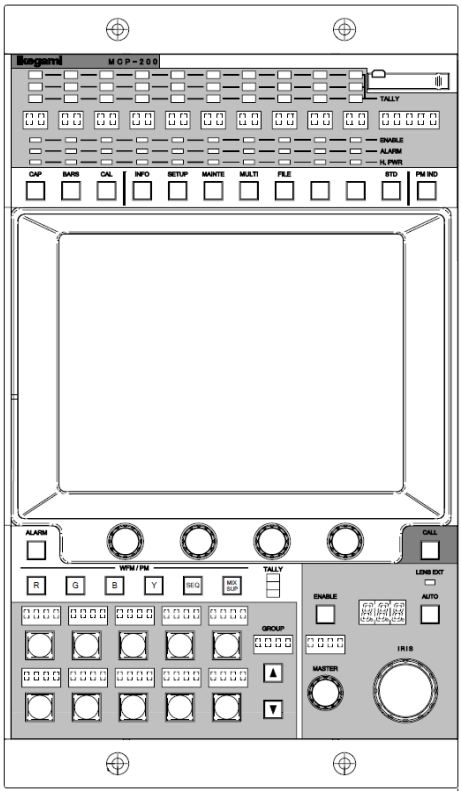
CE

Products conforming to RoHS directive



MCP-200

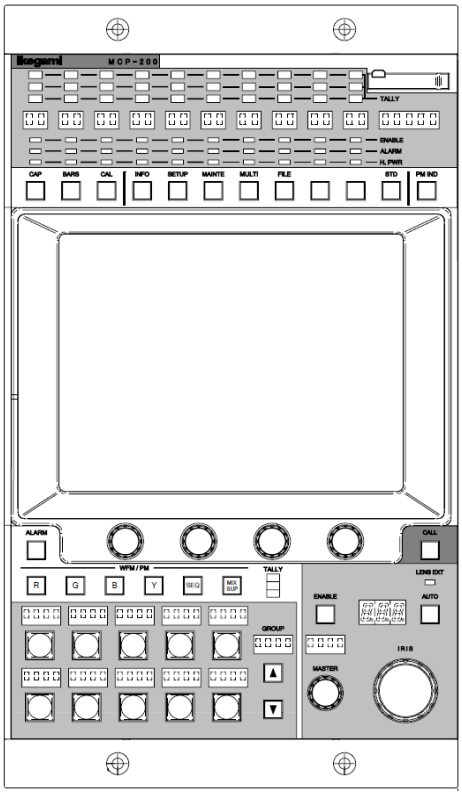
Master Control Panel

OPERATION MANUAL

Ikegami

CE

Products conforming to RoHS directive



MCP-200

Master Control Panel

OPERATION MANUAL

0909 6th Edition (E)(U)

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 PRODUCTS CONFORMING TO RoHS DIRECTIVE

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

•MCP-200 Master 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.

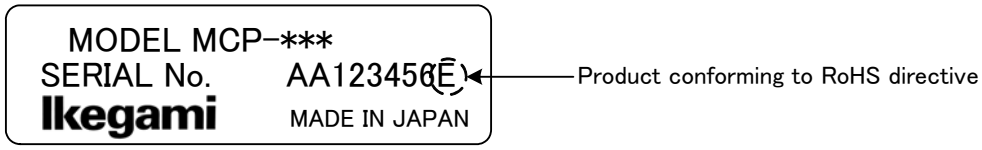
1. Mercury in compact fluorescent lamps not exceeding 5mg per lamp
2. Mercury in straight fluorescent lamps for general purposes not exceeding:
   - halophosphate 10mg
   - triphosphate with a normal lifetime 5mg
   - triphosphate with a long lifetime 8mg
3. Mercury in straight fluorescent lamps for 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 filter 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

MINTENACE 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

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).

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 magnetic field or radio waves
- lightning
- In rain without the rain cover

Be sure to hold the plug and pull when you disconnect the cable.
Condensation that cause malfunction may occur in the equipment.

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 product is very dirty, wipe with a cloth moistened with water or neutral detergent and wrung out. If neutral detergent is used, wipe again with a cloth dipped in clear water and wrung out.

■ *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 HOW TO READ THE OPERATION MANUAL

This page explains general notes on reading the MCP-200 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, or MCP.
- 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, CCU	Indicates MCP-200 Master 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.

MCP-200 MASTER CONTROL PANEL

OPERATION MANUAL

CONTENTS

1. OUTLINE

1.1 Outline

This is the master control panel which is designed to use with BS（Base Station）/CCU（Camera Control Unit）or with CP-HUB for network control.

1.2 Feature

●Network control capability

Not only current serial command control but network control is also available. By using network technology, panel assignment or another various application will be available. Serial command and network command can be selected by the switch on MCP-200.

●7.5inch color LCD display with touch sensor

LCD menu includes not only existing MCP functions but further unique features as the MCP-200. And optimized menu layer supports easier control or setting.

●Memory card slot

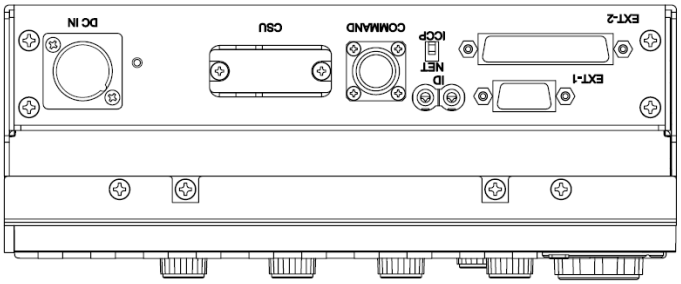
Various files of camera at BS/CCU can be stored or loaded. And update of MCP firmware for new additional function via SD memory card is also available.

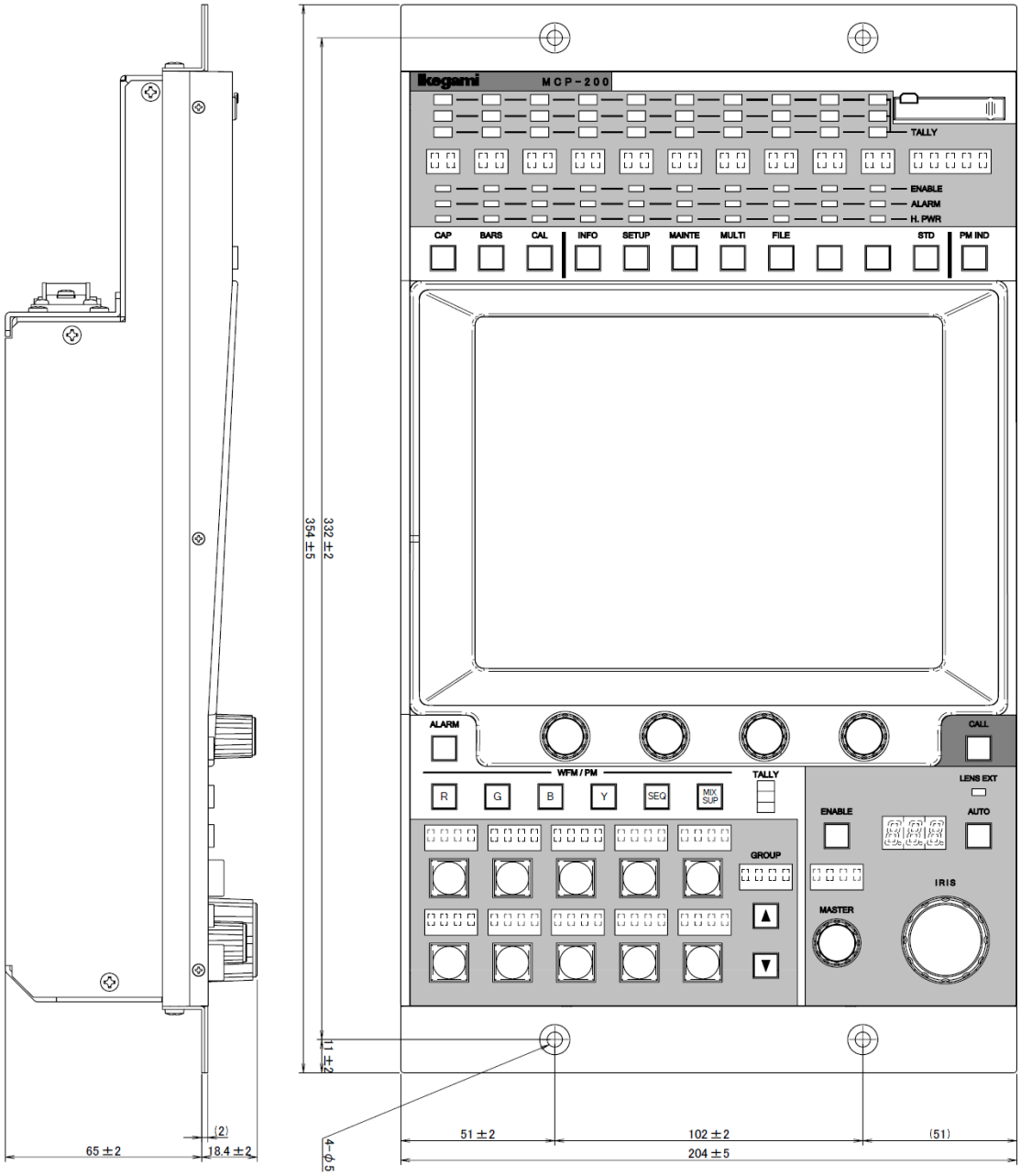
Note Each of switches or control functions in MCP doesn't work if the camera doesn't have that function.

Reference Please check with camera operation manual whether the camera has that function before operation.

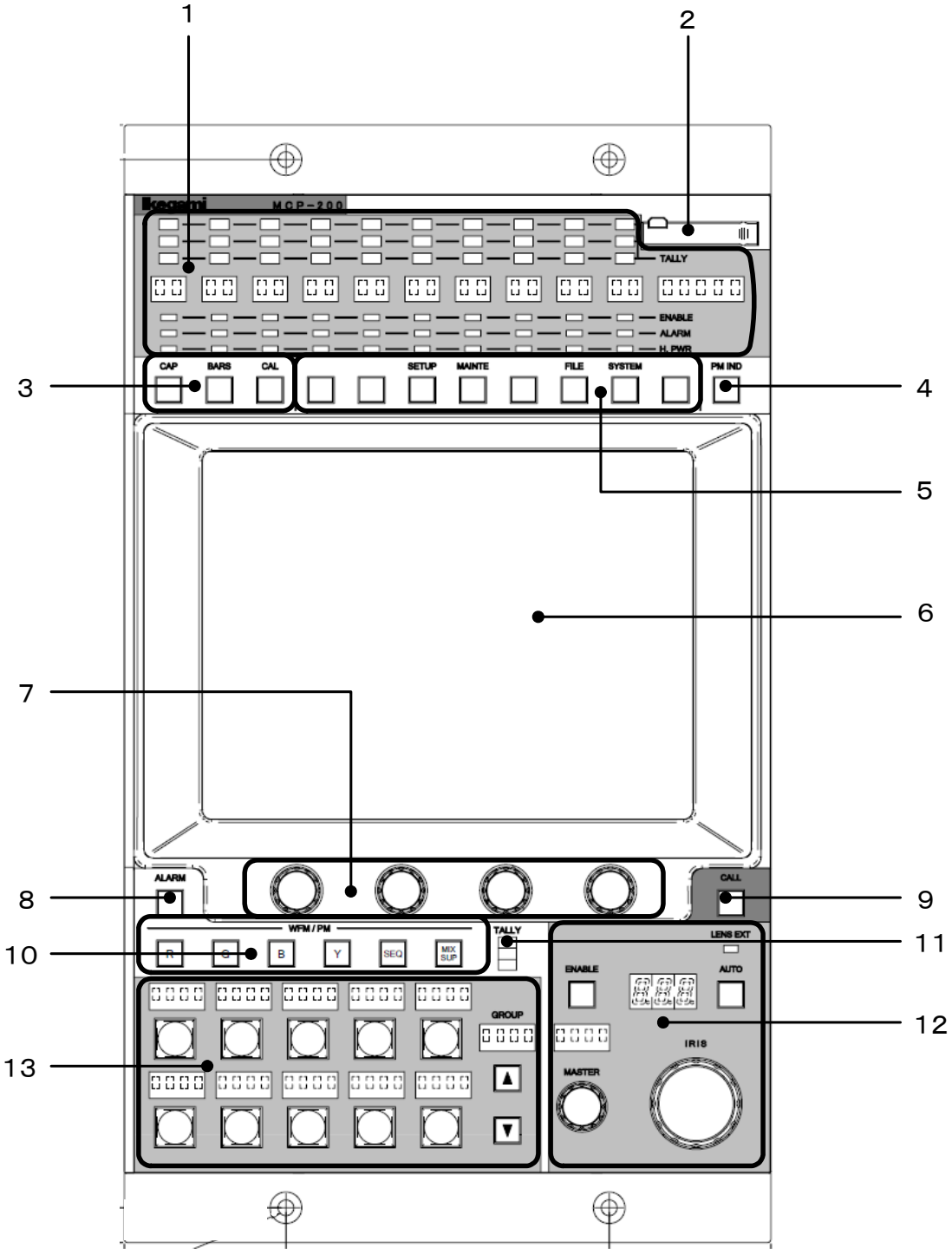
CAUTION Please use external power supply when MCP-200 is connected to the camera head. It may cause the trouble with camera head because the power consumption of MCP-200 may be beyod power supply capacity.

1.3 External Appearance





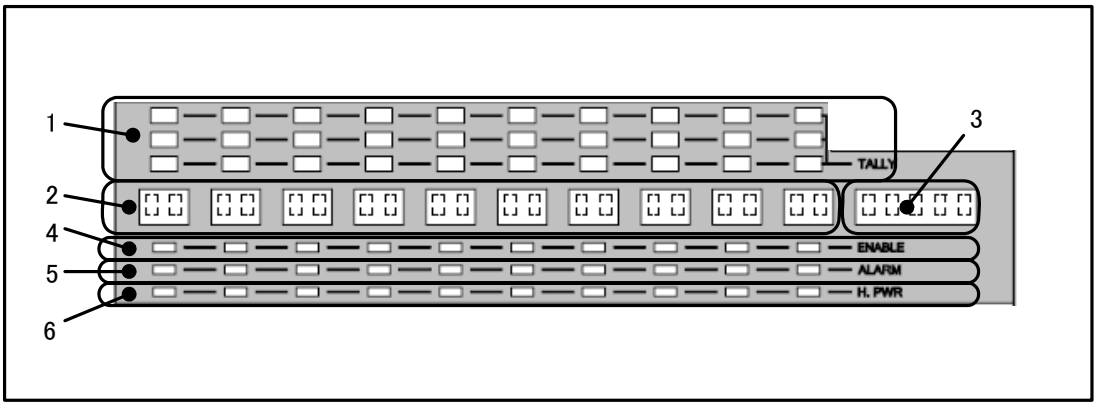
2. NOMENCLATURE and FUNCTIONS



1. Status Indicators
2. Memory Card Slot
3. Camera Control Switches
4. PM IND/PAGE Switch
5. Function Switches
6. LCD Panel
7. Rotary Encoders
8. Alarm Indicator
9. CALL Switch
10. WFM/PM Control Switches
11. Tally Indictor
12. PED, IRIS Control Portion
13. Camera Select Switches

2.1 Status Indicators

Each camera statuses are indicated vertically. Only camera status is displayed under Ikegami Command contrl, but stasus of cameras in one group is displayed under Netowrk Command control.



1. TALLY Indicator

From the top side, R TALLY, G TALLY and Y TALLY of each camera are indicated. Each colors of lighting is RED, Green and Yellow. R TALLY indicator will light when CALL Switch of camera head or BS/CCU is pushed.

2. Camera Number Indicator

Up to 10 grouped camera numbers are indicated.

3. Group Name Indicator

Indicated group name is displayed.

4. Enable Indictor

Indicator lights Green when camera is controllable from MCP-200.

5. Alarm Indicator

Indicator lights Red when camera head or BS/CCU is in trouble.

6. Head Power / Cable Indicator

Indicator lights Green when camera power is ON.

Indicator lights Red when Triax or Fiber Cable between camera and BS/CCU is in trouble.

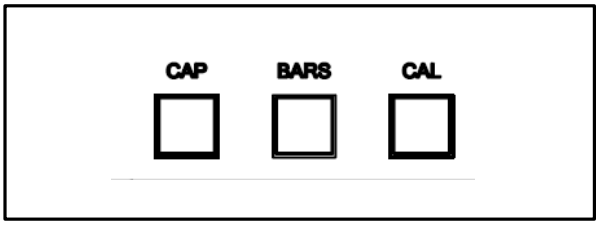
2.2 Memory Card Slot

This slot is used to save to / load from memory card (SD Card) of camera setting parameter.

To use memory card, insert memory card calmly until clicking. And to eject memory card, push top of memory card calmly until click. Memory card will pop up to be picked up. Slot should be used for dust proof when memory card is not used. Access indictor lamp on the side of slot lights in saving/loading. Do not remove memory card when access indicator is lighting. There is a possibility to damage data of not only memory card but camera and BS/CCU.

2.3 Camera Control Switches

It enables direct camera control.

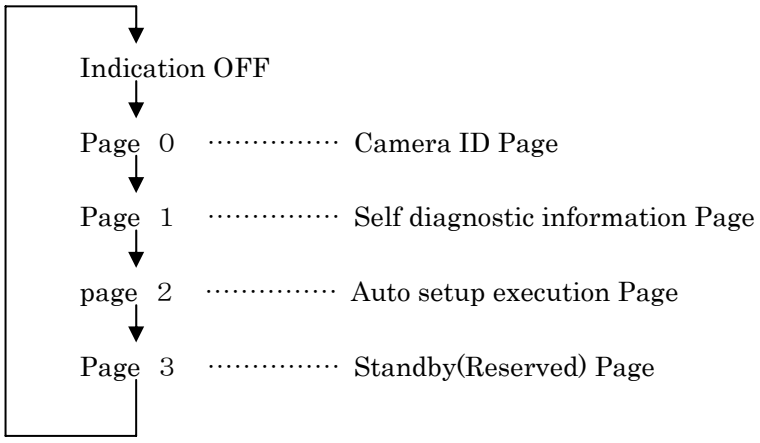


- **CAP Switch**
  Set optical filter to CAP position.
- **BARS Switch**
  Outputs color bar to ENC output.
- **CAL Switch**
  CAL signal of 100% level is input to video process circuit of camera head.
  CAL OFF(Light OFF) →CAL100% (Light ON) →CAL200% (Blink) →CAL OFF (Light OFF)
  It is possible to inhibit(guard) the switch of CAL200%.

Reference Refer to “16. Panel Config.. (Panel Setting)” for detail.

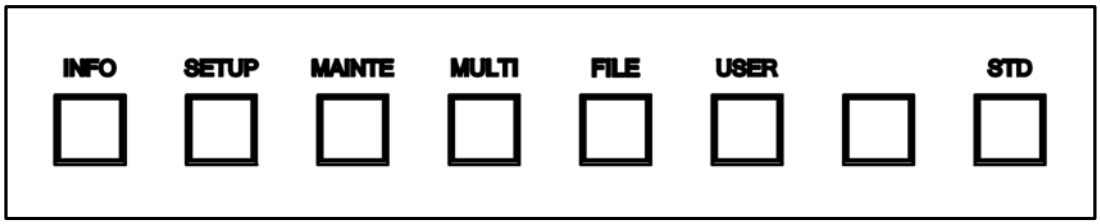
2.4 PM IND/PAGE Switch

Various information of characters are overlaid on BS/CCU PM output. Each of information is indicated sequentially as following by pressing this switch.



2.5 Function Switches

Function call switches of LCD Menu.



- **INFO Switch**
  Indicates status information such as ON/OFF setting condition of Camera Head or BS/CCU on LCD display.
- **SETUP Switch**
  Enables LCD Menu to setup mode.
- **MAINTE Switch**
  Enables LCD Menu to maintenance mode.
- **MULTI Switch**
  Enables LCD Menu to multi operation.
- **FILE Switch**
  Enables LCD Menu to file operation.
- **STD Switch**
  To clear all Camera and BS/CCU data to standard setting. Press this switch to come up LCD menu and operation is possible with touch panel.

Reference Refer to “12. STANDARD FUNCTION” for detail operation procedure.

2.6 LCD Touch Screen

Combines 7.5inch LCD panel and touch sensor. It has both display function and switch function to use for various control setting and operation for Camera Head and BS/CCU.

Reference Refer to “4.1 Basic configuration and operation” for practical operation.

2.7 Rotary Encoders

Is used to control parameters when function switches are displayed on LCD display.

2.8 ALARM Indictor

Alarm lamp will blink when any NG is found on the system by the detection of self-diagnosis function.

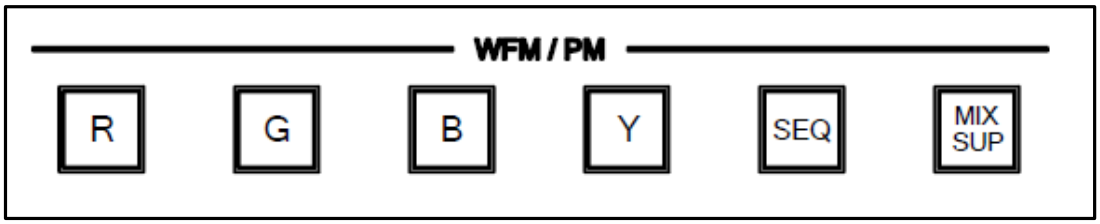
Reference Refer to “18.1 When Alarm Lamp is flashing” for detail.

2.9 CALL Switch

To press to light RED TALLY of camera head and BS/CCU.
Call switch will light when call switch of camera head and BS/CCU is pressed.

2.10 WFM/PM Control Switches

To select WFM output and PM output.



"R", "G", "B", and "Y" can be output to the WFM output and the PM output. When "SEQ" is selected, three wave forms (R, G, and B) are output only as for the WFM output. To display treble signal on Waveform Monitor, it is necessary to connect WFM Remote Connector of BS/CCU to Waveform Monitor.
When "Y" is pressed, Y signal of both HDTV and SDTV is output. Meantime, bby the setup of Panel Config. menu, Y signal for HDTV and ENC signal for SDTV can be output.

In case of "MIX/SUP" is ON, selected signals are output to PM output and WFM output. If it is set "OFF", the last selected 1 ch of signal is output to PM output and WFM output. But these switches work when BS/CCU/CSU is connected. Without connecting each of them(=Self-contain operation), it is set to "OFF" automatically.

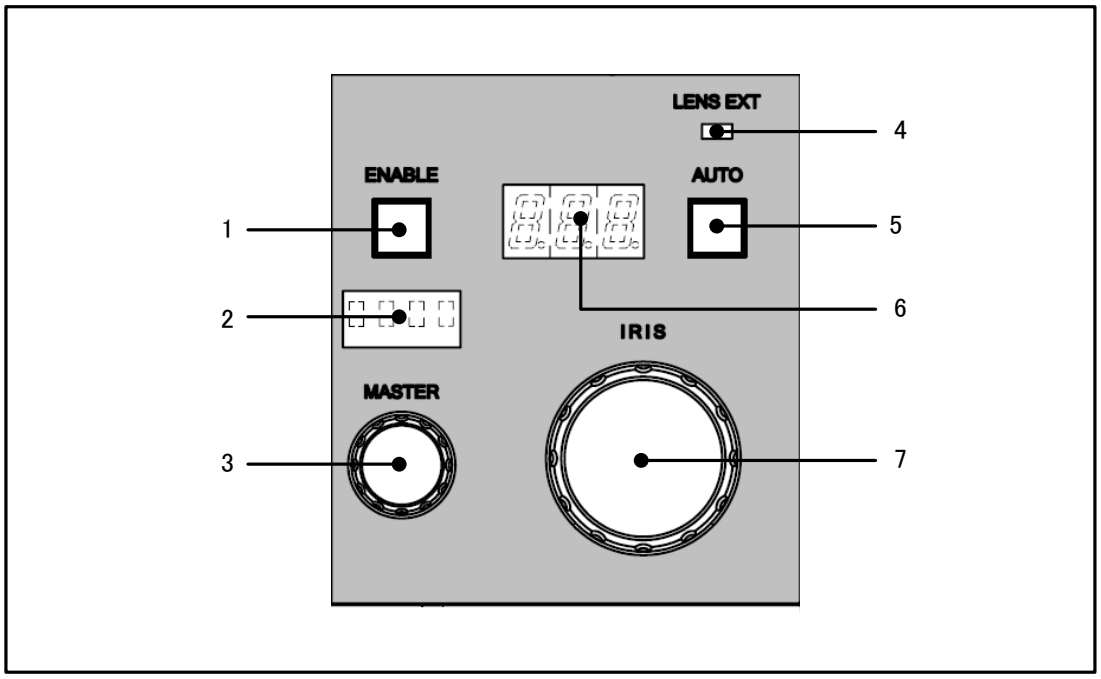
Reference Refer to "16. Panel Config.. (Panel Setting)" for detail.

2.11 TALLY Indicator

R TALLY, G TALLY and Y TALLY Indicators

2.12 IRIS / PED Control Portion

To adjust Iris and Master PED.



1. IRIS/MASTER PED Enable Switch

Push this switch in case of IRIS or MASTER PED adjustment.

2. MASTER PED Indicator

Indicates MASTER PED parameter.

3. M.PED Knob

To control MASTER PED.

4. LENS EXT Indicator

LED lights when Lens Extender is “ON”.

5. AUTO IRIS Switch

To select AUTO IRIS mode.

6. IRIS Indicator

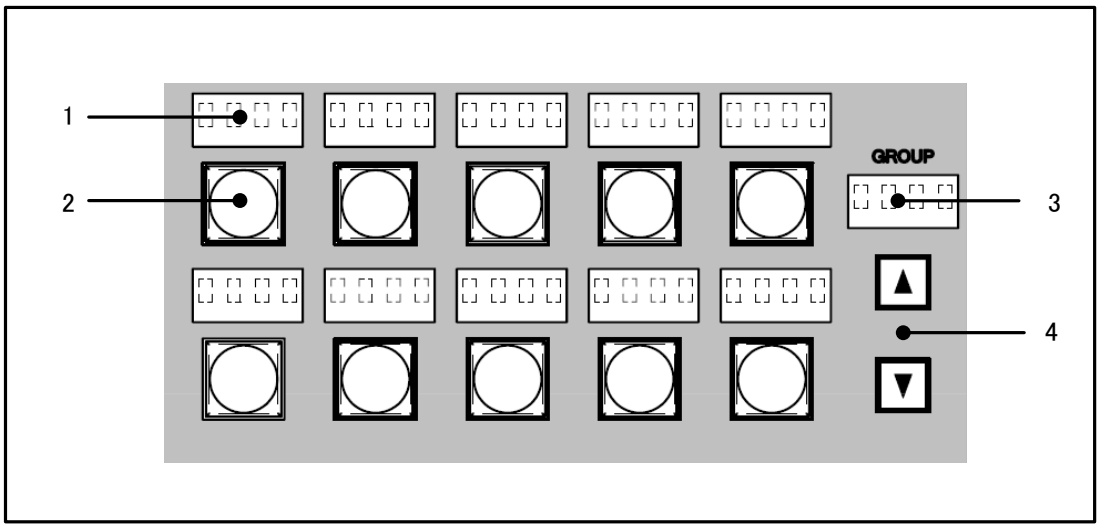
To indicate F number of Lens.

From F16 to CLOSE, indication will be “---” and F number is not displayed.

7. IRIS Knob

To control IRIS. +/- 1 stop of F number control is done at AUTO IRIS mode.

2.13 Camera Select Switches



1. Camera Number Indicator
   To indicate Camera Number.

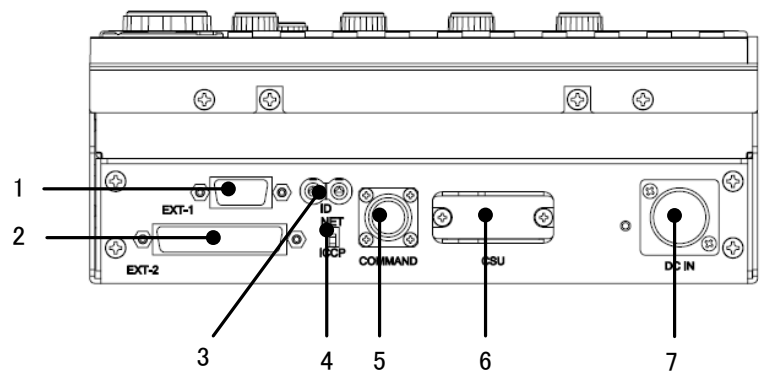
2. Camera Select Switch
   To select control target of camera.
   The switch under the left works like the ENABLE switch when the camera head and BS/CCU are connected.

CAUTION MCP-200 doesn't correspond to the split mode.
Reference Refer to the manual of BS/CCU used for the split mode.

3. Group Name Indicator
   Group Name is displayed when camera select group is registered.

4. Group Select Switch
   To select camera control target of camera group.

2.14 Connector Panel



1. EXT-1 Connector
2. EXT-2 Connector
3. ID Setting Switch
4. NET/ICCP Select Switch
5. COMMAND Connector
6. CSU Connector
7. DC IN Connector

1. EXT-1 Connector

For system expansion. *Not used yet.

2. EXT-2 Connector

For system expansion.

External control of Camera Select is available via this connector. Also, Camera Select signal can be output to external unit.

Reference Refer to “5.4 Remote Camera Select Control” for details of the external camera selection.

3. ID Setting Switch

To set Network ID of MCP. This is used for Network connection. ID should not be duplicated on the network.

Network ID becomes a hexadecimal mark.

Reference Refer to “3.3 Network ID setup “ for the detail setup procedure

4. NET/ICCP Select Switch

To select Network connection and traditional Ikegami Serial Command(ICCP).

NET : Network connection

ICCP : Ikegami Serial Command(ICCP) connection

5. COMMAND Connector

Connect Ikegami CP Cable.

6. CSU Connector

Connect Ikegami MCP Cable to CSU.

7. DC IN Connector (only model with connector)

An external power supply is connected with MCP (+12VDC).

When the cable extension distance of BS/CCU and CSU is long etc. , this connector is used.

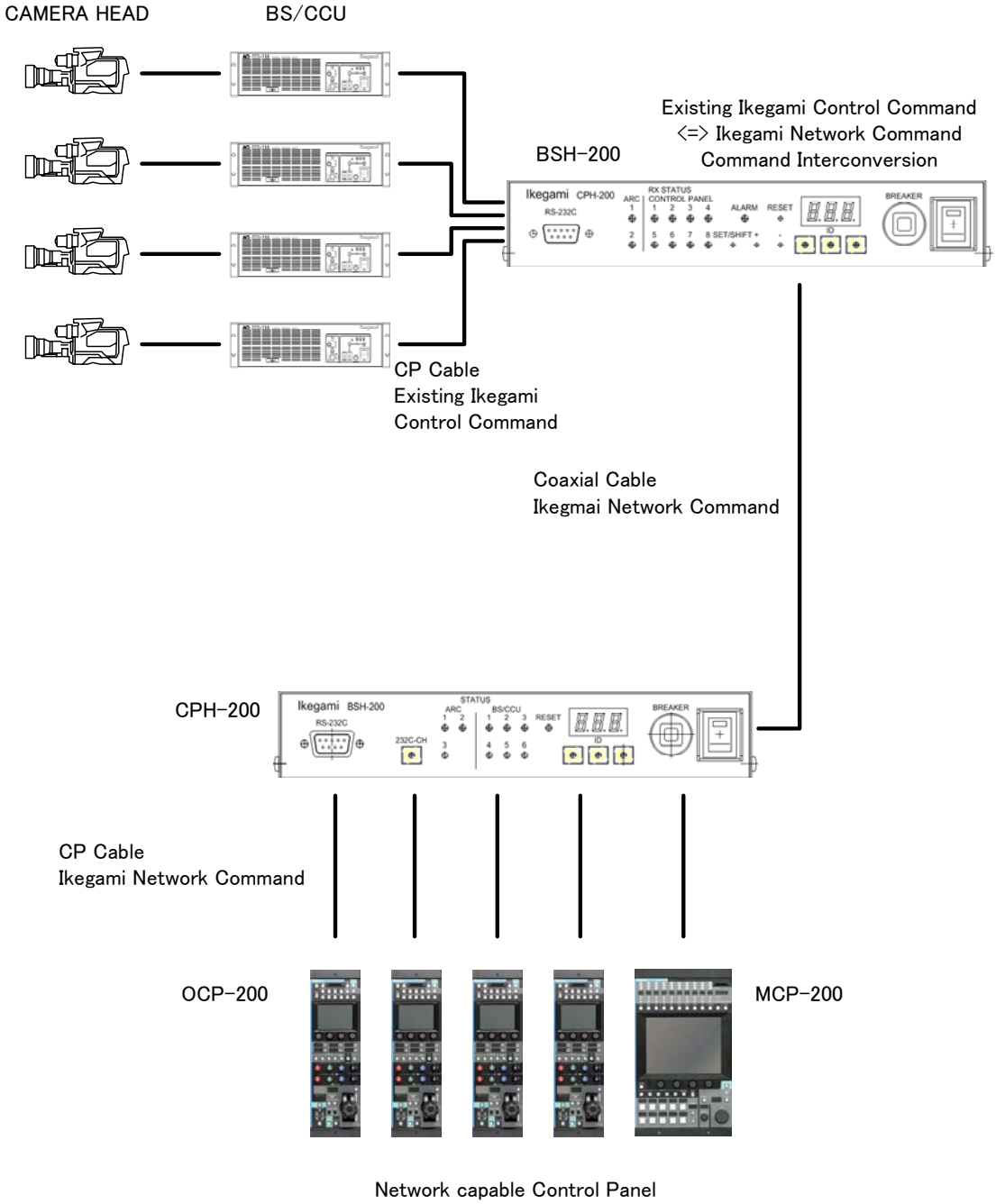
In connecting MCP to camera head directly via Ikegami CP Cable, prepare external power supply for both camera head and MCP.

CAUTION Please do not connect the cable with CSU Connector and COMMAND Connector at the same time for MCP Model without the DC IN connector.

3. NETWORK OPERATION

MCP-200 features Network Operation. Concept and Setup Procedure for Network Operation. are described in this summary.

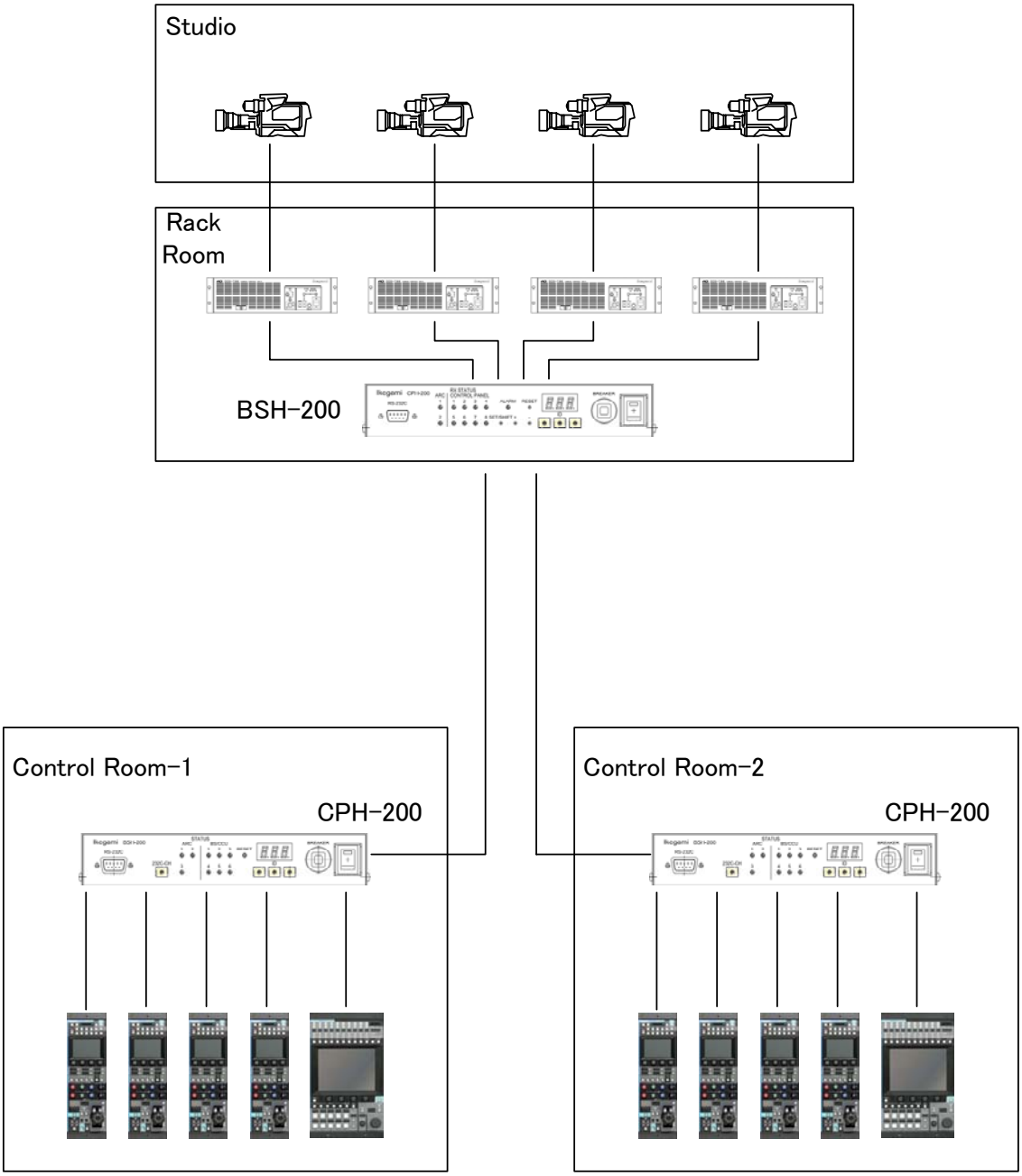
3.1 Concept image of Network



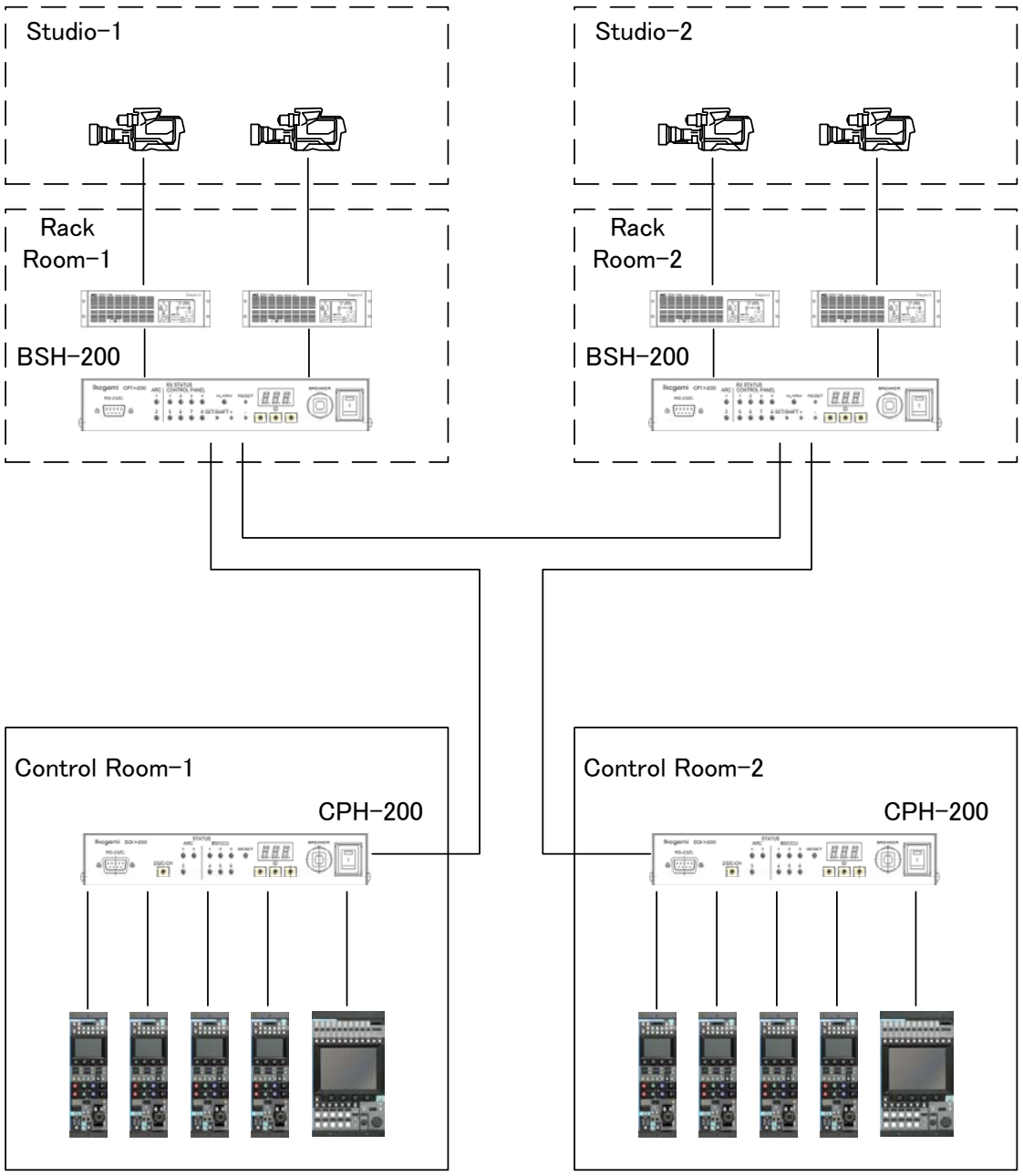
Network capable Control Panel

3.2 Typical System Configuration

1) Case for 1 Studio and 2 Control Rooms



2) Case for 2 Studios and 2 Control Rooms

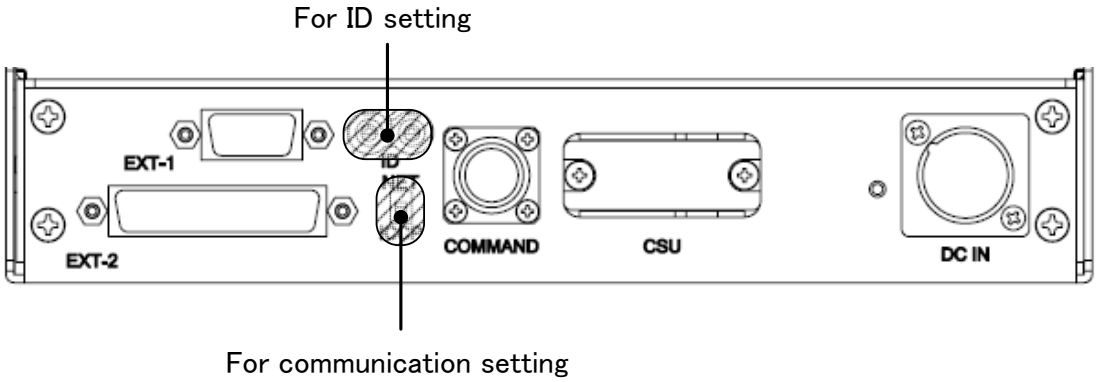


3.3 Network ID Setup

Up to 255 Node(Unit) can be connected to 1 network (Node of HUB is excluded from number of Node.). Each Unit(Node) connected to the network should be assigned network . Network ID can be set from 1h to FFh (= 1 to 255 by decimal system).

CAUTION The one ID code can NOT be duplicated in the same network. If the ID code is doubled, it may cause system error to every unit connected to the same network.

1) MCP-200 Setup



To set ID with rotary switches located on connector panel of bottom side. In case of network connection, set “NET” of slide switch.

2) Other Unit Setup

Reference Refer to operation manual such as “CPH-200/BSH-200 Setup Manual” or others.

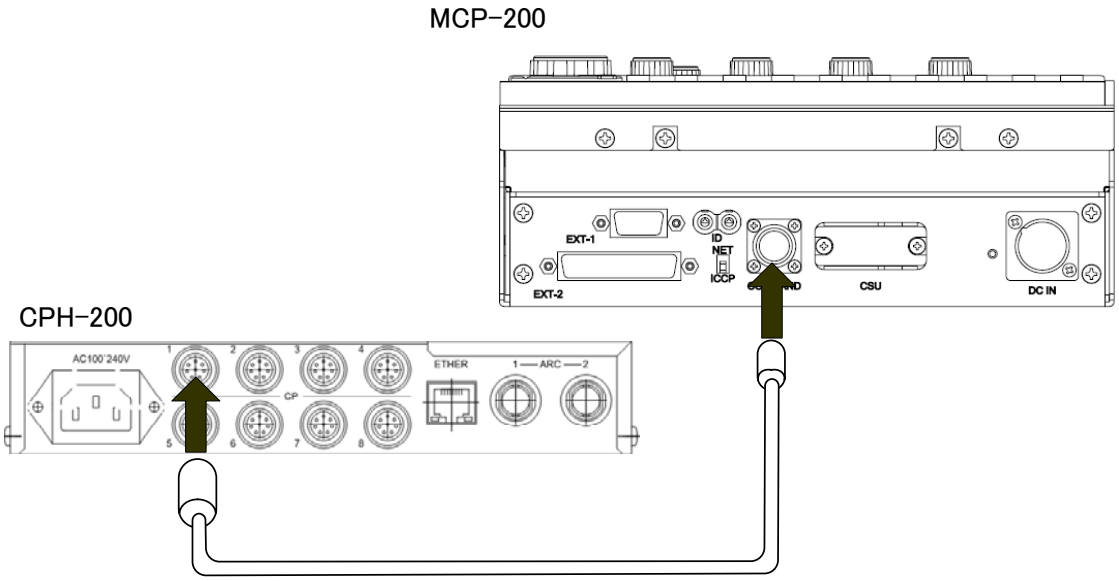
3.4 Network Connection

Regarding to network connection, BUS Connection, Star Connection and Tree Connection are available.

Reference Refer to operation manual such as “CPH-200/BSH-200 Setup Manual” or others for the detail of Setup.

・Connection between CPH-200 and network capable Control Panel

CPH-200 and CPH-200(CPHUB) are connected by Ikegami CP Cable.
CP Cable should be connected to CP Connector of CPH-200 and connected to Command Connector of Control Panel.
Cable length should be from 1m to 50m.

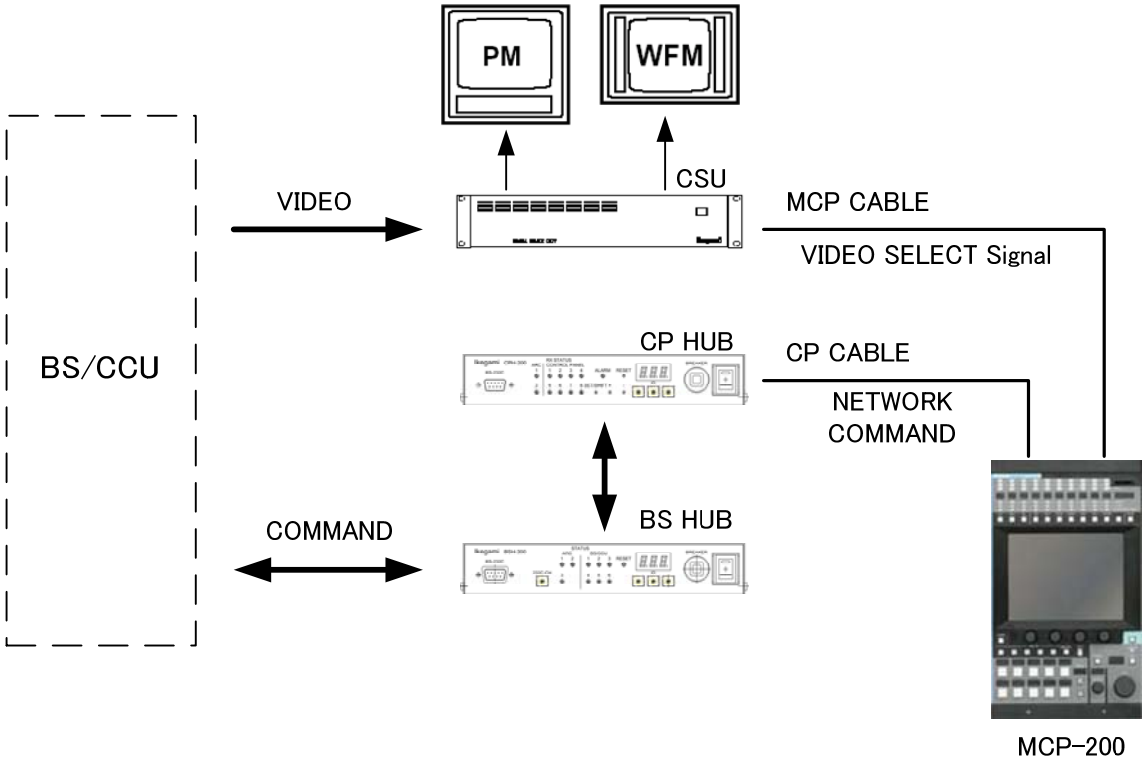


3.5 Video Select

Several ways are available for PM/WFM video switching synchronized with Camera Select under Network Command Control.

With Ikegami CSU

PM/WFM video can be switching by CSU under Network Command control. In this case, video switching is available with CSU but command switching is not available. It connects to CSU via CSU Connector of MCP with Ikeami MCP Cable.

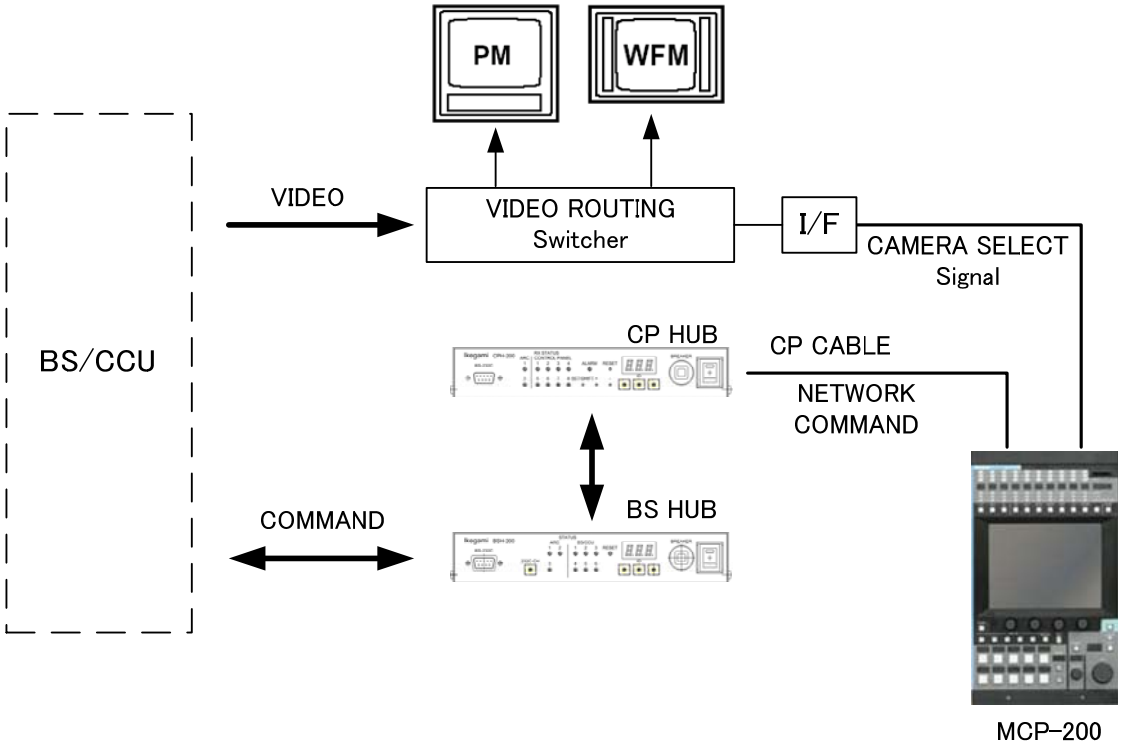


CAUTION Please do not connect the cable with CSU Connector and COMMAND Connector at the same time for MCP Model without the DC IN connector.

・By CAMERA SELECT Signal

Use Camera Select output signal from MCP to synchronize Video Router. Interface conversion may be necessary because of the command difference.

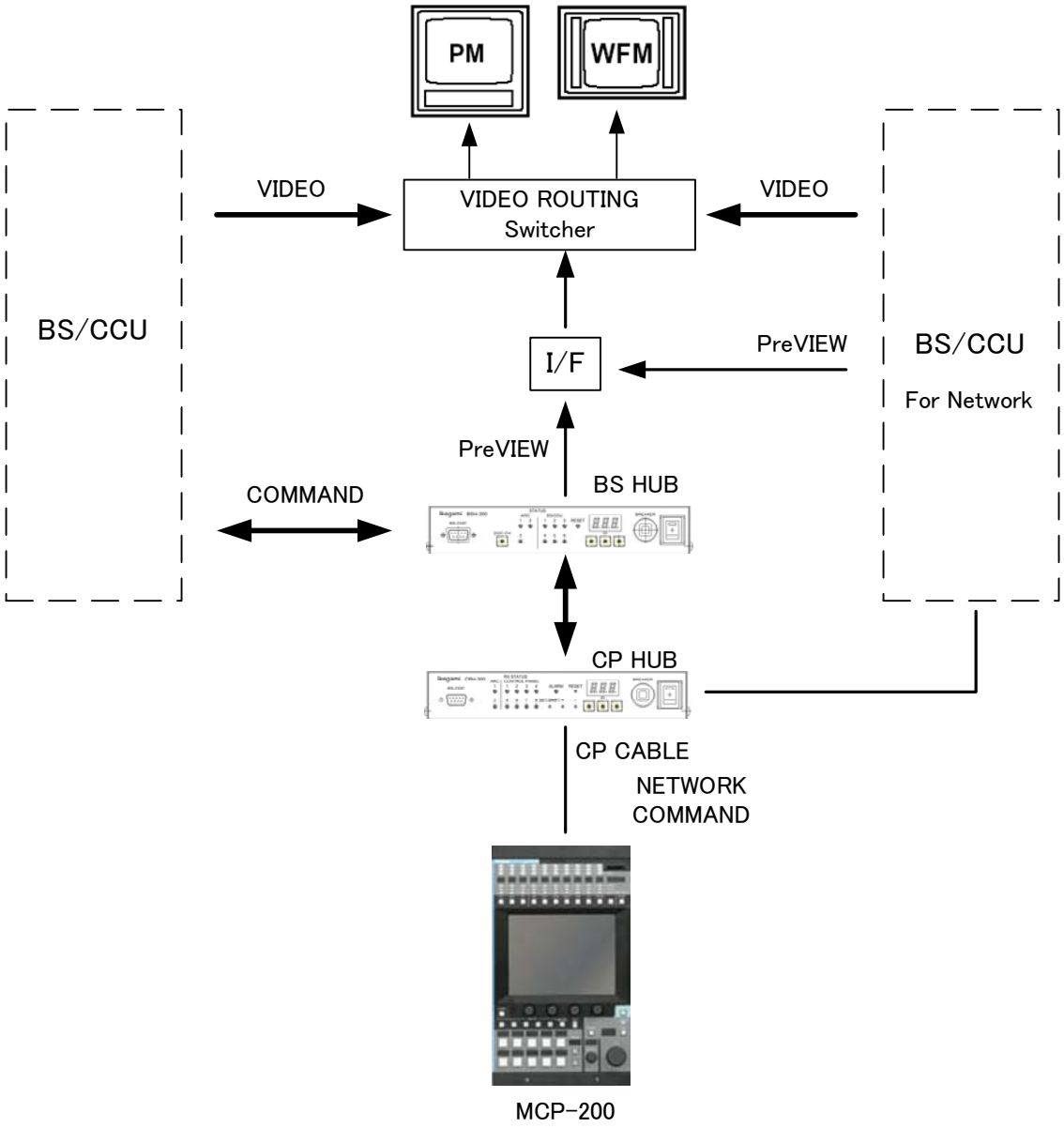
Reference Refer to “5.6 Camera Select Status Output “ for details of camera select signal.



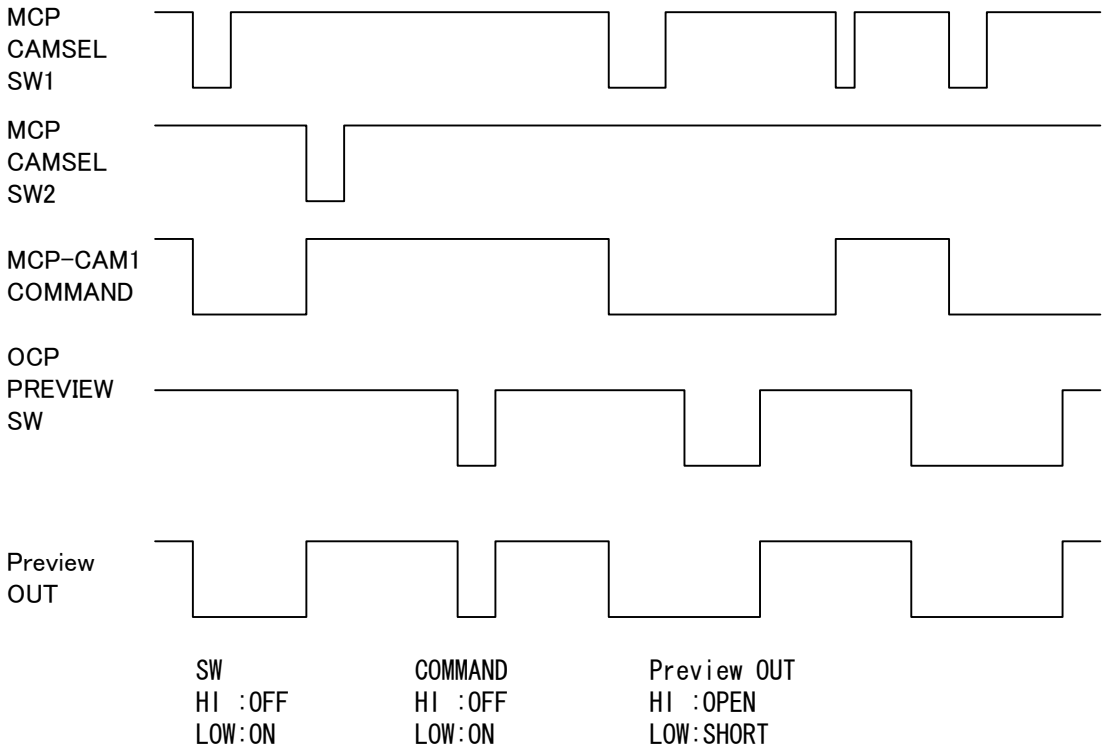
By PREVIEW signal

By using Preview output signal from BS/CCU or BS-HUB which has network controal capability, it is possible to synchronize to contol with Video Router. Interface conversion may be necessary because of the command difference.

