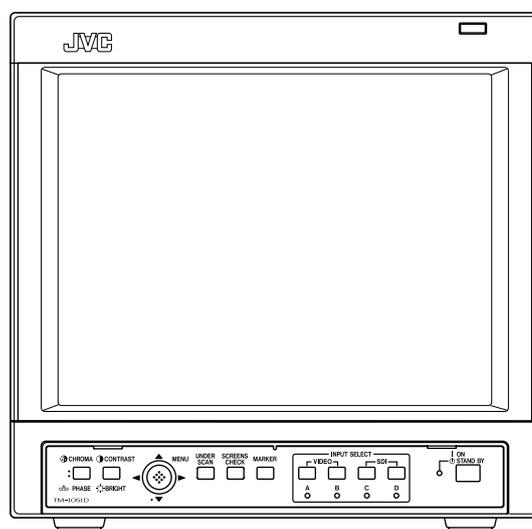


# JVC

COLOR VIDEO MONITOR

# TM-1051DG

# INSTRUCTIONS



Thank you for purchasing this JVC Color Video Monitor. Before using it, read and follow all instructions carefully to take full advantage of the monitor's capabilities.

# SAFETY PRECAUTIONS

In order to prevent any fatal accidents caused by misoperation or mishandling of 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, consult 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 emissions of a 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.

## Notice (U.S.A. only)

This product utilizes both a Cathode Ray Tube (CRT) and other components that contain lead. Disposal of these materials may be regulated in your community due to environmental considerations. For disposal or recycling information please contact your local authorities, or the Electronics Industries Alliance: <<http://www.eiae.org>>

## ■ PRECAUTIONS

- Use only the power source specified on the unit. (120 V/220-240 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.

## ■ 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. These can generate picture noise and instability.
- Keep the monitor clean by wiping the cabinet and CRT screen with a soft cloth. Do not apply thinner or benzine. These chemicals can damage the finish and erase printed letters. If the unit is excessively dirty, use a diluted neutral cleanser, then wipe away the cleanser with a dry cloth.

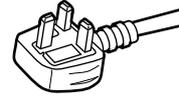
## SCREEN BURN

- 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 the cathode-ray tube. This problem does not occur as far as displaying normal video playback motion images.

## POWER CONNECTION

The power supply voltage rating of this product is AC 120 V (For U.S.A. and Canada only) and AC 220-240 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  
Countries: U.S.A. and Canada

AC 220-240 V  
European countries

AC 220-240 V  
United Kingdom

### Warning:

- Do not use the same Power Cord for AC 120 V as for AC 220-240 V. Doing so may cause malfunction, electric shock or fire.

### Note for the United Kingdom power cord only

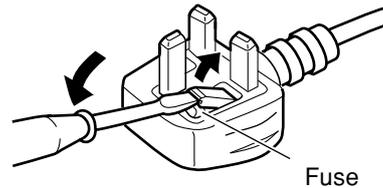
The plug on the United Kingdom power cord has a built-in fuse. When replacing the fuse, be sure to use only a correctly rated approved type, re-fit the fuse cover.

(Consult your dealer or qualified service personnel.)

#### How to replace the fuse

Open the fuse compartment with a blade screw driver, and replace the fuse.

(\* An example is shown in the illustration.)

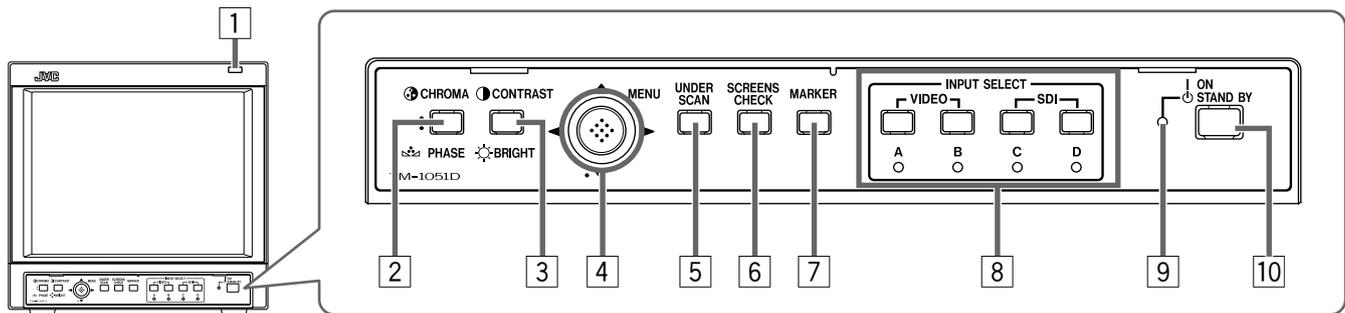


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# Controls and Features

## Front Panel



### 1 Tally lamp

This lamp is controlled by the tally function of the MAKE/TRIGGER terminal.

- ☞ “How to Use the MAKE/TRIGGER Terminal” on pages 18 and 19
- You can set the lamp color to red or green.
  - ☞ “TALLY SELECT” on page 14, “How to Use the MAKE/TRIGGER Terminal” on pages 18 and 19

### 2 CHROMA (🌀)/PHASE (🌈) button

Activates the Chroma (picture color density) adjustment mode or the Phase (picture hue) adjustment mode. Each time you press the button, the adjustment modes change.

To adjust the value, move the MENU control (4) to </>.

#### NOTES:

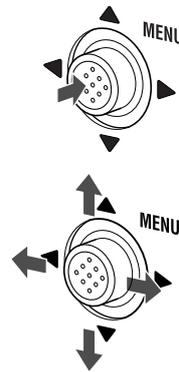
- CHROMA is not adjustable when the B/W (50 Hz/60 Hz) signal is input.
- PHASE is not adjustable when the PAL signal or the B/W (50 Hz/60 Hz) signal is input.

### 3 CONTRAST (🔴)/BRIGHT (☀️) button

Activates the picture contrast adjustment mode or picture brightness adjustment mode. Each time you press the button, the adjustment modes change.

To adjust the value, move the MENU control (4) to </>.

### 4 MENU control



Displays or closes a menu screen.

While a menu screen is displayed, selects or adjusts the menu items by moving the control to  $\triangle/\nabla/\triangleleft/\triangleright$ .

- ☞ “Basic Menu Operations” on pages 9 and 10

#### To display the SET-UP MENU:

Press the CHROMA/PHASE button (2) while moving the MENU control to  $\nabla$ .

#### To select the channel of the audio output from the audio output terminal:

When SD SDI signal (including EMBEDDED AUDIO signal) is input, you can select the channel of the audio signal output from the audio output terminal. Move the MENU control to  $\triangleleft/\triangleright$  to select the audio output mode while no menu screen is displayed.

- If you change the audio output mode, the channel of the audio signal output from the audio output terminal changes.
  - ☞ “6 Audio output terminals” on page 7
- Set the group of the audio output modes you want to select beforehand.
  - ☞ “E. AUDIO GROUP” on page 14

### 5 UNDER SCAN button

Reduces the screen size so that the whole screen is displayed.

### 6 SCREENS CHECK button

Only the selected luminance signal or RGB element of a video signal is displayed. Each time you press this button, the screen changes in the following order:

Normal screen → Monochrome screen →  
Red screen → Green screen → Blue screen →  
(back to the beginning)

### 7 MARKER button

Turns the MARKER function ON/OFF.

- MARKER function includes MARKER SELECT, ASPECT SELECT, and SAFETY MARKER functions.

☞ "MARKER" on page 12

#### NOTES:

- Functions do not operate when they are set to "OFF" in the "MARKER" menu.
- Initial setting of each function in the "MARKER" menu is "OFF." Before you use the MARKER function, you must change the "MARKER" menu settings first.

### 8 INPUT SELECT buttons/lamps

Select an input to display.

- A:** Select the video signal input to the VIDEO A terminal.
- B:** Select the video signal input to the VIDEO B terminal.
- C:** Select the signal input to the E. AUDIO SDI IN C terminal.
- D:** Select the signal input to the E. AUDIO SDI IN D terminal.
- The corresponding lamp of the input currently selected lights up.

### 9 Power lamp

- Unlit:** The main power is off.
- Orange:** The main power is on and the monitor is in stand-by mode.
- Green:** The monitor is on.

