 3D control
		SEL	Available camera select control
	Lens File		Setting of control number of Lens File
		STD ※1	Standard
		OPT	Optional
	Hi Gain Send		Setting of enable/disable of step gain 60dB or more
		DIS ※1	Disabled (not available)
		ENA	Enabled (available)

※1: Initial setting

Setting items list (3/6)

Menu	Setting items	Setting details	Functional description
PAINT KNOB			***Paint knob setting***
	Black Knob		Assignment of black knob is set
		SEL ※1	Operating switch on panel enables setting change of pedestal and flare
		PED	Fixed on pedestal
		FLARE	Fixed on flare
	Center Flare		Center flare knob is set
		AUTO ※1	It is automatically set to master flare when camera has master flare function, and set to Gch flare when it has no master flare function
		G CH	Fixed on Gch flare
		M CH	Fixed on master flare
	G Gain		Center flare knob is set
		G CH ※1	It is set to G gain operation (actually simultaneous operation of R and B)
		M CH	It is set to operation of master gain
RANGE			***Control range setting***
	Gain VR		Control range of gain knob is set
		6dB ※1	Approximately ±6dB
		3dB	Approximately ±3dB
		1.5dB	Approximately ±1.5dB
	Black VR		Control range of PED/FLARE knob is set
		STD	Standard
		1/2	Approximately 1/2
		1/4	Approximately 1/4
		1/8	Approximately 1/8
		1/16	Approximately 1/16
	FUNC VR		Control range of FUNC knob is set
		STD	Standard
		1/2	Approximately 1/2
		1/4	Approximately 1/4
		1/8	Approximately 1/8
		1/16	Approximately 1/16
	M.PED VR ※2		Control range of M.PED knob is set
		STD	Standard
		1/2	Approximately 1/2

		1/4	Approximately 1/4
		1/8	Approximately 1/8
		1/16	Approximately 1/16
	RE		Change range when RE knob below LCD has been turned is set.
		STD	Standard
		1/2	Approximately 1/2
		1/4	Approximately 1/4
		1/8	Approximately 1/8
		1/16	Approximately 1/16
	IRIS RE ※3		Change range when RE knob of IRIS has been turned is set.
		STD	Standard
		1/2	Approximately 1/2
		1/4	Approximately 1/4
		1/8	Approximately 1/8
		1/16	Approximately 1/16
	M.PED RE ※3		Change range when RE knob of M.PED has been turned is set.
		STD	Standard
		1/2	Approximately 1/2
		1/4	Approximately 1/4
		1/8	Approximately 1/8
		1/16	Approximately 1/16

※1: Initial setting

※2: No display if RE type

※3: Display if RE type

Setting items list (4/6)

Menu	Setting items	Setting details	Functional description
DATE/TIME			***Clock setting***
	Year		Year
	Month		Month
	Date		Date
	Hour		Hour
	Minute		Minute
DISPLAY			***Various display setting***
	M PED Value		Display of MASTER PED indicator is set
		%data ※1	Video level is displayed
		CONTL	Control data is displayed
	W.Clip Value		White Clip display (on LCD) is set
		%dat	Video level is displayed
		CONTL ※1	Control data is displayed
	Call Latch		Function to blink for 20 seconds after call from camera head is set
		ON ※1	Blink
		OFF	No blink
	Program No.		Display mode of program number is set
		FIX ※1	Set to FIX mode (OCP fixed)
		CAM	Set to CAM mode (CAMERA priority)
		SELF	Set to SELF mode (OCP priority)
	DISP LIMIT		Display limit of control data is set
		ON ※1	Limit to ±100
		OFF	No limit
	C.Temp		Display of C.Temp 5600K
		OFF ※1	No display
		ON	Display
	Connect WARN		Warning screen if any other OCP is connected to connecting device at assignment change
		OFF ※1	No display
		ON	Display
	DISP OFF Time		Setting of time until LCD screen turns OFF
		5S ※1	Set between in time of OFF～10S (1S increment)

※1: Initial setting

Caution If any camera not compatible to % display is connected regarding M PED Value, W.Clip Value, set to [CONTL].

Setting items list　(5/6)

Menu	Setting items	Setting details	Functional description
BRIGHT			***Various brightness setting***
	LCD		Adjustment of brightness of LCD screen
		9　※1	Brightness can be set between 1～15 (1: darkest)
	Program No.		Adjustment of brightness of LCD screen
		3　※1	Brightness can be set between 1～3 (1: darkest)
	Parameter		Adjustment of brightness of LCD screen
		3　※1	Brightness can be set between 1～3 (1: darkest)
	LED		Adjustment of brightness of LCD screen
		3　※1	Brightness can be set between 1～3 (1: darkest)
CAMERA SELECT ***※4***			***Camera selection setting***
	None SEL Mode		Non selection setting for camera selection
		STD　※1	Standard
		GUARD	It provides guard by press and hold

※1: Initial setting

※4: Displayed when KEY for camera selection is enabled

Setting items list (6/6)

Menu	Setting items	Setting details	Functional description
SYSTEM			***System compatibility***
	PAU		Settings at PANEL ASSIGNMENT UNIT connection is set
		OFF ※1	Normal setting
		ON	Setting for PAU operation
	ENG File CCU		Sending file for CCU(Engineer) of ReCall Preset File is set
		ENG1 ※1	Load Engineer1
		ENG2	Load Engineer2
		ENG3	Load Engineer3
	PV CMD Send		Command sending at ON/OFF of PREVIEW switch is set
		ON ※1	Send
		OFF	Not send
	P.Enable SW		Action of Pnale Enable
		STD ※1	Normal action
		GUARD	Enable ON is not available without assigning at PAU operation
	IRIS/MPED ENA		Action of IRIS/M.PED Enable SW
		OFF ※1	Always activated with OFF
		ON	Always activated with ON
		MEM	Activated retaining previous condition
EXTERNAL I/O			***Setting of external I/O***
	EXT2 5pin SEL		Output setting of 5pin of EXT2 connector
		G TLY ※1	G TALLY output
		EXT	EXTENDER output
		ALARM	ALARM output
	EXT2 6pin SEL		Output setting of 6pin of EXT2 connector
		Y TLY ※1	Y TALLY output
		EXT	EXTENDER output
		ALARM	ALARM output
DEFAULT CLEAR			Resume setting of Panel User File of items excluding System and Time

※1: Initial setting

21.1.4. ON-AIR Tally guard

Setting ON-AIR tally guard enables prohibiting switch during ON-AIR tally

＜ON-AIR Tally guard function list＞

Function item	Panel configuration setting		
	OFF	limited	ALL
CAM PWR	–	○	○
VF POWER	–	○	○
PM IND/PAGE	–	–	–
ENABLE	–	○	○
CAP ON/OFF	–	○	○
BARS ON/OFF	–	○	○
CAL ON/OFF	–	○	○
AWB	–	○	○
ABB	–	○	○
PAGE SW	–	–	–
ND SELECT	–	–	○
CC SELECT	–	–	○
EFECT SELECT	–	–	○
GAIN SELECT	–	–	○
GAMMA SELECT	–	–	○
BLK STR/PRS SELECT	–	–	○
AWB MEMORY SELECT	–	–	○
SCENE FILE	–	–	○
FLARE CONT ON/OFF	–	–	–
VR LOCK ON/OFF	–	–	–
IRIS FULL ON/OFF	–	–	○
IRIS RELATIVE ON/OFF	–	–	○
AUTO IRIS ON/OFF	–	–	–
PREVIEW SW	–	–	–
CALL	–	–	–
KNOB FREE	–	–	–
VR Clear	–	–	○
INFO	–	–	–
OPE SW	–	–	–
SW on LCD screen	–	–	○
SETUP SW	–	–	–
Gain Wobble ON/OFF	○	○	○
Zebra IND.ON/OFF	○	○	○

Head Bars ON/OFF	○	○	○
SW on LCD screen	–	–	○
USER SW	–	–	–
SW on LCD screen	–	–	○
WFM/PM SELECT	–	–	–
STD SW	–	○	○
SW on LCD screen	–	○	○
IRIS/M.PED ENABLE	–	○	○

– Tally guard is OFF

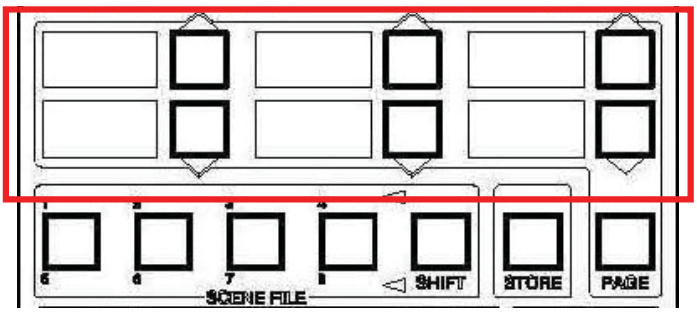
– Tally guard is ON

21.2. CUSTOMIZE

Function that user assign assign to any desired switch or volume is set.

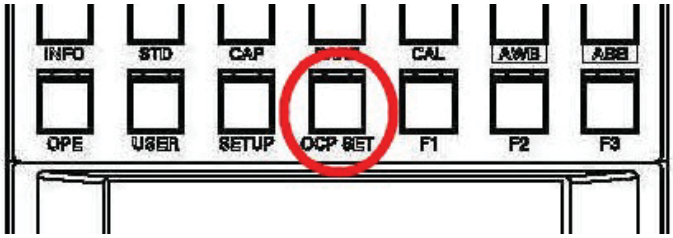
21.2.1 UP/DOWN SEL

OCP-300 is capable of assigning any desired function to the UP/DOWN switches located at the selection function operation section.

