JVC®

MULTI-FORMAT MONITOR
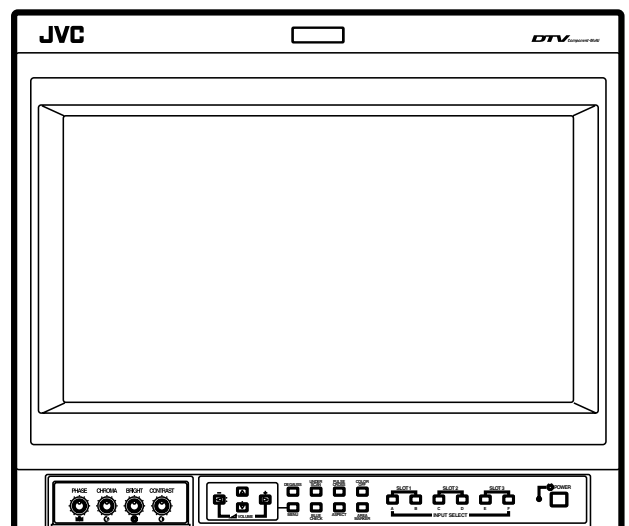
DT-V1700CG

INSTRUCTIONS

The illustration above shows the DT-V1700CG with provided wide mask attached.

SAFETY PRECAUTIONS

In order to prevent any fatal accidents caused by misoperation or mishandling the monitor, be fully aware of all the following precautions.

WARNINGS

To prevent fire or shock hazard, do not expose this monitor to rain or moisture. Dangerous high voltages are present inside the unit. Do not remove the back cover of the cabinet. When servicing the monitor, contrast qualified service personnel. Never try to service it yourself.

WARNING : THIS APPARATUS MUST BE EARTHED.

Improper operations, in particular alternation of high voltage or changing the type of tube may result in x-ray emission of considerable dose. A unit altered in such a way no longer meets the standards of certification, and must therefore no longer be operated.

This monitor is equipped with a 3-blade grounding-type plug to satisfy FCC rule. If you are unable to insert the plug into the outlet, contact your electrician.

FCC NOTICE (U.S.A. only)

CAUTION: Changes or modifications not approved by JVC could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the 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.

■ PRECAUTIONS

● Use only the power source specified on the unit. (120 V/230 V AC, 50 Hz/60 Hz)
● Keep flammable material, water, and metal objects away from the unit – especially the interior of the unit.
● This unit incorporates high voltage circuitry. For your own safety and that of your equipment, do not attempt to modify or disassemble this monitor. There are no user-serviceable parts inside.
● Video or audio signals cannot be input to this monitor without optional input cards.
● In these instructions, all explanations (except where noted) refer to the DT-V1700CG with input cards installed.

■ HANDLING

● Avoid shocks or vibrations. These may damage the unit and cause it to malfunction.
● Do not block the ventilation slots.
● Do not expose this unit to high temperatures. Extended exposure to direct sunlight or a heater could deform the cabinet or cause the performance of internal components to deteriorate.
● Do not place the unit near appliances generating strong electric or magnetic fields. There can generate picture noise and instability.
● Keep the monitor clean by wiping the cabinet and CRT screen with a piece of soft cloth. Do not apply thinner or benzine. These chemicals can damage the finish and erase printed letters. When the unit is excessively dirty, use a diluted neutral cleanser, then wipe away the cleanser with a dry cloth.

SCREEN BURN

● It is not recommended to keep a certain still image displayed on screen for a long time as well as displaying extremely bright images on screen. This may cause a burning (sticking) phenomenon on the screen of cathode-ray tube. This problem does not occur as far as displaying normal video playback motion images.

DEGAUSS

● Do not use a magnet eraser to degauss the monitor's cathode ray tube from the outside. Doing so may distort its aperture grill and cause a malfunction.
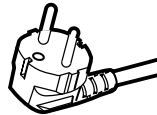
POWER CONNECTION

The power supply voltage rating of this product is AC 120 V (For U.S.A. and Canada only) and AC 230 V (For European countries or United Kingdom), the power cord attached conforms to the following power supply voltage and countries. Use only the power cord designated to ensure Safety and EMC regulations of each countries.
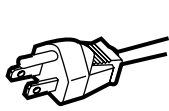
Power cord

Power supply voltage : AC 120 V	AC 230 V	AC 230 V
Countries : U.S.A. and Canada	European countries	United Kingdom

Warning:
● Do not use the same Power Cord for AC 120 V as for AC 230 V. Doing so may cause malfunction, electric shock or fire.

Note for the United Kingdom power cord only
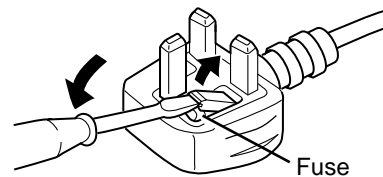The plug on the United Kingdom power cord has a built-in fuse. When replacing the fuse, be sure to use only a correctly rated approved type, re-fit the fuse cover.
(Consult your dealer or qualified service personnel.)

How to replace the fuse
Open the fuse compartment with the blade screw driver, and replace the fuse.
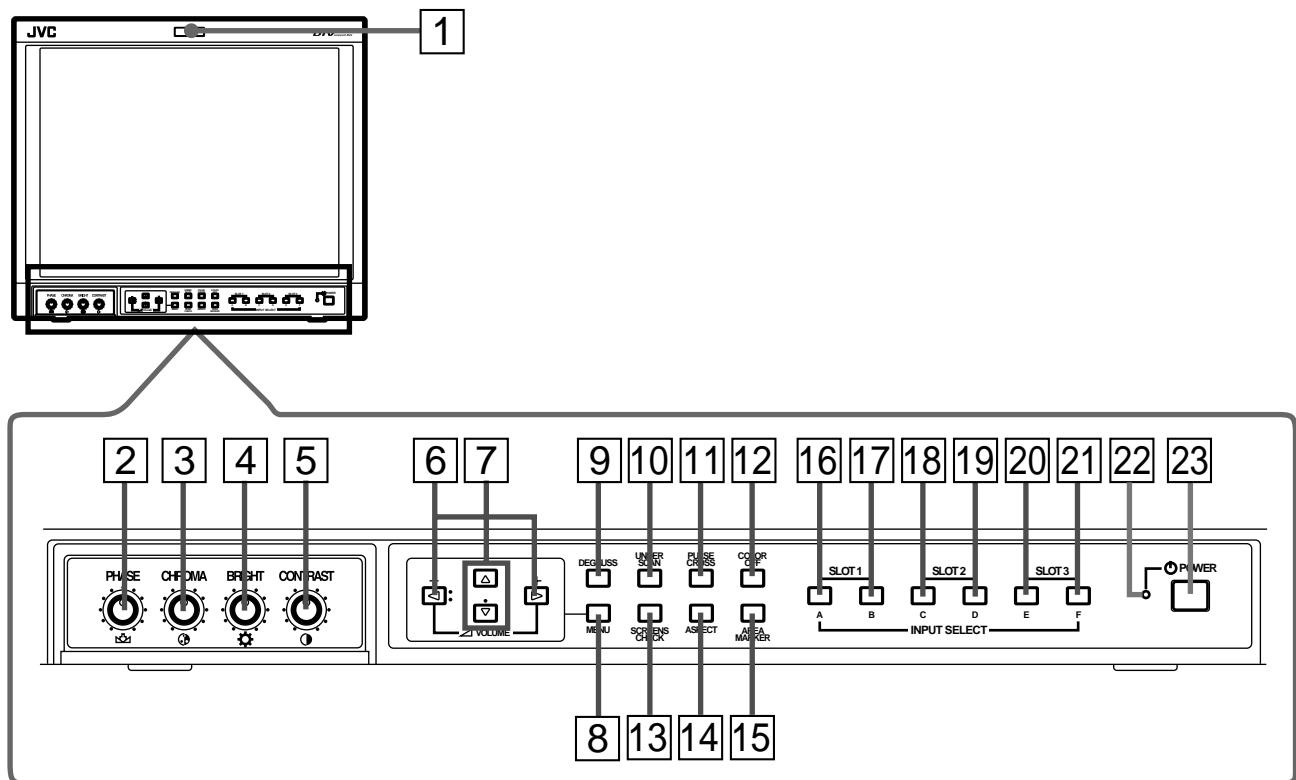(* An example is shown in the illustration.)

Fuse

CONTENTS

# CONTROLS AND FEATURES

FRONT VIEW

<Front Panel>

---

1 Tally lamp
Lights when the tally control signal is ON. The tally control
signal is input through the MAKE remote terminal. For
details, refer to Page 17.

2 PHASE adjustment knob
Adjusts picture hue. Turn the knob to the left to make the
picture redder, and turn it to the right to make the picture
greener.

3 CHROMA adjustment knob
Adjusts picture colour density. Turn the knob to the left to
make the picture colour lighter, and turn it to the right to
make the picture colour deeper.

4 BRIGHT adjustment knob
Adjusts picture brightness. Turn the knob to the left to
make the picture darker, and turn it to the right to make
the picture brighter.

5 CONTRAST adjustment knob
Adjusts picture contrast. Turn the knob to the left to make
the picture contrast lower, and turn it to the right to make
the picture contrast higher.

6 VOLUME buttons
Adjusts the speaker volume. Also used to set or adjust
menu screen items.

7 Menu select buttons
Selects menu screen items or set-up menu screen.

8 MENU button
Displays, adjusts or closes a menu screen.

9 DEGAUSS button/lamp
Press the DEGAUSS button. The button lights and
degaussing is performed automatically. When the
degaussing is completed, the light goes off.

10 UNDER SCAN button/lamp
Press the UNDER SCAN button. The button lights and
the screen is reduced (under-scan) and the whole screen
is displayed. When the UNDER SCAN button is pressed
while lit, the light goes off and the screen returns to
normal size (over-scan). Use this function to check the
whole screen.
NOTE: This function is invalid with the RGB-input screen.

11 PULSE CROSS button/lamp
Press the PULSE CROSS button. The picture is
separated into 4 parts. The synchronised signal displayed
in the shape of a cross separating the parts. The screen
automatically brightens to make it easier to confirm
synchronised sections easy. When the PULSE CROSS
button is pressed while lit, the light goes off and the
normal screen is restored.
NOTE: This function is invalid with the RGB-input screen.

REAR/SIDE VIEW

<Rear Panel>

<Side Panel>
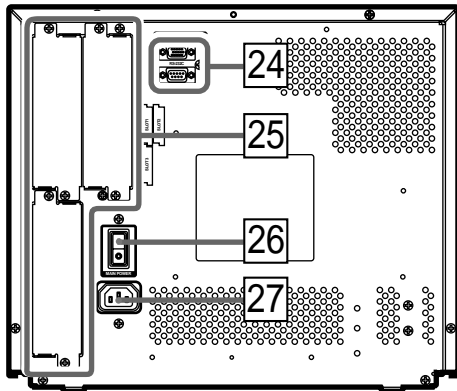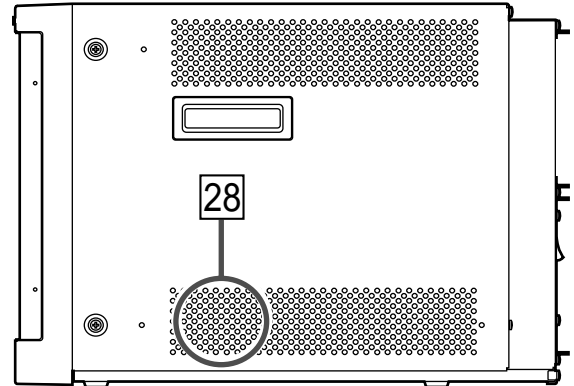
12 COLOR OFF button/lamp

Press the COLOR OFF button. The button lights and the screen becomes monochrome. When the COLOR OFF button is pressed while lit, the light goes off and the normal screen is restored.