### 10 Stand-by button

Turns on and off the monitor when the main power is on.

#### NOTES:

- Turn on the main power by using the main power switch on the rear panel.
- You can set the delay time between when the stand-by button is pressed and when the monitor actually turns on.  
☞ "RUSH DELAY TIME" on page 14

### ■ About the status display

Displays information of the current input selection and the monitor settings for about 3 seconds. To show the status display, set "STATUS DISPLAY" to "AUTO" or "MANUAL" beforehand.

☞ "STATUS DISPLAY" on page 16

Pressing the INPUT SELECT button currently selected shows the status display.

#### NOTE:

- When "STATUS DISPLAY" is set to "AUTO," the status display also appears on the screen if you change the inputs or the signal condition changes.

VIDEO.....	①
NTSC.....	②
HIGH.....	③
EXT. SYNC.....	④
OVER.....	⑤
COLOR.....	⑥
MARKER ON.....	⑦

#### ① Input status

#### ② Signal format

- "NO SYNC" is displayed when no video signal is input or no synchronized signal is detected.
- If "NO SYNC" is displayed even though a video signal is input, check the setting of "SYNC SELECT."  
☞ "SYNC SELECT" on page 14
- "Out of range" is displayed when a noncompliant signal is input.

#### ③ Setting of "COLOR TEMP.:"

- ☞ "COLOR TEMP." on page 15
- "\*" is displayed if white balance is adjusted in the "COLOR TEMP./BAL." menu.

#### ④ Appears when "SYNC SELECT" is set to "EXT." (External synchronization)

☞ "SYNC SELECT" on page 14

#### ⑤ Setting of UNDER SCAN

- ☞ "5 UNDER SCAN button" on the left column
- OVER:** Over-scan
- UNDER:** Under-scan

#### ⑥ Setting of SCREENS CHECK

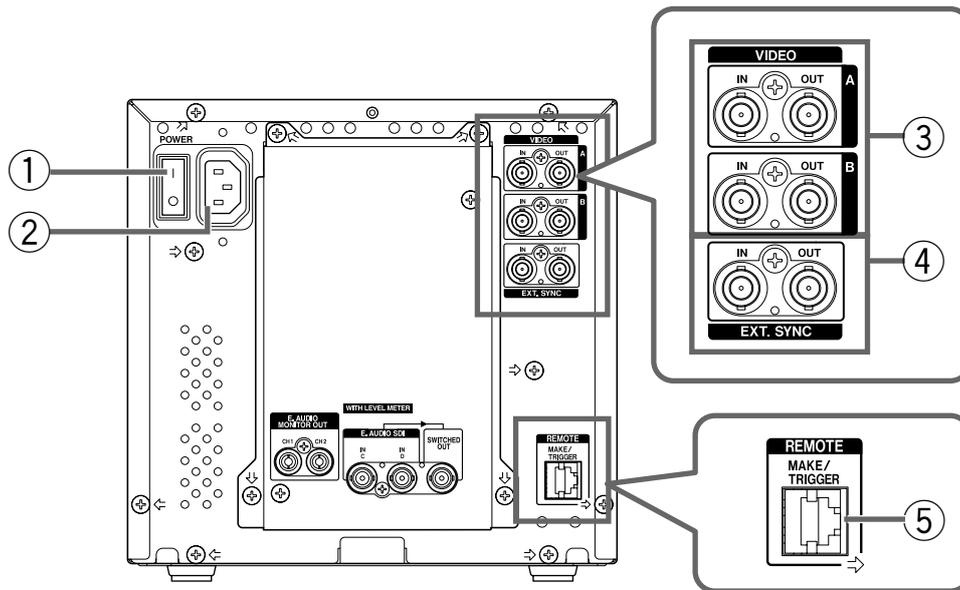
- ☞ "6 SCREENS CHECK button" on the left column
- COLOR:** Normal screen
- MONO:** Monochrome screen
- R ONLY:** Red screen
- G ONLY:** Green screen
- B ONLY:** Blue screen

#### ⑦ Setting of MARKER

☞ "7 MARKER button" on the left column

# Controls and Features (cont.)

## Rear Panel



### ① Main power switch

Turns the main power on and off.

- I : on    O : off

#### NOTE:

- You need to turn on the stand-by button on the front panel to turn on the monitor after turning on the main power switch.

### ② AC inlet

Power input connector. Connect the provided AC power cord to an AC outlet (120 V/220-240 V AC, 50 Hz/60 Hz).

- Attach the provided Power Cord Holder to prevent accidental disconnection of the AC power cord.  
☞ "Attaching the Power Cord Holder" on page 8

### ③ Composite signal input/output terminals (VIDEO A, VIDEO B)

Input (IN) and output (OUT) terminals for the composite signals of the NTSC, PAL, and B/W (50 Hz/60 Hz).

#### NOTES:

- NTSC and PAL are switched in the "COLOR SYSTEM."  
☞ "COLOR SYSTEM" on page 14
- The IN and OUT terminals are bridge-connected (auto termination).

### ④ External synchronized signal input/output terminals (for both VIDEO A and VIDEO B)

Input (IN) and output (OUT) terminals for the composite synchronized signals.

- To use these terminals, set "SYNC SELECT" to "EXT."  
☞ "SYNC SELECT" on page 14

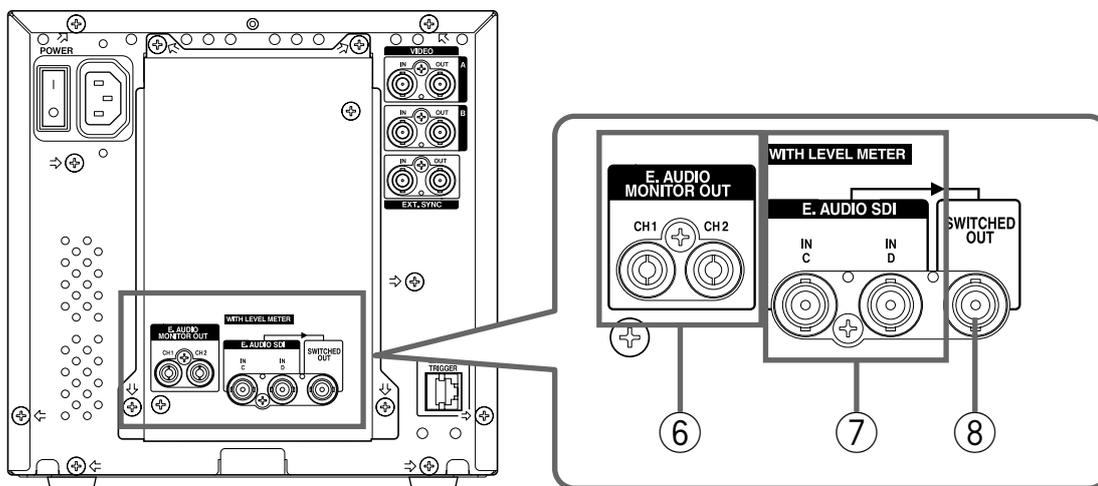
#### NOTES:

- When an external synchronized signal is input, external synchronization is prioritized for both VIDEO A and VIDEO B.
- The IN and OUT terminals are bridge-connected (auto termination).

### ⑤ REMOTE (external control) terminals (MAKE/TRIGGER)

Terminals for controlling the monitor by an external control.

- Enables the monitor to be controlled by short-circuiting the pin terminal in this terminal or by inputting the pulse signal.  
☞ "How to Use the External Control" on pages 18 and 19



## ⑥ Audio output terminals (E. AUDIO MONITOR OUT)

Decodes EMBEDDED AUDIO signals and outputs them as analogue signals.

- See the table below for the combinations of the audio channels from the CH1 or CH2 terminal.