By pressing Camera Select switch of MCP, Preview signal is output from BS/CCU or BS-HUB which has network command capability. With using this preview signal to control video router, video output synchronized with Camera Select will be available.



Preview signal will be parallel control between Preview switch operation from OCP and Camera Select operation from MCP.
By the control from MCP, Preview turns ON when camera select switch is pressed and truns OFF when the camera select is changed(alternate switching). On the other hand, the control from OCP, Preview is ON while Preview switch is pressing and Preview will be off when Preview switch is released(momentary switching). To use both preview control at the same time, control command will be complex. See following timing chart for command interface designation.



By Panel Config setup of each OCP and MCP, Preview command can be inhibited separately. The setup makes preview output from BS/CCU or BS-HUB can be enabled with both or either of them and disabled with neither OCP nor MCP.

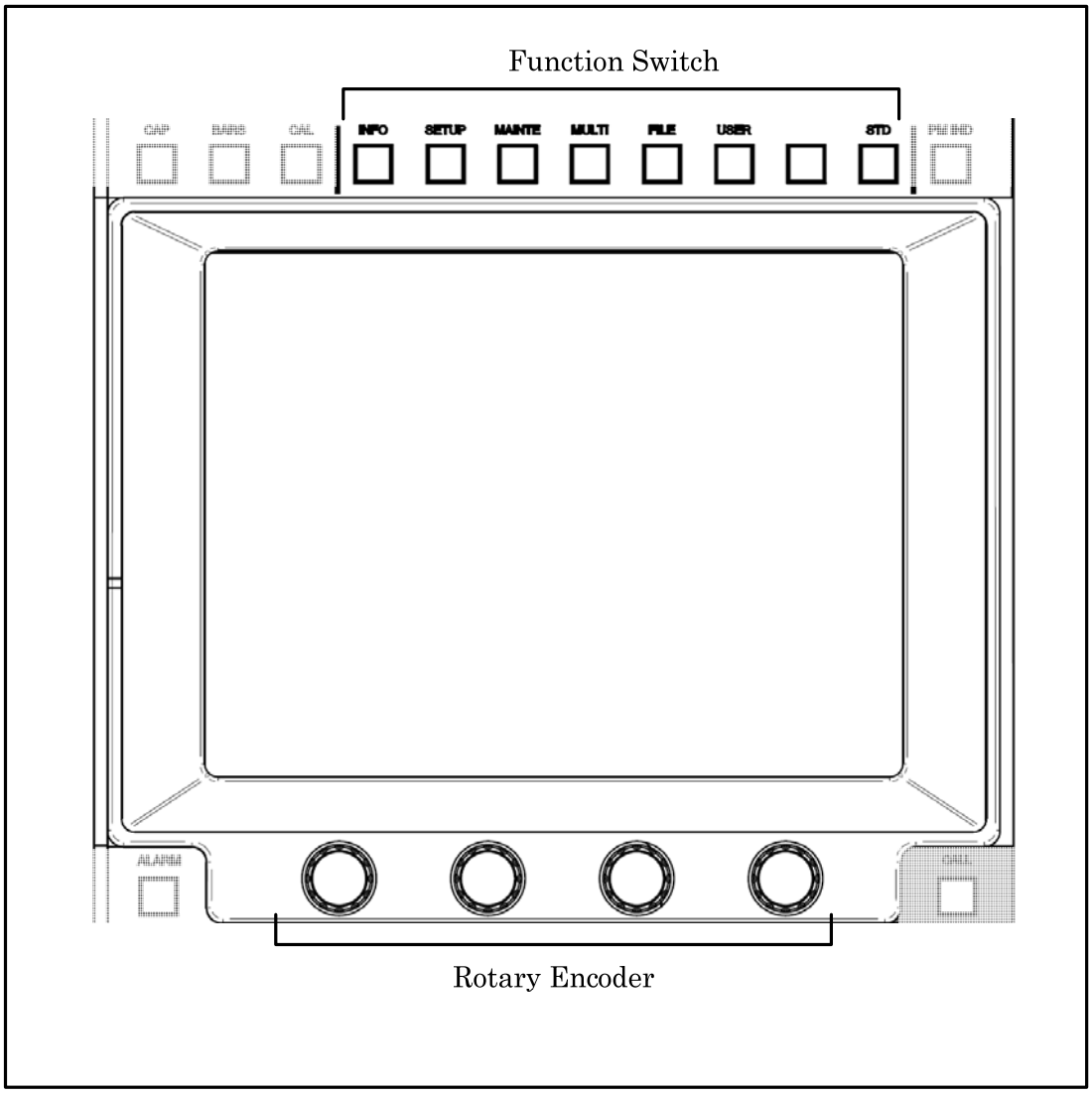
Reference Refer to “16. Panel Config.. (Panel Setting)” for detail. And refer to Operation Manual for OCP for the stup of OCP.

4. LCD MENU

The MCP-200 provides various functions with LCD touch panel, which enable you to confirm the ON/OFF status of the camera functions as well as adjust each functions on the LCD screen by using the rotary encoder.

4.1 Basic configuration and operation

Operation of LCD screen (menu) is started with function switches located on top side of LCD. Those function switches are specified by each functionality of LCD menu.

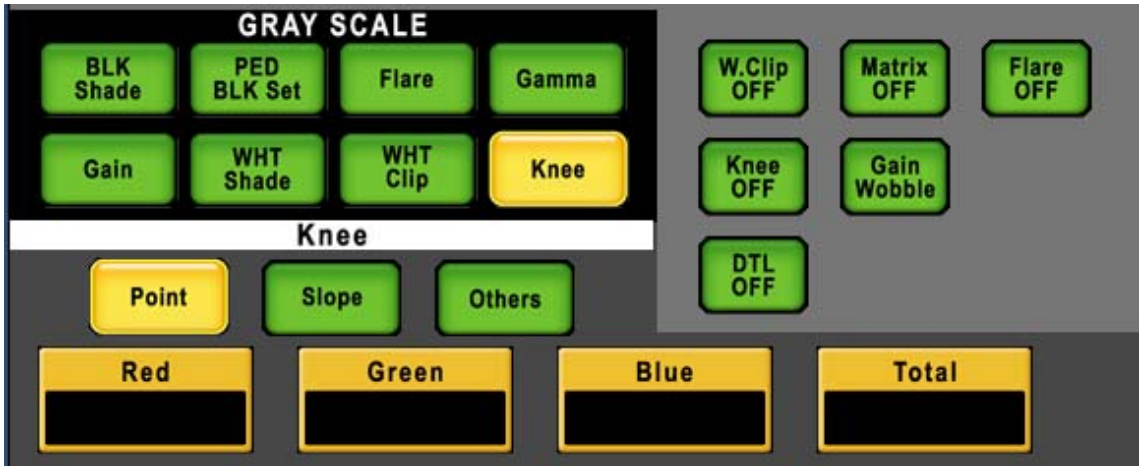


Outline of Function Switches shows below.

- **INFO Switch**
  Indicates status information such as ON/OFF setting condition of Camera Head or BS/CCU on LCD display.
- **SETUP Switch**
  Enables LCD Menu to setup mode.
- **MAINTE Switch**
  Enables LCD Menu to maintenance mode.
- **MULTI Switch**
  Enables LCD Menu to multi operation.
- **FILE Switch**
  Enables LCD Menu to file operation.
- **STD Switch**
  To clear all Camera and BS/CCU data to standard setting. Press this switch to come up LCD menu and operation is possible with touch panel.

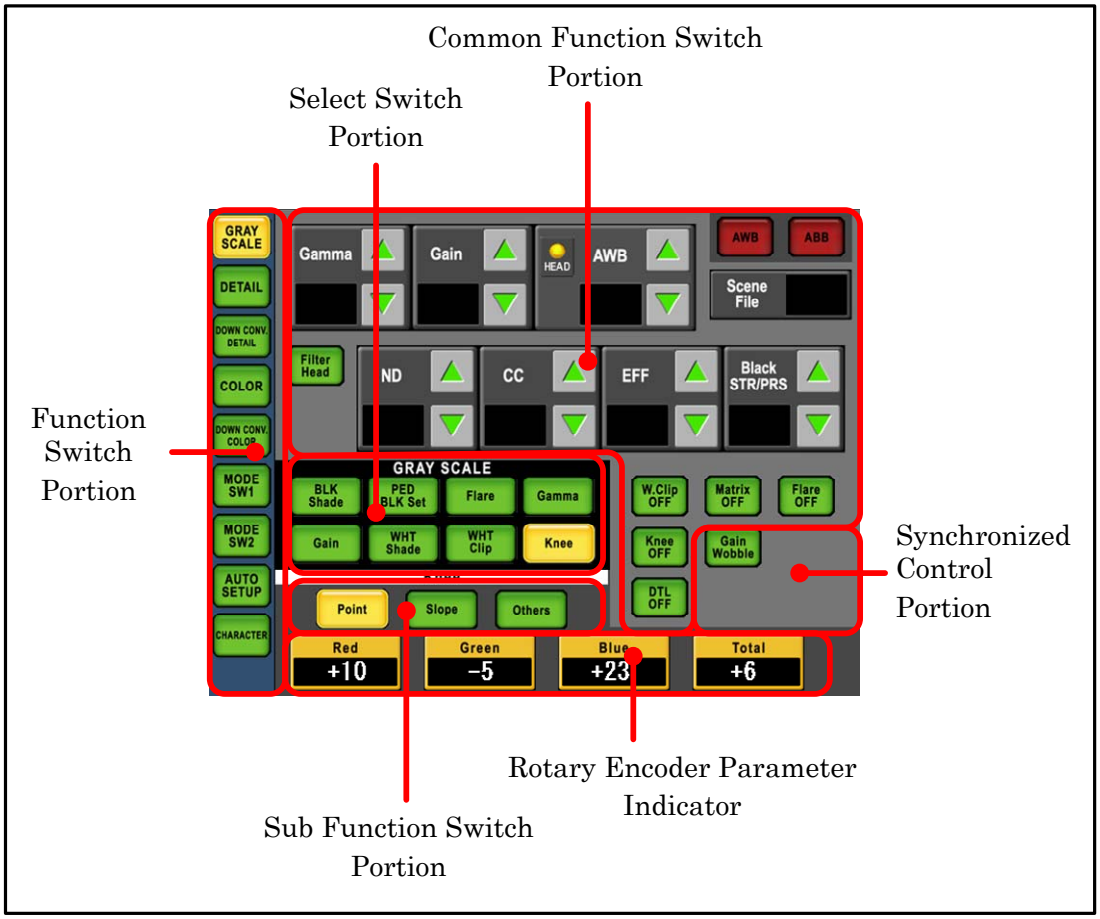
Reference Refer to “12. STANDARD FUNCTION” for detail operation procedure.

Switch icon on LCD and Rotary Encoder function display is classified by color. The color will change automatically by functionality of connected camera and BS/CCU.



Item	Back ground Color	Condition	
Switch	Amber	Function ON	Active
	Green	Function OFF	Stand by
	Dark Gray	No Function	
Rotary Knob	Amber	Controllable	
	Light Gray	Uncontrollable (*)	

CAUTION The background color of the rotary encoder becomes a standard.
Rotary encoder control will be available with the type of BS/CCU or control item even though the color of switch icon is light gray. Meantime, rotary encoder control will NOT be available even though the color of switch icon is amber depending on the situation.



■ Function Switch Portion

LCD Menu is sorted by control function and control item. Control function can be selected by function switch.

Below function switches are included in SETUP Menu.

- GRAY SCALE
- DETAIL
- DOWN CONV. DETAIL
- COLOR
- DOWN CONV. COLOR
- MODE SW 1
- MODE SW 2
- AUTO SETUP
- CHARACTER

■ Common Function Switch Portion

Below listed functions can be controlled under SETUP Menu and other Menu. ON/OFF control of Camera Head and BS/CCU. Some of items are indicated the status. The setting can be done with function switch SETUP Menu to select Mode SW 1 to SW2.

Function	Control
Gamma Select	Gamma Selection
Gain	Gain Selection
AWB	Auto White Balance Control
ABB	Auto Black Balance Control
AWB ch Select	AWB Memeory channel Selection
Scene File	Scene File Setting
FILTER HEAD	Filter Head ON/OFF
ND FILTER	ND Filter Selection
CC FILTER	CC Filter Selection
EFF FILTER	Effect Filter Selection
Black STR/PRS	Black Stretch/Press setting
W.Clip OFF	White Clip ON/OFF
Matrix OFF	Matrix ON/OFF
Flare OFF	Flare ON/OFF
Knee OFF	Knee ON/OFF
DTL OFF	DTL ON/OFF

■ Select Switch Portion

Select control function. Sub function switches are comes up if control items are following in lower menu layer. And related ON/OFF Setting switch will come up in synchronized control portion.

■ Sub Select Switch Portion

Select sub function to be controlled.

■ Synchronized Control Portion

Related control switch will come up automatically.

■ Rotary Encoder Parameter Indicator

Function name and control data (+100% to -100%) or Mode are displayed.
Adjust parameters by Rotary Encoder right under the indicator.

4.2 INFO

Indicates status information such as ON/OFF setting condition of Camera Head or BS/CCU on LCD display.

Reference Refer to “10. INFORMATION” for detail.

4.3 SETUP

■ GRAY SCALE

Below operation is available by pushing [GRAY SCALE] switch.

GRAY SCALE Page 1/2

Description	Sub-description	ON/OFF, Function	Control Subject
BLK Shade	Red	H Saw/H para/V Saw/V para	Black Shading Adjustment
		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
		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
		B.Shade OFF	Black Shading ON/OFF
		W.Shade OFF	White Shading ON/OFF
PED / BLK Set	PED	Red/Green/Blue/Master	Pedestal Adjustment
		BLK Gamma	Black Gamma ON/OFF
		BLK STR/PRS	Black Stretch/ Press ON/OFF
	BLK Set	Red/Green/Blue	Black-set Adjustment
		Gain Wobble	Gain Wobbling ON/OFF
Flare		Red/Green/Blue/Mater	Flare Adjustment
		BLK Gamma	Black Gamma ON/OFF
		BLK STR/PRS	Black Stretch/ Press ON/OFF
Gamma	Gamma	Red/Green/Blue/Mater	Gamma Adjustment
		BLK Gamma	Black Gamma ON/OFF
		BLK STR/PRS	Black Stretch/ Press ON/OFF
	BLK Gamma	Red/Green/Blue/Mater	Black Gamma Adjustment
		BLK Gamma	Black Gamma ON/OFF
		BLK STR/PRS	Black Stretch/ Press ON/OFF
	Step Gamma	Step	Step Gamma Select
		Gamma Mode	Gamma Mode Select
		BLK Gamma	Black Gamma ON/OFF
		BLK STR/PRS	Black Stretch/ Press ON/OFF
Gain		Red/Green/Blue/Master	Gain Adjustment
		Auto Knee	Auto Knee ON/OFF

Gray shadowed items are controlled by Rotary Encoder.

GRAY SCALE Page 2/2

Description	Sub-description	ON/OFF, Function	Control subject
WHT Shade	Red	H Saw/H para/V Saw/V para	White Shading Adjustment
		B.Shade OFF	Black Shading ON/OFF
		W.Shade OFF	White Shading ON/OFF
	Green	H Saw/H para/V Saw/V para	White Shading Adjustment
		B.Shade OFF	Black Shading ON/OFF
		W.Shade OFF	White Shading ON/OFF
	Blue	H Saw/H para/V Saw/V para	White Shading Adjustment
		B.Shade OFF	Black Shading ON/OFF
		W.Shade OFF	White Shading ON/OFF
WHT Clip		Red/Green/Blue	White Clip Adjustment
		Auto Knee	Auto Knee ON/OFF
Knee	Point	Red/Green/Blue/Total	Knee Point Adjustment
		Auto Knee	Auto Knee ON/OFF
	Slope	Red/Green/Blue/Total	Knee Slope Adjustment
		Auto Knee	Auto Knee ON/OFF
	Others	Smooth Knee	Smooth Knee Select
		Super Knee	Super Knee Select ト
		Auto Knee	Auto Knee ON/OFF

Gray shadowed items are controlled by Rotary Encoder.

■ DETAIL/DOWN CONV.DETAIL

By pushing [DETAIL] switch or [DOWN CONV. DETAIL] switch, it will activate below functions. Basic operation procedure is the same as that of GLAY SCALE. DOWN CONV. DETAIL switch will be activated with the Camera Head or BS/CCU of which employs down converter.

DETAIL/DOWN CONV.DETAIL Page 1/2

Description	Sub-description	ON/OFF, Function	Control subject
DTL 1		Gain	DTL Gain Adjustment
		FREQ.	DTL Boost Frequency Adjustment
		B/W	DTL Black-White Balance Adjustment
		Balance	DTL Balance Adjustment
		Diagonal DTL	Diagonal DTL ON/OFF
DTL 2		Thresh	DTL Thresh Adjustment
		Fine	Fine DTL Adjustment
		Noise SUP.	Noise Suppress Adjustment
		Z.TrackGain	Zoom Tracking DTL Gain Adjustment
		Diagonal DTL	Diagonal DTL ON/OFF
		Zoom Track	Zoom Tracking DTL ON/OFF
Soft		WHT SUP.	White Suppress Adjustment
		BLK SUP.	Black Suppress Adjustment
		Diagonal DTL	Diagonal DTL ON/OFF
		Soft DTL	Soft DTL ON/OFF
Skin	Gain	Gain	Skin DTL Gain Adjustment
		R Hue	Rch Hue Adjustment
		B Hue	Bch Hue Adjustment
		Z. Track Gain	Zoom Tracking DTL Adjustment
		Diagonal DTL	Diagonal DTL ON/OFF
		Zebra IND.	Zebra Indicator ON/OFF
		Skin DTL	Skin DTL ON/OFF
		Z.Track Skin	Zoom Tracking Skin DTL ON/OFF
	Skin Hue	Hue Marker	Hue Marker ON/OFF
		AHD Start	AHD Start
		Skin DTL	Skin DTL ON/OFF

Gray shadowed items are controlled by Rotary Encoder.

DETAIL/DOWN CONV.DETAIL Page 2/2

Description	Sub-description	ON/OFF, Function	Control subject
Color	Object Clip	Size	Hue Marker Size Adjustment
		H POS.	H Phase Adjustment
		V POS.	V Phase Adjustment
		Hue Marker	Hue Marker ON/OFF
		AHD Start	AHD Start
		Color DTL	Color DTL ON/OFF
	Clip ADJ.	Phase	Hue Phase Adjustment (Coarse)
		Fine	Hue Phase Adjustment (Fine)
		Width1	Hue Width 1 Adjustment
		Width2	Hue Width 2 Adjustment
		Key INV.	Key Invert
		Zebra IND.	Zebra Indicator ON/OFF
		Color DTL	Color DTL ON/OFF
	Level	Gain	Color DTL Adjustment
		Diagonal DTL	Diagonal DTL ON/OFF
		Color DTL	Color DTL ON/OFF
HI-Light		Gain	HI-Light DTL Gain Adjustment
		Limit	HI-Light DTL Limit
		Diagonal DTL	Diagonal DTL ON/OFF
		HI-Light DTL	HI-Light DTL ON/OFF

Gray shadowed items are controlled by Rotary Encoder.

■ COLOR/DOWN CONV.COLOR

By pushing [COLOR] switch or [DOWN CONV. COLOR] switch, it will activate below functions. Basic operation procedure is the same as that of GLAY SCALE. DOWN CONV. COLOR switch will be activated with the Camera Head or BS/CCU of which employs down converter.
And Custom Color 1, Custom Color 2 and Color CORR will be activated when Color is selected.

COLOR Page 1/2

Description	Sub-description	ON/OFF, Function	Control subject
Matrix	Red	R-G	R-G Adjustment
		R-B	R-B Adjustment
		Matrix Select	Matrix Select
	Green	G-R	G-R Adjustment
		G-B	G-B Adjustment
		Matrix Select	Matrix Select
	Blue	B-R	B-R Adjustment
		B-G	B-G Adjustment
		Matrix Select	Matrix Select
Color SAT.		Color SAT.	Color Saturation Adjustment
		Chroma OFF	Chroma ON/OFF
		Color SAT. ON/OFF	Color Saturation ON/OFF
Custom Color 1	Object Clip	Size	Hue Size Adjustment
		H POS.	Hue H Position Adjustment
		V POS.	Hue V Position Adjustment
		Hue Marker	Hue Marker ON/OFF
		AHD Start	AHD Start
		Hue Marker	Hue Marker ON/OFF
		CSTM Color 1	Custom Color 1 ON/OFF
	Clip ADJ.	Phase	Color Phase Adjustment (Coarse)
		Fine	Color Phase Adjustment (Fine)
		Width1	Width 1 Adjustment
		Width2	Width 2 Adjustment
		Key INV.	Key Invert
		Zebra IND.	Zebra Indicator ON/OFF
		CSTM Color 1	Custom Color 1 ON/OFF
	Color	Hue	Hue Adjustment
		SAT.	Saturation Adjustment
		Value	Value Adjustment
		DTL	DTL Adjustment
		CSTM Color 1	Custom Color 1 ON/OFF

Gray shadowed items are controlled by Rotary Encoder.

COLOR Page 2/2

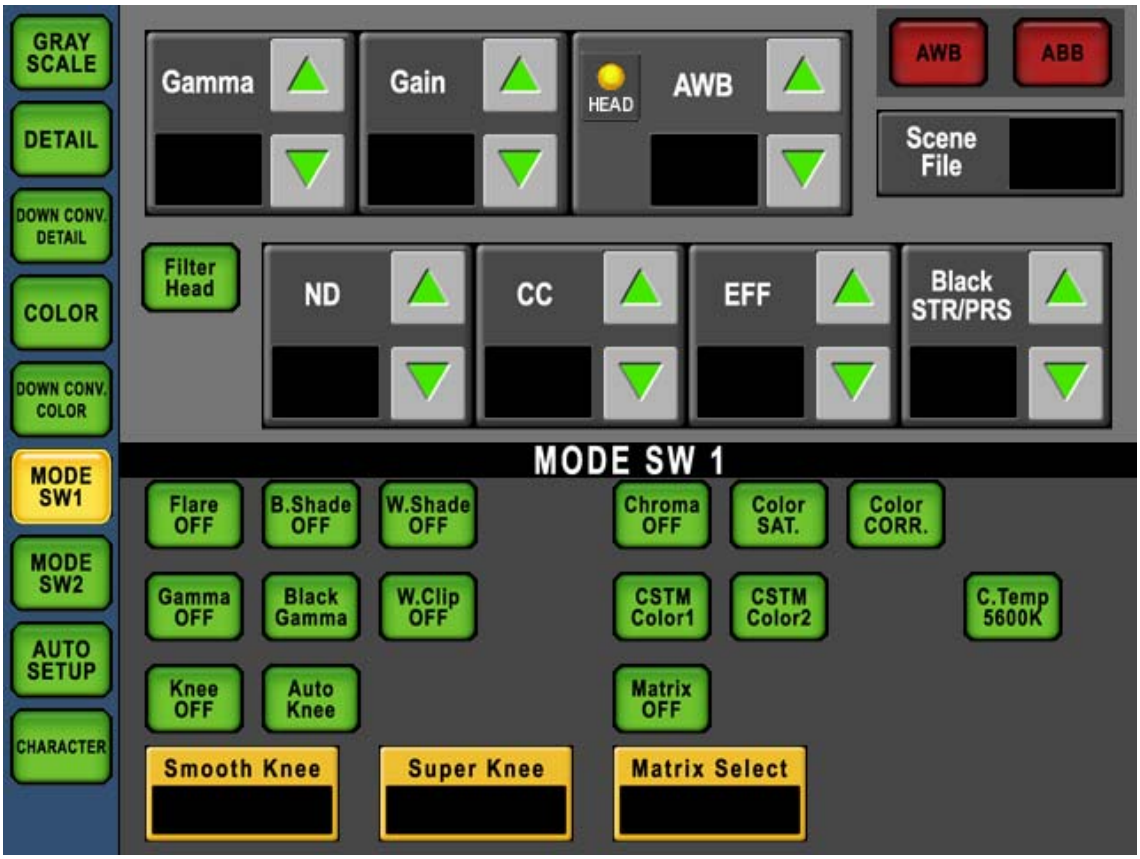
Description	Sub-description	ON/OFF, Function	Control subject
Custom Color 2	Object Clip	Size	Hue Size Adjustment
		H POS.	Hue H Position Adjustment
		V POS.	Hue V Position Adjustment
		Hue Marker	Hue Marker ON/OFF
		AHD Start	AHD Start
		CSTM Color 2	Custom Color 2 ON/OFF
	Clip ADJ.	Phase	Color Phase Adjustment (Coarse)
		Fine	Color Phase Adjustment (Fine)
		Width1	Width 1 Adjustment
		Width2	Width 2 Adjustment
		Key INV.	Key Invert
		Zebra IND.	Zebra Indicator ON/OFF
		CSTM Color 2	Custom Color 2 ON/OFF
	Color	Hue	Hue Adjustment
		SAT.	Saturation Adjustment
		Value	Value Adjustment
		DTL	DTL Adjustment
		CSTM Color 2	Custom Color 2 ON/OFF
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

Gray shadowed items are controlled by Rotary Encoder.

■ MODE SWITCH

By pushing MODE switchs, ON/OFF Control or function select of Camera Head or BS/CCU is available. Below four switches are assigned by each function or control item.

- **MODE SW 1**
- **MODE SW 2**



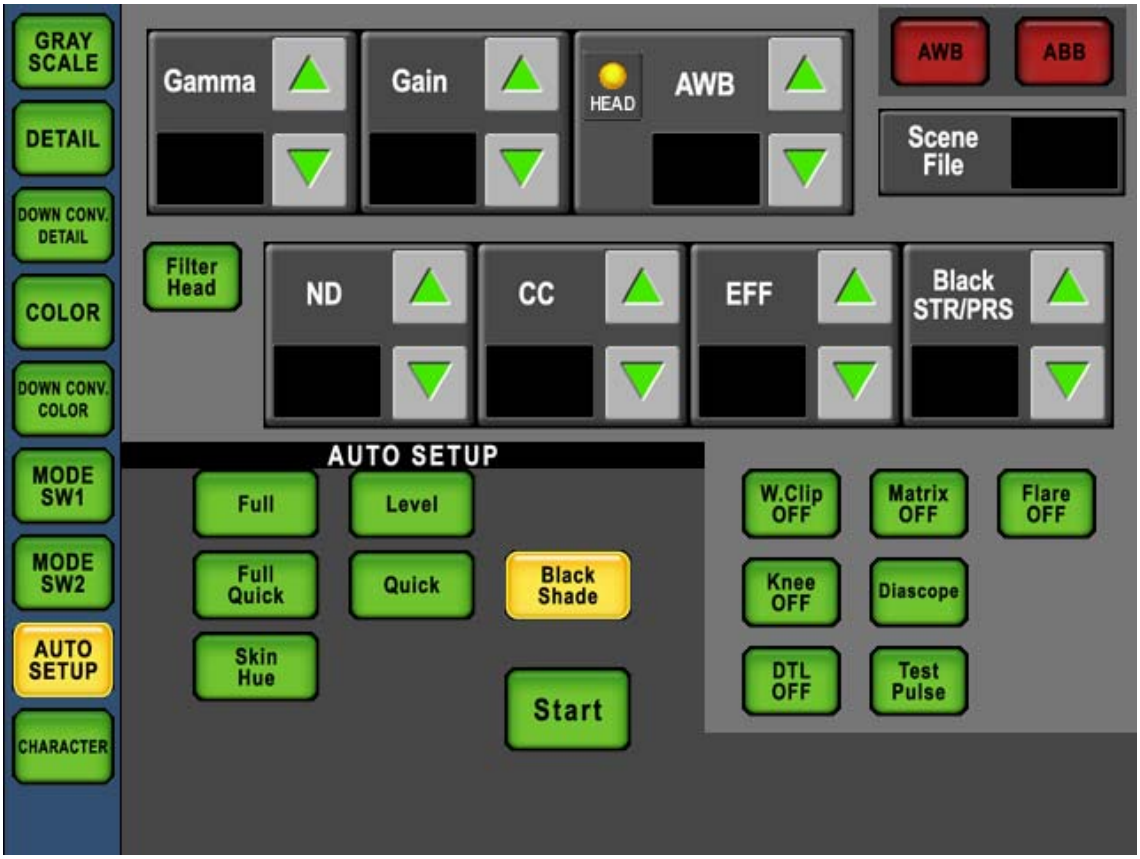
MODE SWITCH

Page	ON/OFF, Function	Control subject
MODE SW 1	Flare OFF	Flare ON/OFF
	B. Shade OFF	Black Shading ON/OFF
	W. Shade OFF	White Shading ON/OFF
	Gamma OFF	Gamma ON/OFF
	Black Gamma	Black gamma ON/OFF
	W. Cilp OFF	White Clip ON/OFF
	Knee OFF	Knee ON/OFF
	Auto Knee	Auto knee ON/OFF
	Chroma OFF	Chroma ON/OFF
	Color SAT.	Color saturation ON/OFF
	Color CORR.	Color corrector ON/OFF
	C.Temp 5600K	Electronic color temperature correction 5600K ON/OFF
	CSTM Color 1	Custom color 1 ON/OFF
	CSTM Color 2	Custom color 2 ON/OFF
	Matrix OFF	Matrix ON/OFF
	Smooth Knee	Smooth knee selection
	Super Knee	Super knee selection
	Matrix	Matrix selection
MODE SW 2	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
	Zoom Track	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
	Super V	Super V ON/OFF
	Shutter	Electronic shutter ON/OFF
	VAR.	Variable shutter ON/OFF
	Diascope	Diascope ON/OFF
	Test Pulse	Test Pulse ON/OFF
	Zoom Remote	Zoom Remote ON/OFF
	Focus Remote	Focus Remote ON/OFF
	Lens File No.	Lens File No. selection
	Super V	Super V selection
	Shutter	Electronic shutter speed selection

Gray shadowed items are controlled by Rotary Encoder.

■ AUTO SETUP

By pressing [AUTO SETUP] switch, Auto Setup menu will come up.

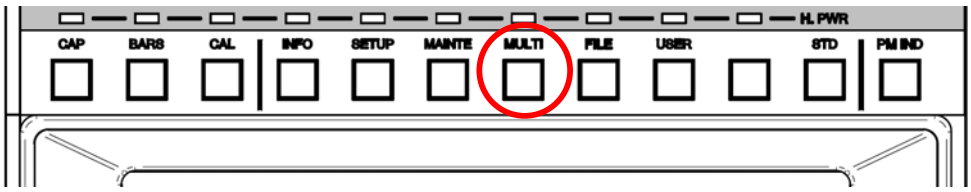


- **Full (Full Auto Setup)**
  All of Auto Setup item are executed and camera setting is initialized. Full Auto Setup may be used mainly for maintenance purpose.
- **Level (Level Auto Setup)**
  Auto setup for the video level. This may be used for daily setup.
- **Full Quick (Full Quick Auto Setup)**
  Full Quick Auto Setup function doesn't use Auto Setup Chart but internal electric signals. Setup can be done when chart is not available. It will take longer time for setup comparing with Quick Auto Setup because larger numbers of control item are executed.
- **Quick (Quick Auto Setup)**
  Quick Auto Setup function doesn't use Auto Setup Chart but internal electric signals. Setup can be done when chart is not available.
- **Black Shade (Auto Black Shade)**
  Auto Setup function for Black Shade.
- **Skin Hue (Auto Hue Detect)**
  To sense HUE automatically for SKIN DTL function.

Select the item by switch icon and press [Start] icon to execution. Set [Test Pulse] or [Diascope] ON/OFF occasionally.
If Auto Setup was incomplete, Start switch will blink for alert. By pressing Start icon to cancel error condition. Or pressing [Start] icon on execution to stop Auto Setup procedure.

CAUTION It connects with CCU/BS for the command not done and Full Quick Auto Setup is executed. "REGI" is displayed on the auto setup execution screen of the PM image. There is no problem in operation. Color DETAIL and Auto Hue Detect function in Custom Color 1/2 can be set with each control page.

Note It is possible to shift to the Multi Auto Setup screen by pushing the “MAINTE" Switch in Function Switches on top side of LCD.



Reference Refer to “14.1 Multi Auto Setup” for detail.

■ CHARACTER

By pressing [CHARCTER] Switch, below four items can be setup;

- Camera Menu
- BARS TITLE
- CameraID
- Scene File Name

Reference Refer to “13. CHARACTER SETUP” for detail.

4.4 MAINTE

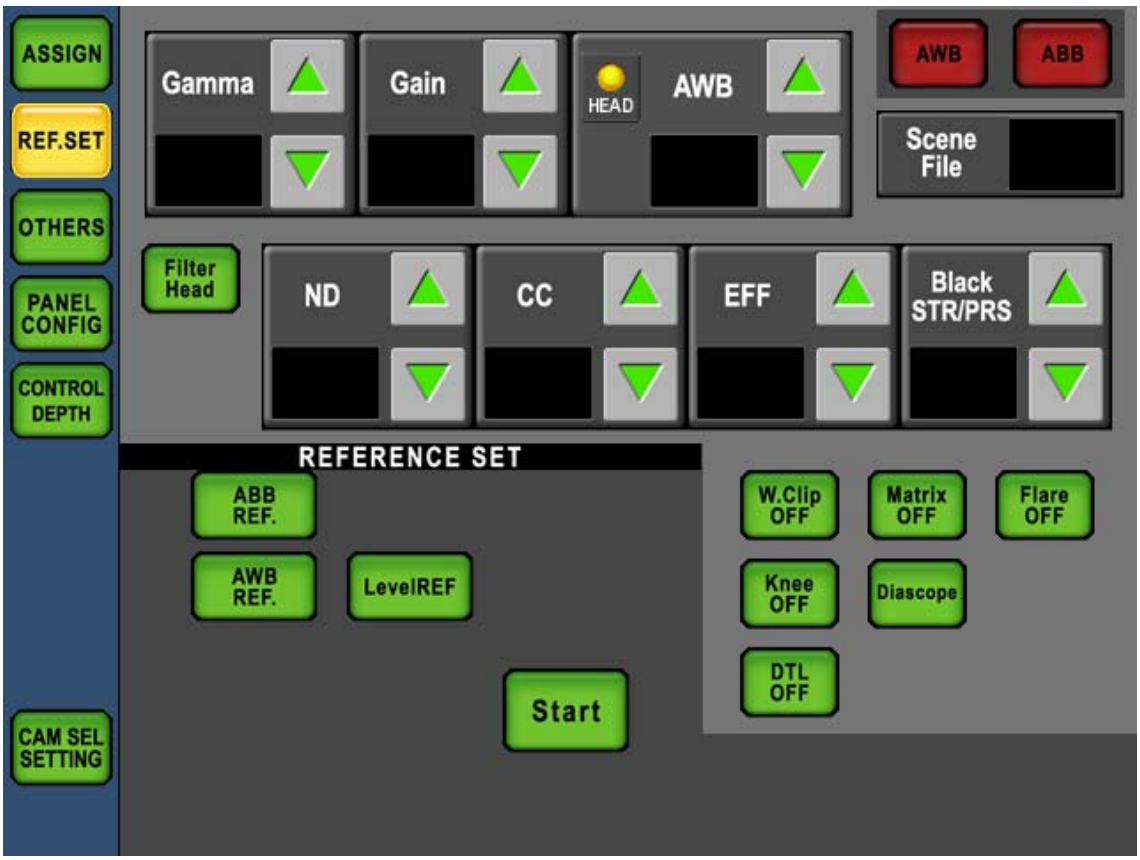
■ PGM NO. SETTING

By pressing [PGM NO. SETTING] switch, Camera Program number can be set for the production.

Reference Refer to “6. Program Number” for detail.

■ REF. SET

By pressing [REF. SET] switch, reference values for Camera Auto Setup execution can be set.

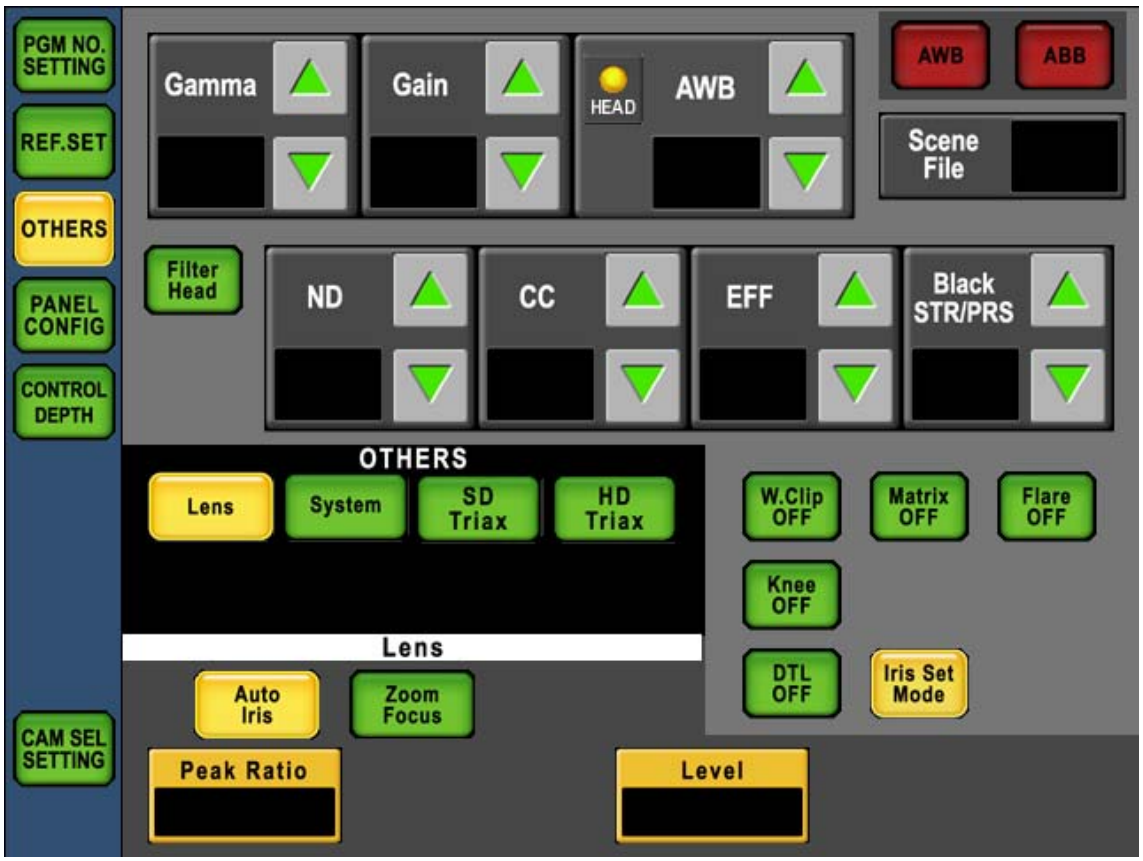


- **Level REF.**
  To create reference data of Auto Setup.
- **ABB REF.**
  To create reference data of PEDESTAL for ABB. This setting is common with reference data of PEDESTAL for Auto Setup.
- **AWB REF.**
  To create reference data of Gain for AWB. This setting is separated form reference data for Auto Setup.

Select the item by switch icon and press and hold [Start] icon to execution. Set [Diascope] ON/OFF occasionally.
If reference setting was incomplete, Start switch will blink for alert. By pressing [Start] icon to cancel error condition. Or pressing [Start] icon on execution to stop reference setting procedure.

■ OTHERS

Includes control item which not be used frequently.



OTHERS

Description	Sub-description	ON/OFF, Function	Control Subject
Lens	Auto Iris	Peak Ratio	Peak Ratio
		Level	Iris Level
		Iris Set Mode	Iris Set Mode ON/OFF
	Zoom Focus	Zoom	Zoom Control
		Focus	Focus Control
		Zoom Remote	Zoom Remote ON/OFF
		Focus Remote	Focus RemoteON/OFF
System	Genlock Phase	SC Course	SC Coarse Control
		SC Fine	SC Fine Control
		D.CONV.H Phase	Down Converter H Phase Control
		H Phase	H Phase Control
	ENC	Gain	ENC Gain Control
		Chroma	Chroma Control
	Aspect Ratio	Mode Select	Aspect Ratio Selection for SDTV
SD Triax	Ta Level	Y/Cb/Cr	TA Level Control
		Head Bars	Head Bars ON/OFF
	BS Level	Red/Green/Blue	BS Level Control
		Head Bars	Head Bars ON/OFF
	BS BLK Set	Red/Green/Blue	BS Black Set Control
		Head Bars	Head Bars ON/OFF
HD Triax	Ta Level	Y/Pb/Pr	TA Level Control
		Head Bars	Head Bars ON/OFF
	TA Black	Y/Pb/Pr	TA Black Control
		Head Bars	Head Bars ON/OFF

Gray shadowed items are controlled by Rotary Encoder.

■ PANEL CONFIG.

MCP-200 can be setup menu configuration freely by each application or operating condition.

Reference Refer to “16. Panel Config.. (Panel Setting)” for detail.

■ CAM SEL SETTING

By pressing [CAM SEL SETTING] switch, cameras can be assigned to each switch of Camera Select switches.

Reference Refer to “5. Setup of CAMERA SELECT” for detail.

4.5 MULTI

■ AUTO SETUP

By pressing [AUTO SETUP] switch, Auto Setup can be executed to multiple cameras at the same time.

Reference Refer to “14.1 Multi Auto Setup” for detail.

■ BASIC CONTROL (Available at the network command connection)

By pressing [BASIC CONTROL] switch, the function of CAP, CAL100%, CAL200%, and BARS can be turned on to the batch for two or more cameras. Moreover, everything can be turned off at the same time.

Reference Refer to “14.3 Multi Basic Control” for detail.

■ PAINT CONTROL (Available at the network command connection)

By pressing [PAINT CONTROL] switch, the batch can operate R/B GAIN for two or more cameras.

Reference Refer to “14.4 Multi Paint Control” for detail.

■ S.FILE READ (Available at the network command connection)

By pressing [S.FILE READ] switch, the scene file can be read to the batch for two or more cameras. Moreover, it is possible to turn it off to the batch.

Reference Refer to “14.5 Multi Scene File Read” for detail.

■ File Trans (Available at the network command connection)

By pressing [File Trans] switch, the scene file preserved on the SD memory card can be forwarded to two or more cameras at the same time.

Reference Refer to “14.6 Multi File Transfer” for detail.

■ CAMERA STATUS (Available at the network command connection)

By pressing [CAMERA STATUS] switch, camera status of multiple cameras can be displayed.

Reference Refer to “14.7 Multi Camera Status” for detail.

■ DIAGNOS (Available at the network command connection)

By pressing [DIAGNOS] switch, simple diagnos of multiple cameras can be displayed.

Reference Refer to “14.9 Multi Diagnos Display” for detail.

4.6 FILE

■ MEM.CARD SAVE/LOAD

The function to use the memory card can be operated by pushing [MEM.CARD SAVE/LOAD] switch.。

Reference Refer to “9. MEMORY CARD OPERATION” for detail.

■ ALL MAN.SET/CLR

All the preservations of the camera data and reading can be done by pushing the [ALL MAN.SET/CLR] switch.

Reference Refer to “8.3 All Manual Set / All Manual Clear” for detail for MAN.SET/CLR.

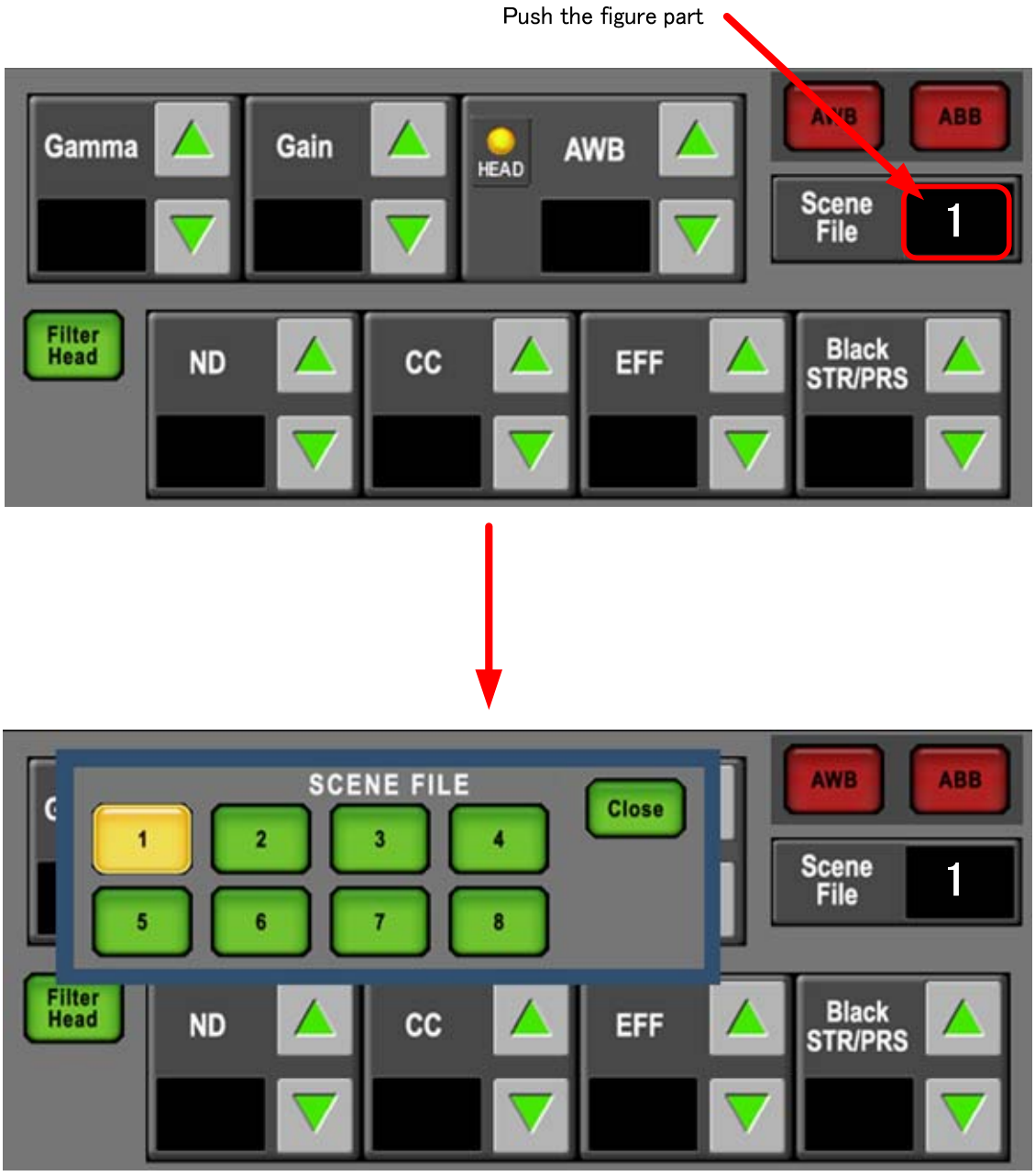
4.7 STANDARD

The Camera and BS/CCU can be returned to initialization by pushing the [STD] switch.

Reference Refer to “12. STANDARD FUNCTION” for detail.

4.8 SCENE FILE

Scene File number is displayed in the Common Function Switch Portion. Save or Load execution of Scene File can be done by pushing the figure part of Scene File display.



Pop-up window come up, and Save or Load execution will be available.

- **Save**
  Push file a number button 1 to 8 in 2 seconds.
- **Load**
  Push file a number button 1 to 8.

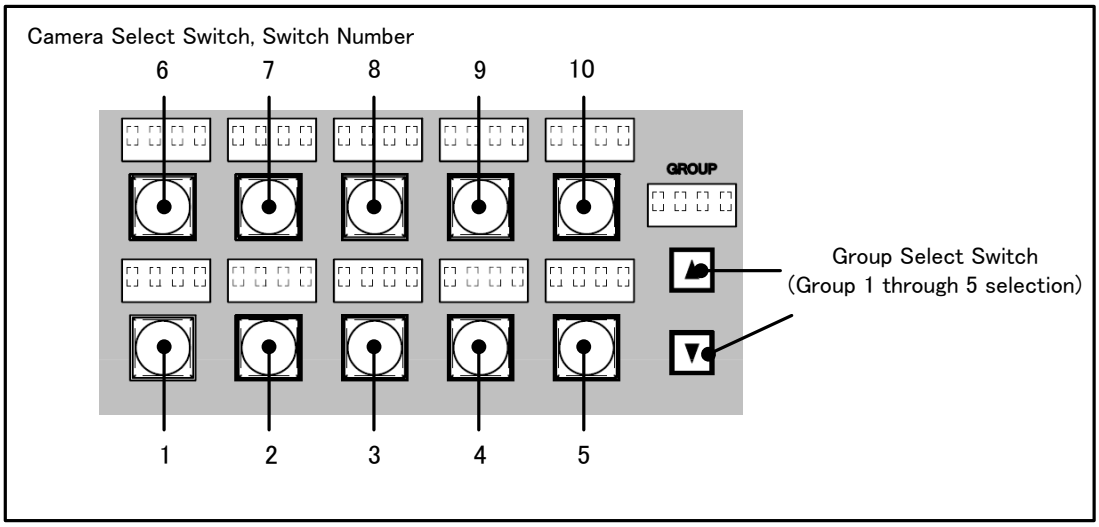
Press [Close] switch or press Scene File number again to to close pop-up window.

5. Setup of CAMERA SELECT

This is unique function of MCP-200 and it enables easier camera setupwith this function. Althourh existing MCPs have Camera Select Function but MCP-200 has a function to customize control group to support flexible control.

5.1 Camera Select

Control Target of camera is selected by Camera Select Switches on bottoms side. Expanded control group selection is also available.



There are two modes of Camera Select Control with Camera Select Switches, one is SIMPLE Mode and the other is CUSTOM Mode. The Mode can be selected by PANEL CONFIG. Menu.

Reference Refer to “16. Panel Config.. (Panel Setting)” for the detail.

SIMPLE Mode

Up to 5 groups and 10 cameras each per group, 50 cameras in total can be assigned to CameraSelect Switches (Up to 40 cameras in total can be assigned under traditional Ikegami command control). In this mode, CSU number and CCU number at network connection are pre-assigned to every Camera Select switches, and those pre-assigned numbers can not be changed. Although utility is limited but Camera Assign manner is similar as that of exiting MCPs and it may be easy to understand the assignment.

Default setting of MCP -200 is this SIMPLE Mode.

CSU/CCU setting at SIMPLE Mode(Initial Setting)

GROUP	SW	CSU No.	CCU Number*3 (Network ID)	Indication*1
1	1	1-1	1	1
	2	1-2	2	2
	3	1-3	3	3
	4	1-4	4	4
	5	1-5	5	5
	6	1-6	6	6
	7	1-7	7	7
	8	1-8	8	8
	9	2-1	9	9
	10	2-2	10	10
2	1	2-3	11	11
	2	2-4	12	12
	3	2-5	13	13
	4	2-6	14	14
	5	2-7	15	15
	6	2-8	16	16
	7	3-1	17	17
	8	3-2	18	18
	9	3-3	19	19
	10	3-4	20	20
3	1	3-5	21	21
	2	3-6	22	22
	3	3-7	23	23
	4	3-8	24	24
	5	4-1	25	25
	6	4-2	26	26
	7	4-3	27	27
	8	4-4	28	28
	9	4-5	29	29
	10	4-6	30	30
4	1	4-7	31	31
	2	4-8	32	32
	3	5-1	33	33
	4	5-2	34	34
	5	5-3	35	35
	6	5-4	36	36
	7	5-5	37	37
	8	5-6	38	38
	9	5-7	39	39
	10	5-8	40	40
5	1	NON	41	41
	2	NON	42	42
	3	NON	43	43
	4	NON	44	44
	5	NON	45	45
	6	NON	46	46
	7	NON	47	47
	8	NON	48	48
	9	NON	49	49
	10	NON	50	50
ETC	1	5-1		PAU

*1: Indication at Fix Mode of Camerea Select

*2: CSU No. is indicated with practical CSU No. and No. of Command Connector.

Ex) 1-1 means CAM1 of CSU1, 3-5 means CAM5 of CSU3.

*3: CCU No. (Network ID) is indicated with decimal numbers.

*4: PAU is assigned to CSU5-1. The camera cannot connect to CSU5-1 when the system includes PAU.

・CUSTOM Mode

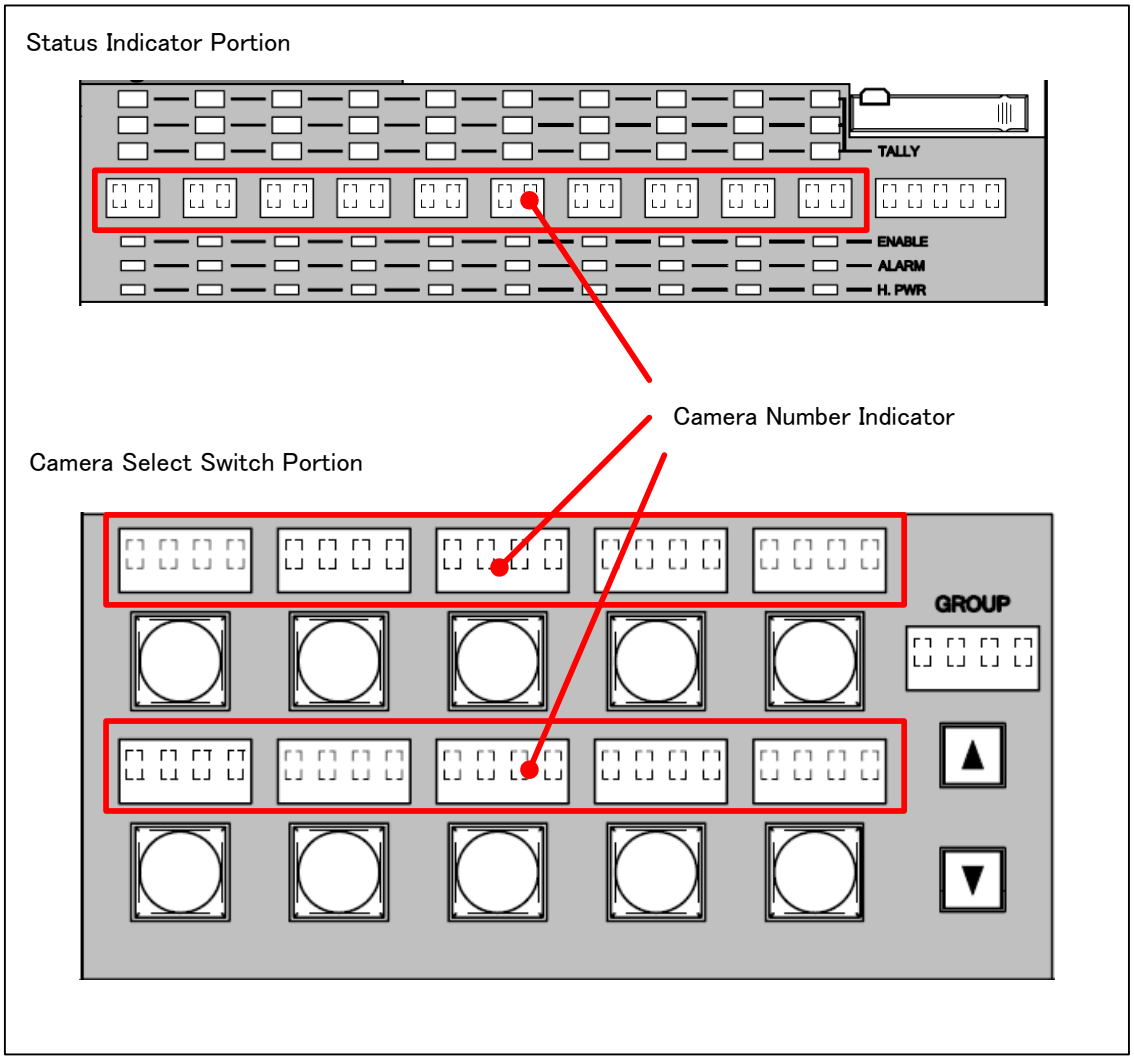
Up to 5 groups of 10 switches each can be customized and CSU number, CCU number under network connection can be customized as well. CCU number (Network ID) can be used up to No. 50 but up to No. 255(Limit of Arcnet) can be used at CUTOM Mode.

Although setup and action is complicated, it allows various setup and flexible operation.

Reference Refer to “5.3 Customize of Camera Select” for the detail.