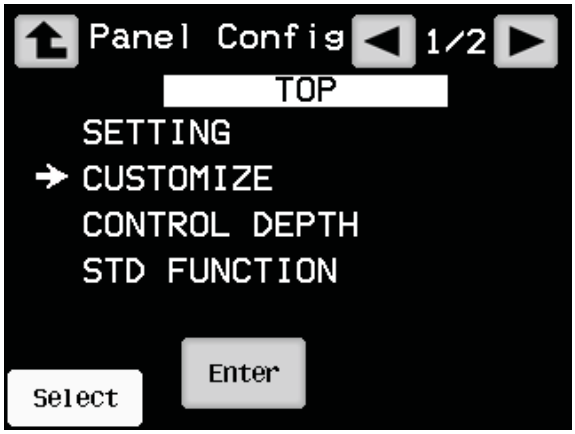


21.2.1.1 UP/DOWN SEL assigning method

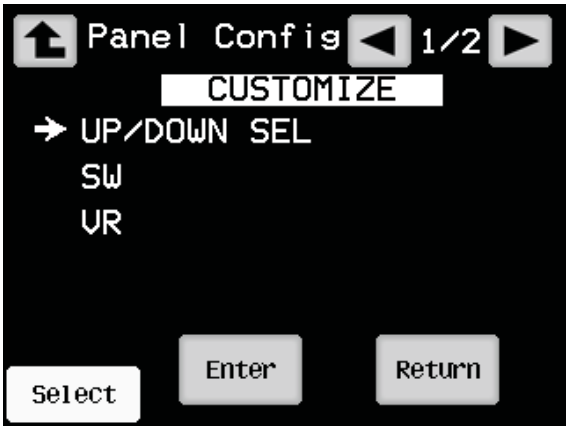
1. Press [OCP Setup] among the FUNCTION switches on top of the LCD screen.



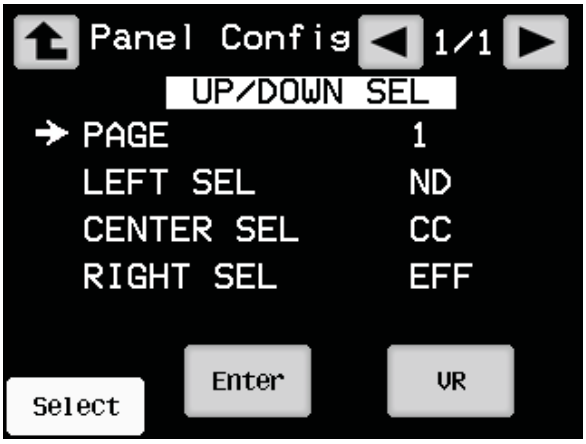
2. Press [Enter] after operating "→" with the rotary encoder 1 in [PANEL CONFIG] screen to align it to [CUSTOMIZE].



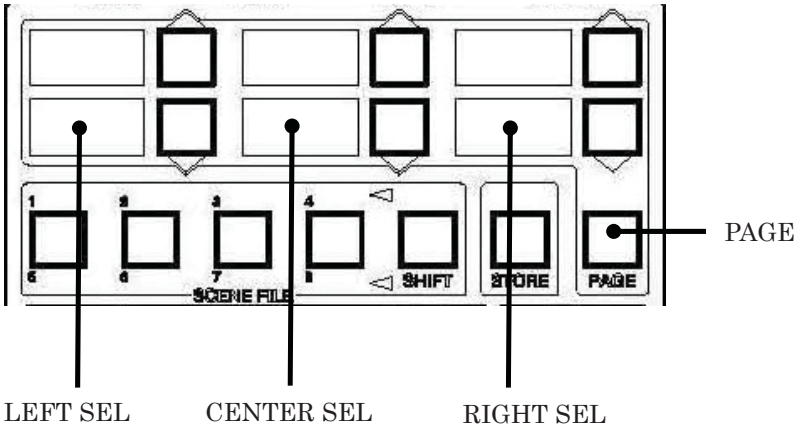
3. When CUSTOMIZE screen is displayed, press [Enter] after operating "→" with the rotary encoder 1 to align it to [UP/DOWN SEL].



4. When UP/DOWN SEL screen is displayed, press [Enter] after operating "→" with the rotary encoder 1 to align it to any item to be changed.



5. Selected item blinks. You can confirm it by pressing [Edit] after selecting a function to be activated when selected item is pressed by operating "→" with the rotary encoder 1. The change is canceled by pressing [Cancel] switch.
   Switching [PAGE] can switch a page that the UP/DOWN SEL switch changes, PAGE can be selected from 1 to 5. Switching the UP/DOWN SEL switch page can be switched by [PAGE] switch located at the selection function operation section.

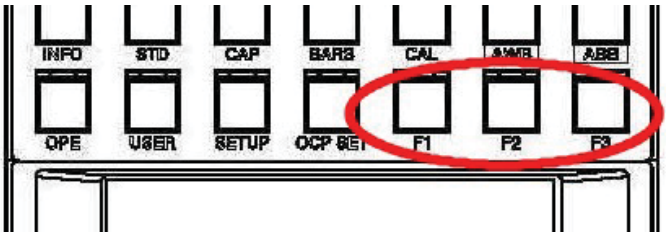


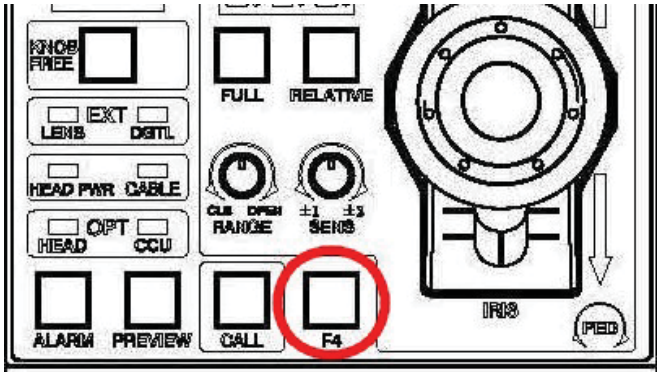
Function to be assigned to UP/DOWN SEL switches

Setting items	Functional description
EMPTY	No function
ND	ND filter
CC	CC filter
EFF	EFFECT filter
GAIN	STEP GAIN
GAMMA	STEP GAMMA
G MOD	GAMMA mode
B.STR	Black stretch
AWBCH	AWB channel
SHUT	Shutter mode
SPEED	Shutter speed
VCT	Variable color temperature
D.EXT	Digital extender
AVC	AVC ON/OFF
ATW	ATW ON/OFF
S.KNEE	Super KNEE
MTRX	Matrix
KNEE	KNEE
FLARE	FLARE
DTL	DTL
W.CLP	White clip

21.2.2 FUNCTION SW

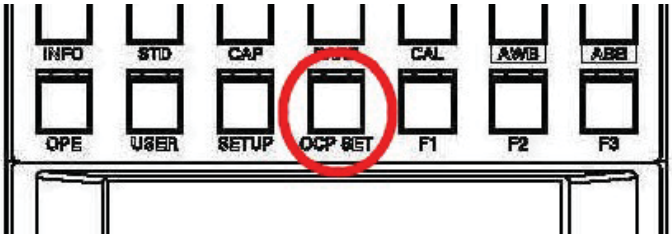
OCP-300 is capable of assigning individual desired function to each of four FUCNTION switches. You can assign respective functions to function switches F1, F2, F3 above LCD screen and F4 switch located at the control section for iris/pedestal.



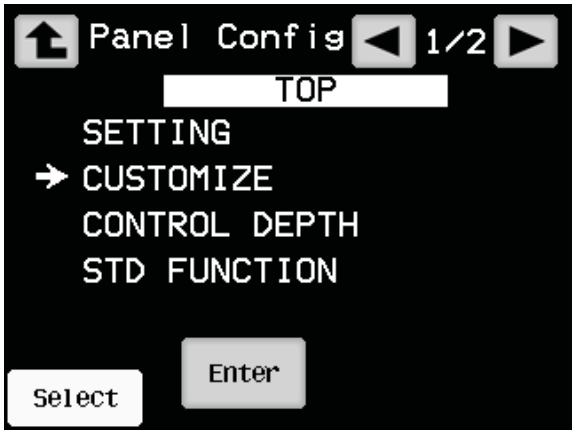


21.2.2.1 FUNCTION SW assigning method

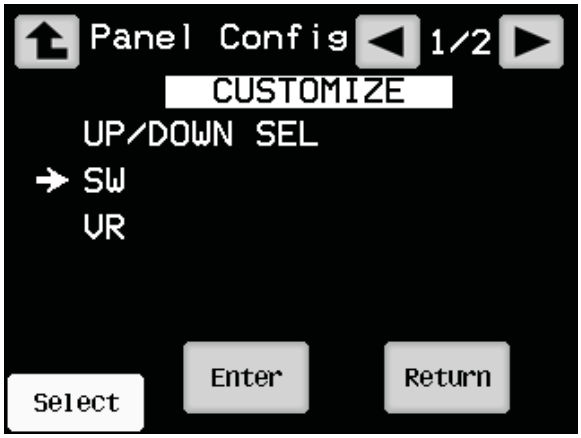
6. Press [OCP Setup] among the FUNCTION switches on top of the LCD screen.



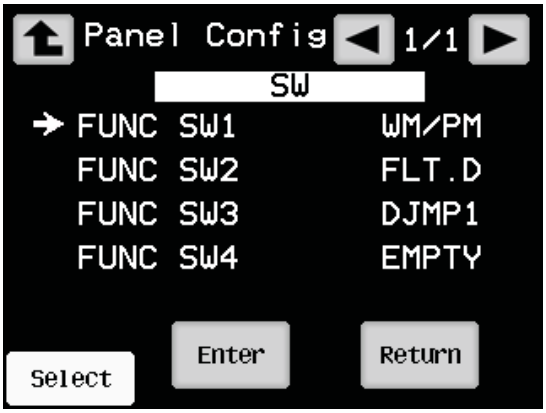
7. Press [Enter] after operating "→" with the rotary encoder 1 in [PANEL CONFIG] screen to align it to [CUSTOMIZE].