Use this function to confirm the noise in the brightness signal or to confirm the white balance.

NOTE: This function is invalid with the RGB-input screen.

13 SCREENS CHECK button/lamp

Press the SCREENS CHECK button. The button lights and the screen changes in the following order:

Normal screen → Red screen → Green screen
↑_____ Blue screen ←

Press the SCREENS CHECK button when the blue screen is displayed. The light goes off and the normal screen is restored.

Use this function to confirm or adjust CHROMA or PHASE.

NOTE: This function is invalid with the RGB-input screen.

14 ASPECT button/lamp

When the ASPECT button is pressed while the screen ratio is 4:3, the button lights and the screen ratio changes to 16:9. When the ASPECT button is pressed while lit, the light goes off and the normal screen is restored.

NOTE: This function is invalid with the RGB-input screen.

15 AREA MARKER button/lamp

When the AREA MARKER button is pressed while the screen ratio is 16:9, the button lights and the white marker is displayed. This shows the screen size (area) set on the menu. When the AREA MARKER button is pressed while lit, the light goes off and the normal screen is restored.

NOTE: This function is invalid with the RGB-input screen.

16 – 21 INPUT SELECT buttons/lamps

Press the unlit button. The button lights and the input signal is changed. (any other lit button goes off.) When the lit button is pressed, the status of the current input signal is displayed (for approx. 3 seconds). Buttons A through F correspond to the signals input via the input cards installed in SLOT 1 through SLOT 3.

A, B : select the picture from the SLOT 1 input card.
C, D : select the picture from the SLOT 2 input card.
E, F : select the picture from the SLOT 3 input card.

Refer to pages 8 and 9 for correspondence between the input terminals and the INPUT SELECT buttons.

22 Power lamp

Unlit : The main power is OFF.
Orange : The main power is ON, but the monitor's power is OFF (in stand-by mode).
Green : The main power is ON, and the monitor's power is ON (in normal operation mode).

23 POWER switch

Press the power switch to turn the monitor's power ON or OFF when the main power is ON.

NOTE: When RUSH DELAY TIME is set to MODE 2 in the set-up menu, it takes approx. 3.2 seconds for the power to actually turn ON after the power switch is pressed.

24 REMOTE (external control) terminals

Terminals for controlling the monitor from an external unit.
RS-232C terminal (Upper):
Enables the monitor to be controlled from a personal computer via serial communication.
MAKE terminal (Lower):
Enables the monitor to be controlled by closing the circuit (point of contact) connected to the terminal.

25 Input card slots (SLOT 1 — SLOT 3)

Optional input cards can be installed in these slots. Input cards are not provided when you purchase the monitor.

NOTE: It is not possible to input video or audio signals to the monitor when no input cards are installed.

26 Main power switch

Press the switch to turn the main power ON or OFF. When the main power is ON, the power lamp on the front panel lights in yellow and the monitor enters the stand-by mode.

I : ON   ○ : OFF

27 AC inlet

Power input connector. Connect the provided AC power cord to an AC outlet (120 V/230 V AC, 50 Hz/60 Hz).
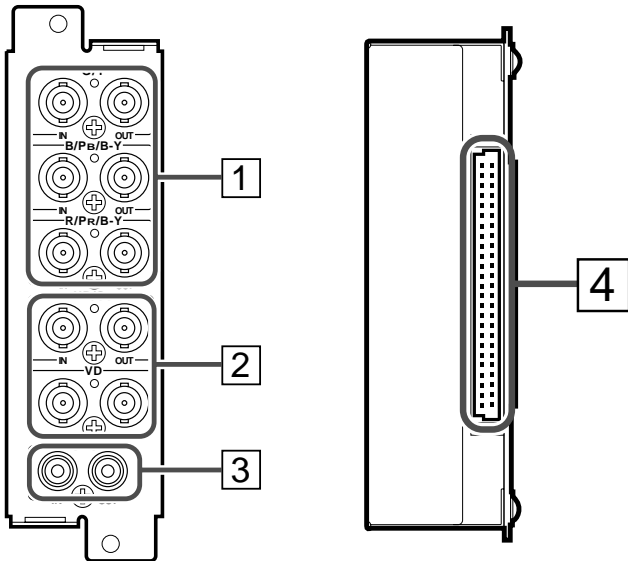
28 Built-in speaker (monaural)

Outputs the input audio.

▌CONTROLS AND FEATURES
## (INPUT CARD: OPTIONAL)

▌ COMPONENT/RGB INPUT CARD (OPTIONAL: IF-C01COMG)

■ Compatible signal formats:
480/60i, 576/50i, 480/50p, 480/60p, 720/60p, 1035/60i, 1080/50i, 1080/60i

1 Video input/output terminals
Input (IN) and output (OUT) terminals for component (colour deference) or RGB signals.
The IN and OUT terminals are bridge-connected.
(When no cable is connected to the OUT terminal, the input signal is automatically terminated.)
Select component signal : press INPUT SELECT A/C/E button
Select RGB signal : press INPUT SELECT B/D/F button

2 Synchronised signal input/output terminals
Input (IN) and output (OUT) terminals for the vertical, horizontal or complex synchronised signals.
The synchronised signals from these terminals have priority over other terminals. When no synchronised signal is input to these terminals, the synchronised signal from the video input/output terminals (G/Y terminals) is valid.
The IN and OUT terminals are bridge-connected.
(When no cable is connected to the OUT terminal, the input signal is automatically terminated.)

3 Audio input/output terminals
Input (IN) and output (OUT) terminals for audio signals.
The IN and OUT terminals are bridge-connected.

4 Connection terminal (to a Multi-Format Monitor)
Attach to the connection terminal of your multi-format monitor.

▌ VIDEO INPUT CARD (OPTIONAL: IF-C01PNG)
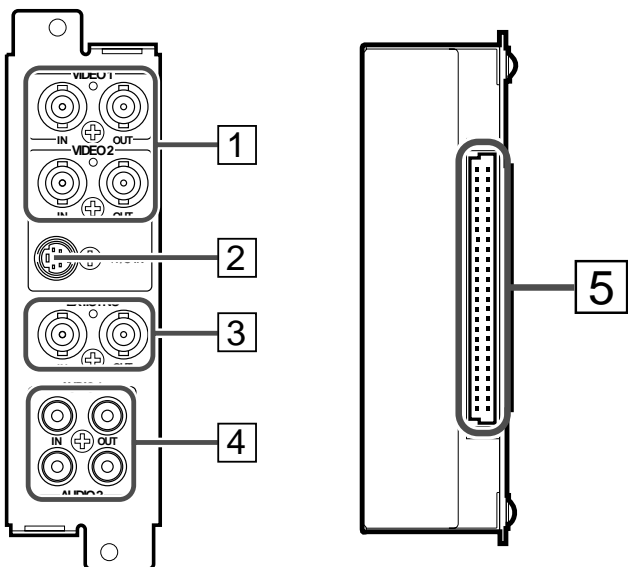
■ Compatible signal formats:
NTSC (3.58 MHz), PAL (4.43 MHz), black-and-white (50 Hz/60 Hz)
* You can select "AUTO" (automatic selection), "NTSC" or "PAL" in SETUP MENU when switching NTSC or PAL. Normally select AUTO. However, if the input signal is unstable, select NTSC or PAL.

1 Video input/output terminals
Input (IN) and output (OUT) terminals for video signals.
The IN and OUT terminals are bridge-connected.
(When no cable is connected to the OUT terminal, the input signal is automatically terminated.)
Select VIDEO 1 : press INPUT SELECT A/C/E button
Select VIDEO 2 : press INPUT SELECT B/D/F button

2 S-video input terminal
Input terminal for the S-video signal.
When an S-video signal is input to this terminal and a video signal is input to VIDEO 2, the S-video signal has priority over the video signal.
When choosing the S-video input, press INPUT SELECT B/D/F button.

3 Synchronised signal input/output terminals
Input (IN) and output (OUT) terminals for the complex synchronised signals.
The synchronised signals from these terminals have priority over signals from other terminals. When no synchronised signal is input to these terminals, the synchronised signal from the video input/output terminals is valid.
The IN and OUT terminals are bridge-connected.
(When no cable is connected to the OUT terminal, the input signal is automatically terminated.)

4 Audio input/output terminals
Input (IN) and output (OUT) terminals for audio signals corresponding to VIDEO 1 and VIDEO 2. The IN and OUT terminals are bridge-connected.

5 Connection terminal (to a Multi-Format Monitor)
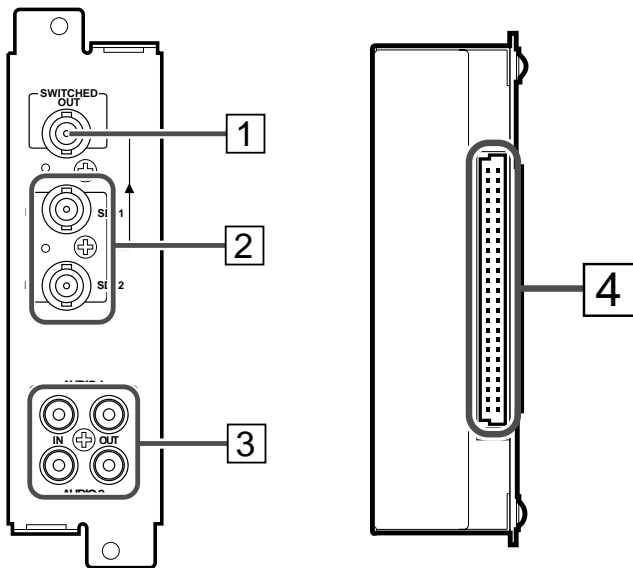Attach to the connection terminal of your multi-format monitor.

■ SDI INPUT CARD (OPTIONAL: IF-C01SDG)

■ Compatible signal formats: 480/60i, 480/50i

| 1 | **Output terminal for a selected component serial digital signal** |

Output terminal for s selected digital signal (the input displayed on the screen). The output signal is cable-compensated.
NOTE: When the monitor's power is OFF, no digital signal is output.

| 2 | **Input terminals for component serial digital signals** |

Input terminals for the digital signal.
Select SDI 1 : press INPUT SELECT A/C/E button
Select SDI 2 : press INPUT SELECT B/D/F button

| 3 | **Audio input/output terminals** |

Input (IN) and output (OUT) terminals for the analogue signals corresponding to SDI 1 and SDI 2.
NOTE: This input card cannot decode audio data even if contained in the input digital signal.

| 4 | **Connection terminal (to a Multi-Format Monitor)** |

Attach to the connection terminal of your multi-format monitor.