Audio output modes	Audio output terminals	
	CH1	CH2
1ch	channel 1	channel 2
2ch	channel 2	channel 2
3ch	channel 3	channel 4
4ch	channel 4	channel 4
5ch	channel 5	channel 6
6ch	channel 6	channel 6
7ch	channel 7	channel 8
8ch	channel 8	channel 8
1–2ch	channels 1+2	channels 1+2
3–4ch	channels 3+4	channels 3+4
5–6ch	channels 5+6	channels 5+6
7–8ch	channels 7+8	channels 7+8
1–4ch	channels 1–4	channels 1–4
5–8ch	channels 5–8	channels 5–8
AUTO	all channels	all channels

### About the audio output level

- When several audio channels are output at the same time, the more channels that are selected, the lower each channel's output level will be. (Each channel's output level becomes half for "1–2ch," quarter for "1–4ch.")
- The "AUTO" setting mixes and outputs all channels the signal has. The output level is automatically set according to the number of channels.

### NOTES:

- When you change the input to INPUT A or B, the audio signals and channels of INPUT C or D selected last time are output from these terminals.
- The audio signal is output from these terminals only when the monitor is turned on.

### To select the audio channel:

Using the MENU control, you can select the audio channel output from the audio output terminal.

- ☛ "4 MENU control" on page 4

- Set the group of the audio output modes you want to select beforehand.

- ☛ "E. AUDIO GROUP" on page 14

## ⑦ E. AUDIO SDI terminals (IN C, IN D)

Accepts the following signals.

- SMPTE259M SD SDI signal
- EMBEDDED AUDIO signals including up to 8 audio channels with the sampling frequency of 48 kHz.

### About the AUDIO LEVEL METER function

You can check the conditions of the current EMBEDDED AUDIO signals on the AUDIO LEVEL METER display. You can turn on/off the AUDIO LEVEL METER display or change its setting using SET-UP MENU.

- ☛ "STATUS DISPLAY" on pages 16 and 17

## ⑧ SWITCHED OUT terminal

Outputs the re-clocked signals.

- The input signal (INPUT C or D) currently selected is output from this terminal.

### NOTES:

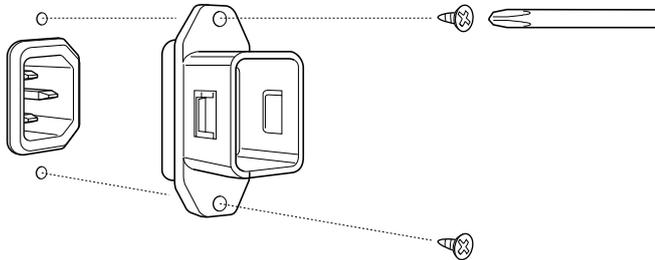
- When you change the input to INPUT A or B, the signal of INPUT C or D selected last time is output from this terminal.
- The signal is output from this terminal only when the monitor is turned on.

# Preparation

## ■ Attaching the Power Cord Holder

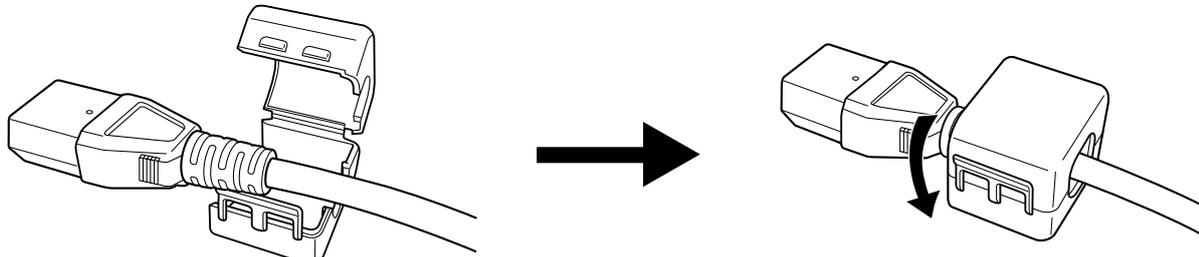
- The provided Power Cord Holder prevents accidental disconnection of the AC power cord from the AC inlet.
- The Power Cord Holder consists of two parts; a case and a cover.

1. Attach the Power Cord Holder case to the AC inlet on the back of the monitor with 2 screws (provided).



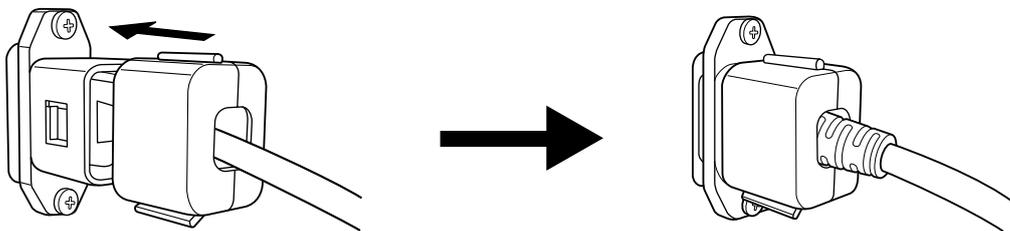
**Caution:**  
Use only the provided screws.

2. Attach the Power Cord Holder cover to the AC power cord.



Close the cover until it clicks.

3. Plug in the AC power cord to the AC inlet, and connect the Power Cord Holder cover to the case.



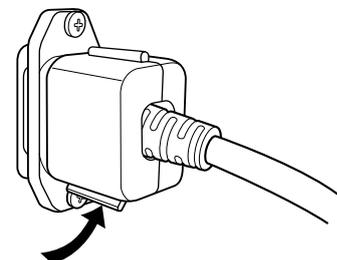
Push until it clicks.

**Caution:**

- A different plug shape will result in the cover being attached to a different position.
- Make sure the plug doesn't pull out after the cover is attached.

**NOTE:**

- To disconnect the power cord, click the tab to open the cover.



# Basic Menu Operations

## About the Menu Screens

This monitor features MAIN MENU which contains the functions normally used and SET-UP MENU which contains the initial settings of the monitor.

### MAIN MENU

Items	Functions
APERTURE CONTROL	Compensates the frequency characteristics of the luminance signal of a video signal.
sub menu SELECT	Selects the positions and the contents of the sub-menu display.
MARKER	Controls ON/OFF and other settings of the MARKER SELECT, ASPECT SELECT, and SAFETY MARKER functions included in the MARKER function.
ASPECT	Selects the aspect ratio.
DEGAUSS on	Degausses the screen.

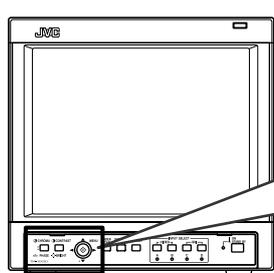
### SET-UP MENU

Items	Functions
FUNCTION SETTING	Sets the control systems for the COLOR SYSTEM, synchronized signal, RUSH DELAY TIME, colors of the tally lamp, groups of the audio output modes, and MAKE/TRIGGER terminal. • Can be also used to check the amount of time that the monitor has been used.
PICTURE SUB ADJ.	The standard value ("00") of the picture adjustment is initially set at the factory. You can adjust the standard value as you want.
COLOR TEMP./BAL.	Sets or adjusts the color temperature and white balance.
SIZE/POSI. ADJ.	Adjusts the size and position of the picture.
DISTORTION ADJ.	Compensates the picture distortion, tilt, and the color heterogeneity caused by geomagnetic influence.
STATUS DISPLAY	Sets the items related to the display screens, such as the status display or the AUDIO LEVEL METER display.
CONTROL LOCK	Prohibits altering the monitor operations except turning the monitor on/off and deactivating this function. • Operating the monitor by the external control is available if this function is activated.
all reset	Resets all the settings you have made to factory-preset values. • Adjustments made by using the front panel buttons will also be reset.

#### NOTE:

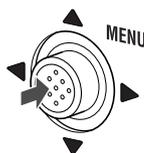
- Some items may not appear on the menu depending on the input or the input signal. Those items are not available to use.

## Buttons for Menu Operations

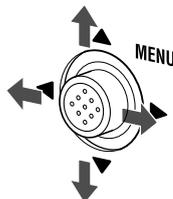


**CHROMA/PHASE button**  
To display SET-UP MENU, press the CHROMA/PHASE button while moving the MENU control to ▽.

**MENU control**



Displays or closes a menu screen.



While a menu screen is displayed, selects or adjusts the menu items by moving the control to ▴▽/◀▶.

# Basic Menu Operations (cont.)

## ■ Displaying the Menu Screens

### To display MAIN MENU

Press the MENU control on the front panel.

