

OPERATION MANUAL

UFM-30DCC

Digital Color Corrector


UFM-3DCC2C

3rd Edition - Rev. 2



Precautions

Important Safety Warnings


[Power]

| | |
|---|--|
|  Stop | <p>Do not place or drop heavy or sharp-edged objects on power cord. A damaged cord can cause fire or electrical shock hazards. Regularly check power cord for excessive wear or damage to avoid possible fire / electrical hazards.</p> |
|---|--|


[Circuitry Access]

| | |
|---|---|
|  Stop | <p>Do not touch any parts / circuitry with a high heat factor. Capacitors can retain enough electric charge to cause mild to serious shock, even after power is disconnected. Capacitors associated with the power supply are especially hazardous. Avoid contact with any capacitors.</p> |
|  Hazard | <p>Unit should not be operated or stored with cover, panels, and / or casing removed. Operating unit with circuitry exposed could result in electric shock / fire hazards or unit malfunction.</p> |

[Potential Hazards]

| | |
|---|---|
|  Caution | <p>If abnormal smells or noises are noticed coming from the unit, turn power off immediately and disconnect power cord to avoid potentially hazardous conditions. If problems similar to above occur, contact authorized service representative before attempting to again operate unit.</p> |
|---|---|

[Consumables]

| | |
|--|--|
|  Caution | <p>The consumables used in unit must be replaced periodically. For further details on which parts are consumables and when they should be replaced, refer to the specifications at the end of the Operation Manual. Since the service life of the consumables varies greatly depending on the environment in which they are used, they should be replaced at an early date. For details on replacing the consumables, contact your dealer.</p> |
|--|--|

Upon Receipt

Unpacking

UFM-30DCC modules and their accessories are fully inspected and adjusted prior to shipment. Operation can be performed immediately upon completing all required connections and operational settings.

Check your received items against the packing lists below.

| ITEM | QTY | REMARKS |
|------------------|-------|-----------------------------|
| UFM-30DCC | 1 set | Front module Rear module |
| Operation Manual | 1 | This manual |

Option

| ITEM | QTY | REMARKS |
|---------------|-----|---|
| UFM-3DCC2C | 1 | Dual channel option (Software program) |
| UFM-3DCC3G | 1 | 3G-SDI option |
| DCC-OUA | 1 | Operation Unit (RS-422 type) |
| DCC-NETOU | 1 | Operation Unit (Ethernet type) |
| Control Cable | 1 | For DCC-OUA connection (PC-2076-3) |
| UFM-30CTL | 1 | UFM module used for WEB control and DCC-NETOU control |

The UFM-30DCC modules can be installed into the UF-106A, UF-106B, or UF-112 frame, but not into the UF-106.

Up to four modules can be installed into the UF-106A (up to two modules for the UF-106APS).

Up to six modules can be installed into the UF-106B (up to four modules for the UF-106BPS).

IMPORTANT

The UFM-30DCC/UFM-3DCC2C modules can be installed into the below UF-106A slots.

Slots 2, 4, 5, 6 are available.

Slots 1 and 3 cannot be used.

See the UF-106A Operation Manual for the slot numbers.

DCC-OUA, DCC-NETOU or UFM-30CTL (WEB control) is required to control UFM-30DCC. The dedicated control cable (PC-2076-3) is needed for DCC-OUA. The UFM-30CTL is needed to connect DCC-NETOU.

The UFM-30DCC cannot be controlled from DCC-OUA and DCC-NETOU at the same time.

Before using the DCC-OUA, confirm that the version of your **DCC-OUA** is **2.00 or later** and that the version of its operation manual is 2nd Edition or later. If using UFM-30DCC in **Dual Channel** mode, confirm that the version of your **DCC-OUA** is **3.00 or later** and that the version of its operation manual is 3rd Edition or later. See "DCC-OUA Operation Manual" for details on verifying the version of the DCC-OUA. If the versions are different, please contact your dealer.

Note that some functions cannot be controlled with DCC-OU. (See section 3-1-2.)

Check

Check to ensure no damage has occurred during shipment. If damage has occurred, or items are missing, inform your supplier immediately.

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1. Prior to Starting

1-1. Welcome

Congratulations! By purchasing UFM-30DCC Digital Color Corrector you have entered the world of FOR-A and its many innovative products. Thank you for your patronage and we hope you will turn to FOR-A products again and again to satisfy your video and audio needs.

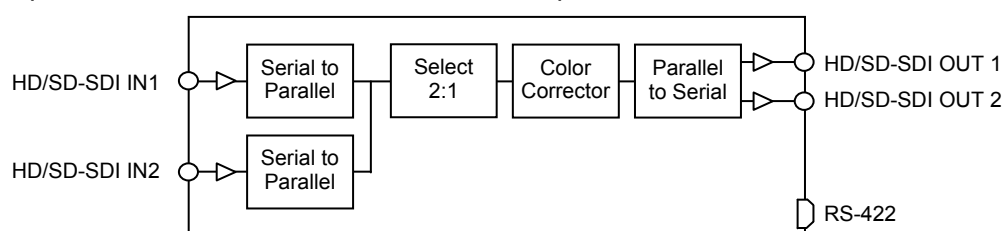
FOR-A provides a wide range of products, from basic support units to complex system controllers, which have been increasingly joined by products for computer video based systems. Whatever your needs, talk to your FOR-A representative. We will do our best to be of continuing service to you.

The UFM-30DCC is a plug-in module that can be installed into the UF-106A, UF-106B, or UF-112 frame.

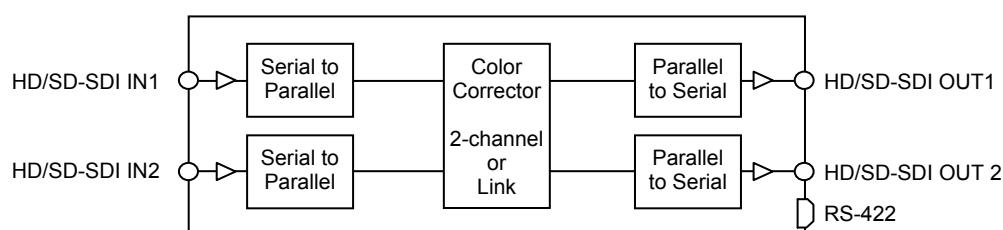
1-2. Features

The UFM-30DCC is a module-type digital color corrector that can be mounted onto UF-112 frames. It has been specially developed as an HD/SD-SDI digital color corrector using the latest digital technology. The UFM-30DCC has three types of controllers: Operation Unit, Web-based controller and Network Operation Unit.

- 6 HD/SD-format support
- **Standard configuration:**
2 inputs (menu selection), 1 color correction channel and 2 outputs
- **UFM-30DCC2C installed:**
2 inputs, 2 color correction channels and 2 outputs



Standard configuration (1-channel)

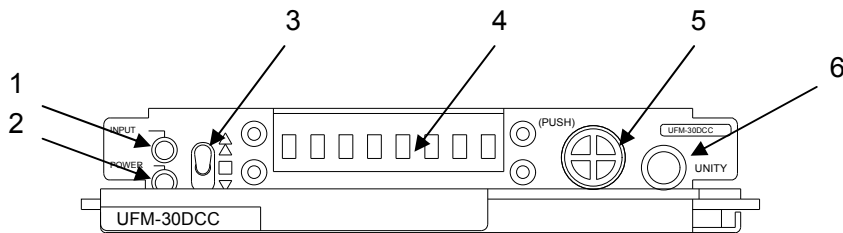


UFM-30DCC2C installed (2-channel)

- Three operation modes (menu selection)
 - Single Channel** mode: 1 CC channel, 2 outputs
 - Dual Channel** mode: 2 CC channels, 1 output for each (individual setting) (optional)
 - Link** mode: 2 CC channels, 1 output for each (same setting) (optional)
- DCC-OUA control or Web browser control selectable (internal setting)
- Comprehensive color correction tools
 - Process Amplifier
 - Color Correction (White, Black and Gamma)
Three color correction modes (menu selection)
 - Balanced** mode for color correction of **GBR** signals
 - Differential** mode for color correction of **GBR** signals
 - Sepia** mode for creating monotone images
 - Composite clip, YPbPr clip and GBR clip
- Bypass function (with Web browser control)
- H/V ancillary data pass or blank

2. Panel Descriptions

2-1. Front Panel

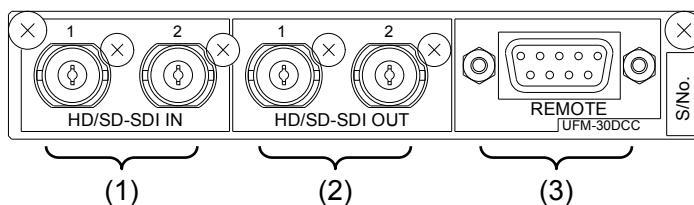


| No. | Name | Description |
|-----|--------------------------------|--|
| 1 | INPUT LED | Lit: Input signal present (normal). Unlit: No input signal present. Indication depending on the operation mode. (See table below.) |
| 2 | POWER LED | Lights up whenever power is applied to the unit. |
| 3 | Up and down switch | Allows you to move between menu items. (See section 3-5. "Menu Operation.") |
| 4 | LED display | Displays menu items and parameters. |
| 5 | Menu control button | Allows you to move between menu items and input settings. (See section 3-5. "Menu Operation.") |
| 6 | UNITY/display switching button | Allows you to change between the default and current settings. Allows you to switch between full names and short descriptions while displaying the associated menu number and name. |

◆ INPUT LED indication

| Operation Mode | LED | Description |
|---------------------|-------|---|
| Single Channel mode | Lit | Input signal is present at the selected channel. |
| | Unlit | Input signal is not present at the selected channel. |
| Dual Channel mode | Lit | Input signal is present at either one or both channels 1 and 2. |
| | Unlit | Input signal is not present at either channel 1 or 2. |
| Link mode | Lit | Input signal is present at both channels 1 and 2. |
| | Unlit | Input signal is not present at either one or both channels 1 and 2. |

2-2. Rear Panel



| No. | Name | Description |
|-----|--------------------|-----------------------------------|
| 1 | HD/SD-SDI IN 1, 2 | Used to input HD/SD-SDI signals. |
| 2 | HD/SD-SDI OUT 1, 2 | Used to output HD/SD-SDI signals. |
| 3 | REMOTE | Use to connect to the DCC-OUA. |

3. Connection

The UFM-30DCC modules can be installed into the UF-106A, UF-106B, or UF-112 frame. Refer to the figure below and connect the UFM-30DCC to other devices. See the respective operation manuals for details on how to install UFM-30DCC modules into the UF-106A, UF-106B, or UF-112.

IMPORTANT

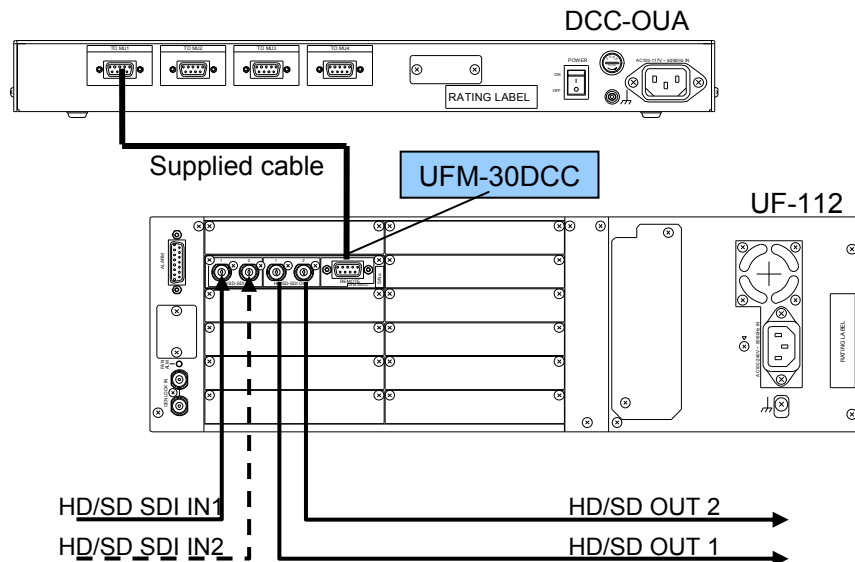
Please turn off the power of all devices before connection.

3-1. Connecting to DCC-OUA

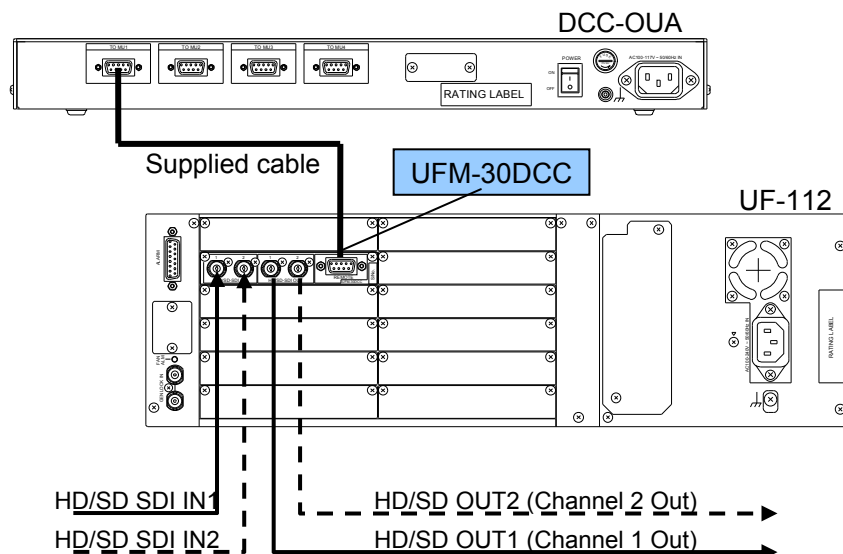
To connect between the UFM-30DCC and DCC-OUA, the supplied cable (PC-2076-3) is required. Plug the cable to the REMOTE connector on the UFM-30DCC. See "DCC-OUA Operation Manual" (2nd Edition or later) for more details.

➤ **Ex. UF-112 rear panel: UFM-30DCC**

◆ **Standard Configuration (with 1 Color Correction Channel)**



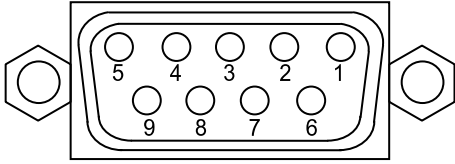
◆ **Optional Configuration (with 2 Color Correction Channels)**



3-1-1. REMOTE Connector

◆ REMOTE Connector

9-pin, D-sub female (inch screw threads used)



◆ REMOTE connector pin assignment (9-pin, D-sub female)

| Pin No. | Signal | Description |
|---------|----------|--------------|
| 1 | Reserved | Not used |
| 2 | TX (-) | TRANSMIT- |
| 3 | RX (+) | RECEIVE+ |
| 4 | - | - |
| 5 | - | - |
| 6 | - | - |
| 7 | TX (+) | TRANSMIT+ |
| 8 | RX (-) | RECEIVE- |
| 9 | FG | Frame ground |

3-1-2. Using DCC-OU (Previous Model)

If the DCC-OU is used, the following functions are not available.