5.2 Setting of Camera Select Indication

There are two patterns of indication for Camera Number Indicator of status deisplay portion and Camera Select Name Indicator on camerea select switch portion. One is Fixed Mode and the other is Program Number Mode. It can be selected by Panel Config. menu.



- **Fixed Mode**

  The indication of Camera Select is fixed with No. 1 to No. 10 for Group-1, No.11 to No. 20 for Group-2, No. 21 to No. 30 for Group-3, No. 31 to No. 40 for Group-4 and No. 41 to No. 50 for Group-5.
  This mode is default setting of MCP-200.

- **Program Number Mode**

  The indication follows Camera Program Number. The setup of Camera Program Number can be assigned in accordance with various system configurations and applications.

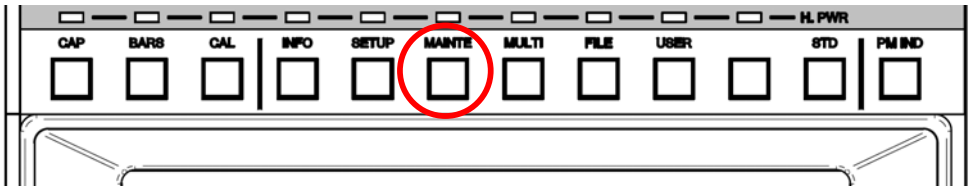
Reference Refer to “6. Program Number” for the detail.

5.3 Customize of Camera Select

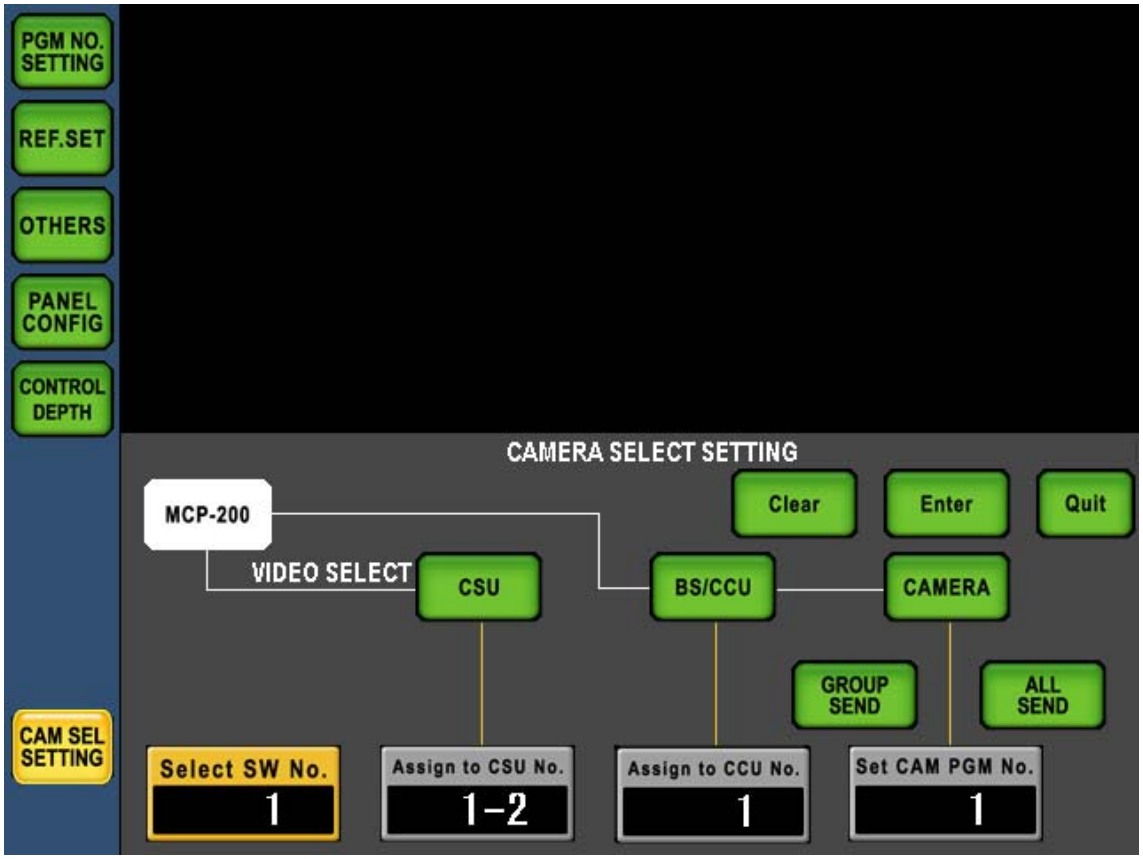
When Camera Select is set to Custom Mode, Camera Selct Switch can be customized. The camera select setting can be changed by Panel Config. menu.

Reference Refer to “16. Panel Config. (Panel Setup)” for the detail.

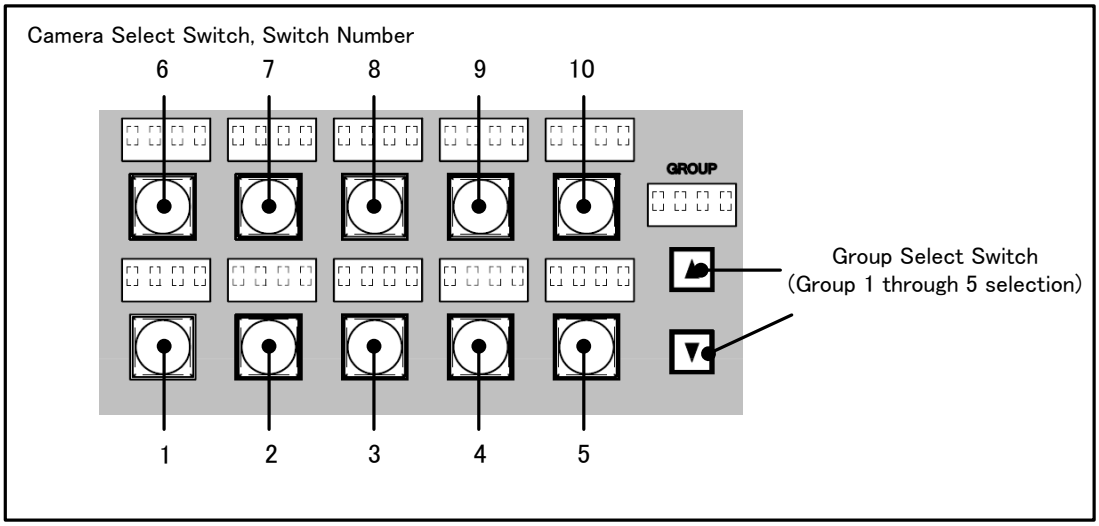
1. Push “MAINTE” Switch in Function Switches on top side of LCD.



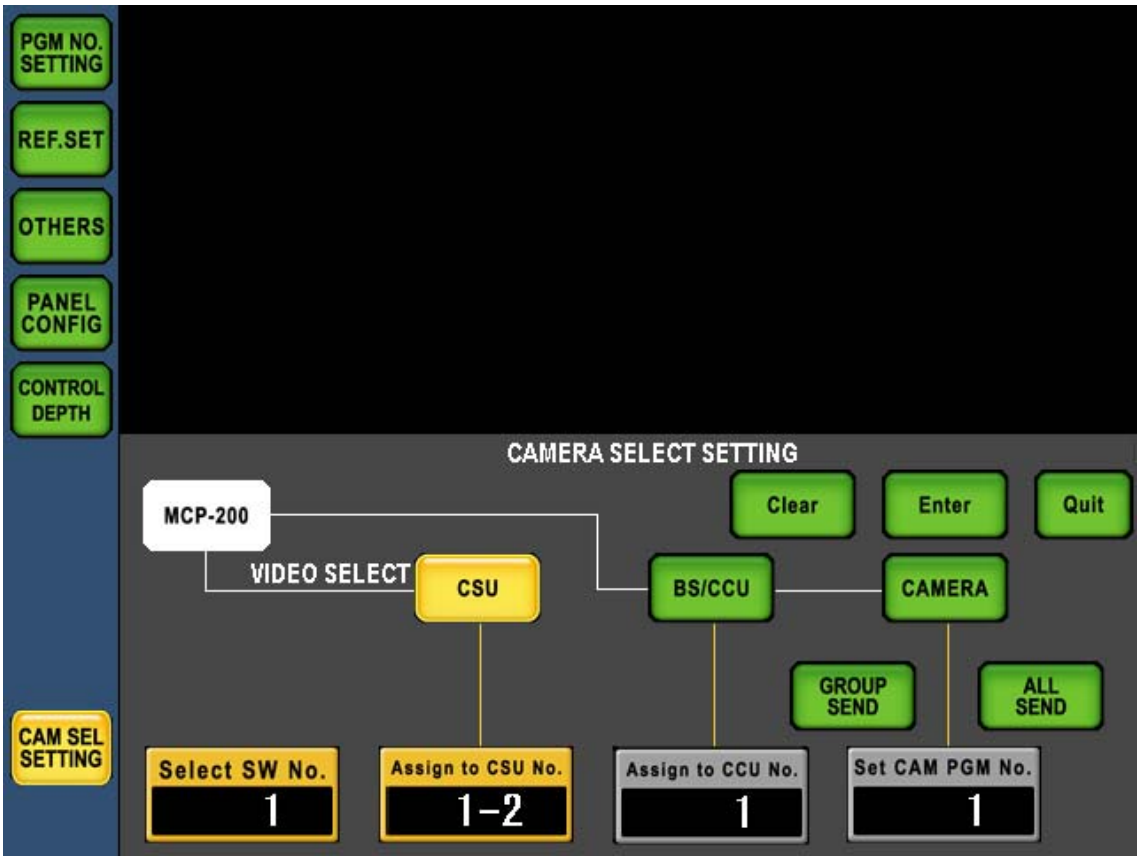
2. Press [CAM SEL SETTING] switch in the left frame of function switches. And CAMERA SELECT SETTING menu comes up. If Command Connection to the camera is active, the connection will be disabled. The setup by this menu will be done under command connection is disabled.



3. Press camera select switch to select control target to change the setting. Control targete can be selected by rotary encoder as well. “Select SW No.” on LCD menu is a preset number of selected control target. Because that is a physical number of the switch, it is unchanged even if control group is change.



4. Press [CSU] switch for the change of CSU, press [BS/CCU] switch for the change of BS/CCU and press [CAMERA] switch for Program Number. In case of switch icon is green, the switch is ready but in case of switch icon is gray, the switch can not be selected. Selected switch will turn to umber and changing by rotay encoder is available. After new setting is decided, press [Enter] switch icon to activate new setting.



5. By pressing [CSU], [BS/CCU] and [CAMERA] switches to activate at the same time, assignment an be set together accordingly. If [Enter] switch or [Clear] switch is pressed, all selected items turn to green.

6. After setting is completed for selected Camera Select Switch, select next control item to change the setting.

7. Press [QUIT] switch to move from CAMERA SELECT SETTING page after setup completed.

Changeable control items are different because of connection manner, camera select mode. Please find following table.

Camera Select Mode	Command Connection	Number can be set		
		CSU	BS/CCU	PGM
SIMPLE	N/A	N/A	N/A	Avail.
CUSTOM	Ikegami Command	Avail.	N/A	Avail.
	Network	Avail.	Avail.	Avail.

Avail. : available

N/A : Not available

Program Number can be set with “PROGRAM NO. SETTING” page, too. But multiple camera Program Number setup is available with this “CAMERA SELECT SETTING” page.

Reference Refer to “6. Program Number” for the detail.

CSU Number setting only reflects for video switching at Network Connection. CSU Number is saved with Camera Select Switch setup.

CAUTION When “External Camera Select function” is operated, Camera Select switch and left side of rotary encoder is inhibited. Select and set with external device such as VE switch etc. If setup is proceedded to the camera which is selected by external device before recall CAMERA SELECT SETTING page, select another switch once and select the camera again.

To move from CAMERA SELECT SETTING page, if function switches on top side or switch icons on left side of LCD are pressed, switch control will be rejected when command connection with camera head is not engaged, the switch operation is inhibited.

5.4 Remote Camera Select Control

Camera Select function of MCP-200 can be remote controlled by external controller. External control is done via EXT-2 connector on MCP rear panel. In case of CAMSEL_ENABLE terminal (Pin No. 15) is grounded, external control become active.

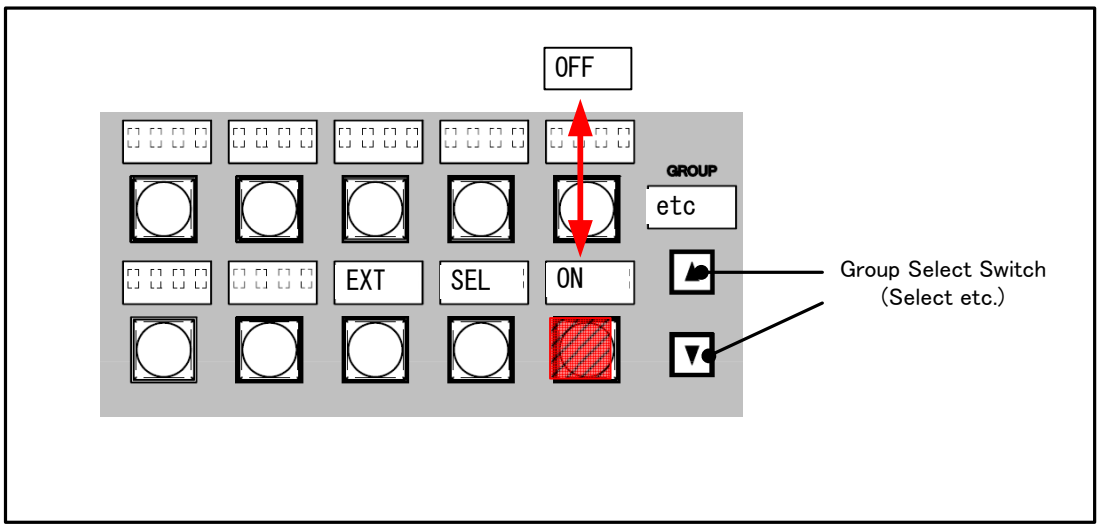
Two modes of Camera Select are available in accordance with the differene of interface.

- **Direct Mode**
  Up to 10 cameras can be selectable by remote control. One camera can be selected by external input of 1 Bit each.
- **Combination Mode**
  Up to 50 cameras can be selectable by remote control. By the combination of input Bits, the camera can be selectable.

Reference Refer to “19. Pin Assignment for External Connector” for the detail of interface.

External Camera Select control is just substitution of pressing Camera Select Switch on MCP instead, the actual setting and assignment depend on the setup of MCP.
If external Camera Select is active, Camera Select Switches on MCP will be inhibited. Lamp of the selected Camera Select Switch lights umber normally, but Lamp of selected switch lights green when external Camera Select is enable.

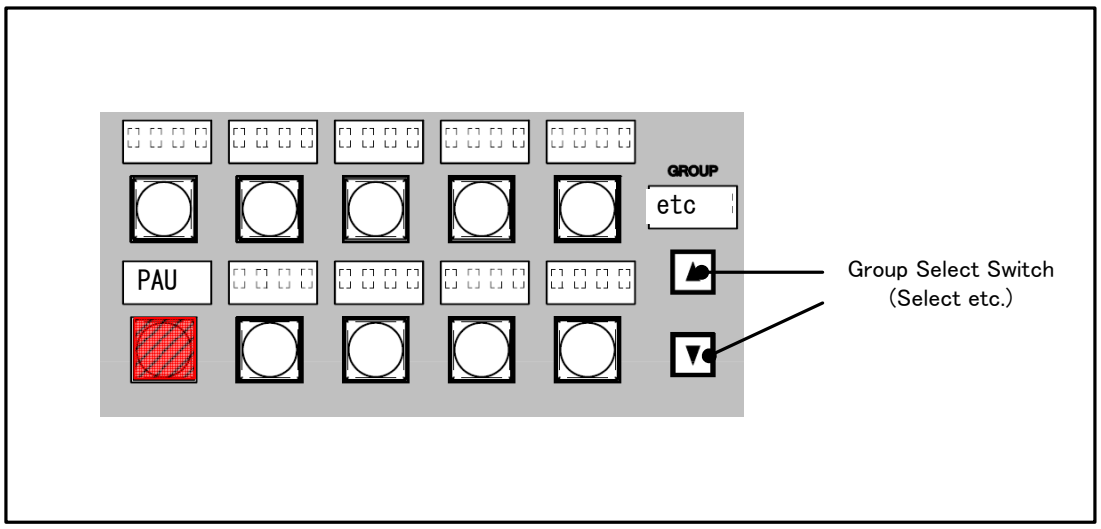
- **Enable/Disable setting of External Control.**
  Enable/Disable setting of external control is available when CAMSEL_ENABLE terminal (Pin No. 15) is grounded, external control become active. Select “etc.” page pressing Group Select Switch.
  Under this condition, Enable/Disable setting of External Control can be selected by pressing bottom right switch. When External Camea Select is active, indication shows “ON” but “OFF” is indicatated when it is inhibited. The switch lamp lights green when External Camera Select is active but it lights umber when it is inhibited.。



CAUTION In case of PROGRAM NO. SETTING page or CAMERA SELECT SETTING page is selected. “etc.” page can not be called.

5.5 PAU Control

OCP panel assignment with PAU(PANEL ASSIGNMENT UNIT) under Ikegami Command Control system is also available. MCP can call PAU setup page directly. Under this condition, Enable/Disable setting of External Control can be selected by pressing bottom left switch.



CAUTION In case of PROGRAM NO. SETTING page or CAMERA SELECT SETTING page is selected. “etc.” page can not be called.

PAU setup is done by watching character setting page on Picture Monitor.

Reference Refer to “13.1 Camera Menu Setup” and Operation Manual of PAU.

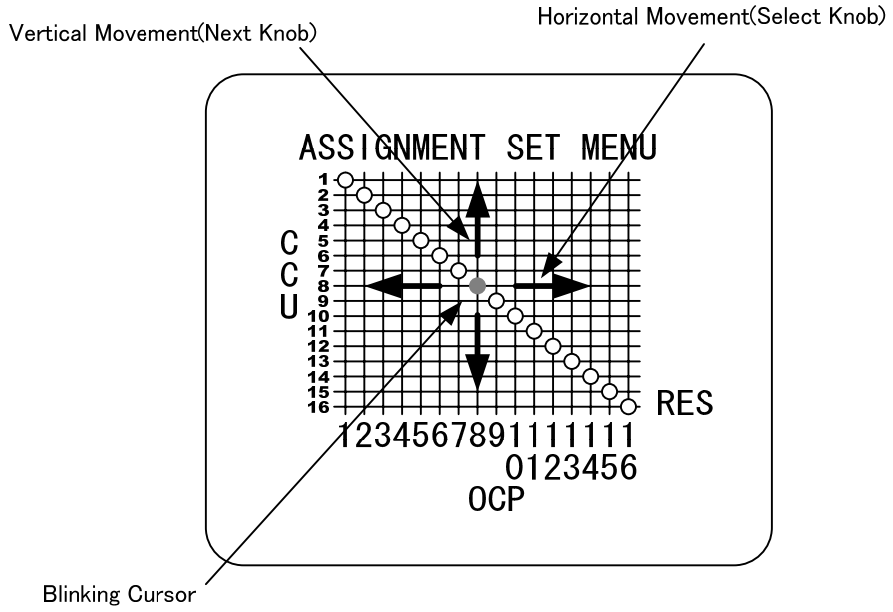
- **Assignment Setup**

  Move the cursor to the cross point to be assigned and press enter. Assignment is completed. Because doubled assignment is not available for both OCP and CCU, the asssingment is cleared automatically if the assignment is done with either unit previously.

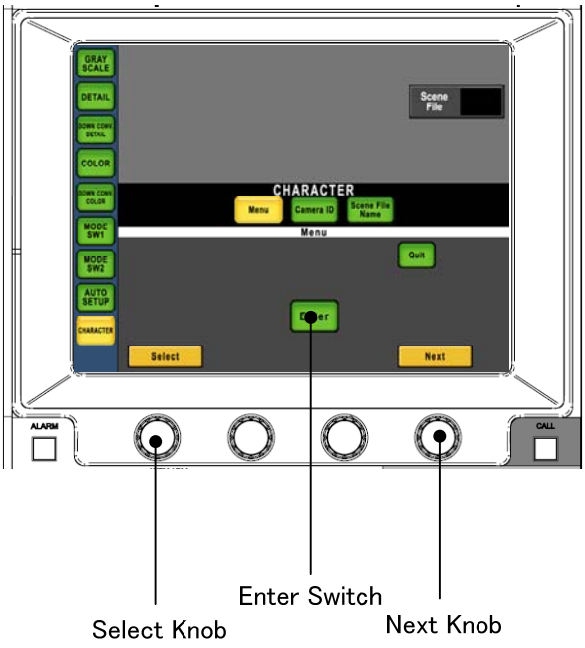
- **Reset**

  All assignment setup can be reset. Set the cursor to “RES” and press enter. After thereset assignment is set to default setting, such as OCP1=CCU1 、OCP2=CCU2、・・・OCP15=CCU15、OCP16=CCU16.

PAU PM OUT



MCP-200



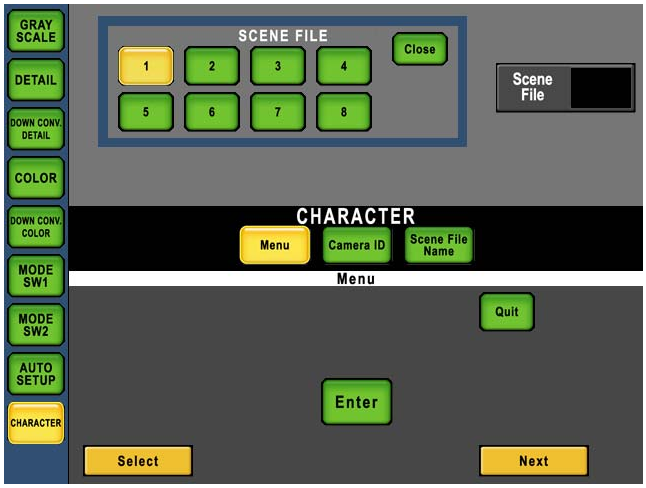
Functionality of Select Knob, Next Knob and Enter Switch shows below.

- Select Knob : Vertical Movement of Cursor
- Next Knob : Next Knob: Horizontal Movement of Cursor
- Enter Switch : Enter Switch: To Enter the setting

・**Scene File**

PAU assignment setting can be saved as a Sciene File. Previously set assignment setting can be loarded by the simple procedure. To save/load Scene File can be is done by Number Switch of Scene File as same procedure as camera operation.

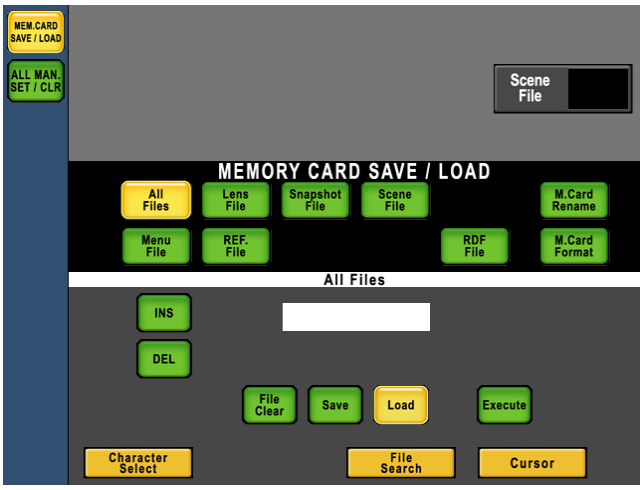
Reference Refer to “4.8 SCENE FILE” for the detail of Scene File.



・**Memory Card Save/Load**

Assignment setting registered in Scene File, 8 scenes are saved as a single file in memory card of MCP. Save/Load procedure can be done as the same as that of camera

Reference Refer to “9. MEMORY CARD OPERATION” for the detail of memory card operaion.



5.6 Camera Select Status Output

Camera Select Command of MCP-200 can be output externally. Camera Select Status Output means which Camera Select Switch is selected instead of actual camera selection.

Camera Select Command will be output regardless the setting of External Camera Select Input and Enable/Disable setting.

Reference Refer to “19. Pin Assignment for External Connector” for the interface.

5.7 Group Limit function

The camera selection of MCP-200 can select the camera from five groups with a group selection switch. Cameras up to ten a group can be operated, and it becomes 50 totals.However, when the number of the camera is few etc. , five groups might become annoying. The maximum value of the group selection can be set by using the group limit function. When the group selection switch pushes, the group where the necessity doesn't exist cannot be selected.

For instance, the selection of groups 1 and 2 and “etc" becomes possible when the group limit is set to two, and groups 3, 4, and 5 cannot select it. The group limit can select it from turning off and 1 to 4 with Panelconfig.

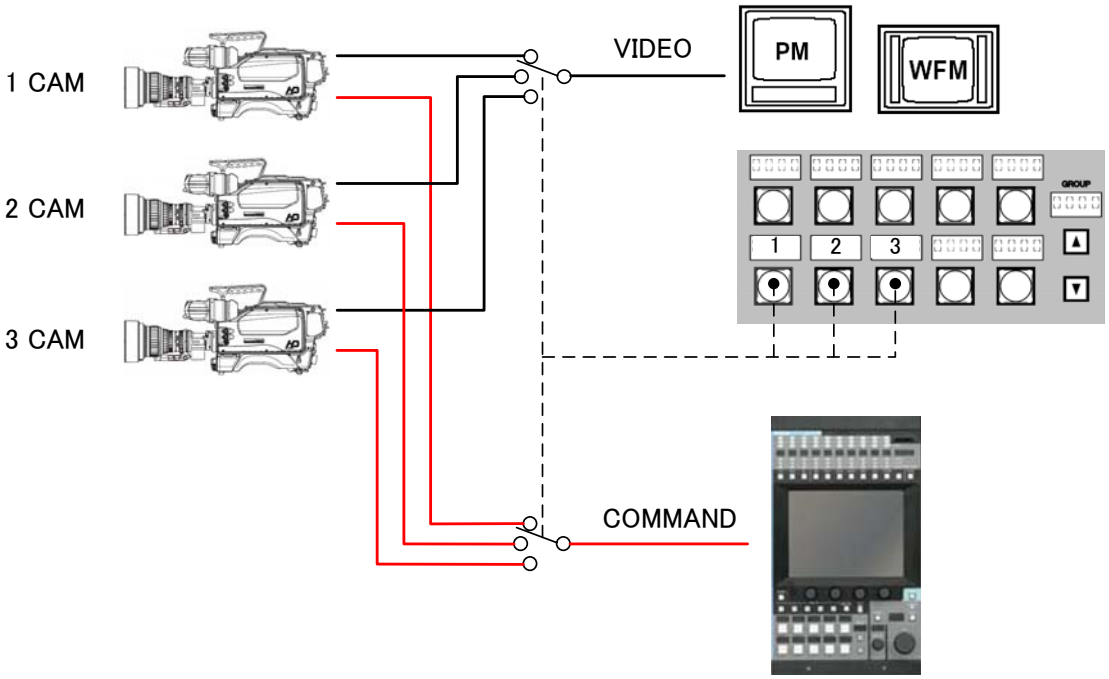
Similarly, when the external camera selection is not used or PAU is not used, the “etc" group can be prohibited from selecting. ENABLE/DISABLE of the “etc" group is done with Panelconfig.

Reference Refer to “16. Panel Config. (Panel Setup)” for the detail.

5.8 Command Fix function

1) Outline

In a usual operation, the camera control and the VIDEO signal at the same time and it changes when the camera selection switch is pushed.



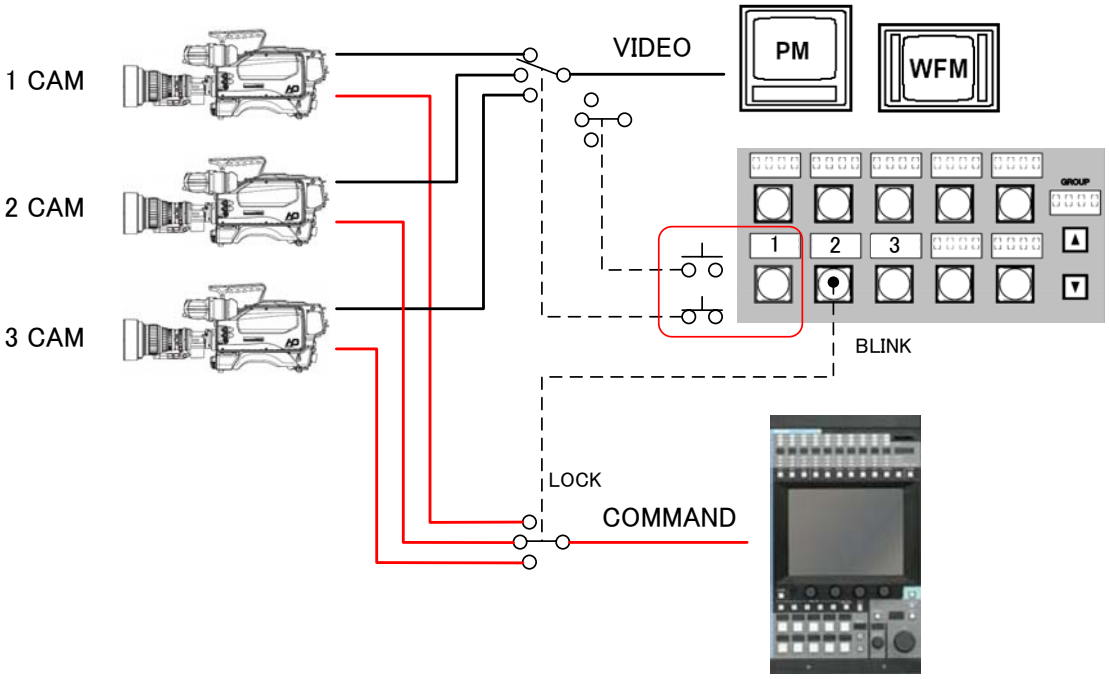
In the camera adjustment that uses MCP, there is a method of matching other cameras to a specific camera (MASTER camera).
The MASTER camera is adjusted first as a procedure. Images can be compared by pushing the camera selection switch of MCP. The image of other cameras is matched to the image of the mastering camera.
The Command Fix function is a function to assist this adjusting method. Only the image can be switched by fixing the command to the camera that wants to be adjusted. Because the command is not switched, the MASTER camera adjusted can be prevented being operated by mistake. Moreover, because the load of the command processing when the command is changed is not generated, the camera adjustment with a good response becomes possible.

2) Operating procedure

Please push the camera selection switch during long to do Command Fix. The switch of the camera that does Command Fix is pushed or the fix can be released by pushing the switch of other cameras long.

It explains the method of matching "No.2 camera" to "No.1 camera" (mastering camera) as an example.

1. "No.1 camera" is selected with the camera selection switch, and the camera is adjusted.
2. The switch of "No.2 camera" is pushed long.
   The buzzer becomes, and the switch of "No.2 camera" starts blinking. As a result, the command was fixed to "No.2 camera".
3. The switch of "No.1 camera" is pushed.
   It changes into the image of "No.1 camera" only while the switch is being pushed.



4. It changes into the image of "No.2 camera" if the switch of pushed "No.1 camera" is separated.
5. The operation of the above-mentioned, 4, and 5 is repeated. "No.2 camera" is adjusted while comparing images.
6. When the switch of "No.2 camera" is pushed after "No.2 camera" is adjusted, the Command Fix is released.

The Command Fix function is invalid in a standard setting. Please set it with Panelconfig effectively when you use this function.

Reference Refer to “16. Panel Config. (Panel Setup)” for the detail.

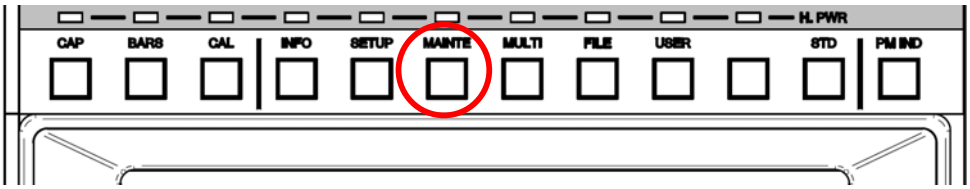
Note Even if the Command Fix function is made effective, it becomes conventional operation in a usual camera selection operation.

6. Program Number

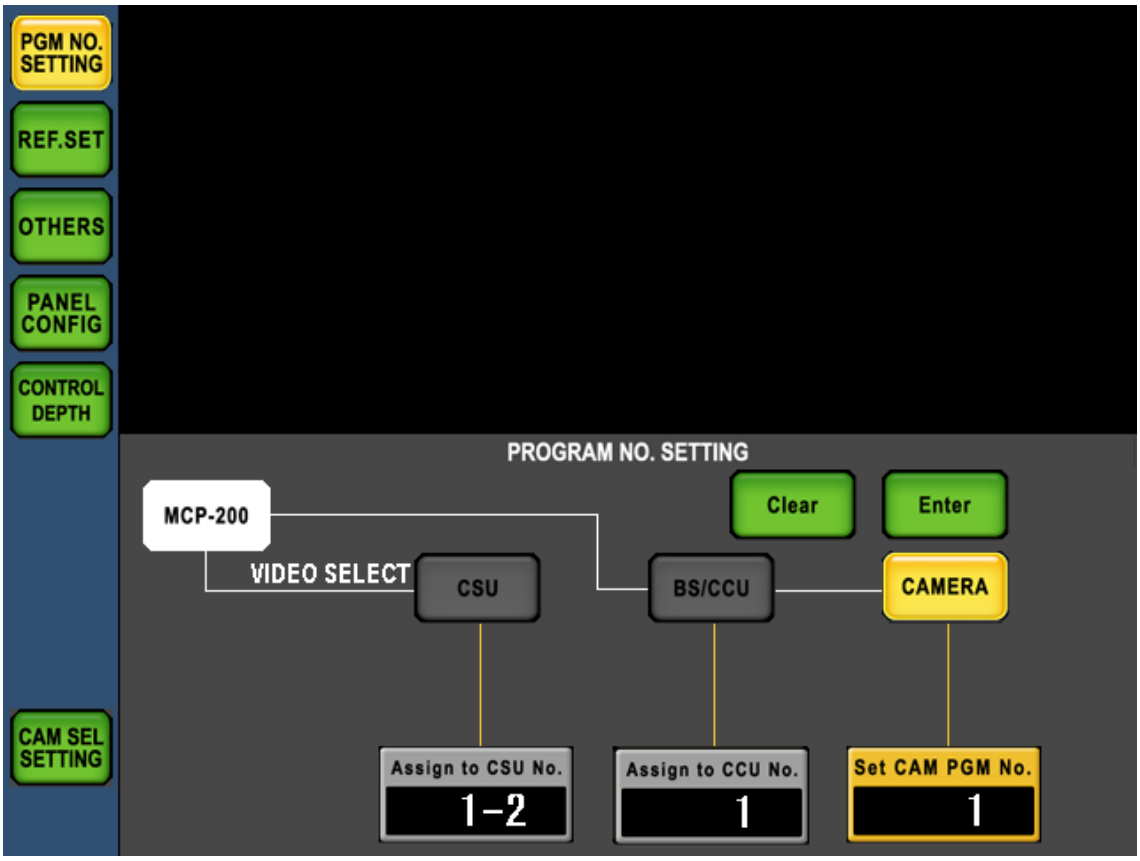
Camera Program Number of the production can be set. There are two ways of setup. One is individual setup under the command connection with one camera and the other is the lump setup.

6.1 Individual Setup Procdure

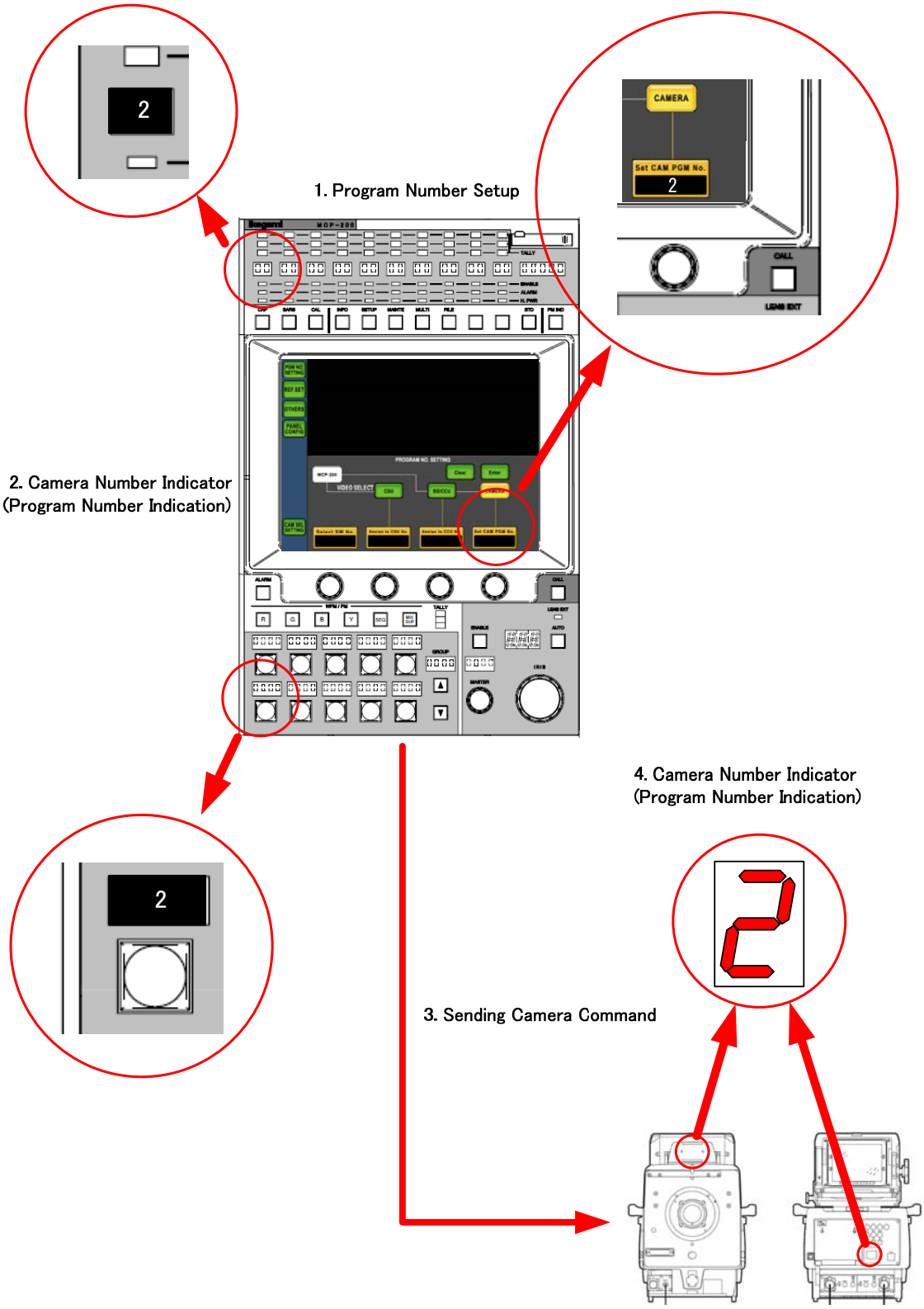
1. Push “MAINTE” Switch in Function Switches on top side of LCD.



2. Press [PGM NO. SETTING] switch icon in the left frame of LCD screen.



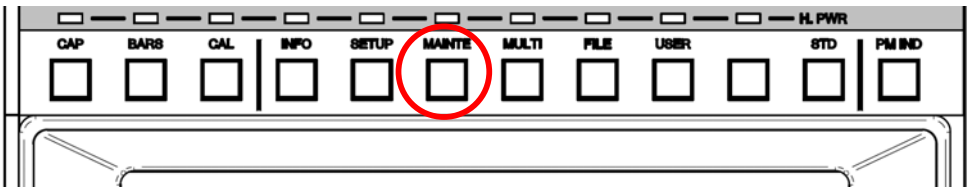
3. Set Program Number by the rotary encoder and press [Enter] switch to execute new setting. Assigned Program Number is sent to camera head and camera number is indicated on optional camera number indicator.
   If the mode of Camera Select is set to Program Number Mode, program number is indicated on Camera Select Name Indicator on Camera Select portion and Camera Number Indicator on Status Display portion.
   This setup requires Command Connection with camera head.



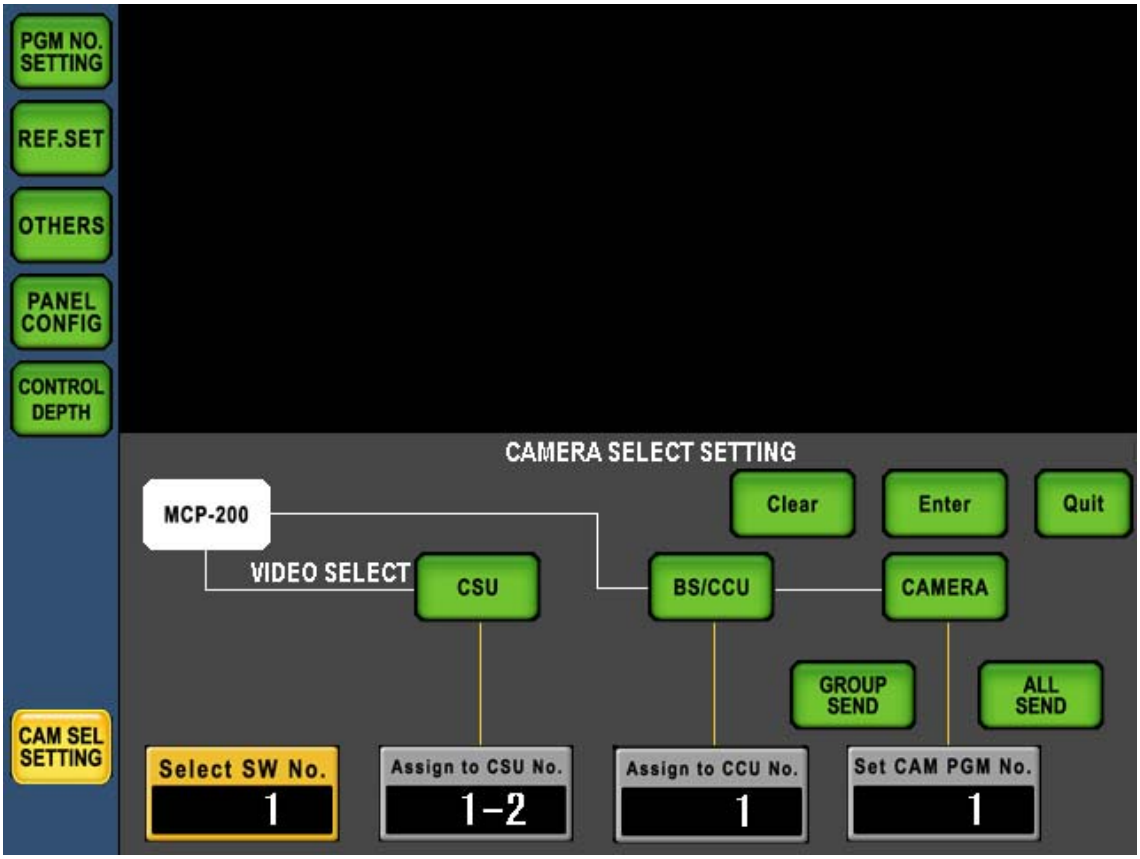
CAUTION If Program Number is set to OFF, Number Indication of camera head and MCP can be turned off.

6.2 Lump Setup Procedure

1. Press “MAINTE” Swith on the top side of LCD.

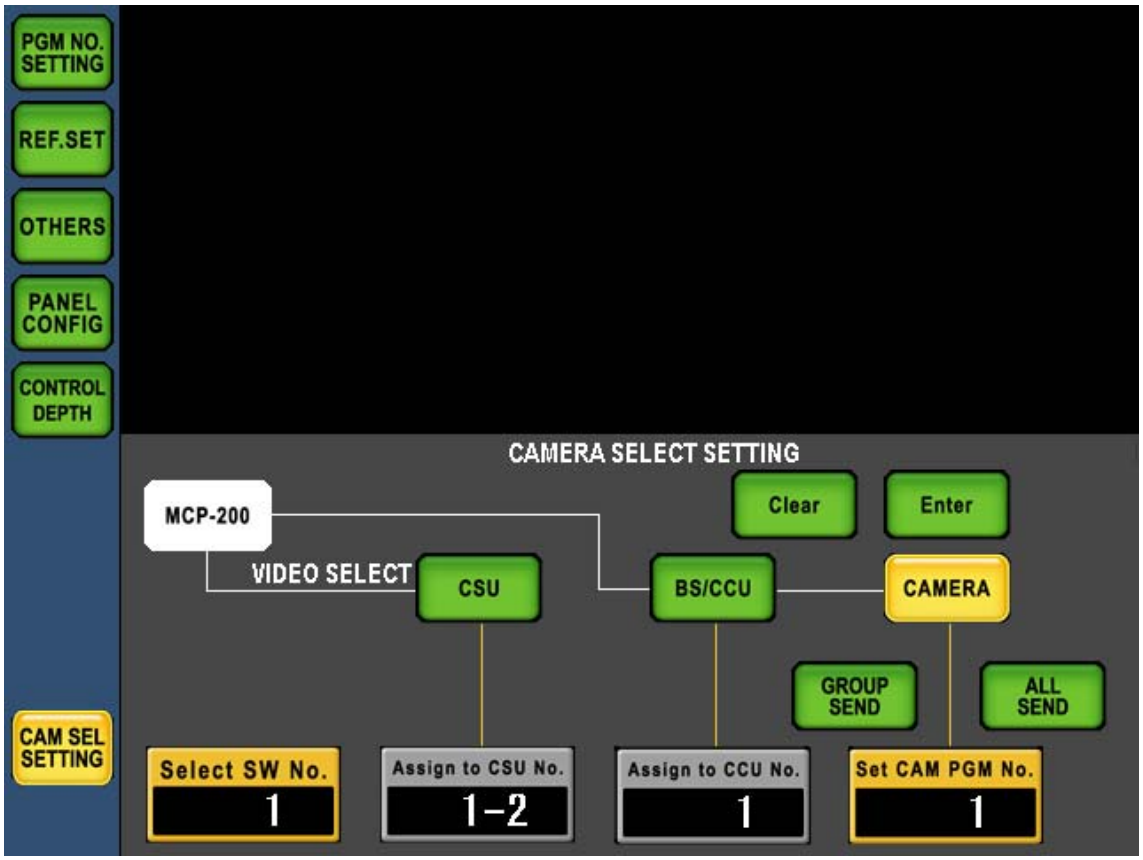


2. Press [CAM SEL SETTING] switch icon in the left frame of LCD screen.



By pressing the switch, “CAMERA SELECT SETTING” page comes up. If it was set Camera Comand Connection before, connection is cut off and camera control is disabled. Then this setup is done under the condition of command connection is disabled.

3. Press [CAMERA] switch icon. Icon turns to umber and Program Number can be changed by rotary encoder. Set the new number and press [Enter] switch icon. The data of new mumber is saved in internal buffer. But command communication is not executed at this stage.



4. To change Program Number of the other camamera, press Camera Select Switch or turn rotary encoder on left side to decide a target of camera and set new Program Number by the rotary encoder on reight side. By the repeat of this procedure Program Number of multiple cameras can be set sequentially.

5. Newly set Program Numbers can be sent all at once to cameras in the same group under Ikegami Command control or cameras in the same group or in the network system under Network Command Control. In case of sending the data of new Program Numbers all at once, select either “Group Send” or [ALL SEND] and press [Enter]. New Program Number is sent with switching the connection of cameras automatically.
   If lump sending is not executed, data of new Program Numbers are saved in the buffer of MCP and command proceeded by conventional Camera Select operation. Command processing of Program Number at the Camera Select is different by the selected mode.

Reference Refer to “6.3 Priority of Program Number” for the detail.

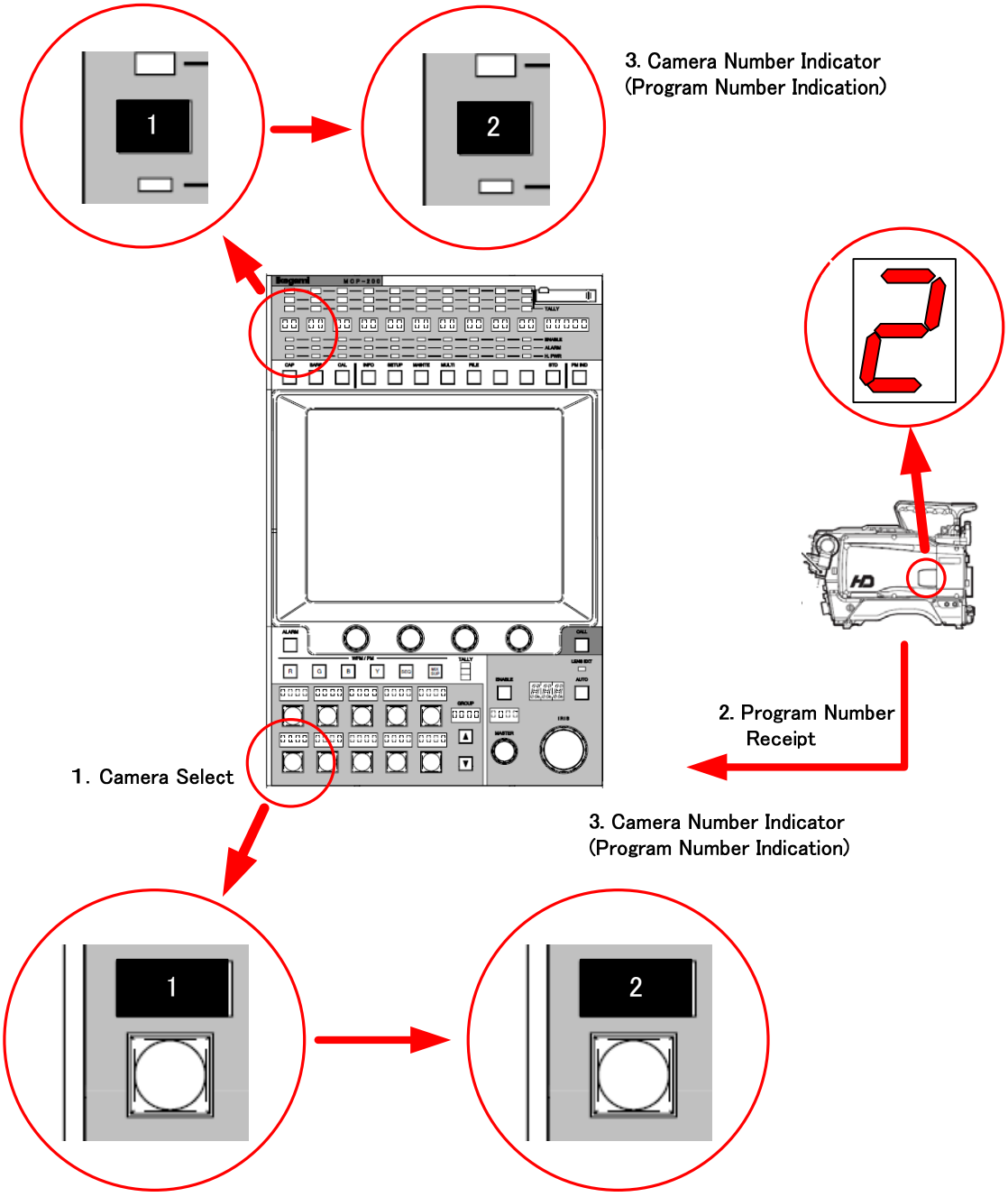
CAUTION If the command connection is faliled with the unit because of power off or disconnection at the lump sending, new Program Number can not be set to the unit.

6.3 Prioriy of Program Number

Priority of Program Number can be set to give either Camera or MCP. The recommendation is to give priority to MCP because Program Number is set before operation normally. However, initial setting is that camera has a priority in order to avoid operation failure. The setting can be changed by Panel Config. Menu.

- **Priority for CAMERA.**

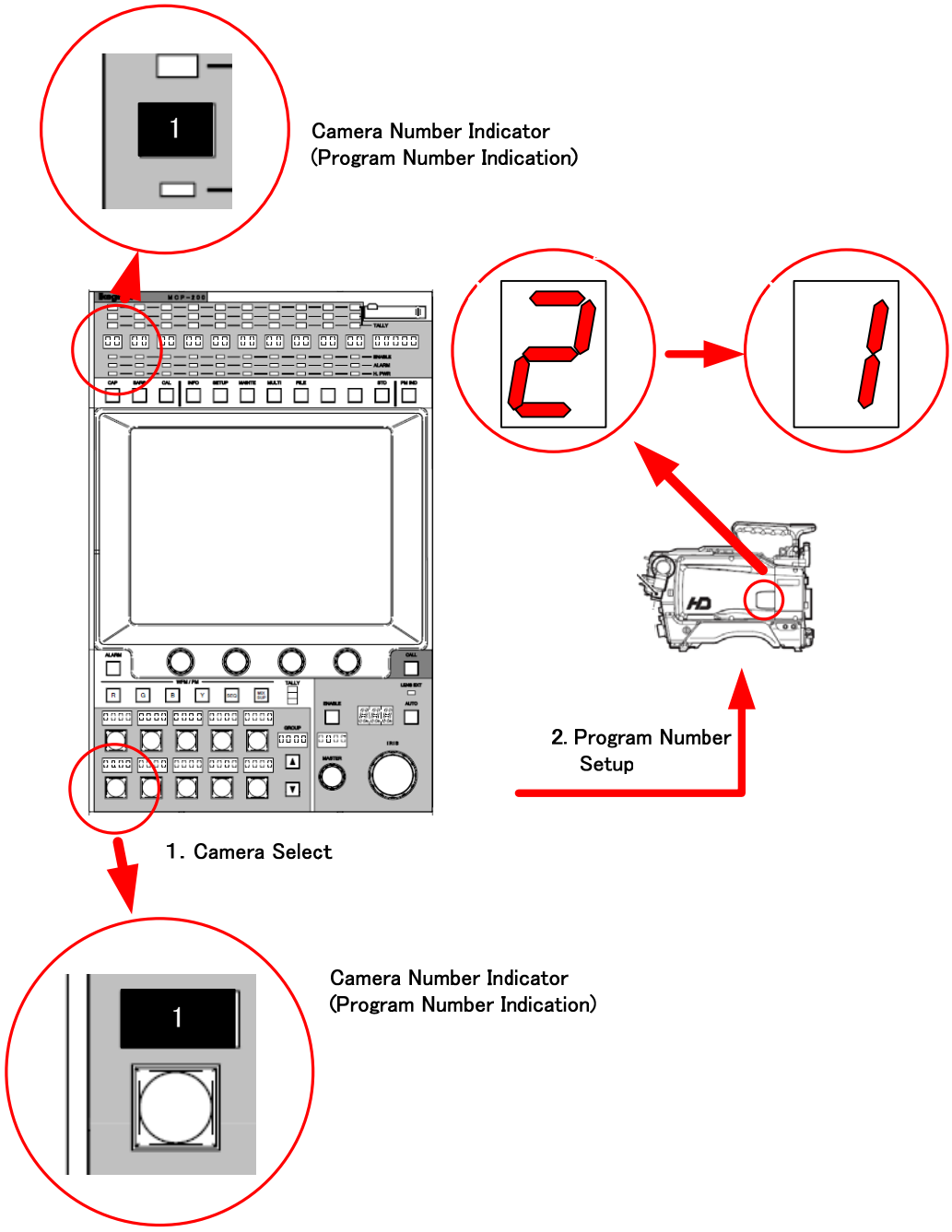
  Providing priority for Program Numner saved by camera. At the power on or at the Camera Select operation, Program Number of MCP is changed by camera answer signal. In case of no answer from the camera, Program Number of MCP is retained. For example, if the camera which saves Program Number 2 is connected to MCP which saves Program Number 1, Program Number of camera (No.2) is sent to MCP and MCP Program Number is updated to No. 2.



• **Priority for MCP**

Providing priority for Program Numner saved by MCP. At the power on or at the Camera Select operation, Program Number of MCP is sent as the command to the camera.

If the MCP which saves Program Number 1 is connected to the camera which saves Program Number 2, Program Number of MCP (No.1) is sent to the camera and MCP Program Number is updated to No. 1.



CAUTION In case of “Program Number Mode”, Programa Number is indicated onCamera Select Indicator of Camera Select Portion and Camera Number Indicator on Status Indicator Portion.

6.4 Save of Program Number

MCP can save Program Number for Camera Select. Set and save in accordance with each system configuration and operating application.

- **Saved with CSU（Ikegami Command）/ CCU（Network Command）**
  This method is suit for the case of grouping with each facility, such as cameras in Studio-1 is set as Group-1 and cameras in Studio-2 is set as group-2.
  If the group includes 10 more cameras, if the reference camera is included in both Group-1 and Group-2, it makes camera adjsut easier with Camera Select Switching between reference camera and the other camera.

- **Saved with SW (Ikegami Command & Network)**
  This method is suit for the case of grouping with each program, such as cameras Program-A is set as Group-1 and Procam-B is set as group-2.
  By execute “GROUP SEND” for sending preset Program Numbers at a time, all of Program Numbers for the program can be updated at the same time.

Program Numbers can be saved by Panel Config. Menu regardless the command type, Ikegami Command and Network Command. Intial setting is SW for Ikegami Command and CCU for Network Command.

CAUTION If Save setting is “SW”, different number of each program can be set for one CCU Number / CSU Number.
When lump sending is executed, larger Switch Number is sent later and Program Number of camera save in Switch Number will be assigned. Please attention for “ALL SEND” particularly.