### To display SET-UP MENU

Press the CHROMA/PHASE button while moving the MENU control to ▽.

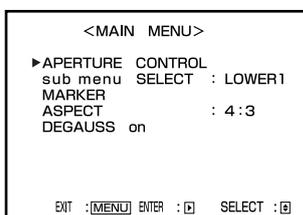
#### NOTES:

- To exit the menu, press the MENU control several times.
- The menu automatically exits about 30 seconds after the last menu operation.
- To go back to the previous menu, press the MENU control.

## ■ Menu Operation Procedure

### 1. Press the MENU control.

MAIN MENU is displayed on the screen.



### 2. Move the MENU control to △ / ▽ to select the item you want to set, then move it to ▷.

The menu screen of the selected item is displayed on the screen.

(Ex.)



### 3. Move the MENU control to △ / ▽ to select the item you want to adjust.

### 4. Move the MENU control to ◀ / ▶ to make adjustments.

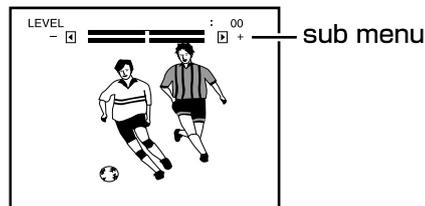
(Ex.)



### 5. Press the MENU control several times to exit MAIN MENU.

## ■ About “+ sub menu”

When “+ sub menu” is displayed in the menu, only selected item in that menu can be displayed and adjusted. This allows you to make adjustments while looking at the actual screen.



### 1. Select “+ sub menu,” then move the MENU control to ▷.

The adjustment bar is displayed at the bottom or top of the screen.

### 2. Move the MENU control to △ / ▽ to select the item you want to set.

### 3. Move the MENU control to ◀ / ▶ to make adjustments.

#### To exit the sub-menu display:

Press the MENU control.

#### To change the positions and the contents of the sub-menu display

Select “sub menu SELECT” in MAIN MENU, then change the setting by moving the MENU control to ◀ / ▶.

**UPPER1:** The current setting and adjustment bar appear at the top of the screen.

**LOWER2:** The current setting appears at the bottom of the screen.

**UPPER2:** The current setting appears at the top of the screen.

**LOWER1:** The current setting and adjustment bar appear at the bottom of the screen.

## ■ About “reset”

Restores all menu settings (currently displayed) to factory-preset values.

### 1. Move the MENU control to △ / ▽ to select “reset,” then move it to ▷.

Confirmation message is displayed.

### 2. To initialize, move the MENU control to ▷.

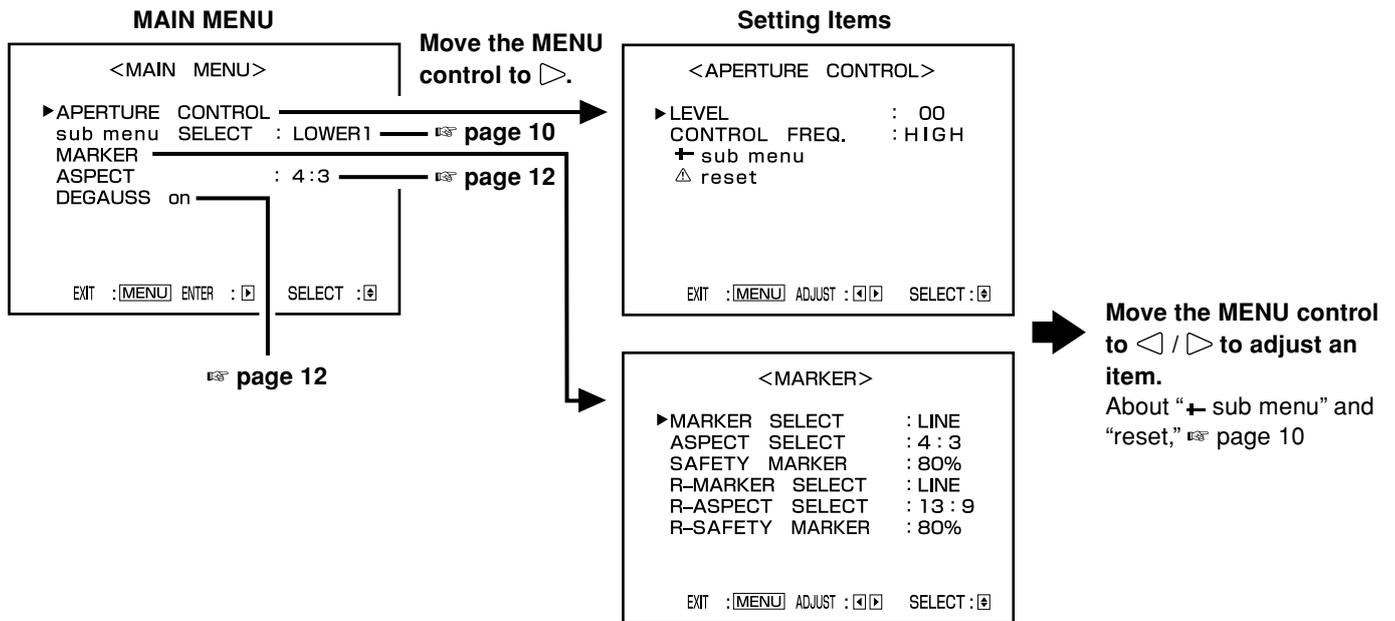
- To cancel the initialization, press the MENU control.

#### NOTE:

- This function is only available when “reset” is displayed in the menu.

# How to Use MAIN MENU

## MAIN MENU Screens



\* To go back to the previous menu, press the MENU control.

### NOTE:

- Some items may not appear on the menu depending on the input or the input signal. Those items are not available to use.

## Functions and Adjustment Range of Items

### APERTURE CONTROL



Compensates the frequency characteristics of the luminance signal of a video signal.

### sub menu SELECT

Selects the positions and the contents of the sub-menu display.

☞ "To change the positions and the contents of the sub-menu display" on page 10

#### LEVEL

Adjusts the compensation value. The higher the number is, the larger the compensation value gets.

- 00 ⇄ 10

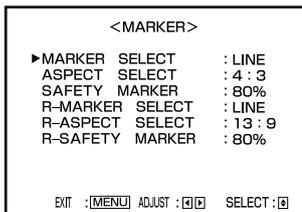
#### CONTROL FREQ.

Selects the frequency to compensate.

- HIGH:** Compensates the high frequencies.
- LOW:** Compensates the low frequencies.
- OFF:** No compensation.

# How to Use MAIN MENU (cont.)

## MARKER



Controls ON/OFF and other settings of the MARKER SELECT, ASPECT SELECT, and SAFETY MARKER functions included in the MARKER function.

### NOTES:

- For the 4:3 screen ratio, only SAFETY MARKER and R-SAFETY MARKER are displayed.
- To set up non-“R-” items, press the MARKER button on the front panel. An external control system should not be operated at this time.
- Using the external control, you can select either “R-” items or non-“R-” items to activate.  
☞ “How to Use the External Control” on pages 18 and 19

### ■ MARKER SELECT/R-MARKER SELECT

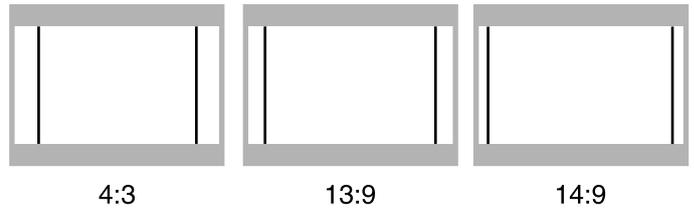
It displays the area of the aspect ratio that has been set in the ASPECT SELECT/R-ASPECT SELECT, superimposed on the current screen.

- OFF:** MARKER SELECT does not function.
- LINE:** Displays the area with an outline.
- HALF:** The area outside the specified screen ratio is displayed as a 50% transparency.
- HALF+L:** The area of the specified screen ratio is indicated by an outline, and the area outside of that is displayed as a 50% transparency.
- BLK.:** The area outside the specified screen ratio is black. Only the portion of the picture within the designated area is displayed.
- BLK. +L:** The area of the specified screen ratio is indicated by an outline, and the area outside of that becomes black so that only the area inside the line is displayed.

