SONY

3-759-190-21 (1)

Trinitron® Color Video Monitor

# PVM-2950Q
# PVM-2950QM

English Français Deutsch Español Italiano

## Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

## Mode d'emploi

Avant la mise en service de cet appareil, prière de lire attentivement ce mode d'emploi et de le conserver pour tout référence ultérieure.

## Bedienungsanleitung

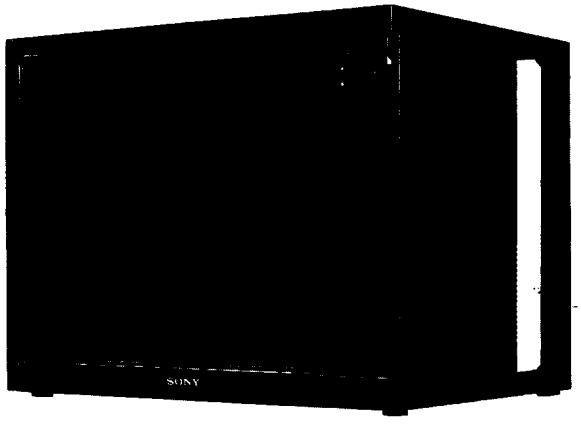
Vor der Inbetriebnahme lesen Sie diese Anleitung sorgfältig durch und bewahren Sie sie zum späteren Nachschlagen auf.

## Manual de instrucciones

Antes de utilizar la unidad, lea este manual detenidamente y consérvelo para futuras referencias.

## Istruzioni per l'uso

Prima di usare l'apparecchio, leggere con attenzione questo manuale e conservarlo per riferimenti futuri.




## Owner's Record

The model and serial numbers are located on the rear.
Record the model and serial numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No._____ Serial No._____

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# WARNING

**To prevent fire or shock hazard, do not expose the unit to rain or moisture.**

## For the customers in the U.S.A

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.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

## For the customers in Canada

This apparatus complies with the Class A limits for radio noise emissions set out in Radio Interference Regulations.

## For PVM-2950QM users

**THIS APPARATUS MUST BE EARTHED**

**IMPORTANT**

The wires in this mains lead are coloured in accordance with the following code:

| | |
|---|---|
| **Green-and-yellow** | **: Earth** |
| **Blue** | **: Neutral** |
| **Brown** | **: Live** |

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

The socket-outlet should be installed near the equipment and be easily accessible.

# Precautions

## On safety

- Operate the unit on 100 – 120 V AC (PVM-2950Q) or 220 – 240 V (PVM-2950QM).
- The nameplate indicating operating voltage, power consumption, etc. is located on the rear.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for several days or more.
- To disconnect the AC power cord, pull it out by grasping the plug. Never pull the cord itself.

## On installation

- Allow adequate air circulation to prevent internal heat build-up.
  Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

## On cleaning

To keep the unit looking brand-new, periodically clean it with a mild detergent solution. Never use strong solvents such as thinner or benzine, or abrasive cleansers since these will damage the cabinet. As a safety precaution, unplug the unit before cleaning it.

## On repacking

Do not throw away the carton and packing materials. They make an ideal container in which to transport the unit. When shipping the unit to another location, repack it as illustrated on the carton.

If you have any questions about this unit, contact your authorized Sony dealer.

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# Features

### Trinitron picture tube
The Trinitron picture tube provides a flat and high resolution picture. Horizontal resolution is more than 600 TV lines at the center of the picture.

### Four color systems available
The monitor can display NTSC, PAL*, SECAM, NTSC$_{4.43}$** signals. The appropriate color system is selected automatically.

* If you set PAL to ON in the menu, the monitor can also display the PAL60 signal.

** The NTSC$_{4.43}$ signal is used for playing back NTSC recorded video cassettes with a video tape recorder/ player especially designed for use with this system.

### Index number
You can operate a specific monitor among several monitors by using the index number features.

### On-screen menus
You can adjust the settings by using the on-screen menus.

### Control S
The CONTROL S signal allows remote control of several monitors and a VCR through a single monitor.

### Blue only mode
In this mode, only a blue signal is displayed on the screen turning off the red and green signals. This facilitates color saturation and phase adjustments.

