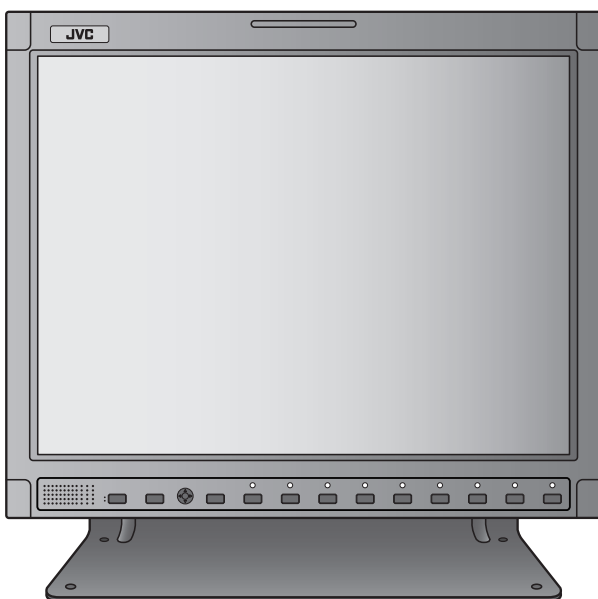# JVC

## LCD DISPLAY MONITOR

# TM-15L1D

# INSTRUCTIONS

# ▌Safety Precautions

## IMPORTANT SAFEGUARDS

Electrical energy can perform many useful functions. This unit has been engineered and manufactured to assure your personal safety. But **IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK OR FIRE HAZARD.** In order not to defeat the safeguards incorporated into this product, observe the following basic rules for its installation, use, and service. Please read these "IMPORTANT SAFEGUARDS" carefully before use.

• All the safety and operating instructions should be read before the product is operated.
• The safety and operating instructions should be retained for future reference.
• All warnings on the product and in the operating instructions should be adhered to.
• All operating instructions should be followed.

---

**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 B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

---

**WARNING:** TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE. NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.
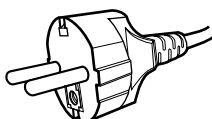
**POWER CONNECTION**

The power supply voltage rating of this product is AC 100 – 240 V.

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.
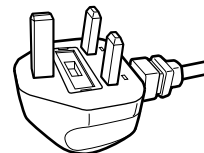
*For U.S.A. and Canada:*
*AC 120 V*

*For European and Asian*
*countries: AC 220 – 240 V*

*For United Kingdom:*
*AC 220 – 240 V*

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

• This product should be operated only with the type of power source indicated on the label. If you are not sure of the type of power supply of your home, consult your product dealer or local power company.

**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 United Kingdom power cord only**

The plug on 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 personnel.)

**How to replace the fuse**

Open the fuse compartment with the blade screwdriver, and replace the fuse.

*Fuse*
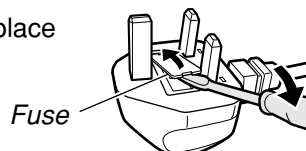
# Safety Precautions (cont.)

- Make enough room for inserting or removing the power plug. Place the product as close to the outlet as possible. The main power supply for the product is controlled by inserting or removing the power plug.
- When the product is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cables.
- Do not overload wall outlets, extension cords, or convenience receptacles on other equipment as this can result in a risk of fire or electric shock.
- Use only the accessory cord designed for this product to prevent shock.

Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltages and other hazards. Refer all service to qualified service personnel.

- Do not put heavy objects on the product.
- Do not rest your arm on the product or lean against the product.
- Do not hang on the product when installing the product on the wall.

- Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at doors, plugs, receptacles, and the point where they exit from the product.

- When the product is used on a table with casters, lock the casters to prevent the product from falling over.

- Do not use the monitor for a long time if the sound is distorted.

- Do not use this product near water.
- Do not use immediately after moving from a low temperature to high temperature, as this causes condensation, which may result in a fire, electric shock, or other hazards.

- Be sure to install the product in the place where proper temperature and humidity are kept (☞ "Environmental conditions" on page 21). This product becomes hot during its use. Take enough care when handling the product.

• Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock.
• Never spill liquid of any kind on the product.

**Under the following conditions,**
**1. Turn off the power.**
**2. Unplug this product from the wall outlet.**
**3. Refer service to qualified service personnel.**
a) When the product emits smoke or unusual smell.
b) When the product exhibits a distinct change in performance—for example, no picture or no sound.
c) If liquid has been spilled, or objects have fallen on the product.
d) If the product has been exposed to rain or water.
e) If the product has been dropped or damaged in any way.
f) When the power supply cord or plug is damaged.

• Slots and openings in the cabinet are provided for ventilation. These ensure reliable operation of the product and protect it from overheating. These openings must not be blocked or covered.
• The openings should never be blocked by placing the product on bed, sofa, rug, or similar surface. It should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided and the manufacturer's instructions have been adhered to.

Do not install this product in the following places:
• in a damp or dusty room
• where the product is exposed to soot or steam, such as near the cooking counter or a humidifier
• near heat sources
• where condensation easily occurs, such as near the window

• When connecting other products such as VCR's and personal computers, you should turn off the power of this product for protection against electric shock.
• Do not use attachments not recommended by the product manufacturer as they may be hazardous.

• **When replacement parts are required,** be sure the service technician has used replacement parts specified by the manufacturer or equivalents. Unauthorized substitutions may result in fire, electric shock, or other hazards.
• **Upon completion of any service or repairs to this product,** ask the service technician to perform safety checks to determine that the product is in proper operating condition.

# ▌Safety Precautions (cont.)

## Maintenance

**Unplug this product from the wall outlet before cleaning.**

### Screen

To avoid irreparable change in appearance of the screen such as uneven color, discoloration, scratches, be careful about the following:
• Do not paste or stick anything with any glues or adhesive tapes.
• Do not write anything on the screen.
• Do not strike the screen with a hard object.
• Avoid condensation on the screen.
• Do not wipe the screen with solvent such as alcohol, thinner, or benzine.
• Do not wipe the screen hard.

If the screen gets stained, wipe it with a soft dry cloth, a soft damp cloth, or a soft cloth soaked in water-diluted neutral detergent and wrung well.

### Cabinet

To avoid the deterioration or damages of the cabinet such as its paint's peeling away, be careful about the following:
• Do not wipe the cabinet using solvent such as alcohol, thinner, or benzine.
• Do not expose the cabinet to any volatile substance such as insecticides.
• Do not remain any rubber or plastic in contact for a long time.
• Do not wipe the cabinet hard.

Wipe stains off the cabinet with a soft cloth. If the cabinet gets heavily stained, wipe it with a soft cloth soaked in water-diluted neutral detergent and wrung well, and then wipe with a soft dry cloth.