7. Setup for practical operating condition

Various setup patterns of Camera Select and Program Number by Panel Config. menu are available to suit for every kinds of system configuration and operating condition.
Find below questionnaire to find out suitable setup for your sytem and operating condition

Note If the operation is insufficient even though being the setup, set detail in accordance with “5. Camera Select” and “6. Program Number “.

CAUTION In this setup, Program Numbers depend on switcher input.
Read operation manual before operation to understand setup and operating procedure deeply.

7.1 Camera Select Setup(Panel Config.)

Set Camera Select related items.

Q1: Is CSU used?
Q2: Is Camera Select Switch customized?
Q3: Is Program Number used?
Q4: Is Camera Select indication of MCP set to Program Number?

Connection	Q1	Q2	Q3	Q4	Panel Config. Setup		Program Number Setup
					CAMSEL Mode*1	CAMSEL NAME*2	
Ikegami Command	Yes	Yes	Yes	Yes	CUSTOM	PGM	Setup-1
				No		FIX	
			No	–			Setup-2
		No	Yes	Yes	SIMPLE	PGM	Setup-1
				No		FIX	
			No	–			Setup-2
	No	–	Yes	Yes		PGM	
				No		FIX	
			No	–			
Network Command	–	Yes	Yes	Yes	CUSTOM	PGM	Setup-1
				No		FIX	
			No	–			Setup-3
		No	Yes	Yes	SIMPLE	PGM	Setup-1
				No		FIX	
			No	–			Setup-3

*1 : PANEL CONFIG. / CAMERA SELECT / CAMSEL Mode
*2 : PANEL CONFIG. / DISPLAY / CAMSEL Mode
Gray item is default setting.

7.2 Program Number Setup(Panel Config.)

Set Program Number related items.

Q5: Which is the group function of Camera Select set to the program or facility?

	connection	Q5	Panel Config. Setup		
			ICCP Memory*1	Network Memory*2	Priority*3
Setup-1	Ikegami Command	Facility	CSU	–	MCP
		Program	SW		
	Network Command	Facility	–	CCU	
		Program		SW	
Setup-2	Ikegami Command	–	SW	–	CAM
Setup-3	Network Command		–	CCU	

*1:PANEL CONFIG. / PROGRAM No. / ICCP Memory

*2:PANEL CONFIG. / PROGRAM No. / Network Memory

*3:PANEL CONFIG. / PROGRAM No. / Priority

Gray item is default setting.

7.3 Program Number Setup for BS/CCU

Set Program Number function active with the menu for the setup of BS/CCU which has Program Number function. In case of the command connection between BS/CCU and Camera Head, the number of Camera Head follows the number saved by BS/CCU.

Program Number of BS/CCU can be set by MCP control. In case of the system including MCP, set Program Number function of BS/CCU active.

7.4 OCP-200 Setup

- **Ikegami Command Connection**

  Set Program Number display mode to “CAM”, Depending on Camera Number function availability of connected Camera Head, Program Number can be synchronized between BS/CCU and Camera Head or not. In case of synchronization is not available, set or change Program Number by OCP-200 if necessary.

- **Network Command Connecinon**

  In case of the connection to the camera which supports Program Number Function, set Program Number display mode to “CAM”. Program Number of Camera Head is received automatically and reflect to the camera the number set by MCP.

  In case of the connection to the camera which doesn’t support Program Number Function, set Program Number display mode to “SELF”. OCP-200 mamorizes Program Numbers of each cameras. Program Number can be changed in accoradance with assignment change.

7.5 Attention at Setup/Operation

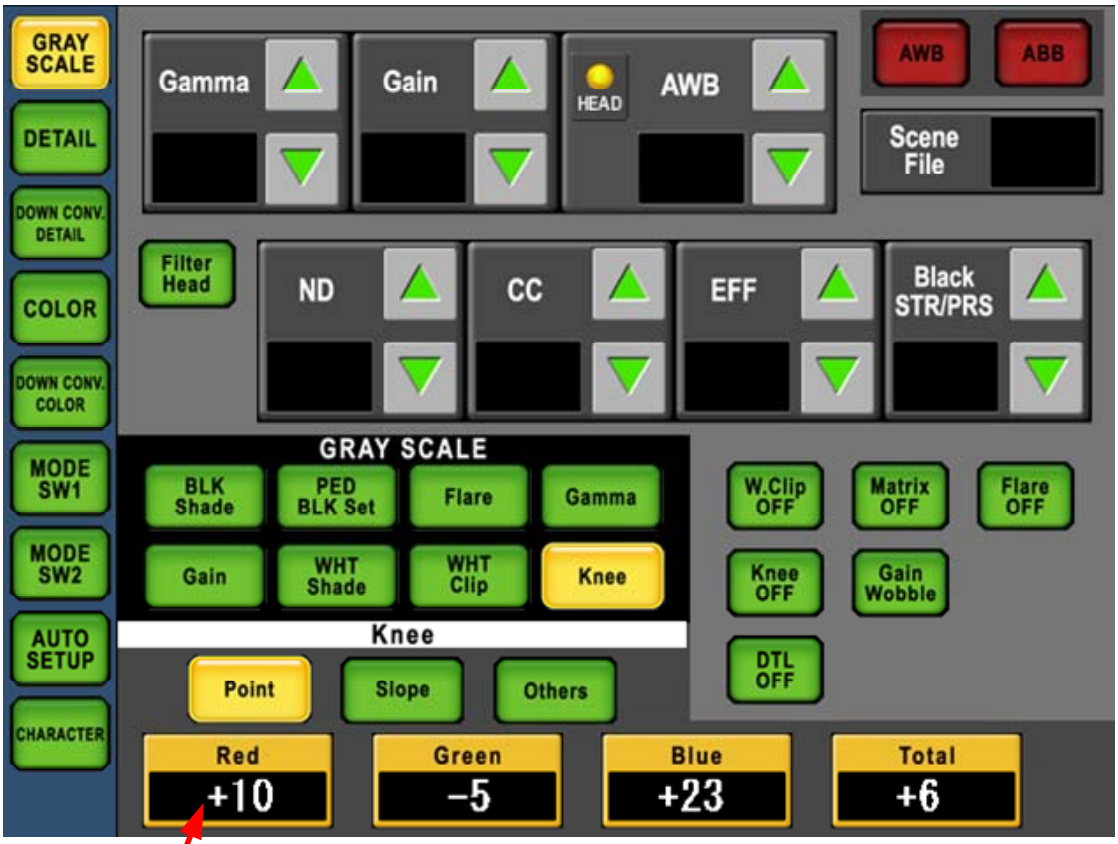
In case of the system includes both MCP-200 and OCP-200, and also the camera supports Program Number functinon, set and change Program Number by MCP. If Program Number is set by both MCP and OCP, set priority of MCP to “CAM”.

8. Set and Clear of camera data

The value adjusted by Rotary Encoders can be registered (MANUAL SET). Or the changed values can be back to be registered values (MANUAL CLEAR).

8.1 Manual Set/Manual Clear by LCD screen

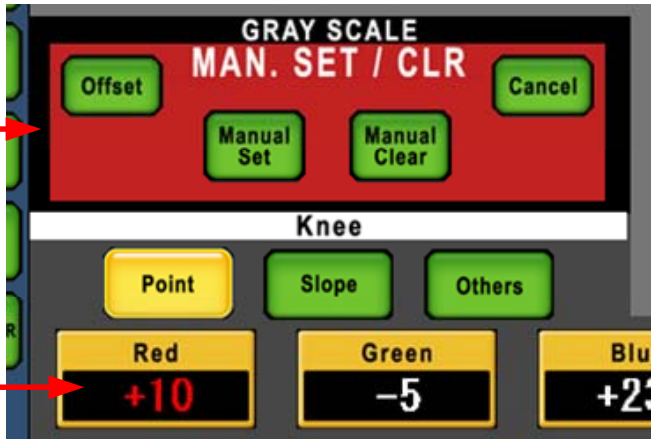
Press parameter area for Manual Set/Manual Clear at the menu page which can be controlled by Rotary Encoder.



Click the value

Manual Set/
Manual Clear
Setup Page

The value
Turns to RED

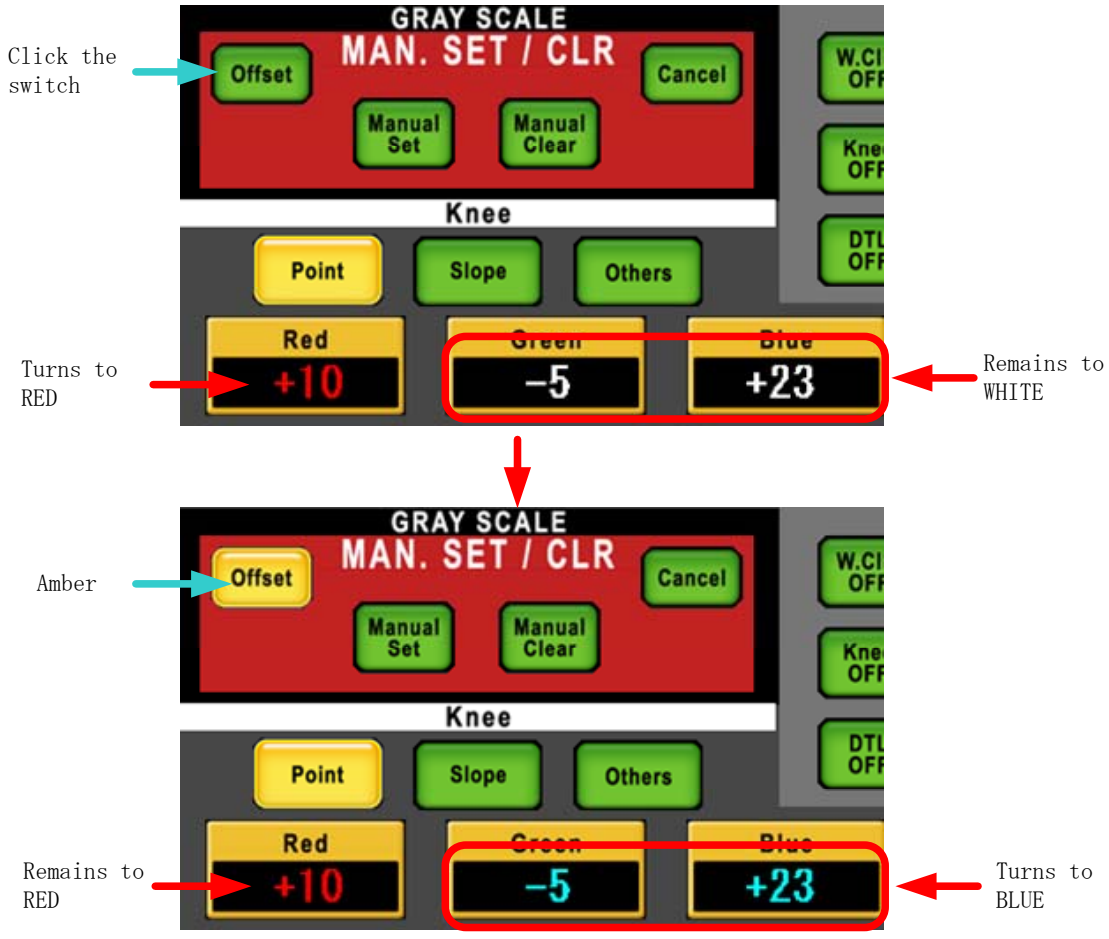


The control value is displayed in RED and MANU SET/CLR setup page will overlaid. Press the control value to be set by Manual Set/Manual Clear Click. The color of the value turns to RED for confirmation of selection. Press the value again to the cancel.
Press the Manual Set switch in a couple of seconds or press the Manual Clear switch for execution. After execution or pressing the Cancel switch, the screen returns to the previous menu.

CAUTION If the control item is set OFF, Manual Set and Manual Clear are disabled.

8.2 Display of offset control data

To set [Offset] switch ON(Amber) in MAN. SET/CLR page, and the indication of control value turns to the deviation value from Manual Set Value (or value adjusted automatically by Auto Setup value) (at Offset Display Mode). At this mode, it can be adjusted how much from the preset value registered by Manual Set, or it can be checked at a glance. When the value is "0", it is preset default status. By pressing [Offset] switch sequentially, ON/OFF of Offset Display Mode can be switched.
The value is Blue at Offset Display Mode is ON, but selected value remains to RED.



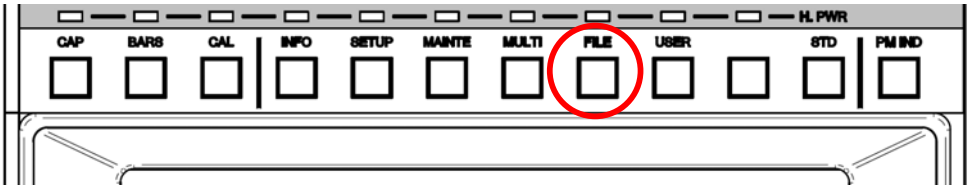
ON/OFF setting of Offset Display Mode set at this page is also reflected to the other menu pages. Control value is displayed in Blue when Offset Display Mode is ON.

Reference Panelconfig can assume whether to assume the offset display to be "ON" to be "OFF". Refer to "16. Panel Config.. (Panel Setting)" for detail of setup procedure.

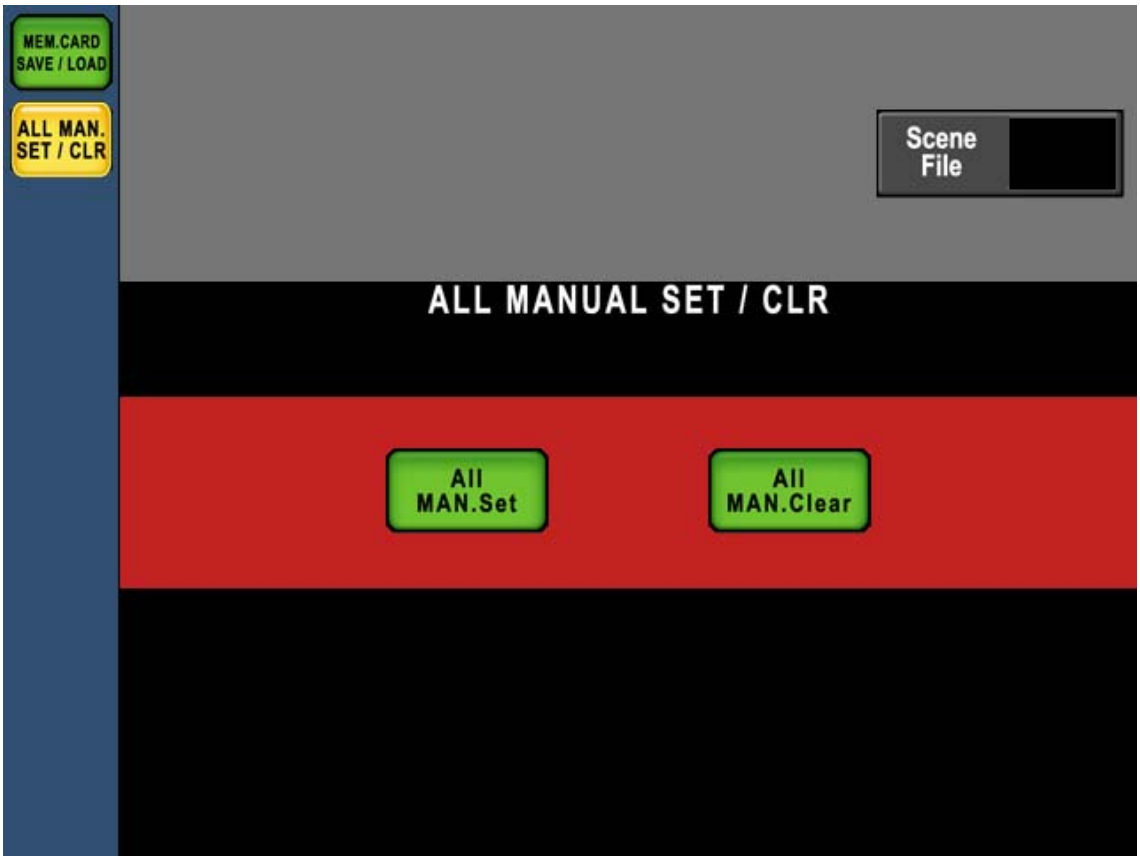
8.3 All Manual Set / All Manual Clear

Manual Set and Manual Clear are available for all functionality of Camera Head and BS/CCU.

1. Push “FILE” Switch on top side of LCD.



2. Push [ALL MAN.SET/CLR] on LCD screen.

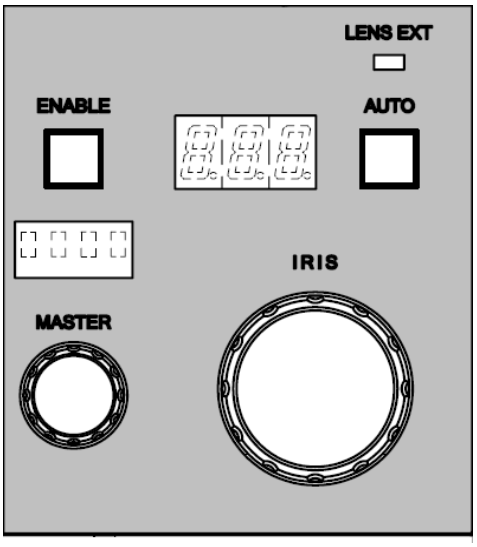


4. Press [All MAN. Set] for All Manual Set function or [All MAN. Clear] for All Manual Clear function. Switch will blink at the execution. And keep pressing until buzzer will beep.

CAUTION This operation executes Manual Set or Manual Clear for all control items, if control item is set OFF. However, some of functionality in Camera Head and BS/CCU doesn’t apply to Manual Set and Manual Clear because of its specification.

8.4 Clear of IRIS data

When the iris is operated with MCP, it is necessary to make IRIS/MASTER PED enable switch in iris/pedestal control part “ON". On the other hand, when the switch is made “OFF", the iris cannot be operated.



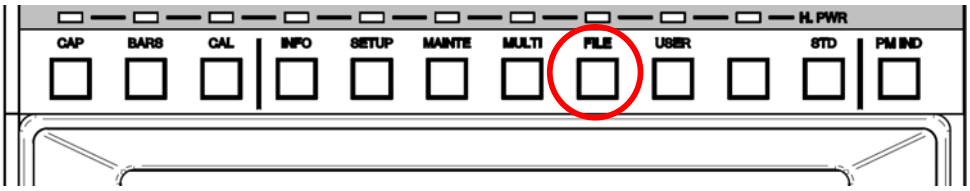
After controlling Iris by MCP, Iris data should be saved or cleared occasionally when Enable switch is pressed to change from ON to OFF. In case of Ikegami Command control, default setting clears Iris data of relative control value set by MCP to avoid Iris value shift with OCP which is set absolute Iris value control. Meantime, in case of Network Command control, default setting holds clear Iris data of relative control value set by MCP with assuming to connect multiple OCP which is set relative Iris value control.

To clear or to hold Iris data of MCP can be set for either Ikegami Command control or Network Command control by Panel Config, menu.

Reference Refer to “16. Panel Config. (Panel Setup)” for the detail.

9. MEMORY CARD OPERATION

The setup descriptions of camera, Camera Data File, Auto Setup Reference File, Scene File, Lens File and Snap Shot file, can be saved into Memory Card.
And saved above mentioned data files can be copied to the camera. And data of multiple cameras can be saved and read out with one memory card to be convenient for the daily operation.
To use memory card, insert memory card into the slot, and press “FILE” of function switch on top side of LCD.



By using SD Memory Card, MCP, firmware of connected Camera Head and BS/CCU can be updated.
Reference Refer to “17. FIRMWARE UPDATE” for the detail.

9.1 Type of Memory Card

Adopting SD Memory Card of which is used for Digital Camera etc.. Capacity should be 32MB to 2GB.

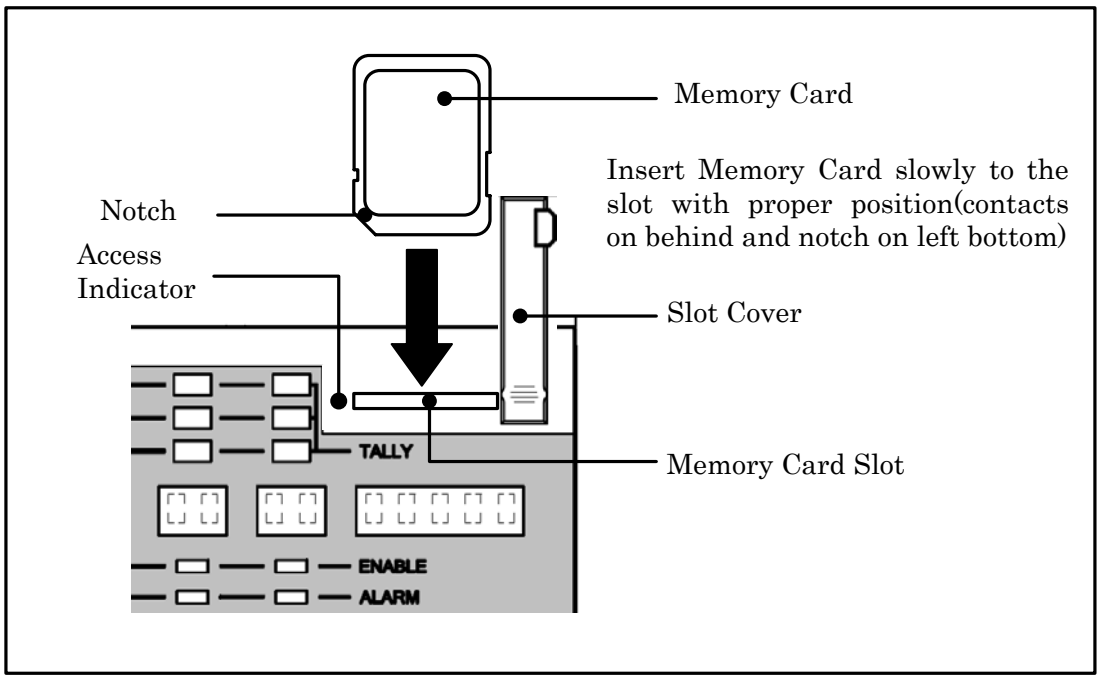
Note Doesn't support the SDHC memory card, the miniSD card, and the microSD card. The upper bound capacity of the SD memory card that can be used is different according to the version of the firmware. In the one that the display of "SD-2G" appears on the screen, the upper bound capacity is 2G byte. In the one that the display doesn't appear, the upper bound capacity is 1G byte.

CAUTION SD Memory Card should be formatted by SD Memory Card Compliant format. Some of PC OS format standard doesn’t support SD Memory Card Format. In that case, SD Card doesn’t work properly with MCP-200.

9.2 Insert/Extract of Memory Card

To use memory card, pull left end of slot cover and turn 90 degree to clockwise. Insert Memory Card slowly to the slot with proper position (contacts on behind and notch on left bottom) until hearing click sound. The buzzer will beep.

To eject Memory Card, push calmly the top of the Card until hearing click sound. Please wait until the card is pushed out, and beep extract sensing buzzer, and pull it out slowly. After Memory Card operation, put the slot cover for the dust proof.



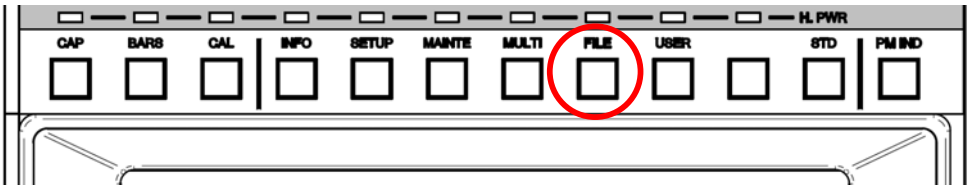
CAUTION Do not extract Memory Card when access indicator on the slot lights or Saving/Loading data to/from Memory Card. Data or Card itself may be damaged.

Note Attention. Removing sensor buzzer will not beep BUZZER, when Click Volume is set to “OFF” with Panel Config.

9.3 Format and Name Change of Memory Card

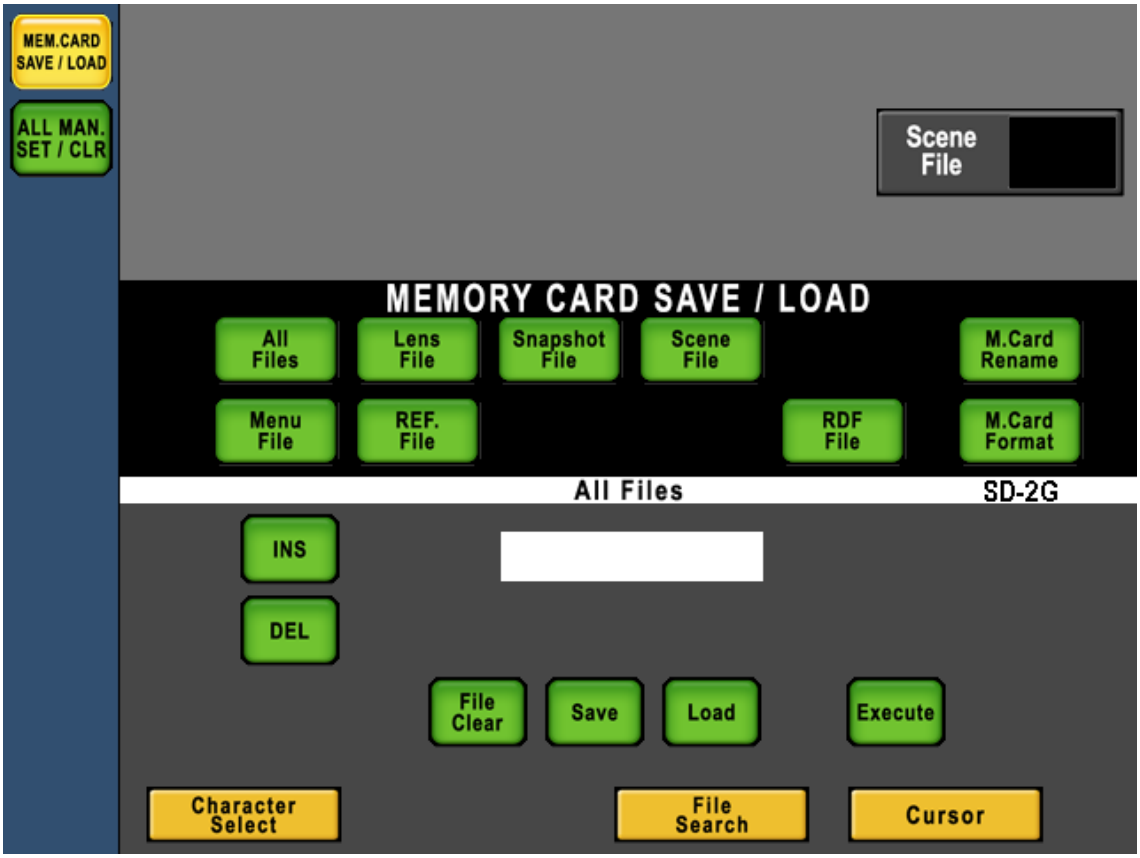
Re-format is necessary before using if the Card was formatted with non-compliant format.

1. Insert Memory Card slowly to the slot with proper position (contacts on behind and notch on left bottom).
2. Push “FILE” Switch in Function Switches on top side of LCD. Push [MEM.CARD SAVE/LOAD] Switch on LCD menu.

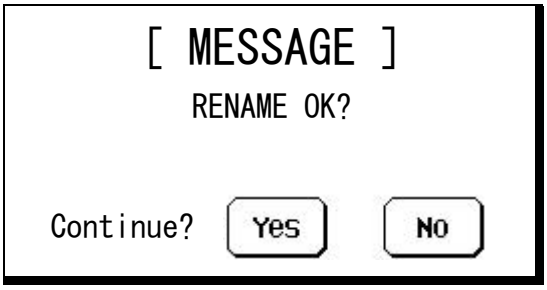


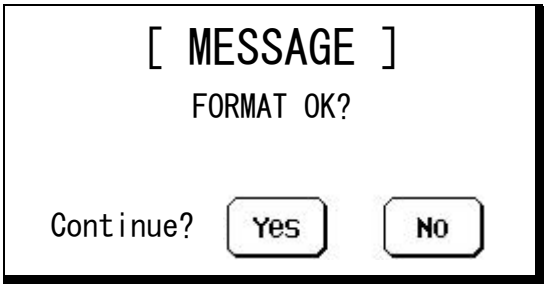
3. To format SD Card, press M.Card Format Switch a couple of seconds.
   To change name of SD Card, press M.Card Rename.
   LCD Display will change to Card Name Input Screen as following and cursor will come up to input. The card name can be changed at the format.
4. Input Card Name.

Reference Refer “9.4 Memory Card Name / File Name Operation” for input procedure of Card Name.



5. Push [Execute] switch and message widow will come up.

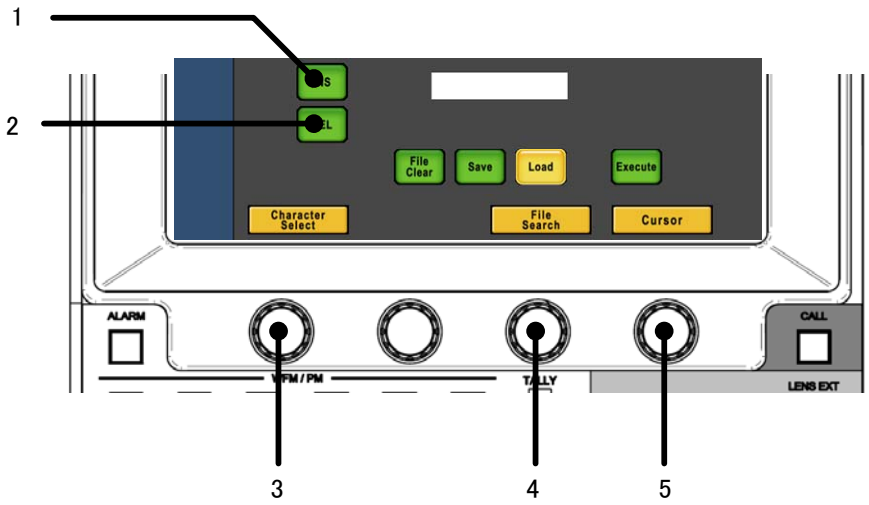




6. If [Yes] switch is pushed, card name will be changed immediately at the card name change, or format will be done immediately at the formatting. Buzzer will beep after execution is completed. Press [No] Switch it stop formatting.

9.4 Memory Card Name / File Name Operation

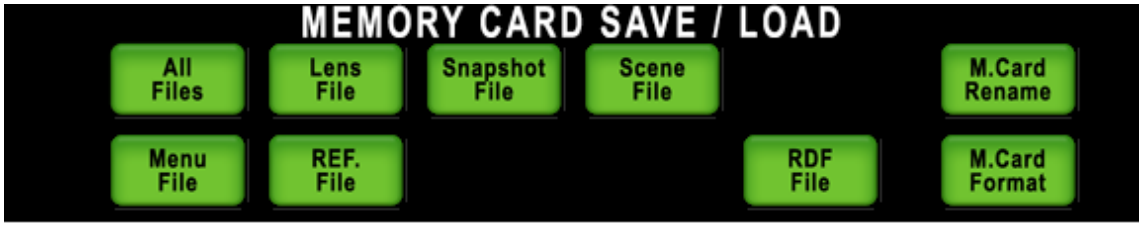
Naming to Memory Card or Files is available.
11 letters for Memory Card naming and 8 letters and 3 letters of extension for File naming are available.
Below alphabets, numerals and symbols can be used:
Characters: ABCDEFGHIJKLMNOPQRSTUVWXYZ!#$%&'( )+-=@[ ]^_{}0123456789
If no File Name is input, the File Name will be "NONAME**" automatically.
(** is a program number for the connected camera.)



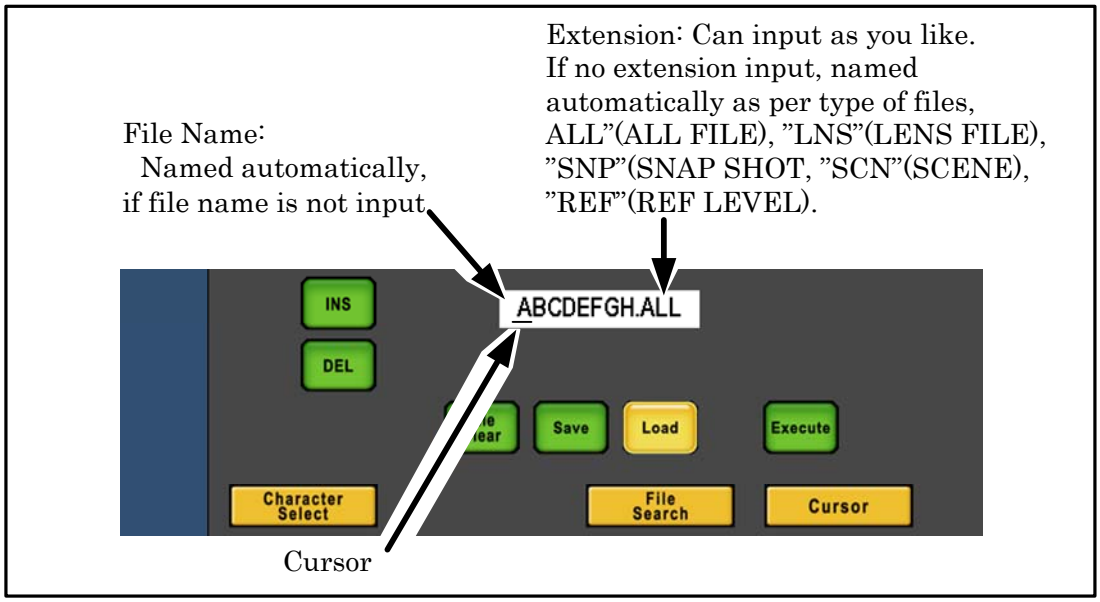
1. Insert Switch : Insert one letter of (_) to letters.
2. Delete Switch : Delete one letter.
   Or, keep pushing to delete all input letters.
   (Extension will not delete for file name input)
3. Cursor Control : Move Cursor.
4. File Search Control : Search the File.
5. Character Selection Control : To select input letters from Alphabets, Numerals or Symbols.

9.5 File Data Save to Memory Card

1. Insert Memory Card to the slot.
2. Push “FILE” Switch in Function Switches on top side of LCD. Push [MEM.CARD SAVE/LOAD] Switch on LCD menu.



3. Select and push the switch for the type of data to be saved.
   ・In case of all Data File, push [ALL Files] switch.
   ・In case of Lens File, push [Lens File] switch.
   ・In case of Snap Shot File, push [Snapshot File] switch.
   ・In case of Scene File, push [Scene File] switch.
   ・In case of Menu File, push [Menu File] switch. （Not working yet）
   ・In case of Reference Level File, push [REF. File] switch.
4. Turn [Save] switch to “ON”.



5. Input File Name by using switches on LCD and Rotary Encoder Knob.
6. Push [Execute] switch.
   [Execute] Switch will light and File Name and Execution Status will be displayed on LCD screen. File Data will be saved.

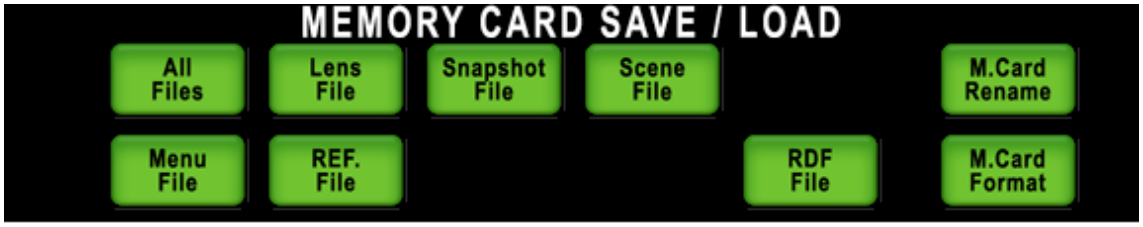
At the completion, the indication will come up on LCD screen and buzzer will beep. The indication will disappear 1.5 sec later.

Note If the same file name is existed, below warning message will come up. Push [Yes] to overwrite. Or, push [No] to cancel saving.

CAUTION Please confirm the clock on the information screen when you preserve critical data. It becomes the time stamp of the file on the SD card.

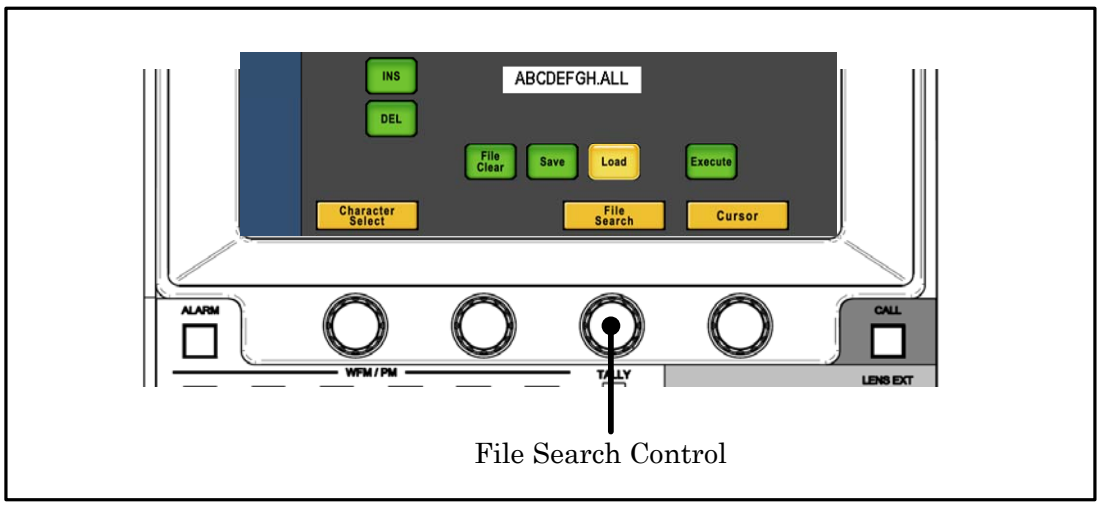
9.6 File Data Loading from Memory Card

1. Insert Memory Card to the slot.
2. Push “FILE” Switch in Function Switches on top side of LCD. Push [MEM.CARD SAVE/LOAD] Switch on LCD menu.

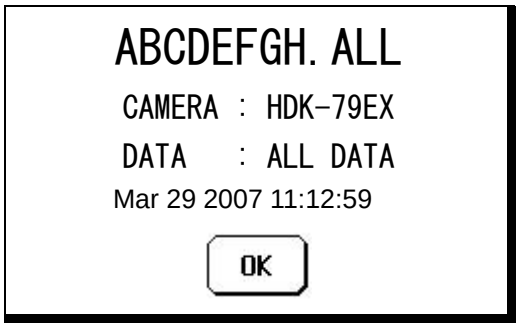


3. Select and push the switch for the type of data to be loaded.
   ・In case of all Data File, push [ALL Files] switch.
   ・In case of Lens File, push [Lens File] switch.
   ・In case of Snap Shot File, push [Snapshot File] switch.
   ・In case of Scene File, push [Scene File] switch.
   ・In case of Menu File, push [Menu File] switch. （Not working yet）
   ・In case of Reference Level File, push [REF. File] switch.
   ・RDF File Switch is used for firmware updating of each equipment.
4. Turn Load switch to [ON].
5. Rotate for File Search Control Knob to choose the needed file. Or, input new File Name buy using LCD switch, Cursor Control Knob and Character Selection Control select Knob.

Note By using search function, needed file can be found. For example, if initial of File Name “AB” is input and rotate File Search Control Knob, search function activates to find the file of which has initial “AB”. By similar way, File Search is available with Extension.



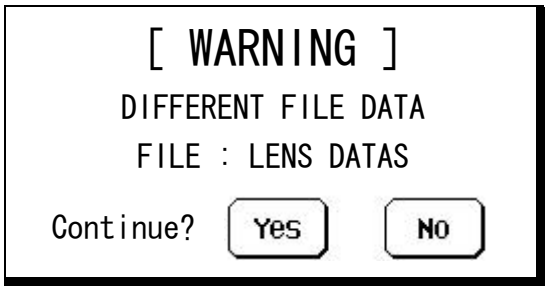
Note Push Name of File Data to indicate File Data information and it allows to see Camera Model Name and Type of File. And if CONTROL/SELECT Knob is rotated, following data will be indicated continuously.



6. Push [Execute] switch.
[Execute] Switch will light and File Name and execution status indication will come up. File Data will be loaded.

At the completion, the indication will come up on LCD screen and buzzer will beep. The indication will disappear 1.5 sec later.

Note If file type is different, needed file can not be read out. For instance, Lens Data file can not be read out for SNAP SHOT data and below warning will come up.



If [YES] is pushed, below warning will come up. It is unable to read out in this case. Push [OK] to cancel.

The File Data saved as ALL DATA can be read out for another file type.
(Below example shows that an All DAT is read out for SNAP SHOT data)
Push [YES] switch in below window.

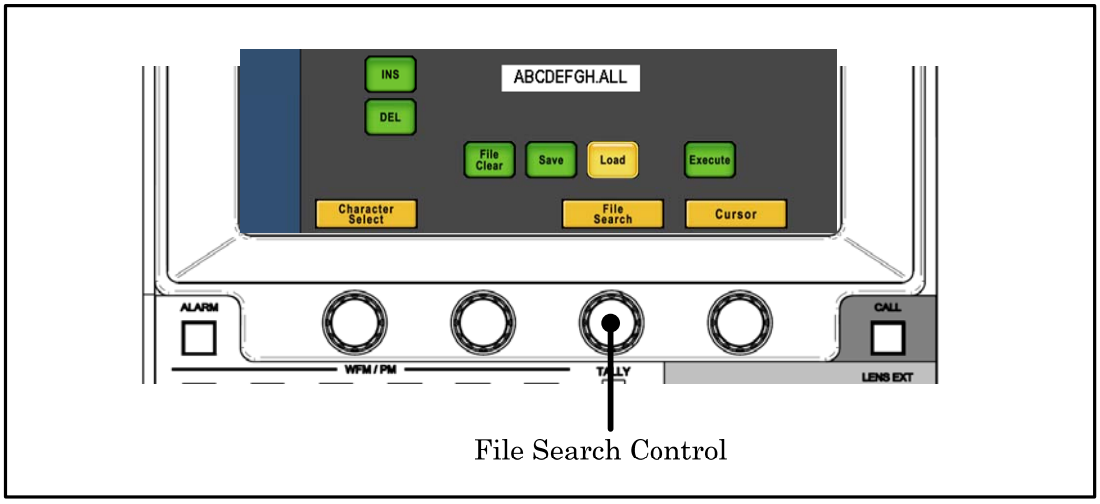
When RDF will be read out, following warning will come up. The file is inhibited to read out in this case. Press [OK] to clear the warning.

9.7 Delete of File Data from Memory Card

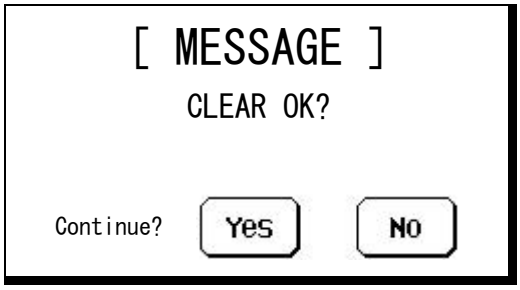
Delete of Data File from Memory Card is done with following procedure.
The deleted File Data can not be retrieved. Then attention to delete Data Files.

1. Insert Memory Card to the slot.
2. Push “FILE” Switch in Function Switches on top side of LCD. Push [MEM.CARD SAVE/LOAD] Switch on LCD menu.

3. Select each of switches to be deleted.
   ・In case of all Data File, push [ALL Files] switch.
   ・In case of Lens File, push [Lens File] switch.
   ・In case of Snap Shot File, push [Snapshot File] switch.
   ・In case of Scene File, push [Scene File] switch.
   ・In case of Menu File, push [Menu File] switch. （Not working yet）
   ・In case of Reference Level File, push [REF. File] switch.
4. Turn [FileClear] Switch to “ON”.
5. Rotate for File Search Control Knob to choose the needed file. Or, input new File Name buy using LCD switch, Cursor Control Knob and Character Selection Control select Knob.



6. Push [Execute] switch.



7. Push [YES] to delete File Data. Or, push [NO] to cancel deleting.

CAUTION If type of file data is different, the file will be deleted.

9.8 Update of firmware that uses memory card

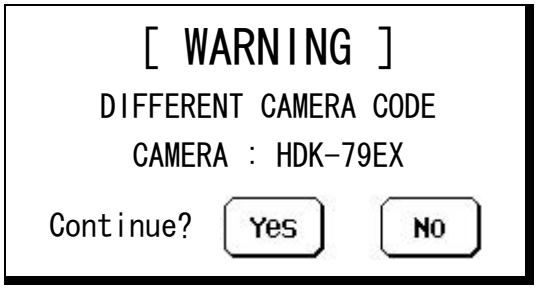
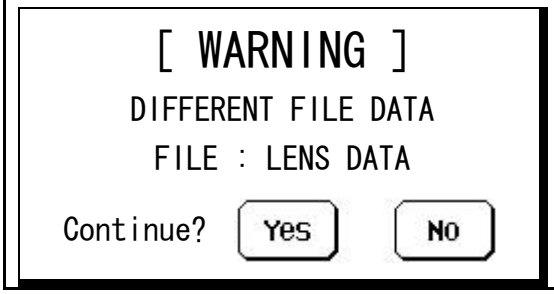
By using SD Memory Card, OCP, firmware of connected Camera Head and BS/CCU can be updated.

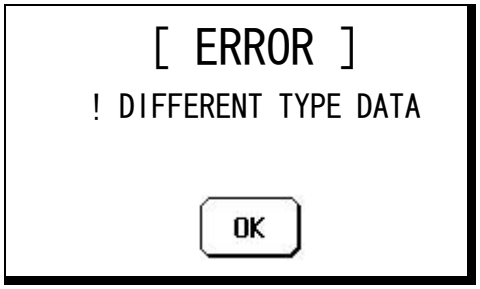
Reference Refer to “17. FIRMWARE UPDATE” for the detail.

9.9 Message Indication

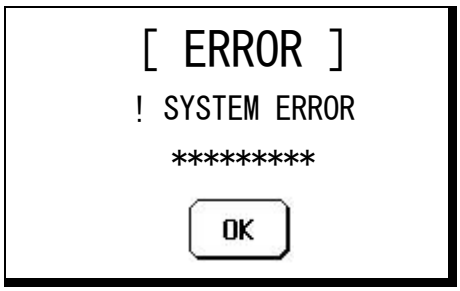
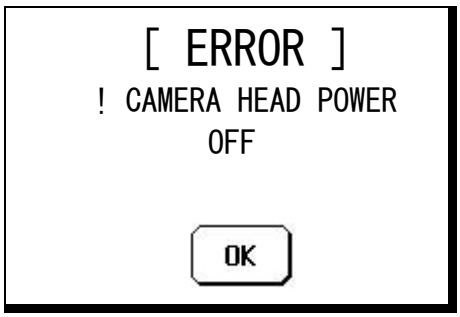
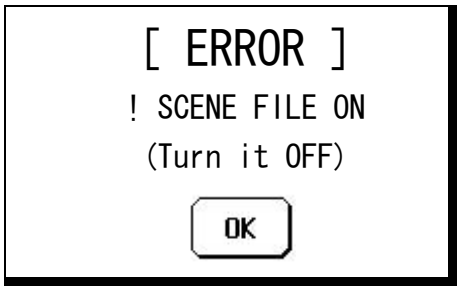
Following message window will come up at the Memory Card Operation of save, load or delete. Find details as below:

[ERROR] Window will be released by pushing "OK".

Message	Description
[WARNING] 	Same File Name is already existed in the Memory Card. Push [YES] switch to overwrite.
	At the data read out, this message will come up when the file was created for different model of camera. Push [Yes] to read out.
	At the data read out, this message will come up when the different type of data is selected.

Message	Description
[ERROR] 	Data read out is unable because File Type of Data is different.
	No file is existed in Memory Card when File data is read out.
	Any system error happens in Memory Card system.
	Type of File Data is different.

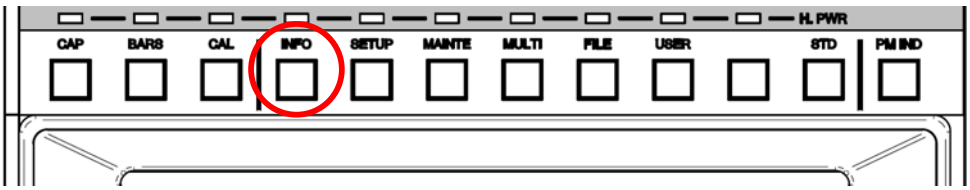
Message	Description
[ERROR] 	No proper data is not existed at the data read our.
	Data File is broken at the data read out.
	File data can not be created at the data saving.
	File Name of data can not be supported.

Message	Description
[ERROR] 	Any problem happed in file data processing of the Camera System. · "COMMAND TROUBLE" : Any problem in communication processing path. · "CAMERA DATA NOT FOUND" : Needed data is not existed in Camera Head at the data save. · "FILE CLEAR" : Existing File Data is deleted by any failure at File Data overwriting at the data save.
	Write Protect Sticker is attached on Memory Card at Data Save/Delete.
	Camera Head Power OFF at Data Save/Load..
	Scene File is ON at Data Save/Load. Turn Scene File OFF before Data Save/Load.

10. INFORMATION

MCP-200 has Information function which displays status of Camera Head or BS/CCU such as ON/OFF setup etc. on LCD screen.

To display INFO page, press “INFO” Switch in functions switched on top side of the panel.

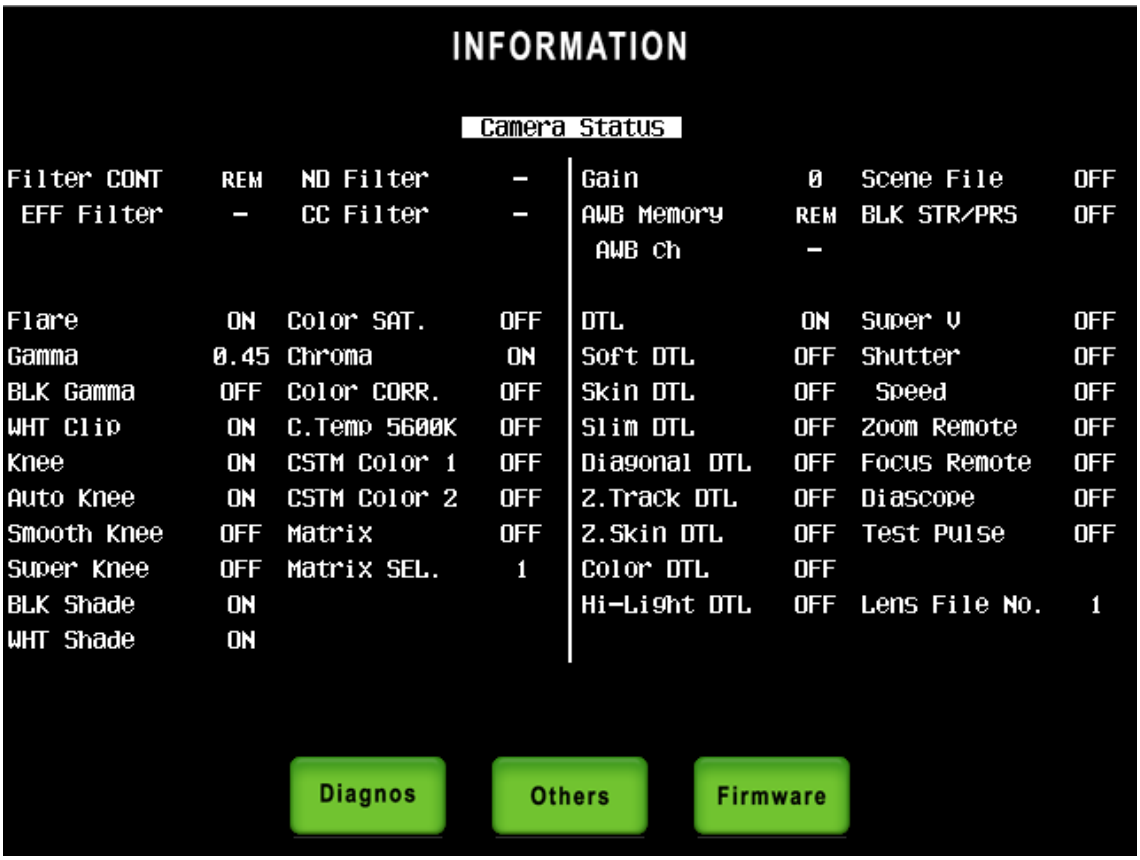


10.1 INFORMATION Page Configuration

・Camera Status

ON/OFF setting of Camera Head is displayed.

Default setting item is displayed with white letters, but non default setting is displayed with red letters on white background. Not available functions are displayed with “–” symbol. If the information can not be sent because of camera power off, “–” symbol is also displayed.



CAUTION Camera Status display page doesn’t show all of camera function. Camera Control Function on top side and some of Select Switch Functions on middle of the panel of the panel and such as BARS ON/OFF and GAIN UP etc.

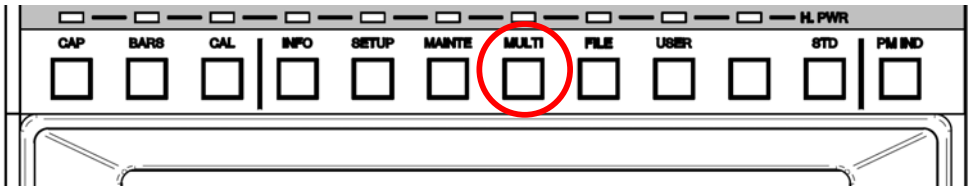
Camera Status Default Setting Table

Description	Default	Description	Default
Filter CONT	–	Gain	0dB
ND Filter	–	AWB	Remote
CC Filter	–	AWB ch	Ach
EFF FILTER	–	Scene File	OFF
		BLK STR/PRS	OFF
FLARE	ON	DTL	ON
GAMMA	0.45	Soft DTL	OFF
BLK GAMMA	OFF	Skin DTL	OFF
W.Clip	ON	Slim DTL	OFF
Knee	ON	Diagonal DTL	OFF
Auto Knee	ON*1	Z.Track DTL	OFF
Smooth Knee	OFF	Z.Skin DTL	OFF
Super Knee	OFF	Color DTL	OFF
BLK SHADE	ON	Hi-Light DTL	OFF
WHT SHADE	ON		
Color SAT.	OFF	Super V	OFF
Chroma	ON	Shutter	OFF
Color CORR.	OFF	Speed	–
C.Temp 5600K	OFF	Zoom Remote	OFF
CSTM Color 1	OFF	Focus Remote	OFF
CSTM Color 2	OFF	DIASCOPE	OFF
Matrix	OFF*1	TEST PULSE	OFF
Matrix SEL	–		
		LensFile No.	–

Note Default setting is the same as setting by Clear to Standard of Standard function. A standard setting can be changed about the item of *1.

Reference Refer to “16. Panel Setup (Panel Config.)”

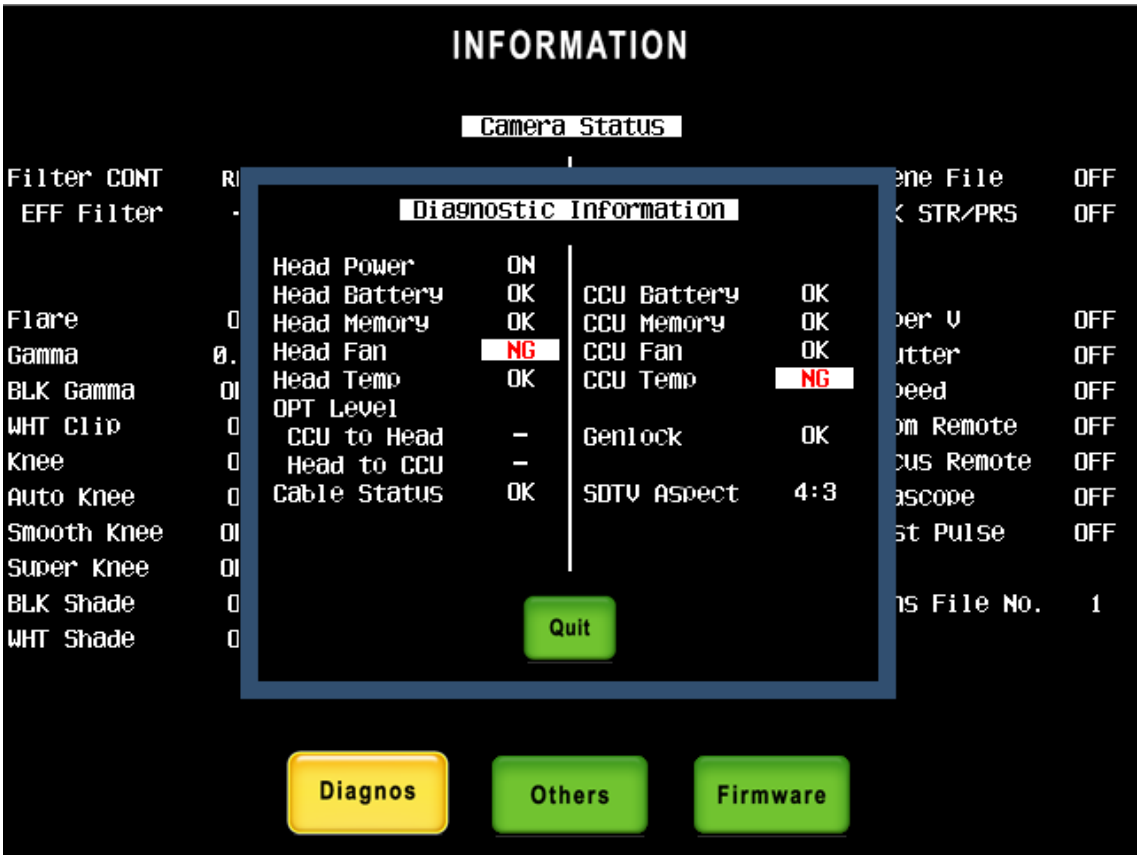
Note It is possible to shift to the Multi Camera Status screen by pushing the “MULTI" Switch in Function Switches on top side of LCD.