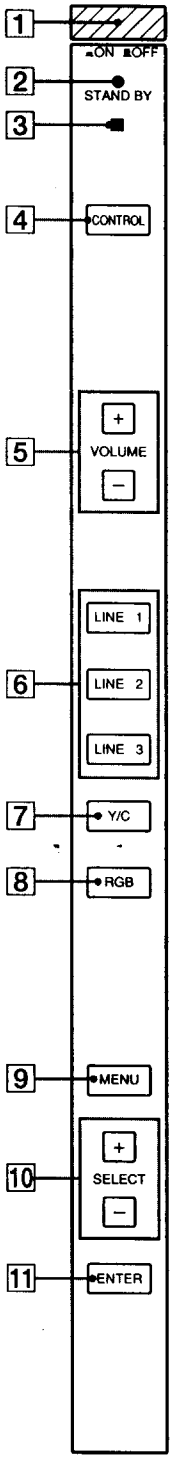
### RGB/component input connectors
RGB or component (Y,R-Y,B-Y) signals from video equipment can be input through these connectors.

### Y/C input connector
The video signal, split into the chrominance signal (C) and the luminance signal (Y), can be input through this connector, eliminating the interference between the two signals, which tends to occur in a composite video signal, assuring video quality.

This manual covers PVM-2950Q and PVM-2950QM. The model number is located on the rear.
The operating procedures of all models are the same.

# Location and function of parts and controls

## Front panel




1 **POWER switch**
Press to turn the monitor on. Press again to turn it off.

2 **STANDBY indicator**
Lights up when the monitor is turned off with the remote commander.

3 **Remote sensor**
Receives the beam from the remote commander.

4 **CONTROL key**
To operate the keys on the front panel, first press this key. Then the keys light up or flash that shows they can be operated. Press again to deactivate them.

5 **VOLUME +/– keys**
Press to obtain the desired volume.

6 **LINE 1, LINE 2, LINE 3 keys***
Press to select the line inputs.

7 **Y/C key***
Press to select the Y/C input of LINE 1 or LINE 2.

8 **RGB key***
Press to select the RGB input of LINE 3.

9 **MENU key**
Press to make the menu appear or to go to the following menu.

10 **SELECT +/– key**
Press to move the cursor (▶) to an item or to adjust value in a menu.

11 **ENTER key**
Press to select the desired item in a menu.

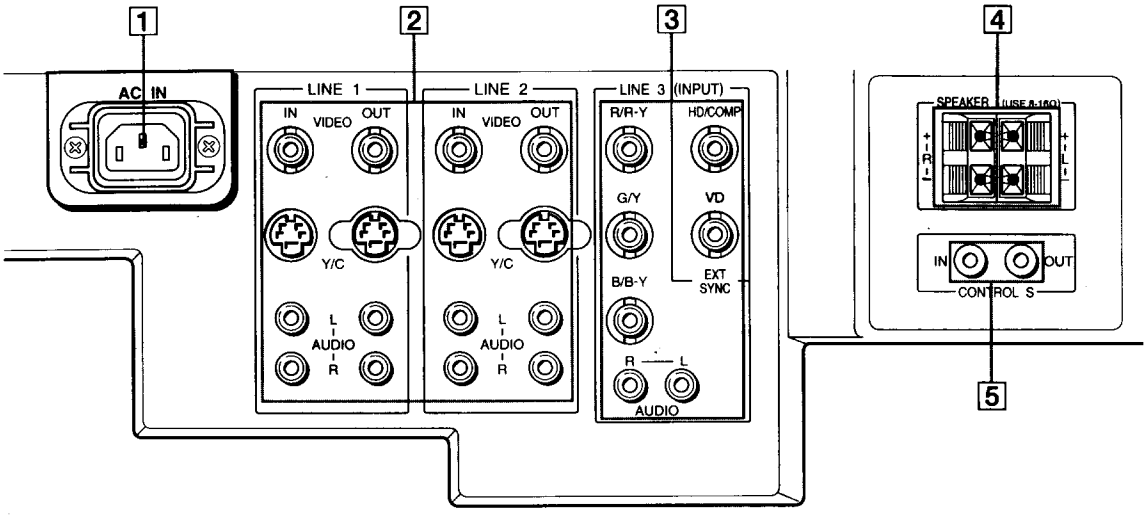
* Each key acts as follows.

| CONTROL | On | Off |
|---|---|---|
| Selected key | Flash | Light up |
| Not selected key | Light up | Light off |

**Note**

If the picture disappears suddenly and the STAND BY indicator flashes, there may be a failure in the monitor. Unplug the unit and call your authorized Sony dealer.