8. When CUSTOMIZE screen is displayed, press [Enter] after operating "→" with the rotary encoder 1 to align it to [SW].



9. When SW screen is displayed, press [Enter] after operating "→" with the rotary encoder 1 to align it to either one item of [FUNC SW1], [FUNC SW2], [FUNC SW3] or [FUNC SW4] to be changed.



10. Selected item blinks. You can confirm it by pressing [Edit] after selecting a function to be activated when selected function switch is pressed by operating "→" with the rotary encoder 1. The change is canceled by pressing [Cancel] switch.

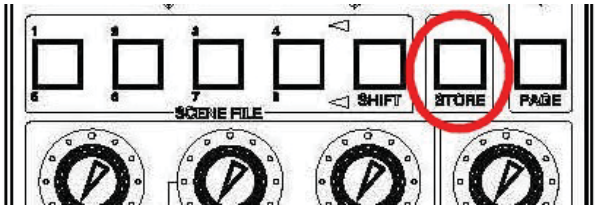
Function to be assigned to FUNCTION SW

Setting items	Functional description
EMPTY	No function
SHUTT	Electronic shutter ON/OFF
VCT	Variable color temperature ON/OFF
AVC	Automatic video level control function ON/OFF
ATW	Automatic tracking white balance function ON/OFF
KNEE	Knee correction ON/OFF
FLARE	Flare ON/OFF
DTL	DTLON/OFF
W.CLP	White clip ON/OFF
MTRX	Matrix ON/OFF
ENG.F	Loading Engineer file on camera head
STD	Executing Clear to Standard Basic
DJMP1	Direct menu jump 1 (described in Chapter 20.2.3)
DJMP2	Direct menu jump 2 (described in Chapter 20.2.3)
DJMP3	Direct menu jump 3 (described in Chapter 20.2.3)
DJMP4	Direct menu jump 4 (described in Chapter 20.2.3)
WM/PM	WFM/PM selection window is displayed on LCD screen.
FLT.D	Filter direct window is displayed on LCD screen.
SEL	Camera selection window is displayed on LCD screen.
VR.PG	Memory switching of function volume (described in Chapter 4)

21.2.2.2 Direct menu jump

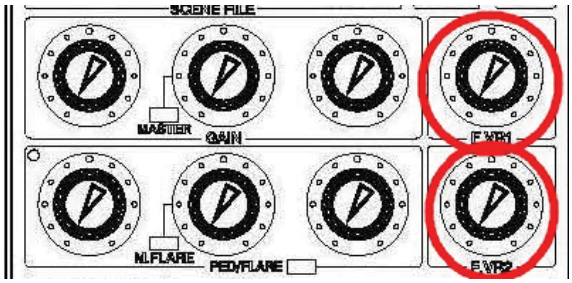
DJMP in assigning item of FUNCTION SW is a function to enable displaying user set menu screen by pressing an assigned switch. It can save 4 menu screens of [DJMP1], [DJMP2], [DJMP3] and [DJMP4].

The menu screen can be saved by pressing a FUNCTION switch to which DJMP function is assigned while [STORE] switch of OCP-300 main unit is turned ON. OK sound beeps when it is saved and the memorized menu screen can be opened by pressing the FUNCTION switch. Attempting to save the menu screen in a screen in which saving is disabled such as [Panel Config] may cause beeping NG sound and it can not be saved.



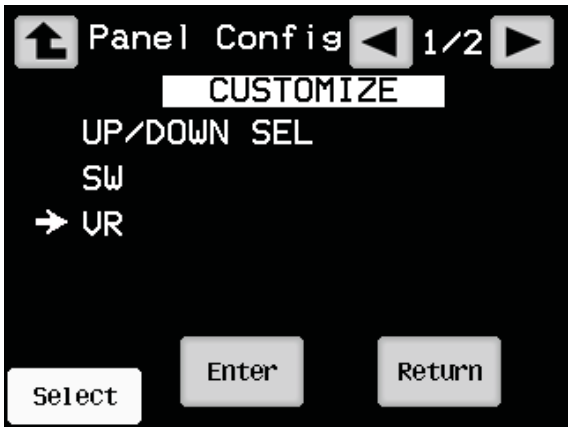
21.2.3. FUNCTION VR

OCP-300 is capable of assigning user setting function to each of two FUCNTION volumes. Each function can be assigned to main unit volume F.VR1 or F.VR2.

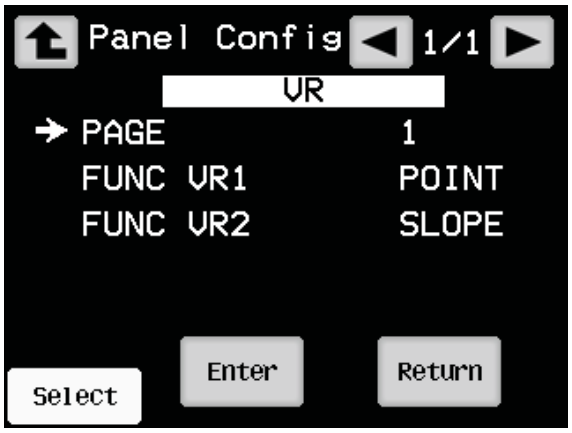


21.2.3.1 FUNCTION VR assigning method

1. Press [Enter] after operating "→" with the rotary encoder 1 displayed in CUSTOMIZE screen of Panel Config to align it to [VR].



2. When VR screen is displayed, press [Enter] after operating "→" with the rotary encoder 1 to align it to either one item of volume [FUNC VR1] or [FUNC VR2] to be changed.



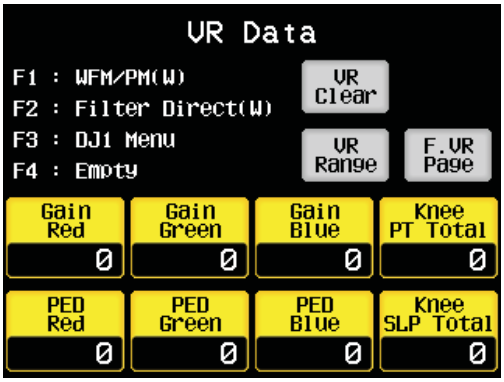
3. Selected item blinks. You can confirm it by pressing [Edit] after selecting a function to be activated when selected FUNCTION volume is pressed by operating "→" with the rotary encoder 1. The change is canceled by pressing [Cancel] switch.

Function to be assigned to FUNCTION VR

Setting items	Functional description
EMPTY	No function
VCT	Variable color temperature
MGAIN	Master gain adjustment Adjustable range is identical to that of RGB gain
SKIN	Skin detail gain adjustment D/C (down convert) is controlled simultaneously
C.SAT.	Color saturation adjustment D/C (down convert) is controlled simultaneously
POINT	Knee/Auto Knee point adjustment
SLOPE	Knee/Auto Knee point adjustment
DTL	Detail gain adjustment D/C (down convert) is controlled simultaneously
M.GAM	Master gamma adjustment
HiDTL	Highlight detail gain adjustment

21.2.3.2. FUNCTION VR PAGE switch

Two volume functions can be assigned to main unit volume F.VR1 or F.VR2. Two types of settings are available to create by aligning [PAGE] to 1 or 2 in VR screen, and then by setting [FUNC VR1] or [FUNC VR2] in respective states. Regarding a method to switch PAGE, you can switch PAGE of FUNCTION VR by turning OFF the screen switch which is currently ON (eg. pressing OPE switch to turn it OFF when it is ON), setting LCD screen to VR Data screen, followed by pressing [F.VR PAGE] switch. You are in PAGE1 when [F.VR PAGE] switch is OFF, and in PAGE2 when [F.VR PAGE] switch is ON.



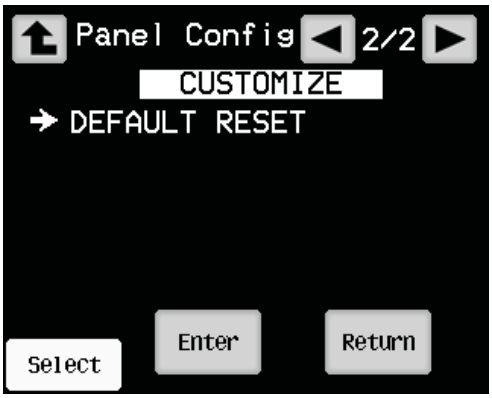
The VR Data screen indicates state of volume of the OCP-300 main unit. Two adjustment values shown in right side are settings for F.VR1 (up) and F.VR2 (down) respectively.

Reference: Please refer to "4.6 VR DATA" for the VR Data screen.

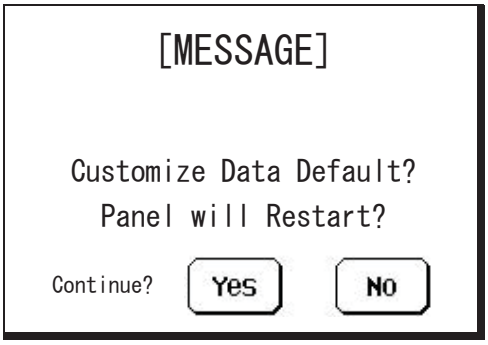
21.2.4.Initialization of CUSTOMIZE

You can resume each setting on [CUSTOMIZE] of the panel configuration to the initial setting.