Reference Refer to “14.7 Multi Camera Status Indication” for detail.

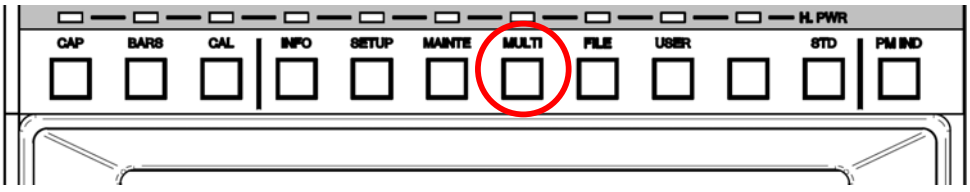
▪ Diagnostic Information

Simple Daiagnos can be displayed by pushing the Diagnos switch under the information page in the pop up window. This function enables to confirm the Diagnos partially on the system of which PM(Picture Monitor) doesn't connect to BS/CCU.



CAUTION With some type of BS/CCU, simple Diagnostic page on OCP may not be displayed, even though Diagnostic information is displayed on PM(Picture Monitor). This is not trouble but OCP could not get Diagnostic information from BS/CCU, because previous BS/CCU doesn't support this function.

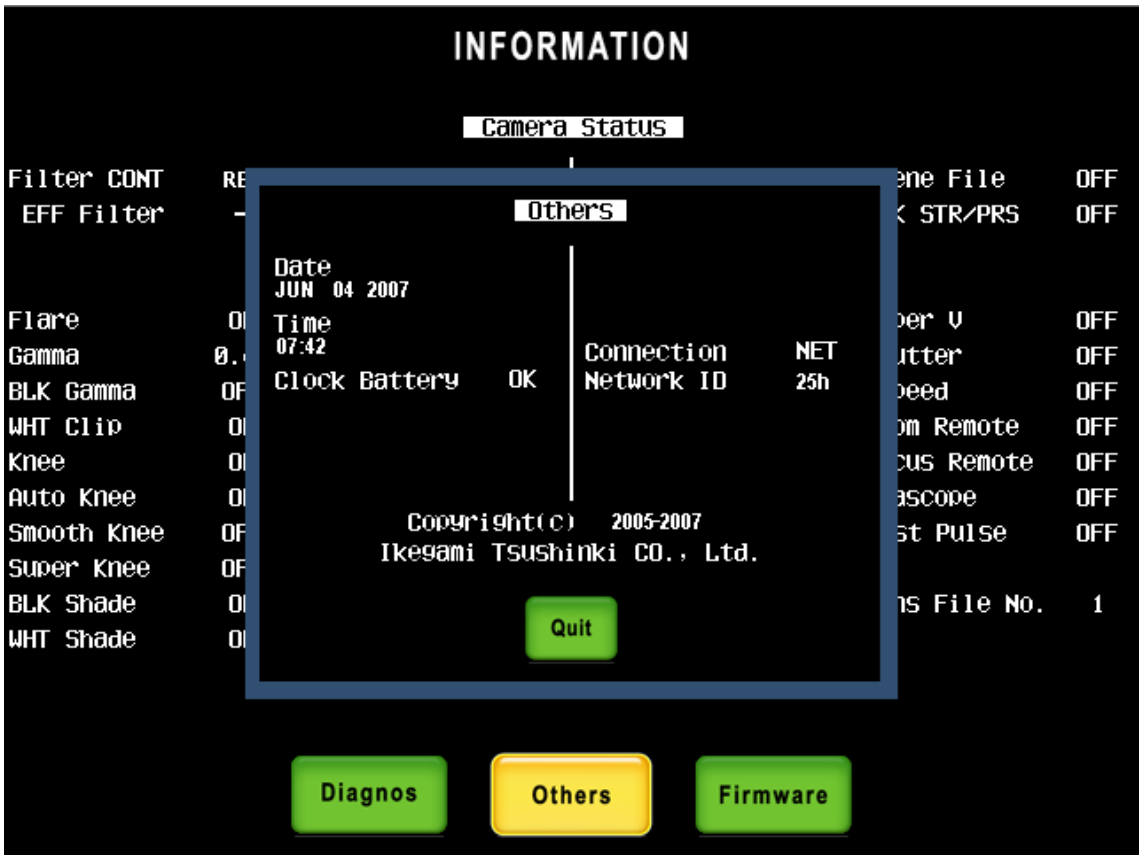
Note It is possible to shift to the Multi Diagnos screen by pushing the "MULTI" Switch in Function Switches on top side of LCD.



Reference Refer to "14.9 Multi Diagnos Display" for detail.

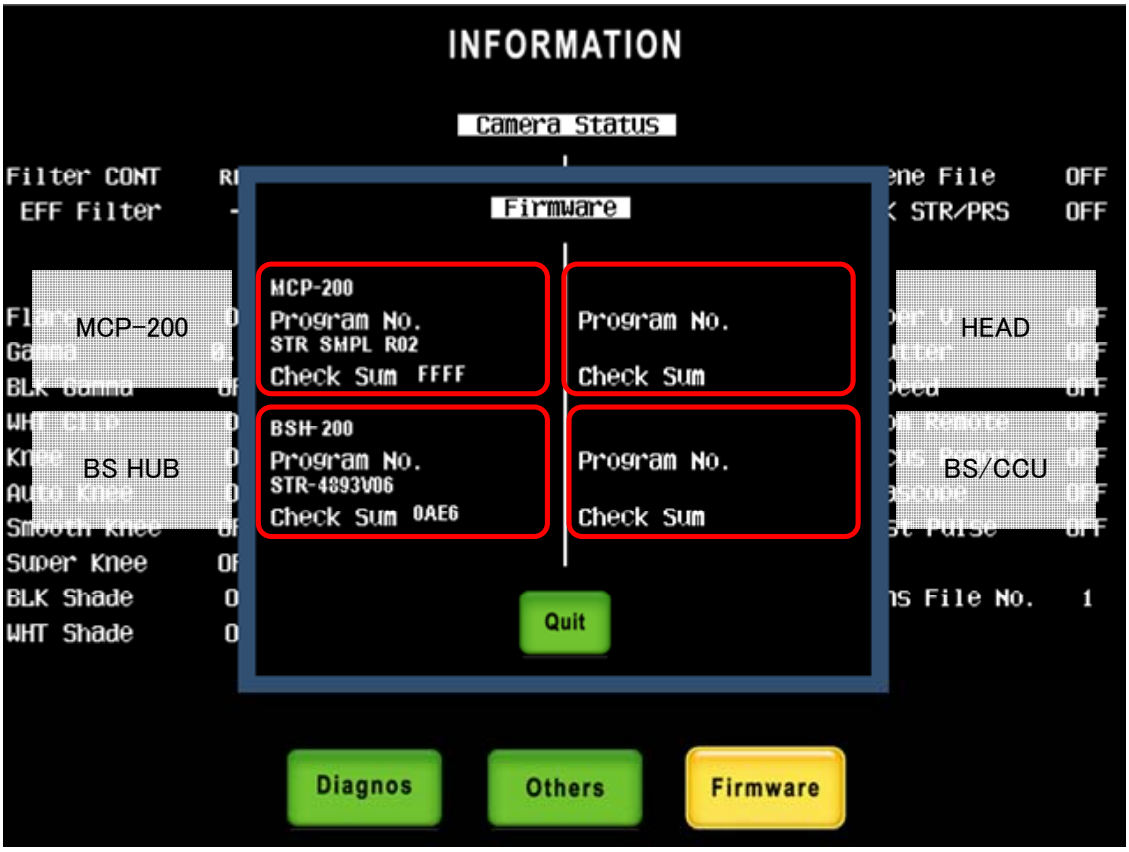
▪ Others

The extra information can be displayed by pushing the Others switch under the information page in the pop up window. The other information is also displayed as Others items such as Clock, Clock Battery Condition, OCP connection type and Network ID.



▪ Firmware

Not only OCP-200, but also program no. of firmware for connected equipment can be displayed.



Note It corresponds to 2G byte of the SD memory card when "(SD-2G)" is displayed after the character of MCP-200

CAUTION Only available with equipment which supports command function.port this function.

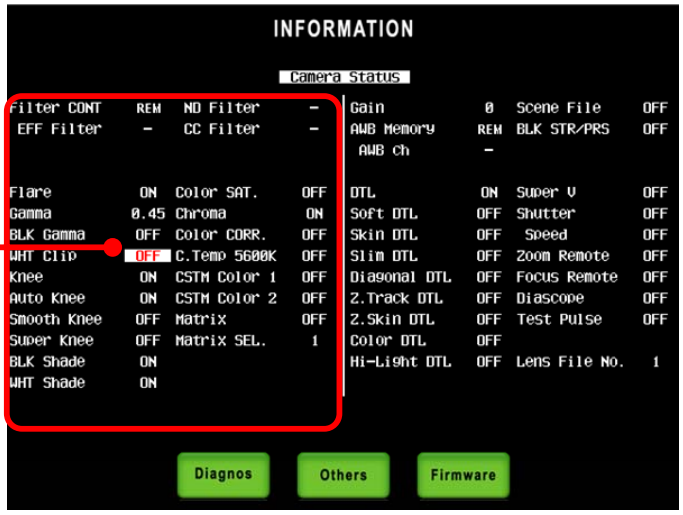
10.2 Direct jump function

Camera Status pages have direct jump function. LCD screen has touch switch function. By pressing right side or left side of screen, it can be direct jump to MODE SWITCH Control Page(SETUP).

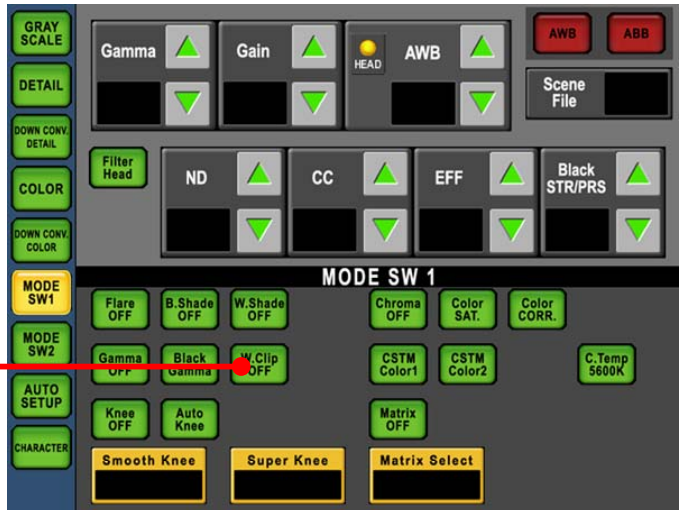
Left Side of Camera Status will be jumped to MODE SWITCH 1 page,
Right Side of Camera Status will be jumped to MODE SWITCH 2 page,
with each function groups.

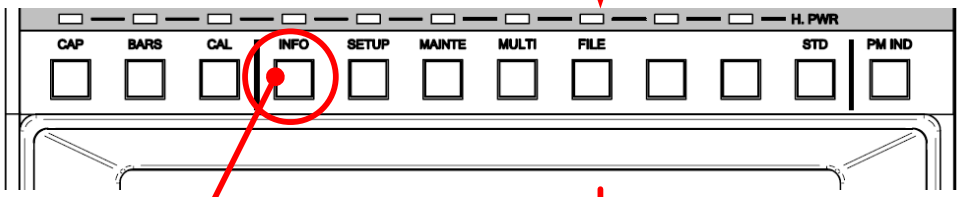
For instance, after checking WHT Clip OFF in Camera Status page, then, if you want to change to ON, press left side of LCD screen. The menu page will be direct jump to MODE SWITCH 1 page. And press WHT Clip to ON and press INFO Switch to back to Camera Status page.

1.Press right(left) side of screen.

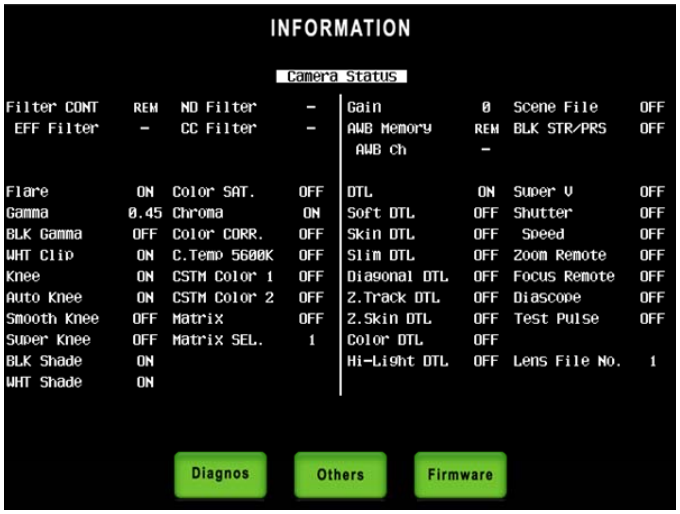


2. Press W.Clip OFF Switch to ON.





3. Press INFO Switch



11. CONTROL DEPTH SETTING

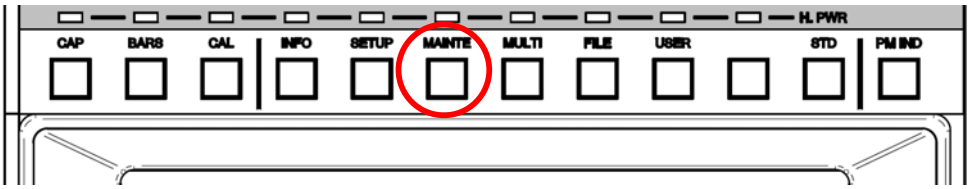
11.1 Outline

Control Depth of OCP-200 can be set for below four levels.
Control depth setting is protected by password.

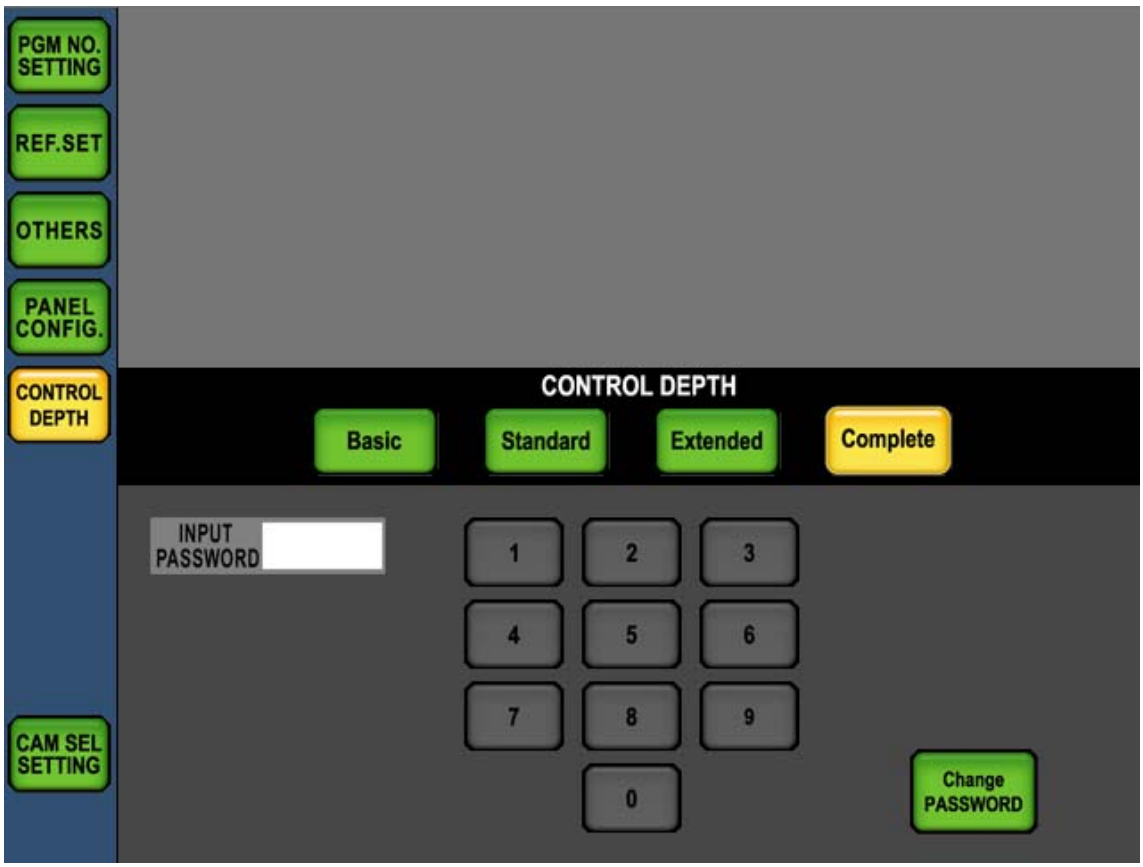
① **Basic** : Switch and knobs other than liquid crystal.
② **Standard** : Customized USER screen to camera operation in addition to Basic.
③ **Extended** : All of camera basis operation item.
(Excluding System Control, Reference File Creation, and Control Panel detail Setting)
④ **Complete** : No restrictions.

11.2 Setting procedure of CONTROL DEPTH

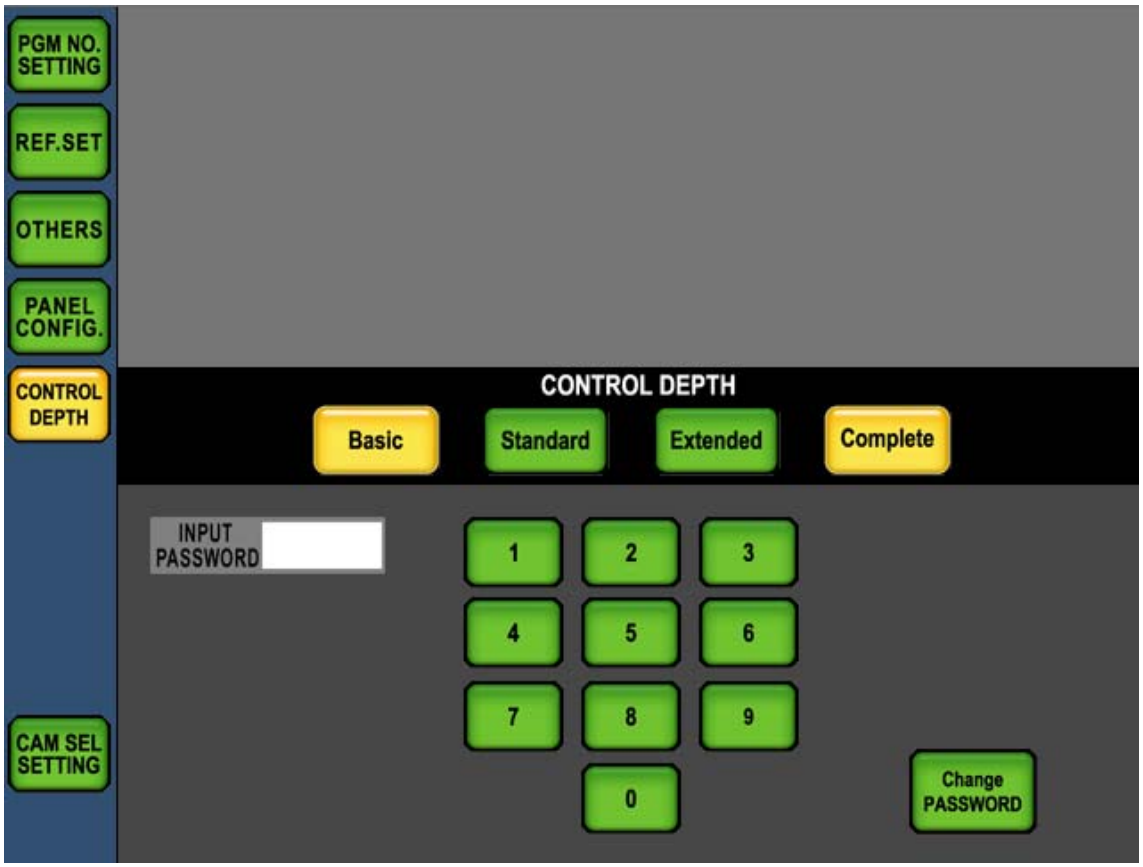
1. Push the "MAINTE" Switch from the FUNCTION Switches in the upper part of the LCD.



2. By pressing [CONTROL DEPTH] Switch, below screen will come up.
3. Default setting is selected for [COMPLETE] and full function can be operated.



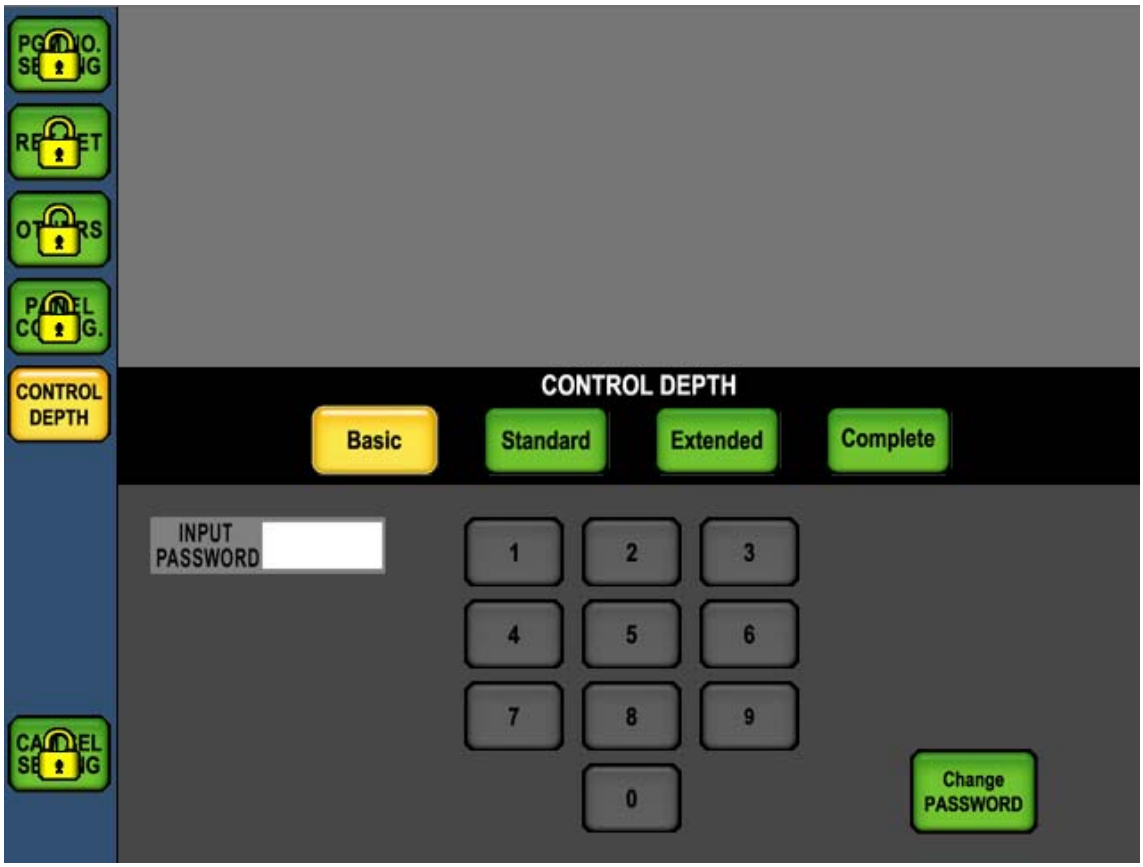
4. To change the control depth, select [Basic], [Standard], [Extended], [Complete] icons. The pushed switch blinks, the ten keys switch changes from the gray into green, and the password can be input.



5. Input password of four numerals, each of Control Depth can be selected if the input password is correct. In case of incorrect password, the input field will be cleared. To clear password input page, push Cancel Switch to back to previous operating page without Control Depth change.

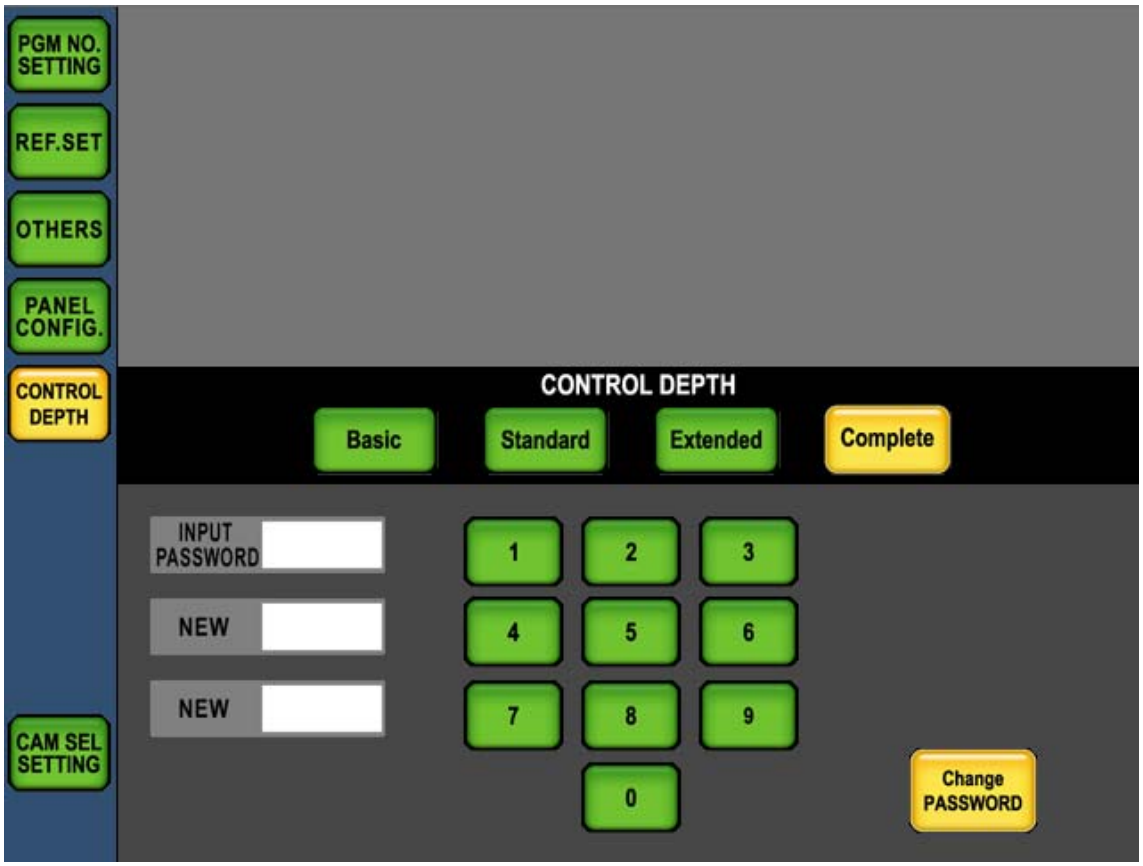
＊ Default Password is [0][0][0][0].

The symbol of Lock mark is displayed on the icons of prohibited functions. If the prohibited icon is pushed, buzzer beeps and operation is disenabled. And prohibited hard switch is pushed, it reacts the same.



11.3 Changing the password

The following screen will come up when Change [PASSWORD] icon in CONTROL DEPTH screen is pushed.



If you input current password of four numerals (factory default password is [0] [0] [0] [0]), and input password is correct, you will be able to change to new password. To confirm new password, input new password into bottom input field again. After completing those new password input, it will return to the CONTROL DEPTH screen.
If wrong password is input, input field will be cleared.
To return to the CONTROL DEPTH screen without inputting a password, push [Change PASSWORD] switch.

Note At the emergency situation to release control limitation if Password is forgotten or the person in charge is out, the setup can be cleared to back default setting.

Reference Refer to “18.3 Initial Factory Setting” for detail operation procedure.

11.4 The details of CONTROL DEPTH

Function Switch	Icons	Basic	Standard	Extended	Complete
INFORMATION	-----	△※1	△※1	○	○
OPERATION	-----	×	○	○	○
CAMERA SETUP	GRAY SCALE	×	×	○	○
	DETAIL	×	×	○	○
	DOWN CONV. DETAIL	×	×	○	○
	COLOR	×	×	○	○
	DOWN CONV. COLOR	×	×	○	○
	CHARACTER	×	×	×	○
	MODE SWITCH 1/2	×	×	○	○
	SCENE FILE READ	×	×	○	○
	SCENE FILE STORE	×	×	○	○
	ON/OFF ,STEP CONT	×	×	○	○
	AUTO SETUP	×	○	○	○
MAINTENANCE	PGM NO. SETTING	×	×	×	○
	REF. SET	×	×	×	○
	OTHERS	×	×	×	○
	PANEL CONFIG.	×	×	×	○
	CONTROL DEPTH	○	○	○	○
	CAM SEL SETTING	×	×	×	○
MULTI	AUTO SETUP	×	○	○	○
	CAMERA STATUS	△※1	△※1	○	○
	DIAGNOS	○	○	○	○
	BASIC CONT	×	○	○	○
	GAIN CONT	×	○	○	○
	SCENE FILE READ	×	○	○	○
	SCENE FILE LOAD (FILE TRANS)	×	×	×	○
USER FUNCTION	FUNCTION	×	△※2	○	○
	PRESET	×	×	×	○
	AUTO SETUP	×	○	○	○
	ON/OFF ,STEP CONT	×	○	○	○
	SCENE FILE READ	×	○	○	○
	SCENE FILE STORE	×	○	○	○
STANDARD SET	-----	×	×	×	○
WFM / PM	-----	○	○	○	○
MAN. SET / CLR	MANUAL SET	×	×	○	○
	MANUAL CLEAR	×	△※2	○	○
ALARM	-----	○	○	○	○
CAMERA SELECT	-----	○	○	○	○
IRIS/ MPED CONT	-----	○	○	○	○

※1 Direct Jump is inhibited to MODE SWITCH.

※2 Only USER PAGE1

12. STANDARD FUNCTION

12.1 Outline

"STANDARD" Function will clear current setting of Camera Head and BS/CCU and back to standard setting by Control Panel operation. MCP-200 has two modes of Standard Function. They are "Clear to Standard" and "Recall Preset File".
"Clear to Standard" function sends existing commands for each control item.
"Recall Preset File" function sends new exclusive command to recall preset setting.

1) Clear to Standard

"Clear to Standard" function sends existing commands from MCP-200 for each control item in order to back Camera to standard setting. Then control item to be backed to standard setting is limited to be controlled from MCP-200.
If the special function is ON, that will be turned OFF forcibly by this function. Control data is cleared by being sent Manual Clear commands for each control item. Control parameters are back to the condition of Auto Set-up execution completed or the condition of Manual Set execution completed.

"Clear to Standard" function has two modes, Basic and Complete.

- Basic Mode
  To back to standard setting related to video and color level setting.
- Complete Mode
  To back phase setting and system related items in addition to Basic control items.

By the processing to send commands for each item, Standard function is available for Camera Head or BS/CCU which doesn't have Preset File function.

CAUTION Controllable items of Standard Function are decided by the specification of OCP. This function doesn't guarantee to cover latey developed function in the future. And some control items added by customer specification can not be backed to standard setting.

Note A standard setting can be changed about a part of function.

Reference Refer to "16. PANEL SET-UP(PANEL CONFIG.)" for detail of a standard setting change.

< Table of Clear to Standard function >

Basic Mode Function 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 *1	R/G/B/TOTAL KNEE POINT, R/G/B/TOTAL KNEE SLOPE
SUPER KNEE	OFF	
SMOOTH KNEE	OFF	
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 *1	R-G, R-B, G-R, G-B, B-R, B-G
MATRIX SELECT	1 *1	
COLOR CORRECTOR	OFF	R/Yl/G/Cy/B/Mg Hue, Sat

*1 A standard setting can be changed.

Basic Mode Function 2/2

Function	State	Manual Clear functions
SHUTTER	OFF	
VARIABLE SHUTTER	OFF	VARIABLE SHUTTER
IRIS REMOTE	ON	
AUTO IRIS	ON *1	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	

*1 A standard setting can be changed.

Complete Mode Function(Including Basic Mode)

Function	State	Manual Clear functions
SC PHASE		SC CR、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 *1	TA Y/Pb/PR

*1 A standard setting can be changed.

2) Recall Preset File

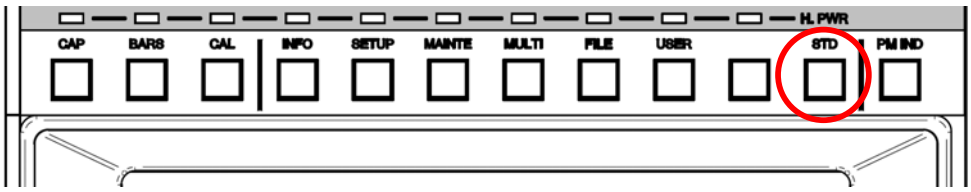
"Recall Preset File" function sends new exclusive command from Control Panel to recall Preset File previously stored in back-up memory.
There are Factory Data and User Data in Preset File, but some of Camera Head and BS/CCU doesn't have the Preset File function. Read-out from Preset File is done with each Camera Head and BS/CCU separately.

CAUTION This function is available for the Camera Head and BS/CCU which has capability to the exclusive command. Meantime, because Factory Data is the default setting, it can not be overwritten by the user operation.

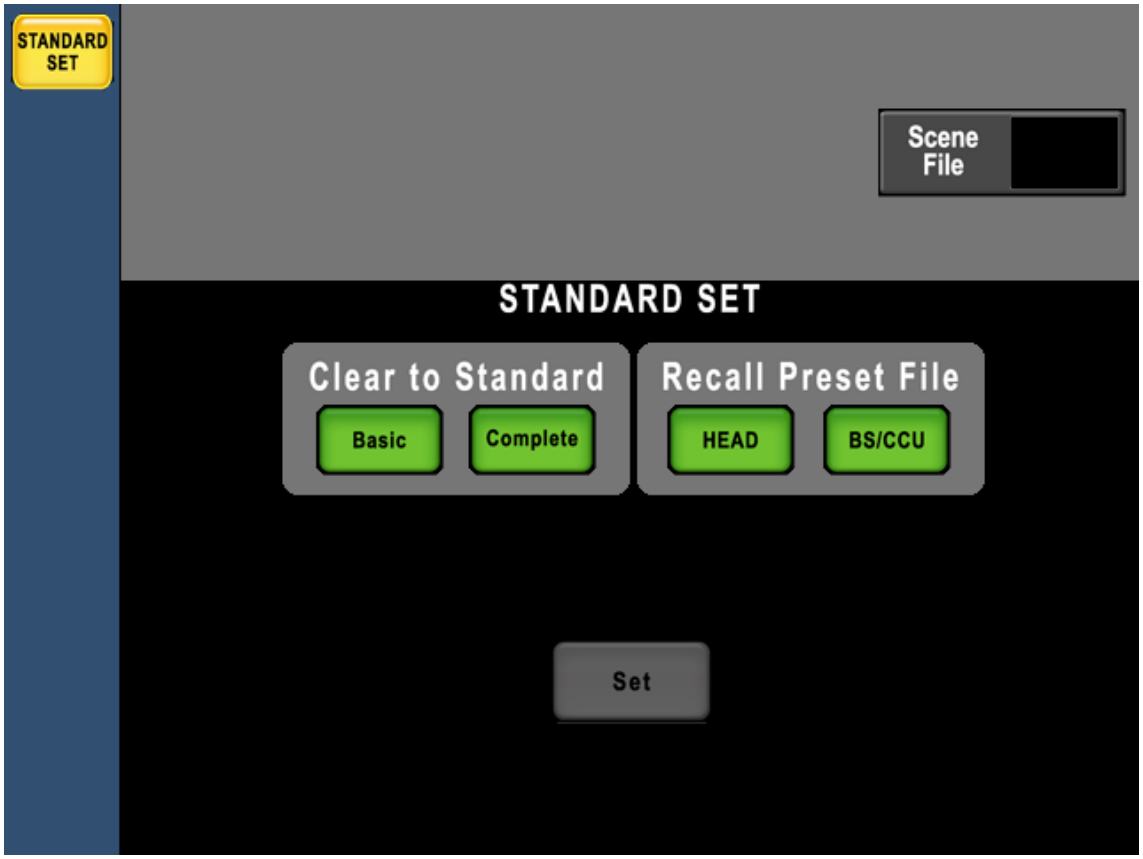
Reference Refer to Operation Manual of Camera Head or BS/CCU for storing procedure to save User Data to Camera Head and BS/CCU.

12.2 Operating Procedure

1. Press “STD” switch in Function Switches on top side of LCD.

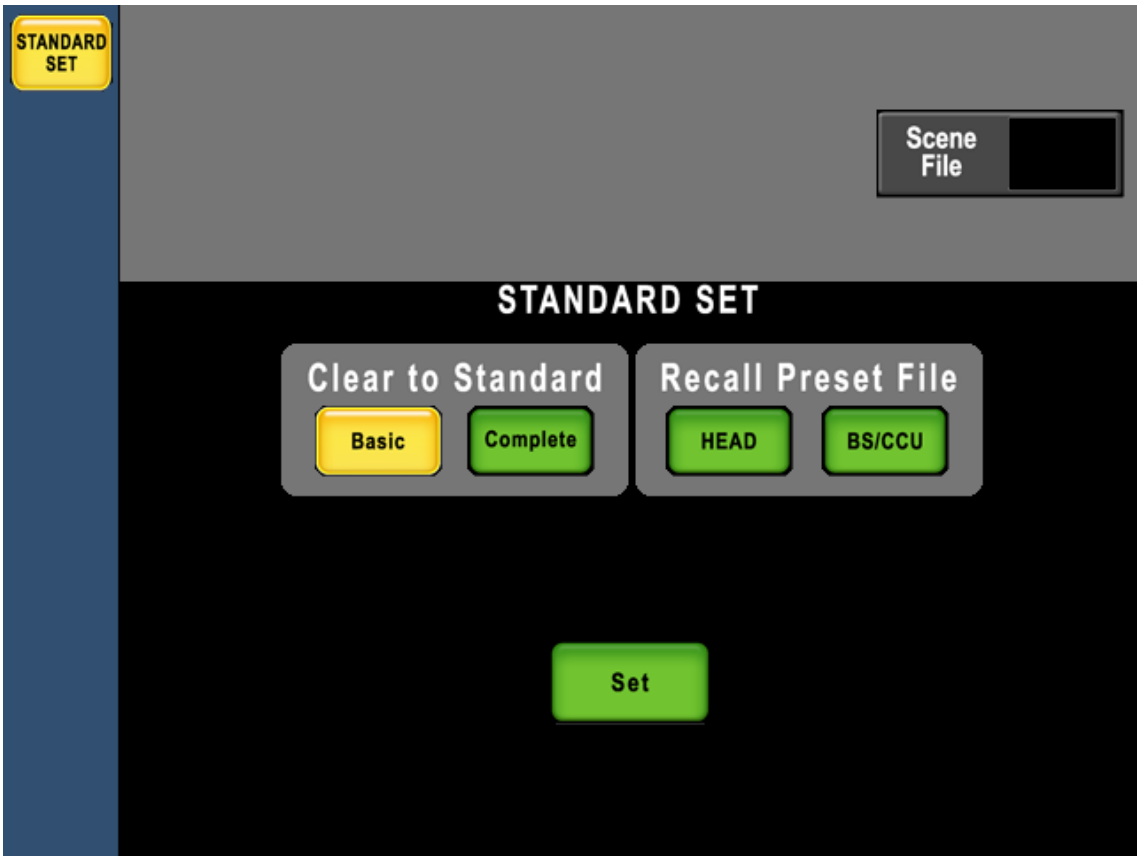


2. Below menu page comes up, and either Clear to Standard function or Recall Preset File function can be selectable.

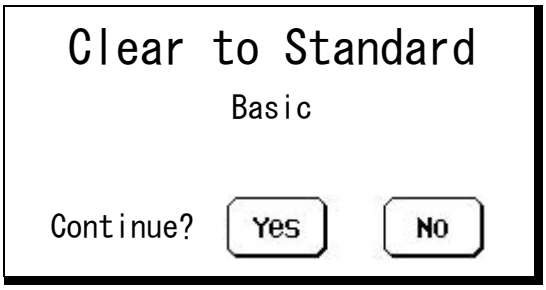


1) Clear to Standard

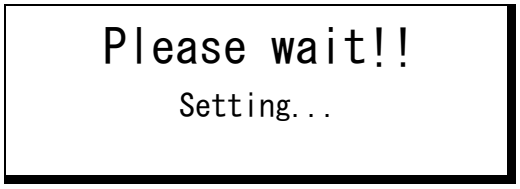
1. [Basic] or [Complete] switch is pushed according to the purpose.



2. [Set] the mode to turn Green if Control Item is selected. Press [Set] switch to appear “Pop-up Window” for the confirmation. If [No] is pressed, the menu will back to previous page without execution.



3. [Yes] to start execution.

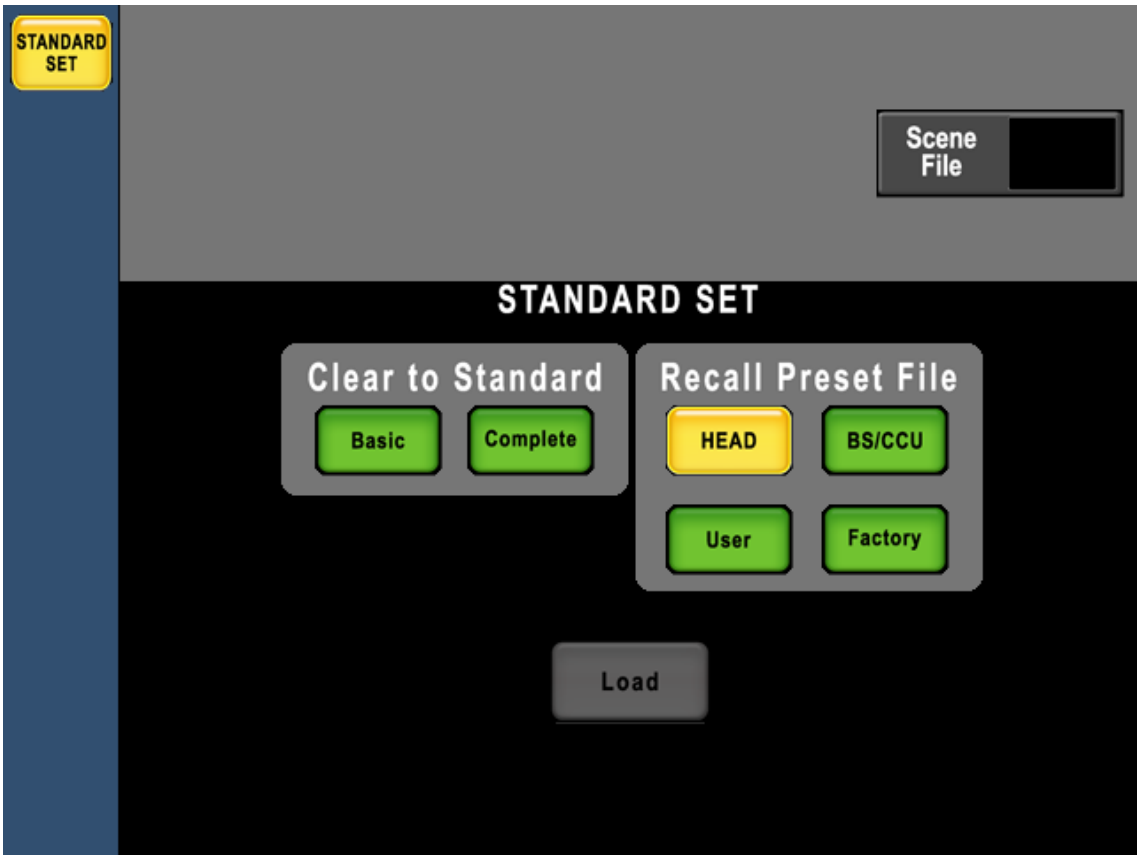


Pop-up window comes up until the execution completed to show processing going on.

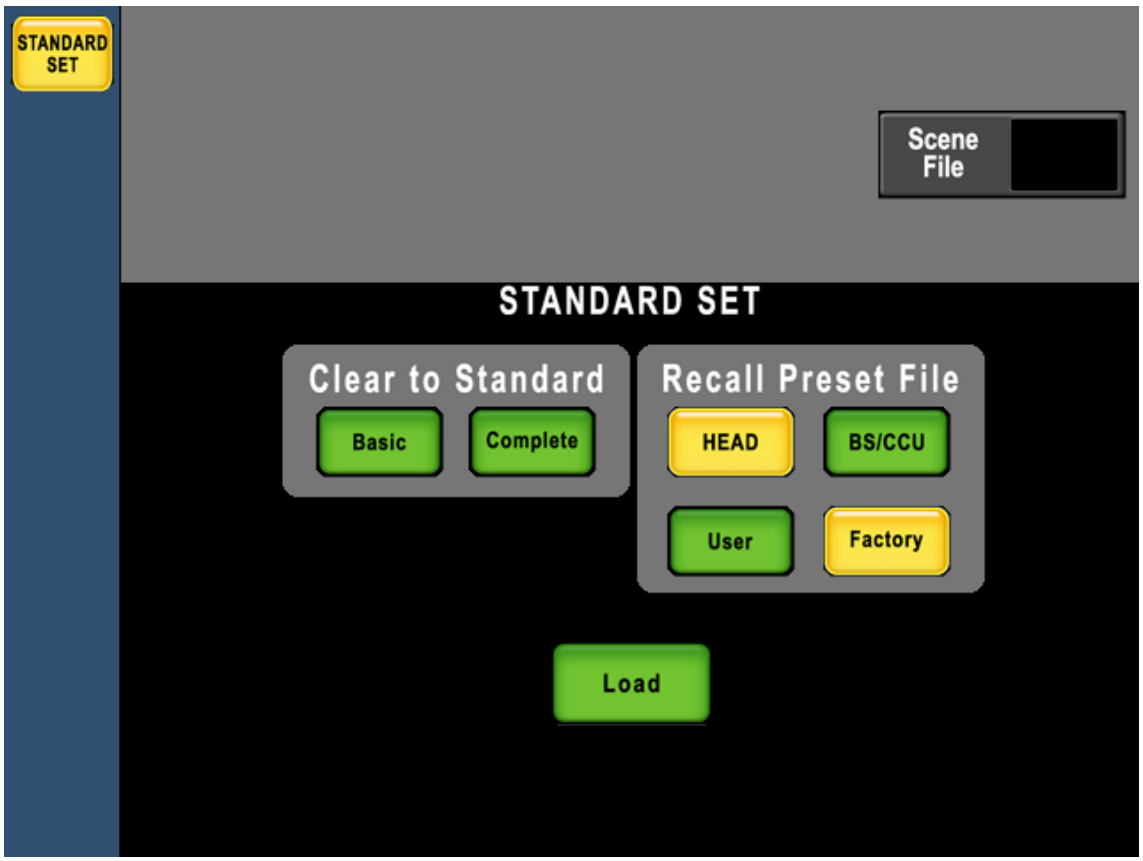
CAUTION It will take around 5 seconds for the processing because of sending each commands sequentially. If any control is done by another Control Panel connected in parallel on the processing, Standard Function may not work correctly.

2) Recall Preset File

1. Recall Preset File function can read out the preset file and HEAD and BS/CCU individually. Please push [HEAD] or [BS/CCU] switch according to the purpose.



2. The switch of [User] and [Factory] appears downward when the item is selected. Whether the user data is read or the factory data is read can be selected.
The switch becomes gray when the function is not provided and it is not possible to select it.



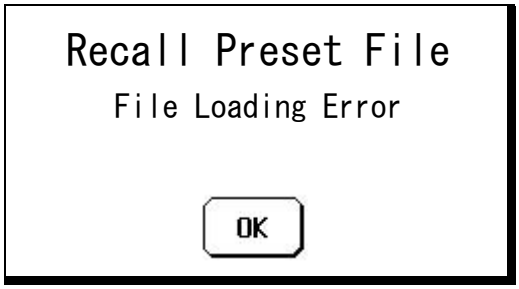
3. [Load] the mode to turn Green if Control Item is selected. Press [Load] switch to appear “Pop-up Window” for the confirmation. If [No] is pressed, the menu will return to previous page without execution.

4. Press [Yes] to start execution.

Pop-up window comes up until the execution completed to show processing going on.

Camera Head or BS/CCU sometimes doesn't accept Recall Preset File command by any reason, if the execution is attempted. In that case, Pop-up window will come up for attention. Press [OK] to confirm to continue the execution.

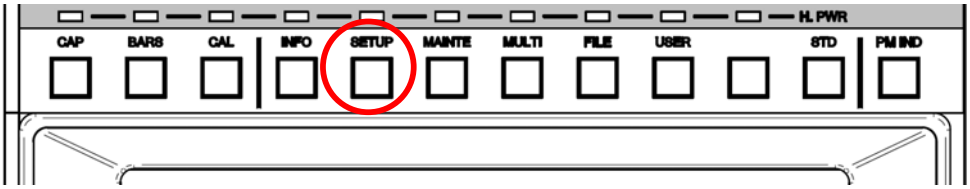
If error occurs in Preset File Loading, Pop-up window will come up for attention. Press [OK] to confirm to continue the execution.



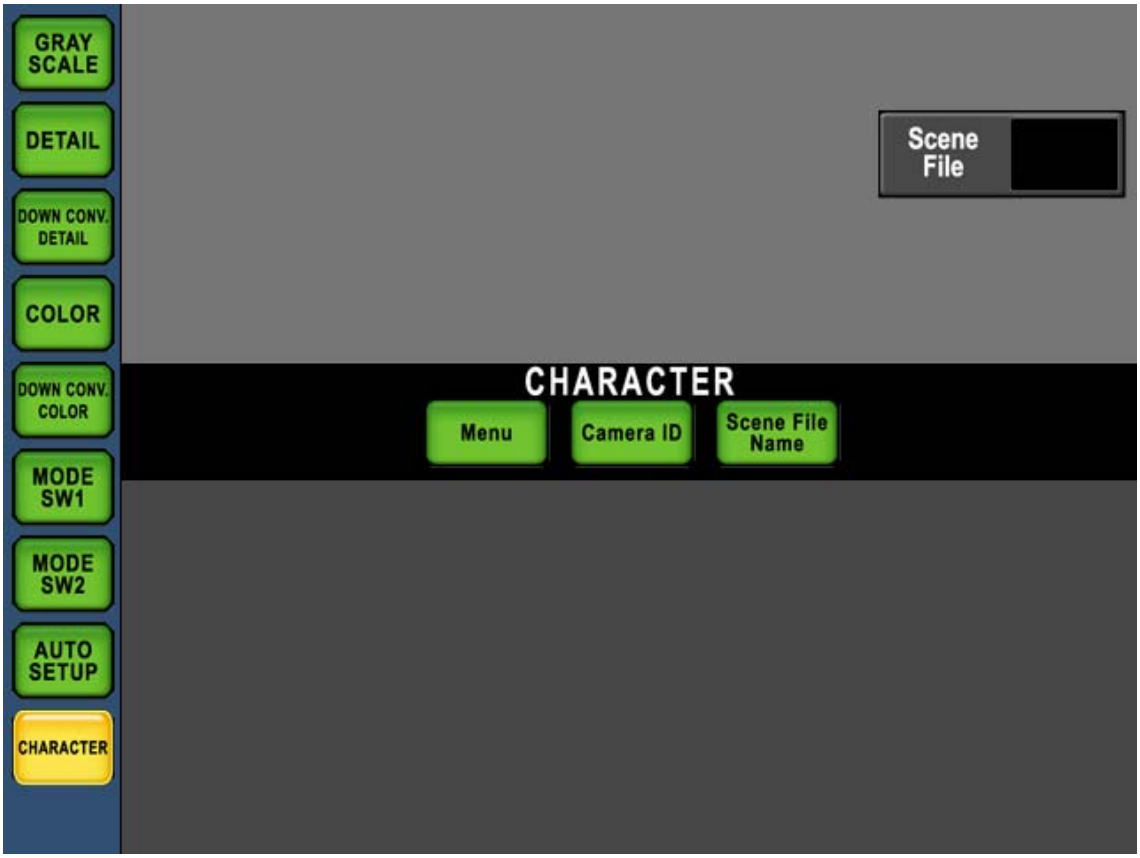
CAUTION After Preset File loading, Camera Head and/or BS/CCU may be reset automatically for initialize. In that processing, MCP may be Camera Select off or LCD screen off, but MCP is NOT in trouble. This is correct reaction because of unlocked command.

13. CHARACTER SETUP

1. Press “SETUP” switch in Function Switches on top side of LCD.



2. By pressing [CHARACTER] Switch,

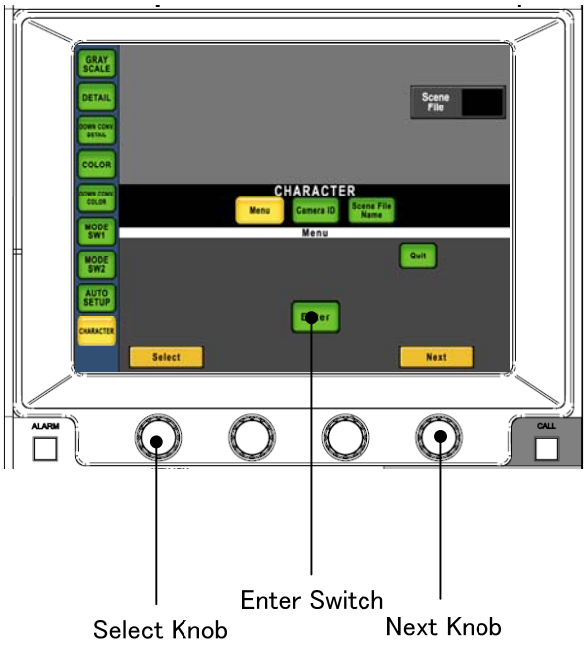


- **Camera Menu**
- **BARS TITLE**
- **CameraID**
- **Scene File Name**

…can be setup.

13.1 Camera Menu Setup

MCP–200



1. Press Menu Switch a couple of seconds. Main Menu will come up. In case of BS/CCU is connected, Menu of BS/CCU will be controllable. Menu of Camera Head will be controllable when Camera Head is connected directly.

```
*** 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. Rotate Select Knob or Next Knob to set blinking cursor to setting target and push Enter switch. Sub menu will come up.