■ HD SDI INPUT CARD (OPTIONAL: IF-C01HSDG)

■ Compatible signal formats: 720/60p, 1035/60i, 1080/50i, 1080/60i, 1080/24pSF

| 1 | **Output terminal for a selected component serial digital signal** |

Output terminal for s selected digital signal (the input displayed on the screen). The output signal is cable-compensated.
NOTE: When the monitor's power is OFF, no digital signal is output.

| 2 | **Input terminals for component serial digital signals** |

Input terminals for the digital signal.
Select HD SDI 1 : press INPUT SELECT A/C/E button
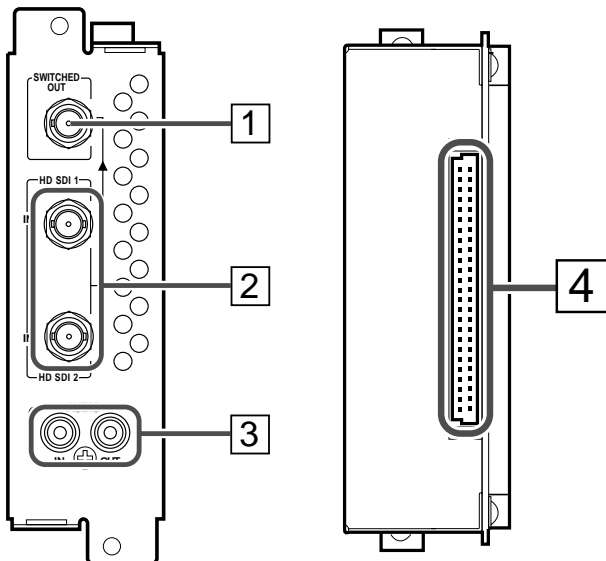Select HD SDI 2 : press INPUT SELECT B/D/F button

| 3 | **Audio input/output terminals** |

Input (IN) and output (OUT) terminals for the analogue audio signals.
NOTE: This input card cannot decode audio data even if contained in the input digital signal.

| 4 | **Connection terminal (to a Multi-Format Monitor)** |

Attach to the connection terminal of your multi-format monitor.

▌PREPARATION

■ INSTALLING THE INPUT CARD

Optional input cards are necessary to use the functions of this monitor. Before mounting the monitor or connecting other equipment to the monitor, be sure to install the input cards.

1. Turn off the Multi-Format Monitor's main power and unplug the power cable from the AC outlet.

2. Unscrew the screws and remove the slot cover from the slot (on the rear side of the monitor) in which you are going to install the card.

Slot cover

Rear side of the DT-V1700CG
multi-format monitor
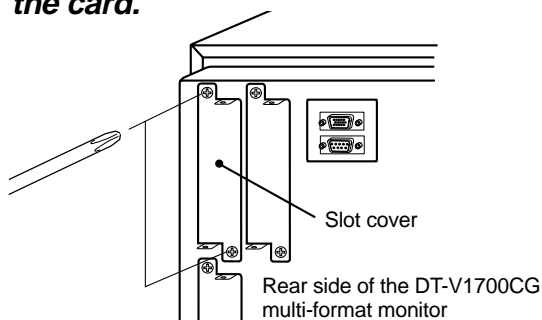
3. Insert the Input Card's board (green-coloured) into the slot, fitting the board into the guide rails on the top and bottom of the slot.

Fit the board to the guide rails.

Knob

Guide rails

Input card (the illustration shown is of the IF-C01PNG)

Knob
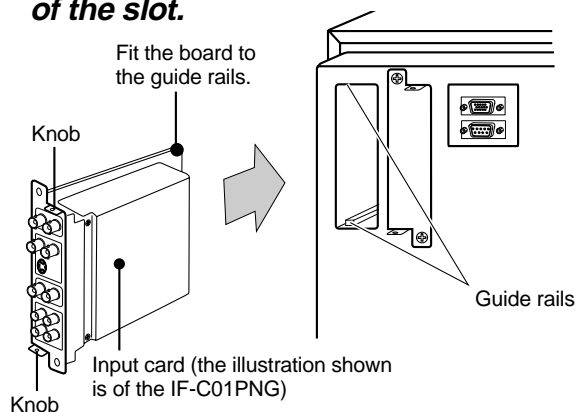
4. Push the Input Card in so that its front panel touches the monitor's rear panel.

5. Secure the Input Card by replacing the screws removed in Procedure 2.
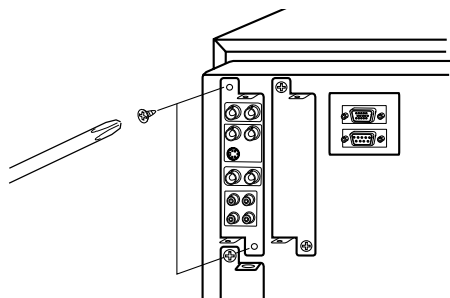
NOTE : Do not touch the terminal connected to the monitor or board pattern.
Do not remove slot covers from the monitor's slots if they are not in use.

■ ATTACHING THE WIDE MASK

A wide mask is provided with the monitor. This changes the viewable screen area to the 16:9 aspect ratio.
The wide mask cannot be attached to the monitor after the monitor is mounted in a rack. Mount the wide mask before installing the monitor in a rack.

1. Prepare the provided wide mask and 4 screws (for attaching).

2. Attach the wide mask to the monitor.
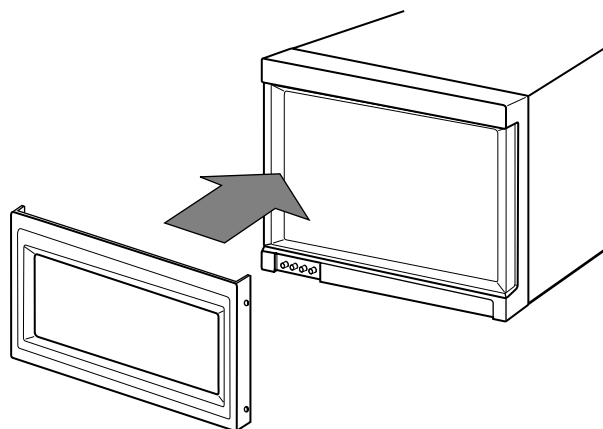
3. Secure the wide mask with the screws (fix 2 screws each to both right and left side).
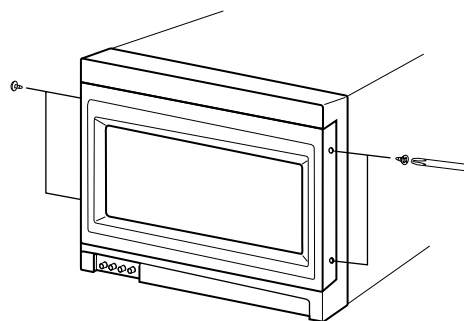
● When detaching the wide mask, follow this procedure in reverse.

BASIC MENU OPERATIONS
(MAIN MENU, SETUP MENU)

■ ABOUT MENU SCREENS

This monitor features a MAIN MENU (main menu screen) and a SETUP MENU (setup menu screen).
The MAIN MENU contains the functions normally used, and the SETUP MENU contains the settings required for initial setup.

```
         <MAIN MENU>

 ►APERTURE CONTROL
  SLOT CONDITION
  sub menu POSITION :LOWER
  AREA MAKER        :OFF
  AREA MAKER-R      :OFF
  CENTER MAKER      :OFF
  COLOR MATRIX



  EXIT:MENU ENTER:⊞ SELECT:▣
```

```
        <SETUP MENU>

 ►FUNCTION SETTING
  PICTURE SUB ADJ.
  COLOR TEMP/BAL.
  SIZE/POSI.ADJ.
  DISTORTION ADJ.
  STATUS DISPLAY
  CONTROL LOCK      :ON
   all reset

  EXIT:MENU ENTER:⊞ SELECT:▣
```

MAIN MENU (main menu screen)

SETUP MENU (setup menu screen)

NOTE : The contents of menus vary depending on the input signal or combination of the monitor's settings.

```
         <MAIN MENU>

 ►APERTURE CONTROL
  SLOT CONDITION
  sub menu POSITION :LOWER
  COLOR MATRIX




  EXIT:MENU ENTER:⊞ SELECT:▣
```

```
         <MAIN MENU>

 ►SLOT CONDITION
  sub menu POSITION :LOWER





  EXIT:MENU ENTER:⊞ SELECT:▣
```

MAIN MENU when the 4:3 video signal is input

MAIN MENU when the RGB signal is input

■ DISPLAYING THE MENU SCREENS

● **To display MAIN MENU**
 Press the □ button on the front panel.

●**To display SETUP MENU**
 Press the ◁: button while pressing the ▽ button on the front panel.
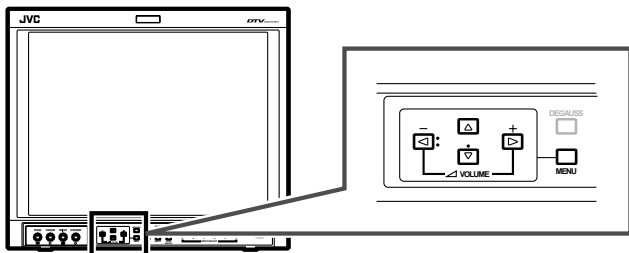
■ CLOSING THE MENU SCREENS

● **Using the MENU button**
 Press the □ button a few times until the Menu Screen disappears.

● **With no operation**
 When approx. 30 seconds have passed since the last Menu operation, both screens will disappear.
 * Some items on the Menu Screens disappear automatically after setting.

■ BASIC MENU OPERATION

● **To select an item,**
 Press the △ or ▽ buttons to move the cursor (►) on the Menu Screens and select the desired item.
● **To set (select) or adjust an item,**
 Press the ◁: or ▷ buttons to select or adjust the desired item.
● **When the desired item has other menus (hierarchical menus),**
 Press the ▷ button to display the lower hierarchical menu.
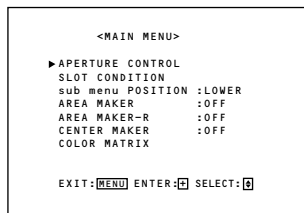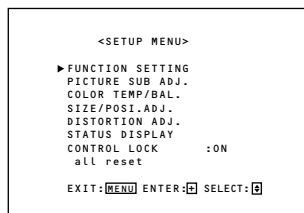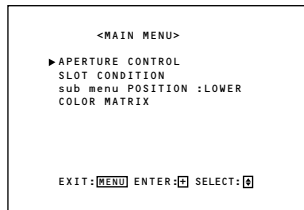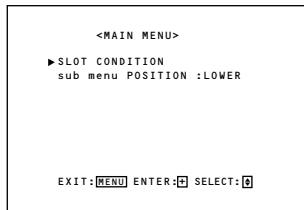● **To return to the former Menu Screen,**
 Press the □ button.

```
         <MAIN MENU>

 ►APERTURE CONTROL
  SLOT CONDITION
  sub menu POSITION :LOWER
  AREA MAKER        :OFF
  AREA MAKER-R      :OFF
  CENTER MAKER      :OFF
  COLOR MATRIX

  EXIT:MENU ENTER:⊞ SELECT:▣
```

```
      <APERTURE CONTROL>

 ►LEVEL            :00
  CONTROL FREQ.    :HIGH
  ↵sub menu
  △reset



  EXIT:MENU ENTER:⊞ SELECT:▣
```

Press the ◁: or ▷ buttons to select or adjust the item.

Menu in an item
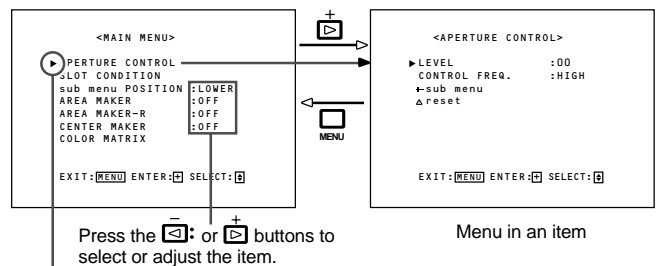
Cursor
Move (select) with the △ or ▽ buttons.

■ HOW TO USE THE SUB MENU

The sub menu function applies to Menu Screen items that should be adjusted or set while watching the picture. This function simplifies the adjustment or setting while watching the picture by displaying the single item on the top or bottom of the screen.

● **To use the sub menu function,**
 Press the △ or ▽ buttons to select "↵ sub menu". Then, press the ▷ button to display the sub menu screen.
● **To adjust or set an item in the sub menu screen,**
 Press the ◁: or ▷ buttons.
● **To change the item to be adjusted or set,**
 Press the △ or ▽ buttons.
● **To change the position of the sub menu screen,**
 Set "UPPER" (on the top) or "LOWER" (on the bottom) in "sub menu POSITION" of MAIN MENU.
● **To close the sub menu screen,**
 Press the □ button. The previous Menu Screen is displayed.