### ■ ASPECT SELECT/R-ASPECT SELECT

Selects the aspect ratio.

- 4:3/13:9/14:9



### ■ SAFETY MARKER/R-SAFETY MARKER

Displays dotted lines to indicate the areas corresponding to 80%, 88%, or 90% of the screen size (the aspect ratio setting in “ASPECT SELECT/R-ASPECT SELECT”).

- OFF/80%/88%/90%

### NOTES:

- When a picture of 4:3 aspect ratio is input, SAFETY MARKER for 4:3 screen is displayed.
- To display SAFETY MARKER for 16:9 screen ratio when a picture of 16:9 aspect ratio is input, set “MARKER SELECT/R-MARKER SELECT” to “OFF.” (In this case, setting of ASPECT SELECT is invalid.)

## ASPECT

Selects the aspect ratio.

- 4:3/16:9

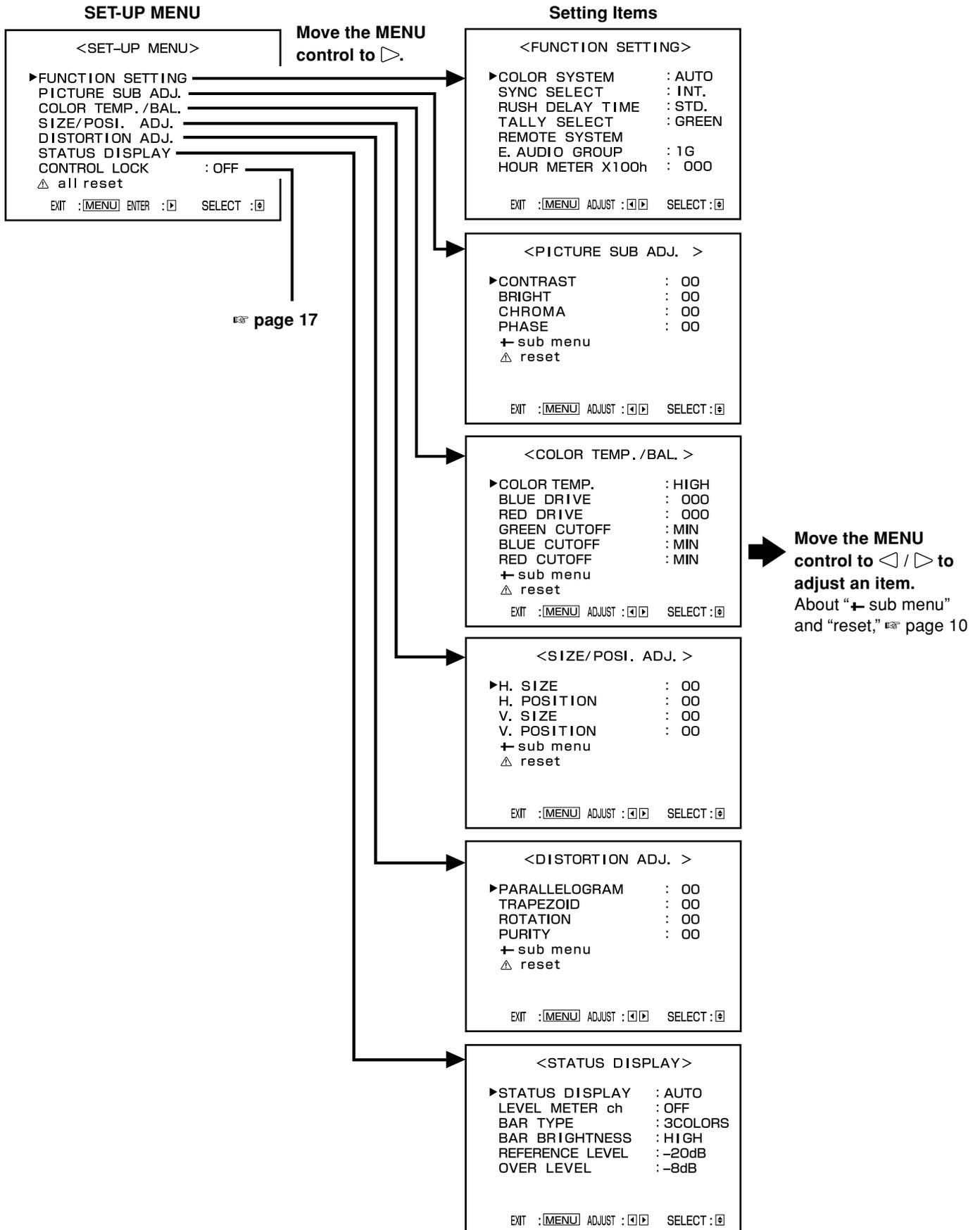
## DEGAUSS on

Degausses the screen.

While degaussing, “Degaussing!” is displayed on the screen.

# How to Use SET-UP MENU

## SET-UP MENU Screens



\* To go back to the previous menu, press the MENU control.

**NOTE:**

- Some items may not appear on the menu depending on the input or the input signal. Those items are not available to use.

# How to Use SET-UP MENU (cont.)

## Functions and Adjustment Range of Items

### FUNCTION SETTING

<FUNCTION SETTING>	
▶ COLOR SYSTEM	: AUTO
SYNC SELECT	: INT.
RUSH DELAY TIME	: STD.
TALLY SELECT	: GREEN
REMOTE SYSTEM	
E. AUDIO GROUP	: 1G
HOURLY METER X100h	: 000
EXIT : [MENU] ADJUST : [0] SELECT : [0]	

Sets the control systems for the COLOR SYSTEM, synchronized signal, RUSH DELAY TIME, colors of the tally lamp, groups of the audio output modes, and MAKE/TRIGGER terminal.

- Can be also used to check the amount of time that the monitor has been used.

#### ■ COLOR SYSTEM

Selects the color system.

- AUTO:** Changes NTSC and PAL automatically.
- NTSC:** Keeps the color system NTSC.
- PAL:** Keeps the color system PAL.

#### NOTE:

- Normally select "AUTO." However, if the input signal is unstable, select "NTSC" or "PAL."

#### ■ SYNC SELECT

Selects the synchronized signal.

- INT.:** The input video signal is synchronized with the built-in sync signal.
- EXT.:** The input video signal is synchronized with an external signal from an external sync terminal.

#### ■ RUSH DELAY TIME

Sets the delay time between when the stand-by button is pressed and when the monitor actually turns on.

- STD.:** Power turns on about 1 second after the stand-by button is pressed.
- SLOW:** Power turns on about 3.2 seconds after the stand-by button is pressed.

#### NOTE:

- It is recommended to apply "SLOW" to some of the monitors if you need to turn on multiple monitors at the same time. You can control the rush current of the entire system.

#### ■ TALLY SELECT

Selects the color of the tally lamp on the upper right of the front panel.

- GREEN:** The tally lamp lights in green.
- RED:** The tally lamp lights in red.

#### NOTES:

- "TALLY SELECT" does not appear on the menu when both of the following conditions are applied:
  - When selecting "TA. SEL" to a pin terminal of the MAKE/TRIGGER terminal in "REMOTE SYSTEM" of SET-UP MENU.
  - When the external control is activated.
- ☞ "REMOTE SYSTEM" on the right column, "How to Use the External Control" on pages 18 and 19

- The tally lamp is controlled using the MAKE/TRIGGER terminal of the REMOTE (external control) terminals.
  - ☞ "How to Use the MAKE/TRIGGER Terminal" on pages 18 and 19

#### ■ REMOTE SYSTEM

Sets the MAKE/TRIGGER terminal.

- ☞ "How to Use the MAKE/TRIGGER Terminal" on pages 18 and 19

#### • CONTROL FORM:

Selects the control system for the MAKE/TRIGGER terminal.

**MAKE:** Selects the make contact system as the external control method.

**TRIG.:** Selects the trigger system as the external control method.

**SET:** You can apply the functions to the 1st to 6th pin terminals of the MAKE/TRIGGER terminal as you want.

#### • PORT F1 – PORT F6:

Selects the function to be applied to the 1st to 6th pin terminals of the MAKE/TRIGGER terminal.