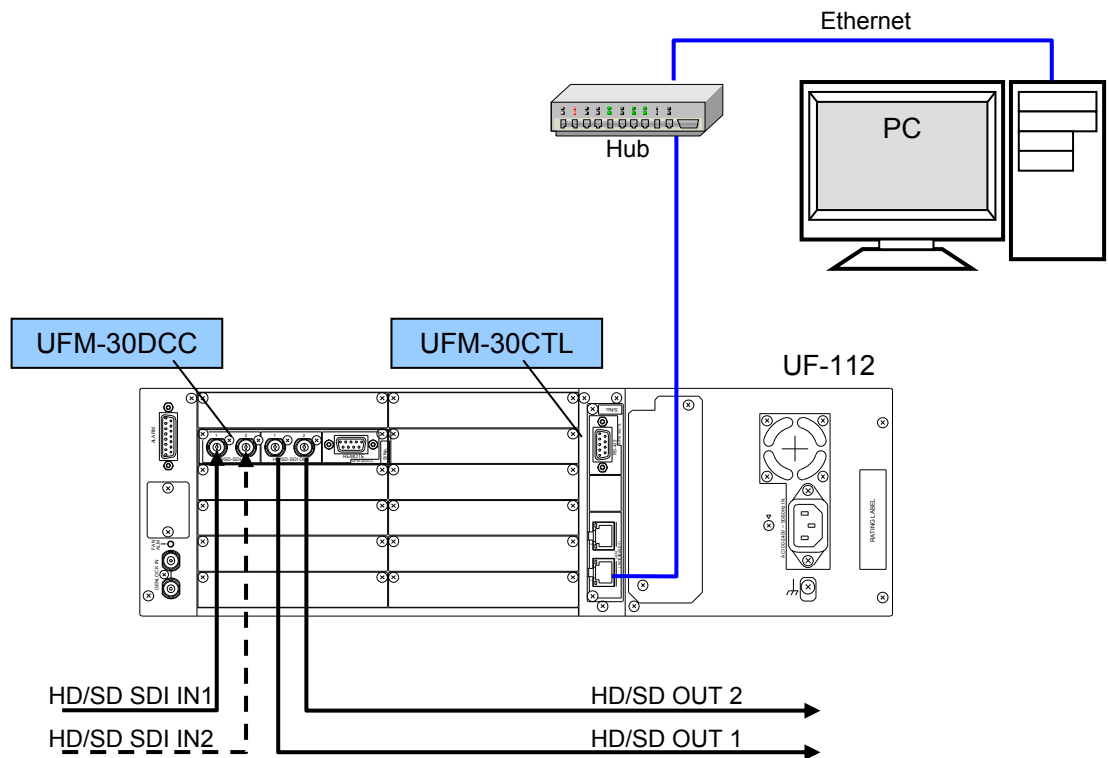
- SPLIT setting
- Gamma curve setting
- GBR clip setting
- Composite clip setting

| |
|---|
| DCC-OU can control the UFM-30DCC only in Single Channel mode. |
|---|

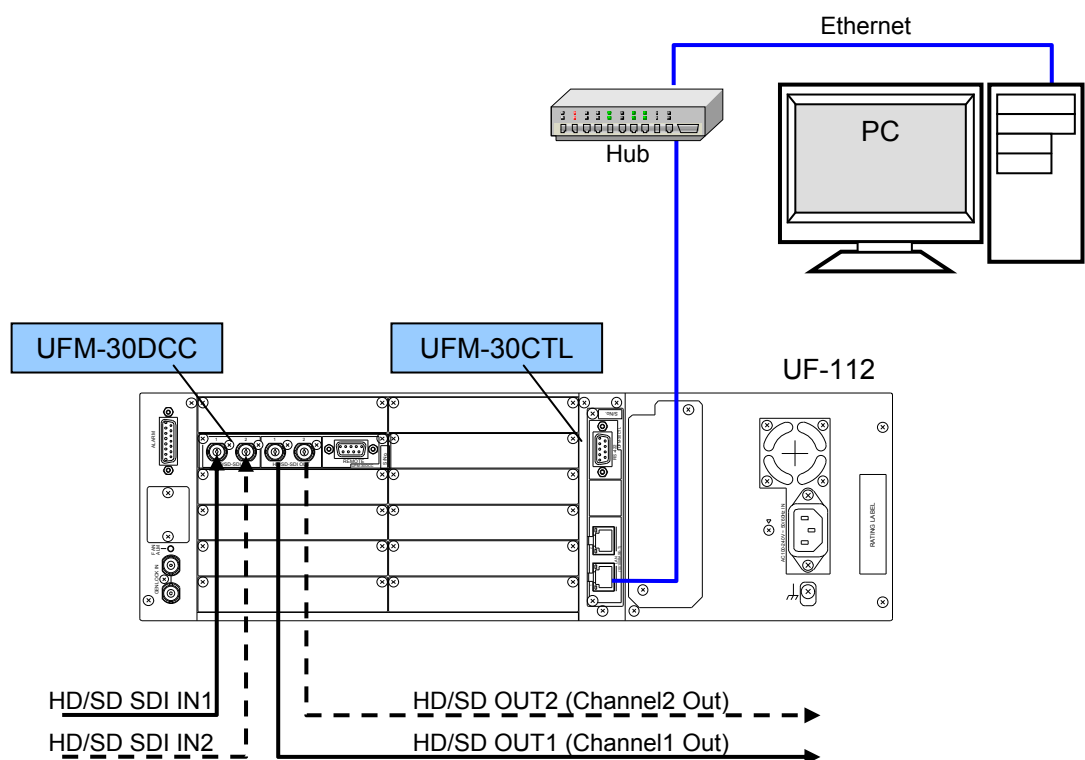
3-2. Connecting to a WEB Browser

To connect a WEB browser on a computer to a UFM-30DCC on a UFM frame, connect the computer to a UFM-30CTL, which should be mounted on the same UFM frame, via Ethernet. See "UFM-30CTL Operation Manual" for connecting UFM-30CTL and the computer.

◆ Basic System (with 1 Color Correction Channel)



◆ Expanded System (with 2 Color Correction Channels)

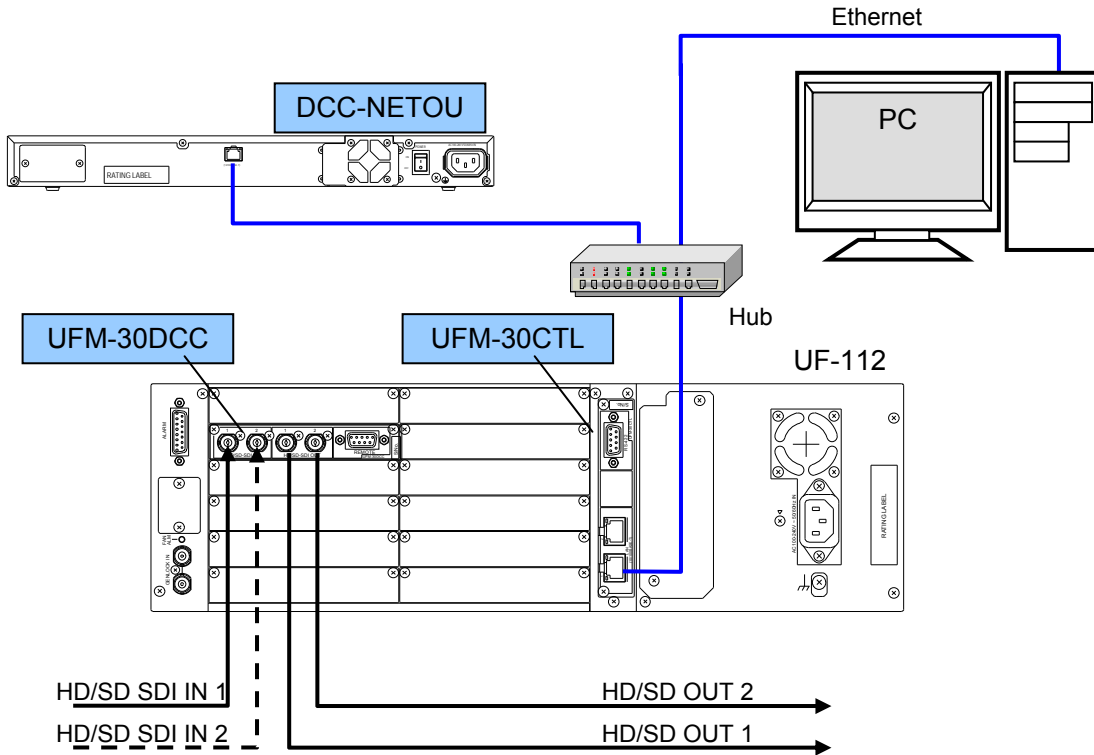


3-3. Connecting to DCC-NETOU

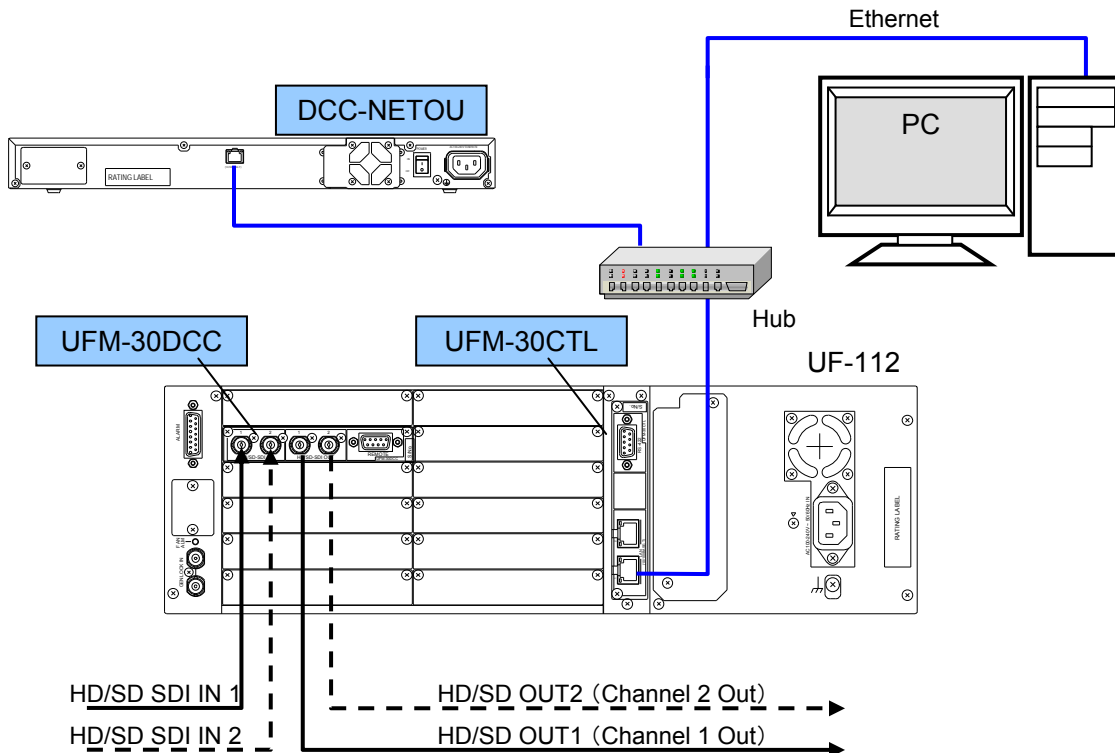
To connect DCC-NETOU to a UFM-30DCC on a UFM frame, connect DCC-NETOU and a UFM-30CTL, which should be mounted on the same UFM frame, via Ethernet. See "DCC-NETOU Operation Manual" for connecting the UFM-30CTL and DCC-NETOU.

➤ **Ex. UF-112 rear panel: UFM-30DCC and UFM30CTL**

◆ **Basic System (with 1 Color Correction Channel)**



◆ **Expanded System (with 2 Color Correction Channels)**

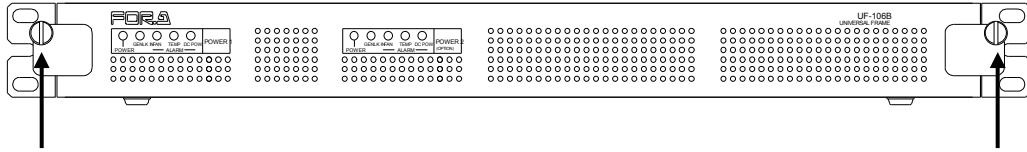


3-4. Power On

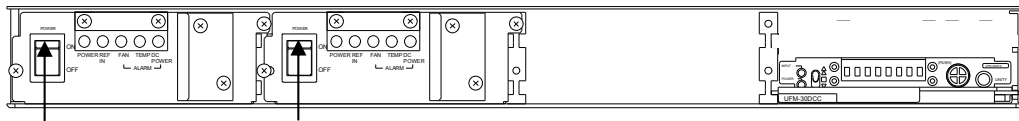
3-4-1. UF-106A or UF-106B

◆ **Ex. UF-106B**

- 1) Loosen and pull out the screw knobs on both sides to open the front panel of the UF-106B.

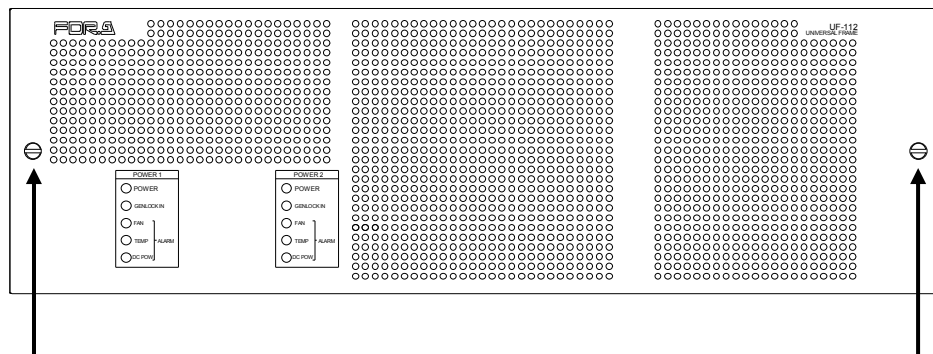


- 2) Turn the power switch on.

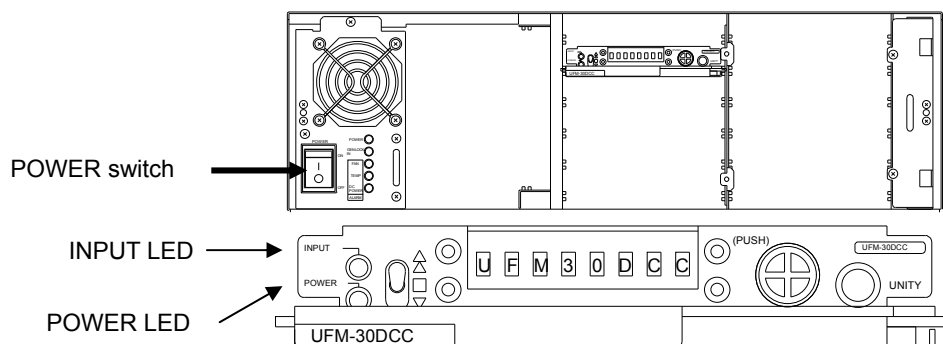


3-4-2. UF-112

- 1) Loosen and pull out the screw knobs on both sides to open the front panel of the UF-112.