### Ventilation openings

• Use a vacuum cleaner to get rid of the dust around the intakes (all the openings). If a vacuum cleaner is not available, use a cloth and wipe it off. Leaving the dust around the intakes may raise up the internal heat and cause damage to the product.

---

**Information for Users on Disposal of Old Equipment**
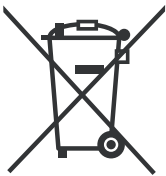
**[European Union]**

**Attention:**
This symbol is only valid in the European Union.

This symbol indicates that the electrical and electronic equipment should not be disposed as general household waste at its end-of-life. Instead, the product should be handed over to the applicable collection point for the recycling of electrical and electronic equipment for proper treatment, recovery and recycling in accordance with your national legislation.

By disposing of this product correctly, you will help to conserve natural resources and will help prevent potential negative effects on the environment and human health which could otherwise be caused by inappropriate waste handling of this product. For more information about collection point and recycling of this product, please contact your local municipal office, your household waste disposal service or the shop where you purchased the product.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

**(Business users)**

If you wish to dispose of this product, please visit our web page www.jvc-europe.com to obtain information about the take-back of the product.
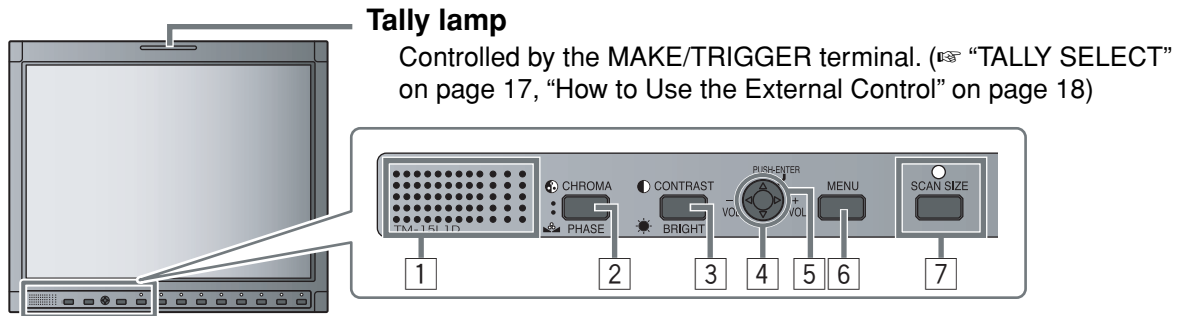
**[Other Countries outside the European Union]**

If you wish to dispose of this product, please do so in accordance with applicable national legislation or other rules in your country for the treatment of old electrical and electronic equipment.

# ▌Contents

# Controls and Features

## ■ Front panel

**Tally lamp**
Controlled by the MAKE/TRIGGER terminal. (☞ "TALLY SELECT" on page 17, "How to Use the External Control" on page 18)



### 1 Speaker (Monaural)
Outputs the audio signal of the selected input.

### 2 CHROMA/PHASE button*1
Activates the Chroma (picture color density) adjustment mode or the Phase (picture hue) adjustment mode.
• Press the button to select the mode, then adjust the value (–25 - 00 - +25) by pushing the menu control button (4) left or right.

*NOTE:*
• *Chroma is not adjustable when the B/W (50 Hz/60 Hz) signal is input. In this case, "NO EFFECT" is displayed for about 5 seconds.*
• *Phase is not adjustable when the PAL signal or the B/W (50 Hz/60 Hz) signal is input. In this case, "NO EFFECT" is displayed for about 5 seconds.*
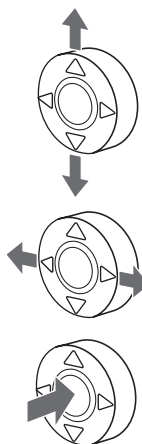
### 3 CONTRAST/BRIGHT button*1
Activates the picture contrast adjustment mode or picture brightness adjustment mode.
• Press the button to select the mode, then adjust the value (–25 - 00 - +25) by pushing the menu control button (4) left or right.

### 4 Menu control button
Operates the menu by pushing or pressing the button to the indicated direction.
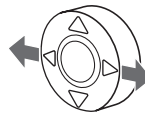☞ pages 14 and 15

**Pushing the button up or down:**
Selects a menu item.

**Pushing the button left or right:**
Adjusts the selected menu item.

**Pressing the center of the button:**
• Goes to the next step.
• Performs the selected function.

### 5 Volume control button*2
While the menu is not displayed, adjust the volume level (00 to 50) by pushing the button left or right.

### 6 MENU button
Displays the MAIN MENU.
☞ page 13

**To display the SET-UP MENU:**
Press the CHROMA/PHASE button (2) while pressing the MENU button. (☞ page 15)

### 7 SCAN SIZE button/lamp
Selects the screen size.
• When "100%," "1:1," or "USER" is selected, the lamp lights up.

   *OVER → 100% → 1:1 → USER → (back to the beginning)*

**To adjust picture size/position:**
Select "USER" and adjust "SIZE/POSI. ADJ. (USER)" in the SET-UP MENU. (☞ page 16)

*NOTE:*
• *Memorized for each input.*
• *When displaying the picture in the 1:1 mode, the aspect ratio of the picture may change depending on the input signal.*
• *For some input signals, the picture may be displayed in a wrong position. In this case, select "OVER."*

---

**\*1 During picture adjustment:**
• The adjustment bar will disappear in about 10 seconds after the last operation.
• Pressing MENU will also make the adjustment bar disappeared.
• The position of the adjustment bar can be changed. (☞ "ADJ. BAR POSI." on page 14)

**\*2 During volume adjustment:**
• The adjustment bar will disappear in about 5 seconds after the last operation.
• Pressing MENU will also make the adjustment bar disappeared.
• The position of the adjustment bar can be changed. (☞ "ADJ. BAR POSI." on page 14)
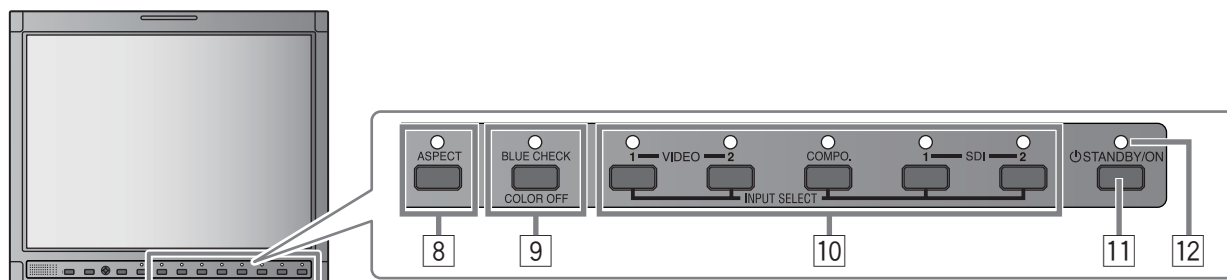
## 8 ASPECT button/lamp

Changes the aspect ratio of the picture from 4:3 to 16:9.
- When "16:9" is selected, the lamp lights up.
- To return to 4:3, press the button again.
- Use this function when the picture of 16:9 aspect ratio is squeezed into 4:3 format signal.