Example of sub menu screen

```
       <PICTURE SUB ADJ.>

  CONTRAST        :00
  BRIGHT          :00
  CHROMA          :00
  PHASE           :00
  NTSC SETUP      :00
  COMPO.LEVEL     :SMPTE
 ►↵sub menu
  △reset

  EXIT:MENU ENTER:⊞ SELECT:▣
```

```
  CONTRAST          :00
  - ⊟ ▬▬▬▬|▬▬▬  ⊞ +
```

```
  CONTRAST          :00
  - ⊟ ▬▬▬▬|▬▬▬  ⊞ +
```
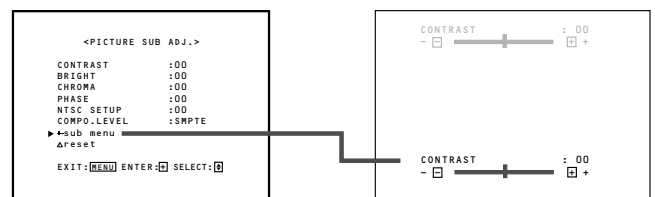
The upper pale screen; when setting "UPPER" in "sub menu POSITION"
The lower dark screen; when setting "LOWER" in "sub menu POSITION"

▌ HOW TO USE "MAIN MENU"

■ "MAIN MENU" ITEMS

The following items appear in MAIN MENU.

Items		Functions	Displays
1	APERTURE CONTROL	Compensates the frequency characteristics of the input video signal.	*1
2	SLOT CONDITION	Displays the status of the input cards installed in each of the input card slots.	
3	sub menu POSITION	Selects the display position of the sub menu superimposed on the screen.	
4	AREA MARKER	Selects the size marker for the other screen ratio used when the screen ratio is 16:9.	*2
5	AREA MARKER-R	Selects the size marker for the other screen ratio used when the screen ratio is 16:9. (for external control)	*2
6	CENTER MARKER	Makes the centre marker appear or disappear.	*2
7	COLOR MATRIX	Selects or adjusts the picture colour matrix.	*1

About "Displays"   *1: Not displayed when an RGB signal is input.
                    *2: Displayed only when the screen ratio is 16:9. Not displayed when an RGB signal is input.
When some items are not displayed depending on the input signals, subsequent items will move up.

■ "MAIN MENU" SCREENS

```
        <MAIN MENU>

▶APERTURE CONTROL
 SLOT CONDITION
 sub menu POSITION :LOWER
 AREA MAKER        :OFF
 AREA MAKER-R      :OFF
 CENTER MAKER      :OFF
 COLOR MATRIX


EXIT:MENU ENTER:⊞ SELECT:⊡
```

```
      <APERTURE CONTROL>

▶LEVEL            :00
 CONTROL FREQ.    :HIGH
↵sub menu
△reset




EXIT:MENU ADJUST:⊟ ⊞ SELECT:⊡
```

```



              LEVEL        :+05
              - ⊟ ━━━━┃━━━ ⊞ +
```

The menu screen when "sub menu" is selected.

```
 LEVEL             :+05
 - ⊟ ━━━┃━━━━ ⊞ +
```

The sub menu screen when "sub menu POSITION" is set to "UPPER".

```
       <SLOT CONDITION>

 INPUT A    : VIDEO-1
 INPUT B    : VIDEO-2
 INPUT C    : COMPO.
 INPUT D    : RGB
 INPUT E    : NO SLOT
 INPUT F    : NO SLOT


EXIT:MENU
```

```
       <COLOR MATRIX>

▶SELECT :ITU601




EXIT:MENU ADJUST:⊟ ⊞ SELECT:⊡
```
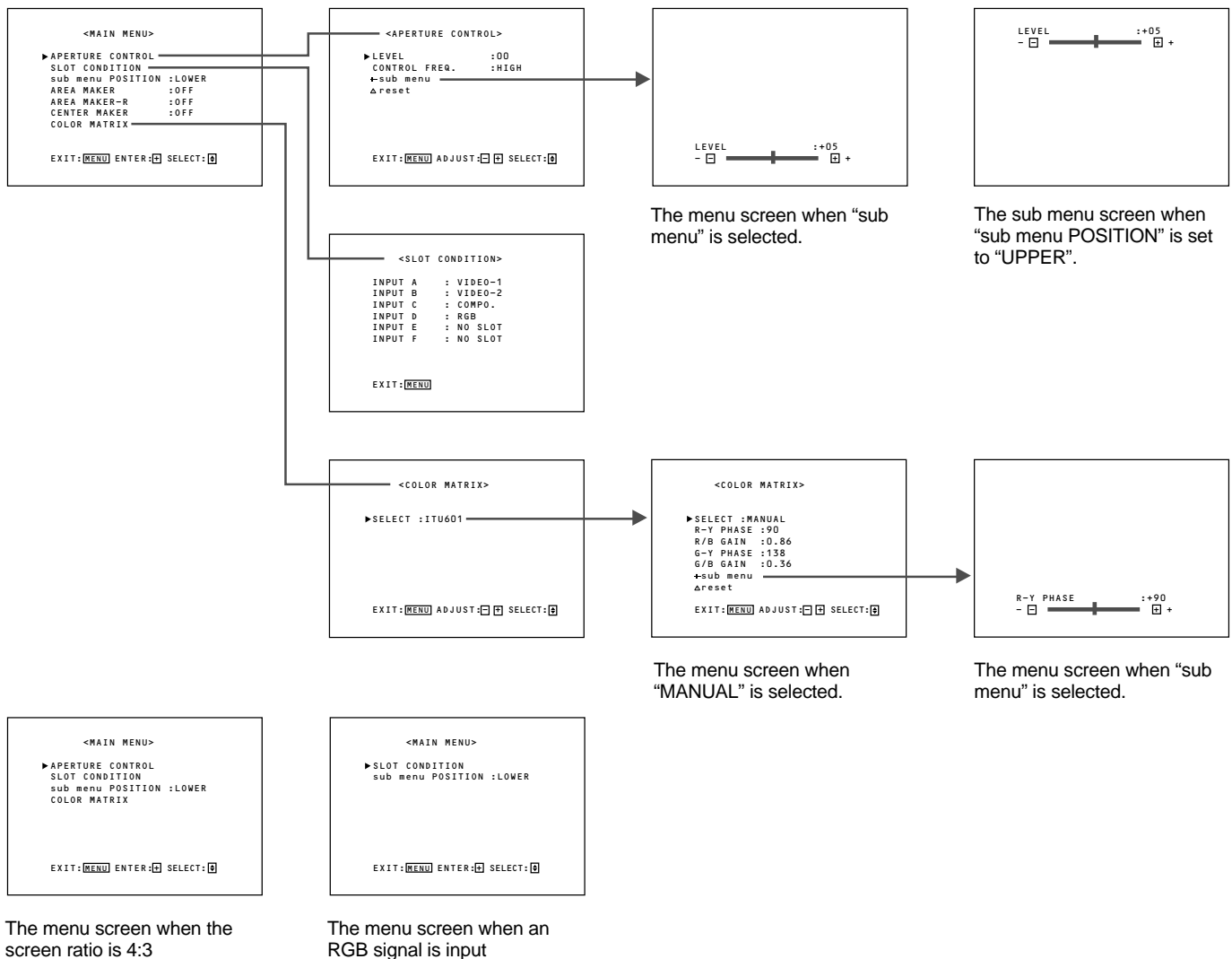
```
       <COLOR MATRIX>

▶SELECT :MANUAL
 R-Y PHASE :90
 R/B GAIN  :0.86
 G-Y PHASE :138
 G/B GAIN  :0.36
↵sub menu
△reset
EXIT:MENU ADJUST:⊟ ⊞ SELECT:⊡
```

The menu screen when "MANUAL" is selected.

```



      R-Y PHASE        :+90
      - ⊟ ━━━┃━━━ ⊞ +
```

The menu screen when "sub menu" is selected.

```
        <MAIN MENU>

▶APERTURE CONTROL
 SLOT CONDITION
 sub menu POSITION :LOWER
 COLOR MATRIX



EXIT:MENU ENTER:⊞ SELECT:⊡
```

The menu screen when the screen ratio is 4:3

```
        <MAIN MENU>

▶SLOT CONDITION
 sub menu POSITION :LOWER




EXIT:MENU ENTER:⊞ SELECT:⊡
```

The menu screen when an RGB signal is input

■ ITEM CONTENTS AND ADJUSTMENT RANGE/SETTINGS

1. APERTURE CONTROL

Compensates the frequency characteristics of the input video signal. Press the ▣ button to display the setting menu illustrated on the right.

NOTE : APERTURE CONTROL is not displayed when the RGB signal is input.

```
        <APERTURE CONTROL>
▶LEVEL              :00
 CONTROL FREQ.      :HIGH
+sub menu
△reset


EXIT:MENU ADJUST:- + SELECT:B
```

Item	: LEVEL
Adjustment range	: 00 ~ +10
Function	: Adjusts the compensate value. The higher the number is, the larger the compensate value gets.

Item	: CONTROL FREQ.
Settings	: HIGH/LOW/OFF
Function	: Adjusts the frequency compensation.
	HIGH : Compensates the high frequencies.
	LOW : Compensates the low frequencies.
	OFF : Deactivates the aperture compensation.

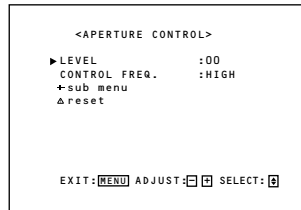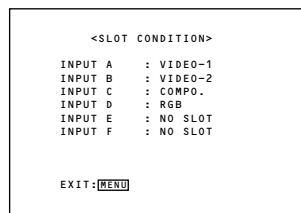| Item	: sub menu
Adjustment range/ Settings	: Same as LEVEL or CONTROL FREQ.
Function	: Performs the LEVEL or CONTROL FREQ. settings in a single-line display. The display position depends on the "sub menu POSITION" setting.

Item	: reset
Function	: Sets the LEVEL and CONTROL FREQ. values to factory-preset ones.

2. SLOT CONDITION

Displays the status of the input cards installed in each of the input card slots. Press the ▣ button to display the setting menu illustrated on the right.

```
        <SLOT CONDITION>
 INPUT A   : VIDEO-1
 INPUT B   : VIDEO-2
 INPUT C   : COMPO.
 INPUT D   : RGB
 INPUT E   : NO SLOT
 INPUT F   : NO SLOT


 EXIT:MENU
```

Items	: INPUT A:/INPUT B:/INPUT C:/INPUT D:/INPUT E:/INPUT F:
Settings	: VIDEO-1/VIDEO-2/COMPO./RGB/SDI 1/SDI 2/ HD SDI 1/HD SDI 2/NO SLOT
Function	: Displays the status of the input cards installed in each of the input card slots.

● INPUT A/B corresponds to SLOT 1, INPUT C/D to SLOT 2, and INPUT E/F to SLOT 3.
● VIDEO-1 or VIDEO-2 shows the video input card is installed.
  COMPO. or RGB shows the component/RGB input card.
  SDI 1 or SDI 2 shows the SDI input card is installed.
  HD SDI 1 or HD SDI 2 shows the HD SDI input card is installed.
● NO SLOT shows no input cards are installed.

3. sub menu POSITION

Items	: Selects the display position of the sub menu superimposed on the screen.
Settings	: UPPER/LOWER
Functions	: UPPER : An adjustment item is displayed on the top of the screen.
	LOWER : An adjustment item is displayed on the bottom of the screen.