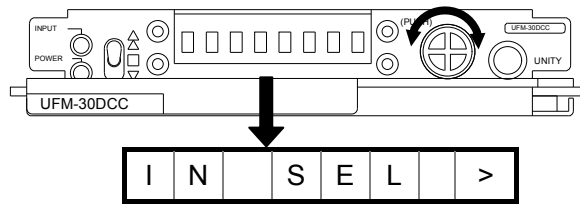


- 2) Make sure all devices are properly connected and turn on the power of the universal frame. After startup, "UFM30DCC" appears on the front panel. If a video signal is input and power is applied, the **INPUT** and **POWER** indicators light up green.

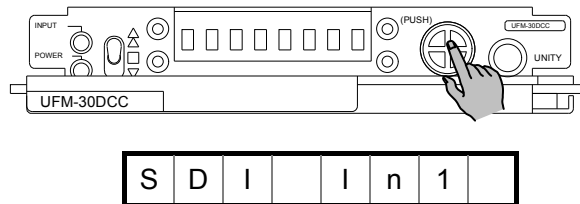


3-5. Menu Operation

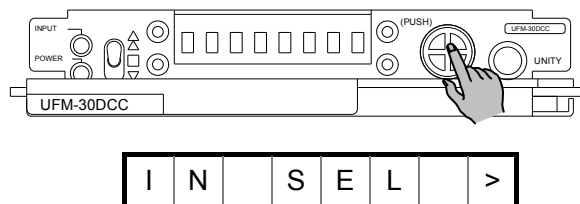
- 1) Turn the menu control button to display the desired item.



- 2) Press the menu control button. The value of the item is displayed.



- 3) Turn the menu control button to select the value.
- 4) Press the menu control button to apply the setting.



Repeat the steps 1) -4) to adjust all necessary settings.

◆ To Move Between Menu Categories

Move the switch up and down to move between menu categories such as System Setup, System Status and Module Information.

◆ To Display Settings in a Category

Pressing the **UNITY** button while displaying a category name scrolls the screen to the side and displays the category settings.

◆ To Return a Parameter to Default Setting

Pressing the **UNITY** button while displaying an item resets the setting to its default value.

◆ To Undo Changes

Moving the switch up after changing a setting value (and before pressing the menu control button) undoes the value. If you wish to change the value again after undoing the setting, move the switch down. Pressing the menu control button applies the value shown in the menu display.

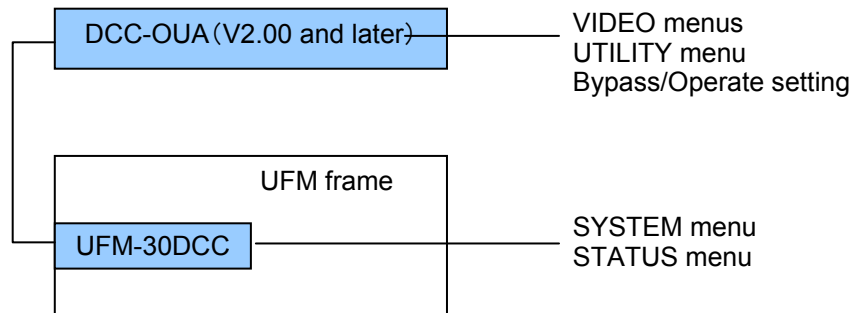
3-6. DCC-OUA Control and WEB Browser Control

There are two methods for controlling the UFM-30DCC: using DCC-OUA and using a computer web browser or DCC-NETOU via LAN. To switch the control method, change the dipswitch and the jumper settings on the UFM-30DCC card. The default control method uses DCC-OUA. (See 6. "Internal Settings.")

Different UFM-30DCC front panel menu settings are available between the DCC-OUA control and web browser control. See the next page for details.

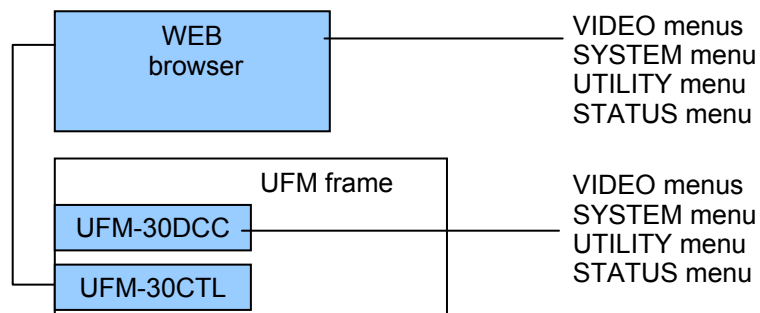
3-6-1. DCC-OUA Control (Ver. 2.00 or later)

Note that the VIDEO menus including Process Amp, Color Correction, Split Mode and Video Clip cannot be set or displayed on the UFM-30DCC front panel. They are set in the DCC-OUA. However, the input signal can be selected only on the UFM-30DCC. (See the "DCC-OUA Operation Manual" for UFM-30DCC operation on the DCC-OUA.)



3-6-2. WEB Browser Control

Similar menu items can be set both on the UFM-30DCC and the web browser



3-6-3. Differences between DCC-OUA Control and WEB Control

When controlling a UFM-30DCC with DCC-OUA, color correction settings can be set only on the DCC-OUA and system settings only on the UFM-30DCC. When controlling with a web browser, essentially the same control can be achieved both in the UFM-30DCC and web browser. The table below shows the available features for each controller.

| Control method Controller Feature | UFM-30DCC with DCC-OUA | | UFM-30DCC with Web browser and/or DCC-NETOU | | |
|---|-------------------------|---------|---|-------------|-----------|
| | UFM-30DCC (Front panel) | DCC-OUA | UFM-30DCC (Front panel) | WEB browser | DCC-NETOU |
| Input Select | ○ | × | ○ | ○ | ○ |
| Bypass/Operate | × | ○ | ○ | ○ | ○ |
| Loss Mode | ○ | × | ○ | ○ | × |
| Back Color | ○ | × | ○ | ○ | × |
| H/V Ancillary Mode | ○ | × | ○ | ○ | × |
| Output Delay | ○ | × | ○ | ○ | × |
| Test Signal | ○ | × | ○ | ○ | × |
| Operation Mode (Single/Dual/Link) | ○ | × | ○ | ○ | × |
| Panel Lock | ○ | × | ○ | × | × |
| Start Up Event Load | × | × | ○ | ○ | × |
| Auto Event Load | × | × | ○ | ○ | × |
| Event Load/Event Save | × | ○ | ○ | ○ | ○ |
| Clip Event Load/Clip Event Save | × | ○ | × | × | × |
| Save File | × | × | × | ○ | × |
| Restore | × | × | × | ○ | × |
| Color Corrector selection (Channel selection) | ○ | ○ | ○ | ○ | ○ |
| Proc Amp | × | ○ | ○ | ○ | ○ |
| Color Correction | × | ○ | ○ | ○ | ○ |
| Split mode selection | × | ○ | ○ | ○ | ○ |
| Video Clip | × | ○ | ○ | ○ | ○ |

○: Available
 ×: Not available

See the following sections for the available menu items on the UFM-30DCC front panel.
 See "DCC-OUA Operation Manual" for the menu items available on DCC-OUA units.
 See "UFM-30CTL Operation Manual" for the menu items available on web browsers.

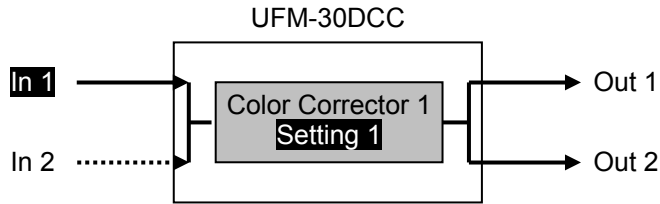
When controlling UFM-30DCC from DCC-NETOU units, available menu items on the UFM-30DCC front panel are the same as those when controlling from web browsers.
 See "DCC-NETOU Operation Manual" for more details.

4. Controlling with DCC-OUA

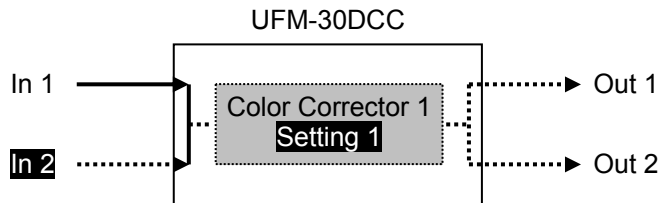
4-1. Menu List on UFM-30DCC Front Panel

4-1-1. 1-Channel Color Corrector System

If In 1 is selected:



If In 2 is selected:



4-1-1-1. Standard Configuration (1-Channel) Menu

| Category | Description |
|----------|---|
| SYSTEM | Allows you to set system settings such as input signal selection, loss mode selection and pass through of ancillary data. |
| STATUS | Displays the video signal status and module information. |

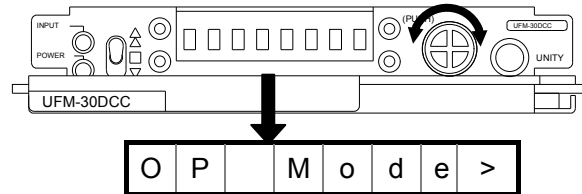
| Category | Menu | | | Refer to | | |
|----------|-------------------------|-------------------------|---------------------|----------|-----------|-------|
| | No. | Item (full name) | Short description | | | |
| SYSTEM | <u>1</u> | System Setup | System | 4-2-2 | | |
| | 1-1 | Input Select> | IN SEL> | | | |
| | 1-2 | Loss Mode> | LossMOD> | | | |
| | 1-3 | Back Color> | BColor> | | | |
| | 1-4 | H Ancillary Mode | H ANCI> | | | |
| | 1-5 | V Ancillary Mode | V ANCI> | | | |
| | 1-6 | Output Delay> | Out DLY> | | | |
| | 1-9 | Test Signal> | TESTSIG> | | | |
| | 1-11 | Front Brightness> | Bright> | | | |
| | 1-12 | Panel Lock> | Lock > | | | |
| | STATUS | <u>2</u> | System Status | | SYSTEMSTS | 4-2-3 |
| | | 2-1 | Selected SDI Input> | | SEL IN> | |
| 2-2 | | SDI IN1 Format> | IN1 STS> | | | |
| 2-3 | | SDI IN2 Format> | IN2 STS> | | | |
| <u>3</u> | | Module Information | MDL INFO | 4-2-4 | | |
| 3-1 | | External Control Mode> | CTL Mod> | | | |
| 3-2 | | Version Info> | Version> | | | |
| 3-3 | | FPGA Version Info> | FPGA> | | | |
| 3-4 | | UFM-3DCC2C Option Info> | Dual Ch> | | | |
| 3-5 | UFM-3DCCMF Option Info> | Multi> | | | | |
| 3-6 | UFM-3DCC3G Option Info> | 3G Op> | | | | |

4-1-2. 2-Channel Color Corrector System (UFM-3DCC2C Option)

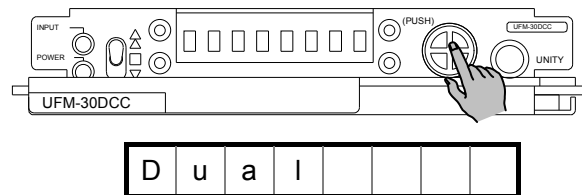
4-1-2-1. Selecting Mode

In the **2-Channel** system, three modes are available: **Single Channel** mode, **Dual Channel** mode, where two inputs are separately processed with different settings, and **Link** mode, where two inputs are separately processed with the same settings.

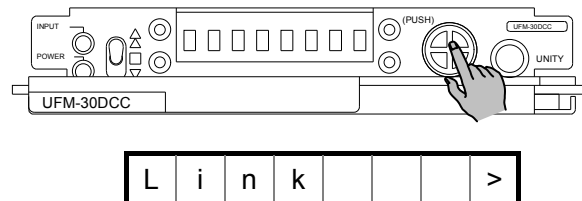
- 1) Turn the menu control button to display **OP Mode>**.



- 2) Press the menu control button. The default setting is **Dual Channel** mode (**Dual**).



- 3) Turn the menu control button to select an operation mode from **Single**, **Dual** and **Link**. Press the menu control button.



IMPORTANT

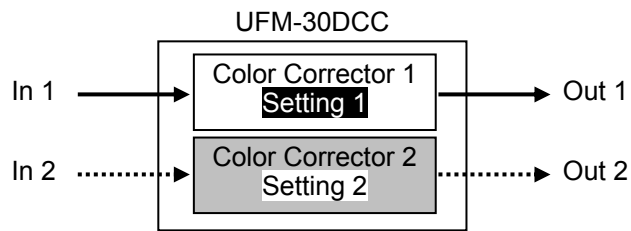
Single Channel mode, **Link** mode and "Setting1" of **Dual Channel** mode share the same set of color corrector settings. Therefore, if some items are changed before switching the operation mode, the same changes apply in the new operation mode. If you wish to use specific settings in each mode, save them to an event memory and load them from it.

4-1-2-2. Single Channel Mode Menu

The **Single Channel** mode menu in the **2-Channel** Color Corrector system is similar to the **1-Channel** Color Corrector system menu. The only difference is that the **2-Channel** system has **1-10 Operation Mode** in the menu. See 4-1-1."1-Channel Color Corrector System" for menu details.

4-1-2-3. Dual Channel Mode Menu

In **Dual Channel** mode two color correctors can process signals under the different settings. Before using a color corrector, select the color correction channel to **Select Color Corrector 1 or 2**.