***NOTE:***
- *When displaying the picture in the 1:1 mode (☞ "7 SCAN SIZE button/lamp" on page 8), this function does not work. In this case, "NO EFFECT" is displayed for about 5 seconds (the lamp lights up).*

## 9 BLUE CHECK/COLOR OFF button/lamp

Changes the video signal element to display.
- When "BLUE CHECK" or "COLOR OFF" is selected, the lamp lights up.

    *Normal display → BLUE CHECK (Only blue signal) → COLOR OFF (Only luminance signal) → (back to the beginning)*

## 10 INPUT SELECT buttons/lamps

Select an input to display.
**VIDEO 1:** Selects the video signal input to the VIDEO 1 terminal.
**VIDEO 2:** Selects the video signal input to the VIDEO 2 terminal.
**COMPO.:** Selects the video signal input to the COMPONENT terminal.
**SDI 1:** Selects the video signal input to the SDI 1 terminal.
**SDI 2:** Selects the video signal input to the SDI 2 terminal.
- The corresponding audio signal is also selected.

## 11 ⏻ STANDBY/ON button

Turns on and off (standby) the monitor.
***NOTE:***
- *To disconnect the mains line completely, unplug the AC plug from the wall outlet.*

## 12 Power lamp

**Lights in orange:**
    The monitor is off (standby).
**Flashes in orange:**
    The monitor is in the suspend mode.
**Lights in Green:**
    The monitor is on.
**Unlit:**
    The monitor is off (the AC plug is not connected).

---

**■ About the status display**

When "STATUS DISPLAY" is set to "ON" (☞ page 17), the status (information of the current input and the monitor settings) is displayed for about 5 seconds in the following cases:
- When you press the INPUT SELECT button of the current input.
- When you change the inputs.
- When the signal condition of the current input changes.

```
VIDEO 1 ··························· ①
NTSC ······························· ②
OVER ······························· ③
```
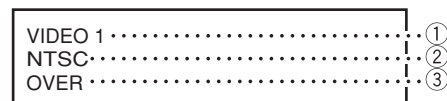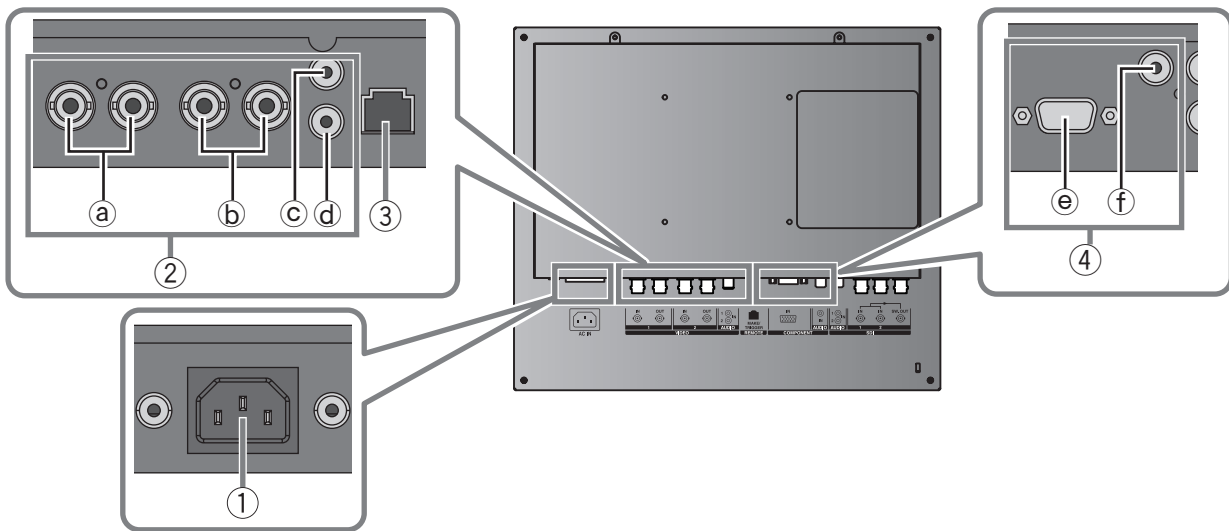
① **Input status**

② **Signal format**
- "NO SYNC" is displayed when no video signal is input.
- When "COLOR SYSTEM" is set to "AUTO" (☞ page 14), "OTHERS" is displayed for a noncompliant composite signal input.
- "Out of range" is displayed for a noncompliant component or SD SDI signal input.

③ **Setting of SCAN SIZE**
☞ "7 SCAN SIZE button/lamp" on page 8

# Controls and Features (cont.)

## ■ Rear panel



① **AC inlet**

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

② **VIDEO terminals**

ⓐ **VIDEO 1 terminals (BNC)**

Input (IN) and output (OUT) terminals for the composite signals.
- The IN and OUT terminals are bridge-connected (auto termination).
- Use the AUDIO 1 terminal for the audio connection.

ⓑ **VIDEO 2 terminals (BNC)**

Input (IN) and output (OUT) terminals for the composite signals.
- The IN and OUT terminals are bridge-connected (auto termination).
- Use the AUDIO 2 terminal for the audio connection.

ⓒ **AUDIO 1 terminal (pin jack)**

Input terminal for the analog audio signals.
- Use the VIDEO 1 terminal for the video connection.

ⓓ **AUDIO 2 terminal (pin jack)**

Input terminal for the analog audio signals.
- Use the VIDEO 2 terminal for the video connection.

③ **REMOTE (external control) terminal (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 page 18
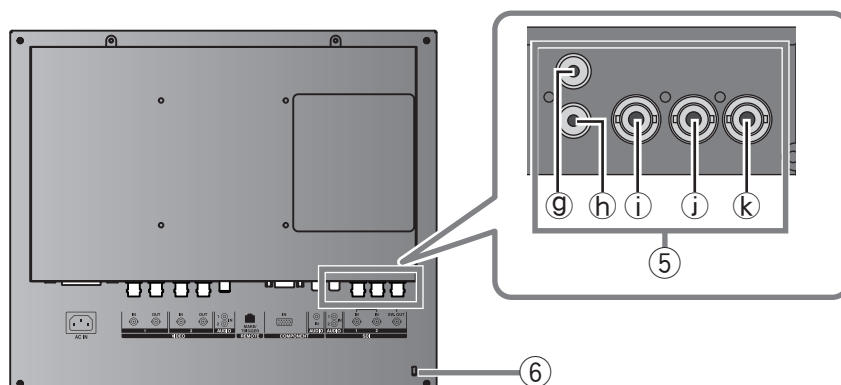
④ **COMPONENT terminals**

ⓔ **COMPONENT terminal (mini D-sub 15-pin)**

Input terminal for the component signals.
- This terminal is not compatible with PC signals and RGB signals.
- Use the supplied conversion cable for connection.