1. Select DEFAULT RESET located in page 2/2 from the menu and then press [Enter].



2. A pop-up screen is displayed on the LCD screen to prompt caution.



3. Selecting "Yes" resumes initial setting for each setting on [CUSTOMIZE], and then this control panel re-starts. Selecting "No" from the pop-up screen resumes the previous state.

21.3. Control Depth

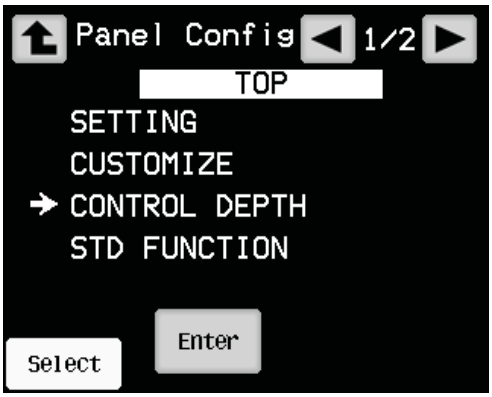
You can change range of control for each item by using Control Depth.

Items that can be changed are listed in "12.4 Detail of initial operation range".

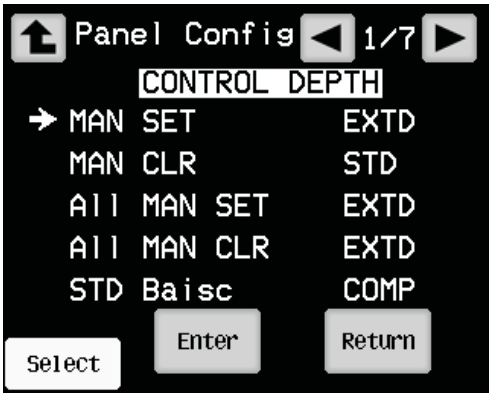
Reference: Please refer to "12 Operation range setting function" for the Control Depth

21.3.1 Method to change operation range

1. Press [Enter] after operating "→" with the rotary encoder 1 in Panel Config screen to align it to [Control Depth].



2. When a screen to change operation range is displayed, press [Enter] after operating "→" with the rotary encoder 1 to align it to the item to change its operation range. Page can be switched by the ◀ ▶ switch located at top right corner of the screen.



3. Selected item blinks. You can confirm it by pressing [Edit] after selecting operation range by operating "→" with the rotary encoder 1. The change is canceled by pressing [Cancel] switch.

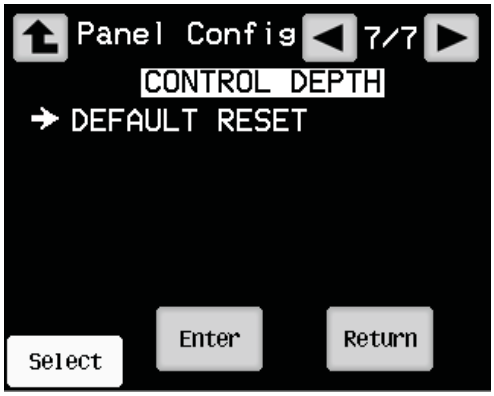
- BASIC : Operation is permitted by [Control Depth] with authorization level of [Basic] or higher

- STD : Operation is permitted by [Control Depth] with authorization level of [Standard] or higher
- EXTD : Operation is permitted by [Control Depth] with authorization level of [Extended] or higher
- CMP : Operation is permitted by [Control Depth] with authorization level of [Complete] only

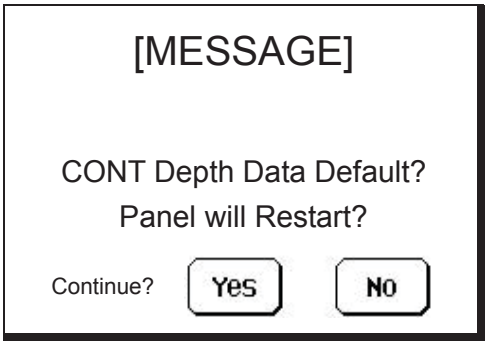
21.3.2 Initialization of Control Depth

You can resume each setting on [Control Depth] of the panel configuration to the initial setting.

1. Select DEFAULT RESET located in page 7/7 from the menu and then press [Enter].



2. A pop-up screen is displayed on the LCD screen to prompt caution.



3. Selecting "Yes" resumes initial setting for each setting on [Control Depth], and then this control panel re-starts. Selecting "No" from the pop-up screen resumes the previous state.

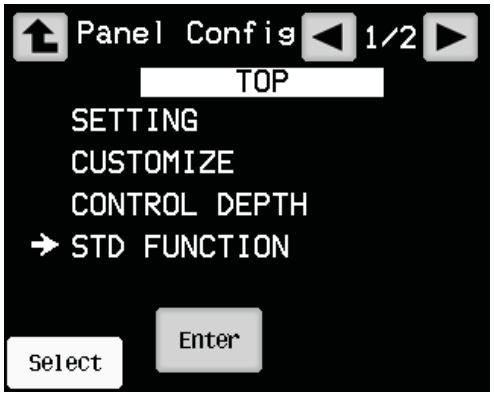
21.4. STD FUNCTION

You can set standard setting of each item in the Camera Status screen of Information to any desired setting.

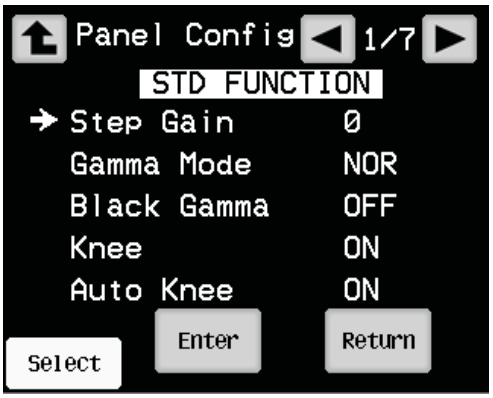
Reference: Please refer to "10.1 Screen explanation" for Camera Status.

21.4.1 Method to change standard setting

1. Press [Enter] after operating "→" with the rotary encoder 1 in Panel Config screen to align it to [STD FUNCTION].



2. When a screen to change operation range is displayed, press [Enter] after operating "→" with the rotary encoder 1 to align it to the item to change its operation range. Page can be switched by the ◀ ▶ switch located at top right corner of the screen.



3. When the selected item starts blinking, press [Enter] after operating "→" with the rotary encoder 1 to confirm the standard setting.

4. Standard settings that have been set are displayed in white texts in the Camera Status screen of Information, and settings different from the standard setting are displayed in red texts with white backgrounds.

Items that can be set in STD FUNCTION screen are listed below.

STD FUNCTION screen 1/7

Selection	Setting items
Step Gain	-6,-3,0,+3,+6,+9,+12,+18,+24,+30,+36,+42,+48,+54,+60,+66,+72,+78
Gamma Mode	NOR,C-1,,C-2,CST1,CST2,CST3,CST4,CST5
Black Gamma	OFF,ON
Knee	OFF,ON
Auto Knee	OFF,ON

Items in gray color are initial settings

STD FUNCTION screen 2/7

Selection	Setting items
Super Knee	OFF,LOW,MID,HIGH
Smooth Knee	OFF,1,2,3
White Clip	OFF,ON
DTL	OFF,ON
Soft DTL	OFF,ON

Items in gray color are initial settings

STD FUNCTION screen 3/7

Selection	Setting items
Skin DTL	OFF,ON
Slim DTL	OFF,ON
Diagonal DTL	OFF,ON
Color DTL	OFF,ON
Z.Track DTL	OFF,ON

Items in gray color are initial settings

STD FUNCTION screen 4/7

Selection	Setting items
Z.Skin DTL	OFF,ON
Hi-Light DTL	OFF,ON
Matrix	OFF,ON
Matrix Select	1,2,3
Auto Iris	OFF,ON

Items in gray color are initial settings

STD FUNCTION screen 5/7

Selection	Setting items
Color SAT.	OFF,ON
CSTM Color1	OFF,ON
CSTM Color2	OFF,ON
Color Hue	OFF,ON
C.Temp 5600K	OFF,ON

Items in gray color are initial settings

STD FUNCTION screen 6/7

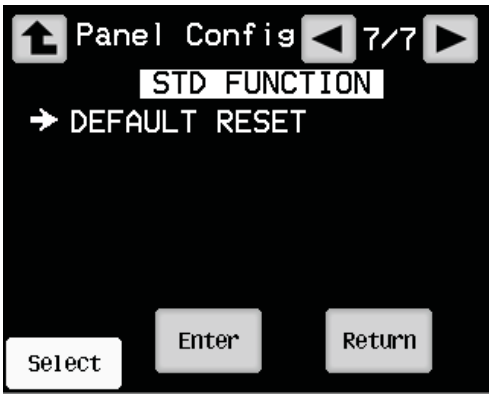
Selection	Setting items
VAR C.Temp	OFF,ON
ATW	OFF,ON
AVC	OFF,ON
Night Mode	1,2,3,4
Aspect Ratio	4:3,16:9

Items in gray color are initial settings

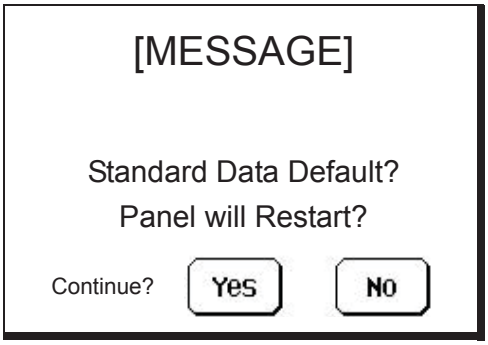
21.4.2 Initialization of STD FUNTION

You can resume each setting on [STD FUNCTION] of the panel configuration to the initial setting.