4. AREA MARKER

Items	: Selects the size marker for the other screen ratio (aspect) used when the screen ratio is 16:9.
Settings	: OFF/4:3/16:9/14:9/13:9/MODE 1/MODE 2
Functions	: OFF: The marker is not displayed.
	4:3/16:9/14:9/13:9: Displays the marker (a white quadrangle) showing the screen size of each aspect ratio.
	MODE 1/MODE 2: Displays no markers because these settings will be used for function expansion in the future.

● AREA MARKER is displayed when a 16:9 picture such as 1080i/1035i/720p etc. is displayed or the picture is switched to the 16:9 screen ratio by pressing the ASPECT button.
● To actually display the marker, **the AREA MARKER button on the monitor needs to be pressed so that it is illuminated.**

16:9   4:3
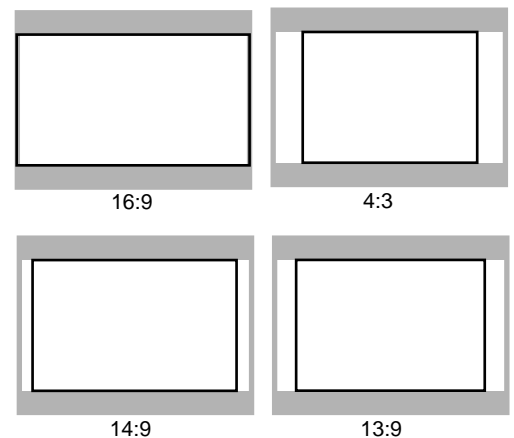
14:9   13:9

5. AREA MARKER-R

Items : Selects the size marker for the other screen ratio (aspect) used when the screen ratio is 16:9. (for external control)

Settings : OFF/4:3/16:9/14:9/13:9/MODE 1/MODE 2

Functions : OFF: The marker is not displayed.
4:3/16:9/14:9/13:9: Displays the marker (a white quadrangle) showing the screen size of each aspect ratio.
MODE 1/MODE 2: Displays no markers because these settings will be used for function expansion in the future.

● AREA MARKER-R is displayed when a 16:9 picture such as 1080i/1035i/720p etc. is displayed or the picture is switched to the 16:9 screen ratio by pressing the ASPECT button.

● The marker is actually displayed when the external control selects each setting. (No markers are displayed even if each marker is selected only in the monitor's AREA MARKER-R setting.)
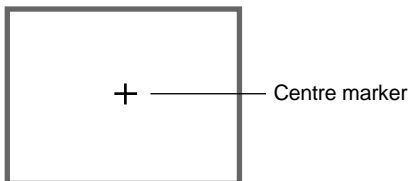
6. CENTER MARKER

Items : Makes the centre marker appear or disappear.

Settings : ON/OFF

Functions : ON : The centre marker (a white cross) is displayed on the centre of the screen.
OFF : The marker disappears.

● To actually display the marker, **the AREA MARKER button on the monitor needs to be pressed so that it is illuminated.**

Centre marker

7. COLOR MATRIX

Selects or adjusts the standard of the colour demodulation (colour rendering). Press the button to display the setting menu illustrated on the right.

```
        <COLOR MATRIX>

  ▶SELECT :MANUAL
   R-Y PHASE :90
   R/B GAIN  :0.86
   G-Y PHASE :244
   G/B GAIN  :0.30
  ←sub menu
  △reset

  EXIT:[MENU] ADJUST:[-][+] SELECT:[⊕]
```

The menu screen when **MANUAL** is selected.

● The standard setting is set to "ITU601" or "ITU709" depending on the input signal format.
The factory preset of MANUAL is ITU709

Input Signal Format	Standard setting	Manual setting (MANUAL)
NTSC, PAL, 480/60i, 480/60p, 576/50i, 575/50p	ITU601	ITU709
720/60p, 1080/50i, 1080/60i, 1035/60i, 1080/24pSF	ITU709	

ITU601	R-Y PHASE	90
	R/B GAIN	0.79
	G-Y PHASE	244
	G/B GAIN	0.45
ITU709	R-Y PHASE	90
	R/B GAIN	0.86
	G-Y PHASE	244
	G/B GAIN	0.30

Item : SELECT
Function : Selects the picture matrix standard.
Settings : ITU601 or ITU709/ MANUAL
ITU601 or ITU709 : Standard setting
MANUAL : Manual setting
NOTE : The following items are displayed when MANUAL is selected. When ITU601 or ITU709 is selected, they are not displayed.

— — — — — — — — — — — — — — — — — — —

Item : R-Y PHASE
Function : Sets the R-Y phase.
Settings : 90/92/94/112

— — — — — — — — — — — — — — — — — — —

Item : R/B GAIN
Function : Sets the R/B gain.
Settings : 0.86/0.56/0.68/0.79

— — — — — — — — — — — — — — — — — — —

Item : G-Y PHASE
Function : Sets the G-Y phase.
Settings : 244/253/236/240

— — — — — — — — — — — — — — — — — — —

Item : G/B GAIN
Function : Sets the G/B gain.
Settings : 0.30/0.34/0.40/0.45

— — — — — — — — — — — — — — — — — — —

Item : sub menu
Function : Performs the R-Y PHASE, R/B GAIN, G-Y PHASE or G/B GAIN settings in a single-line display. The display position depends on the "sub menu POSITION" setting.
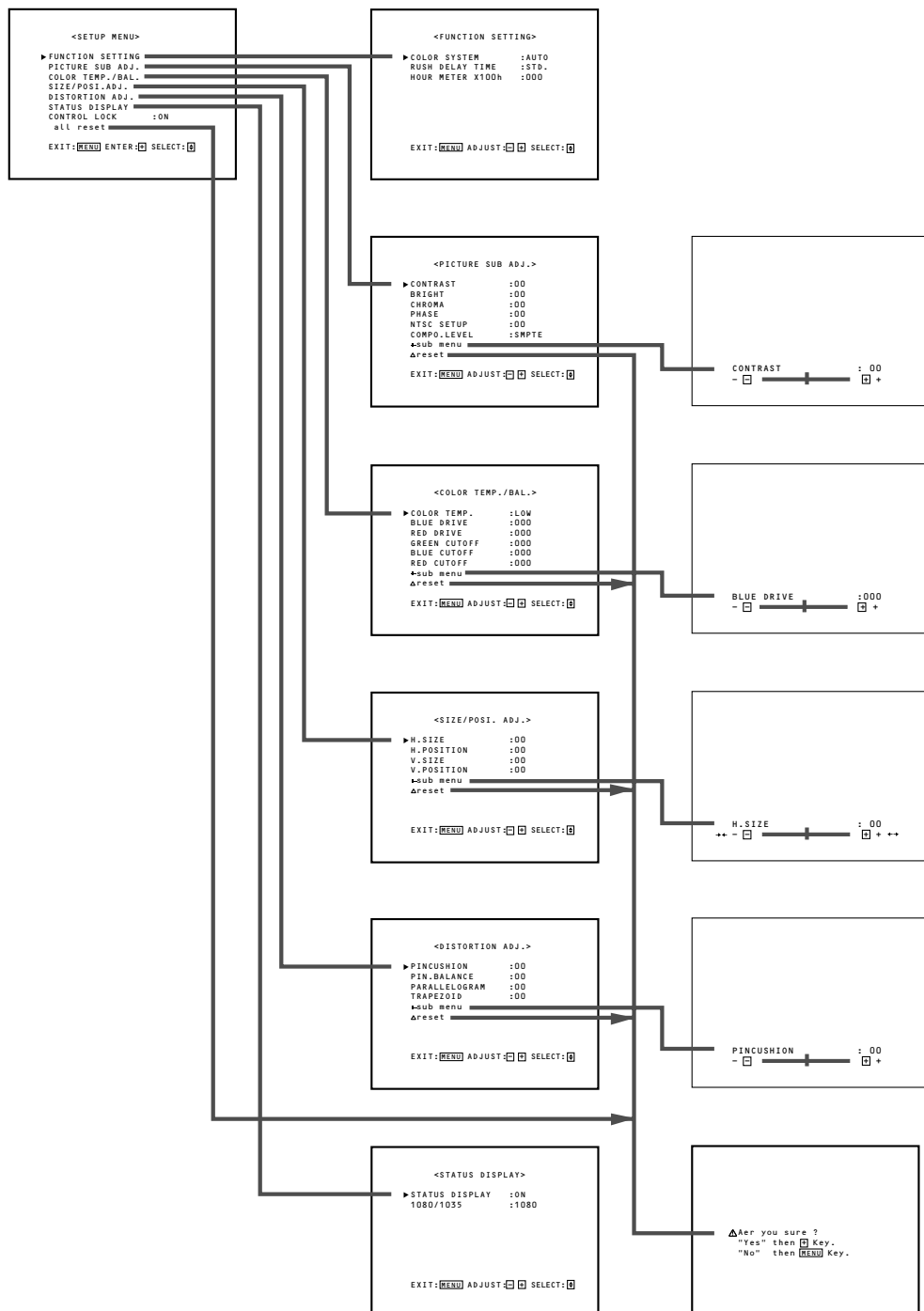Settings : Same as R-Y PHASE, R/B GAIN, G-Y PHASE or G/B GAIN

— — — — — — — — — — — — — — — — — — —

Item : reset
Function : Sets the R-Y PHASE, R/B GAIN, G-Y PHASE and G/B GAIN values to factory-preset ones.

▌HOW TO USE "SETUP MENU"

■ "SETUP MENU" ITEMS

Items	Functions
1 FUNCTION SETTING	Displays the monitor's power-up time or the total usage time.
2 PICTURE SUB ADJ.	Performs approximate adjustments using the control knobs on the front panel.
3 COLOR TEMP./BAL.	Sets or adjusts the colour temperature or white balance.
4 SIZE/POSI. ADJ.	Adjusts the size or position of the picture.
5 DISTORTION ADJ.	Compensates the picture distortion.
6 STATUS DISPLAY	Makes the status of the input signal appear or disappear on the screen.
7 CONTROL LOCK	Sets the control lock preventing the monitor from misuse.
8 all reset	Sets all items in SETUP MENU to factory-preset values.