- ☞ "How to Use the MAKE/TRIGGER Terminal" on page 18

#### NOTE:

- You can set "PORT F1" – "PORT F6" only when "CONTROL FORM" is set to "SET."

#### ■ E. AUDIO GROUP

Sets the group of the available audio output modes selected by the MENU control.

**1G:** 1ch ↔ 2ch ↔ 3ch ↔ 4ch ↔ 1-2ch ↔ 3-4ch ↔ 1-4ch

**2G:** 5ch ↔ 6ch ↔ 7ch ↔ 8ch ↔ 5-6ch ↔ 7-8ch ↔ 5-8ch

**1-2G:** 1ch ↔ 2ch ↔ 3ch ↔ 4ch ↔ 5ch ↔ 6ch ↔ 7ch ↔ 8ch ↔ 1-2ch  
 ↳ AUTO ↳ 5-8ch ↳ 1-4ch ↳ 7-8ch ↳ 5-6ch ↳ 3-4ch

- When SD SDI signal (including EMBEDDED AUDIO signal) is input, you can select the channel of the audio signal output from the audio output terminal by changing the audio output mode.

- ☞ "⑥ Audio output terminals" on page 7

#### ■ HOURLY METER X100h

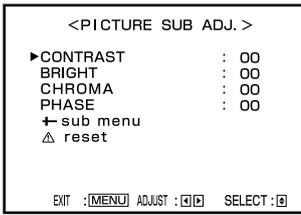
Displays the total usage time of the monitor in hundred-hour units.

- 000 ⇄ 655

#### NOTES:

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

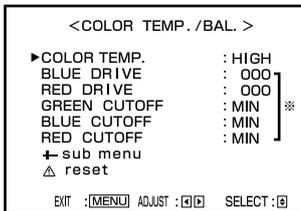
## PICTURE SUB ADJ.



The standard value ("00") of the picture adjustment is initially set at the factory. You can adjust the standard value as you want.

- **CONTRAST**
  - -20  $\rightleftarrows$  00  $\rightleftarrows$  +20
- **BRIGHT**
  - -20  $\rightleftarrows$  00  $\rightleftarrows$  +20
- **CHROMA**
  - -20  $\rightleftarrows$  00  $\rightleftarrows$  +20
- **PHASE**
  - -20  $\rightleftarrows$  00  $\rightleftarrows$  +20

## COLOR TEMP./BAL.



Sets or adjusts the color temperature and white balance.

### NOTE:

- Use the five items indicated with ※ mark to make fine adjustments between the monitors.

- **COLOR TEMP.**

Selects the color temperature.

  - HIGH:** Sets the color temperature to 9300.
  - LOW:** Sets the color temperature to 6500.
- **BLUE DRIVE**

Adjusts the blue drive level.

  - MIN  $\rightleftarrows$  000  $\rightleftarrows$  MAX (in 127 grades)
- **RED DRIVE**

Adjusts the red drive level.

  - MIN  $\rightleftarrows$  000  $\rightleftarrows$  MAX (in 127 grades)
- **GREEN CUTOFF**

Adjusts the green cut-off point.

  - MIN  $\rightleftarrows$  MAX (in 155 grades)
- **BLUE CUTOFF**

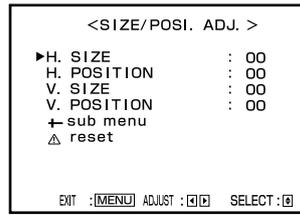
Adjusts the blue cut-off point.

  - MIN  $\rightleftarrows$  MAX (in 155 grades)
- **RED CUTOFF**

Adjusts the red cut-off point.

  - MIN  $\rightleftarrows$  MAX (in 155 grades)

## SIZE/POSI. ADJ.



Adjusts the size and position of the picture.

- **H. SIZE**

Adjusts the horizontal screen size.

  - -20  $\rightleftarrows$  00  $\rightleftarrows$  +20 (\*)
    - : Reduces the screen size horizontally.
    - +: Enlarges the screen size horizontally.
  - \* You can adjust this item within the range between 00 and +20 during the under-scan mode.
- **H. POSITION**

Adjusts the horizontal screen position.

  - -20  $\rightleftarrows$  00  $\rightleftarrows$  +20
    - : Moves the screen to the left.
    - +: Moves the screen to the right.
- **V. SIZE**

Adjusts the vertical screen size.

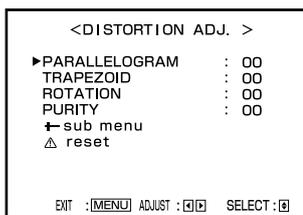
  - -20  $\rightleftarrows$  00  $\rightleftarrows$  +20
    - : Reduces the screen size vertically.
    - +: Enlarges the screen size vertically.
- **V. POSITION**

Adjusts the vertical screen position.

  - -10  $\rightleftarrows$  00  $\rightleftarrows$  +10
    - : Moves the screen down.
    - +: Moves the screen up.

# How to Use SET-UP MENU (cont.)

## DISTORTION ADJ.



Compensates the picture distortion, tilt, and the color heterogeneity caused by the geomagnetic influence.

### ■ PARALLELOGRAM

Compensates the parallelogram picture distortion.

- -20  $\overline{\text{z}}$  00  $\overline{\text{z}}$  +20

- : 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.

### ■ TRAPEZOID

Compensates the trapezoid picture distortion.

- -20  $\overline{\text{z}}$  00  $\overline{\text{z}}$  +20

- : Enlarges the upper side of the picture.
- +: Reduces the upper side of the picture.

### ■ ROTATION

Compensates a picture tilt.

- -31  $\overline{\text{z}}$  00  $\overline{\text{z}}$  +31

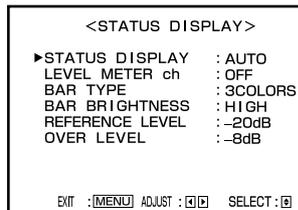
- : Turns the picture clockwise.
- +: Turns the picture counterclockwise.

### ■ PURITY

Depending on the location of the monitor, there may be color heterogeneity around the edge of the screen caused by the geomagnetic influence. You can avoid this color heterogeneity with this function decreasing the geomagnetic influence.

- -31  $\overline{\text{z}}$  00  $\overline{\text{z}}$  +31

## STATUS DISPLAY



Sets the items related to the display screens, such as the status display or the AUDIO LEVEL METER display (see below).

### ■ STATUS DISPLAY

Sets the status display.

- AUTO/MANUAL/OFF

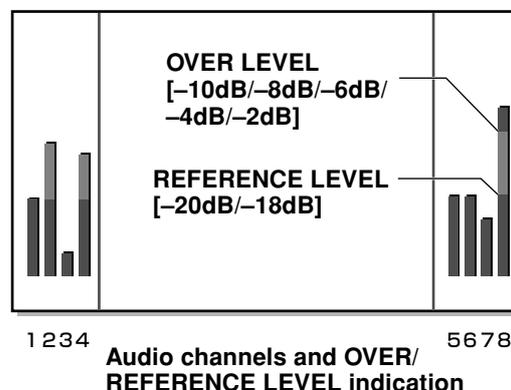
☞ “About the status display” on page 5

### Setting the AUDIO LEVEL METER display

You can check the conditions of the current EMBEDDED AUDIO signals on the AUDIO LEVEL METER display.

### AUDIO LEVEL METER display example

LEVEL METER ch: 1-8, BAR TYPE: 3COLORS



The following items are the settings for the AUDIO LEVEL METER display.

### ■ LEVEL METER ch

Selects the audio channels used in the AUDIO LEVEL METER display.

- OFF/1:2/12:34/31:24/123:456/1-8

### NOTES:

- This item does not appear on the menu when both of the following conditions are applied:
  - When selecting “L. METER” to a pin terminal of the MAKE/TRIGGER terminal and “MAKE” to “CONTROL FORM” of “REMOTE SYSTEM” in SET-UP MENU.
  - When activating the external control.
- ☞ “REMOTE SYSTEM” on page 14, “How to Use the External Control” on pages 18 and 19
- Numbers indicate the audio channel. The channel input level indicated on the left side of “:” is displayed on the left side of the screen, and the channel input level indicated on the right side of “:” is displayed on the right side of the screen.
- The AUDIO LEVEL METER display does not appear when this item is set to “OFF.”