1. Select DEFAULT RESET located in page 7/7 from the menu and then press [Enter].



2. A pop-up screen is displayed on the LCD screen to prompt caution.

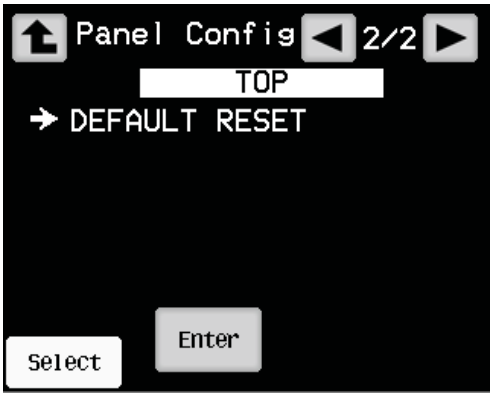


3. Selecting "Yes" resumes initial setting for each setting on [STD FUNCTION], and then this control panel re-starts. Selecting "No" from the pop-up screen resumes the previous state.

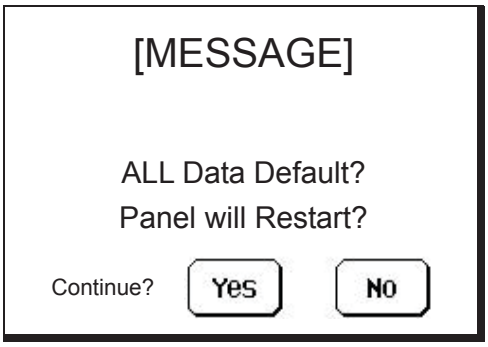
21.5. ALL DEFAULT RESET

You can resume all items of [SETTING], [CUSTOMIZE], [Control Depth] and [STD FUNCTION] in the panel configuration to the initial settings.

1. Switch the page to 2/2 by ◀ ▶ switch in the in Panel Config screen, and then operate "→" with the rotary encoder 1 to align it to [DEFAULT RESET].



2. Pressing [Enter] switch displays a pop-up screen on the LCD screen to prompt caution.



3. Selecting "Yes" resumes initial setting for each setting on [STD FUNCTION], and then this control panel re-starts. Selecting "No" from the pop-up screen resumes the previous state.

22. Countermeasure Against Troubles

22.1 ALARM Indicator (Switch) of OCP Blinks

BS/CCU is equipped with a self diagnosis function to monitor any abnormality in the BS/CCU itself and the camera. It is activated simultaneously with "ON" of BS/CCU MAIN POWER switch and is always functioning during operation.

Occurrence of any abnormality in BS/CCU or the camera is detected and ALARM indicator of OCP starts blinking. The self-diagnosis information display screen is also displayed on the PM to identify the section of failure.

You can check status with the self-diagnosis information screen displayed on PM by pressing the PM IND/PAGE switch of OCP even while the ALARM indicator (switch) is not blinking.

Pressing the switch when the ALARM indicator (switch) blinks enables you to display simple diagnosis. This enables simplified diagnosis even in a system to which the BS/CCU is not connected to PM.

Caution In the BS/CCU, this screen may not display diagnosis even though the PM displays it. This is not a malfunction since the OCP can not obtain information due to absence of command compatibility to connected BS/CCU.

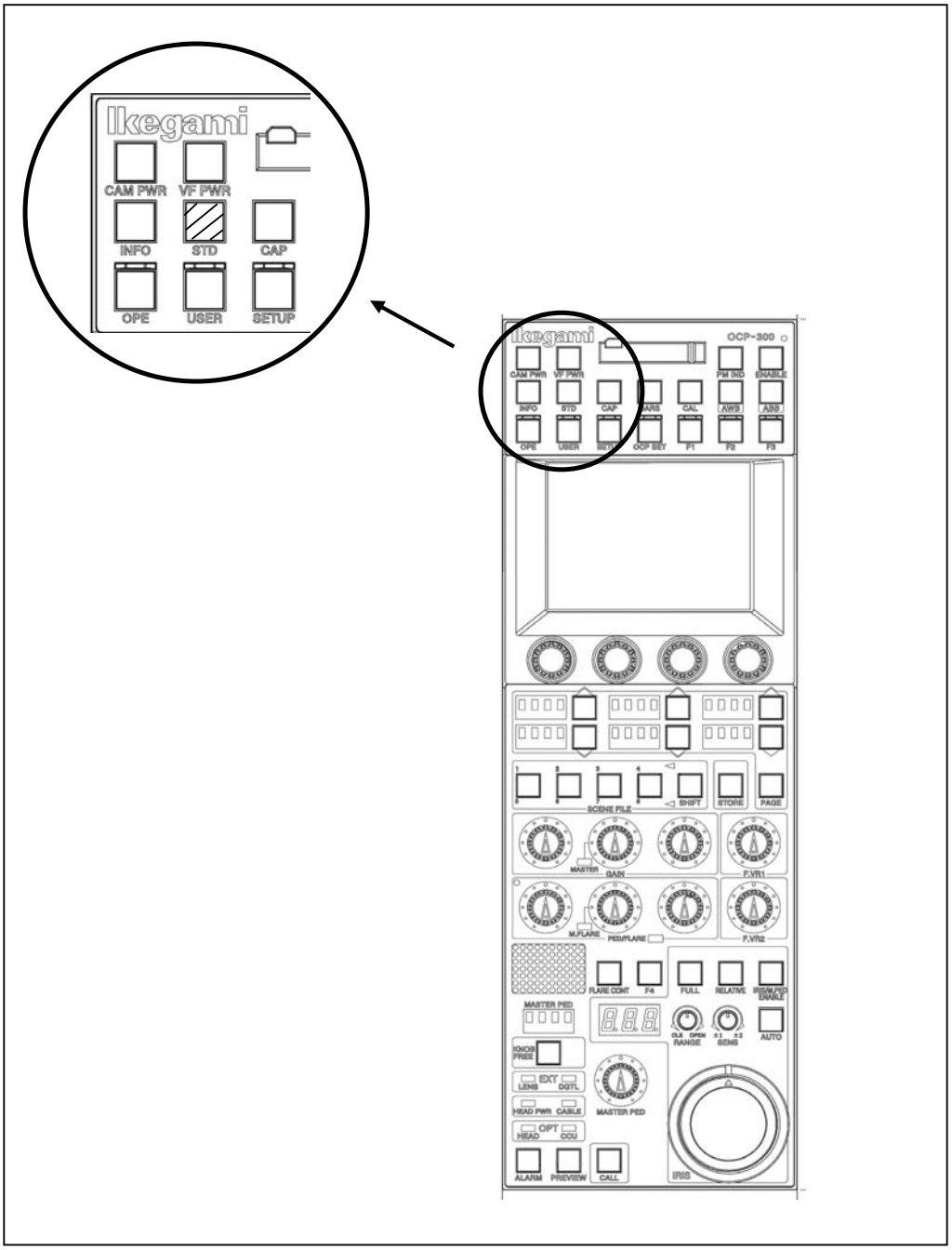
22.2 Method to Reset OCP

In the event that this control panel does not operate properly, or it hangs up to freeze, it is capable to be reset.

Press and hold the STANDARD switch for approximately 5 seconds to reset the OCP. LCD, LED lamps and switched that have been ON turn OFF momentarily. Release the STANDARD switch once you confirm them to be turned OFF. It automatically restart to resume operation after resetting.

It may need more than two times to resume. Press and hold the switch again to reset.

If it fails to resume for several times, turn OFF power supply to the equipment supplying power to OCP once, and then restart again.



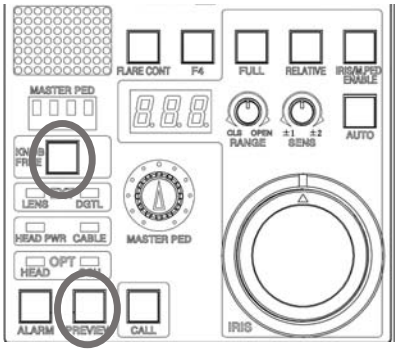
22.3 Initial Setting

You can resume each setting such for password and panel configuration to the initial setting.

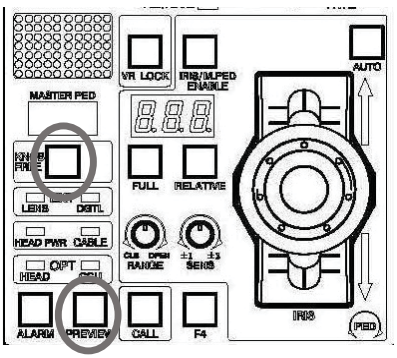
1) Procedure

Press and hold the PREVIEW switch while pressing and holding the KNOB FREE switch.

VR TYPE

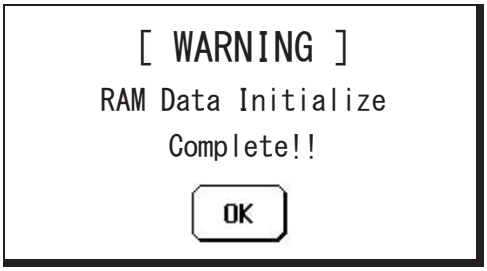


JOYSTICK TYPE



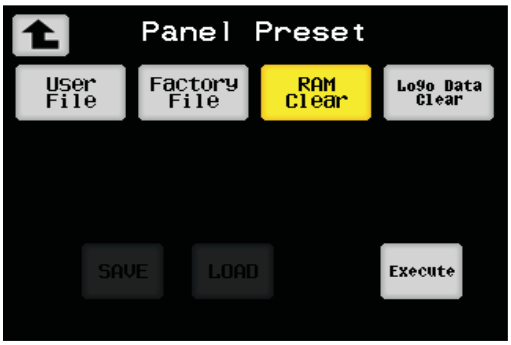
The following window is displayed during RAM clearing.