ⓕ **AUDIO terminal (pin jack)**

Input terminal for the analog audio signals.

⑤ **SDI terminals**

ⓖ **AUDIO 1 terminal (pin jack)**

Input terminal for the analog audio signals.
• Use the SDI 1 terminal for the video connection.

ⓗ **AUDIO 2 terminal (pin jack)**

Input terminal for the analog audio signals.
• Use the SDI 2 terminal for the video connection.

ⓘ **SDI 1 terminal (BNC)**

Input terminal for the SD SDI signals.
• Use the AUDIO 1 terminal for the audio
  connection.

ⓙ **SDI 2 terminal (BNC)**

Input terminal for the SD SDI signals.
• Use the AUDIO 2 terminal for the audio
  connection.

ⓚ **SDI SW. OUT terminal (BNC)**

Output terminal for the SD SDI signals.
The SDI signal of the current input (SDI 1 or SDI
2) is re-clocked and output.

*NOTE:*
• *When the input other than SDI 1 or SDI 2 is selected,
  the SDI signal of the input selected last time is re-
  clocked and output from this terminal.*

⑥ **Security slot**
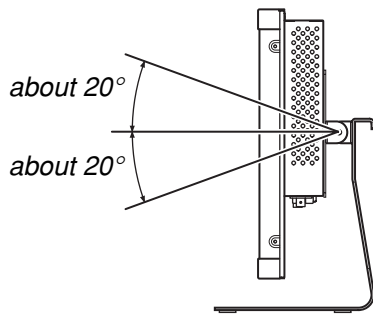Install a security wire to this slot.

# Installation

## ■ Using the monitor on the stand

You can place the monitor in the following two ways when using the monitor on the supplied stand.

| | |
|---|---|
| You can tilt the monitor upward or downward within the range of about 20° in each direction. | When the monitor is attached to the higher position of the stand (see below), you can lift the stand up by 90° and place the monitor as illustrated below. |

*about 20°*

*about 20°*

90°

*NOTE:*
*• Be careful not to pinch your fingers in the gap between the monitor and the stand.*
*• Do not tilt the monitor upward more than 20°; otherwise the monitor may fall over.*
*• When the monitor is attached to the lower position of the stand (see below), you cannot tilt the monitor downward.*
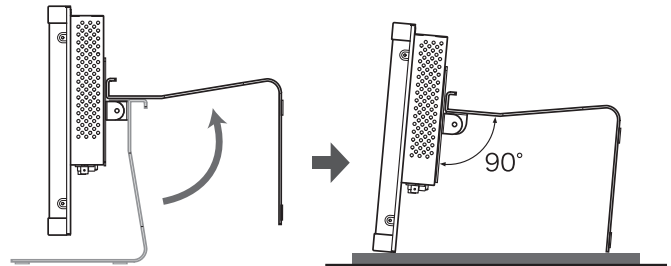
*NOTE:*
*• Be careful not to pinch your fingers in the moving parts.*
*• Make sure to lift the stand up until it stops; otherwise the monitor may fall over.*
*• Place the monitor on a mat to avoid scratching the table surface.*
*• Do not place the monitor in this way when the monitor is attached to the lower position of the stand.*

**To adjust the stand height**
You can select the stand height—higher position or lower position.
• For how to detach the stand, see below.

*Screw holes for higher position*

*Screw holes for lower position*
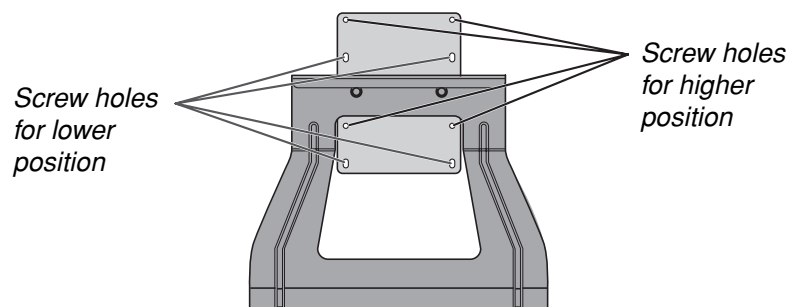
**To detach the stand**
*NOTE:*
*• Lay the monitor on a cloth with the LCD panel facing down to prevent the LCD panel being damaged.*

*Screw (M4 x 10)*

*Stand*

*VESA mounting holes*
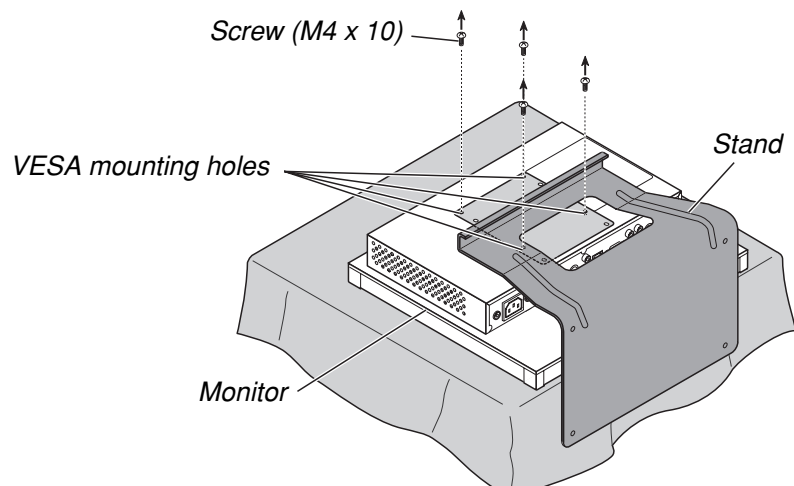
*Monitor*

# ■ Installing the monitor on the wall

Use a commercial wall mounting unit compliant with the VESA standard (100 mm x 100 mm).