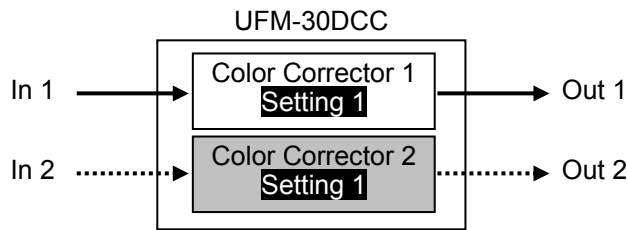


| Category | Description |
|----------|--|
| DUAL | Allows you to select a color correction channel (color corrector). |
| SYSTEM | Allows you to set system settings such as input signal selection, loss mode selection and pass through of ancillary data.. |
| STATUS | Displays the video signal status and module information. |

| Category | Menu | | | Refer to | | |
|----------|--------------------|--------------------------------|-------------------|----------|----------|-------|
| | No. | Item (full name) | Short description | | | |
| DUAL | - | Select Color Corrector 1 or 2> | Sel CC> | 4-2-1 | | |
| SYSTEM | 1 | System Setup | System | 4-2-2 | | |
| | 1-2 | Loss Mode> | LossMOD> | | | |
| | 1-3 | Back Color> | BColor> | | | |
| | 1-4 | H Ancillary Mode | H ANCI> | | | |
| | 1-5 | V Ancillary Mode | V ANCI> | | | |
| | 1-6 | Output Delay> | Out DLY> | | | |
| | 1-9 | Test Signal> | TESTSIG> | | | |
| | 1-10 | Operation Mode> | OP Mode> | | | |
| | 1-11 | Front Brightness> | Bright> | | | |
| | 1-12 | Panel Lock> | Lock > | | | |
| | 1-13 | Input Status Display Set> | IN DSP> | | | |
| | STATUS | 2 | System Status | | SYSTMSTS | 4-2-3 |
| | | 2-2 | SDI IN1 Format> | | IN1 STS> | |
| 2-3 | | SDI IN2 Format> | IN2 STS> | | | |
| 3 | | Module Information | MDL INFO | 4-2-4 | | |
| 3-1 | | External Control Mode> | CTL Mod> | | | |
| 3-2 | Version Info> | Version> | | | | |
| 3-3 | FPGA Version Info> | FPGA> | | | | |
| | 3-4 | UFM-3DCC2C Option Info> | Dual Ch> | | | |
| | 3-5 | UFM-3DCCMF Option Info> | Multi> | | | |
| | 3-6 | UFM-3DCC3G Option Info> | 3G Op> | | | |

4-1-2-4. Link Mode Menu

In **Link** mode, two color correctors share the same settings.



| Category | Description |
|----------|---|
| SYSTEM | Allows you to set system settings such as input signal selection, loss mode selection and pass through of ancillary data. |
| STATUS | Displays the video signal status and module information. |

| Category | Menu | | | Refer to |
|----------|-------------------------|-------------------------|-------------------|----------|
| | No. | Item (full name) | Short description | |
| SYSTEM | 1 | System Setup | System | 4-2-2 |
| | 1-2 | Loss Mode> | LossMOD> | |
| | 1-3 | Back Color> | BColor> | |
| | 1-4 | H Ancillary Mode | H ANCI> | |
| | 1-5 | V Ancillary Mode | V ANCI> | |
| | 1-7 | Output Delay1> | Out DL1> | |
| | 1-8 | Output Delay2> | Out DL2> | |
| | 1-9 | Test Signal> | TESTSIG> | |
| | 1-10 | Operation Mode> | OP Mode> | |
| | 1-11 | Front Brightness> | Bright> | |
| | 1-12 | Panel Lock> | Lock > | |
| | STATUS | 2 | System Status | |
| 2-2 | | SDI IN1 Format> | IN1 STS> | |
| 2-3 | | SDI IN2 Format> | IN2 STS> | |
| 3 | | Module Information | MDL INFO | 4-2-4 |
| 3-1 | | External Control Mode> | CTL Mod> | |
| 3-2 | | Version Info> | Version> | |
| 3-3 | | FPGA Version Info> | FPGA> | |
| 3-4 | | UFM-3DCC2C Option Info> | Dual Ch> | |
| 3-5 | | UFM-3DCCMF Option Info> | Multi> | |
| 3-6 | UFM-3DCC3G Option Info> | 3G Op> | | |

4-2. Menu Details (UFM-30DCC Front Panel)

4-2-1. Color Corrector (Channel) Selection

| Mode | Item | Default | Setting | Description |
|------|--------------------------------|----------|--------------------|---|
| Dual | Select Color Corrector 1 or 2> | Correct1 | Correct1, Correct2 | Allows you to select a color corrector (channel). |

4-2-2. System Setting

| Menu | | | Default | Setting Range | Description |
|------|------------------|-------------------|---------|------------------------------|--|
| No. | Mode | Item | | | |
| 1 | System Setup | | | | |
| 1-1 | Single | Input Select > | SDI In1 | SDI In1, SDI In2 | Allows you to select SDI In signal. |
| 1-2 | Single Dual Link | Loss Mode > | BackCOL | BackCOL, ColorBar, Disable | Allows you to specify the action to be taken when no signal is present. |
| 1-3 | Single Dual Link | Back Color> | Black | Black, Gray, Blue | Allows you to select a background display color when no signal is present. |
| 1-4 | Single Dual Link | H Ancillary Mode> | Through | Through, Delete | Through: Passes through ancillary data without processing. |
| 1-5 | Single Dual Link | V Ancillary Mode> | Through | Through, Delete | Delete: Deletes all ancillary data. |
| 1-6 | Single Dual | Output Delay> | --- | (*1) | Allows you to set the output delay in the range from minimum delay to approx. 1H. The setting range varies depending on the format. The setting automatically returns to the minimum delay when the input signal format is changed. |
| 1-7 | Link | Output Delay1> | --- | (*1) | Allows you to set the output delay for Out1 in the range from minimum delay to approx. 1H. The setting range varies depending on the format. The setting automatically returns to the minimum delay when the input signal format is changed. |
| 1-8 | Link | Output Delay2> | --- | (*1) | Allows you to set the output delay for Out2 in the range from minimum delay to approx. 1H. The setting range varies depending on the format. The setting automatically returns to the minimum delay when the input signal format is changed. |
| 1-9 | Single Dual Link | Test Signal> | Off | Off, Full CB, SMPTE CB, RAMP | Allows you to output a test signal. The test signal appears on the full screen regardless of the VIDEO menu setting. |

| | | | | | |
|------|------------------------|---------------------------|---------|-------------------------------|--|
| 1-10 | Single Dual Link | Operation Mode> | Dual | Single, Dual, Link | Allows you to select an operation mode for UFM-30DCC. Single: Single Channel mode Dual: Dual Channel mode Link: Link mode |
| 1-11 | Single Dual Link | Front Brightness> | 50% | 25%, 50%, 75%, 100%, | Allows you to select the brightness of the front panel display. |
| 1-12 | Single Dual Link | Panel Lock> | Operate | Operate, Lock | Setting to Lock inhibits the operation using the front panel. Hold down the menu control button for about 2 seconds to release (Operate) Panel Lock . |
| 1-13 | Dual | Input Status Display Set> | 1min | Off, 1min, 5min | Allows you to set the time until the input signal status is automatically displayed while no operations are being performed. (*3) Off: No display 1min: Displays the input status when no operation is performed within 1 minute. 5min: Displays the input status when no operation is performed within 5 minutes. |

(*1) Setting Range for Output Delay

| System Format | Output Delay setting range |
|---------------|----------------------------|
| 525/60 | 200CLK to 1716CLK |
| 1080/59.94i | 140CLK to 2200CLK |
| 720/59.94p | 140CLK to 1650CLK |
| 625/50 | 200CLK to 1728CLK |
| 1080/50i | 140CLK to 2640CLK |
| 720/50p | 140CLK to 1980CLK |

(*2) Operation Mode

The Operation Mode is not displayed in the **1-Channel** system but it is displayed in the **2-Channel** system (option installed) in all operation modes including **Single Channel** mode. **Single Channel** mode, **Link** mode and "Setting1" of **Dual Channel** mode share the same set of color corrector settings. Therefore, if some items are changed before switching the operation mode, the same changes apply in the new operation mode. If you wish to use specific settings in each mode, save them to and load them from an event memory.

(*3) Input Status Display Set

Input Status Display Set allows you to display the input signal status using ○ (present) and × (not present) automatically when no operation is performed within 1 or 5 minutes. The display example below shows that In1 is present but In2 is not present.

Display Example) IN1○IN2×

4-2-3. System Status (Display Only)

| Menu | | | Description |
|------|------------------------|----------------------|--|
| No. | Mode | Item | |
| 2 | System Setup | | |
| 2-1 | Single | Selected SDI Input > | Displays the currently selected input signal. |
| 2-2 | Single Dual Link | SDI IN1 Format > | Displays the video signal format input to SDI IN1. |
| 2-3 | Single Dual Link | SDI IN2 Format > | Displays the video signal format input to SDI IN2. |

4-2-4. Module Information (Display Only)

| Menu | | Description |
|------|-------------------------|---|
| No. | Item | |
| 3 | Module Information | |
| 3-1 | External Control Mode> | Displays the current external control mode. " OU Mode " is displayed while controlling with DCC-OUA. |
| 3-2 | Version> | Displays the firmware version. |
| 3-3 | FPGA> | Displays the FPGA version. |
| 3-4 | UFM-3DCC2C Option Info> | Displays the dual channel option status. Install: The dual channel option is installed. None: The dual channel option is not installed. |
| 3-5 | UFM-3DCCMF Option Info> | Displays the multi-format option status. Install: The multi-format option is installed. None: The multi-format option is not installed. * " Install " is shown when a 3G-SDI option is installed. |
| 3-6 | UFM-3DCC3G Option Info> | Displays the 3G-SDI option status. Install: The 3G-SDI option is installed. None: The 3G-SDI option is not installed. |

NOTE

About automatic saving

The UFM-30DCC automatically saves the most recent settings. After changing settings, wait at least 3 seconds before powering off. Otherwise, the settings may not save.

5. Controlling with WEB Browser

To control UFM-30DCC with a web browser and/or DCC-NETOU, install the UFM-30DCC and a UFM-30CTL on the same UFM frame and connect the UFM-30CTL and a computer and/or DCC-NETOU via LAN. In addition, control system should be changed from DCC-OUA to LAN-based (WEB) using DIP switch and jumper settings on the UFM-30DCC card. (See section 6. "Internal Settings".) While controlling UFM-30DCC from a web browser, the UFM-30DCC can be also controlled locally on the front panel, but not from DCC-OUA units.

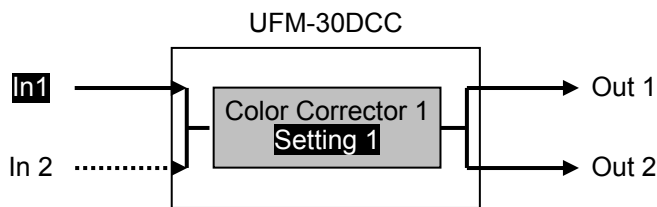
See "UFM-30CTL Operation Manual" for details on operating the UFM-30DCC in the web browser.

When controlling UFM-30DCC from DCC-NETOU units, available menu items on the UFM-30DCC front panel are the same as those when controlling from web browsers. See "DCC-NETOU Operation Manual" for more details.

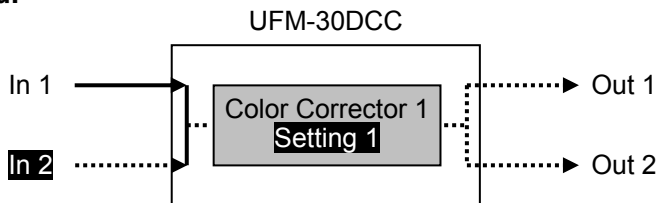
5-1. Menu List on UFM-30DCC Front Panel

5-1-1. 1-Channel Color Corrector System

If In 1 is selected:



If In 2 is selected:



5-1-1-1. Standard Configuration (1-Channel) Menu

| Category | Description |
|-------------------|---|
| Video Process AMP | Allows you to set the Proc Amp function. |
| Color Correction | Allows you to set the Color Correction function. |
| Video Clip | Allows you to set the Video Clip function. |
| SYSTEM | Allows you to set system settings such as input signal selection. |
| UTILITY | Allows you to save and load events and make front panel settings. |
| STATUS | Displays the video signal status and module information. |

IMPORTANT

Note that if Bypass/Operate (4-02 in the table below) is set to **Bypass**, all items in the **VIDEO** menu cannot be set. Change **Bypass/Operate** to **Operate** and then set these settings.

◆ **Video Process AMP menu**

| Menu | | | | Refer to |
|----------|------------------------------|---------------------|-------------------|----------|
| No. | Correction Mode setting (*1) | Item (full name) | Short description | |
| 1 | | Video Process AMP | Process | 5-2-2 |
| 1-01 | DIF, BAL, SEPIA | Video Level > | VID LVL> | |
| 1-02 | DIF, BAL, SEPIA | Y Level > | Y Level> | |
| 1-03 | DIF, BAL | Chroma Level > | C Level> | |
| 1-04 | DIF, BAL, SEPIA | Setup/Black Level > | Blk LVL> | |
| 1-05 | DIF, BAL | Hue > | Hue > | |

(*1) **Chroma Level** and **Hue** cannot be set when **2-02 Correction Mode** is set to **SEPIA**.

◆ **Color Correction menu**

| Menu | | | | Refer to |
|----------|------------------------------|---------------------|-------------------|----------|
| No. | Correction Mode setting (*1) | Item (full name) | Short description | |
| 2 | | Color Correction | Correct | 5-2-3 |
| 2-01 | DIF, BAL, SEPIA | Split Mode > | Split> | |
| 2-02 | -- | Correction Mode > | CRT MOD> | |
| 2-03 | DIF, BAL | Group Adjustment > | GRP ADJ> | |
| 2-04 | DIF, BAL | White Level Red > | White R> | |
| 2-05 | DIF, BAL | White Level Green > | White G> | |
| 2-06 | DIF, BAL | White Level Blue > | White B> | |
| 2-07 | DIF, BAL | Black Level Red > | Black R> | |
| 2-08 | DIF, BAL | Black Level Green > | Black G> | |
| 2-09 | DIF, BAL | Black Level Blue > | Black B> | |
| 2-10 | DIF, BAL, SEPIA | Gamma Curve > | Gamma > | |
| 2-11 | DIF, BAL | Gamma Level Red > | Gamma R> | |
| 2-12 | DIF, BAL, SEPIA | Gamma Level Green > | Gamma G> | |
| 2-13 | DIF, BAL | Gamma Level Blue > | Gamma B> | |
| 2-14 | SEPIA | Sepia Level > | Sepia L> | |
| 2-15 | SEPIA | Sepia Color > | Sepia C> | |

(*1) The menu items vary by the mode setting in **2-02 Correction Mode**.

◆ **Video Clip menu**

| Menu | | | | Refer to |
|----------|------------------------------|-----------------------|-------------------|----------|
| No. | Video Clip Mode setting (*1) | Item (full name) | Short description | |
| 3 | | Video Clip | VID Clip | 5-2-4 |
| 3-01 | --- | Video Clip Mode> | CLP MOD> | |
| 3-02 | YPbPr | Y White Clip> | Y White> | |
| 3-03 | YPbPr | Y Black Clip> | Y Black> | |
| 3-04 | YPbPr | Chroma Clip> | C Clip> | |
| 3-05 | GBR | GBR White Clip> | GBR WHT> | |
| 3-06 | GBR | GBR Black Clip> | GBR BLK> | |
| 3-07 | VBS | Composite White Clip> | VBS WHT> | |
| 3-08 | VBS | Composite Black Clip> | VBS BLK> | |

(*1) The menu items vary by the mode setting in **3-01 Video Clip Mode**.