```
          HDTV CONT (1/2)
QUIT
OUT FORMAT          1080I59.
2-3 PULL DOWN          TYPE A
VAR FRAME                 60
SYNC CONT                 OFF
HD OUT H PHASE            0
HD OUT V PHASE            0
SD OUT V PHASE            0
```

Setting item

Mode selection

3. Rotate Select Knob or Next Knob to set blinking cursor to setting target and push Enter switch. Blinking cusor will move to Mode Selection Field.

4. Rotate Select Knob or Next Knob to select the mode. Some setting items of are changed with Knob Rotation and The other setting items are entered by pushing Enter switch.

5. After all the setting is entered, Menu page should be closed.

The procedures are;

- Select and enter QUIT on PM screen by Menu control.
- Push Quit switch on LCD
- Push one of Function Switch on the top side of panel.

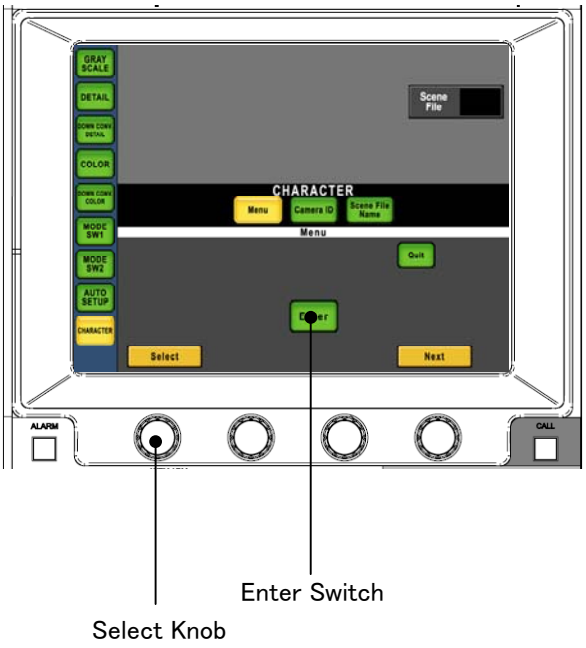
Note If it is not BARS ON, the menu is not displayed by the model of the camera head and BS/CCU.

13.2 BARS TITLE Entry

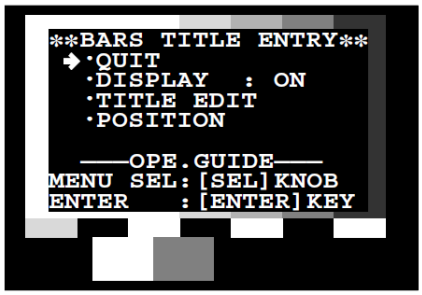
As per procedure of “13.1 Camera Menu Setup”, select “BARS TITLE” in Camera Menu.

1) Character ON/OFF selection of “BARS TITLE”

MCP−200

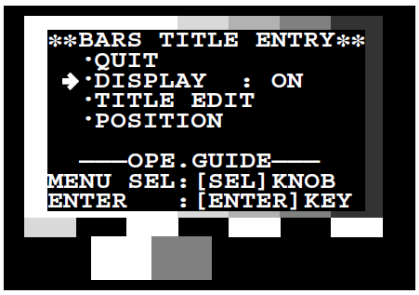


1. Select BARS TITLE from Main Menu to indicate BARS TITLE entry page on PM.



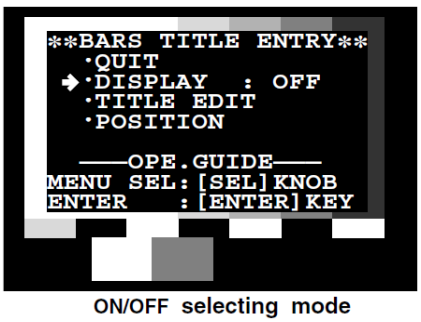
BARS TITLE ENTRY display

2. Rotate Select Knob to select "DISPLAY".



DISPLAY selected

3. Push Enter Switch to indicate ON/OFF selection mode, current setting(ON or OFFF) will blink.



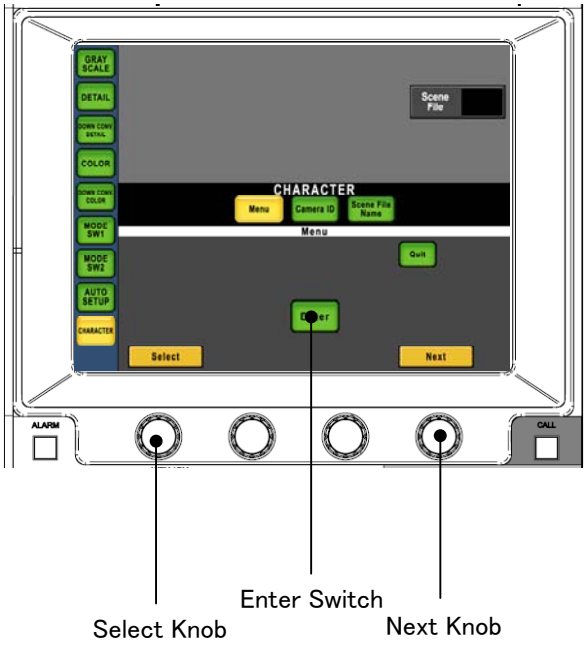
ON/OFF selecting mode

4. Rotate Select Knob to change ON/OFF setting.

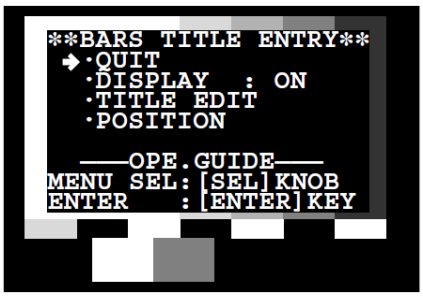
5. Press Ener Switch to leave from ON/OFF selection mode.

2) Editing of “BARS TITLE”

MCP-200

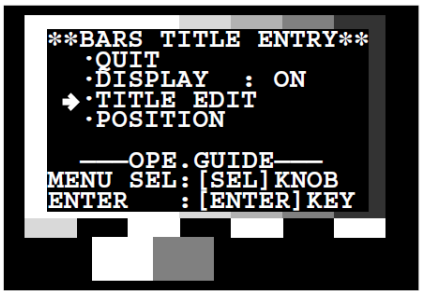


1. Select BARS TITLE from Main Menu to indicate BARS TITLE entry page on PM.



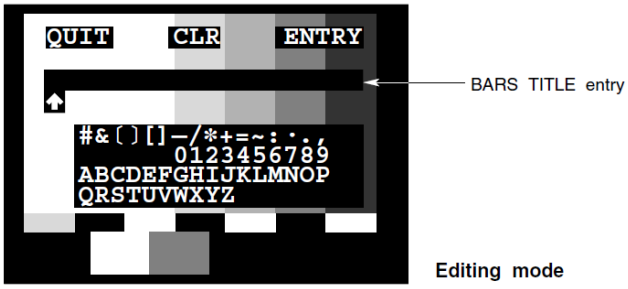
BARS TITLE ENTRY display

2. Rotate Select Knob to select "TITLE EDIT".



TITLE EDIT selected

3. Push Enter Switch to indicate Edit Mode Page and Page will be changed.



Editing mode

4. In this page, functionality of Select Knob, Next Knob and Entry Switch on LCD shows below;

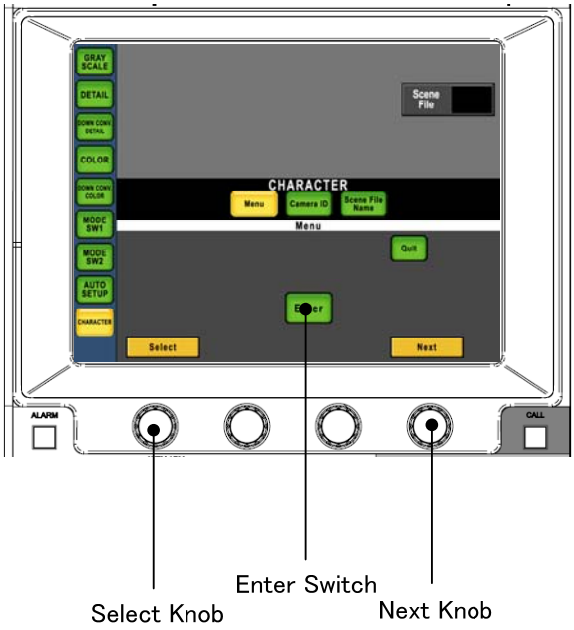
- Select Knob : Select character to be input.
- Next Knob : Set the poition for character entry, or select "QUIT", "CLR", "ENTRY".
- Enter Knob : Will be activated when "QUIT", "CLR" or "ENTRY" are selected by Iris Control.

5. By pressing Enter Switch, the action of below switches works as following.

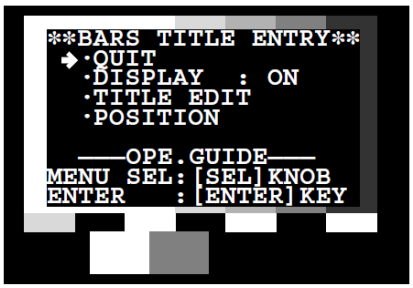
- [QUIT] : To become invalid Entered or Edited BARS TITLE, and leave from Edit mode(Previous BARS TITlE setting remainds).BARS TITLE
- [CLR] : To clear all BARS TITLE.
- [ENTRY] : To save entered and edited BARS TITLE, and leae from Edit mode. BARS TITLE are updated and displayed after the entry.

3) Character Location setting of “BARS TITLE”

MCP–200

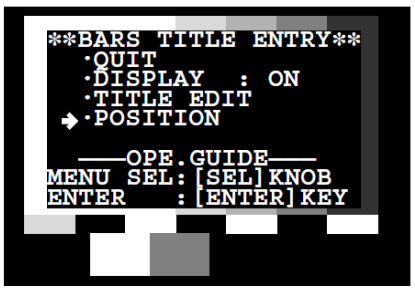


1. Select BARS TITLE from Main Menu to indicate BARS TITLE entry page on PM.



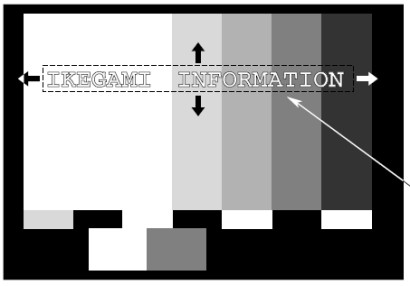
BARS TITLE ENTRY display

2. Rotate Select Knob to select "POSITION".



Display position setting mode (POSITION selected)

3. Push Enter Switch to indicate Position Setup Mode Page and Page will be changed.



BARS TITLE position

The title registered in [Editing BARS TITLE Characters] is displayed on the color bars.

4. In this page, functionality of Select Knob, Next Knob and Enter Switch shows below.

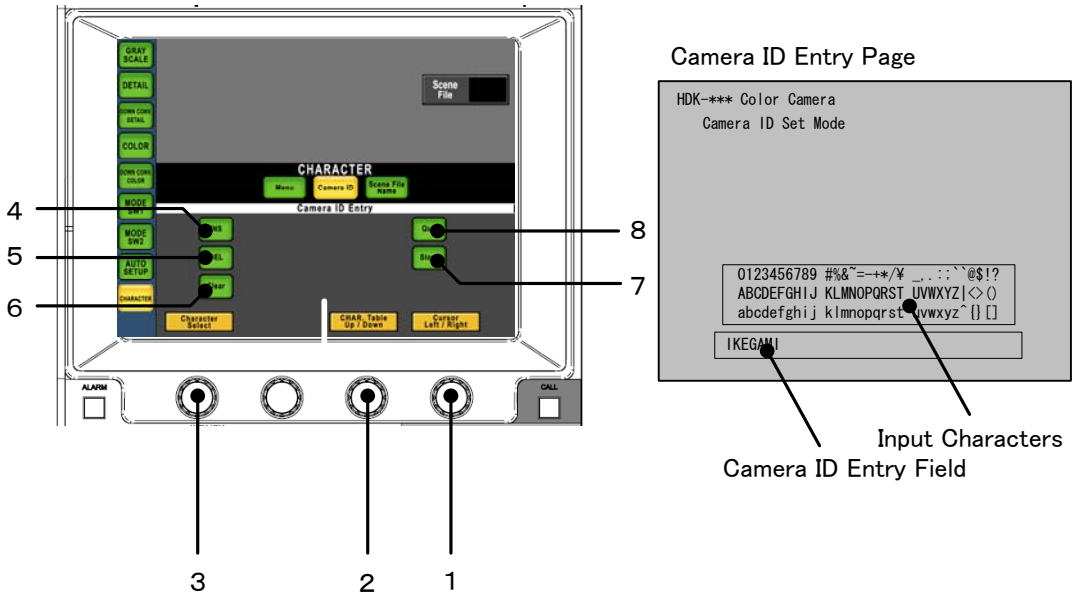
- Select Knob : Horizontal Position control for BARS TITLE.
- Next Knob : Vertical Position control for BARS TITLE.
- Enter Knob : Leaving from Position Setup Mode

5. Push Enter Switch to leave from Position Setup Mode.

13.3 Camera ID Entry

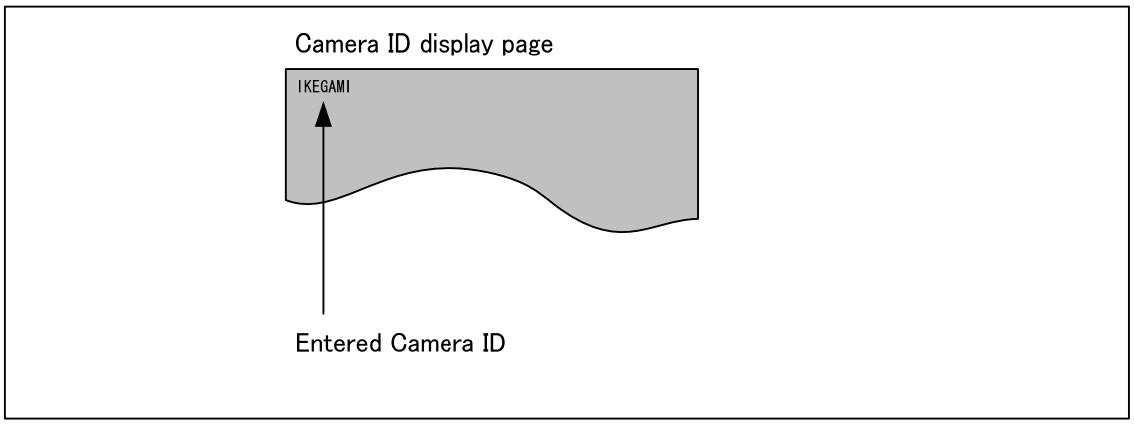
Camera ID can be entered.
Entered Camera ID can be displayed to PM(Picture Monitor). Entering Camera Name or Cameraman Name may help for VE(Video Engineer) to recognize easily what camera is shooting the picture on monitor. Camera ID can be entered up to 48 letters of alphabet, numeral and typical symbols.

1. Select Camera ID from “CHARCTER” Page.
2. In watching PM screen, enter letters by Rotary Encoder Knob and LCD icon switches.



1. Cursor Left/Right Knob	: To move cursor right ad left to select a character.
2. CHAR. Table Up/Down Knob	: To move cursor up and down to select a character.
3. Character Select Knob	: To move cursor Camera ID Entry Field.
4. INS Switch	: To insert one character between characters.
5. DEL Switch	: To delete a character.
6. Clear Switch	: To delete all input characters.
7. Store Switch	: To enter Camera ID to memory in camera side.
8. Quit Switch	: To quit entry page.

3. After the input, push [Store] switch to save Camera ID to the memory.
4. When “PM IND/PAGE” switch is pressed, PM screen will change to Camera ID screen and entered Camera ID will be displayed accordingly.



For the reentry, repeat above procedure from 1 to 4.

CAUTION This function only available with Camera or BS/CCU which has Camera ID function.
At the multiple panel operation, if Camera ID and Scene File Name are set at the same time, those setting items may become confused.Camera

13.4 “Scene File Name” can be entered to each Scene File.

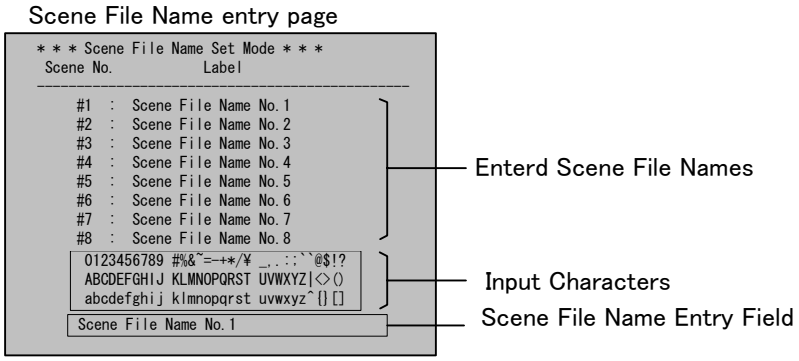
Entered Scene File Name can be displayed onto PM(Picture Monitor) all the time. Each it is easily to confirm what Scene File is used for each scene on the Monitor.

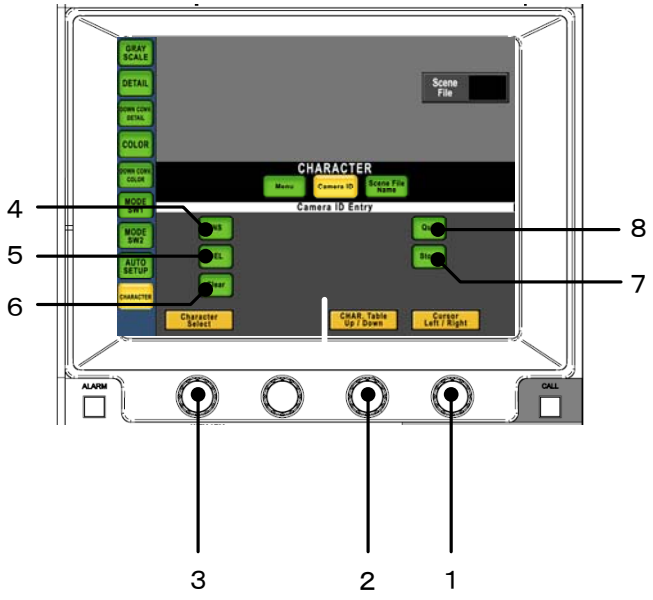
Scene File Name can be entered up to 31 letters with alphabet, numeral and typical symbols.

1. It is possible to make it to the scene file name registration screen automatically by making the scene file. Entering page can be set automatic coming up or not with “Panel Config.” setup.

Reference Refer to “16. Panel Setup (Panel Config.)”

2. When Enter or change Scene File Name afterwards, select [Scene File Name] in “Character” page to entry.



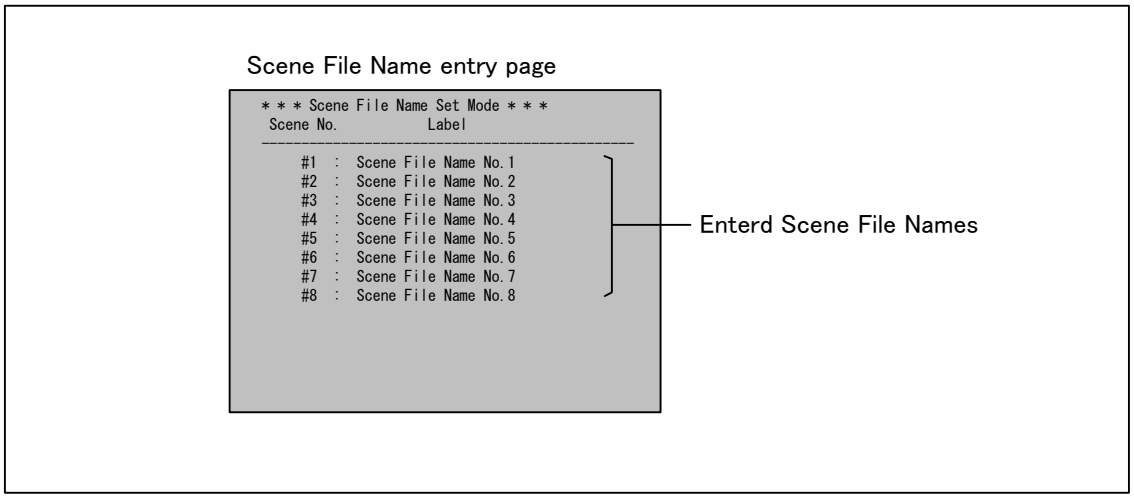


1. Cursor Left/Right Knob	: To move cursor right ad left to select a character.
2. CHAR. Table Up/Down Knob	: To move cursor up and down to select a character.
3. Character Select Knob	: To move cursor Scene File Name Entry Field.
4. INS Switch	: To insert one character between characters.
5. DEL Switch	: To delete a character.
6. Clear Switch	: To delete all input characters.
7. Store Switch	: To enter Scene File Name to memory in camera side.
8. Quit Switch	: To quit entry page.

3. After entering scene file, press [Store] switch to save Scene File Name. Entered Scene File Name will be registered.
4. Press [Quit] switch to finish registering.

Note The automatic Scene File Name Entry screen reading function is set to turning on. The scene file did the preservation operation, and it has moved. In this case, it returns to former screen with the [Quit] switch.
It returns to the character screen with the [Quit] switch when moving from the CamID screen and the Menu screen.

5. Press "PM IND/PAGE" switch several time until Scene File Name page comes up. PM screen turns to Scene File Name Entry page and entered Scene File Name is displayed.



Repeat procedure No. 2 to No. 4 to modify Scene File Name.

Note This function is only available with the camera and BS/CCU which supports Scene File Name Function.
At the Scene File Name entering process, Scene File is changed by another panel, entering menu will be cleared automatically.
At the multiple panel operation, if Camera ID and Scene File Name are set at the same time, those setting items may become confused

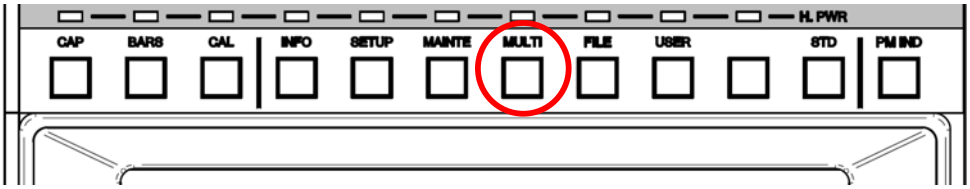
14. MULTI FUNCTION

MCP-200 has a “MULTI FUNCTION” to control and display the ststus of multiple cameras.

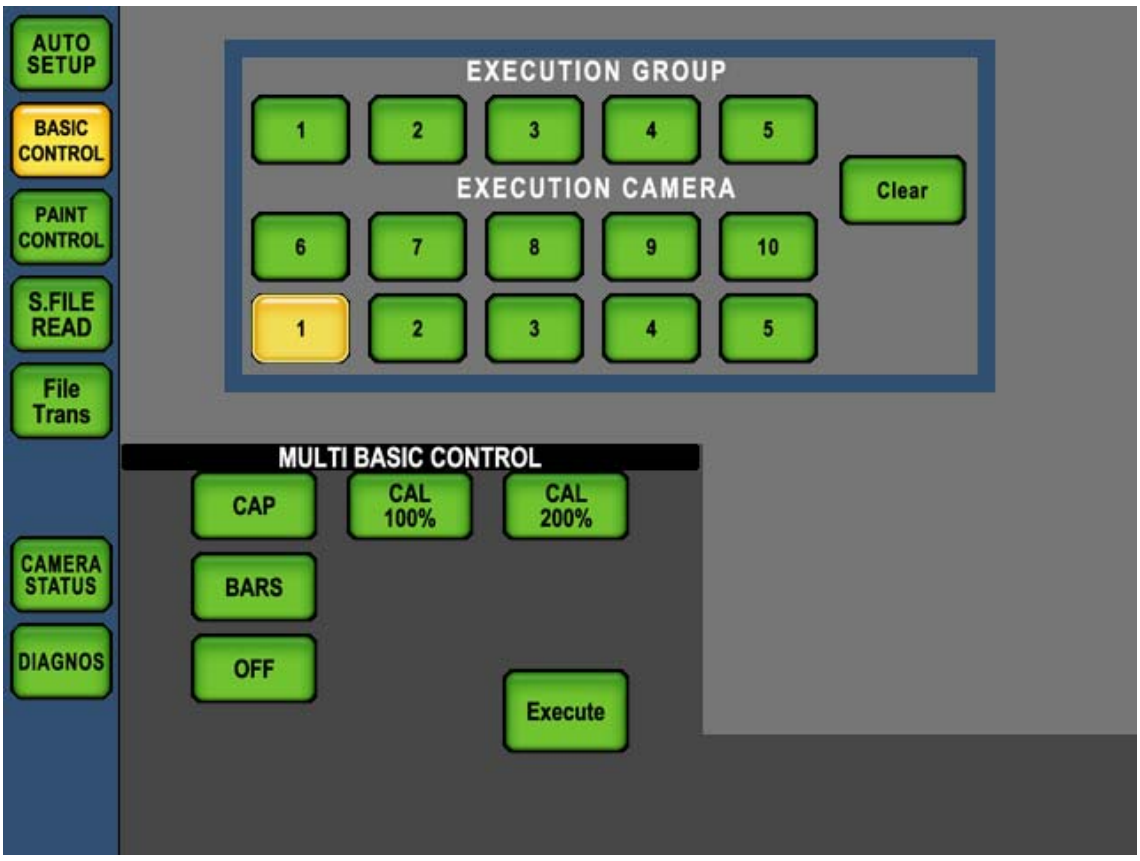
14.1 Basic Operation Method

It provides as a multi function with how many. A basic operation and common notes are recorded here.

1. Please select the MASTER camera with the camera selection switch, and press “MULTI” switch in function switches on top side of LCD.



2. Push a target multi function from the selection of the item at the left of LCD.



3. When switches other than [CAMERA STATUS] and [DIAGNOS] are pushed, the multi camera selection switch where the multi function is executed is displayed.

Reference Please refer to "14.7 Multi Camera Status Indication" and "14.9 Multi Diagnos Display" for the operation when CAMERA STATUS and the DIAGNOS switch are pushed.

4. The slave camera is selected from the multi camera selection switch.

Following two ways are available for slave camera selection.
When the camera set to the same group as the mastering camera is arbitrarily selected, and ten cameras or less are executed at the same time, the executed slave camera is selected with the switch of [EXECUTION CAMERA]. And the color of switch turns to amber. Selection will be cancelled by press the switch again.

5. IWhen the camera is selected in each group, and 50 cameras or less are executed at the same time, the group that is the setup is selected with the switch of EXECUTION GROUP. And the color of switch turns to amber. Selection will be cancelled by press the switch again.

Or, selection can be cancelled by pressing [Clear] switch.

6. Please push any of the function switch in the upper part of the LCD when you discontinue the multi function

Note In the Multi Paint Control, only the camera of the same group can be selected. After the Multi Auto Setup, the Multi Scene File Read, and the Multi File Transfer are executed, the selection of the slave camera is cleared.

CAUTION In case of using external camera select function, reference camera should be selected by external unit such as VE panel. And slave camera sould be selected by LCD switch of MCP. In that situation, indication of Camera No. or Camera Name might be different between indication of external unit and that LCD on MCP. Moreover, it becomes gray and it is not possible to select it from group 2 to 5 at a direct mode.

It becomes gray and it doesn't come by the selection when the group limit function is set after a set value.

When the camera selection is not done, switches other than [CAMERA STATUS] and [DIAGNOS] cannot be pushed. It is possible to change the MASTER CAMERA (camera selection) on the multi function screen. However, when the camera that doesn't exist is selected, it gets out from the multi function screen.

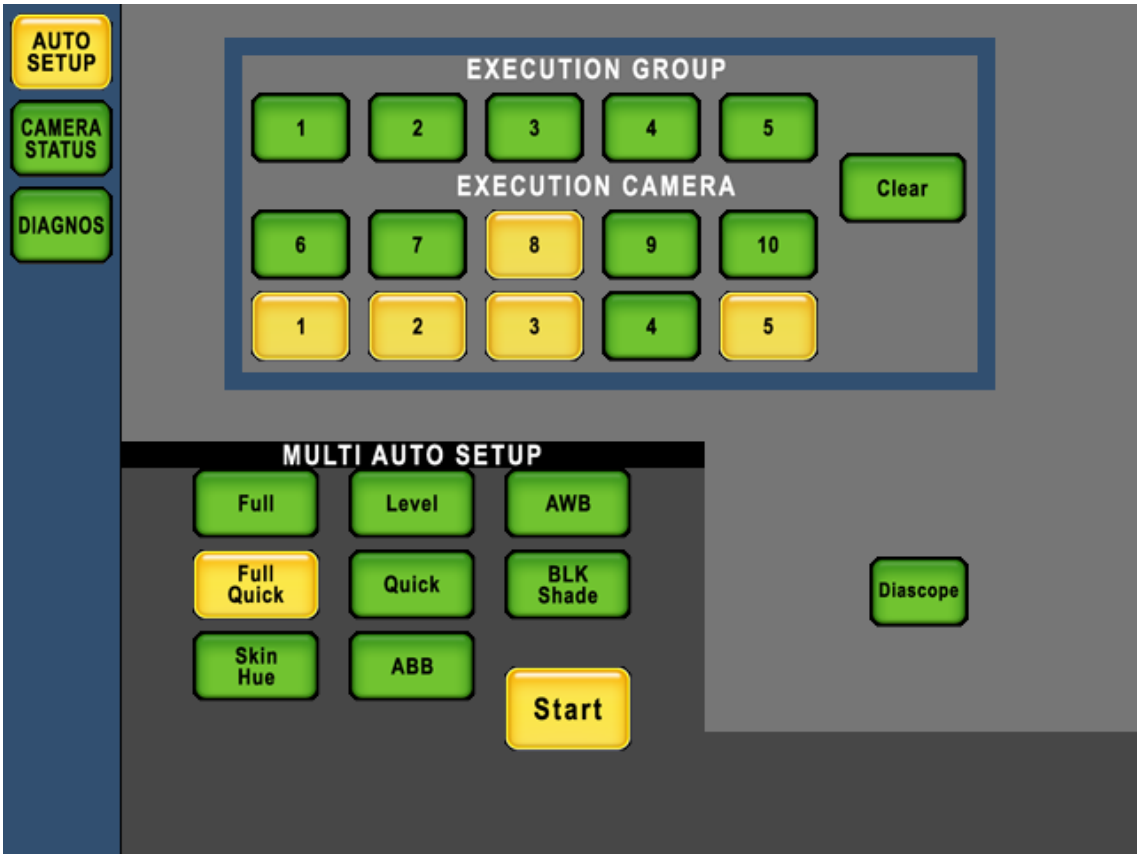
14.2 Multi Auto Setup

Multiple camera auto setup execution by MCP-200 in one time is available (Multi Auto Setup). To execute “Multi Auto Setup”, Camera Head power and BS/CCU power should be on beforehand.

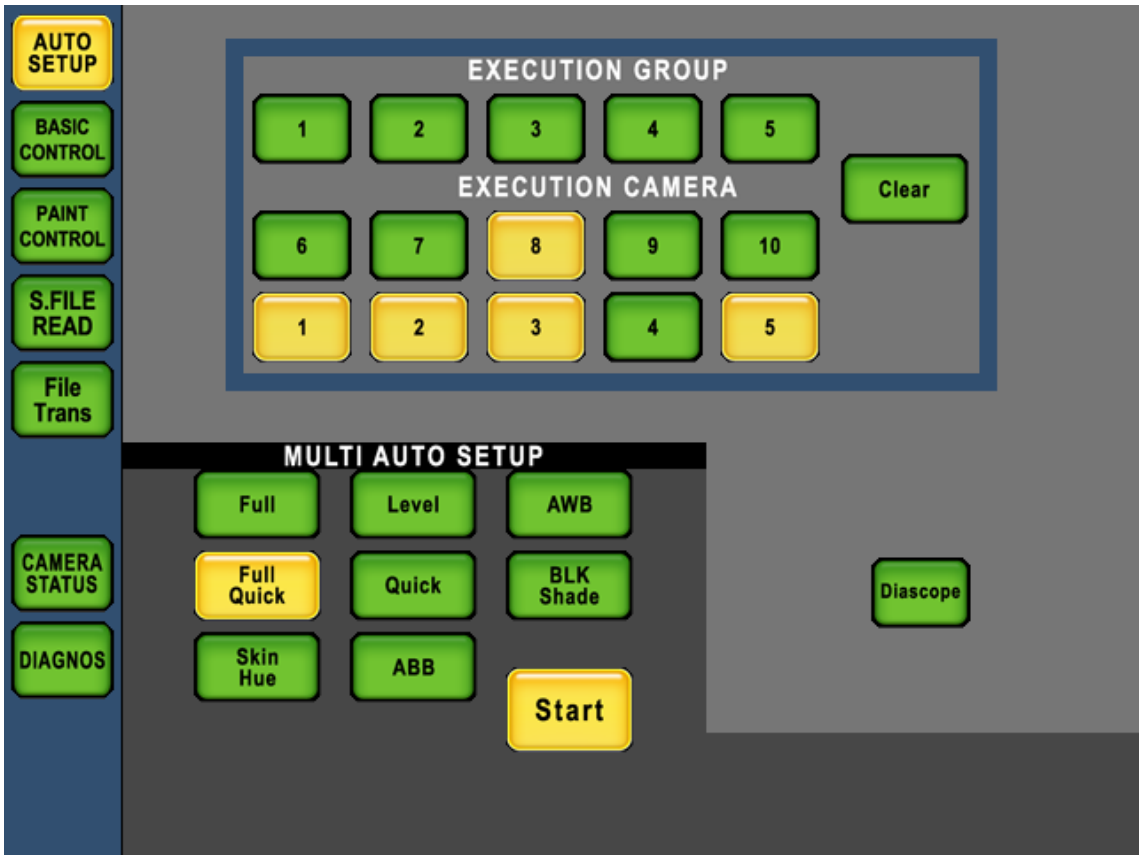
It is necessary to shoot Auto Setup Chart by all cameras in advance to execute Multi Auto Setup. In case of Full Auto Setup, White Shade and Gain of G-ch of all cameras should be adjusted in advance as well. In case of Level Setup, Gain of G-ch should be sdjusted beforehand.

Multi Auto Setup of SkinHue mode, shooting angle (Target Marker) should be set for needed color in advance. At the Auto Setup execution for slave camera, Marker will not be displayed on the picture.

1. Please select the MASTER camera with the camera selection switch, and press “MULTI” switch in function switches on top side of LCD.
2. Push “AUTO SETUP” switch from the selection of the item at the left of LCD.



3. Please push the [START] switch when you select the mode of an auto setup and the executed camera.



Auto Setup will start execution in numerical order of selected cameras.
In case of Multi Auto Setup execution, it is not allowed to stop execution for all cameras in one action.In order to stop execution of each camera, it is necessary to select each camera first and press [START] switch.

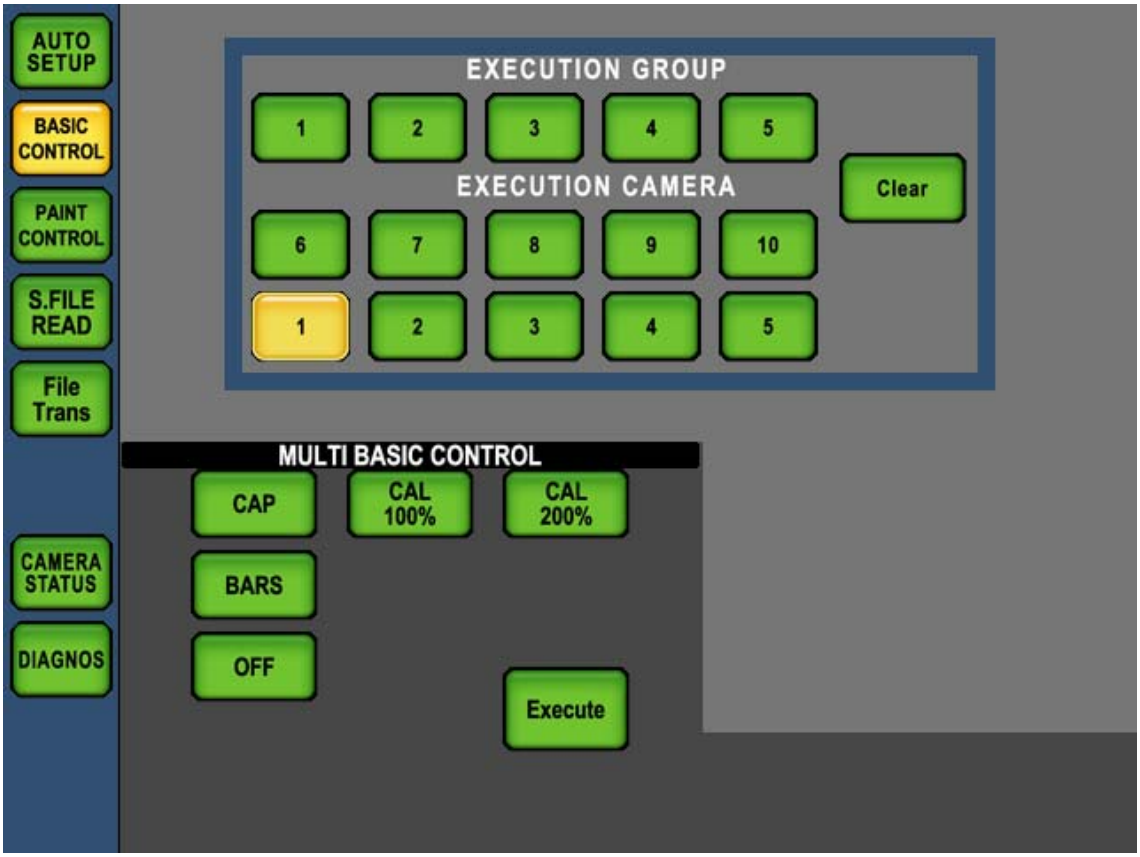
CAUTION If one of slave camera is Tally On when Multi Auto Setup is executed, Auto Setup will execute, even though Tally Guard is On. Please attention for Multi Auto Setup execution at the production.
When Full Quick Auto Setup is executed when connecting it with CCU/BS for the command not done, it is displayed in the auto setup execution display of the PM image, "REGI".

Note Auto setup for slave camera is executed with same mode of the reference camera. If slave camera doesn't support the type of auto setup mode, it would not execute.
Full Quick mode of Multi Auto Setup is only available with the camera which supports Command Control function. Some camera supports Full Quick mode in individual auto setup but doesn't support in Multi Auto Setup.

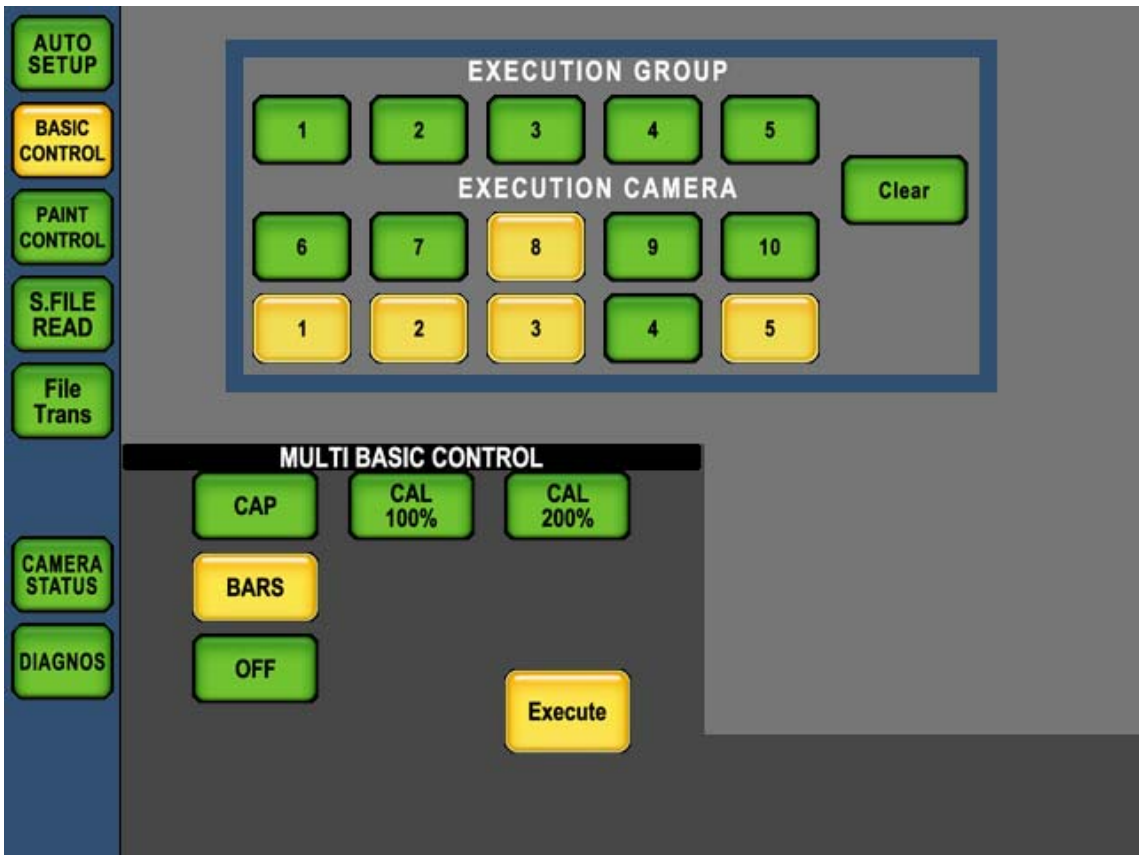
14.3 Multi Basic Control

"ON" of CAP, CAL100%, CAL200%, and BARS can be done from MCP-200 to the batch for two or more cameras. Moreover, everything can be made simultaneous "OFF".When the multi basic control is executed, it is necessary to make the power supply of each camera head and BS/CCU "ON" beforehand.

1. Please select the MASTER camera with the camera selection switch, and press "MULTI" switch in function switches on top side of LCD.
2. Push [BASIC CONTROL] switch from the selection of the item at the left of LCD.



3. Please push the [START] switch when you select the executed camera.

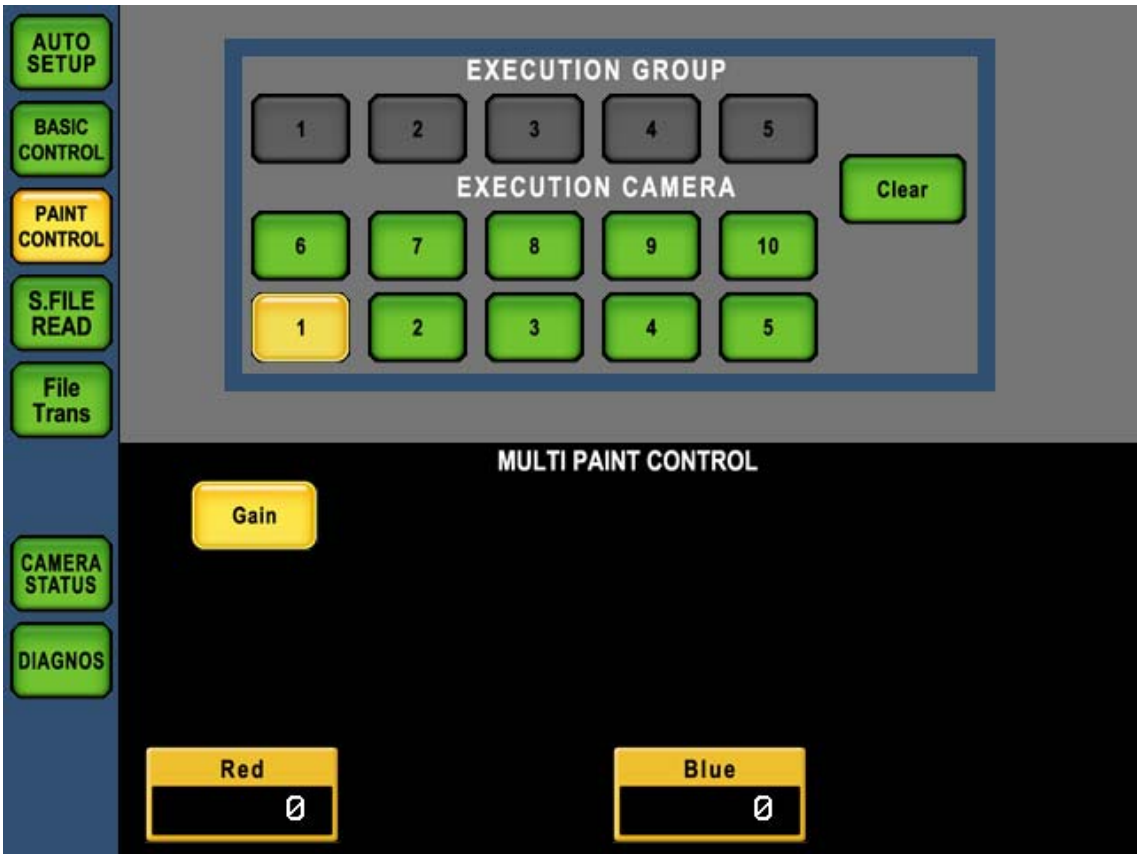


CAUTION It is not the one to guarantee operation in all status of the camera. The ON/OFF control that corresponds on a certain specific condition might not be accepted. When the multi basic control is executed, the slave camera is executed without the guard at ONAIR Tally. Be careful enough when you execute the multi basic control.

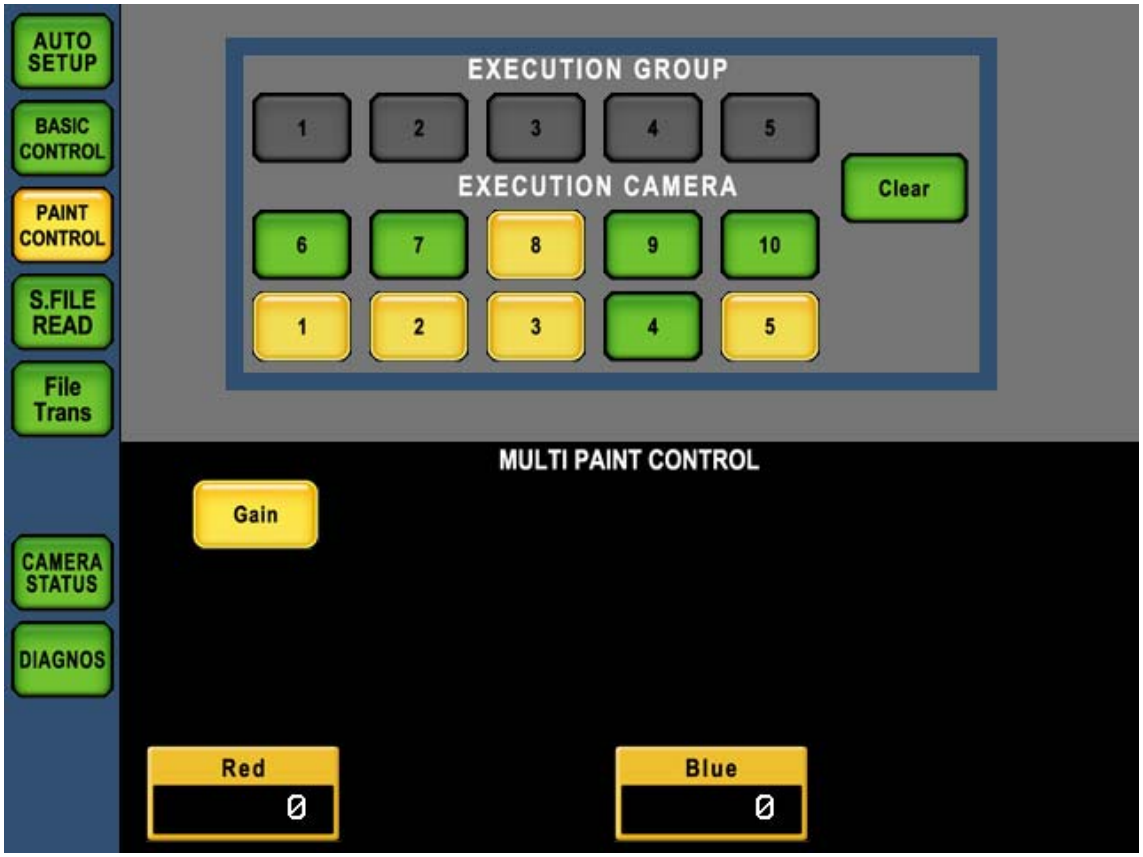
14.4 Multi Paint Control

The batch can operate R/B GAIN from MCP-200 for two or more cameras.

1. Please select the MASTER camera with the camera selection switch, and press "MULTI" switch in function switches on top side of LCD.
2. Push [PAINT CONTROL] switch from the selection of the item at the left of LCD.



3. R/B GAIN of the selected camera can be controlled with the rotary encoder simultaneously when the controlled slave camera is selected.



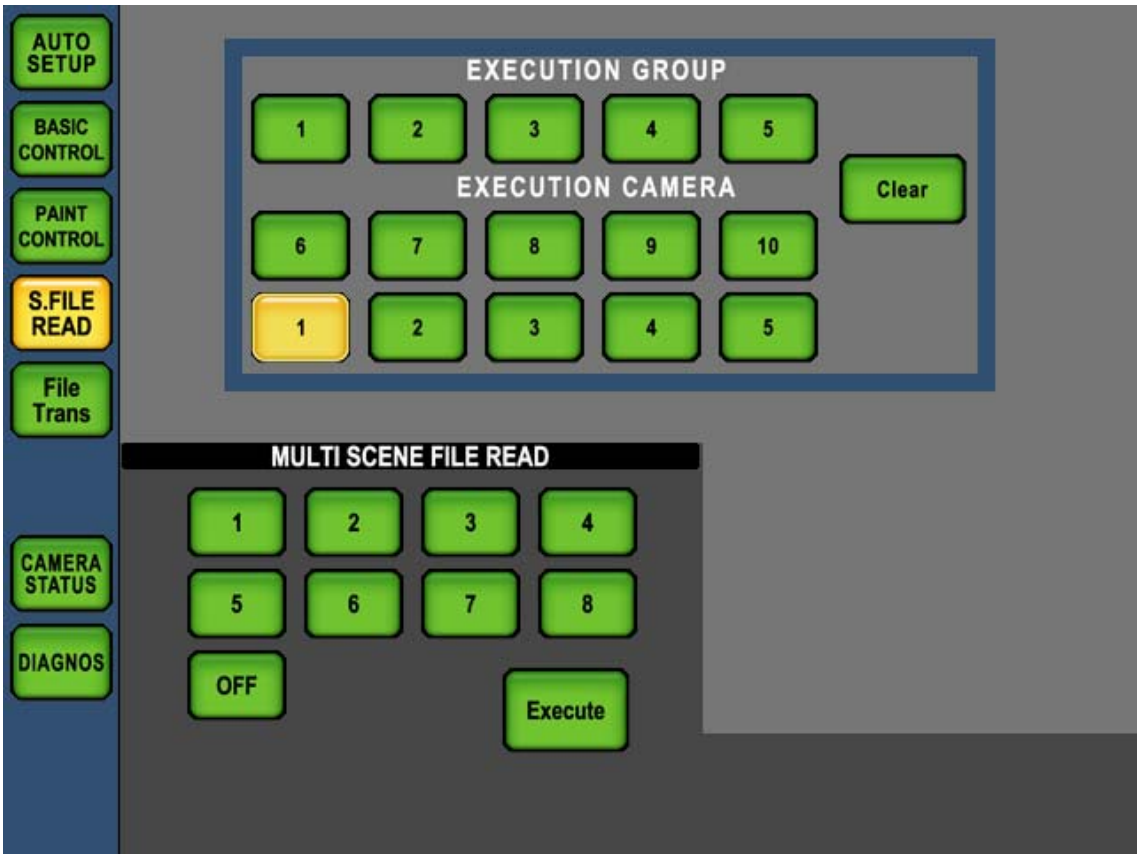
CAUTION The display of the data of R GAIN, G GAIN, Master PED, and IRIS controlling the multi paint is data of the MASTER CAMERA. Master PED and IRIS cannot be operated for the MASTER CAMERA.
CAP, CAL, BARS, WFM/PM, and AUTO IRIS can be changed only to the MASTER CAMERA.

Note In the multi paint control, only the camera of the same group can be selected.

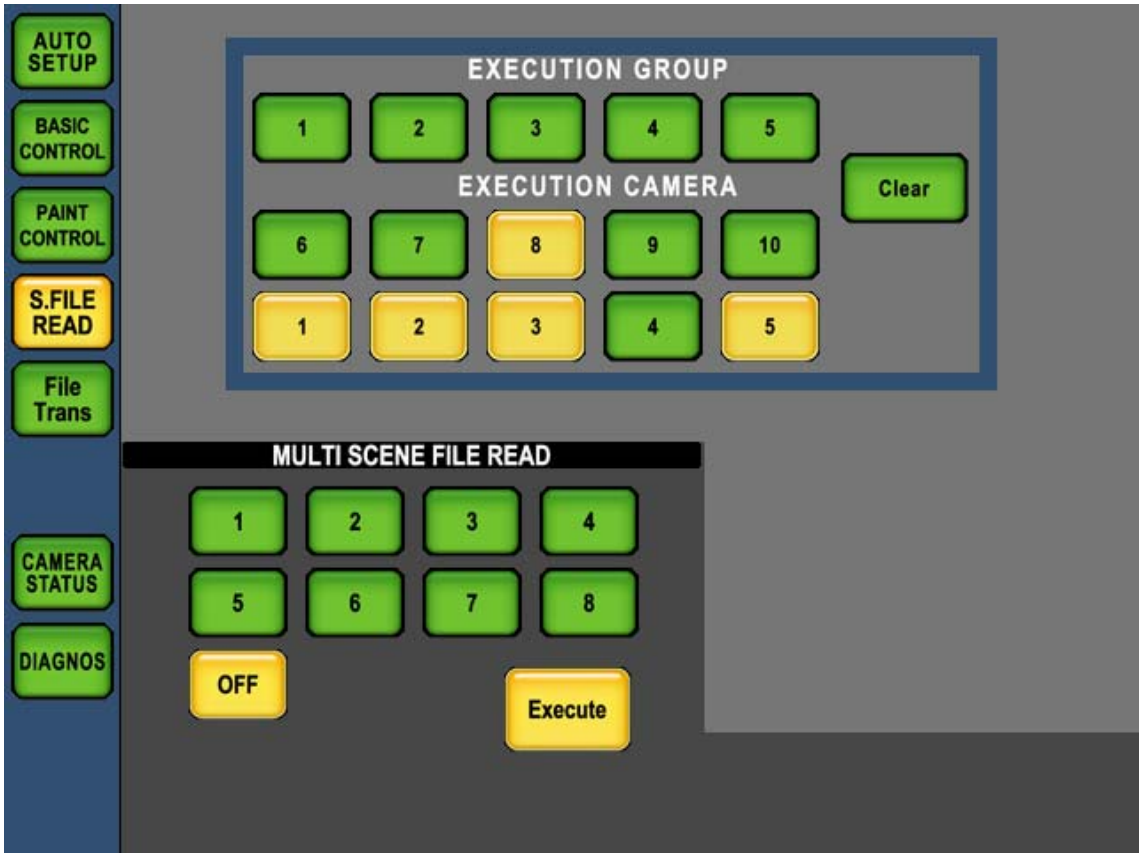
14.5 Multi Scene File Read

The scene file can be read to the batch for two or more cameras, and it turn it off to the batch.

1. Please select the MASTER camera with the camera selection switch, and press “MULTI” switch in function switches on top side of LCD.
2. Push [S.FILE READ] switch from the selection of the item at the left of LCD.



3. Read scene file number or "OFF" is selected. Please push [Execute] switch when you select the executed camera



CAP, CAL100%, CAL200%, and BARS of the MASTER camera and the SLAVE camera are turned OFF. Afterwards, the scene file is read.

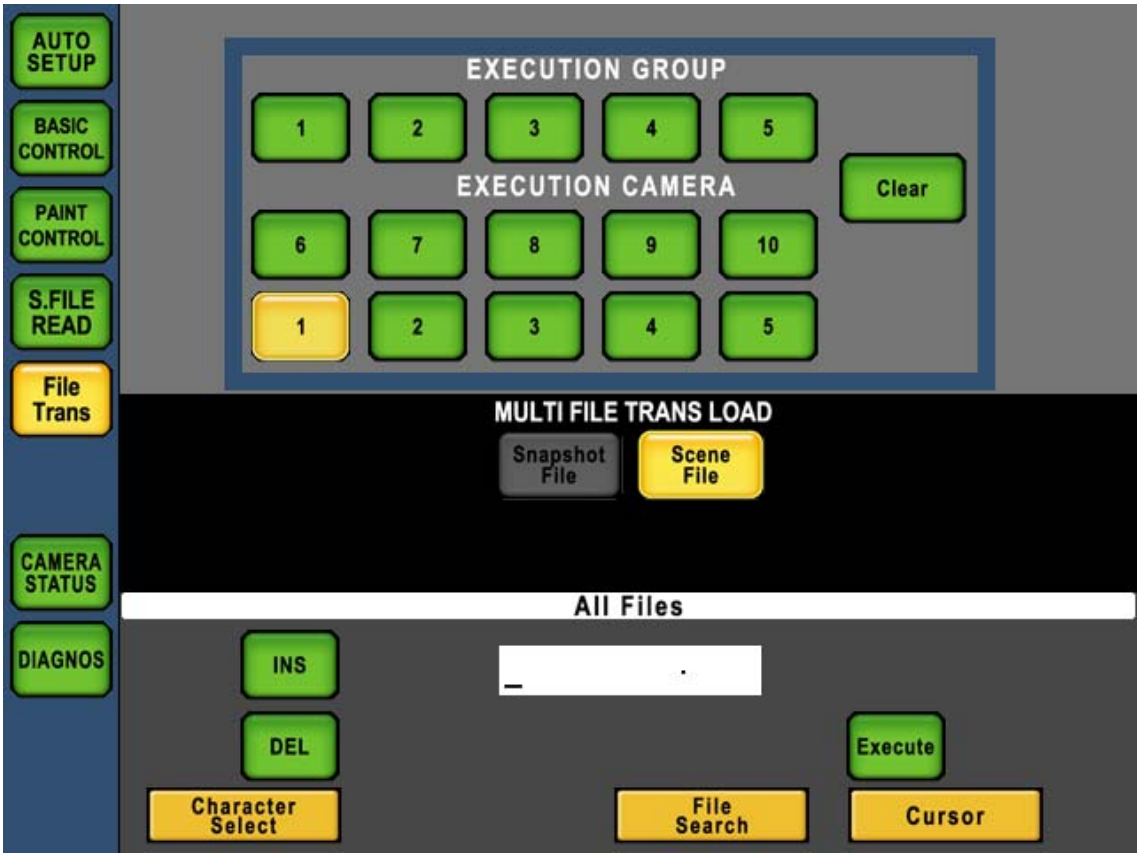
CAUTION It is not the one to guarantee operation in all status of the camera. The scene file reading control that corresponds on a certain specific condition might not be accepted.

When the multi scene file reading is executed, the slave camera is executed without the guard at ONAIR TALLY. Be careful enough when you execute the multi scene file reading.

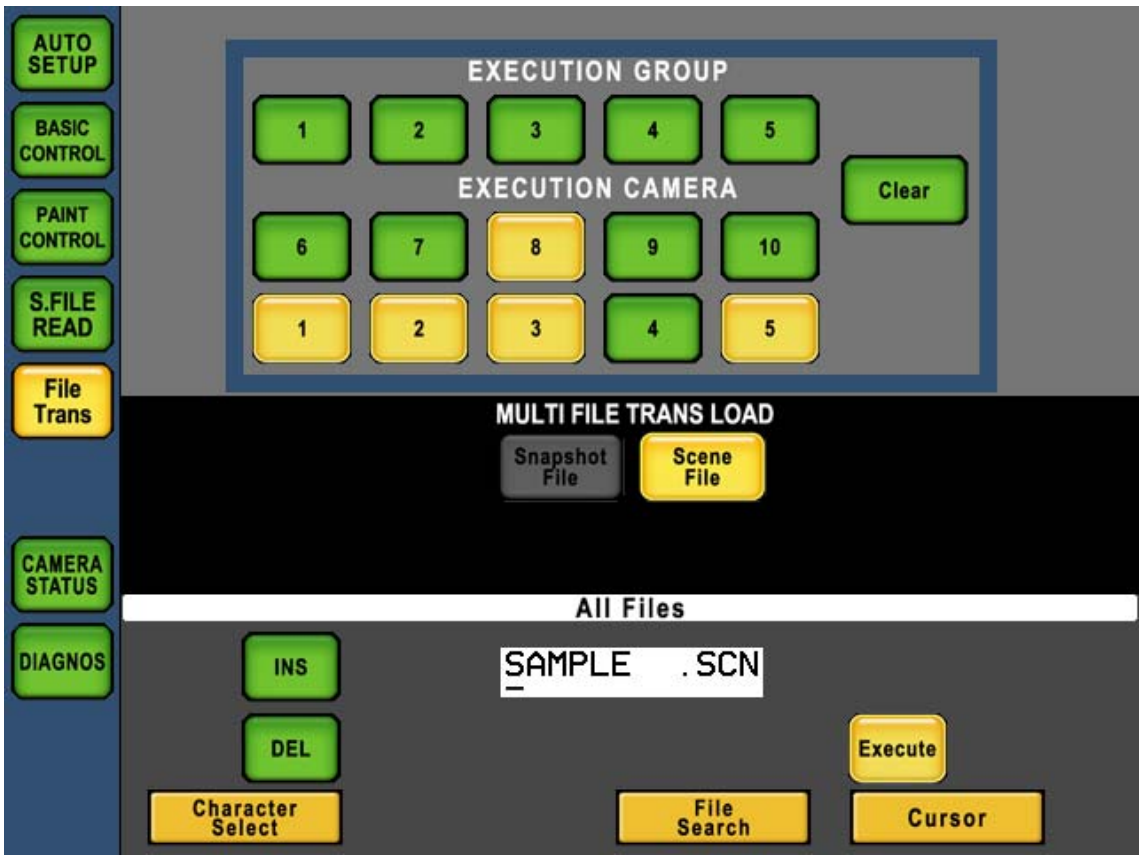
14.6 Multi File Transfer

The scene file preserved on the SD memory card can be forwarded to two or more cameras at the same time. Moreover, forwarding the snap shot file by the setting of Panel Config. can be permitted.

1. Please select the MASTER camera with the camera selection switch, and press “MULTI” switch in function switches on top side of LCD.
2. Push [File Trans] switch from the selection of the item at the left of LCD.



3. Please select the forwarded scene file, and push [Execute] switch.



CAP, CAL100%, CAL200%, and BARS of the MASTER camera and the SLAVE camera are turned OFF. Afterwards, the file transfer is begun.

1) Behavior at error/warning

As for the operation of “error/warning” of the file transfer, MASTER camera and SLAVE camera are different.
It is displayed to the MASTER camera just like the file transfer usually.

The processing when “error/warning" is generated is different for the slave camera according to the setting of Panel Config（Error DISP/PRCS）.

- **YES/STOP**
  The message is displayed, and the file transfer is interrupted temporarily.
- **NO/SKIP**
  It shifts to the file transfer to the following slave camera selected without doing the file transfer without displaying the message.
- **NO/SEND**
  The file forwarding is done without displaying the message.

2) Auto Scene File Off

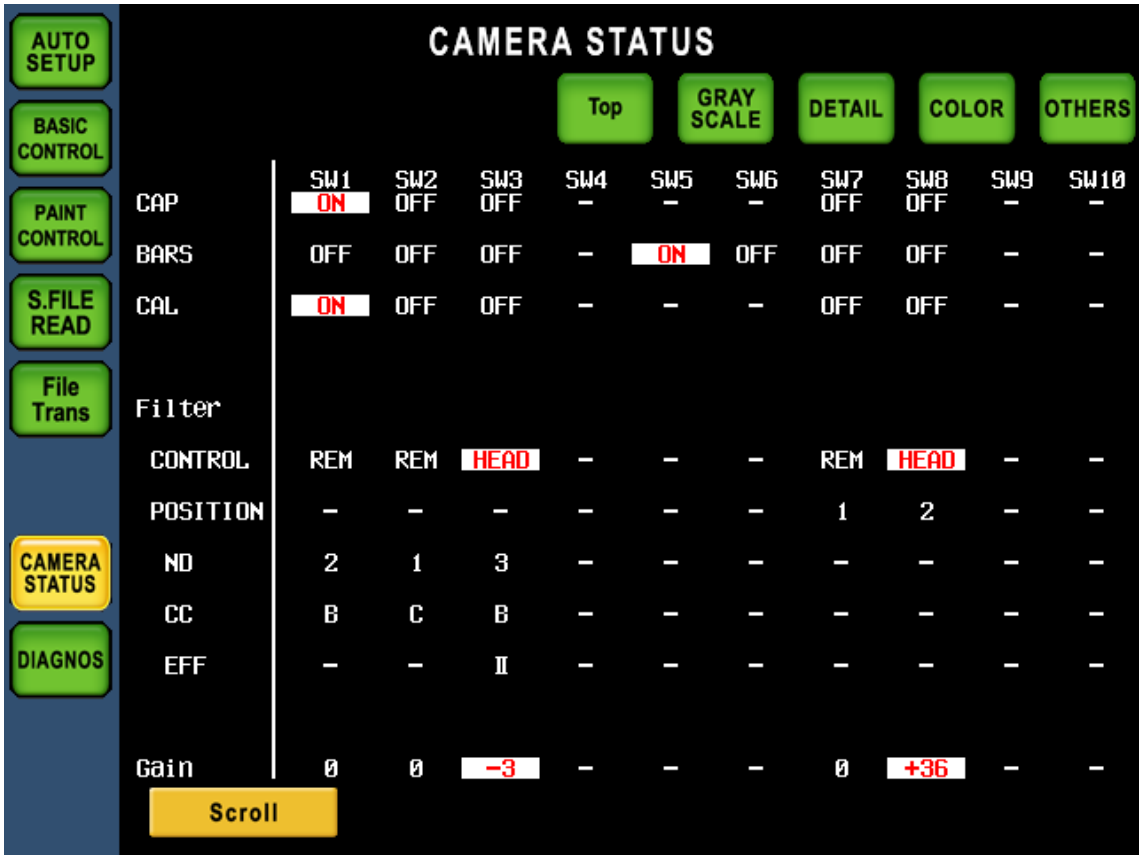
As for the operation when operating it, it differs in the MASTER camera and the SLAVE camera, and the setting of above-mentioned (Error DISP/PRCS) is different.
When the multi file transfer is executed, error/warning can be decreased by compulsorily turning off the scene file to all cameras.
It sets it with Panel config. When this function is made effective, it becomes turning off about CAP, CAL100%, CAL200%, and BARS in all cameras.

CAUTION It is not the one to guarantee operation in all status of the camera. The scene file reading control that corresponds on a certain specific condition might not be accepted.
Because peculiar data to the camera is included in the snap shot file, it is not the one to guarantee reproducibility when forwarding it to a different camera.

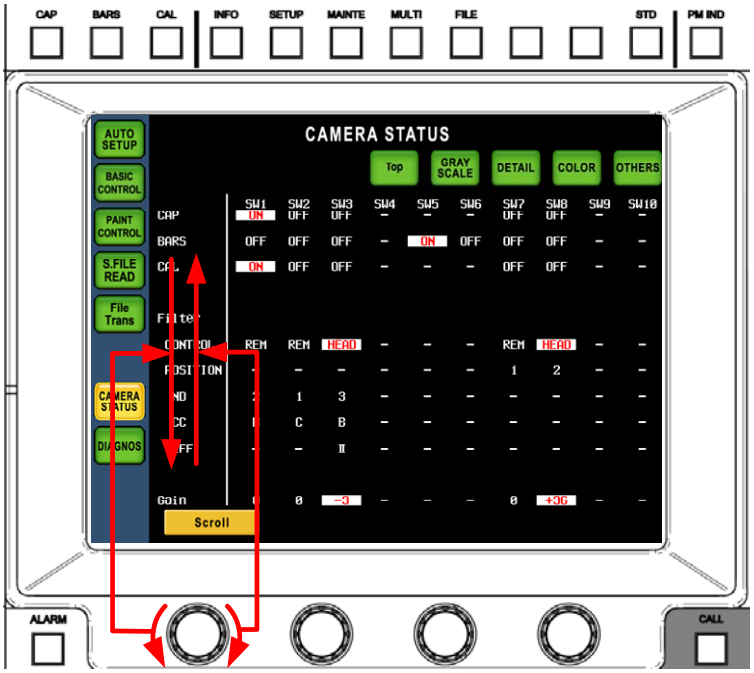
Reference Refer to “9. MEMORY CARD OPERATION” for the detail. Refer to “16. Panel Config. (Panel Setup)” for the detail.

14.7 Multi Camera Status Display

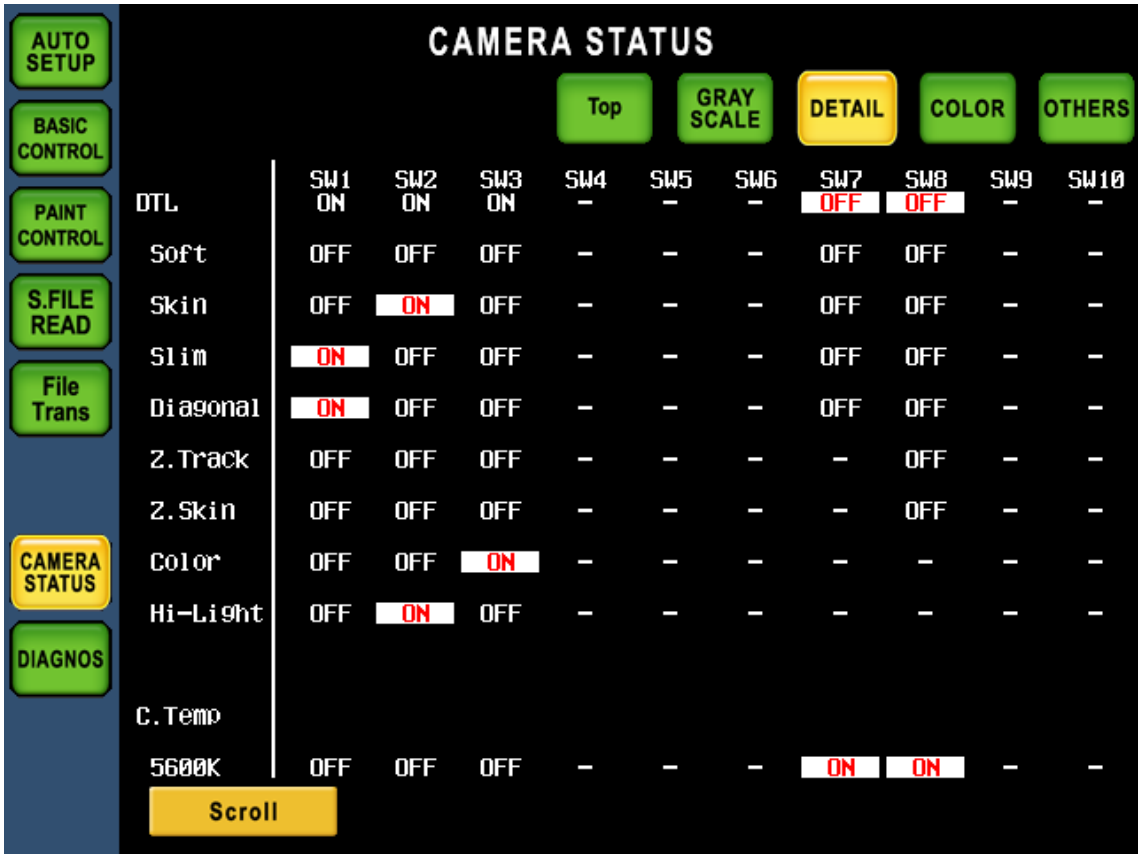
By pressing [CAMERA STATUS] switch in left side of LCD, status table of multiple cameas and BS/CCUs such as ON/OFF setting is displayed. Control items stands in lattitudinal direction and camera status in accordance with camera select switch stands in longitude.



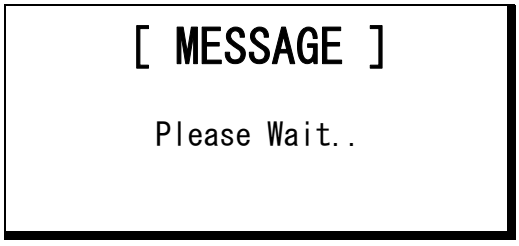
By rotating rotary encoder on left side on LCD display, control item scrolls up and down. This makes to show further information which doesn't not display in one screen.