***NOTE:***
* *Detach the stand first. (☞ page 12)*
* *Ask your dealer to install.*

*VESA mounting holes
(See page 22 for the specifications
of the mounting holes.)*
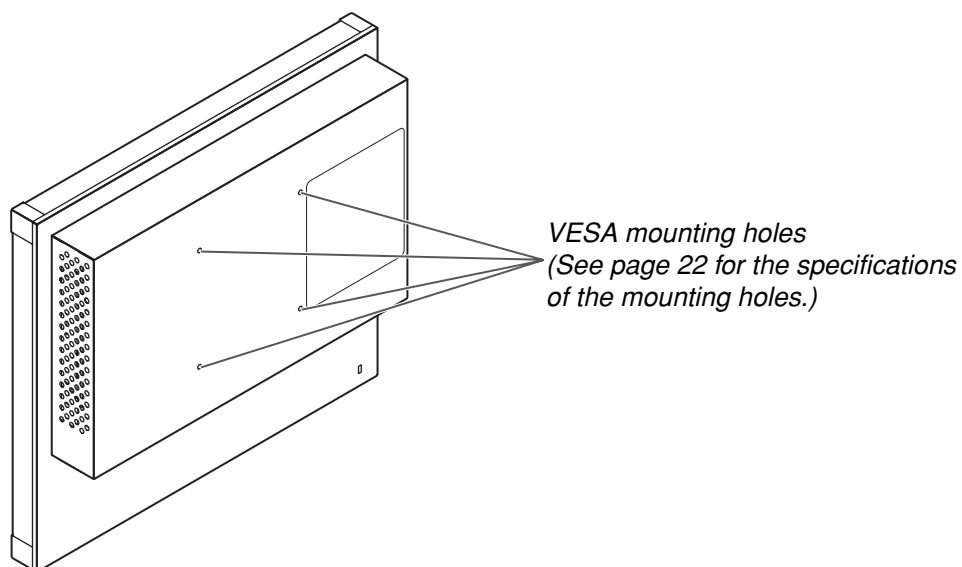
# ■ Installing the monitor on the rack

Use a JVC's RACK MOUNT ADAPTER (RK-C157L1G; not supplied).

***NOTE:***
* *Detach the stand first. (☞ page 12)*
* *Ask your dealer to install.*

# How to Use the MAIN MENU

The MAIN MENU contains the functions for daily use.
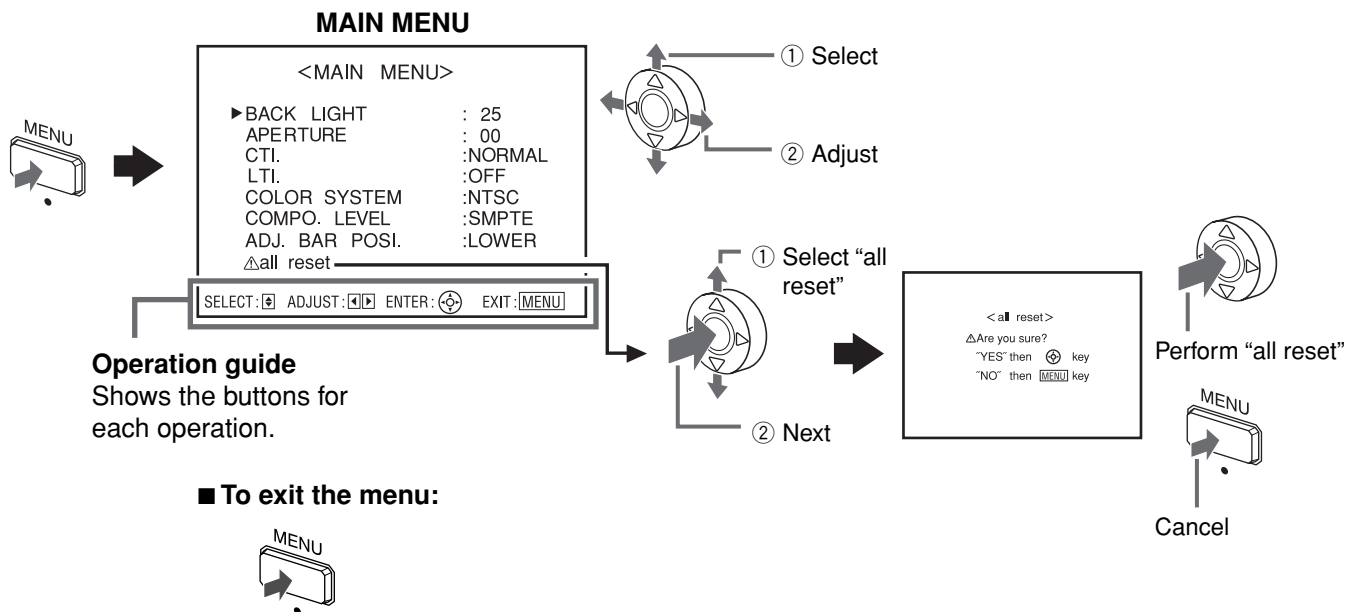
**MAIN MENU**



**Operation guide**
Shows the buttons for each operation.

■ **To exit the menu:**

*NOTE:*
• *The menu automatically disappears in about 30 seconds after the last menu operation.*
• *Some items may not appear on the menu. Those items are not available for the current input or the current input signal.*

## ■ MAIN MENU items

### BACK LIGHT

Adjusts the brightness of the display.
 **Setting value:** 00 - 25

### APERTURE

Adjusts the clearness of the picture.
 **Setting value:** 00 - 10

### CTI.

Adjusts the clearness of the outlines of the color signals (R/G/B).
 **Setting value:** OFF, NORMAL, HARD

### LTI.

Adjusts the clearness of the outlines of the luminance signal.
 **Setting value:** OFF, NORMAL, HARD

### COLOR SYSTEM

Selects the color system.
 **Setting value:** AUTO, NTSC, PAL

*NOTE:*
• *If the picture is unstable with "AUTO," select "NTSC" or "PAL."*

### COMPO. LEVEL

Sets the level of the component input signal.
 **Setting value:** SMPTE (for M2VTR signals),
 BETACAM (for BetacamVTR 0% set-up signals)

### ADJ. BAR POSI.

Selects the position of the adjustment bars.
 **Setting value:** UPPER, LOWER

### all reset

Restores all the settings and adjustments of the monitor to the factory settings.
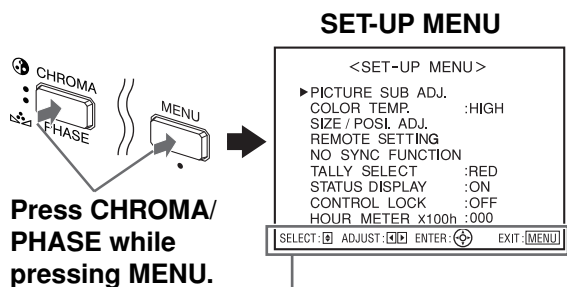• Adjustments made by using the buttons on the front panel will also be reset.