◆ **SYSTEM menu**

| Menu | | | Refer to |
|------|-------------------|-------------------|----------|
| No. | Item (full name) | Short description | |
| 4 | System Setting | System | 5-2-5 |
| 4-01 | Input Select> | IN SEL> | |
| 4-02 | Bypass/Operate> | By-Op> | |
| 4-03 | Loss Mode> | LossMOD> | |
| 4-04 | Back Color> | BColor> | |
| 4-05 | H Ancillary Mode> | H ANCI> | |
| 4-06 | V Ancillary Mode> | V ANCI> | |
| 4-07 | Output Delay> | Out DLY> | |
| 4-10 | Test Signal | Test SIG | |

◆ **UTILITY menu**

| Menu | | | Refer to |
|------|-------------------------------|-------------------|----------|
| No. | Item (full name) | Short description | |
| 5 | Event Memory | EventMEM | 5-2-6 |
| 5-01 | Start Up Event Load> (*1)(*2) | STUP EL> | |
| 5-02 | Auto Event Load> (*1) | Auto EL> | |
| 5-03 | Event Load> (*1)(*2) | Ev Load> | |
| 5-04 | Event Save> (*1)(*2) | Ev Save> | |
| 6 | Front Panel Setting | PanelSET | 5-2-7 |
| 6-01 | Front Brightness> | Bright> | |
| 6-02 | Panel Lock> | Lock> | |

(*1) This item cannot be set if **4-02 Bypass/Operate** is set to **Bypass**. In such case, an error message **In Bypass, it doesn't operate** appears.

(*2) Events cannot be loaded or saved if **Auto Event Load** is set to **Enable**. If UFM-30DCC is powered off and on again while **Auto Event Load** is set to **Enable**, priority is given to **Auto Event Load** over **Start Up Event Load**. If **Auto Event Load** is set to **Enable**, **Start Up Event Load** cannot be changed and the error message **Auto Event Load Enable!** appears.

◆ **STATUS menu**

| Menu | | | Refer to |
|------|-------------------------|-------------------|----------|
| No. | Item (full name) | Short description | |
| 7 | System Status | SYSTMSTS | 5-2-8 |
| 7-01 | Selected SDI Input> | SEL IN> | |
| 7-02 | SDI IN1 Format> | IN1 STS> | |
| 7-03 | SDI IN2 Format> | IN2 STS> | |
| 8 | Module Information | MDL INFO | 5-2-9 |
| 8-01 | Slot Number> | Slot NO> | |
| 8-02 | External Control Mode> | CTL Mod> | |
| 8-03 | Version Info> | Version> | |
| 8-04 | FPGA Version Info> | FPGA> | |
| 8-05 | UFM-3DCC2C Option Info> | Dual Ch> | |
| 8-06 | UFM-3DCCMF Option Info> | Multi> | |
| 8-07 | UFM-3DCC3G Option Info> | 3G Op> | |

5-1-2. 2-Channel Color Corrector System (UFM-3DCC2C Option)

5-1-2-1. Selecting Mode

In a **2-Channel** system, three modes are available: **Single Channel** mode, **Dual Channel** mode, where two inputs are separately processed with different settings, and **Link** mode, where two inputs with the same settings are separately processed. Select the operation mode in "4-11 Operation Mode."

IMPORTANT

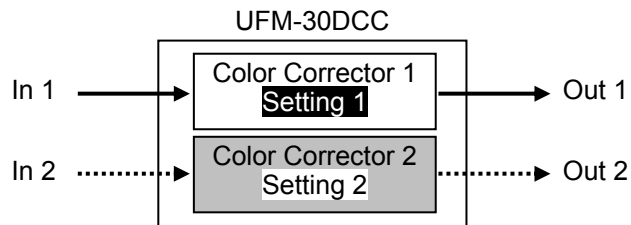
Single Channel mode, **Link** mode and "Setting1" of **Dual Channel** mode share the same set of color corrector settings. Therefore, if some items are changed before switching the operation mode, the same changes apply in the new operation mode. If you wish to use specific settings in each mode, save them to and load them from an event memory.

5-1-2-2. Single Channel Mode Menu

The **Single Channel** mode menu in the **2-Channel** Color Corrector system is essentially the same as the **1-Channel** Color Corrector system menu. The only difference is that the **2-Channel** system has **1-10 Operation Mode** in the menu. See 5-1-1. "1-Channel Color Corrector System" for menu details.

5-1-2-3. Dual Channel Mode Menu

In **Dual Channel** mode two color correctors can process signals under different settings. Before using a color corrector, select the color correction channel at **Select Color Corrector 1 or 2**.



| Category | Description |
|-------------------|---|
| DUAL | Allows you to select a color correction channel (color corrector). |
| Video Process AMP | Allows you to set the Proc Amp function. |
| Color Correction | Allows you to set the Color Correction function. |
| Video Clip | Allows you to set the Video Clip function. |
| SYSTEM | Allows you to set system settings such as input signal selection. |
| UTILITY | Allows you to save and load events and adjust front panel settings. |
| STATUS | Displays video signal status and module information. |

| Category | Menu | | | Refer to |
|----------|------|-------------------------------|-------------------|----------|
| | No. | Item (full name) | Short description | |
| DUAL | - | Select Color Corrector1 or 2> | Sel CC> | 5-2-1 |

The VIDEO menu items are the same in all operation modes. See "5-1-1. "1-Channel Color Corrector System" for the menu details.

◆ **SYSTEM Menu**

| Menu | | | Refer to |
|----------|-----------------------|-------------------|----------|
| No. | Item (full name) | Short description | |
| 4 | System Setting | System | 5-2-5 |
| 4-02 | Bypass/Operate> | By-Op> | |
| 4-03 | Loss Mode> | LossMOD> | |
| 4-04 | Back Color> | BColor> | |
| 4-05 | H Ancillary Mode> | H ANCI> | |
| 4-06 | V Ancillary Mode> | V ANCI> | |
| 4-07 | Output Delay> | Out DLY> | |
| 4-10 | Test Signal | Test SIG | |
| 4-11 | Operation Mode> | OP Mode> | |

◆ **UTILITY Menu**

| Menu | | | Refer to |
|----------|-------------------------------|-------------------|----------|
| No. | Item (full name) | Short description | |
| 5 | Event Memory | EventMEM | 5-2-6 |
| 5-01 | Start Up Event Load> (*1)(*2) | STUP EL> | |
| 5-02 | Auto Event Load> (*1) | Auto EL> | |
| 5-03 | Event Load> (*1)(*2) | Ev Load> | |
| 5-04 | Event Save> (*1)(*2) | Ev Save> | |
| 6 | Front Panel Setting | PanelSET | 5-2-7 |
| 6-01 | Front Brightness> | Bright> | |
| 6-02 | Panel Lock> | Lock> | |
| 6-03 | Input Status Display Set> | IN DSP> | |

(*1) This item cannot be set if **4-02 Bypass/Operate** is set to **Bypass**. In such case, the error message **In Bypass, it doesn't operate** appears.

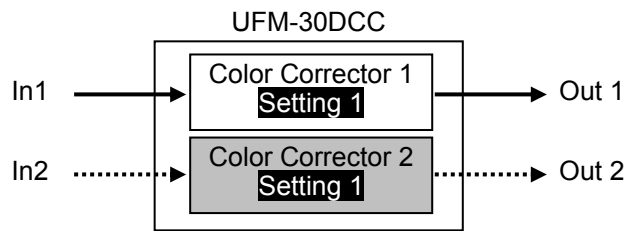
(*2) Events cannot be loaded or saved if **Auto Event Load** is set to **Enable**. If UFM-30DCC is powered off and on again while **Auto Event Load** is set to **Enable**, priority is given to **Auto Event Load** over **Start Up Event Load**. If **Auto Event Load** is set to **Enable**, **Start Up Event Load** cannot be changed and an error message **Auto Event Load Enable!** appears.

◆ **STATUS Menu**

| Menu | | | Refer to |
|----------|---------------------------|-------------------|----------|
| No. | Item (full name) | Short description | |
| 7 | System Status | SYSTEMSTS | 5-2-8 |
| 7-02 | SDI IN1 Format> | IN1 STS> | |
| 7-03 | SDI IN2 Format> | IN2 STS> | |
| 8 | Module Information | MDL INFO | 5-2-9 |
| 8-01 | Slot Number> | Slot NO> | |
| 8-02 | External Control Mode> | CTL Mod> | |
| 8-03 | Version Info> | Version> | |
| 8-04 | FPGA Version Info> | FPGA> | |
| 8-05 | UFM-3DCC2C Option Info> | Dual Ch> | |
| 8-06 | UFM-3DCCMF Option Info> | Multi> | |
| 8-07 | UFM-3DCC3G Option Info> | 3G Op> | |

5-1-2-4. Link Mode Menu

Two channels in **Link** mode share the same set of color corrector settings. Note that if some items are changed in **Link** mode, they are also changed in **Single Channel** mode and in "**Setting1**" of **Dual Channel** mode.



| Category | Description |
|-------------------|---|
| Video Process AMP | Allows you to set the Proc Amp function. |
| Color Correction | Allows you to set the Color Correction function. |
| Video Clip | Allows you to set the Video Clip function. |
| SYSTEM | Allows you to set system settings such as input signal selection. |
| UTILITY | Allows you to save and load events and adjust front panel settings. |
| STATUS | Displays video signal status and module information. |

Items in the VIDEO menu are the same in all operation modes. See "5-1-1. "1-Channel Color Corrector System" for the menu details.

◆ SYSTEM Menu

| Menu | | | Refer to |
|------|-------------------|-------------------|----------|
| No. | Item (full name) | Short description | |
| 4 | System Setting | System | 5-2-5 |
| 4-02 | Bypass/Operate> | By-Op> | |
| 4-03 | Loss Mode> | LossMOD> | |
| 4-04 | Back Color> | BColor> | |
| 4-05 | H Ancillary Mode> | H ANCI> | |
| 4-06 | V Ancillary Mode> | V ANCI> | |
| 4-08 | Output Delay 1> | Out DL1> | |
| 4-09 | Output Delay 2> | Out DL2> | |
| 4-10 | Test Signal | Test SIG | |
| 4-11 | Operation Mode> | OP Mode> | |

◆ UTILITY Menu

| Menu | | | Refer to |
|------|-------------------------------|-------------------|----------|
| No. | Item (full name) | Short description | |
| 5 | Event Memory | EventMEM | 5-2-6 |
| 5-01 | Start Up Event Load> (*1)(*2) | STUP EL> | |
| 5-02 | Auto Event Load> (*1)(*2) | Auto EL> | |
| 5-03 | Event Load> (*1)(*2) | Ev Load> | |
| 5-04 | Event Save> (*1)(*2) | Ev Save> | |
| 6 | Front Panel Setting | PanelSET | 5-2-7 |
| 6-01 | Front Brightness> | Bright> | |
| 6-02 | Panel Lock> | Lock> | |

(*1) This item cannot be set if **4-02 Bypass/Operate** is set to **Bypass**. In such case, the error message **In Bypass, it doesn't operate** appears.

(*2) When **4-11 Operation Mode** is set to **Link**, **VID FRMT** does not appear in the menu and **Auto Event Load** cannot be set. If you select **Auto Event Load**, an error message **In Link Mode, it doesn't operate** appears.

◆ STATUS Menu

| Menu | | | Refer to |
|----------|---------------------------|-------------------|----------|
| No. | Item (full name) | Short description | |
| 7 | System Status | SYSTEMSTS | 5-2-8 |
| 7-02 | SDI IN1 Format> | IN1 STS> | |
| 7-03 | SDI IN2 Format> | IN2 STS> | |
| 8 | Module Information | MDL INFO | 5-2-9 |
| 8-01 | Slot Number> | Slot NO> | |
| 8-02 | External Control Mode> | CTL Mod> | |
| 8-03 | Version Info> | Version> | |
| 8-04 | FPGA Version Info> | FPGA> | |
| 8-05 | UFM-3DCC2C Option Info> | Dual Ch> | |
| 8-06 | UFM-3DCCMF Option Info> | Multi> | |
| 8-07 | UFM-3DCC3G Option Info> | 3G Op> | |

5-2. Menu Details (UFM-30DCC Front Panel)

5-2-1. Color Corrector (Channel) Selection

In **Dual Channel** mode the following menu for selecting a color corrector appears.

| Menu Item | Default | Setting | Description |
|--------------------------------|----------|--------------------|---|
| Select Color Corrector 1 or 2> | Correct1 | Correct1, Correct2 | Allows you to select a color corrector (channel). |

5-2-2. Video Process Amp

The menu items for Proc Amp are the same in all operation modes. The items displayed in the Proc Amp menu vary depending on the **2-02 Correction Mode** setting.

| No. | Correction Mode setting | Item | Default | Setting Range (Steps) | Description |
|------|-------------------------|--------------------|---------|-------------------------|---|
| 1 | Video Process AMP | | | | |
| 1-01 | DIF, BAL, SEPIA | Video Level> | 100.0% | 0.0 to 200.0% (0.1%) | Allows you to adjust the video level. |
| 1-02 | DIF, BAL, SEPIA | Y Level> | 100.0% | 0.0 to 200.0% (0.1%) | Allows you to adjust the luminance level. |
| 1-03 | DIF, BAL | Chroma Level> | 100.0% | 0.0 to 200.0% (0.1%) | Allows you to adjust the chroma level. (*1) |
| 1-04 | DIF, BAL, SEPIA | Setup/Black Level> | 0.0% | -7.0 to 25.0% (0.1%) | Allows you to adjust the black level. |
| 1-05 | DIF, BAL | Hue> | 0.0° | -180.0 to 180.0° (0.1°) | Allows you to adjust hue. (*1) |

(*1) **Chroma Level** and **Hue** cannot be set when **2-02 Correction Mode** is set to **SEPIA**. In such case, the error message **In Sepia mode, it doesn't operate** appears.