By rotating rotary encoder to right or left to reach control item because scroll moves up and down with ring manner.
Using with short cut switches on top right side on LCD, display will jump to needed status page directly. Scrolling by rotary encoder is available after the jump.



In case of rotating rotary encoder quickly or page jump with short cut switch, following message window sometimes come up at the page transition.



Note Multi Status Display function only available at the netwok command connection.

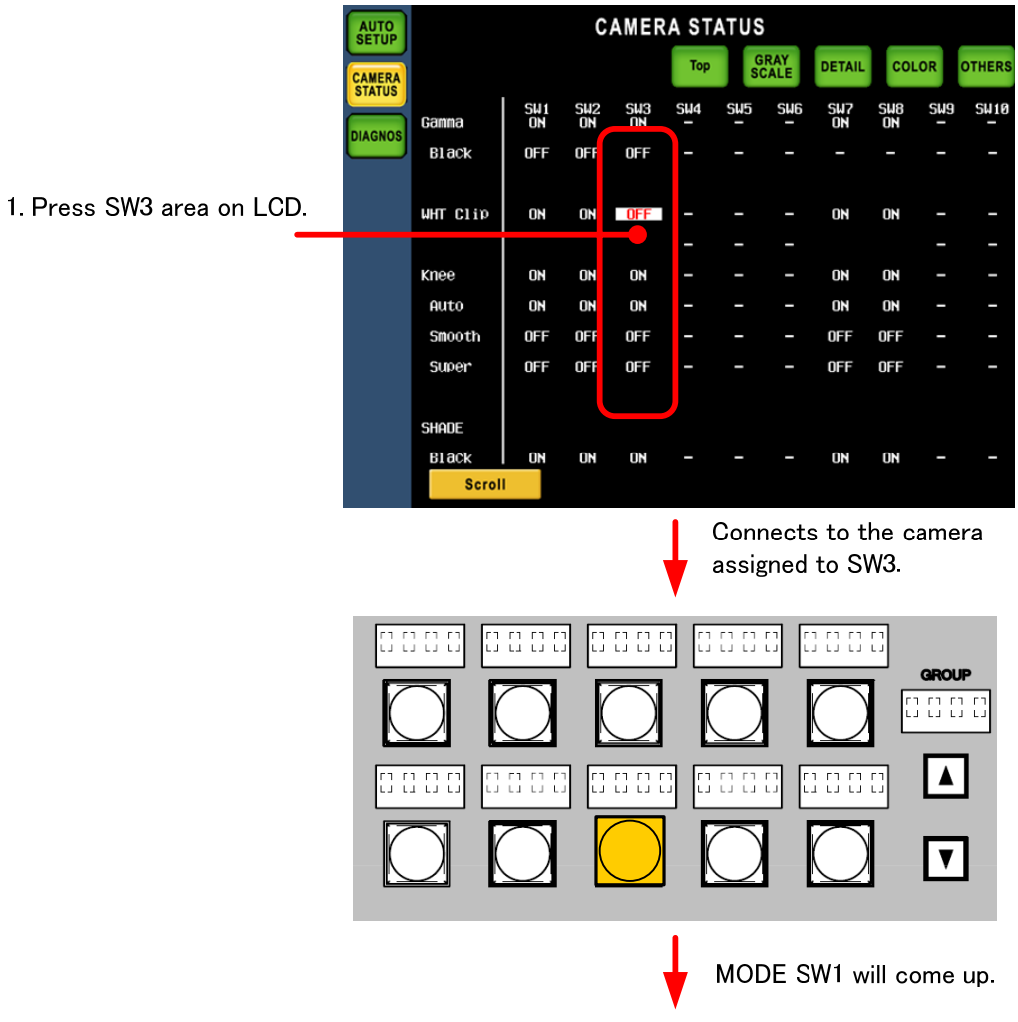
14.8 Multi Direct Jump Function

Multi Camera Status Display page has a Direct Jump function as same as individual camerea status display page. Refer to “10.2 Direct Jump function” for detail.

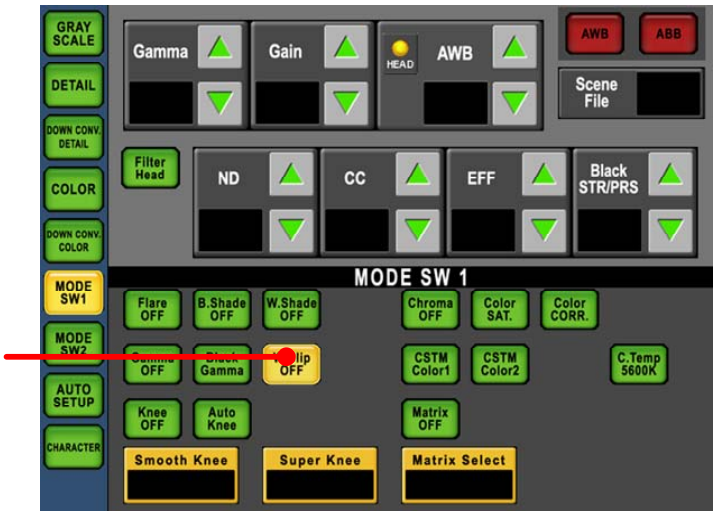
In the LCD menu, switches are implemented for each camera and each function. By clicking the switch on the LCD to jump directly to MODE SW1 or MODE SW2 of selected camera.

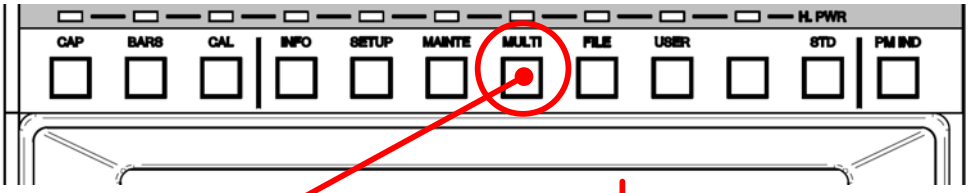
It is possible to go back from jumped MODE SW(SETUP) page to previous Multi Camera Status page by one action. This function makes status confirmation and setting change for multiple cameras by minimum action.

For instance, in order to change WHT Clip On after confirming WHT Clip Off of the camera assigned to SW3, click the status display of SW3. The camera assigned to SW3 of camera select switch is connected and LCD page would change to MODE SW1 page. Press the switch to WHT Clip On, and press “MULTI” switch again to go back to Multi Camera Status Display page.



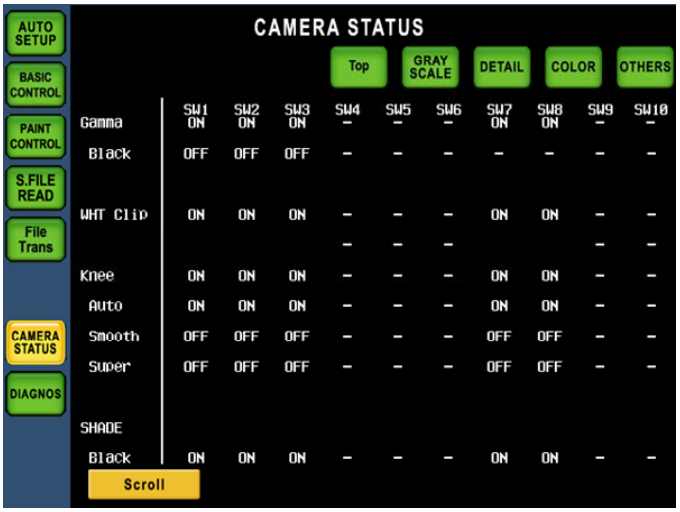
2. Press W.Clip OFF switch to ON.





3. Press MULTI switch.

CAMERA STATUS page will come up.



Note When click somewhere on LCD, destination of Jump to MODE SW1 or MODE SW2 would be decided automatically in accordance with the control item of clicked area.

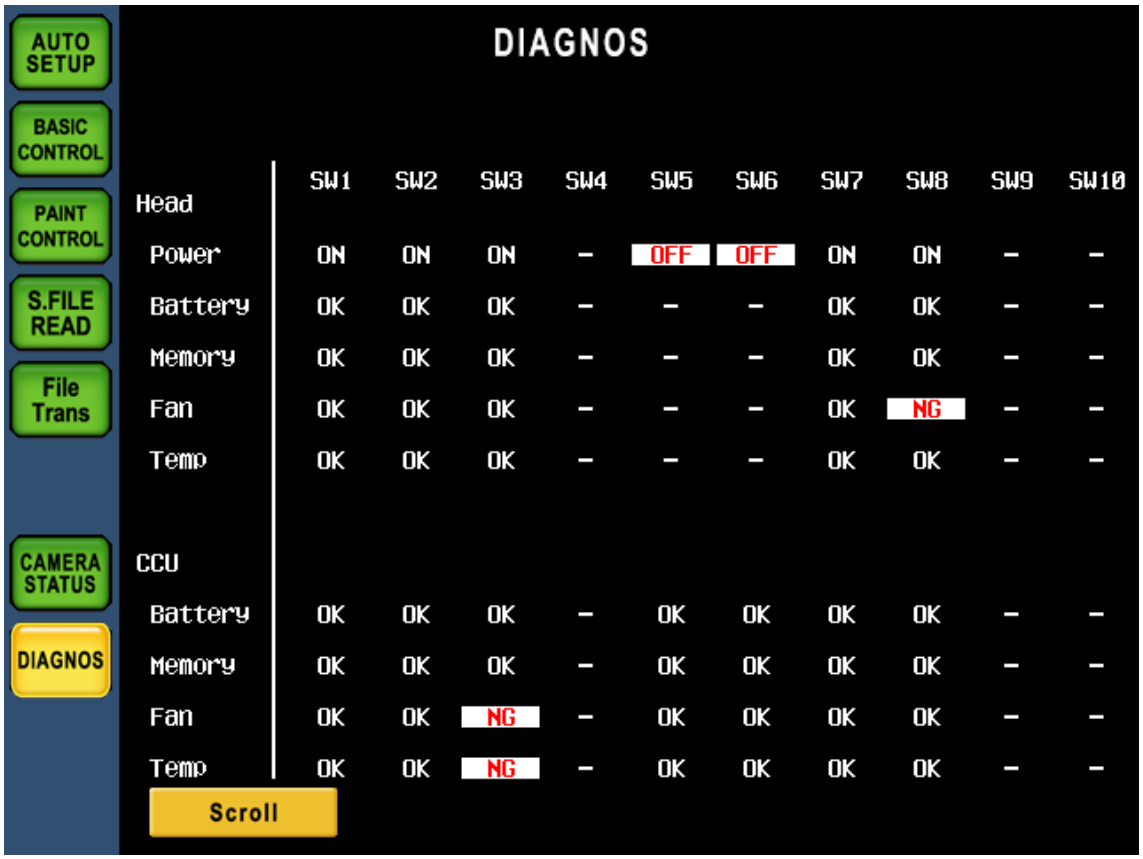
This Multi Direct Jump function is only available with Network Command connection.

CAUTION The Multi Direct Jump function doesn't work when it becomes it while turning on the command fixation function and the command are fixing (The camera selection switch blinks).

It doesn't work when the external camera selection is effective.

14.9 Multi Diagnos Display function

By pressing [DIAGNOS] switch, simple diagnos display table can be displayed. This makes simple diagnos confirmation even if PM(picture monitor) is not connected to BS/CCU.



By rotatingrotary encoder of left side, page can be scrolled as same as that of Muti Camera Status page.

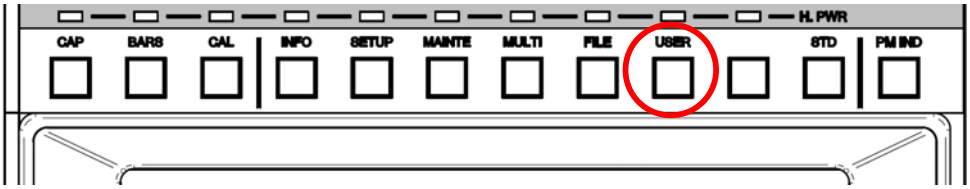
Note This Multi Diagnos Display Jump function is only available with Network Command connection.

15. USER SETTING

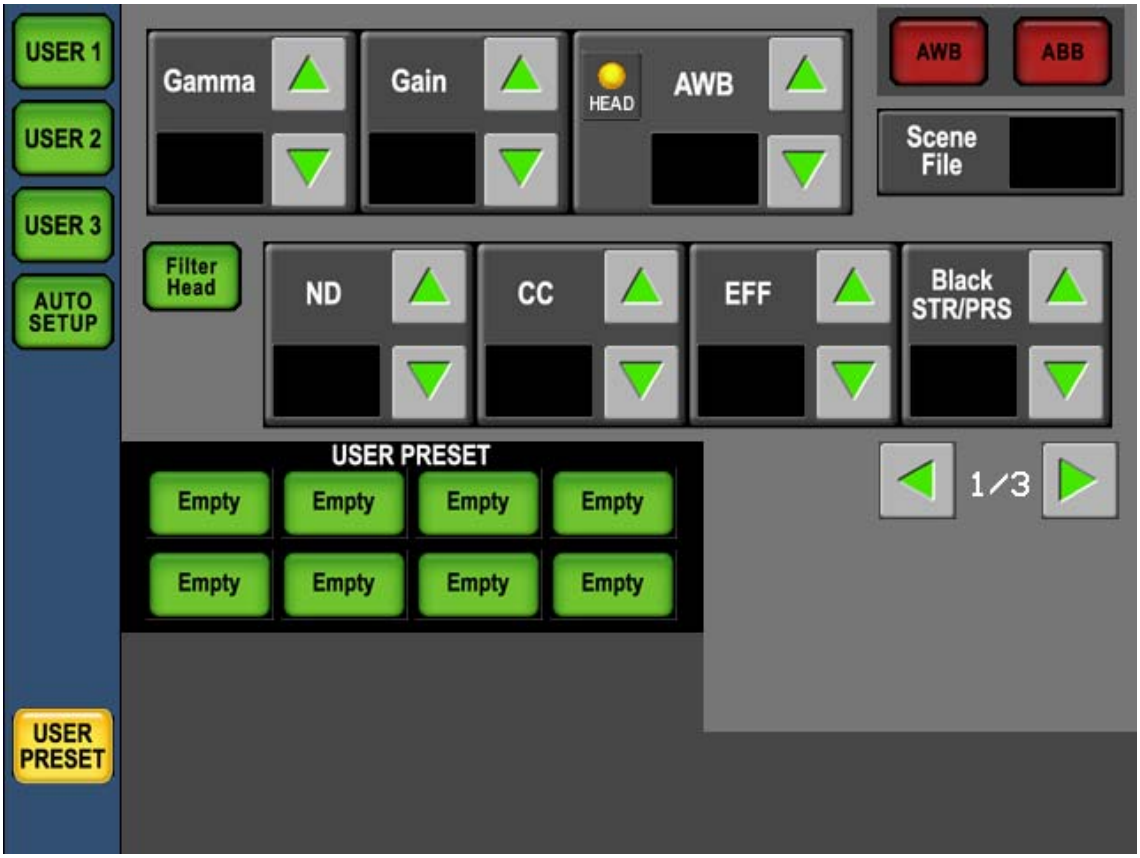
MCP-200 has a function to customize LCD menu.
3 pages of User Customized Page can be registered as same as basic control pages. SETUP items can be registered in User Customized page.

15.1 Registration of user page

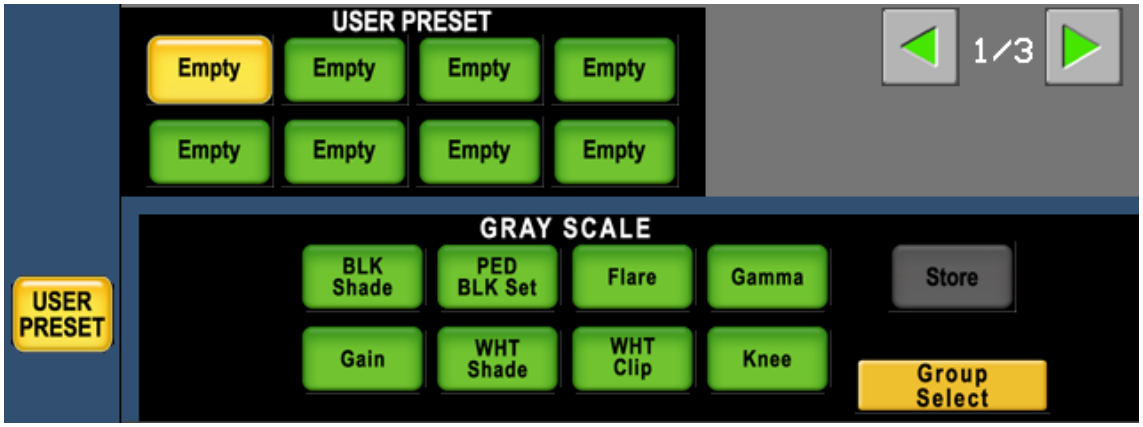
1. Push the “MAINTE” Switch from the FUNCTION Switches in the upper part of the LCD.



2. And press [USER PRESET] in LCD menu.
Selection functions can be assigned to 8 LCD switches. Unregistered switch indicates Empty as below picture. Registered switch indicates function name instead of Empty indication.

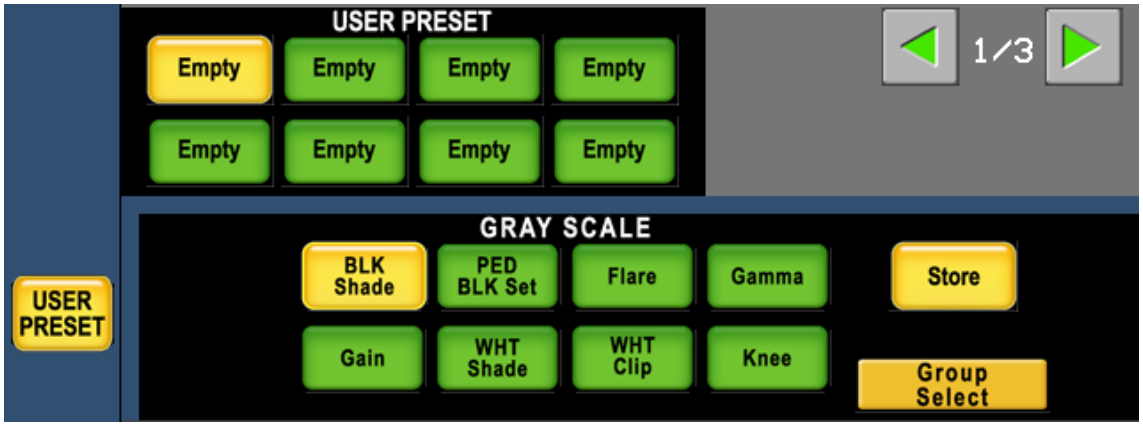


3. Press the switch to be registered or to be changes assignment.

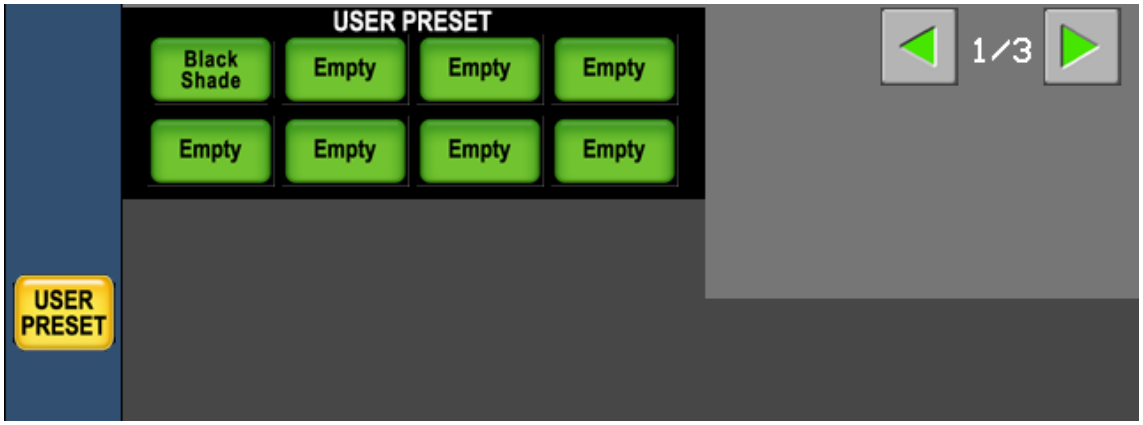


4. The switch blinks and Selection Function Switches are displayed in bottom side.By rotating rotary encoder on right side, function group can be changed. If it not necessary to assign the function to the switch, select [Empty] icon from Default Group and register it to the switch. If the switch is registered with Empty, the switch will not come up when User Page is recalled.

5. Select one switch to be assigned from function switch group and press [Store] Switch.



6. Assigned function name is displayed on the switch.



7. Repeat above procedure for the assignment to each switch. User Preset Pagesconsists 3 pages. Page selection can be done with  switches on top right side.

Note To avoid duplication, DOWN CONV. Control Item is indicated with “D/C” on selection switch for Registration/Readout page.

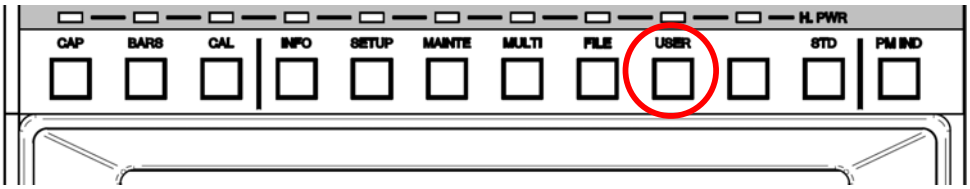
Assignable Function Table

Function Group Window		Registration Page / Readout page
Group Name	Selection Switch Indication	Selection Switch Indication
GRAY SCALE	BLK Shade	BLK Shade
	PED BLK Set	PED BLK Set
	Flare	Flare
	Gamma	Gamma
	Gain	Gain
	WHT Shade	WHT Shade
	WHT Clip	WHT Clip
	Knee	Knee
DEATIL	DTL1	DTL1
	DTL2	DTL2
	Soft	Soft
	Skin	Skin
	Color	Color
	Hi-Light	Hi-Light
DOWN CONV. DETAIL	DTL1	D/C DTL1
	DTL2	D/C DTL2
	Soft	D/C Soft
	Skin	D/C Skin
	Color	D/C Color
COLOR	Matrix	Matrix
	Color SAT.	Color SAT.
	CSTM Color1	CSTM Color1
	CSTM Color2	CSTM Color2
	Color CORR.	Color CORR.
DOWN CONV. COLOR	Matrix	D/C Matrix
	Color SAT.	D/C Color SAT
OTHERS	Lens	Lens
DEFAULT	Empty	Empty／非表示

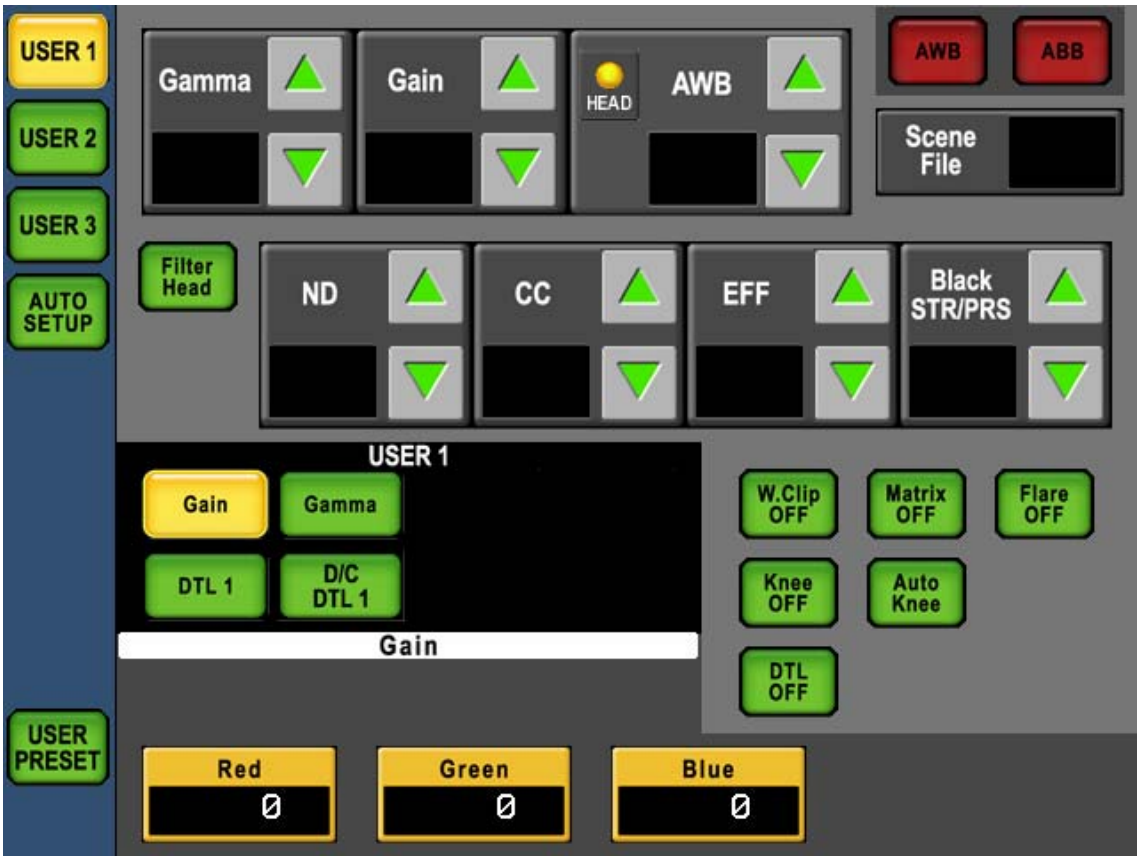
Reference The function group responds to each screen on the SETUP screen and a part of MAINTE screen. Refer to function list in "4.3 SETUP","4.4 MAINTE" for the detail of assignable functions to each switch.

15.2 Reading of user screen

1. Push the “USER” Switch from the FUNCTION Switches in the upper part of the LCD.



2. When [USER 1], [USER 2] or [USER3] switch is pushed, the user screen registered on the liquid crystal screen is displayed.



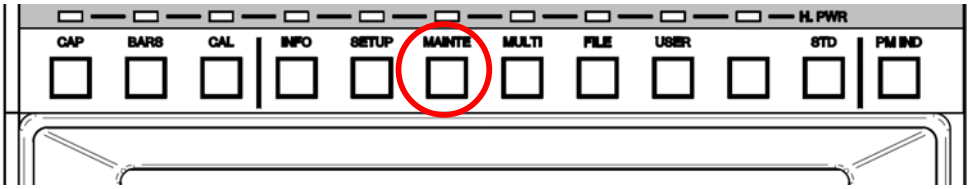
3 The switch becomes gray on the screen not registered. The switch cannot be pushed. The USER 1 screen can be displayed even if there is no registration. In this case, the selection switches such as Gamma and Gain can be operated.

16. Panel Config. (Panel Setting)

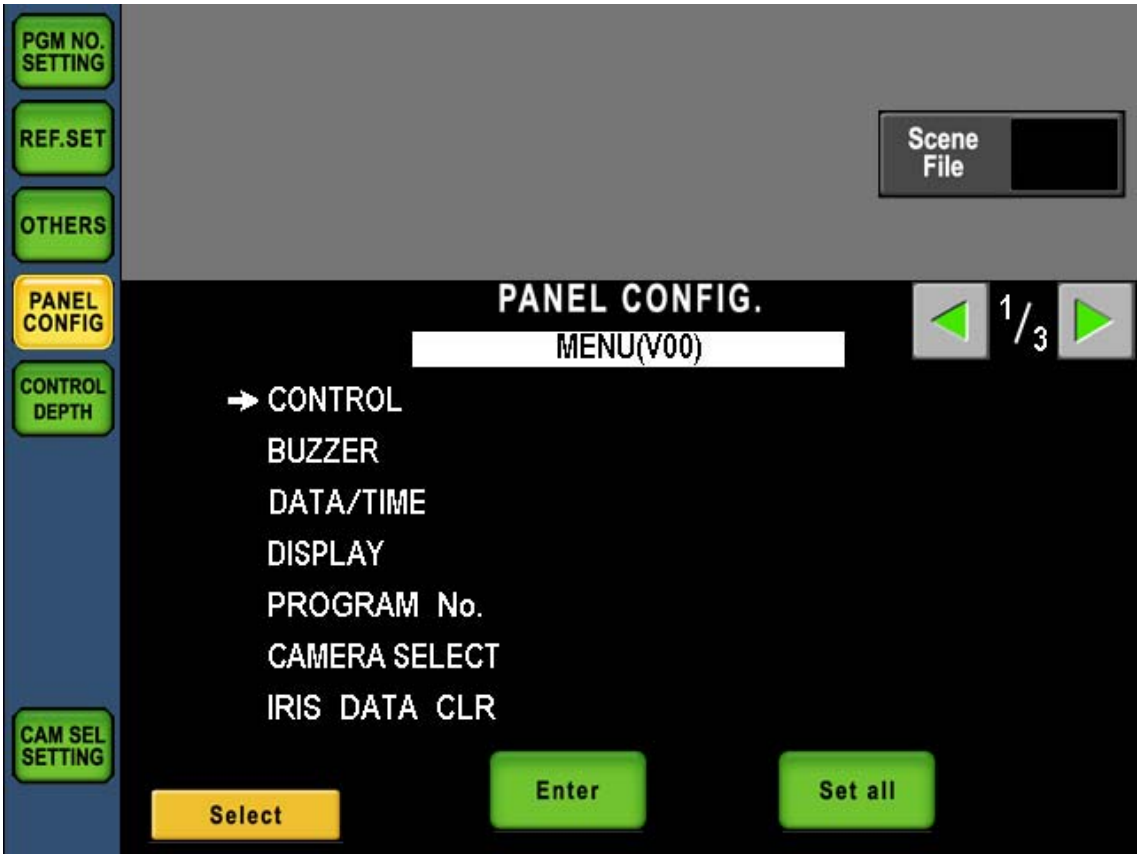
MCP-200 has so many function and operation procedure or seeting can be modified in accordance with the application or adjustment procedure.

16.1 Operation Procedure

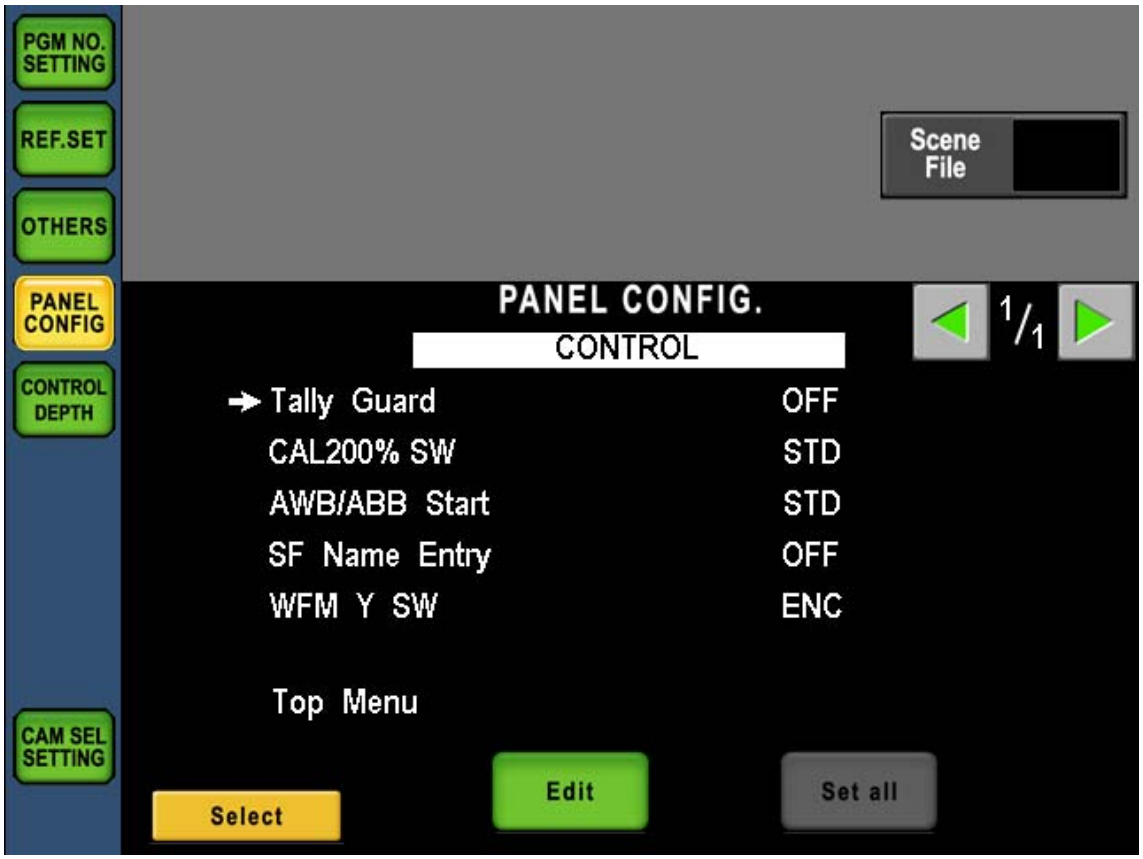
1. Press “MAINTE” switch of Function Switch portion on top side of LCD.



2. Press [PANEL CONFIG.] switch icon on LCD. Menu for panel setting will comeup.

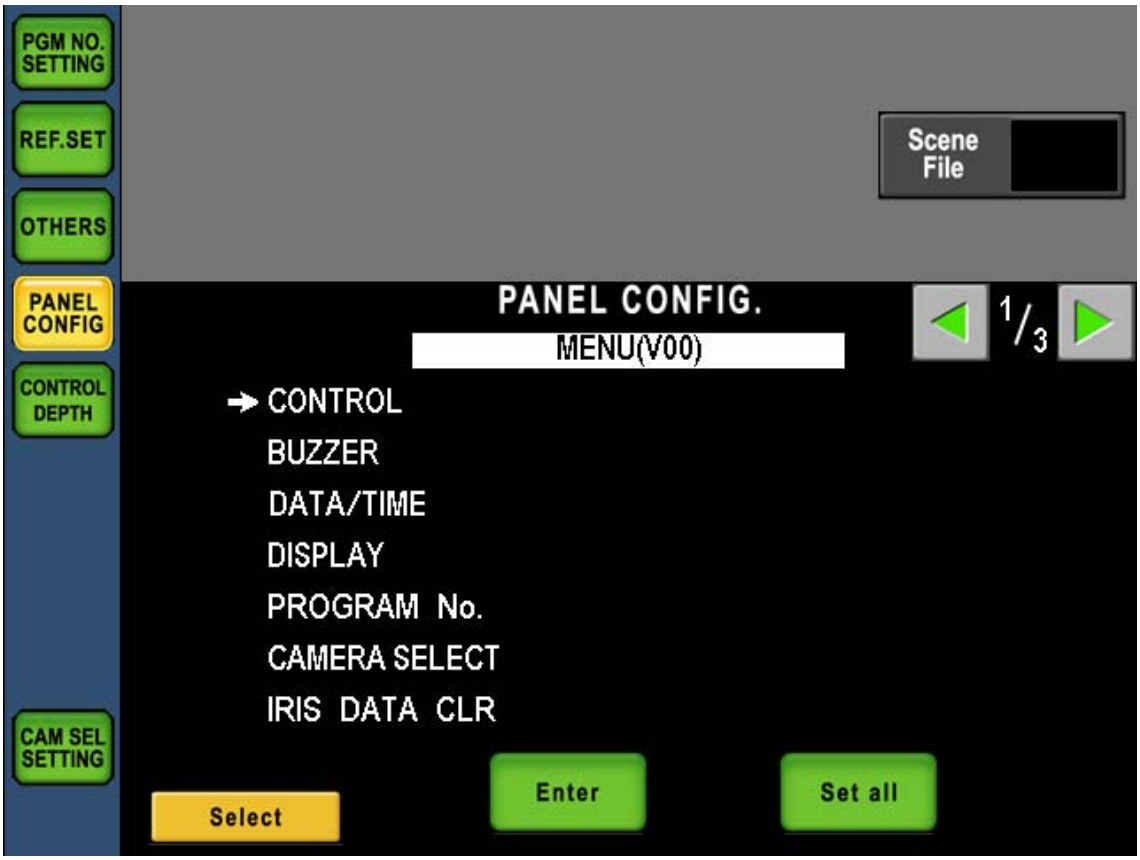


3. By turning rotary encoder on left side, →(Arrow Mark) moves up and down. Set the arrow mark to the function to be changed, and press [ENTER] switch icon. Menu page can be turn up by pressing ◀ ▶ switch icons.

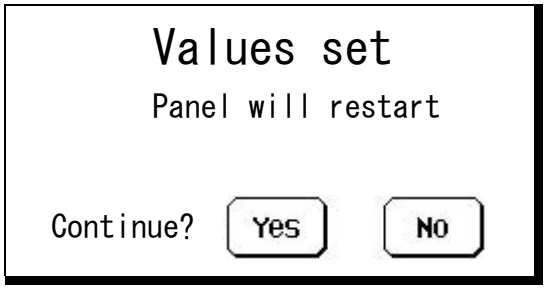


4. Turn rotary encoder on left side and set →(Arrow Mark) to the function and press [Edit] switch icon. [Edit] is changed to [Enter] and control item will blink.

5. Turn rotary encoder to select control item and press [Enter]. At this moment, changed setting is still tentative. If even one setting item is changed, [Set all] icon will blink to clarify the change of setting.



4. After compleing the change of setting items, press [Set all] switch icon.



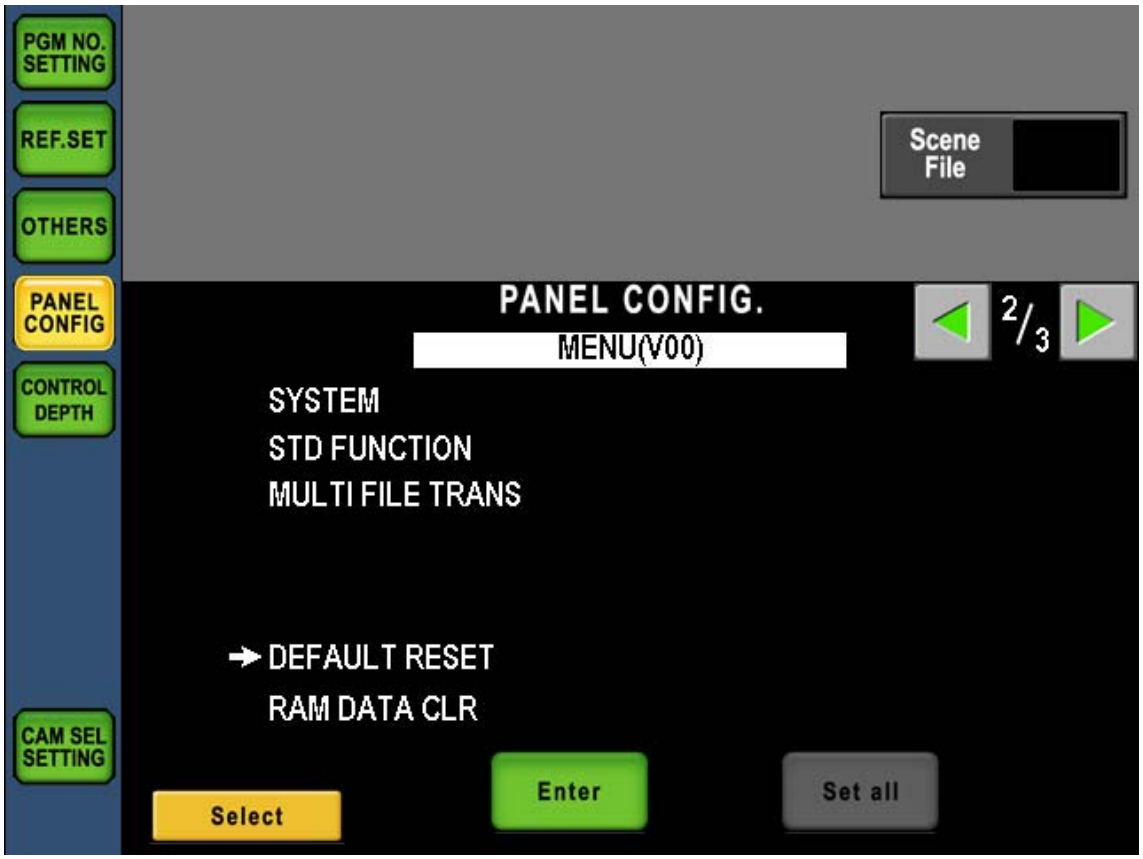
5. Above pop-up window comes up for the attention. Press [Yes] icon to upload the setting changed. And MCP will restart to initialize the setting automatically. If [No] icon is pressed, tentative setting will be cleared and back to previous setting.

CAUTION If Panel Config. menu page is closed witout pressing [Set all] icon, tentative input setting will be cleared and back to previous setting. However, control items of DATE/TIME Menu has be uploaded when [Edit] icon was pressed instead of [Set all] is pressed because of its functionality.

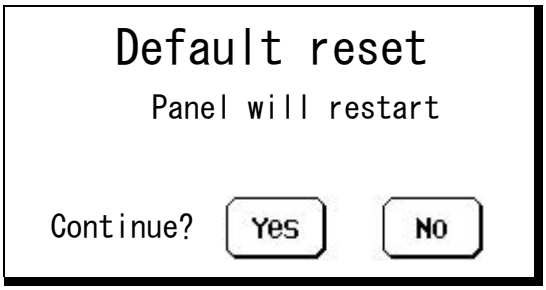
16.2 Initialize of Panel Config.

Setting items of Panel Config. can be back to initial setting.

1. Select “Default Reset” of the menu and press [Enter] switch icon.



2. Above pop-up window comes up for the attention.



3　Press [Yes] icon to upload the setting changed. And MCP will restart to initialize the setting automatically. If [No] icon is pressed, tentative setting will be cleared and back to previous setting.

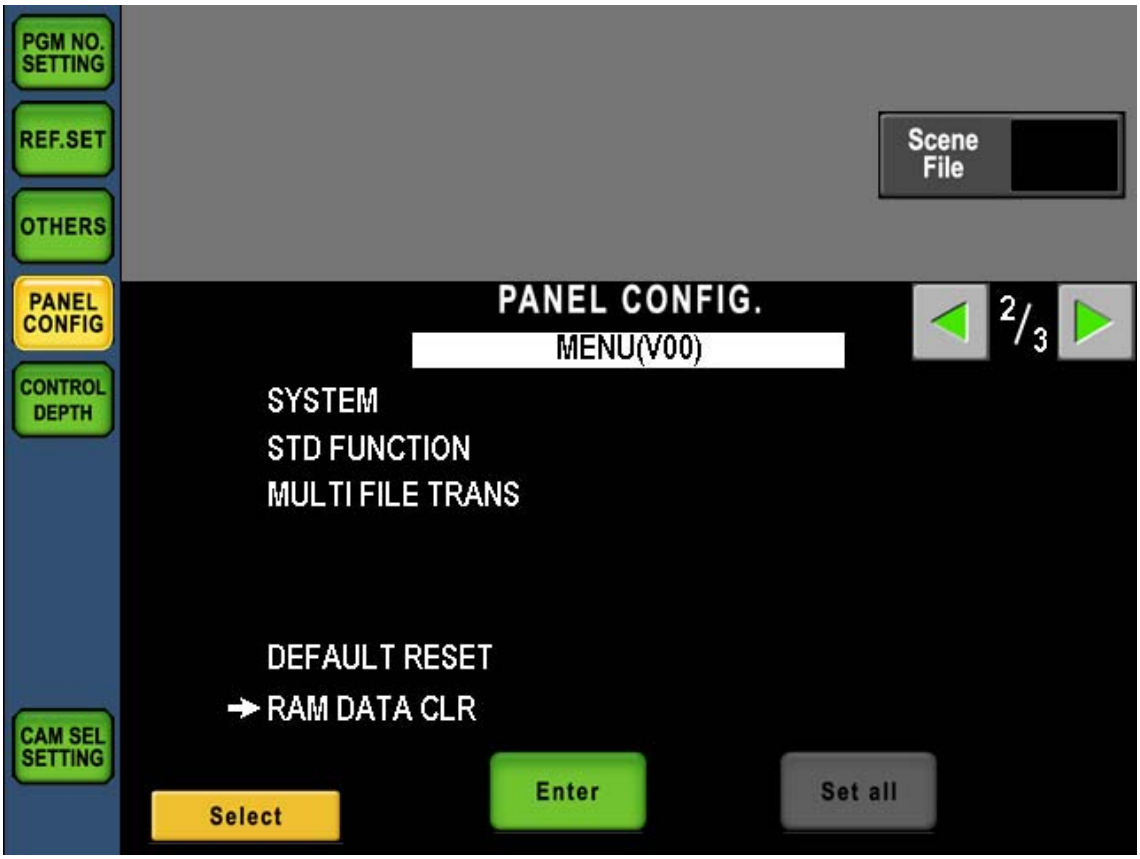
CAUTION Control items of DATE/TIME Menu excluded from initialize execution to avoid confusion of setup and operation because of its functionality.

Reference Refer to “16.4 Setting items” to confirm initial setting parameters. And refer to “18.3 Initial Setting” to execute initialize all items.

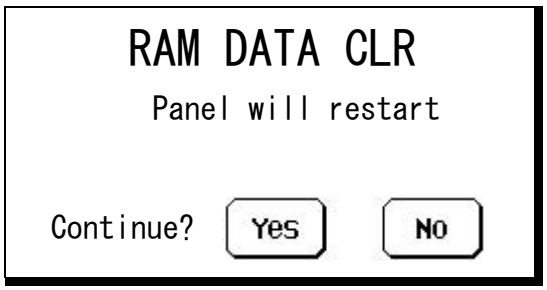
16.3 Initialize of RAM Data

All setting data of MCP-200 can be initialized.

1. Select “RAM DAT CLR” in the menu and press [Enter] switch icon.



2. Above pop-up window comes up for the attention.



3. When [Yes] icon is pushed, it initializes it all except the clock function. After the initialized, MCP will restart to initialize the setting automatically. If [No] icon is pressed, tentative setting will be cleared and back to previous setting.

CAUTION Moreover, the clock function is not initialized in this operation. In abnormality, it is automatically initialized.

Reference Refer to “16.4 Setting items” to confirm initial setting parameters of Panel Config. And Refer to “5.1 Camera Select” to confirm initial setting of Program Number. Initialize of RAM data can be done by LCD Menu. Refer to “18.3 Initial Setting” for the procedure.

16.4 Seeitng Items

Setting Item Table　　1/3

Menu	Item	Setting	Function
CONTROL			*Setup*
	Tally Guard		Tally Guard enable/disable setting. Tally guard is the function to inhibit switch operation for ON Air tally. Refer to “16.5 ON-Air Tally guard” for the detail.
		OFF *1	Tally Guard is disabled.
		LIMITED	Tally Guard is enabled for limited items.
		ALL	Tally Guard is enalbled for all items.
	AWB/ABB Start		To set AWB/ABB start condition.
		STD *1	Press the switch and execute normally.
		GUARD	The switch is guraded to avoid operation failure. Press the switch a moment for the execution.
	CAL200% SW		To set guard for CAL200% switch.
		STD *1	No gurad
		GUARD	Guard active Keep pressing CAL switch a couple of seconed to CAL200% ON.
	SF Name Entry		To set up function of Scene File Name registration page read out automatically at the Secene File registration. Refer to “13.4 Scene File Name setting” for the detail.
		OFF *1	Read out of registration page is disabled.
		ON	Scene File Name registration page is read out at the Scene File registration.
	WFM/PM Y SW		Setting when Y switch of WFM/PM is pressed.
		Y *1	Y Output
		ENC	ENC Output
BUZZER			*Buzzer Voulme Setup*
	Click Volume		To set volume of click sound at the switch and touch panel operaion.
		STD *1	Set to normal level.
		ATT	Set to half of normal level.
		OFF	Mute
	Error Volume		To set volume of error sound at the switch and touch panel operation.
		STD *1	Set to normal level.
		ATT	Set to half of normal level.
		OFF	Mute
	Call Volume		To set volume of Call sound from the camera head etc.
		STD *1	Set to normal level.
		ATT	Set to half of normal level.
		OFF	Mute
DATE/TIME			*Timeing setup* Second will be set to zero at the each setting. Set from top to bottom at the setting.
	Year	*3	Year
	Month	*3	Month
	Date	*3	Day
	Hour	*3	Hour
	Minute	*3	Minute

Setting Item Table 2/3

Menu	Item	Setting	Function
DISPLAY			***Display Setup***
	CAMSEL Name		To setup Camera Select Name Indicator of Camera Select Portion and Camera Number Indicator of Status Indicator portion.
		FIX *1	Fixed
		PGM	Program Number
	Offset Data DISP		To setup display of Control Data Offset. Refer to “8.2 Display of Control Data Offset”
		SELECT *1	ON/OFF setting can be done by LCD menu.
		OFF	No Offset Data displayed.
		ON	Fixed to display Offet Data.
	M PED Value		To setup MASTER PED Indicator.
		% data *1	To display video Level. Camera Head should support video level display function. Control Data is displayed if the camera head doesn’t support the function.
		CONTROL	Control Data is displayed.
	Call Latch		To setup of blinking 20 seconds after Call from camera head.
		ON *1	Blinking
		OFF	Not blinking
	DISP LIMIT		The display limitation of the control data is set.
		ON *1	The display is limited by ±100.
		OFF	The display is not limited.
PROGRAM No.			***Program Number Setup***
	Priority		To setup priority of Program Number. Refer to “6.3 Priority of Program Number” for the detail.
		CAM *1	Camera has a priority
		MCP	MCP has a priority.
	ICCP Memory		To setup the mode of memory for Program Number at Ikegami Command. Refer to “6.4 Setup for memory of Probram Number” for the detail.
		SW *2	Memory the Switch assignment
		CSU	Memory the CSU assignment
	Network Memory		To setup the mode of memory forProgram Number at Network Command. Refer to “6.4 Setup for memory of Probram Number” for the detail.
		CCU *2	Memory the CCU assignment
		SW	Memory the Switch assignment

Setting Item Table　　3/3

Menu	Item	Setting	Function
CAMERA SELECT			***Camera Select Setup***
	CAMSEL Mode		To setup reaction when Camera Select Switch is pressed.
		SIMPLE *2	Preset setting
		CUSTOM	Customize is available with Camera Select Switches.
	EXT CAMSEL		To setup external Camera Select control.
		DIRECT *2	Controlled by each Bit command.
		COMB	Controlled by the combination of Bits.
	CSU Serial Control		To setup CSU control
		OFF *2	Parallel Control
		ON	Serial Control
	Preview CMD Send		To set Previvew command sending
		ON *2	To send Preview command
		OFF	Not to senf Preview command
	Group Limit		The upper bound value of the Group Limit function is set.
		OFF *2	It doesn't limit it.
		1 to 4	The upper bound is limited from 1 to 4.
	CMD FIX Mode		To set Command Fix function
		DISABLE *2	Disabled
		ENABLE	Enabled
	etc Group Select		To set etc group select
		ENABLE *2	Enabled
		DISABLE	Disabled
IRIS DATA CLR			***Iris Data Clear Setup at IRIS Enable OFF*** Refer to "8.4 Iris Data Clear" for the detail.
	ICCP		At the Ikegami Command connection
		ON *1	To clear Iris Data(Relative Value)
		OFF	Not to clear Iris Data(Relative Value)
	Network		At the Network Command Connection
		OFF *1	Not to clear Iris Data(Relative Value)
		ON	To clear Iris Data(Relative Value)
SYSTEM			***System Setup***
	PAU Direct Menu SW		Direct switch setup for PANEL ASSIGNMENT UNIT
		ENABLLE *2	Enabled
		DISABLE	Disabled(To connect cameras to CSU5-1) But PAU can not be connected.

Setting Item Table 3/3

Menu	Item	Setting	Function
STD FUNCTION			***Standard Setup*** A standard state when "Clear to Standard" is executed and the standard of the Camera Status screen are set.
	Matrix		Matrix SETTING
		OFF *1	A standard setting is turned off.
		ON	A standard setting is turned on.
	Matrix Select		Matrix Select SETTING
		1 *1	A standard setting is SEL 1.
		2	A standard setting is SEL 2.
		3	A standard setting is SEL 3.
	Auto KNEE		Auto KNEE SETTING
		ON *1	A standard setting is turned on.
		OFF	A standard setting is turned off.
	Auto IRIS		Auto IRIS SETTING
		ON *1	A standard setting is turned on.
		OFF	A standard setting is turned off.
	SDTV ASPECT		SDTV ASPECT SETTING
		4:3 *1	A standard setting is 4:3.
		16:9	A standard setting is 16:9.
MULTI FILE TRANS			***MULTI FILE TRANS Setup*** Refer to "14.6 Multi File Transfer" for the detail.
	Snapshot File		Snapshot File trans setting
		DISABLE *1	Disabled
		ENABLE	Enabled
	Error DISP/PRCS		Processing setting at error/warning of forwarding to slave camera.
		YES/STOP *1	It interrupts temporarily, and the message is displayed.
		NO/SKIP	It shifts to the following slave camera without forwarding it.
		NO/SEND	The file forwarding is done without displaying the message.
	Auto Scene File Off		転送の際に、自動的にシーンファイルを OFF にする設定。
		DISABLE *1	Disabled
		ENABLE	Enabled

*1 item is initialized by the procedure of "16.2 Initialize fo Panel Config." or "18.3 Initial Setting"

*2 item is initialized by the procedure of "18.3 Initial Setting"

*3 marked Item cannot be initialized. In abnormality, it is automatically initialized.

16.5 ON-AIR TALLY GUARD

Can be inhibited switch control when ON-AIR Tally is lighting.

＜ON-AIR Tally Guard Function List＞

Control Item	Panel Config. Setup		
	OFF	limited	ALL
PM ID/PAGE	—	—	—
CAP ON/OFF	—	○	○
BARS ON/OFF	—	○	○
CAL ON/OFF	—	○	○
WFM/PM SELECT	—	—	—
AUTO IRIS ON/OFF	—	—	—
CALL	—	—	—
AWB	—	○	○
ABB	—	○	○
FILTER CONTROL(HEAD/REM)	—	—	○
ND FILTER SELECT	—	—	○
CC FILTER SELECT	—	—	○
EFFECT SELECT			○
GAIN SELECT	—	—	○
GAMMA SELECT	—	—	○
BLK STR/PRS SELECT	—	—	○
AWB MEMORY SELECT	—	—	○
SCENE FILE Window OPEN	—	—	—
SCENE FILE Load	—	—	○
SCENE FILE Save	—	—	○
INFO	—	—	—
SETUP SW	—	—	○
Gain Wobble ON/OFF	○	○	○
Zebra IND.ON/OFF	○	○	○
LCD SW(without AWB , ABB)	—	—	○
MAINTE SW	—	—	○
Head Bars ON/OFF	○	○	○
LCD SW(without AWB , ABB)	—	—	○
FILE SW	—	—	—
LCD SW	—	—	○
STANDARD SW	—	○	○
LCD SW	—	○	○

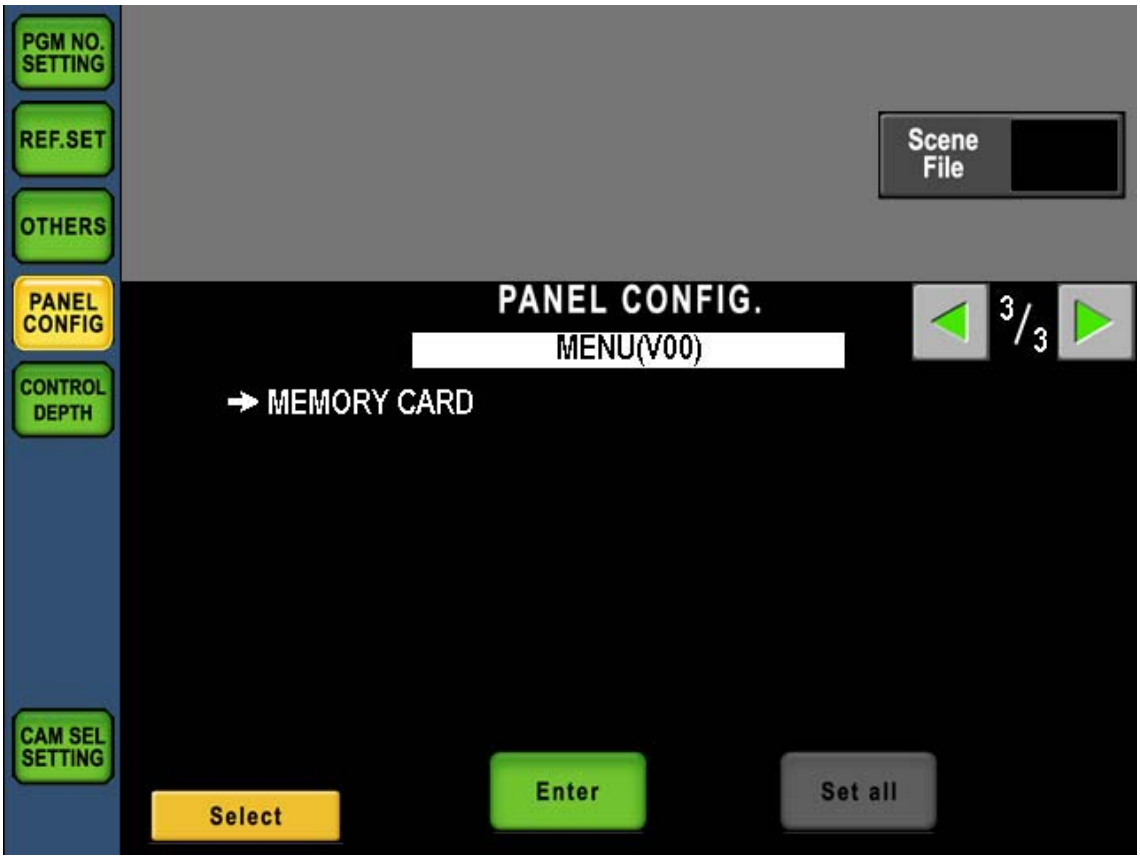
—: Tally Guard Disable

○: Tally Guard Enable

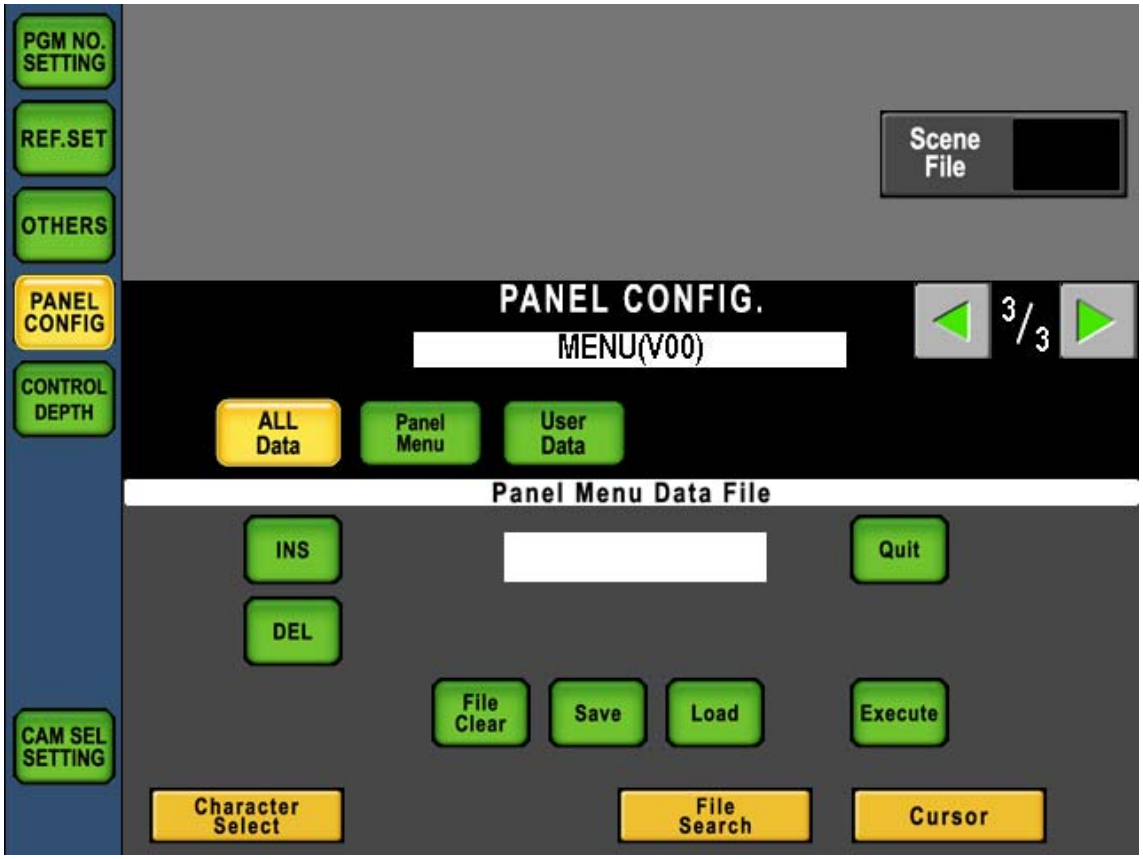
16.6 Saving and Loading of Panel data

The panel data is preserved on the SD memory card, and it is possible to read it if necessary. The data made with not only preservation as the backup data but also a certain MCP can be copied onto other MCP. Moreover, it comes to be able to have data different in each program and each video engineer easily.

1. Please select MEMORY CARD from the menu to save, and to read it, and push Enter.



The procedure of saving and reading to the SD memory card is the same as saving and reading the camera data. Warning etc. when it tried to read the erroneous data are similarly displayed.



2. When data is read, it is confirmed whether the current version and the preserved version are corresponding. The data of the differing version can be read. However, the part where the function by the difference of the version is different is not changed.

   As for reading data from the SD memory card, because volume of data is a little, is instantaneously done. After reading, the panel is reset.

Reference Refer to “9. MEMORY CARD OPERATION” for the detail.

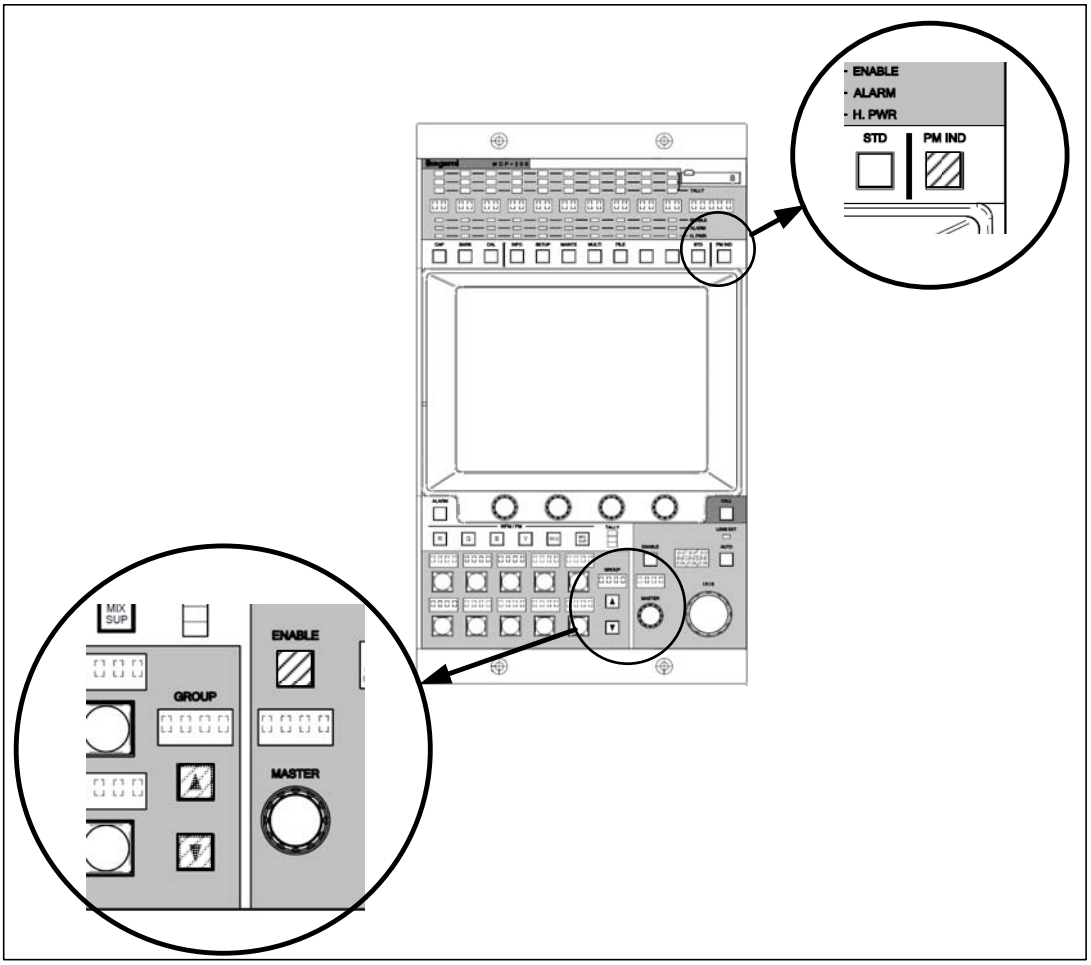
17. FIRMWARE UPDATE

The firmware of MCP-200 and the connected equipment can be updated with SD memory card.

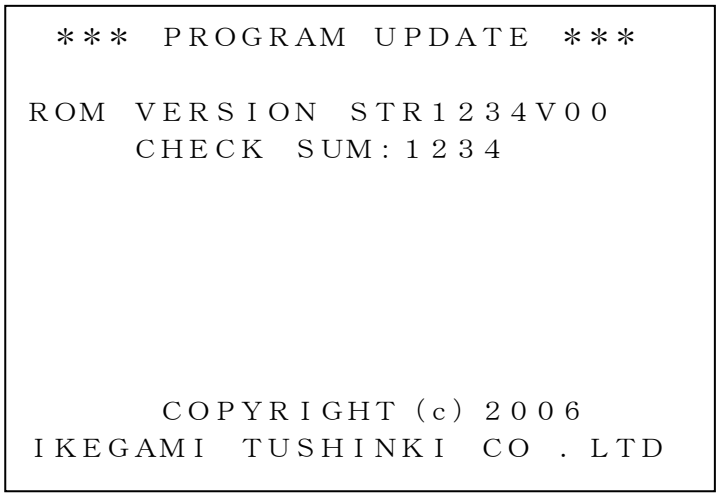
17.1 Update Procedure of MCP-200

1) Procedure 1

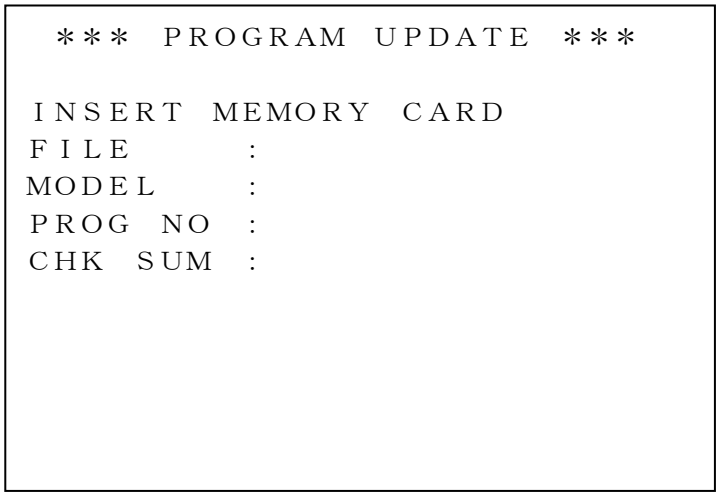
Push “PM IND” Switch on top side of LCD in ten seconds.



Below update program will come up.



Indication will change a few seconds later.



2) Procedure 2

Insert SD Memory Card which includes new Firmware (Update File).
The following indication will come up after loading update file.
(Below File Name and PROG No. is just sample.)