*NOTE:*
• *"HOUR METER X100h" (☞ page 17) will not be reset.*
• *After performing "all reset," the screen goes back to the MAIN MENU.*

# How to Use the SET-UP MENU

The SET-UP MENU contains the initial settings of the monitor.
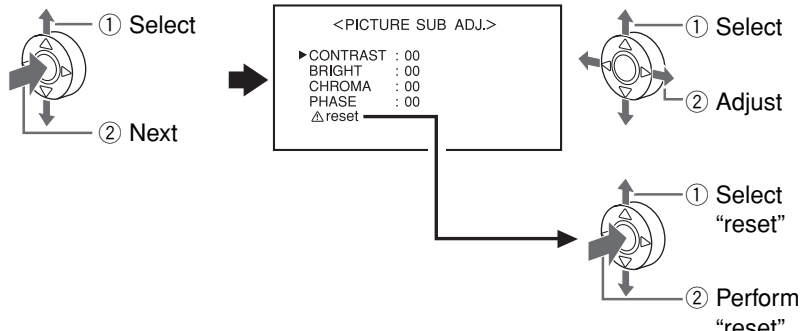
**SET-UP MENU**

CHROMA
PHASE
MENU

**Press CHROMA/ PHASE while pressing MENU.**

```
<SET-UP MENU>
►PICTURE SUB ADJ.
 COLOR TEMP.        :HIGH
 SIZE / POSI. ADJ.
 REMOTE SETTING
 NO SYNC FUNCTION
 TALLY SELECT       :RED
 STATUS DISPLAY     :ON
 CONTROL LOCK       :OFF
 HOUR METER x100h   :000
SELECT:▣ ADJUST:◀▶ ENTER:⊕   EXIT:MENU
```

**Operation guide**
Shows the buttons for each operation.

■ **To exit the menu:**

MENU

■ **PICTURE SUB ADJ.**

① Select
② Next

```
<PICTURE SUB ADJ.>
►CONTRAST : 00
 BRIGHT   : 00
 CHROMA   : 00
 PHASE    : 00
 ⚠reset
```

① Select
② Adjust

① Select "reset"
② Perform "reset"

■ **COLOR TEMP.**

① Select
② Adjust
Next
(When selecting "USER1" or "USER2" in ②)

```
<COLOR TEMP. (USER1)>
 R DRIVE : 00
 G DRIVE : 00
 B DRIVE : 00
```

① Select
② Adjust

■ **SIZE/POSI. ADJ.**
(Only when "SCAN SIZE" is "USER")

① Select
② Next

```
<SIZE / POSI.  ADJ. (USER)>
►H. SIZE          : 00
 H. POSI.         : 00
 V. SIZE (4 : 3)  : 00
 V. POSI. (4 : 3) : 00
```
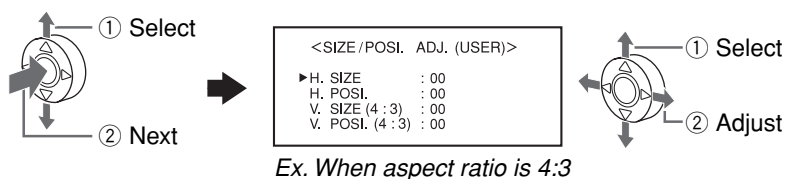
*Ex. When aspect ratio is 4:3*

① Select
② Adjust

■ **REMOTE SETTING**

① Select
② Next

```
<REMOTE SETTING>
►SYSTEM    : MAKE
 PORT F3   : VIDEO 1
 PORT F4   : VIDEO 2
```

① Select
② Adjust

■ **NO SYNC FUNCTION**

① Select
② Next

```
<NO SYNC FUNCTION>
►NO SYNC DISPLAY :OFF
 DELAY TIME      :5
```

① Select
② Adjust

■ **TALLY SELECT**
■ **STATUS DISPLAY**
■ **CONTROL LOCK**

① Select
② Adjust
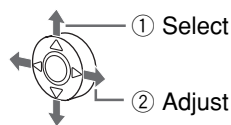
(☞ page 17)

■ **To go back to the previous screen:**

MENU

*NOTE:*
- *The menu automatically disappears in about 30 seconds after the last menu operation.*
- *Some items may not appear on the menu. Those items are not available for the current input or the current input signal.*
- *"HOUR METER X100h" shows the total hors of use of the monitor. This item is not selectable.*

**15**

## ■ SET-UP MENU items

### PICTURE SUB ADJ.

Sets the standard level for the picture adjustments by using the CHROMA/PHASE and CONTRAST/BRIGHT buttons on the front panel.

| CONTRAST* | Adjusts the standard level for contrast adjustment. | –20 - 00 - +20 |
|---|---|---|
| BRIGHT* | Adjusts the standard level for brightness adjustment. | –20 - 00 - +20 |
| CHROMA* | Adjusts the standard level for chroma adjustment. | –20 - 00 - +20 |
| PHASE* | Adjusts the standard level for phase adjustment. | –20 - 00 - +20 |
| reset | Restores the items in "PICTURE SUB ADJ." to the factory settings. | |

*\* Memorized for each input.*

### COLOR TEMP.

Selects the color temperature and adjusts the drive level of each color (R/G/B).

| COLOR TEMP.* | | Selects the color temperature.<br>• When selecting "USER1" or "USER2," adjust the R/G/B drive level below. | HIGH (9300), LOW (6500), USER1, USER2 |
|---|---|---|---|
| | R DRIVE | Adjusts the drive level of red. | –40 - 00 - +40 |
| | G DRIVE | Adjusts the drive level of green. | –40 - 00 - +40 |
| | B DRIVE | Adjusts the drive level of blue. | –40 - 00 - +40 |

*\* Memorized for each input.*

### SIZE/POSI. ADJ. (USER)

Adjusts the position and size of the picture. This item is available only when "SCAN SIZE" (☞ page 8) is set to "USER."

| H. SIZE* | Adjusts the horizontal picture size. | –40 - 00 - +40 |
|---|---|---|
| H. POSI.* | Adjusts the horizontal picture position. | –40 - 00 - +40 |
| V. SIZE (4:3)* | Adjusts the vertical picture size (for 4:3 aspect ratio). | –40 - 00 - +40 |
| V. SIZE (16:9)* | Adjusts the vertical picture size (for 16:9 aspect ratio). | –40 - 00 - +40 |
| V. POSI. (4:3)* | Adjusts the vertical picture position (for 4:3 aspect ratio). | –40 - 00 - +40 |
| V. POSI. (16:9)* | Adjusts the vertical picture position (for 16:9 aspect ratio). | –40 - 00 - +40 |

*\* Memorized for each input.*

### REMOTE SETTING

Sets the MAKE/TRIGGER terminal. (☞ page 18)

| SYSTEM | Selects the external control system of the MAKE/TRIGGER terminal. | MAKE (make contact system), TRIG. (trigger system) |
|---|---|---|
| PORT F3 | Selects the input which is controlled by the 3rd pin terminal of the MAKE/TRIGGER terminal. | VIDEO 1, VIDEO 2, COMPO., SDI 1, SDI 2 |
| PORT F4 | Selects the input which is controlled by the 4th pin terminal of the MAKE/TRIGGER terminal. | • You cannot assign the same input to both "PORT F3" and "PORT F4." |