5-2-3. Color Correction

The menu items for Color Correction are the same in all operation modes. The items displayed in the Color Correction menu vary depending on the **2-02 Correction Mode** setting.

| No. | Correction Mode setting | Item | Default | Setting Range (Steps) | Description |
|------|-------------------------|-------------|----------|-----------------------|---|
| 2 | Color Correction | | | | |
| 2-01 | DIF, BAL, SEPIA | Split Mode> | Mode Off | Mode Off, Mode1 to 3 | Allows you to set split screen mode for comparing images before and after a correction. Off : Displays the image after correction. Mode1 : Splits the screen into two columns and displays the images before and after a correction. Mode2 : Splits the screen into two rows and displays the images before and after a correction. Mode3 : Displays the image before correction. |

| | | | | | |
|------|-----------------|--------------------|---------|-------------------------|---|
| 2-02 | -- | Correction Mode> | BALANCE | BALANCE, DIF, SEPIA | <p>Selects a correction mode from Balanced (RGB), Differential (YPbPr), or Sepia.</p> <p>BALANCE: RGB signal correction mode Allows you to adjust the white balance. Gray scale can be changed by adjusting R, G and B levels.</p> <p>DIFFERENTIAL: Color difference signal mode Allows you to adjust contrast without changing white balance. R, G and B levels can be changed without affecting gray scale. This adjustment is effective for images with different color saturation levels.</p> <p>SEPIA: Sepia mode Useful for creating black and white images.</p> |
| 2-03 | DIF, BAL | Group Adjustment> | Off | Off, On | <p>Allows you to set whether R, G, and B are set at the same time or separately. (*1)</p> <p>Off: R, G, and B are set separately.</p> <p>On: R, G, and B are set at the same time.</p> |
| 2-04 | DIF, BAL | White Level Red> | 0.0% | 0.0 to 200.0% (0.1%) | Allows you to set the white level. (*2) |
| 2-05 | DIF, BAL | White Level Green> | | | |
| 2-06 | DIF, BAL | White Level Blue> | | | |
| 2-07 | DIF, BAL | Black Level Red> | 0.0% | 0.0 to 200.0% (0.1%) | Allows you to set the black level. (*2) |
| 2-08 | DIF, BAL | Black Level Green> | | | |
| 2-09 | DIF, BAL | Black Level Blue> | | | |
| 2-10 | DIF, BAL, SEPIA | Gamma Curve> | Center | Center, Black, White | <p>Allows you to select the center of the gamma curve.</p> <p>Center: Gamma curve is weighted toward mid tones (near 50%)</p> <p>Black: Gamma curve is weighted toward shadows (near 25%)</p> <p>White: Gamma curve is weighted toward highlights (near 75%).</p> |
| 2-11 | DIF, BAL | Gamma Level Red> | 0.0% | 0.0 to 200.0% (0.1%) | Allows you to set the gamma level. (*3) |
| 2-12 | DIF, BAL, SEPIA | Gamma Level Green> | | | |
| 2-13 | DIF, BAL | Gamma Level Blue> | | | |
| 2-14 | SEPIA | Sepia Level> | 25.0% | 0.0 to 100.0% (0.1%) | Allows you to set the level for Sepia mode. (*4) |
| 2-15 | SEPIA | Sepia Color> | -160.0° | -180.0 to 180.0° (0.1°) | Allows you to select a color for Sepia mode. (*4) |

- (*1) **Group Adjustment** is not available regardless of this setting when controlling via web browser.
- (*2) In **Sepia** mode, **White Level Red / Green / Blue** and **Black Level Red / Green / Blue** are not available. If these items are selected, an error message **In Sepia mode, it doesn't operate** appears.
- (*3) In **Sepia** mode, only the **Y** signal can be set at **Gamma Level Green**. Other gamma levels cannot be set and if they are selected, an error message **In Sepia mode, it doesn't operate** appears.
- (*4) Sepia Level and Sepia Color are not available in **BALANCE** or **DIF** mode. In such case, the error message **In BAL Mode, it doesn't operate** or **In DIF Mode, it doesn't operate** appears.

5-2-4. Clip Control

The menu items for Clip Control are the same in all operation modes. The items displayed in the Clip Control menu vary depending on the **3-01 Video Clip Mode** setting.

| No. | Video Clip Mode setting | Item | Default | Setting Range (Steps) | Description |
|------|-------------------------|-----------------------|---------|------------------------|---|
| 3 | Video Clip | | | | |
| 3-01 | --- | Video Clip Mode> | Off | Off, YPbPr, GBR, VBS | Allows you to select Video Clip mode. Off: Disables Video Clip mode. YPbPr: YPbPr color space. GBR: GBR color space VBS: composite color space. |
| 3-02 | YPbPr | Y White Clip> | 109.0% | 50.0 to 109.0% (0.1%) | Sets the Y signal upper threshold. (*1) |
| 3-03 | YPbPr | Y Black Clip> | -7.0% | -7.0 to 50.0% (0.1%) | Sets the Y signal lower threshold. (*1) |
| 3-04 | YPbPr | Chroma Clip> | 113.0% | 50.0 to 113.0% (0.1%) | Sets the C signal upper threshold. (*1) |
| 3-05 | GBR | GBR White Clip> | 300.0% | 50.0 to 300.0% (0.1%) | Sets the GBR color space upper threshold. (*2) |
| 3-06 | GBR | GBR Black Clip> | -200.0% | -200.0 to 50.0% (0.1%) | Sets the GBR color space lower threshold. (*2) |
| 3-07 | VBS | Composite White Clip> | 150.0% | 50.0 to 150.0% (0.1%) | Sets the VBS (composite) color space upper threshold. (*3) |
| 3-08 | VBS | Composite Black Clip> | -50.0% | -50.0 to 50.0% (0.1%) | Sets the VBS (composite) color space lower threshold. (*3) |

(*1) See "YPbPr Clip Adjustment" (p28).

This item is not available when **3-01 Video Clip Mode** is set to **Off**, **GBR** or **VBS**. In such case, the error message "In Clip Off, it doesn't operate, In GBR Clip, it doesn't operate or In VBS Clip, it doesn't operate" appears.

(*2) See "GBR Clip Adjustment" (p29).

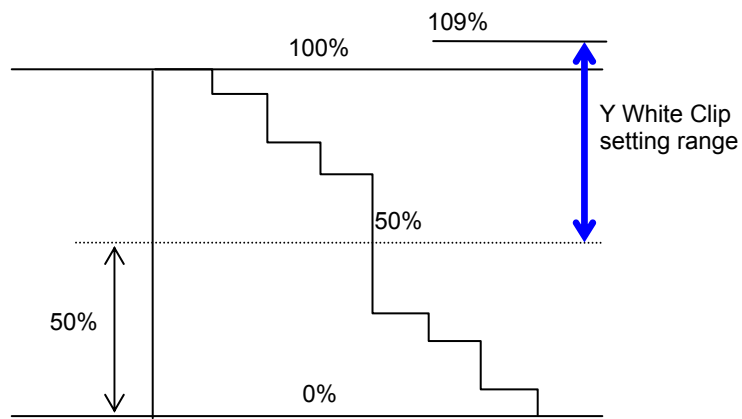
This item is not available when **3-01 Video Clip Mode** is set to **Off**, **YPbPr** or **VBS**. In such case, the error message "In Clip Off, it doesn't operate", "In YPbPr Clip, it doesn't operate" or "In VBS Clip, it doesn't operate" appears.

(*3) See "Composite Clip Adjustment" (p29).

This item is not available when **3-01 Video Clip Mode** is set to **Off**, **YPbPr** or **GBR**. In such case, the error message "In Clip Off, it doesn't operate", "In YPbPr Clip, it doesn't operate" or "In GBR Clip, it doesn't operate" appears.

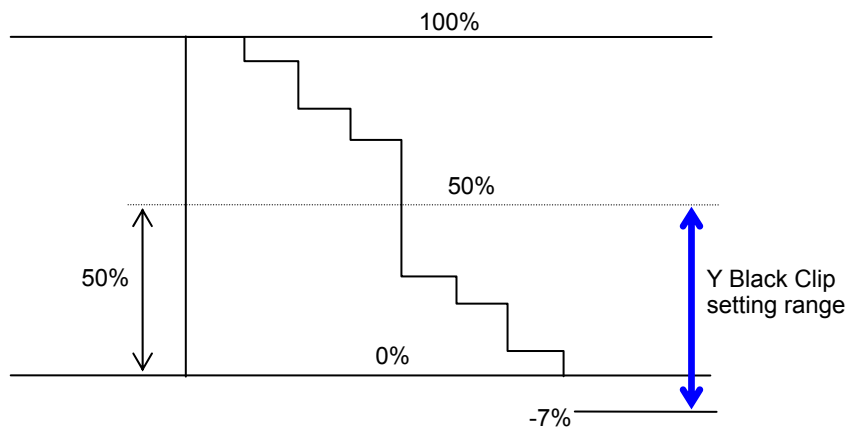
◆ YPbPr Clip Adjustment

Y White Clip Level



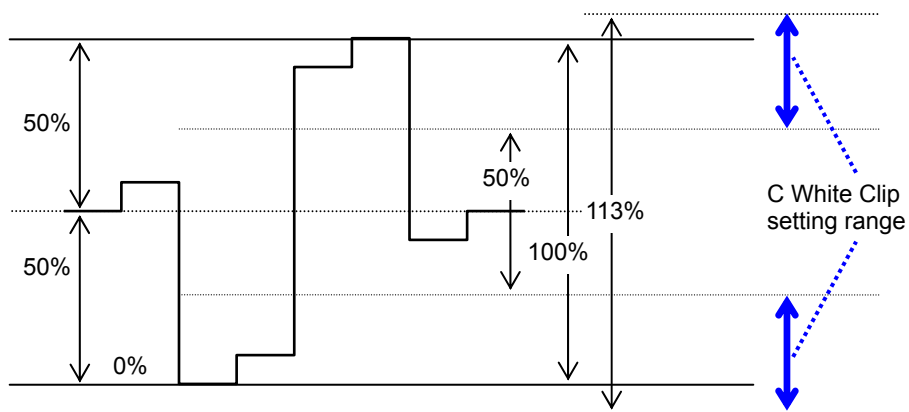
SMPTE 100% color bars when 100% white

Y Black Clip Level



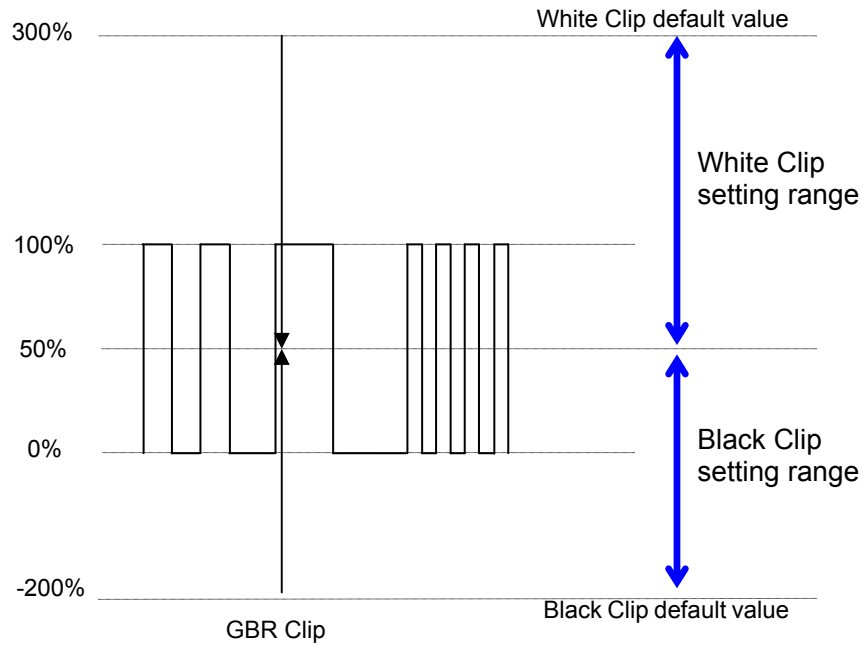
SMPTE 100% color bars when 100% black

C White Clip Level

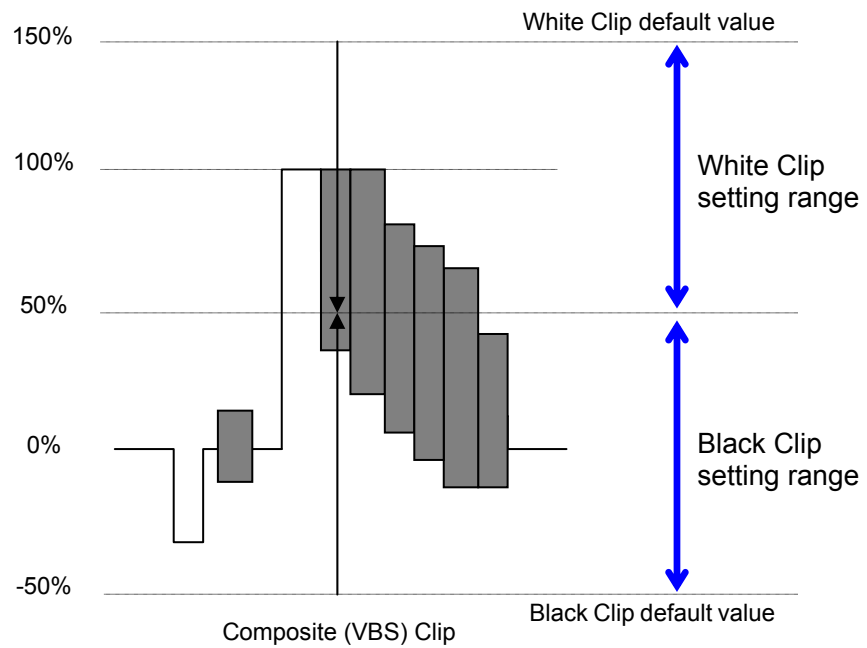


SMPTE 100% color bars when color 700 mVp-p

◆ **GBR Clip Adjustment**



◆ **Composite Clip Adjustment**



5-2-5. System Setting

The System menu items vary depending on the operation mode.

| Menu | | | Default | Setting Range | Description |
|------|------------------------|-------------------|-------------|---------------------------------------|---|
| No. | Mode | Item | | | |
| 4 | System Setup | | | | |
| 4-01 | Single | Input Select> | SDI In1 | SDI In1, SDI In2 | Allows you to select an input channel. |
| 4-02 | Single Dual Link | Bypass/Operate> | Operate | Operate, Bypass | If set to Bypass , the input signal is output from UFM-30DCC without processing.(*1) |
| 4-03 | Single Dual Link | Loss Mode> | Back COL | BackCOL, ColorBar, Disable | Allows you to specify the action to be taken when no signal is present. |
| 4-04 | Single Dual Link | Back Color> | Black | Black, Gray, Blue | Allows you to select a background color when no signal is present. |
| 4-05 | Single Dual Link | H Ancillary Mode> | Through | Through, Delete | Through: Passes through ancillary data without processing. Delete: Deletes all ancillary data. |
| 4-06 | Single Dual Link | V Ancillary Mode> | Through | Through, Delete | |
| 4-07 | Single Dual | Output Delay> | --- | (*2) | Allows you to set the output delay in the range from minimum delay to approx. 1H. The setting range varies depending on the format. The setting automatically returns to the minimum delay when the input signal format is changed. (See the table below) |
| 4-08 | Link | Output Delay1> | --- | (*2) | Allows you to set the output delay for Out1 in the range from minimum delay to approx. 1H. The setting range varies depending on the format. The setting automatically returns to the minimum delay when the input signal format is changed. |
| 4-09 | Link | Output Delay2> | --- | (*2) | Allows you to set the output delay for Out2 in the range from minimum delay to approx. 1H. The setting range varies depending on the format. The setting automatically returns to the minimum delay when the input signal format is changed. |
| 4-10 | Single Dual Link | Test Signal> | Off | Off, Full CB, SMPTE CB, RAMP | Allows you to output a test signal. The test signal appears in full screen regardless of the VIDEO menu setting. |
| 4-11 | Single Dual Link | Operation Mode > | Dual | Single, Dual, Link | Allows you to select an operation mode for UFM-30DCC. (*3) Single: Single Channel mode Dual: Dual Channel mode Link: Link mode |

(*1) Bypass mode

In **Bypass** mode, the items shown in the table in the next page are not available. In such case, the error message **In Bypass, it doesn't operate** appears.

| Item | Reference |
|-------------------------------|--|
| Select Color Corrector 1 or 2 | 5-2-1. Color Corrector (Channel) Selection |
| System Setting | 5-2-5. System Setting |
| Front Panel Setting | 5-2-7. Front Panel Setting |
| System Status | 5-2-8. System Status |
| Module Information | 5-2-9. Module Information |

(*2) Setting Range for Output Delay

| System Format | Output Delay setting range |
|---------------|----------------------------|
| 525/60 | 200CLK to 1716CLK |
| 1080/59.94i | 140CLK to 2200CLK |
| 720/59.94p | 140CLK to 1650CLK |
| 625/50 | 200CLK to 1728CLK |
| 1080/50i | 140CLK to 2640CLK |
| 720/50p | 140CLK to 1980CLK |

(*3) Operation Mode

Operation Mode is not displayed in the **1-Channel** system. In the **2-Channel** system (option installed), it is displayed in all operation modes including **Single Channel** mode.