■ "SETUP MENU" SCREENS

```
        <SETUP MENU>
 ▶FUNCTION SETTING
  PICTURE SUB ADJ.
  COLOR TEMP./BAL.
  SIZE/POSI.ADJ.
  DISTORTION ADJ.
  STATUS DISPLAY
  CONTROL LOCK     :ON
   all reset

 EXIT:MENU ENTER:+ SELECT:8
```

```
       <FUNCTION SETTING>
 ▶COLOR SYSTEM      :AUTO
  RUSH DELAY TIME   :STD.
  HOUR METER X100h  :000




 EXIT:MENU ADJUST:- + SELECT:8
```

```
      <PICTURE SUB ADJ.>
 ▶CONTRAST      :00
  BRIGHT        :00
  CHROMA        :00
  PHASE         :00
  NTSC SETUP    :00
  COMPO.LEVEL   :SMPTE
  ▶sub menu
  △reset

 EXIT:MENU ADJUST:- + SELECT:8
```

```
 CONTRAST              : 00
 - -              + +
```

```
      <COLOR TEMP./BAL.>
 ▶COLOR TEMP.    :LOW
  BLUE DRIVE     :000
  RED DRIVE      :000
  GREEN CUTOFF   :000
  BLUE CUTOFF    :000
  RED CUTOFF     :000
  ▶sub menu
  △reset

 EXIT:MENU ADJUST:- + SELECT:8
```

```
 BLUE DRIVE           :000
 - -              + +
```

```
      <SIZE/POSI. ADJ.>
 ▶H.SIZE       :00
  H.POSITION   :00
  V.SIZE       :00
  V.POSITION   :00
  ▶sub menu
  △reset



 EXIT:MENU ADJUST:- + SELECT:8
```

```
   H.SIZE             : 00
 ↔ - -            + + ↔
```

```
      <DISTORTION ADJ.>
 ▶PINCUSHION       :00
  PIN.BALANCE      :00
  PARALLELOGRAM    :00
  TRAPEZOID        :00
  ▶sub menu
  △reset



 EXIT:MENU ADJUST:- + SELECT:8
```

```
 PINCUSHION           : 00
 - -              + +
```

```
       <STATUS DISPLAY>
 ▶STATUS DISPLAY  :ON
  1080/1035       :1080




 EXIT:MENU ADJUST:- + SELECT:8
```

```
 △Aer you sure ?
  "Yes" then + Key.
  "No"  then MENU Key.
```
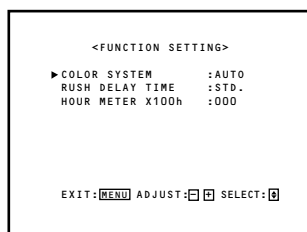
HOW TO USE "SETUP MENU" (cont'd)

■ ITEM CONTENTS AND ADJUSTMENT RANGE/SETTINGS

1. FUNCTION SETTING

Selects the colour system and displays the monitor's power-up time or the total usage time. Press the 🖂 button to display the setting menu illustrated on the right.

```
        <FUNCTION SETTING>

 ►COLOR SYSTEM      :AUTO
  RUSH DELAY TIME   :STD.
  HOUR METER X100h  :000




 EXIT:[MENU] ADJUST:[-] [+] SELECT:[8]
```

Item	: COLOR SYSTEM
Settings	: AUTO/NTSC/PAL
Function	: Selects the colour system when using the video input card. AUTO : Change NTSC and PAL automatically. NTSC : Keeps the colour system NTSC. PAL : Keeps the colour system PAL.

NOTE : Normally select AUTO. However, if the input signal is unstable, select NTSC or PAL.

Item	: RUSH DELAY TIME
Settings	: STD./SLOW
Function	: Sets the time when the power supply to the monitor's circuits (excluding the micro computers) starts after the power switch is pressed. STD. : The power supply starts approx. 1 second after the power switch is pressed. SLOW : The power supply starts approx. 3.2 seconds after the power switch is pressed.

NOTE : When turning on many multi-format monitors simultaneously, it is recommended to use SLOW to control rush current.

Item	: HOUR METER X100h
Number range	: 000 ~ 655
Function	: Displays the total usage time of the monitor in hundred-hour units.

● When the timer passes 655, it returns to 000.
● The timer does not count the usage time under one hour.

2. PICTURE SUB ADJ.

Performs approximate adjustments using the control knobs on the front panel. Press the 🖂 button to display the setting menu illustrated on the right.

```
        <PICTURE SUB ADJ.>

 ►CONTRAST          :00
  BRIGHT            :00
  CHROMA            :00
  PHASE             :00
  NTSC SETUP        :00
  COMPO.LEVEL       :SMPTE
  ►sub menu
  △reset

 EXIT:[MENU] ADJUST:[-] [+] SELECT:[8]
```

NOTE : When the RGB signal is input, only CONTRAST and BRIGHT are displayed. When the PAL signal is input, only CONTRAST, BRIGHT and CHROMA are displayed.
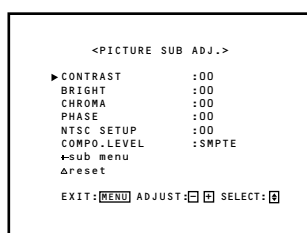
Item	: CONTRAST
Adjustment range	: −20 ~ 00 ~ +20
Function	: For approximate adjustment of the picture contrast. Before adjustment, set the CONTRAST knob on the front panel to 0.

Item	: BRIGHT
Adjustment range	: −20 ~ 00 ~ +20
Function	: For approximate adjustment of the picture brightness. Before adjustment, set the BRIGHT knob on the front panel to 0.

Item	: CHROMA
Adjustment range	: −20 ~ 00 ~ +20
Function	: For approximate adjustment of the colour density. Before adjustment, set the CHROMA knob on the front panel to 0.

Item	: PHASE
Adjustment range	: −20 ~ 00 ~ +20
Function	: For approximate adjustment of the picture hue. Before adjustment, set the PHASE knob on the front panel to 0.

Item	: NTSC SETUP
Settings	: 00/7.5
Function	: Sets the level of the input NTSC signal. 00 : Compliant with 0% set-up signal. 7.5 : Compliant with 7.5% set-up signal.

NOTE : NTSC SETUP is displayed only when the video input card is installed and an NTSC signal is input.

Item	: COMPO. LEVEL
Settings	: SMPTE/B75/B00
Function	: Sets the level of the input component signal. SMPTE : Compliant with M2VTR signals. B75 : Compliant with Betacam 7.5% set-up signal. B00 : Compliant with Betacam 0% set-up signal.

NOTE : COMPO. LEVEL is displayed only when a 480/60i, 480/60p, 576/50i or 576/50p signal is input.

Item	: sub menu
Adjustment range/ Settings	: Same as CONTRAST, BRIGHT, CHROMA, PHASE and COMPO. LEVEL/NTSC SETUP.
Function	: Performs CONTRAST, BRIGHT, CHROMA, PHASE or COMPO. LEVEL/NTSC SETUP settings in a single-line display. The sub menu display varies depending on the selected item.

Item	: reset
Function	: Sets the CONTRAST, BRIGHT, CHROMA, PHASE and COMPO. LEVEL/NTSC SETUP values to factory-preset ones.

3. COLOR TEMP./BAL.

Sets or adjusts the colour temperature or white balance. Press the ⊡ button to display the setting menu illustrated on the right.

```
          <COLOR TEMP./BAL.>

►COLOR TEMP.        :LOW
 BLUE DRIVE         :000
 RED DRIVE          :000
 GREEN CUTOFF       :000
 BLUE CUTOFF        :000
 RED CUTOFF         :000
 ←sub menu
 △reset

 EXIT:MENU ADJUST:⊟ ⊞ SELECT:⊠
```
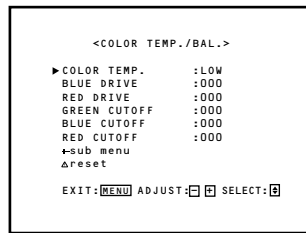
Item	: COLOR TEMP.
Settings	: HIGH/LOW
Function	: Selects the colour temperature.
	HIGH : Sets the colour temperature to D9300.
	LOW : Sets the colour temperature to D6500.

Item	: BLUE DRIVE
Adjustment range	: MIN ~ 000 ~ MAX (in 127 grades)
Function	: Adjusts the blue drive level.

Item	: RED DRIVE
Adjustment range	: MIN ~ 000 ~ MAX (in 127 grades)
Function	: Adjusts the red drive level.

Item	: GREEN CUTOFF
Adjustment range	: MIN ~ 000 ~ MAX (in 255 grades)
Function	: Sets the green cut-off point.

Item	: BLUE CUTOFF
Adjustment range	: MIN ~ 000 ~ MAX (in 255 grades)
Function	: Sets the blue cut-off point.

Item	: RED CUTOFF
Adjustment range	: MIN ~ 000 ~ MAX (in 255 grades)
Function	: Sets the red cut-off point.

Item	: sub menu
Adjustment range/ Settings	: Same as BLUE DRIVE, RED DRIVE, GREEN CUTOFF, BLUE CUTOFF and RED CUTOFF.
Function	: Performs BLUE DRIVE, RED DRIVE, GREEN CUTOFF, BLUE CUTOFF or RED CUTOFF settings in a single-line display. The sub menu display varies depending on the selected item.

Item	: reset
Function	: Sets the BLUE DRIVE, RED DRIVE, GREEN CUTOFF, BLUE CUTOFF and RED CUTOFF values to factory-preset ones.

4. SIZE/POSI. ADJ.

Adjusts the size or position of the picture. Press the ⊡ button to display the setting menu illustrated on the right.

```
          <SIZE/POSI. ADJ.>

►H.SIZE            :00
 H.POSITION        :00
 V.SIZE            :00
 V.POSITION        :00
 ←sub menu
 △reset

 EXIT:MENU ADJUST:⊟ ⊞ SELECT:⊠
```
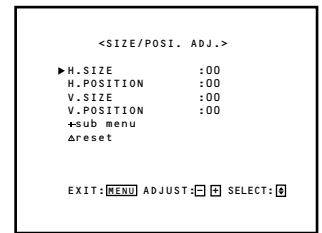
Item	: H.SIZE
Adjustment range	: −20 ~ 00 ~ +20
Function	: Adjusts the horzitontal screen size.
	− : Reduces the screen size horizontally.
	+ : Enlarges the screen size horizontally.

Item	: H.POSITION
Adjustment range	: −20 ~ 00 ~ +20
Function	: Adjusts the horzitontal screen position.
	− : Move the screen to the left.
	+ : Move the screen to the right.

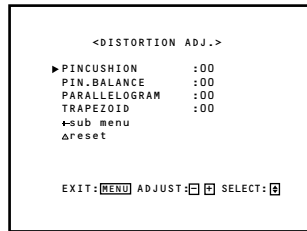|	
Item	: V.SIZE
Adjustment range	: −20 ~ 00 ~ +20
Function	: Adjusts the vertical screen size.
	− : Reduces the screen size vertically.
	+ : Enlarges the screen size vertically.

Item	: V.POSITION
Adjustment range	: −20 ~ 00 ~ +20
Function	: Adjusts the vertical screen position.
	− : Move the screen up.
	+ : Move the screen down.

Item	: sub menu
Adjustment range/ Settings	: Same as H.SIZE, H.POSITION, V.SIZE and V.POSITION.
Function	: Performs H.SIZE, H.POSITION, V.SIZE or V.POSITION settings in a single-line display. The sub menu display varies depending on the selected item.

Item	: reset
Function	: Sets the H.SIZE, H.POSITION, V.SIZE and V.POSITION values to factory-preset ones.

5. DISTORTION ADJ.

Compensates the picture distortion. Press the ⊡ button to display the setting menu illustrated on the right.

```
      <DISTORTION ADJ.>

►PINCUSHION      :00
 PIN.BALANCE     :00
 PARALLELOGRAM   :00
 TRAPEZOID       :00
 ↤sub menu
 ⬆reset

EXIT:MENU ADJUST:⊟ ⊞ SELECT:⊞
```

Item	: PINCUSHION
Adjustment range	: –20 ~ 00 ~ +20
Function	: Compensates pincushion picture distortion.
	– : Expands both left and right sides of the picture.
	+ : Squeezes both left and right sides of the picture.

Item	: PIN.BALANCE
Adjustment range	: –20 ~ 00 ~ +20
Function	: Adjusts the compensation balance of the pincushion picture distortion.
	– : The picture is expanded on the left side, and squeezed on the right side.
	+ : The picture is squeezed on the left side, and expanded on the right side.

|	
Item	: PARALLELOGRAM
Adjustment range	: –20 ~ 00 ~ +20
Function	: Compensates parallelogram picture distortion.
	– : Moves the upper side of the picture to the right, and the lower side to the left.
	+ : Moves the upper side of the picture to the left, and the lower side to the right.

Item	: TRAPEZOID
Adjustment range	: –20 ~ 00 ~ +20
Function	: Compensates trapezoid picture distortion.
	– : Enlarges the upper side of the picture.
	+ : Reduces the upper side of the picture.

Item	: sub menu
Adjustment range/ Settings	: Same as PINCUSHION, PIN.BALANCE, PARALLELOGRAM and TRAPEZOID.
Function	: Performs PINCUSHION, PIN.BALANCE, PARALLELOGRAM or TRAPEZOID settings in a single-line display. The sub menu display varies depending on the selected item.