## NO SYNC FUNCTION

Selects the screen status when no signal is being input.

| NO SYNC DISPLAY | Sets the screen status when no signal is being input. | OFF, SUSPEND (suspend mode), GRAY (gray screen) |
|---|---|---|
| DELAY TIME | Sets the period until the screen status changes after signals stop coming in. | 5, 20, 60 (seconds, approx.) |

## TALLY SELECT

Selects the tally lamp color.
**Setting value:** GREEN, RED

*NOTE:*
*• To control the tally lamp, use the MAKE/TRIGGER terminal. (☞ page 18)*

## STATUS DISPLAY

Selects whether or not to display the status. (☞ page 9)
**Setting value:** ON, OFF

*NOTE:*
*• While this item is set to "ON," warning messages except "Control lock on!" do not appears.*

## CONTROL LOCK

Turns on (or off) the control lock function to disable the buttons on the front panel.
**Setting value:** ON, OFF

*NOTE:*
*• The following operations are available while this function is activated:*
*– Turning on/off the monitor*
*– Displaying the SET-UP MENU (by pressing CHROMA/PHASE button while pressing the MENU button) and turning "CONTROL LOCK" to "OFF"*
*– Operating the monitor by the external control*
*If you try other operations, "Control lock on!" appears on the screen.*

## HOUR METER X100h

Shows the total hours of use.
*NOTE:*
*• The hour is shown in 100-hour unit.*
*• The hour is reset to "000" after the total hours of use have reached to "999."*
*• Use time less than 1 hour is not accumulated.*

# 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.

**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 "SYSTEM" in the "REMOTE SETTING."
☞ "REMOTE SETTING" on page 16

*NOTE:*
- *When using the make contact system, you cannot use the buttons on the front panel to utilize functions which are controlled through the MAKE/TRIGGER terminal. (When using the trigger system, you can also use those functions using the buttons on the front panel or the menu.)*
- *When using the make contact system, you cannot change the inputs using the buttons on the front panel.*

## ■ How to use the MAKE/TRIGGER terminal



*8 7 6 5 4 3 2 1*
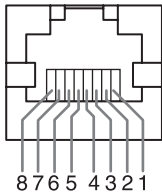
*This is a female terminal.*

| No. | Functions to be controlled | Opening | Short-circuiting *1 |
|-----|----------------------------|---------|---------------------|
| 1 | Controls the tally lamp | Off | On *2 |
| 2 | Changes color of the tally lamp | GREEN | RED |
| 3 | Changes the input to the one assigned to "PORT F3" in "REMOTE SETTING" (☞ page 16) | Invalid | Valid |
| 4 | Changes the input to the one assigned to "PORT F4" in "REMOTE SETTING" (☞ page 16) | Invalid | Valid |
| 5 | Turns on/off COLOR OFF function | Off | On |
| 6 | Changes ASPECT to 16:9 | Off | On |
| 7 | External control | Invalid | Valid *3 |
| 8 | GND | — | — |

\*1 The TRIG. (trigger) system switches each function by short-circuiting for approx. 1 second.
\*2 Tally lamp (the 1st pin terminal) must be controlled by the MAKE (make contact) system. You can control the tally lamp even when the external control (the 7th pin terminal) is invalid.
\*3 External control (the 7th pin terminal) must be controlled by the MAKE (make contact) system.

**Operation**
1. Short-circuit the 7th pin terminal (External control) to the 8th pin terminal (GND) so that the monitor can be controlled externally.
2. **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.

*NOTE:*
- *When controlling No. 3 and 4 pin terminals by the MAKE (make contact) system, only the terminal in use must be short-circuited. (Another terminal 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 solves 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 |
|---|---|---|---|
| No power supply | Is the power plug loosened or disconnected? | Firmly insert the power plug. | — |
| No picture with the power on | Is the signal cable disconnected? | Connect the signal cable firmly. | 10, 11 |
| | 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. | 9 |
| | Is the input signal adapted to the monitor's specification? | Check if the input signal format is acceptable to the monitor. | 21 |
| "OTHERS" or "Out of range" appears. | Is the input signal adapted to the monitor's specification? | Check if the input signal format is acceptable to the monitor. | 21 |
| "NO SYNC" appears. | Is the signal cable disconnected? | Connect the signal cable firmly. | 10, 11 |
| | Is the input selected correctly? | Select the correct input with the INPUT SELECT buttons. | 9 |
| | 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. | — |
| No sound | Is the signal cable disconnected? | Connect the signal cable firmly. | 10, 11 |
| | Is the signal being output from the connected component? | Turn on the power of the connected component and set the output correctly. | — |
| | Is the volume set to minimum? | Adjust the volume level. | 8 |
| Wrong color, no color | Has the picture adjustment been changed? | Adjust the picture by using the buttons on the front panel or the items in "PICTURE SUB ADJ." in the SET-UP MENU. Or, perform "reset" in "PICTURE SUB ADJ." | 8, 16 |
| | Has the white balance setting been changed? | Change "COLOR TEMP." in the SET-UP MENU. Or, perform "all reset" in the MAIN MENU. | 14, 16 |
| | Is the correct color system selected? | Set "COLOR SYSTEM" correctly in the MAIN MENU. | 14 |
| | Has the BLUE CHECK/COLOR OFF button been pressed? | Press the BLUE CHECK/COLOR OFF button to resume normal display. | 9 |
| Unnatural picture | Has "CONTRAST" or "BRIGHT" been changed? | Adjust picture contrast or brightness by using the buttons on the front panel. Or, adjust "CONTRAST" or "BRIGHT" in "PICTURE SUB ADJ." in the SET-UP MENU. | 8, 16 |

# Troubleshooting (cont.)

| Problems | Points to be checked | Measures (Remedy) | Reference pages |
|---|---|---|---|
| **Wrong picture position, wrong picture size** | Has the picture position or size been changed? | Adjust the picture size (H. SIZE/V. SIZE) or position (H. POSI./V. POSI.) in "SIZE/POSI. ADJ. (USER)" in the SET-UP MENU. | 16 |
| | | For some signals, the picture cannot be displayed fully in the effective screen area. There is no sure method to solve this problem. | — |
| | Is the input signal adapted to the monitor's specification? | Check if the input signal format is acceptable to the monitor. | 21 |
| | Has the SCAN SIZE button been pressed? | When "100%" is selected, select "USER" and adjust "SIZE/POSI. ADJ. (USER)" in the SET-UP MENU. If this does not work, select "OVER." | 8, 16 |
| | | When "1:1" is selected, select "OVER." | 8 |
| | Has the ASPECT button been pressed? | Press the ASPECT button to select "4:3." | 9 |
| **Some items do not appear on the menu.** | 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. | — |
| **The buttons on the front panel do not function.** | Is "CONTROL LOCK" in the SET-UP MENU set to "ON"? | Set it to "OFF." | 17 |
| | Has the monitor's setting been changed to enable control by the external control connected to the REMOTE terminal? | Disable the external control. | 18 |

---

**The following are not malfunctions:**
- When a still image is displayed for a long time, it may remains on the screen after the picture changes. This is due to the characteristics of the LCD display and is not malfunction. The remaining picture will disappear after a while.
- The red spots, blue spots and green spots on the panel surface are a normal characteristic of LCD displays, and not a problem. The LCD display is built with very high precision technology, however, be aware that a few pixels may be missing or constantly lit.