- When “1-8” is selected, the channel input level for 1, 2, 3 and 4 is displayed on the left side of the screen, and the channel input level for 5, 6, 7 and 8 is displayed on the right side of the screen.

#### ■ **BAR TYPE**

Selects the color of the AUDIO LEVEL METER display.

**W. 100:** White color display

**W. 50:** White (half transparent) display

**3COLORS:** The AUDIO LEVEL METER display uses three different colors (red, yellow and green) to indicate variations in input levels.

**Red:** Displayed when the audio input is at the same level set in “OVER LEVEL” or higher.

**Yellow:** Displayed when the audio input is at the same level set in “REFERENCE LEVEL” or higher.

**Green:** Displayed when the audio input is lower than the level set in “REFERENCE LEVEL.”

#### NOTES:

- For “W. 100” and “W. 50,” the line indication for the standard input level set in the “REFERENCE LEVEL” is displayed. Input level set in the “OVER LEVEL” is not displayed.
- As for the audio channel bar display with no signal input, white is displayed for the “3COLORS” setting, and gray is displayed for other settings.

#### ■ **BAR BRIGHTNESS**

Selects the brightness of the AUDIO LEVEL METER display.

**HIGH:** Brighter

**LOW:** Darker

#### ■ **REFERENCE LEVEL**

Sets the standard input level.

- **-20dB/-18dB**

#### ■ **OVER LEVEL**

Sets the input level’s lower limit indicated in red for the “3COLORS” display.

- **-10dB/-8dB/-6dB/-4dB/-2dB**

## CONTROL LOCK

Prohibits altering the monitor operations except turning the monitor on/off and deactivating this function.

#### • **ON/OFF**

#### NOTES:

- When “CONTROL LOCK” is set to “ON,” “ Control lock on!” appears on the screen if you try to operate the monitor.
- Operating the monitor by the external control is available if this function is activated.

## all reset

Resets all the settings you have made to factory-preset values.

- Adjustments made by using the front panel buttons will also be reset.

#### 1. Move the MENU control to / to select “all reset,” then move it to .

Confirmation message is displayed.

#### 2. To initialize, move the MENU control to .

- To cancel the initialization, press the MENU control.

# How to Use the External Control

## About the External Control

The Monitor has the MAKE/TRIGGER terminal, which allows you to control the monitor by the MAKE (make contact) or TRIG. (trigger) system selected in the function setting.

**MAKE (make contact) system:** Controls the function by short-circuiting the corresponding pin terminal to the GND pin terminal, or disconnecting (opening) it.

**TRIG. (trigger) system:** Controls the function by inputting the pulse signal instantaneously to the corresponding pin terminal.

\* Select "MAKE" or "TRIG." from "REMOTE SYSTEM" in SET-UP MENU.

☞ "REMOTE SYSTEM" on page 14

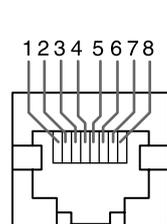
### NOTES:

- The external control has priority over operations using front panel buttons or menu functions of the monitor.
- When using the make contact system, you cannot use the functions which are applied to the MAKE/TRIGGER terminal operating the front panel buttons or the menu of the monitor. (When using the trigger system you can also use those functions operating the monitor directly.)

## How to Use the MAKE/TRIGGER Terminal

### Function of the MAKE/TRIGGER terminal

The following are the configurations and the functions of the pin terminals of the RJ-45 connector. You can change the functions applied to the 1st to 6th pin terminals by setting "REMOTE SYSTEM" of SET-UP MENU.



**Caution:**  
This is a female connector.

NO.		Functions to be controlled
1	INP. A	Changes the input to INPUT A
2	INP. C	Changes the input to INPUT C
3	MARKER	Turns on/off MARKER
4	ASPECT	Changes ASPECT
5	TALLY	Controls the tally lamp
6	L. METER	Turns on/off AUDIO LEVEL METER
7		External control
8		GND

### To change the functions applied to the pin terminals

1. Display SET-UP MENU, then move the MENU control to  $\Delta / \nabla$  to select "REMOTE SYSTEM," then move it to  $\triangleright$ .
2. Move the MENU control to  $\Delta / \nabla$  to select "CONTROL FORM," then move it to  $\triangleleft / \triangleright$  to select "SET."
3. Move the MENU control to  $\Delta / \nabla$  to select the number of the pin terminal (PORT F1 – PORT F6) you want to set, then move it to  $\triangleleft / \triangleright$  to select the function.

### NOTE:

- You cannot apply two or more functions to one terminal.

## Functions controlled by the MAKE/TRIGGER Terminal

Display	Functions to be controlled	Opening	Short-circuiting	*1
INP. A	Changes the input to INPUT A	Invalid	Valid	
INP. B	Changes the input to INPUT B	Invalid	Valid	
INP. C	Changes the input to INPUT C	Invalid	Valid	
INP. D	Changes the input to INPUT D	Invalid	Valid	
CO. OFF	Turns on/off COLOR OFF	Off	On (Monochrome screen)	*2
MARKER	Turns on/off MARKER	Off	On	*2
ASPECT	Changes ASPECT	4:3	16:9	
MA. SEL	Selects the MARKER settings	Selects the settings without "R-"	Selects the settings with "R-"	*3
TALLY	Controls the tally lamp	Off	On	*4
TA. SEL	Selects the color of the tally lamp	Green	Red	
STATUS	Turns on/off the status display	Off	On	
L. METER	Turns on/off AUDIO LEVEL METER	Off	On	

\*1 The TRIG. (trigger) system switches each function by short-circuiting for approx. 1 second.

\*2 When selecting the TRIG. (trigger) system, these functions cannot be controlled if no signal is input.

\*3 Activates the settings of the items with "R-" or without "R-" in the "MARKER" menu. ☞ "MARKER" on page 12

\*4 Tally lamp Control and External control (the 7th pin terminal) can be controlled by the MAKE (make contact) system even when you select the "TRIG." (trigger) system.

### Operation

- Short-circuit the 7th pin terminal (External control) to the 8th pin terminal (GND) so that the monitor can be controlled by the external control.
- When selecting the "MAKE" (make contact) system,** operate each function by short-circuiting the corresponding pin terminal to the 8th pin terminal (GND) or opening it.  
**When selecting the "TRIG." (trigger) system,** operate each function by Pulse control, that is short-circuiting the corresponding pin terminal to the 8th pin terminal (GND) for about 1 second.

### NOTES:

- When controlling INP. A/B/C/D, only one terminal must be short-circuited. (Other terminals must be opened.)
- When selecting the "TRIG." (trigger) system, you can operate only one function at a time. Operate the functions one by one.

# 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-authorized dealer or service center for assistance.

Problems	Points to be checked	Measures (Remedy)	Reference pages
<b>No power supply</b>	Is the power plug loosened or disconnected?	Firmly insert the power plug.	—
	Is the main power turned off?	Turn the main power on.	6
<b>No picture with the power on</b>	Is the signal cable disconnected?	Connect the signal cable firmly.	6, 7
	Is the power of the connected component on? Is the signal being output from the connected component?	Turn on the power of the connected component and set the output correctly.	—
	Is the input selected correctly?	Select the correct input with the INPUT SELECT buttons.	5
	Is the input signal adapted to the monitor's specification?	Check if the input signal format is acceptable to the monitor.	22
	Are any of the self-check indicators (INPUT SELECT A through D lamps) flashing?	Follow the procedures in "Self-check Indications."	21
<b>Wrong color</b>	Has the picture adjustment been changed?	Set each picture adjustment to the standard (00) value. Or, perform "reset" in "PICTURE SUB ADJ." to set each item of picture adjustment to the standard value.	4, 15
	Has the white balance setting been changed?	Perform "reset" in "COLOR TEMP./BAL." to set each item to the standard value.	15
	Is the SCREENS CHECK function activated?	Press the SCREENS CHECK button on the front panel repeatedly to return the screen to normal.	5
<b>Unnatural picture</b>	Has "CONTRAST" or "BRIGHT" been changed?	Adjust CONTRAST or BRIGHT by using the front panel buttons. Or, adjust "CONTRAST" or "BRIGHT" in "PICTURE SUB ADJ." in SET-UP MENU.	4, 15
<b>Shaking picture</b>	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.	—
<b>Irregular color</b>	Is the monitor placed or moved close to a speaker or any other magnetic device? Has the position of the monitor been changed with the power on?	Move the device away from the monitor. Perform "DEGAUSS on" in MAIN MENU to degauss the screen. When degaussing again, wait more than 30 minutes for maximum effect.	12