Single Channel mode, **Link** mode and "Setting1" of **Dual Channel** mode share the same set of color corrector settings. Therefore, if some items are changed before switching the operation mode, the same changes are applied in the new operation mode. If you wish to use specific settings in each mode, save them to and load them from an event memory.

5-2-6. Event memory

| Menu | | Default | Setting Range | Description |
|------|------------------------------------|----------|--|---|
| No. | Item | | | |
| 6 | Event Memory | | | |
| 6-01 | Start Up Event Load > (*1)(*2)(*3) | Last Set | Last Set, VID FRMT, Default, Event 1 to 50 | Allows you to select an event to load when booted. Last Set: Loads the last settings before boot-up. (*3) VID FRMT: Detects the last video input format before booting and loads default settings used for the video format. Default: Loads the default settings. Event 1-50: Loads the settings saved to Event 1-50. |
| 6-02 | Auto Event Load > (*1)(*3) | Disable | Disable, Enable | Enable: Automatically loads default settings used for each video format.. |
| 6-03 | Event Load > (*1)(*3)(*4) | - | Default, VID FRMT, Event 1 to 50 | Default: Resets to default settings. VID FRMT: Loads default settings used for each video format. Event 1-50: Loads the settings selected from Event 1-50. Press the UNITY button to load the selected event. (*6) |
| 6-04 | Event Save > (*1)(*3)(*5) | - | VID FRMT, Event 1 to 50 | VID FRMT: Saves the current settings as default settings for the video format. Event 1-50: Saves the settings to Event 1 to 50. Press the UNITY button to save the selected event. (*6) |

(*1) Events cannot be loaded or saved if **Auto Event Load** is set to **Enable**. If UFM-30DCC is powered off and on again while **Auto Event Load** is set to **Enable**, priority is given to **Auto Event Load** over **Start Up Event Load**. If **Auto Event Load** is set to **Enable**, **Start Up Event Load** cannot be changed and the error message **Auto Event Load Enable!** appears.

(*2) If the data loaded at startup by the **Start Up Event Load** and the last detected video signal format at power-off are different, **4-07 Output Delay**, **4-08 Output Delay1** and **4-09 Output Delay2** are reset to default based on the video format of the current input.

(*3) In **Link** mode, **VID FRMT** is not displayed and **Auto Event Load** cannot be changed. If you select **Auto Event Load**, the error message **In Link Mode, it doesn't operate** appears.

If the operation mode is changed to **Link** and the following items were set to **VID FRMT** or **Enable** in the previous mode, these values are automatically changed as shown in the table below in **Link** mode.

| Menu item | Previous setting | Setting in Link mode |
|--------------------------|------------------|----------------------|
| 5-01 Start Up Event Load | VID FRMT | Last Set |
| 5-02 Auto Event Load | Enable | Disable |
| 5-03 Event Load | VID FRMT | Default |
| 5-04 Event Save | VID FRMT | Event1 |

(*4) **4-07 Output Delay**, **4-08 Output Delay1** and **4-09 Output Delay2** are set as shown below when loading events.

- ◆ **When the signal format of the current input is the same as that in the loaded event:**
The data in the event is loaded (See the example in the table below.)

| | Input signal format | Output Delay value |
|---|---------------------|--------------------|
| Format selection saved in the loaded event | 1080/59.94i | 230CLK |
| Current format (input video format when loading an event) | 1080/59.94i | 230CLK |

- ◆ **When the signal format of the current input is not the same as that in the loaded event, but Output Delay is within the default setting of the current format:**
The data in the event is loaded (See the example in the table below.)

| | Input signal format | Output Delay setting |
|---|---------------------|----------------------|
| Format selection saved in the loaded event | 1080/59.94i | 230CLK |
| Current format (input video format when loading an event) | 525/60 | 230CLK |

- ◆ **When the signal format of the current input is not the same as that in the loaded event and Output Delay is not within the default setting of the current format:**
The minimum or maximum value of the setting range of **Output Delay** for the current format is set. (See the examples below.)

Example1) If **Output Delay** is **within** the default setting of the current format:

| | Input signal format | Output Delay setting |
|---|---------------------|--------------------------------------|
| Format selection saved in the loaded event | 1080/59.94i | 150CLK |
| Current format (input video format when loading an event) | 525/60 | 200CLK (minimum setting range value) |

Example2) **Output Delay** is **not within** the default setting of the current format

| | Input signal format | Output Delay setting |
|---|---------------------|---------------------------------------|
| Format selection saved in the loaded event | 1080/59.94i | 2000CLK |
| Current format (input video format when loading an event) | 525/60 | 1716CLK (maximum setting range value) |

(*5) The items in the table below are not saved to events.

| Item | Reference |
|-------------------------------|--|
| Select Color Corrector 1 or 2 | 5-2-1. Color Corrector (Channel) Selection |
| Group Adjustment | 5-2-3. Color Correction |
| Operation Mode | 5-2-5. System Setting |
| Front Panel Setting | 5-2-7. Front Panel Setting |
| System Status | 5-2-8. System Status |
| Module Information | 5-2-9. Module Information |

(*6) All operation modes share Event1 to 50.

The factory default settings are saved in **Event1 to 50** and **VID FRMT** at shipment from the factory.

NOTE

About automatic saving

The UFM-30DCC automatically saves the last settings. After changing settings, wait at least 3 seconds before powering off. Otherwise, the settings may not be saved.

5-2-6-1. About VID FRMT (VIDEO FORMAT) Event Memory

On the UFM-30DCC, an event memory is provided for each video input format, and the default settings used for each format can automatically be loaded when the video input format is changed.

Saving Settings for a Specific Video Format (525/60 in the example below)

1. Input a 525/60 signal to the **SDI1** connector on the UFM-30DCC.
2. Check if **Input Select** is set to 1.
3. Change the settings as required.
4. Check if **Auto Event Load** is set to **Disable**.
5. Select **VID FRMT** in **Event Save**. Press the **UNITY** button to save the settings to the event memory provided for 525/60.

*To save settings for other formats such as 625/50, 1080/59.94i, 1080/50i, 720/59.94p, and 720/50p, input the signal to **SDI1** and repeat steps 1 to 5.

***Input Select** described in step 2 can also be set to **2**. In such case, input the signal to **SDI2**.

Manually loading an Event for a Specific Video Format

1. Input a signal with a format whose default settings are already saved in the event memory, to UFM-30DCC.
2. Check if **Auto Event Load** is set to **Disable**.
3. Select **VID FRMT** in **Event Load**. Press the **UNITY** button to load the event of the specified format.

| NOTE |
|--|
| In Link mode, VID FRMT is not displayed and Auto Event Load cannot be changed. If you select Auto Event Load , an error message In Link Mode, it doesn't operate appears. |

5-2-7. Front Panel Setting

| Menu | | | Default | Setting Range | Description |
|------|---------------------|---------------------------|---------|---------------------|--|
| No. | Mode | Item | | | |
| 6 | Front Panel Setting | | | | |
| 6-01 | Single Dual Link | Front Brightness> | 50% | 25%, 50%, 75%, 100% | Allows you to select the brightness of the front panel display. |
| 6-02 | Single Dual Link | Panel Lock> | Operate | Operate, Lock | Setting to Lock inhibits front panel operation. Hold down the Push switch for about 2 seconds to release (Operate) Panel Lock . |
| 6-03 | Dual | Input Status Display Set> | 1min | Off, 1min, 5min | Allows you to set the time until the input signal status is automatically displayed while no operations are being performed. Off : No display 1min : Displays the input status when no operation is performed within 1 minute. 5min : Displays the input status when no operation is performed within 5 minutes. |

5-2-8. System Status (Display Only)

| Menu | | | Description |
|------|------------------|---------------------|--|
| No. | Mode | Item | |
| 8 | System Status | | |
| 8-01 | Single | Selected SDI Input> | Displays the currently selected input signal. |
| 8-02 | Single Dual Link | SDI IN1 Format> | Displays the video signal format input to SDI IN1. |
| 8-03 | Single Dual Link | SDI IN2 Format> | Displays the video signal format input to SDI IN2. |

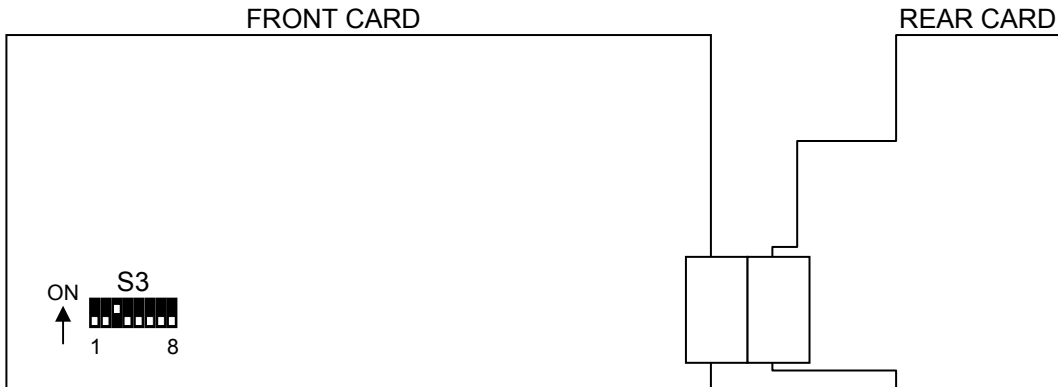
5-2-9. Module Information (Display Only)

| Menu | | Description |
|------|-------------------------|---|
| No. | Item | |
| 9 | Module Information | |
| 9-01 | Slot Number> | Displays the slot number where the module is installed. |
| 9-02 | External Control Mode> | Displays the current external control mode. "MD Mode" is displayed while controlling via a web browser. |
| 9-03 | Version Info> | Displays the firmware version. |
| 9-04 | FPGA Version Info> | Displays the FPGA version. |
| 9-05 | UFM-3DCC2C Option Info> | Displays the dual channel option status. Install : The dual channel option is installed. None : The dual channel option is not installed. |
| 9-06 | UFM-3DCCMF Option Info> | Displays the multi-format option status. Install : The multi-format option is installed. None : The multi-format option is not installed. * "Install" is shown when a 3G-SDI option is installed. |
| 9-07 | UFM-3DCC3G Option Info> | Displays the 3G-SDI option status. Install : The 3G-SDI option is installed. None : The 3G-SDI option is not installed. |

6. Internal Settings

6-1. Dipswitch S3

Dipswitch **S3** on the FRONT CARD allows you to select the control method between **DCC-OUA** or **Web**, select a process mode between **Legacy** or **30DCC**, and **re-initialize** the UFM-30DCC.



◆ Dipswitch S3 setting

| Pin No. | Function | Setting | | Factory default Setting |
|---------|----------------------------------|---------|-------|-------------------------|
| | | OFF | ON | |
| 1 | Select DCC-OUA or Web controller | OUA | WEB | OFF |
| 2 | FACTORY SET | - | - | OFF |
| 3 | Select a process mode | Legacy | 30DCC | ON |
| 4 | FACTORY SET | - | - | OFF |
| 5 | FACTORY SET | - | - | OFF |
| 6 | Initialization | OFF | ON | OFF |
| 7 | FACTORY SET | - | - | OFF |
| 8 | FACTORY SET | - | - | OFF |

6-1-1. Select DCC-OUA or Web controller (S3-1)

To control the UFM-30DCC via a web browser, set **S3-1** to **ON**.

| | |
|---------------|---|
| OFF (default) | Allows you to control the UFM-30DCC with DCC-OUA |
| ON | Allows you to control the UFM-30DCC via a web browser and/or DCC-NETOU. (*1) (*2) |

(*1) Jumper settings are also necessary. (See section 6-2. "Jumper Settings.")

(*2) A UFM-30CTL Control Card (available for separate purchase) is necessary.

6-1-2. Initialization (S3-6)

- 1) Change dipswitch **S3-6** on the FRONT CARD to **ON**.
- 2) Turn Off then On the UFM frame into which the UFM-30DCC is installed. The initialization is complete when **Complete** is displayed. All settings for UFM-30DCC return to the factory default settings.
- 3) Return **S3-6** to **OFF**.

IMPORTANT

Do not change any pin settings other than those described above.

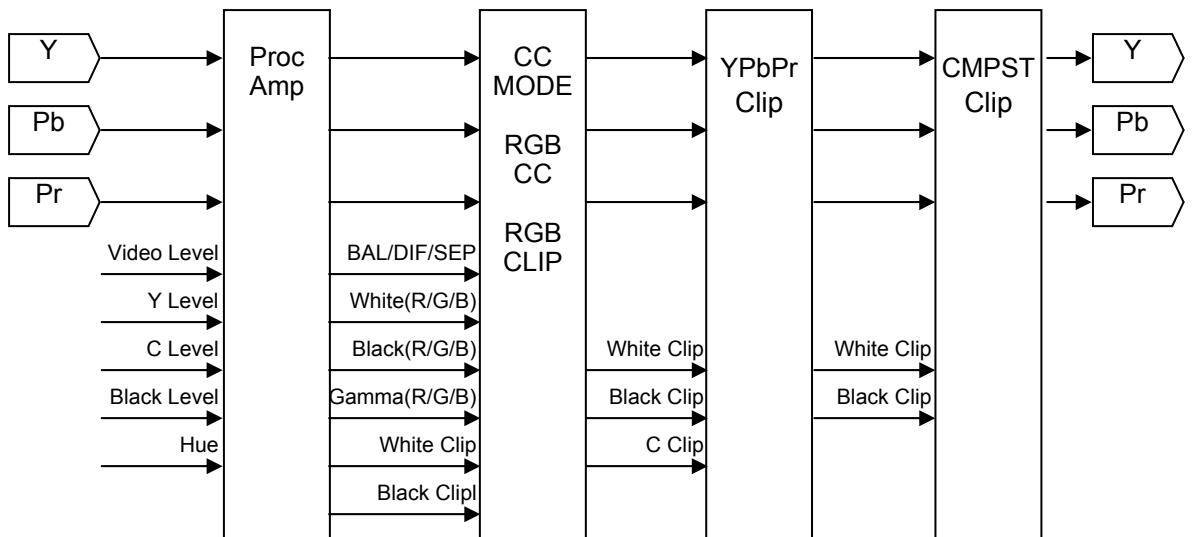
6-1-3. Select UFM-30DCC or Legacy Mode (S3-3)

Select a process mode between the following two options.