**The following symptoms are problems only when pictures or sounds are not played back normally:**
- A slight electric shock occurs when you touch the monitor.
- The top and/or rear panel of the monitor becomes hot.
- The monitor emits a cracking noise.
- The monitor emits a mechanical noise.

# Specifications

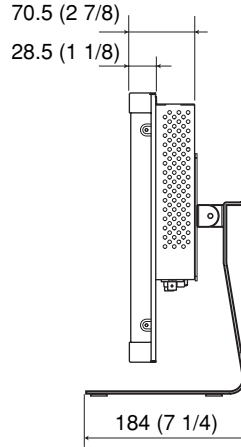| Model | TM-15L1D | | |
|---|---|---|---|
| **Type** | LCD Display Monitor | | |
| **LCD panel** | 15", active matrix TFT | | |
| **Effective Screen Size** | Width: 304.1 mm (11 15/16")<br>Height: 228.1 mm (8 15/16") | | |
| **Number of Pixels Displayed** | 1024 x 768 | | |
| **Horizontal/vertical Frequency** | H: 15.625 kHz/15.734 kHz<br>V: 50 Hz/59.94 Hz | | |
| **Input/Output Terminals** | Video | **VIDEO 1** | Composite video: 1 line, BNC connector x 2, 1 V(p-p), 75 Ω<br>* The input (IN) and output (OUT) terminals are bridge-connected. (Auto termination) |
| | | **VIDEO 2** | |
| | | **COMPONENT** | Component video:<br>  mini D-sub 15-pin x 1<br>  Y: 1 V(p-p), 75 Ω (including sync)<br>  Cb, Cr: 0.7 V(p-p), 75 Ω |
| | | **SDI 1** | SD SDI: 1 line, BNC connector x 1 |
| | | **SDI 2** | |
| | | **SDI SW. OUT** | SD SDI: 1 line switched out, BNC connector x 1 |
| | Audio | **AUDIO 1 (VIDEO)** | Analog audio:<br>  1 line, RCA connector x 1,<br>  500 mV (rms), high impedance |
| | | **AUDIO 2 (VIDEO)** | |
| | | **AUDIO (COMPONENT)** | |
| | | **AUDIO 1 (SDI)** | |
| | | **AUDIO 2 (SDI)** | |
| **Compliant Video Signal Format** | VIDEO 1/VIDEO 2 teminal:  NTSC, PAL, B/W (50 Hz/60 Hz)<br>COMPONENT teminal:  480/60i, 576/50i<br>SDI 1/SDI 2 teminal:  SD SDI signal (compliant with SMPTE259M and ITU-R BT.656) | | |
| **Audio Output** | Internal: 1 W (monaural) | | |
| **Environmental Conditions** | Operating temperature: 5°C – 35°C (41°F – 95°F)<br>Operating humidity: 20% – 85% (non-condensing) | | |
| **Power Requirements** | AC 100 – 240 V, 50 Hz/60 Hz | | |
| **Rated Input Current** | 0.9 A | | |
| **Dimensions** | Width: 342 mm (13 1/2")   342 mm (13 1/2")<br>Height: 330.6 mm (13 1/8")  291 mm (11 1/2")<br>Depth: 184 mm (7 1/4")   70.5 mm (2 7/8")<br>   (with the stand)   (without the stand) | | |
| **Weight** | 6.3 kg (13.9 lbs) (including the stand)<br>3.7 kg (8.1 lbs) (excluding the stand) | | |
| **Accessory** | AC power cord, Female BNC → mini D-sub 15 pin conversion cable x 1 | | |

# Specifications (cont.)
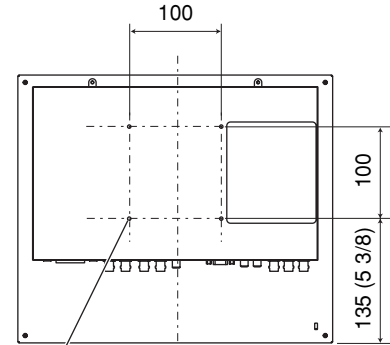
## ■ Dimensions

*Unit : mm (inch)*

*Front View*

342 (13 1/2)

291 (11 1/2)

330.6 (13 1/8)* / 295.6 (11 3/4)**

280 (11 1/8)
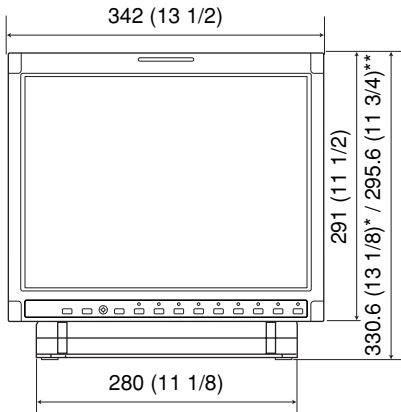
\* at the higher position
\*\* at the lower position

*Side View*

70.5 (2 7/8)

28.5 (1 1/8)

184 (7 1/4)

*Rear View (without the stand)*

100

100

135 (5 3/8)

VESA mounting holes
(Size: M4, depth: 10 mm)

**Specification of the COMPONENT terminal (mini D-sub 15-pin)**

10 9 5 4 3 8 2 1 7 6

15 14 13 12 11
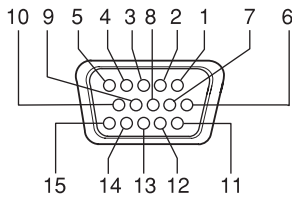
| Pin No. | Input signal | Pin No. | Input signal |
|---------|--------------|---------|--------------|
| 1 | Cr | 9 | NC |
| 2 | Y | 10 | NC |
| 3 | Cb | 11 | NC |
| 4 | NC | 12 | NC |
| 5 | GND | 13 | NC |
| 6 | Cr-GND | 14 | NC |
| 7 | Y-GND | 15 | NC |
| 8 | Cb-GND | External | GND |

\* 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.
\* Design and specifications are subject to change without notice.
\* All company names and product names mentioned herein are used for identification purposes only, and may be the trademarks or registered trademarks of their respective companies.