Item	: reset
Function	: Sets the PINCUSHION, PIN.BALANCE, PARALLELOGRAM and TRAPEZOID values to factory-preset ones.

6. STATUS DISPLAY

Makes the status of the input signal appear or disappear on the screen. Press the ⊡ button to display the setting menu illustrated on the right.

```
      <STATUS DISPLAY>

►STATUS DISPLAY   :ON
 1080/1035        :1080




EXIT:MENU ADJUST:⊟ ⊞ SELECT:⊞
```
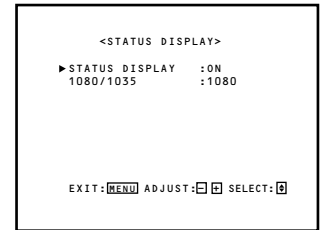
Item	: STATUS DISPLAY
Settings	: ON/OFF
Function	: Makes the format name appear or disappear when signals are input and the signal status appear or disappear when the input signal is changed.
	ON : The information is displayed.
	OFF : The information is not displayed.

Item	: 1080/1035
Settings	: 1080/1035
Function	: Makes the number of effective scanning lines appear or disappear when the HDTV signal is input.
	1080 : Sets the number to 1080. (Select when the digital HDTV signal is input.)
	1035 : Sets the number to 1035. (Select when the analogue HDTV signal is input.)

7. CONTROL LOCK

Item	: CONTROL LOCK
Settings	: OFF/ON
Function	: Invalidates most of operations on the front panel (including menu screen operations).
	OFF : Enables normal operations.
	ON : Invalidates all operations except the power switch and CONTROL LOCK.

NOTE: While CONTROL LOCK is set to ON, attempting to perform any operation except power switch and CONTROL LOCK causes the "🔒 Control lock on!" warning to appear on the screen for approx. 3 seconds. (It is possible to operate the power switch and display SETUP MENU.)
When SETUP MENU is displayed while CONTROL LOCK is set to ON, the cursor (►) is located next to CONTROL LOCK and cannot be moved.

8. all reset

Function	: Sets all items in SETUP MENU to factory-preset values.

HOW TO USE EXTERNAL CONTROL

■ ABOUT EXTERNAL CONTROL

This multi-format monitor has two external control terminals. One is the MAKE terminal, which controls the monitor by connecting the terminals with many functions to the ground (GND) terminal. The other is the RS-232C terminal, which allows the monitor to be controlled by a PC via serial communication.

Control priority is in the following order; the MAKE terminal > the RS-232C terminal > the buttons on the front panel.

■ HOW TO USE THE MAKE TERMINAL

Connections

Connect (short-circuit) the 15th terminal (GND) to each of the 1st through 14th terminals in the 3-lines 15-pins D-sub connector. The functions of each terminal are listed below.
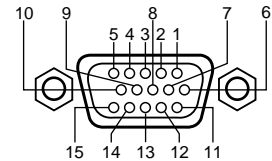
The Names and Functions of Terminals

No.	Names	Functions	Operations (OFF ← → ON)		*1
1	TALLY	Puts on the tally lamp.	Put on	Put off	
2	INPUT A	Changes the input to INPUT A	Not change	Change	
3	INPUT B	Changes the input to INPUT B	Not change	Change	
4	INPUT C	Changes the input to INPUT C	Not change	Change	
5	INPUT D	Changes the input to INPUT D	Not change	Change	
6	INPUT E	Changes the input to INPUT E	Not change	Change	
7	INPUT F	Changes the input to INPUT F	Not change	Change	
8	COLOR OFF	Changes the picture black-and-white.	Not change	Change	
9	AREA MARKER	Displays the area marker.	Not display	Display	
10	ASPECT	Changes the screen ratio to 16:9	4:3	16:9	
11	UNDER SCAN	Makes the screen under-scan	Over-scan	Under-scan	
12	MARKER	Selects the type of the area marker	Selection in the main unit	Selection in the remote control	*2
13	STATUS	Displays the monitor's status	Display		*3
14	REMOTE ENABLE	Makes the external control form the MAKE terminal valid or invalid	Invalid	Valid	*4
15	GND	Used as a ground terminal	–	–	

*1 : OFF stands for disconnection, and ON stands for short-circuit.
*2 : Selects the area marker size from AREA MARKER (setting on the main unit) or AREA MARKER-R (setting on the remote control) setting.
*3 : The STATUS function is activated when the connection to the STATUS terminal is changed (ON to OFF, or OFF to ON). The monitor's status is displayed for 3 seconds.
*4 : Setting REMOTE ENABLE to ON enables remote control from the MAKE terminal.

Operation

1. Set REMOTE ENABLE to ON.
2. Short-circuit or disconnect the desired terminal.

Changing the Signal Input

1. Set REMOTE ENABLE to ON.
2. Short-circuit the desired INPUT terminal.
3. Disconnect the INPUT terminal selected above. The signal input is actually changed after the disconnection has been completed.

NOTE : When more than two terminals are selected (short-circuited) from INPUT A through INPUT F, the signal input is not changed.
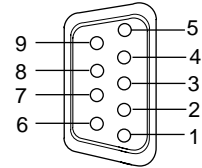To control INPUT A through INPUT F, we recommend using the interlock switch, which turns off a switch when another switch is turned on.

HOW TO USE EXTERNAL CONTROL (cont.)

■ HOW TO USE THE RS-232C TERMINAL

You can control the monitor from your PC via the RS-232C terminal.
For details on operating the monitor from the PC, consult your dealer or service centre for details.

1. Cable

Prepare a straight cable with a D-sub connector (9-pin, female) and a D-sub connector (9-pin, male)

2. Communications Specifications

Baud Rate   : 4800/9600/19200 (factory pre-set; 4800)
Data Bits   : 8 bits
Parity   : No parity
Stop Bits   : 1
Flow Control : Hardware (RTS/CTS)

Pin No.	Signal
1	DCD (Data Carrier Detect)
2	RD (Recive Data)
3	TD (Transmit Data)
4	DTR (Data Terminal Ready)
5	GND (Ground)
6	DSR (Data Set Ready)
7	RTS (Request To Send)
8	CTS (Clear To Send)
9	RI (Ring Indication)

3. Commands

Format

Header	ID	Command	Data	CR

Header

!   Control from the PC to the monitor
?   Reference from the PC to the monitor
@   Answer from the monitor to the PC

ID + Command + Data

B	Basic command	Characters	00, 01 or No data
D	Command for adjusting the picture size	00 ~ 07	−20 ~ +20
S	Command for adjusting the picture quality	00 ~ 05	−20 ~ +20
M	Command for selecting the menu item	00 ~ 0E	00, 01, 10, 11
F	Command for selecting the menu item	00 ~ 07	00, 01
W	Command for adjusting the white balance	00 ~ 05	−256 ~ +255
C	Command for inquiring for the monitor's status	00 ~ 01	0 ~ 655 or No data

During Communication from the PC to the Monitor
The monitor receives the data when DSR remains ON (high) and CTS is set to ON.
During Communication from the Monitor to the PC
The monitor sends the data when both DSR and DCD are set to ON and RTS is set to ON.

Communication Procedures
The following is the communication procedures.
  1. Starting the communication
    Receives the connection command (!BCN1Cr) from the PC → Sends the monitor's status (@BOKCr) to the PC
  2. Performing the external control
    Receives the control command (!XXXXCr) from the PC → Sends the monitor's status (@BOKCr) to the PC
    * The monitor repeats these receiving and sending if necessary.
  3. Terminating the communication
    Receives the termination command (!BCN0Cr) → Sends the monitor's status (@BOKCr) to the PC
 * After sending the data to the monitor, the PC must first receive the data from the monitor and then send the next command because the communication is performed in a hand-shake system. If the PC does not receive the status from the monitor after sending the command, re-send the command.

TROUBLESHOOTING

Solutions to common problems related to your monitor are described here. If none of the solutions presented here solve the problem, unplug the monitor and consult a JVC-authorised dealer or service centre for assistance.

Problems	Points to be checked	Measures (Remedy)	Reference pages
No power supply	Is the power plug loosened or disconnected?	Firmly insert the power plug.	5
No picture with the power on	Is the signal cable disconnected?	Connect the signal cable firmly.	6, 7
	Is the power of the connected component ON? Is the signal output from the connected component?	Turn on the power of the connected component and set it correctly.	—
	Is the input signal selected correctly?	Select the correct input with the INPUT SELECT buttons.	5, 8
	Is the input signal adapted to the monitor's specification?	Check that the input signal format corresponds to the installed input card format.	6, 7
No sound	Is the audio cable disconnected?	Connect the audio cable firmly.	6, 7
	Is the audio signal output from the connected component?	Set the connected component correctly.	—
	Is the volume output set to minimum?	Adjust the speaker volume with the VOLUME +/– buttons.	4
Wrong colour	Has the picture adjustment been changed?	Set each picture adjustment knob to the standard (centred) position. Or, set each picture adjustment item in [PICTURE SUB ADJ.] in the <SETUP MENU> screen to Standard (00) (or use the [reset] function).	9, 14
	Has the WHITE BALANCE setting been changed?	Set each [COLOR TEMP./BAL.] item in the <SETUP MENU> screen to Standard (000) (or use the [reset] function).	15
	Are any cables connected to the component/RGB input card?	Connect each signal cable firmly.	6
	Has the correct signal been input to the component/RGB input card and the correct INPUT been selected on the monitor?	Select INPUT A/C/E when the component signal is input, or select INPUT B/D/F when the RGB signal is input.	6
Unnatural picture	Has [CONTRAST] or [BRIGHT] been changed?	Adjust the CONTRAST or BRIGHT picture adjustment knobs. Or, adjust the [CONTRAST] or [BRIGHT] item in [PICTURE SUB ADJ.] in the <SETUP MENU> screen.	14
Shaking picture	Is the monitor close to a motor, transformer or any other device generating a strong magnetic field? (a fan, fluorescent light, laser printer, another monitor, etc.)	Move the monitor away from the device until the picture stops shaking. Connect the power plug to another AC outlet away from the former one.	—

Problems	Points to be checked	Measures (Remedy)	Reference pages
Irregular colour	Is the monitor placed or moved close to a speaker or any other device incorporating a magnet? Has the position of the monitor been changed with the power on?	Move the device away from the monitor. Press the DEGAUSS button on the front panel to degauss the screen. When degaussing, wait more than 30 minutes for maximum effect.	4
Wrong picture position, wrong picture size	Has the picture position, size or distortion been changed?	Adjust the picture size (H SIZE, V SIZE) or position (H. POSITION, V. POSITION) in the [SIZE/POSI. ADJ.] item in the <SETUP MENU> screen. Adjust the picture distortion (PINCUSHION, PIN. BALANCE, TRAPEZOID and PARALLELOGRAM) in the [DISTORTION ADJ.] item in the <SETUP MENU> screen. It may not be possible to expand the picture due to the selected input mode. In this case, adjustment is impossible.	15, 16
	Have the UNDER SCAN or ASPECT button been pressed?	When the UNDER SCAN or ASPECT button is lit, press each button to invalidate each setting.	4
Front panel buttons and knobs do not function	Has the CONTROL LOCK function been set to ON?	Set the CONTROL LOCK function to OFF.	16
	Has the monitor's setting been changed to enable control from an external unit via the REMOTE terminals?	Change the setting of the external control to control the monitor locally.	17, 18

The following are not malfunctions:

- You may see two horizontal lines on the monitor. They are the shadows of the "damper lines" that are necessary for composing the monitor. These lines are not a malfunction.