The PREVIEW starts blinking and it enters the initial setting mode. It displays the following window upon completion of initialization. Press [OK] switch.



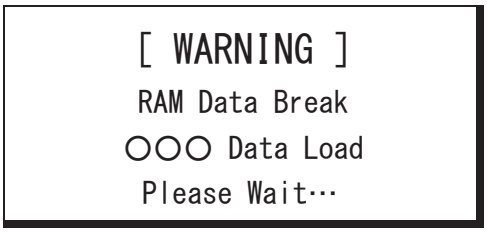
Caution Each setting of panel configuration has resumed to the factory settings. Perform setting again as necessary. This operation does not initialize the clock function. It will be automatically initialized in the event of abnormality.
The number of BS/CCU is set to "1" when this operation is performed in network connection. Perform setting again.

Pressing the [RAM Clear] switch on the Preset File screen in the LCD screen followed by pressing [Execute] clears RAM.



22.4 "RAM Data Break" is Displayed

Data in backup RAM region is automatically checked at power start-up.
The following window is displayed on screen if the data is corrupted.

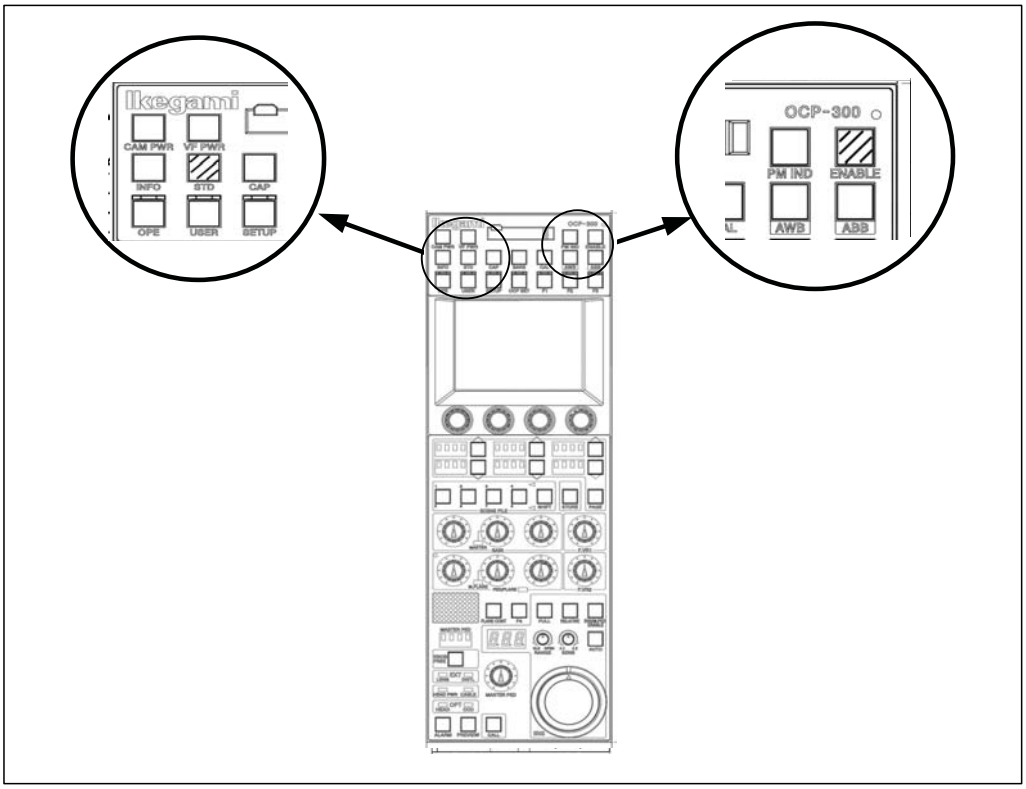


The data consists of factory data (Factory) and user data (User). In the event that RAM data is corrupted, data that is not corrupted in the user data or the factory data is loaded to RAM. (User data has a priority)
In the event that both data is corrupted, RAM data is set as initial value.
It displays the following window upon completion of setting RAM data. Press [OK] switch.
○○○ in window indicates the source data from which data is loaded to RAM.

Caution Repeated display of the message suggests corruption of backup RAM.

22.5 Troubles During Updating Firmware

In the event of power supply failure of OCP-300 during updating firmware or erroneous updating of firmware of wrong equipment, OCP-300 may not operate properly afterwards.
In this case, press and hold both of STD switch and ENABLE switch simultaneously. This starts up the update screen. Retry update of firmware again.



In the event that even this operation fails to start up update screen, turn OFF power supply of OCP-300 once, and then restart power while pressing and holding ENABLE switch. Power supply should be restarted either by turning OFF power supply to the equipment that is supplying power to OCP, or by disconnecting and connecting COMMAND connector that is supplying power.

22.6 Trouble in Networking

The network connection may be subject to simultaneous malfunction of equipments connected to the same network. This is a failure of the network itself and is a status that normal command control is disabled. The network trouble has several causations.

- **Wiring trouble**
  Check co-axial cables, co-axial connectors, F type connectors and 75 ohm end terminals. Majority of network troubles are caused by these factors.
  Shielding section of co-axial cable (co-axial connector) used in network connection is NOT a GND line unlike the case for image signal, but it is a signal line. Erroneous connection to GND line causes network trouble.

- **Erroneous setting of network ID**
  In the event of duplicated ARC IDs in ARC networking, and duplicated IP Addresses in Ethernet connection may cause trouble in entire network in addition to trouble for duplicated equipments.
  OCP-300 is capable of displaying ARC ID and Ethernet in the information screen. Confirm that they are not duplicated with other equipments.

- **Equipment trouble**
  A trouble in a certain equipment may cause trouble in entire network. Each equipment needs to be separated momentarily in order to identify the equipment(s) with trouble. OCP-300 is capable of separation from network by entering the update screen by pressing and holding ENABLE switch. Pressing the ENABLE switch again allows resuming to the network. MCP-200 is also capable of separation from network by entering the update screen.

- **Limitation to number of connection**
  You can connect maximum of 8 units of the MCP/OCPs to BS/CCU. The MCP/OCPs including over 9 units does not operate. The MCP is counted as 1 unit regardless of selection of camera. If the network contains a single MCP, the number of OCPs available to connect to BS/CCU becomes 7, and if the number of the MCP is 2 the number of the OCPs available to connect simultaneously becomes 6.
  The maximum number of connection becomes 4 if BS/CCU is connected to network without using BS hub.

Caution Separation from network does not mean complete hardware separation. Troubles such as device trouble of network driver may prevent separation even by this procedure. In this case, connected COMMAND connector must be disconnected.

23. Specification

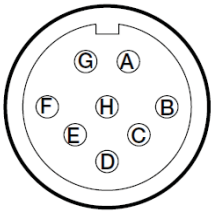
23.1 Ratings

Power supply	+12 V（+10V ～+18V）	
Power consumption	12 W (standard)	
Maximum cable length	50 m (in CP cable, ARC network control)	
	60 m (in CP cable, serial control)	
Operation temperature	0 ℃～+45 ℃	
Storage temperature	-25 ℃～+60 ℃	
Operation humidity range	30%～90% (no dew condensation)	
External dimension	JOY STICK TYPE	: 102 x 354 x 129.2 mm
	VR TYPE	: 102 x 354 x 82.6 mm
		(Width/Height/Depth)
Weight	JOY STICK TYPE	: 1.44 kg
	VR TYPE	: 1.4 kg

23.2 Pin Function of External Connector

1. COMMAND Connector

------Pedestal------



Insertion side

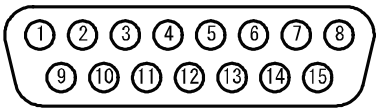
A connector to input/output various signal between BS/CCU and CP HUB.

Main unit side : PRC05-R8M
Cable side : PRC05-199P9-8F (8-pin female plug) or equivalent

Pin number	Name	Function	Direction	External interface
A	HED (+)	Serial command from BS/CCU to OCP Data input (+)	IN	
	A	Network command between CP HUB and OCP Data input/output (A)	IN/OUT	
B	HED (-)	Serial command from BS/CCU to OCP Data input (-)	IN	
	B	Network command between CP HUB and OCP Data input/output (B)	IN/OUT	
C	HEC (+)	Serial command from OCP to BS/CCU Data output (+)	OUT	
D	HEC (-)	Serial command from OCP to BS/CCU Data output (-)	OUT	
E	+12V IN	DC+12V power supply input	IN	
F	+12V RET	DC+12V power supply input ground	OUT	
G	NC	----------		
H	NC	----------		

2. EXT-1 Connector (male)

------ Pedestal -------



Insertion side

Connector for extension
Main unit side : D sub 15-pin (male)
Cable side : D sub 15-pin (female), inch thread

Pin number	Name	Function	Direction
1	+12V RET	DC+12V power supply input ground	
2	+12V RET	DC+12V power supply input ground	
3	GND	Signal ground	
4	NC		
5	EXT_OUT1	Camera status output 1	OUT
6	EXT_OUT2	Camera status output 2	OUT
7	EXT_OUT3	Camera status output 3	OUT
8	EXT_OUT4	Camera status output 4	OUT
9	CAM_SEL1	Camera select input 1	IN
10	CAM_SEL2	Camera select input 2	IN
11	CAM_SEL3	Camera select input 3	IN
12	CAM_SEL4	Camera select input 4	IN
13	CAMSEL_ENABLE	Camera selection enable input	IN
14	+12V IN	DC+12V power supply input	IN
15	+12V IN	DC+12V power supply input	IN