```
  ***  PROGRAM  UPDATE  ***

MENU  SEL : FILE  SELECT
FILE       : TEST_FILE. RDF
MODEL      : MCP-200
PROG  NO   : JPN_SAMPLE
CHK  SUM   : ----

    SELECT : ▲▼  EXECUTE : □
```

If “PM IND” switch is pushed in ten seconds at normal operating condition with SD Card inserted, this window will come up, too.

3) Procedure 3

Select Update File by “UP/DOWN” switch on Camera Select Switch portion.
Enter the selected Update File by “ENABLE” switch on IRIS / PED Control portion.

```
  ***  PROGRAM  UPDATE  ***

MENU  SEL : FILE  SELECT
FILE       : TEST_FILE. RDF
MODEL      : MCP-200
PROG  NO   : JPN_SAMPLE
CHK  SUM   : ----

    SELECT : ▲▼  EXECUTE : □
      PROGRAM  UPDATE?
```

4) Procedure 4

Select update or cancel by “UP/DOWN” Switch on Camera Select portion.
Push “ENABLE” Switch on IRIS / PED Control portion to execute or cancel the update.
In case of cancel, it will back to Procedure 3.

5) Procedure 5

At the execution of update, the data is transferred from SD Memory Card to internal Buffer. At the file transfer, below window will come up and bar graph indicator shows transfer status.

```
  ***  PROGRAM  UPDATE  ***
                          SD-2G
MENU  SEL:FILE  SELECT
FILE       :TEST_FILE.RDF
MODEL      :MCP-200
PROG  NO   :JPN_SAMPLE
CHK  SUM   :----

-------  CAUTION  --------
DATA  LOADING
******-----+-----------|
```

he program is overwritten automatically after finishing data transfer.
CHK SUM will be indicated to check updated data.

```
  ***  PROGRAM  UPDATE  ***

MENU  SEL:FILE  SELECT
FILE       :TEST_FILE.RDF
MODEL      :MCP-200
PROG  NO   :JPN_SAMPLE
CHK  SUM   :1B3C

-------  CAUTION  --------
PROGRAMING
******-----+-----------|
```

6) Procedure 6

After overwriting is finished, it will judge whether the program is updated correctly by checking CHK SUM comparison.

```
  ＊＊＊ PROGRAM UPDATE ＊＊＊

MENU SEL:FILE SELECT
FILE      :TEST_FILE.RDF
MODEL     :MCP－200
PROG NO   :JPN_SAMPLE
CHK SUM   :1B3C

                    CHECK:□
CHK SUM   :1B3C
    COMPLETE UPDATE OK
```

If overwriting is done correctly, OK indication will come up.

Push “PM IND” switch to close update program and boot up will start with updated firmware.

Following warning message may be indicated at the firmware updating because RAM partition has been changed from previous version.

```
[ WARNING ]
RAM DATA IS BROKEN
Initial Factory Setting
```

If this warning message is displayed. It requires setup with”18.3 Initial Factory Setting”.

Note Doesn't support the SDHC memory card, the miniSD card, and the microSD card. The upper bound capacity of the SD memory card that can be used is different according to the version of the firmware. In the one that the display of "SD-2G" appears on the screen, the upper bound capacity is 2G byte. In the one that the display doesn't appear, the upper bound capacity is 1G byte.

CAUTION SD Memory Card should be formatted by SD Memory Card Compliant format. Some of PC OS format standard doesn’t support SD Memory Card Format. In that case, SD Card doesn’t work properly with MCP-200.

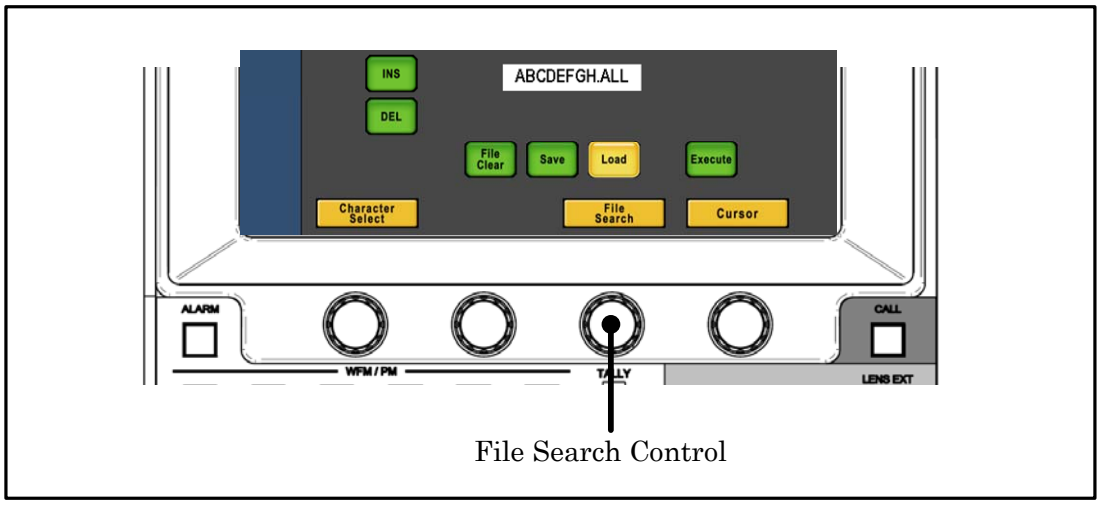
17.2 Update Procedure of Connected equipment

Firmware updating for other connected equipment can be done with MCP-200, although the objective equipment should have remote updating function with command connection.
And menu setting and/or switch setting of objective equipment are required. See operation manual of each equipment for detail setting.
The setting procedure of MCP-200 is only described in this chapter as following.

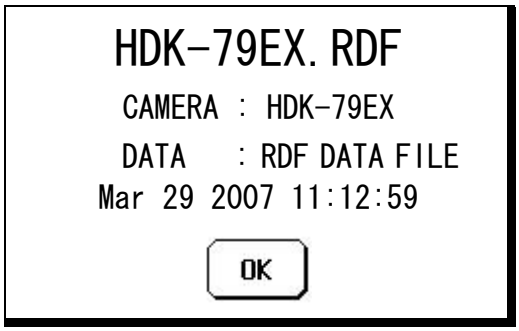
1. Insert SD memory card which is installed new firmware for objective equipment into the slot.
2. Push “FILE” Switch in Function Switches on top side of LCD. Push [MEM.CARD SAVE/LOAD] Switch on LCD menu.

3. Push [RDF File] switch.
4. Turn [Load] switch to “ON”.
5. Rotate File Search Control Knob to select target file.

Note RDF File search is done with RDF file extension only (Default setting).

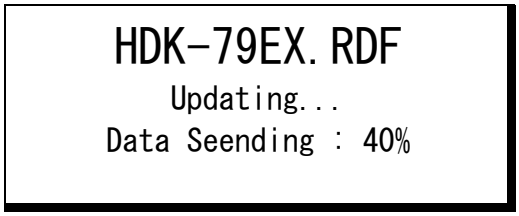


Note If File Data Name on LCD screen is pushed, file data information will be displayed. Camera Model Name and File type can be confirmed. And by rotating File Search Control Knob at this condition, the other file data in the SD will be displayed sequentially.



6. Press [Execute] switch.

7. The [Execute] switch lights when “Yes” is pushed, the file name and the execution display are done on the LCD, and the update is executed. When “No” is pushed, it cancels.



At the completing update, Complete Message window comes up and buzzer beep. Message window and buzzer will stop 1.5 sec. later.

Confirm completion of firmware updating with VF, PM or Indicators of objective equipment. Set menu or switches back to previous setting.

CAUTION The indication of updating status of some equipment may disappear without indication of completion status because of the difference of software structure.

Note If file data except RDF file is selected, following error message will come up. It is not available. Push [OK] to clear.

CAUTION Confirm completion of firmware updating with VF, PM or Indicators of objective equipment, not only OCP LCD screen.

18. TROUBLE SHOOTING

18.1 When Alarm Lamp is flashing

BS/CCU has function to check diagnostic of BS/CCU itself and Camera Head. Main Power Switch ON to start monitoring of diagnostic and continue to monitor through the operation

If any trouble happened in BS/CCU or Camera Head, it senses the problem to blink ALARM Indicator on OCP. And it shows where the problem has happened and display Diagnostic Information page on Picture Monitor.

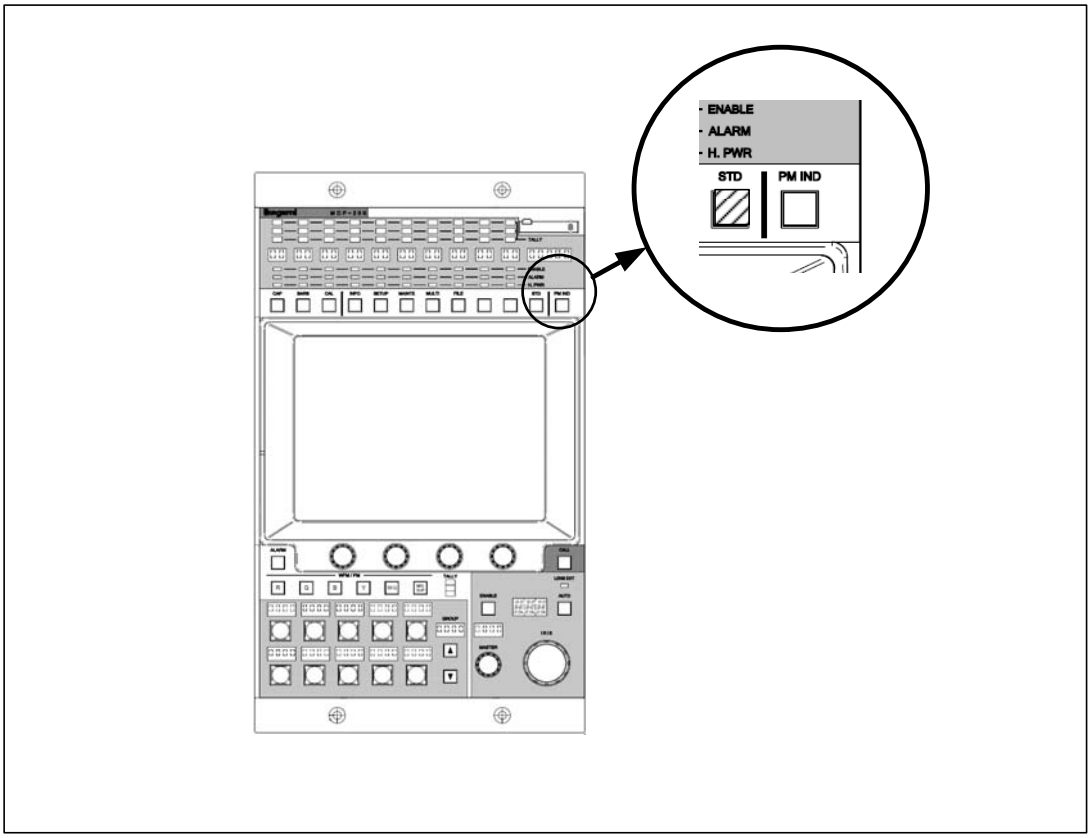
If "PM IND/PAGE" switch on OCP is pressed in case that ALARM indicator is not blinking, Diagnostic Information page will come up on Picture Monitor to check the condition.

When ALARM indicator(switch) is blinking, by pressing the switch, simple Diagnostic Information page can be displayed on LCD screen. This enables to confirm the status if PM is not connected to CCU/BS.

CAUTION With some type of BS/CCU, simple Diagnostic page on OCP may not be displayed, even though Diagnostic information is displayed on PM(Picture Monitor). This is not trouble but OCP could not get Diagnostic information from BS/CCU, because previous BS/CCU doesn't support this function.

18.2 MCP Reset Procedure

Reset can be done when OCP doesn't work correctly or at the hang-up. To reset OCP, press "STD" Switch in 5 seconds. LCD display, LED and Switch Light turns off once, and release "STD" Switch after confirming Light off. After reset processing completed, it will reboot automatically. If it doesn't recover once, do again to reset.



If reset can not be done with this procedure, turn off the power of the unit which supplies the power to OCP.

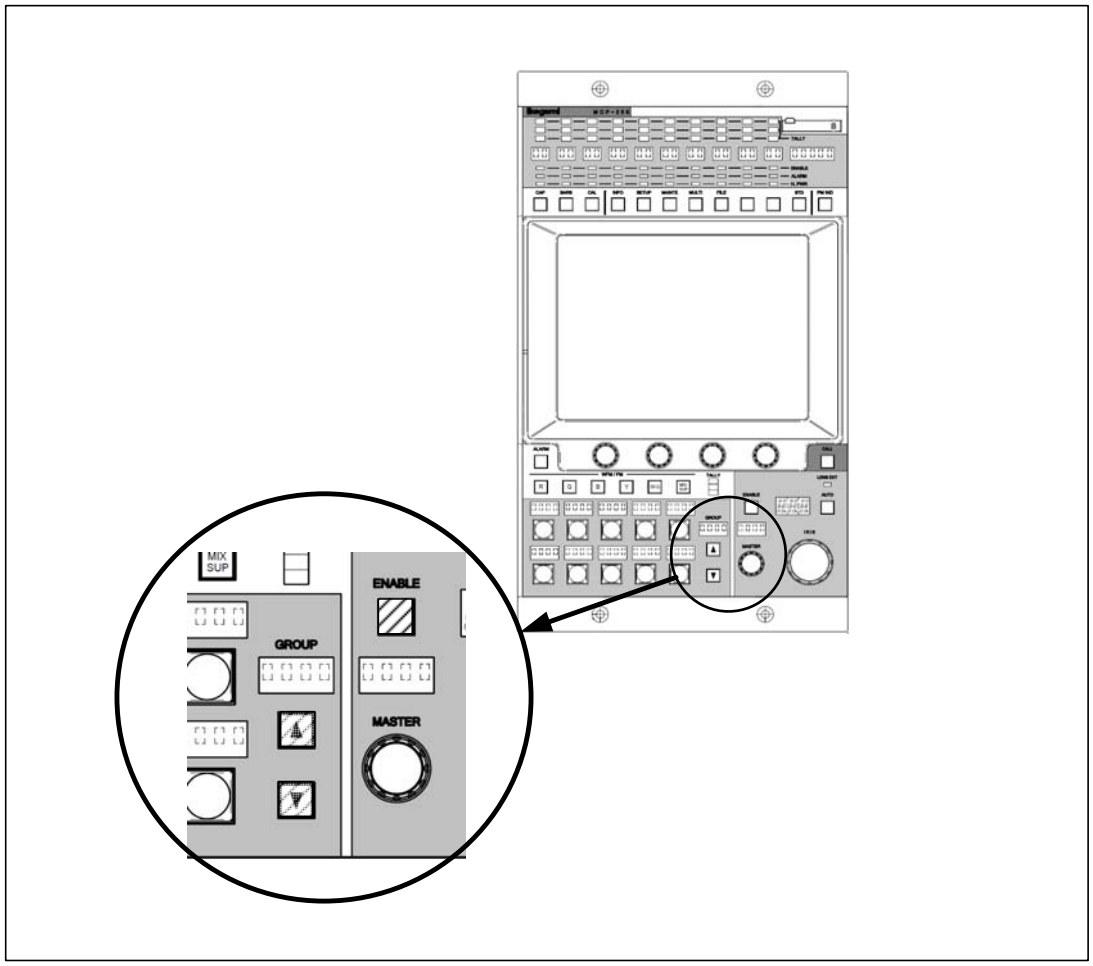
18.3 Initial Factory Setting

Various settings of the camera selection, the program number, and Panelconfig can be returned to initialization.

Reference Refer to “16.2 Initialize of Panel Config.” when only Panelconfig initializes it.

1) Procedure 1

Both parties of the “UP/DOWN” switch of the group selection switch are pushed at the same time for about five seconds.



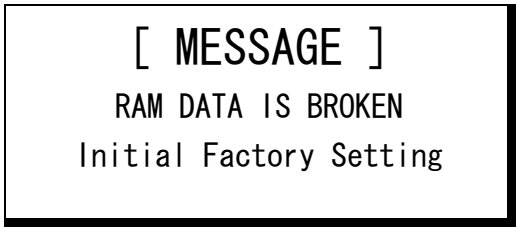
2) Procedure 2

The “ENABLE” switch begins blinking. Please push the “ENABLE” switch while it blinks. The buzzer rings long, and it is possible to confirm it. It returned to initialization. Blinking is released at about three seconds.

Note RAM area can be initialized even according to the procedure of “ 16.3 Initialize of RAM Data “. Moreover, the clock function is not initialized in this operation. In abnormality, it is automatically initialized.

18.4 When “RAM DATA IS BROKEN” is displayed.

At the power on, RAM data is checked automatically. If data is damaged, following message window will comes up on LCD.

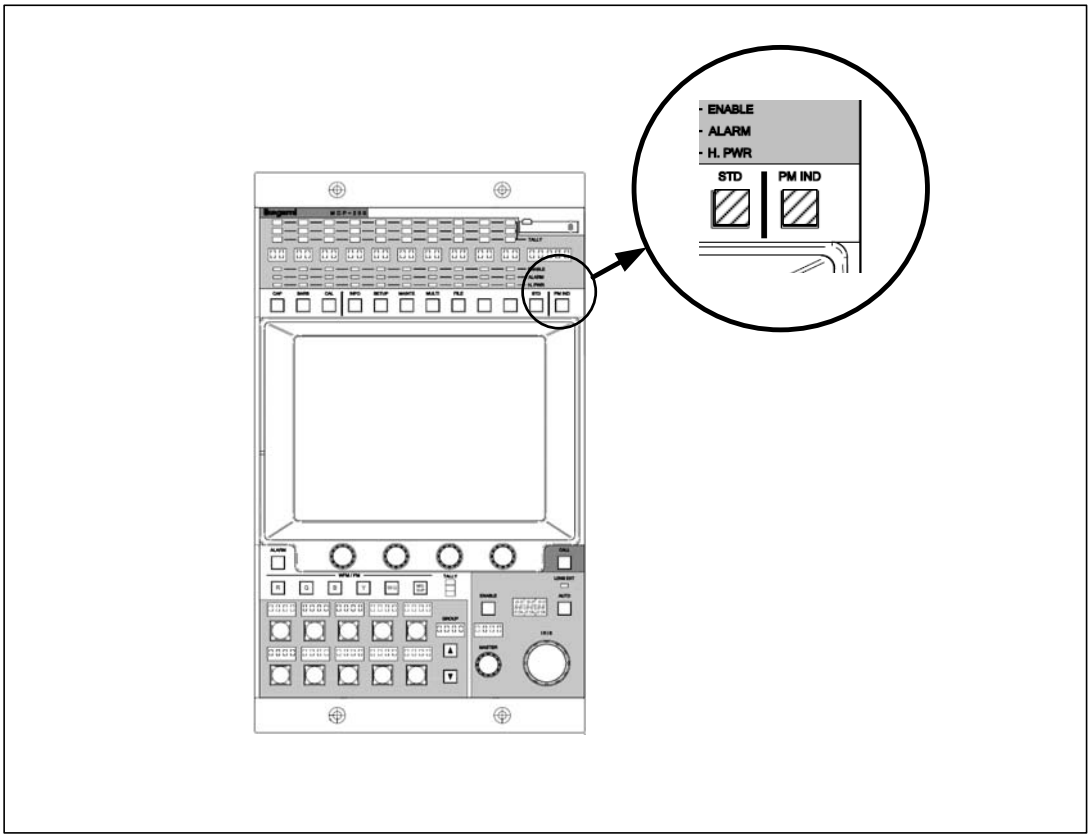


In this case, it is necessary to execute “18.3 Initial Factory setting” to reset to default factory setting.
After MCP firmware update, the difference of RAM data area between previous version and new version may be detected as a failure. It is also necessary to execute “18.3 Initial Factory setting”.

CAUTION If this message often comes up, Back-up RAM is damaged.

18.5 Trouble at Firmware Update

In case of power down of MCP-200 on the midway of firmware update or installing the firmware for the other model, MCP may not work properly.
If that is the case, press "STD" switch and "PM IND" switch a couple of seconds at the same time.Perform firmware update again after update menu page has come up.



If update menu page doesn't come up, turn off the power of MCP-200 once. And turn on the power of MCP with keep pressing "PM IND" switch.To perform power recycle of MCP, turn off the power of the unit which supplies power to MCP, or disconnect and connect again with COMMAND connector and/or CSU connector.

18.6 Trouble under Network Command connection

In case of Network Command connection, there is a possibility to trouble multiple units to the network at the same time. This might be the problem of network itself and command control doesn't work correctly. There are some factors to cause network problem as following.

- **Wiring Problem**
  Check coaxial cable, coaxial connector, F-type connector and 75 ohm termination plug.Most of problem concerns connector or cable.
  The shield of Coaxial cable(connector) for Network Command cable is not used for GND but for command signal, unlike a video signal. If the shield is connected to GND, it may cause network problem.

- **Network ID setup failure**
  If the network ID is duplicated, it may cause the problem not for duplicated units but also entire network.
  Network ID o the units can be checked by the Information menu page of MCP-200. Check network IDs to avoid duplication.

- **Unit failure**
  Network problem might be also caused by the failure of one unit. To conifrm the defective unit, it is necessary to disconect each unit from network. MCP-200 can be disconnected from the network by pressing "PM IND" a couple of second to change to update page. To connect to the network again, press "PM IND" switch again. OCP-200 can be disconnect and connect again to the network by same procedure as well.

- **Limitation of connected number at network**
  Eight MCP/OCP can be connected with one BS/CCU in the maximum. MCP is counted with one regardless of the state of the camera selection. MCP is not related in the state of the camera selection, and counted with one. The number of OCP that can be connected with one BS/CCU at the same time becomes seven when there is one MCP in the network. The number of OCP that can be connected at the same time becomes six when there are two MCP.

CAUTION Disconnection from the network is not disconnected completely by hardware basis.if network driver device is defective, disconnection may not be available by above procedure.In that case, it is necessary to disconnect COMMAND connctor by hardware basis.

19. SPECIFICATIONS

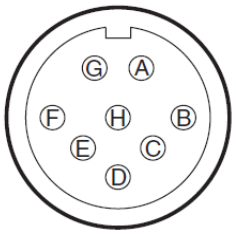
19.1 Rating/Performance

	Model with DC IN Connector	Model without DC IN Connector	Remarks
Power voltage	＋１１Ｖ～＋１６Ｖ	＋１１Ｖ～＋１３Ｖ	+12VDC (STANDARD)
Power consumption	１５W(STANDARD)		
Max cable length	(external power supply)		
Network Connection	３０ｍ（５０ｍ）	３０ｍ	CP CABLE
ICCP Connection	３０ｍ（１００ｍ）	３０ｍ	CP CABLE
	１０ｍ（３０ｍ）	１０ｍ	MCP CABLE
Operating temperature	０℃～＋４５℃		
Storage temperature	－２５℃～＋６０℃		
Ambient humidity	３０％～９０％ (No condensation)		
External dimensions (W／H／D)	２０４×３５４×８３．２mm		
Weight	Approx.２．４ｋｇ		

19.2 Pin Assignment for External Connector

■ COMMAND Connector

Receptacle



Insertion Side

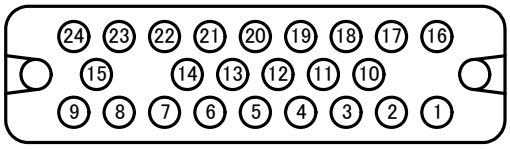
Connector for input and output control signals to connect with BS/CCU or CP HUB.

MCP Side : PRC05 - R8M
Cable Side : PRC90 - 199P9 - 8F (8-pin female plug) or equivalent

Pin No	Name	Function	I/O	External Interface
A	HED(+)	Digital data input (+) BS/CCU –> MCP	IN	
	A	Digital data input/output (A) CP HUB <–> MCP	IN/OUT	
B	HED(–)	Digital data input (–) BS/CCU –> MCP	IN	
	B	Digital data input/output (B) CP HUB <–> MCP	IN/OUT	
C	HEC(+)	Digital data output (+) MCP –> BS/CCU	OUT	
D	HEC(–)	Digital data output (–) MCP –> BS/CCU	OUT	
E	+12V IN	DC + 12 V power supply	IN	
F	+12V RET	Ground for DC + 12 V power supply	OUT	
G	NC	----------		
H	NC	----------		

■ CSU Connector

Recepacle



Insertion side

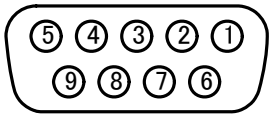
Connector for input and output control signals to connect with CSU

MCP Side : PW-1624BA(09)
Cable Side : S-1624A

Pin No	Name	Function	I/O	External Interface
1	CSU SEL A V	CSU number select signal (VIDEO)	OUT	
2	CSU SEL B V	CSU number select signal (VIDEO)	OUT	
3	CSU SEL C V	CSU number select signal (VIDEO))	OUT	
4	CAM SEL A V	Camera number select signal (VIDEO)	OUT	
5	CAM SEL B V	Camera number select signal (VIDEO)	OUT	
6	CAM SEL C V	Camera number select signal (VIDEO)	OUT	
7	CSU SEL A C	CSU number select signal (COMMAND)	OUT	
8	CSU SEL B C	CSU number select signal (COMMAND)	OUT	
9	CSU SEL B C	CSU number select signal (COMMAND)	OUT	
10	CAM SEL A C	Camera number select signal (COMMAND)	OUT	
11	CAM SEL B C	Camera number select signal (COMMAND)	OUT	
12	CAM SEL C C	Camera number select signal (COMMAND)	OUT	
13	HED RX(+)	Digital data input (+) CSU -> MCP	IN	
14	HED RX(-)	Digital data input (-) CSU -> MCP	IN	
15	HEC TX(+)	Digital data input (+) MCP -> CSU	OUT	
16	HEC TX(-)	Digital data input (-) MCP -> CSU	OUT	
17	+12V IN	DC + 12 V power supply	IN	
18	+12V IN	DC + 12 V power supply	IN	
19	+12V RET	Ground for DC + 12 V power supply	OUT	
20	+12V RET	Ground for DC + 12 V power supply	OUT	
21	YC PARADE	YC PARADE signal output	OUT	
22	STAIR ON	ON/OFF control of STAIR signal output to WFM	OUT	
22	NC	----------		
23	NC	----------		
24	NC	----------		

■ EXT-1 Connector

Receptacle



Insertion side

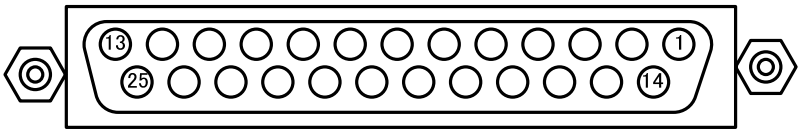
Connector for System Expansion (Not used yet)

Unit Side : D-SUB 9 pin (Socket)
Cable Side : D-SUB 9 pin (Pin), Inch scale screw

Pin	Name	Description	Direction	Interface
1	NC	----------		
2	TX-	RS-422 TX(-)	OUT	
3	RX+	RS-422 RX(+)	IN	
4	TX_GND	TX GND		
5	NC	----------		
6	RX_GND	RX GND		
7	TX+	RS-422TX(+)	OUT	
8	RX-	RS-422RX(-)	IN	
9	GND	GND		

■ EXT-2 Connector

Recepacle



Insertion side

Connector for System Expansion

Unit Side : D-SUB 25 pin (Socket)
Cable Side : D-SUB 25 pin (Pin), Inch scale screw

Pin	Name	Description	Direction	Interface
1	EXT_OUT1	Camera Select Status Output 1	OUT	
2	EXT_OUT2	Camera Select Status Output 2	OUT	
3	EXT_OUT3	Camera Select Status Output 3	OUT	
4	EXT_OUT4	Camera Select Status Output 4	OUT	
5	EXT_OUT5	Camera Select Status Output 5	OUT	
6	EXT_OUT6	Camera Select Status Output 6	OUT	
7	EXT_OUT7	Camera Select Status Output 7	OUT	
8	EXT_OUT8	Camera Select Status Output 8	OUT	
9	NC	----------		
10	NC	----------		
11	NC	----------		
12	NC	----------		
13	GND	Signal GND	IN	
14	GND	Signal GND	IN	
15	CAMSEL_ENABLE	Camera Select Enable Input	IN	
16	CAM_SEL1	Camera Select Input 1	IN	
17	CAM_SEL2	Camera Select Input 2	IN	
18	CAM_SEL3	Camera Select Input 3	IN	
19	CAM_SEL4	Camera Select Input 4	IN	
20	CAM_SEL5	Camera Select Input 5	IN	
21	CAM_SEL6	Camera Select Input 6	IN	
22	CAM_SEL7	Camera Select Input 7	IN	
23	CAM_SEL8	Camera Select Input 8	IN	
24	CAM_SEL9	Camera Select Input 9	IN	
25	CAM_SEL10	Camera Select Input 10	IN	

In the external camera selection of MCP-200, there are two modes.
Direct modes are possible up to ten. The combinations modes are possible up to 50.
In case of CAMSEL_ENABLE terminal (Pin No. 15) is grounded, external control become active.

Reference Refer to " 5.4 Remote Camera Select Control" for details of the external camera selection.

External Camera Select (Direct mode)

	CAM_SEL_										
	ENABLE	10	9	8	7	6	5	4	3	2	1
DISABLE	1	*	*	*	*	*	*	*	*	*	*
NON SEL	0	1	1	1	1	1	1	1	1	1	1
1CAM	0	1	1	1	1	1	1	1	1	1	0
2CAM	0	1	1	1	1	1	1	1	1	0	1
3CAM	0	1	1	1	1	1	1	1	0	1	1
4CAM	0	1	1	1	1	1	1	0	1	1	1
5CAM	0	1	1	1	1	1	0	1	1	1	1
6CAM	0	1	1	1	1	0	1	1	1	1	1
7CAM	0	1	1	1	0	1	1	1	1	1	1
8CAM	0	1	1	0	1	1	1	1	1	1	1
9CAM	0	1	0	1	1	1	1	1	1	1	1
10CAM	0	0	1	1	1	1	1	1	1	1	1

0:LOW(GND)
1:OPEN
*:Don't care

External Camera Select (Combinations mode)

	CAM_SEL_										
	ENABLE	10	9	8	7	6	5	4	3	2	1
DISABLE	1	*	*	*	*	*	*	*	*	*	*
NON SEL	0	1	*	*	*	*	*	*	*	*	*
1CAM	0	0	0	0	0	0	0	0	0	0	0
2CAM	0	0	0	0	0	0	0	0	0	0	1
3CAM	0	0	0	0	0	0	0	0	0	1	0
4CAM	0	0	0	0	0	0	0	0	0	1	1
5CAM	0	0	0	0	0	0	0	0	1	0	0
6CAM	0	0	0	0	0	0	0	0	1	0	1
7CAM	0	0	0	0	0	0	0	0	1	1	0
8CAM	0	0	0	0	0	0	0	0	1	1	1
9CAM	0	0	0	0	0	0	0	1	0	0	0
10CAM	0	0	0	0	0	0	0	1	0	0	1
11CAM	0	0	0	0	0	0	0	1	0	1	0
12CAM	0	0	0	0	0	0	0	1	0	1	1
13CAM	0	0	0	0	0	0	0	1	1	0	0
14CAM	0	0	0	0	0	0	0	1	1	0	1
15CAM	0	0	0	0	0	0	0	1	1	1	0
16CAM	0	0	0	0	0	0	0	1	1	1	1
	（17CAM～48CAM：Omission）										
49CAM	0	0	0	0	0	1	1	0	0	0	0
50CAM	0	0	0	0	0	1	1	0	0	0	1

0:LOW(GND)

1:OPEN

*:Don't care

Camera Select Status Output

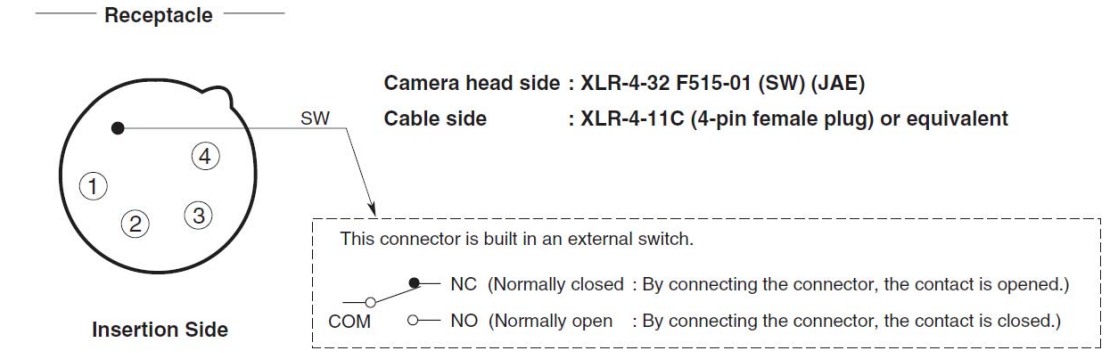
	EXT_OUT							
	8	7	6	5	4	3	2	1
NON SEL	1	1	1	1	1	1	1	1
1CAM	0	0	0	0	0	0	0	0
2CAM	0	0	0	0	0	0	0	1
3CAM	0	0	0	0	0	0	1	0
4CAM	0	0	0	0	0	0	1	1
5CAM	0	0	0	0	0	1	0	0
6CAM	0	0	0	0	0	1	0	1
7CAM	0	0	0	0	0	1	1	0
8CAM	0	0	0	0	0	1	1	1
9CAM	0	0	0	0	1	0	0	0
10CAM	0	0	0	0	1	0	0	1
11CAM	0	0	0	0	1	0	1	0
12CAM	0	0	0	0	1	0	1	1
13CAM	0	0	0	0	1	1	0	0
14CAM	0	0	0	0	1	1	0	1
15CAM	0	0	0	0	1	1	1	0
17CAM	0	0	0	0	1	1	1	1
	（17CAM～48CAM：Omission）							
49CAM	0	0	1	1	0	0	0	0
50CAM	0	0	1	1	0	0	0	1

0:LOW（OPEN C）

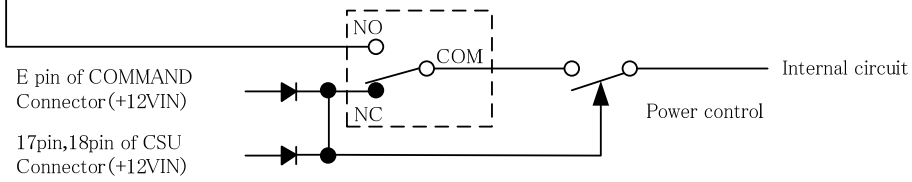
1:OPEN（OPEN C）

■ DC IN Connector（only model with connector）

For external power supply to MCP (DC+12V). Used for long distance cable extension from BS/CCU or CSU, such as the case of power supply unavailable.



Pin No	Name	Function	I/O	External Interface
1	+12V RET	+12V input RET	OUT	
2	NC	———		
3	NC	———		
4	+12V IN	+12V input (11V to 16V)	IN	



20. CHANGING INFORMATION

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