Damper line
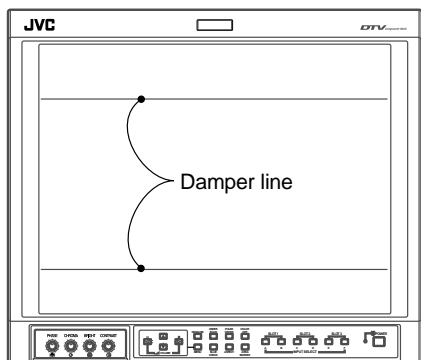
- When a bright still image (such as a white cloth) is displayed for a long period, it may appear to be coloured. This is due to the structure of the cathode ray tube and will disappear when another image is displayed.
- You may sometimes experience a mild electric shock when you touch the picture tube. This phenomenon is due to a normal buildup of static electricity on the CRT and is not harmful.
- The monitor emits a strange sound when the room temperature changes suddenly. This is only a problem if an abnormality appears on the screen as well.
- If two or more monitors are operated next to each other, their images may shake or be distorted. This phenomenon is due to mutual interference; it is not a malfunction. Move the monitors away from each other until the interference disappears or turn the power off on any monitor that is not being used.

SPECIFICATIONS

- **Type** : Multi-format monitor
- **Picture Tube** : 17" measured diagonally
- **Effective
  Screen Size** : Width : 330 mm
  Height : 250 mm
  Diagonal : 410 mm
- **Scanning
  Frequency** : H : 15 kHz/15 kHz – 45 kHz
  V : 50 Hz – 100 Hz
- **Video Band** : Component : 25 MHz (–3 dB)
  Video (Y/C) : 8 MHz (–3 dB)
- **Horizontal
  Resolution** : Video (Y/C) : 600 TV lines
  1080/60i : 800 TV lines
- **Input
  Terminals** : Installing an optional input card in SLOT 1,
  2, or 3 is required.
  INPUT A/INPUT B: Terminals on the input
  card in SLOT 1
  INPUT C/INPUT D: Terminals on the input
  card in SLOT 2
  INPUT E/INPUT F: Terminals on the input
  card in SLOT 3
- **Compliant
  Video Signal** : NTSC (3.58 MHz)/PAL (4.43 MHz)
  (using the IF-C01PNG)
  480i/576i/480p/1080i (60 Hz/24pSF)/720p
  (using the IF-C01COMG)

  D1 serial digital (using the IF-C01SDG)
  HD serial digital (using the IF-C01HSDG)
- **Remote Inputs** : • Point-of-contact connection, 1 line,
  D-sub connector (15-pin 3-line)
  • Serial connection, 1 line, D-sub connector
  (9-pin), compliant to RS-232C
- **Audio Output** : 1 W (monaural)
- **Built-in
  Speaker** : 8 cm round x 1
- **Environmental
  Conditions** : Operating temperature : 5°C – 35°C
  Operating humidity : 20% – 80%
  (non-condensing)
- **Power
  Requirements** : 120 V/230 V AC, 50 Hz/60 Hz
- **Power
  Consumption
  (120 V/230 V)** : 1.56 A/0.9 A (not including input card)
  Max. 1.85 A/1.0 A (including input card)
- **Dimensions** : Width : 395 mm
  Height : 334 mm
  Depth : 466.5 mm
  (not including wide mask and input card)
- **Weight** : 23.2 kg
  (not including wide mask and input card)
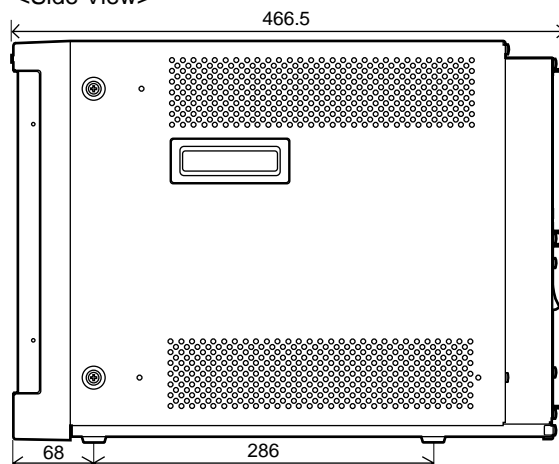- **Accessory** : AC power cord

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[Dimensions] Unit : mm
<Front View>
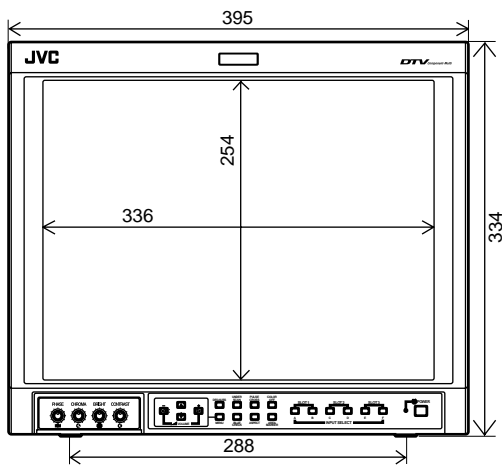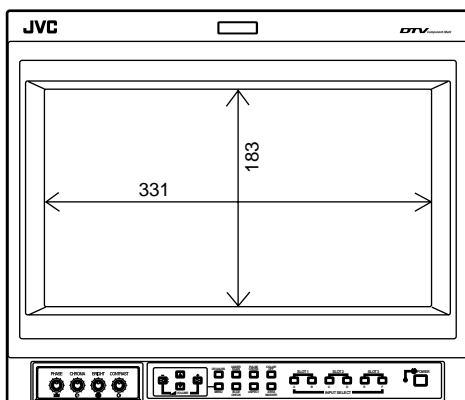
* Illustrations and pictures used in this manual have been
exaggerated, abbreviated or compounded for explanatory purposes
only. The appearance of the actual product may differ slightly.
* Dimensions and weight are approximate.
* E. & O.E. Design and specifications subject to change without
notice.

<Front View with the wide mask attached>

<Side View>

■ Compliant Signal Formats of Each Input Card

Input Signals	IF-C01PNG	IF-C01COMG	IF-C01SDG	IF-C01HSDG
NTSC (3.58 MHz)	◎	—	—	—
PAL (4.43 MHz)	◎	—	—	—
Black-and-White (50 Hz/60 Hz)	◎	—	—	—
480/60i (525i)	—	◎	◎	—
480/60p (525p)	—	◎	—	—
576/50i	—	◎	◎	—
576/50p (∗1)	—	○	—	—
720/60p (720p)	—	◎	—	◎
1080/50i (∗1)	—	○	—	○
1080/60i (1125i)	—	◎	—	◎
1035/60i (1125i) (∗1)	—	○	—	○
1080/24pSF	—	◎	—	◎

◎ : Input possible. Pre-set.

○ : Input possible. Not pre-set. Any adjustments required in some cases.

– : Input impossible

∗1 : 1080/50i, 1035/60i and 576/50p are not pre-set. When these signals are input, some adjustments are required.

APPENDIX: CONNECTION EXAMPLES FOR THE SDI / HD SDI INPUT CARD

This section explains the usage precautions and connection examples when using the SWITCHED OUT terminal of the SDI / HD SDI input card.

Usage Precautions

● The selected signal is output from the SWITCHED OUT terminal only when the monitor's power is turned on.
● The output signal from the SWITCHED OUT terminal is the one that is selected from the signals input to SDI 1 / HD SDI 1 or SDI 2 / HD SDI 2.

The table below shows the connection between the INPUT SELECT buttons (input signal selection) and the input/output of the SDI / HD SDI input card.

Selected INPUT SELECT Buttons	Signal Output from the SWITCHED OUT Terminal
A, C, E	Signal from SDI 1 / HD SDI 1
B, D, F	Signal from SDI 2 / HD SDI 2

▍SPECIFICATIONS (INPUT CARD: OPTIONAL)

■ IF-C01COMG: COMPONENT/RGB INPUT CARD

Type	: Component/RGB input card for multi-format monitor
Inputs/Outputs	: Component (Y, P$_B$/B-Y, P$_R$/R-Y) or RGB: 1 line, BNC connector x 6
	(Y: 1 V (p-p), 75 Ω/P$_B$, B-Y, P$_R$, R-Y, R, G, B: 0.7 V (p-p), 75 Ω)
	Synchronised signal (HD/C$_S$, VD) : 1 line, BNC connector x 4 (1.0 V – 4.0 V (p-p), 75 Ω)
	* The input (IN) and output (OUT) terminals are bridge-connected. Auto termination.
	Audio signal : 1 line (monaural), RCA pin x 2 (0.5 V (rms), high impedance)
	* The input (IN) and output (OUT) terminals are bridge-connected.
Required slots	: 1
Power consumption	: 14 V DC, 0.02 A
Weight	: 0.5 kg
Dimensions	
(W x H x D)	: 43 mm x 154.5 mm x 191.9 mm

■ IF-C01PNG: VIDEO INPUT CARD

Type	: Video input card for multi-format monitor
Inputs/Outputs	: VIDEO 1/VIDEO 2: 2 lines, BNC connector x 4 (1 V (p-p), 75 Ω)
	Synchronised signal (EXT.SYNC): 1 line, BNC connector x 2 (1.0 V – 4.0 V (p-p), 75 Ω)
	* The input (IN) and output (OUT) terminals are bridge-connected. Auto termination.
	Y/C signal : 1 line, input only, mini-DIN 4-pin connector x 1 (Y/C input has a priority to a
	VIDEO 2 input) (Y: 1 V (p-p), 75 Ω/C: 0.286 V (NTSC)/0.3 V (PAL), 75 Ω)
	Audio signal : 2 lines (monaural), RCA pin x 4 (0.5 V (rms), high impedance)
	* The input (IN) and output (OUT) terminals are bridge-connected.
Required slots	: 1
Power consumption	: 14 V DC, 0.25 A
	7 V DC, 0.15 A
Weight	: 0.5 kg
Dimensions	
(W x H x D)	: 43 mm x 154.5 mm x 191.9 mm

■ IF-C01SDG: SDI INPUT CARD

Type	: SDI input card for multi-format monitor
Inputs/Outputs	: Digital input (SDI 1/SDI 2): 2 lines, BNC connector x 2 (0.8 V (p-p), 75 Ω)
	Digital output (SWITCHED OUT): 1 line, BNC connector x 1 (0.8 V (p-p), 75 Ω)
	Audio signal: 2 lines (monaural), RCA pin x 4 (0.5 V (rms), high impedance)
	* The input (IN) and output (OUT) terminals are bridge-connected.
Format	: D1 serial component digital, 525/625 auto switching (compliant to SMPTE259M)
Required slots	: 1
Power consumption	: 7 V DC, 0.65 A
Weight	: 0.5 kg
Dimensions	
(W x H x D)	: 43 mm x 154.5 mm x 191.9 mm

■ IF-C01HSDG: HD SDI INPUT CARD

Type	: HD SDI input card for multi-format monitor
Inputs/Outputs	: Digital input (HD SDI 1/HD SDI 2): 2 lines, BNC connector x 2 (0.8 V (p-p), 75 Ω)
	Digital output (SWITCHED OUT): 1 line, BNC connector x 1 (0.8 V (p-p), 75 Ω)
	Audio signal: 1 line (monaural), RCA pin x 2 (0.5 V (rms), high impedance)
	* The input (IN) and output (OUT) terminals are bridge-connected.
Format	: HD serial component digital, SMPTE292M, SMPTE274M, SMPTE296M,
	SMPTERP 1920 X 1080 24pSF
Required slots	: 1
Power consumption	: 7 V DC, 0.72 A
Weight	: 0.7 kg
Dimensions	
(W x H x D)	: 43 mm x 154.5 mm x 200.2 mm

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