Camera select input signal

	ENABLE	4	3	2	1
DISABLE	1	*	*	*	*
NON SEL	0	1	1	1	1
1CAM	0	0	0	0	0
2CAM	0	0	0	0	1
3CAM	0	0	0	1	0
4CAM	0	0	0	1	1
5CAM	0	0	1	0	0
6CAM	0	0	1	0	1
7CAM	0	0	1	1	0
8CAM	0	0	1	1	1
9CAM	0	1	0	0	0
10CAM	0	1	0	0	1

0:LOW(GND)

1:OPEN

*:Don't care

Camera select output

	4	3	2	1
NON SEL	1	1	1	1
1CAM	0	0	0	0
2CAM	0	0	0	1
3CAM	0	0	1	0
4CAM	0	0	1	1
5CAM	0	1	0	0
6CAM	0	1	0	1
7CAM	0	1	1	0
8CAM	0	1	1	1
9CAM	1	0	0	0
10CAM	1	0	0	1

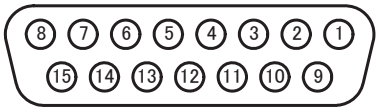
0:LOW(GND)

1:OPEN

*:Don't care

3. EXT-2 (PREVIEW) Connector (female)

------ Pedestal ------



Insertion side

Connector for extension

Main unit side : D sub 15-pin (female)
Cable side : D sub 15-pin (male), inch thread

Pin number	Name	Function	Direction	External interface
1	PV(+)	Preview output +	OUT	
2	PV (-)	Preview output -	OUT	
3	COM	Preview output common	OUT	
4	I/O 1	Input/output 1	IN/OUT	
5	I/O 2	Input/output 2	IN/OUT	
6	I/O 3	Input/output 3	IN/OUT	
7	I/O 4	Input/output 4	IN/OUT	
8	GND	Ground		
9	DATA(+)	Serial output DATA(+)	OUT	ＲＳ－４８５
１０	DATA (-)	Serial output DATA(-)	OUT	ＲＳ－４８５
１１	CLK(+)	Serial output CLK(+)	OUT	ＲＳ－４８５
１２	CLK (-)	Serial output CLK(-)	OUT	ＲＳ－４８５
13	WR(+)	Serial output WR(+)	OUT	ＲＳ－４８５
１４	WR (-)	Serial output WR(-)	OUT	ＲＳ－４８５
１５	＋１２Ｖ	Power supply output		

1) Preview Output

PV (-) is shorted to COM when PREVIEW switch is pressed.

PV (+) is shorted to COM when PREVIEW switch is NOT pressed.

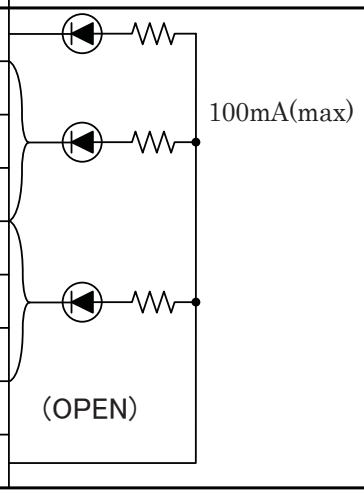
2) External Input/Output

It is equipped with external input/output function. It is available for either input or output thanks to pin layout arranged for dual purpose for input/output. Normally, it is for output.

Assignment for function of pin-5 and pin-6 can be changed by the panel configuration.

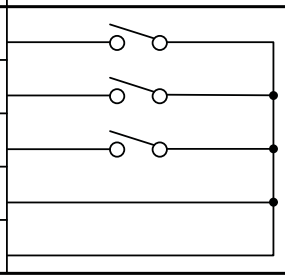
Reference: Please refer to "18. Panel Configuration (Panel Setting)" for detail.

External output

Pin No.	Name	Function	External interface
4	$\overline{\text{R TALLY}}$	R tally output	
5	$\overline{\text{G TALLY}}$	G tally output	
	$\overline{\text{EXTENDER}}$	Extender output	
	$\overline{\text{ALARM}}$	Alarm output	
6	$\overline{\text{Y TALLY}}$	Y tally output	
	$\overline{\text{EXTENDER}}$	Extender output	
	$\overline{\text{ALARM}}$	Alarm output	
7	$\overline{\text{ENABLE}}$	Enable input	
15	+12V	Power output	

This system is capable of inputing tally by connecting a camera head without tally input to OCP-300. Connect the enable input terminal (terminal-7 of connector) to GND for application to use as tally input. The enable input terminal is ignored and becomes as output when it is connected to BS/CCU.

External input

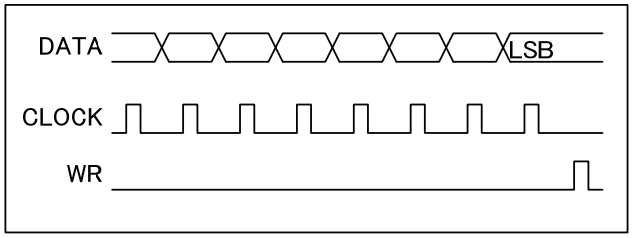
Pin No.	Name	Function	External interface
4	$\overline{\text{R TALLY}}$	R tally output	
5	$\overline{\text{G TALLY}}$	G tally output	
6	$\overline{\text{Y TALLY}}$	Y tally output	
7	$\overline{\text{ENABLE}}$	Enable input	
8	GND	Signal grounding	

Caution Input circuit is in simplified configuration. Longer cable to connect to system or existence of voltage gap may cause disturbance to normal operation. In such case, avoid direct connection of cable to the control panel, and place an interface such as photo coupler close to the control panel for junction of connection.

3) Program Number Output

It outputs the program number of camera via a serial signal (RS-485) in 3-wire type. Using this output enables you to display the program number on the tally panel, etc. Data is sent from MSB.

3-wire type serial data format



Camera number data format

		MSB											LSB
		11	10	9	8	7	6	5	4	3	2	1	0
Chip select	Fixed									0	0	0	0
Ones digit	No display					1	1	1	1				
	0					0	0	0	0				
	1					0	0	0	1				
	2					0	0	1	0				
	7					0	1	1	1				
	8					1	0	0	0				
	9					1	0	0	1				
Tens digit	No display	1	1	1	1								
	0	0	0	0	0								
	1	0	0	0	1								
	2	0	0	1	0								
	7	0	1	1	1								
	8	1	0	0	0								
	9	1	0	0	1								

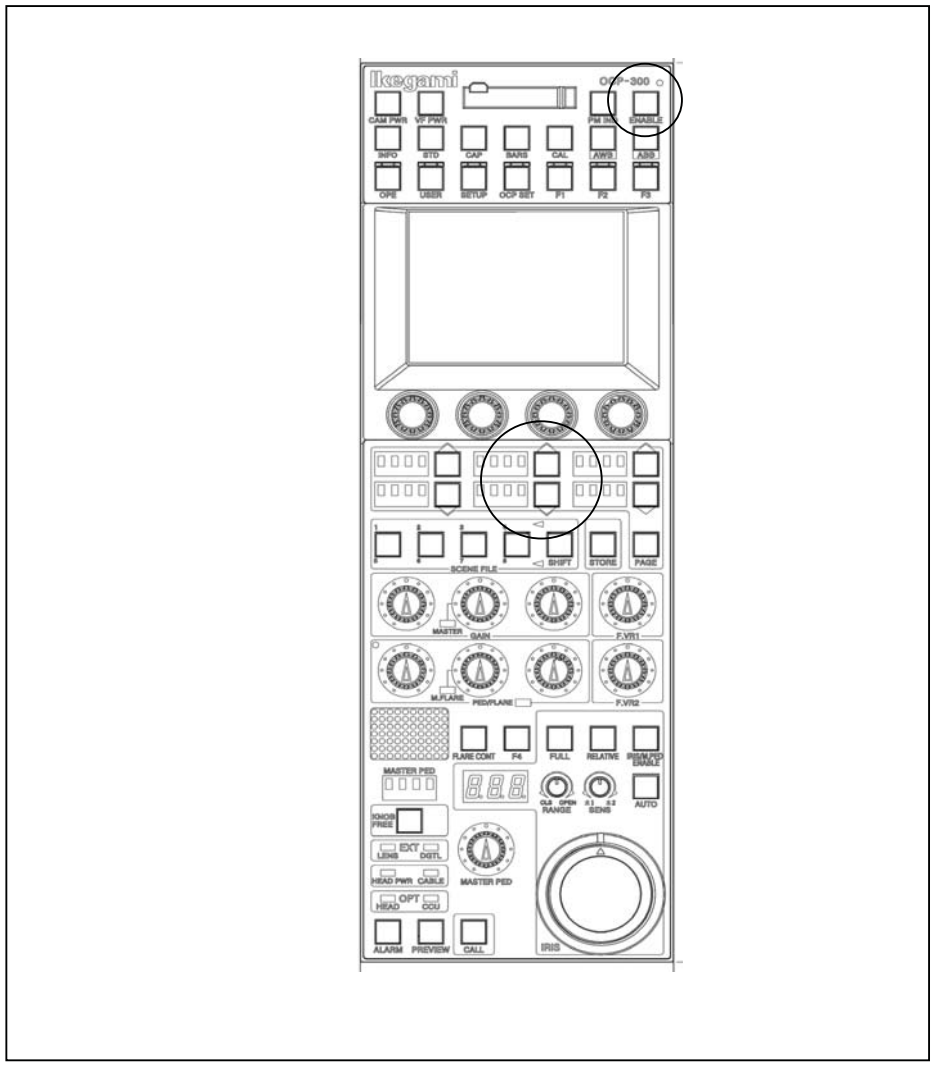
Data example

		MSB											LSB
		11	10	9	8	7	6	5	4	3	2	1	0
Camera number	No display	1	1	1	1	1	1	1	1	0	0	0	0
	5	1	1	1	1	0	1	0	1	0	0	0	0
	13	0	0	0	1	0	0	1	1	0	0	0	0
	46	0	1	0	0	0	1	1	0	0	0	0	0

24. Updating the Firmware

Updating the firmware of OCP-300 and the connected devices is possible by using the SD memory card.