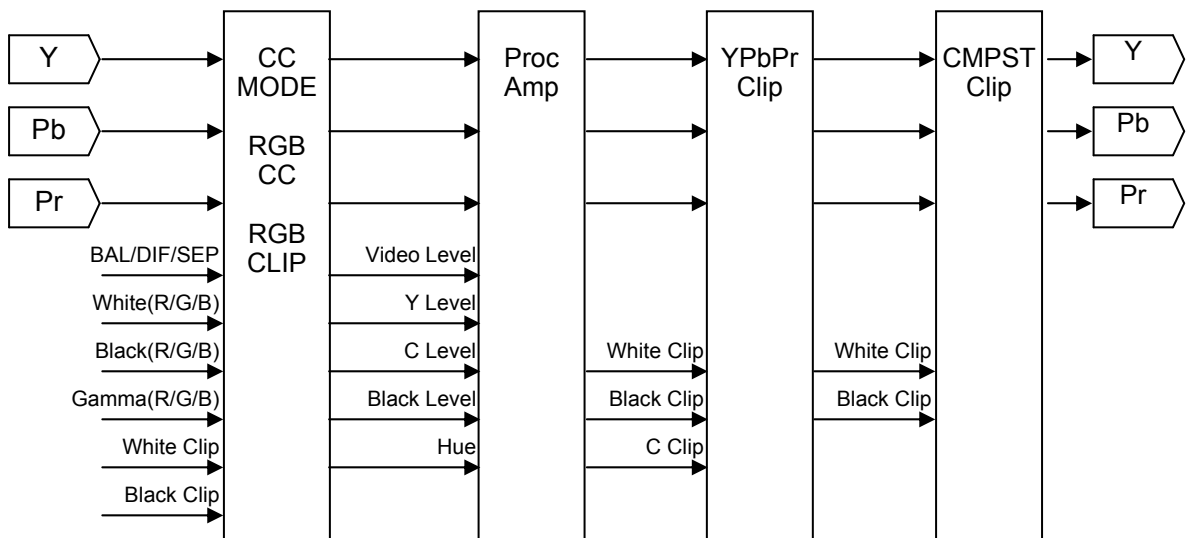
| | |
|--------------|---|
| OFF | The UFM-30DCC performs color correction and then Proc Amp adjustments. This is the same as in DCC-70HS, DCC-100 and UFM-100DCC (Legacy mode). |
| ON (default) | The UFM-30DCC performs Proc Amp adjustments and then color correction. |

◆ UFM-30DCC Flow Diagram

If in UFM-30DCC mode (S3-3: **ON**):



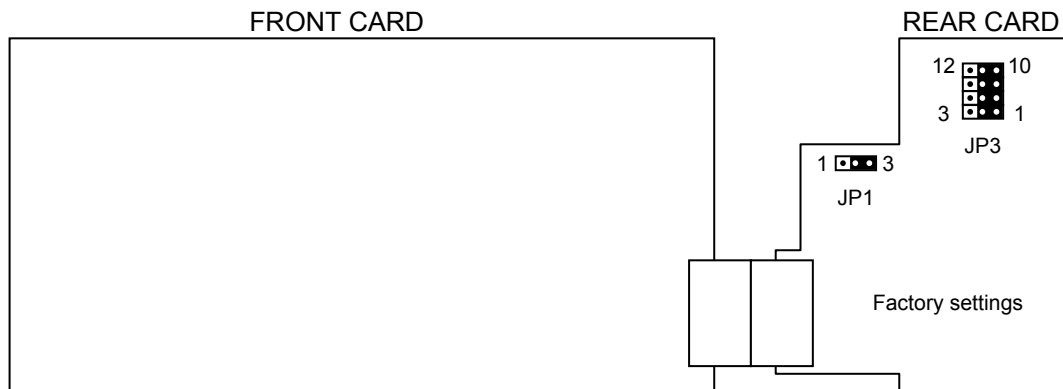
If in DCC legacy mode (S3-3: **OFF**):



6-2. Jumper JP3

IMPORTANT

Do not change the JP1 jumper setting on the REAR CARD of UFM-30DCC from the factory default settings.



◆ Factory Default Settings for JP1 and JP3

| JP No. | Factory Default Setting |
|--------|-------------------------|
| JP1 | 2-3 short |
| JP3 | 1-2 short |
| | 4-5 short |
| | 7-8 short |
| | 10-11 short |

*Do not change the JP1 jumper setting.

6-2-1. Select DCC-OUA or Web Control

The JP3 setting determines the UFM-30DCC control method between DCC-OUA and the Web browser. The dipswitch S3-1 setting is also necessary. (See section 6-1. "Dipswitch S3.")

| | | |
|---------------------|--|---------|
| DCC-OUA controller | 1-2 short 4-5 short 7-8 short 10-11 short | JP3 |
| Web controller (*1) | 2-3 short 5-6 short 8-9 short 11-12 short | JP3 |

(*1) A UFM-30CTL Control Card (available for separate purchase) is necessary.

7. Troubleshooting

If any of the following problems occur during the operation of your UFM-30DCC, proceed as indicated below to see if the problem can be corrected before assuming a unit malfunction has occurred.

| Problem | Check | Action |
|--|--|---|
| Cannot operate UFM-30DCC from the front panel. | Is Lock displayed in the menu display? | Press and hold down the menu control button on the front panel to release the panel lock. (See 4-2-2 or 5-2-7.) |
| Cannot adjust color correction settings. | The Bypass/Operate setting | Set Bypass/Operate to Operate . (See "DCC-OUA Operation Manual" or 5-2-5.) |
| Cannot adjust video clip settings. | | |
| Cannot set Chroma Level. | The Correction Mode setting | Set Correction Mode to BALANCE or DIF . |
| Cannot set Hue. | | |
| Cannot operate UFM-30DCC from Web browser. | Is the web browser properly connected to UFM-30CTL? | See "UFM-30CTL Operation Manual" to verify the connection. |
| | The dipswitch S3-1 setting | Set S3-1 to ON . (See 6-1-1.) |
| | The jumper JP3 setting | Set JP3 for (See 6-2-1.) the WEB control setting. |
| Some functions such as split or gamma curve cannot be adjusted from the remote control unit. | Are you operating UFM-30DCC with DCC-OU? | DCC-OU cannot control some functions of UFM-30DCC. (See 3-1-2.) Use a DCC-OUA for full control of the UFM-30DCC. |
| Cannot operate UFM-30DCC from DCC-OUA. | Is DCC-OUA properly connected to UFM-30CTL? | Plug the supplied cable to the REMOTE connector on the UFM-30DCC and plug the other end of the cable to DCC-OUA. |
| | The dipswitch S3-1 setting | Set S3-1 to OFF . (See 6-1-1.) |
| | The jumper JP3 setting | Set JP3 for (See 6-2-1.) the DCC-OUA control setting. |
| Some setting values are changed unintentionally after the operation mode is changed. | Were these values changed in the previous operation mode? | Note that the same set of values is applied to Single Channel mode, Link mode and "Setting1" in Dual Channel . Therefore, if some values are changed, The same changes are applied to other modes. |
| Cannot save/load events. | The Auto Event Load setting | Set Auto Event Load to Disable . (See 5-2-6.) |
| Cannot set Auto Event Load . | The Operation Mode setting | Auto Event Load cannot be changed in Link mode. |
| The Output Delay setting is reset after loading an event. | The input video format saved in the event and the input video format when the event is loaded. | If these formats are different, the Output Delay is reset in some cases. (See 5-2-6.) |
| The Output Delay setting is reset at startup, though Start Up Event Load has been set to Last Set . | The input video format when powered off and the current input format. | If these formats are different, the Output Delay is reset. (See 5-2-6.) |

8. Specifications and Dimensions

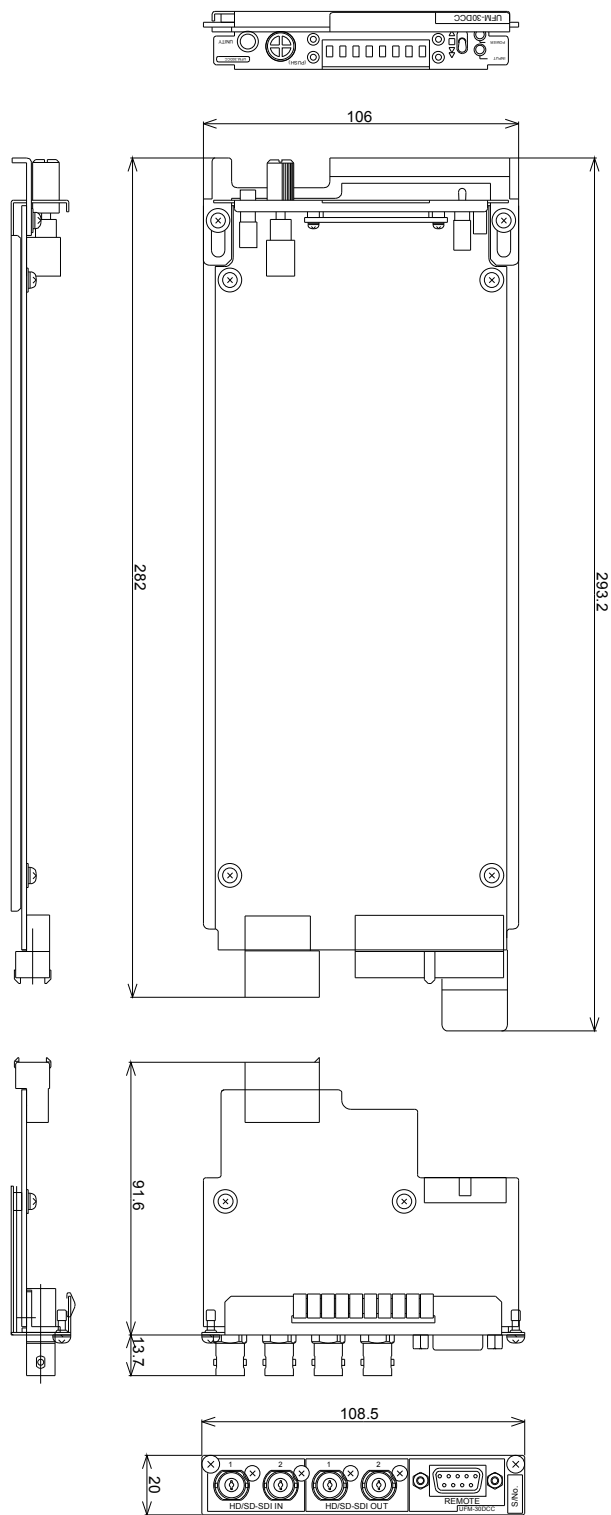
8-1. Unit Specifications

| | |
|--|--|
| Video Format | 1080/59.94i, 50i, 720/59.94p, 50p 525/60, 625/50 |
| Video Format (if UFM-3DCC3G installed:) | 1080/50p, 59p, 60p (Level A) 1080/60i, 1035/59.94i, 60i 1080/30PsF, 23.98PsF, 24PsF, 25PsF, 29.97PsF 1080/30p, 23.98p, 24p, 25p, 29.97p 720/23.98p, 24p, 25p, 30p, 29.97p, 60p (1080/30PsF, /29.97PsF, /25PsF signals are processed as 1080/60i, 59.94i, 50i respectively.) |
| Video Input | 3G-SDI: 3 Gbps, HD-SDI: 1.5 Gbps, or SD-SDI: 270 Mbps 75Ω BNC x 2 |
| Video Output | 3G-SDI: 3 Gbps, HD-SDI: 1.5 Gbps, or SD-SDI: 270 Mbps 75Ω BNC x 2 |
| Controller | DCC-OUA (Ver. 3.00 or higher) WEB-based control/ SNMP monitoring (UFM-30CTL required) DCC-NETOU (UFM-30CTL required) * DCC-OUA cannot be used with other controllers at the same time. |
| Signal Processing | 4:2:2 digital component |
| Quantization | Y: 10-bit, C: 10-bit |
| Sampling Frequency | 3G-SDI: Y: 148 MHz, C: 74 MHz HD-SDI: Y: 74 MHz, C: 37 MHz SD-SDI: Y: 13.5 MHz, C: 6.75 MHz |
| Internal Processing | 1-Channel system: 1-channel with 2-output, input selectable 2-Channel system: 2-channel, 2-input, 2-output (option) |
| I/O Delay | Settable from 200 CLK (SD) /140 CLK (HD) (minimum) to approx. 1 H (maximum) |
| Video function | Process Amp, Video clip, Video freeze |
| Process Amp | Video level: 0.0% to 200.0% Y level: 0.0% to 200.0% Chroma level: 0.0% to 200.0% Setup / black level: -7.0% to 25.0% Hue: -180.0° to +180.0° |
| Color Correction | Mode: Balance, Differential and Sepia Balance and Differential mode: -White level (RGB): 0.0% to 200.0% (against input) -Black level (RGB): 0.0% to 200.0% (against input) -Gamma level (RGB): 0.0% to 200.0% (against input) -Gamma curve: WHITE, CENTER or BLACK Sepia mode: -Sepia level: 0.0% to 100.0% -Sepia color: -180.0° to +180.0° |
| Video Clip | Mode: YBR clip, GBR clip and Composite clip YBR clip -Y LEVEL clip: 50.0% to 109.0% -BLACK clip: -7.0% to 50.0% -C LEVEL clip: 50.0% to 113.0% GBR clip -WHITE clip: 50.0% to 300.0% -BLACK clip: -200.0% to 50.0% Composite clip -White clip: 50.0% to 150.0% -BLACK clip: -50.0% to 50.0% |

| | |
|-------------------------------------|--|
| Processing order (internal setting) | UFM-30DCC processing mode: Process Amp first, and then to Color Correction Legacy processing mode: Color Correction first, and then to Process Amp |
| Split mode | Display mode selectable from 4 types. |
| Ancillary data | Pass or through selectable for H and V ancillary packets. |
| Interface | REMOTE (RS-422): 9-pin D-sub (female) x 1 (with inch screws) (for DCC-OUA connection) |
| Temperature | 0°C to 40°C |
| Humidity | 30% to 85% (no condensation) |
| Power | +24 VDC (supplied from UFM frame) |
| Consumption | Approx. 0.8 A |
| Dimensions | Front module: 106 (W) x 293.2 (D) (mm) Rear module: 108.5 (W) x 105.3 (D) x 20 (H) (mm) |
| Weight | Approx. 0.5 kg |
| Consumables | None |
| Option | UFM-3DCC3G: 3G-SDI option UFM-3DCC2C: Dual channel option DCC-OUA: Operation Unit for Color Corrector DCC-NETOU: Network Operation Unit for Color Corrector UFM-30CTL: Control Card Control Cable: For DCC-OUA connection (PC-2076-3, 10 m) |

8-2. External Dimensions

(All dimensions in mm)



Warning

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.



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*The contents of this manual are subject to change without notice.