Problems	Points to be checked	Measures (Remedy)	Reference pages
<b>Wrong picture position, wrong picture size</b>	Has the picture position, size, distortion, or tilt been changed?	Adjust the picture size (H. SIZE, V. SIZE) or position (H. POSITION, V. POSITION) in "SIZE/ POSI. ADJ." Adjust the picture distortion (PARALLELOGRAM, TRAPEZOID) or tilt (ROTATION) in "DISTORTION ADJ." It may not be possible to expand the picture due to the selected input mode. In this case, adjustment is impossible.	15, 16
	Has the UNDER SCAN button been pressed?	Press the UNDER SCAN button to remove the setting.	5
<b>Some items do not appear on the menu</b>	The items which are not available for the current input or the current input signal do not appear on the menu.	Change the input or the input signal.	—
<b>Front panel buttons do not function</b>	Has the CONTROL LOCK function been set to "ON"?	Set the CONTROL LOCK function to "OFF."	17
	Has the monitor's setting been changed to enable control by the external control connected to the REMOTE terminal?	Change the setting of the external control so that the monitor can be operated by the buttons on the front panel.	18, 19

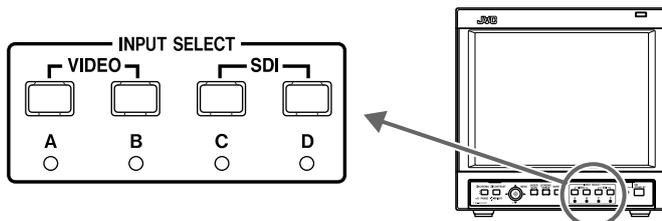
#### The following are not malfunctions:

- When a bright still image (such as a white cloth) is displayed for a long period, it may appear to be colored. 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 placed close 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.

## ■ Self-check Indications

**When the screen goes blank, and one or more of the INPUT SELECT A through D lamps on the front control panel start flashing...**

This monitor has a self-check function, which allows it to detect malfunctions and alert you. This makes troubleshooting easier. Whenever a problem occurs, a combination of "self-check indicators" (INPUT SELECT A through D lamps) will flash and the monitor's power automatically turns off. If this happens, follow the steps below and contact your dealer to resolve the problem.



1. Check which indicators are flashing.
2. Turn off the main power switch on the back of the monitor.
3. Disconnect the Power Cord from the AC outlet.
4. Contact your dealer with the information about which indicators are flashing.

#### NOTE:

- If you turn on the monitor's power immediately after turning it off (or after a short-term power failure), the self-check indicators may flash, and no image may be displayed. When this happens, turn off the power, and wait at least 10 seconds before turning it on again. If the self-check indicators have stopped flashing, you can use the monitor as usual.

# Specifications

<b>Model</b>	TM-1051DG
<b>Type</b>	Color Video Monitor
<b>Picture Tube</b>	10" measured diagonally
<b>Effective Screen Size</b>	Width: 176.9 mm (6 15/16") Height: 137.6 mm (5 3/8") Diagonal: 224.5 mm (8 13/16")
<b>Scanning Frequency</b>	H: 15 kHz V: 50 Hz/60 Hz
<b>Video Band</b>	6 MHz (–3 dB)
<b>Horizontal Resolution</b>	280 TV lines
<b>Input/Output Terminals</b>	Composite signal input/output terminals VIDEO A/VIDEO B: 2 lines, BNC connector x 4 (1 Vp-p, 75 Ω) * The input (IN) and output (OUT) terminals are bridge-connected. (Auto termination) External synchronized input/output terminals EXT. SYNC: 1 line, BNC connector x 2 (0.3 Vp-p – 4 Vp-p, 75 Ω) * The input (IN) and output (OUT) terminals are bridge-connected. (Auto termination) Digital signal input terminals (compatible with EMBEDDED AUDIO signal) E. AUDIO SDI (IN C/IN D): 2 lines, BNC connector x 2 Digital signal output terminal (compatible with EMBEDDED AUDIO signal) SWITCHED OUT: 1 line switched out, BNC connector x 1 Analogue audio output terminal E. AUDIO MONITOR OUT (CH1/CH2): 2 lines, RCA connector x 2 (250 mV (rms), high impedance (–18 dB FS)) Remote input/output terminals MAKE/TRIGGER: Point-of-contact connection, 1 line, RJ-45 connector (8-pin) x 1
<b>Compliant Video Signal</b>	INPUT A/B: NTSC (3.58 MHz), PAL (4.43 MHz), B/W (50 Hz/60 Hz) INPUT C/D: 480/60i, 576/50i (compatible with EMBEDDED AUDIO signal)
<b>Format</b>	SD SDI: ITU-R BT. 656: 525/625 SMPTE259M: 525 EMBEDDED AUDIO: SMPTE272M
<b>Environmental Conditions</b>	Operating temperature: 0°C – 40°C (32°F – 104°F) Operating humidity: 20% – 80% (non-condensing)
<b>Power Requirements</b>	120 V/220-240 V AC, 50 Hz/60 Hz
<b>Power Consumption</b>	0.9 A (120 V AC)/0.6 A (220-240 V AC)
<b>Dimensions</b>	Width: 222 mm (8 3/4") Height: 220 mm (8 3/4") Depth: 360.3 mm (14 1/4")
<b>Weight</b>	7.9 kg (17.4 lbs)
<b>Accessory</b>	AC power cord Power cord holder x 1 (case and cover) Screws x 2 (Power cord holder)

\* 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.

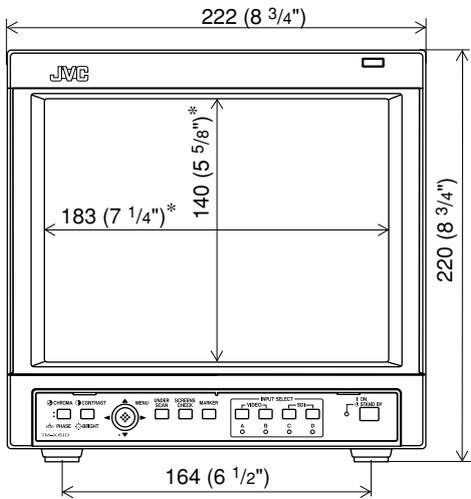
\* Dimensions and weight are approximate.

\* E. & O.E. Design and specifications subject to change without notice.

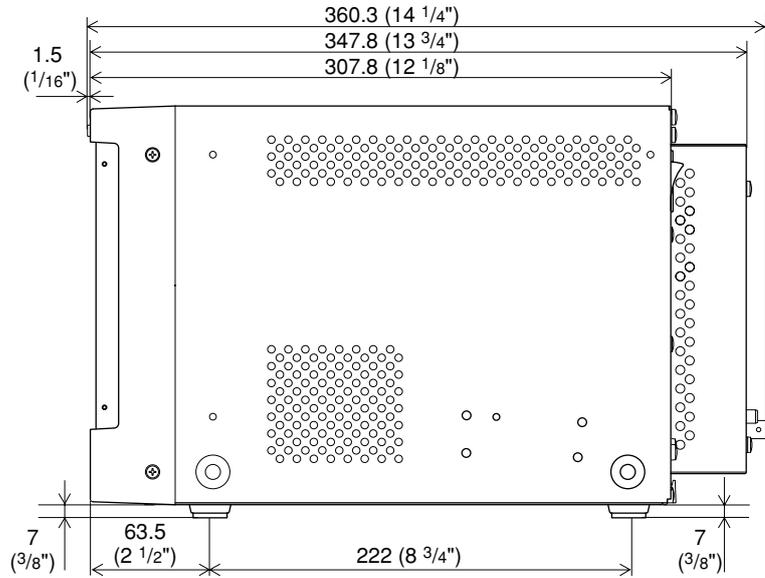
# ■ Dimensions

Unit : mm (inch)

**Front View**



**Side View**



Asterisks (\*) are used to indicate front panel dimensions.