24.1 Updating OCP-300



1) Procedure 1

Turn on the power of the connected device (camera, BS/CCU) while pressing the ENABLE switch.

The update program of the following firmware starts on the LCD screen.

```
  ***  PROGRAM  UPDATE  ***

INSERT  MEMORY  CARD
FILE       :
MODEL      :
PROG  NO   :
CHK  SUM   :
```

2) Procedure 2

Insert the SD memory card, which the firmware (update file) is stored, into the slot.

The data is read, and the screen indication becomes as follows. (The following file name and program number are only the samples.)

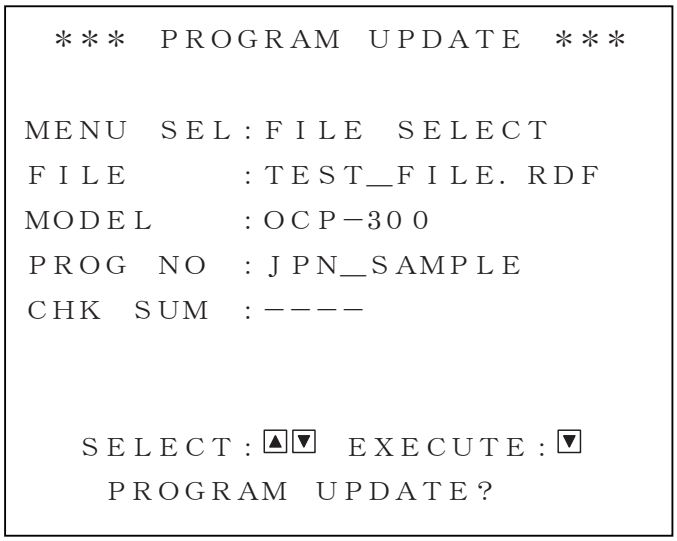
```
***  PROGRAM  UPDATE  ***

MENU  SEL:FILE  SELECT
FILE      :TEST_FILE.RDF
MODEL     :OCP-300
PROG  NO  :JPN_SAMPLE
CHK  SUM  :----


   SELECT:▲▼  EXECUTE:▼
```

This screen opens also when the ENABLE switch is kept pressed for five seconds on the normal screen while the SD card is inserted.

3) Procedure 3

Select the update file with the central UP/DOWN switches on the bottom of the LCD screen.

Finalize the selected update file with the right side DOWN switch on the bottom of the LCD screen



4) Procedure 4

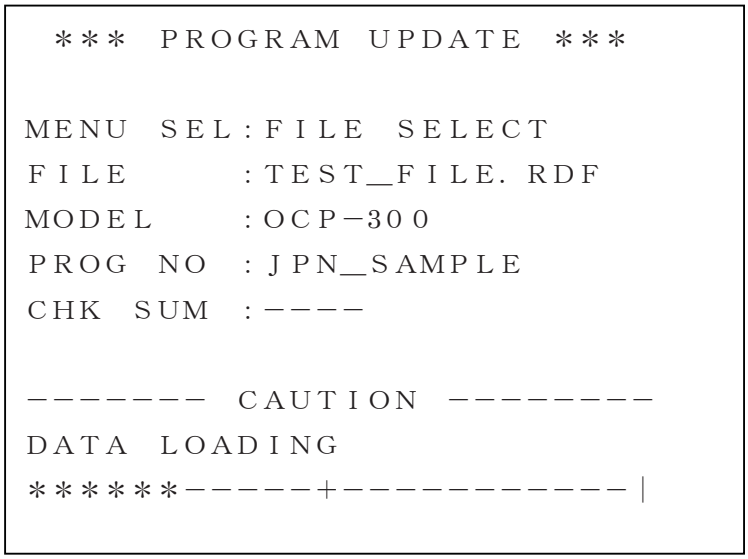
Select the either one of updating or canceling with the central UP/DOWN switch on the bottom of the LCD screen.

Execute the selected updating or canceling operation by pressing the right side DOWN switch on the bottom of the LCD screen.

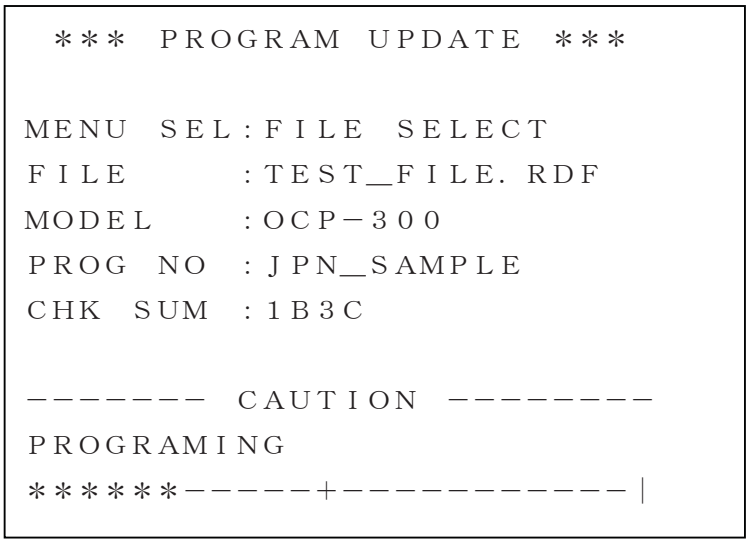
When canceled, go back to Procedure 3.

5) Procedure 5

When updated, the data in the SD memory card is loaded to the internal buffer. During the loading operation, the following screen opens, and the loading status is displayed with the bar graph on the bottom of the LCD screen.



When the data loading completes, the program is automatically rewritten.
At this time, CHK SUM is displayed for comparing with the data after the program.



6) Procedure 6

After rewriting of the program finishes, the system compares the CHK SUM and automatically judges whether or not the program is correctly rewritten.

```
  ***  PROGRAM  UPDATE  ***

MENU  SEL:FILE  SELECT
FILE      :TEST_FILE.RDF
MODEL     :OCP-300
PROG  NO  :JPN_SAMPLE
CHK  SUM  :1B3C

                      CHECK:▼
CHK  SUM  :1B3C
    COMPLETE  UPDATE  OK
```

When the program is correctly rewritten, the screen indicates "OK," and the panel restarts up automatically.

24.2 Updating the Firmware of the Connected Device

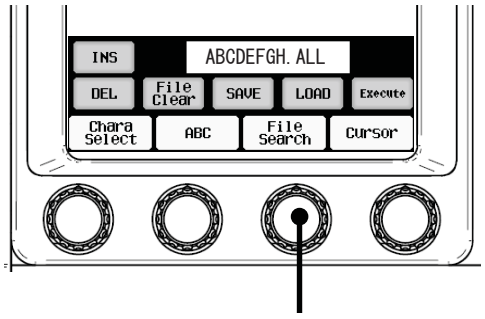
You can update the firmware of the connected device from OCP-300. Updating is possible only for the device with the update function using the command connection.
In addition, there are cases that menu setting and/or internal switch setting of the updating device are required at the time of updating.

Reference: Refer to the operation manual of each device when updating the device.

In this section, only the operation procedure at the OCP-300 side is described.

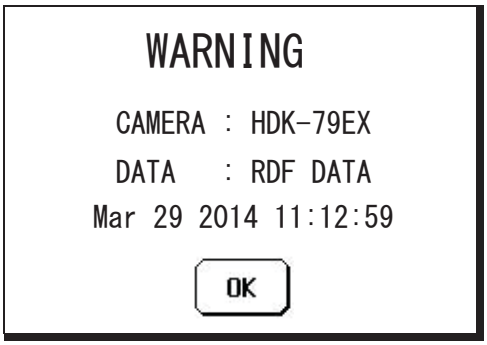
1. Insert the memory card to the memory card slot.
2. Press the [SETUP] switch from the FUNCTION switches on the top of the LCD screen. Press [Memory Card] on the Setup page 2/2 to open MEM.Card Save/Load screen.

3. Press the [RDF File] switch.
4. Turn on the [Load] switch.
5. Turn the file search control knob to select the desired file.



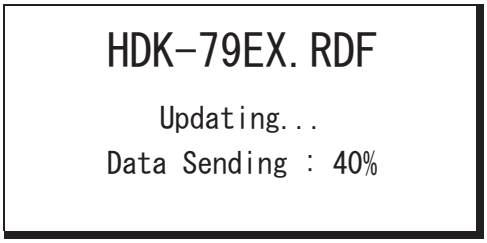
File search Control

Note: Searching the RDF file is executed only when the extension of the file is RDF in the default. Pressing the file data name on the LCD screen displays the file data information. You can check the model name of the camera and the file type. In addition, turning the file search control knob in this condition displays the information of the file data in the card continuously.



6. Press the [Execute] switch.

7. Pressing "Yes" lights on the [Execute] switch. The LCD screen displays the file name and the execution status, and the update is executed. Pressing "No" cancels the update.



After the completion, the LCD screen indicates the completion status, and the buzzer sounds. The indication lasts for approximately 1.5 seconds and disappears.

Upon completion of the update, check the completion status with the VF and PM images of the updated device and the indicator on the front side of the device in addition to the panel indication. After checking, return the menu setting and the internal switch setting to the previous state.

Caution The update process of the software varies depending on the device to be updated. Therefore, there are cases that the completion status is not displayed and the execution indication disappears.

Note: If you try to invoke the data other than the RDF file, the following warning appears.
In that case, invoking the data is not possible. Press "OK".

Caution Upon completion of the update, check the completion status with the VF and PM images of the updated device and the indicator on the front side of the device in addition to the LCD screen indication.

25. Changing the Information

OCP-300

Operation Control Panel

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