## Rear panel




**1 AC IN socket**
Connect the supplied AC power cord to this socket and to a wall outlet.

**2 LINE 1, LINE 2 connectors**

**VIDEO IN (BNC)**
Connect to the video output of video equipment, such as a VCR or a color video camera. For a loop-through connection, connect to the video output of another monitor.
**VIDEO OUT (BNC)**
Loop-through output of the VIDEO IN connector. Connect to the video input of a VCR or another monitor.
**Y/C IN (4-pin mini DIN)**
Connect to the Y/C separate output of a video camera, VCR or other video equipment.
**Y/C OUT (4-pin mini DIN)**
Loop-through output of the Y/C IN connector. Connect to the Y/C separate input of a VCR or another monitor.
**AUDIO IN (phono)**
Connect to the audio output of a VCR or to a microphone via a suitable microphone amplifier. For a loop-through connection, connect to the audio output of another monitor.
**AUDIO OUT (phono)**
Loop-through output of the AUDIO IN jack. Connect to the audio input of a VCR or another monitor.

**3 LINE 3 connectors**

**R/R-Y IN, G/Y IN, B/B-Y IN (BNC)**
When the RGB input is selected (RGB key on the front panel is lit), connect to the RGB signal outputs of a video camera. When the R-Y, G/Y, B-Y input is selected (RGB key is not lit), connect to the R-Y/Y/B-Y component signal outputs of a Sony Betacam video camera.
**HD/COMP (BNC)**
Connect to the H sync signal or composite sync signal output.
**VD (BNC)**
Connect to the V sync signal output.

**Note**

External sync signal is selected automatically. See the priority chart below.

| Input connector | Input sync signals | | |
|---|---|---|---|
| HD/COMP | H Sync | Comp Sync | — |
| VD | V Sync | — | — |
| G | Sync on G | Sync on G | Sync on G |
| Sync signals to be selected | H Sync<br>V Sync | Comp Sync | Sync on G |

**AUDIO IN (phono)**
Connect to the audio output of a VCR.

**4 SPEAKER L/R terminals**
Connect to speakers with 8 to 16 ohms impedance.

**Note**

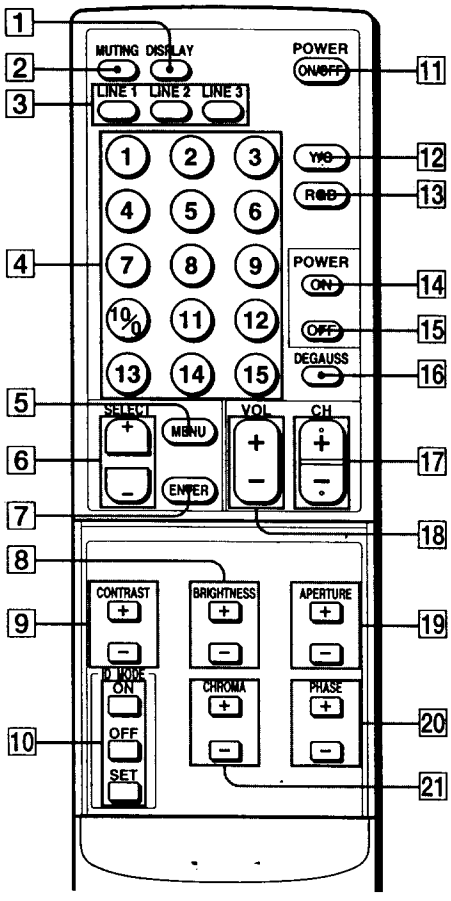
Do not connect the speaker's cord to the monitor and to an amplifier simultaneously, or an excessive electric current might flow from the amplifier and damage the monitor.

**5 CONTROL S IN/OUT connectors**
Connect to the CONTROL S connectors of a VCR or several monitors. Then you can control the system with a single remote commander.

**Note**

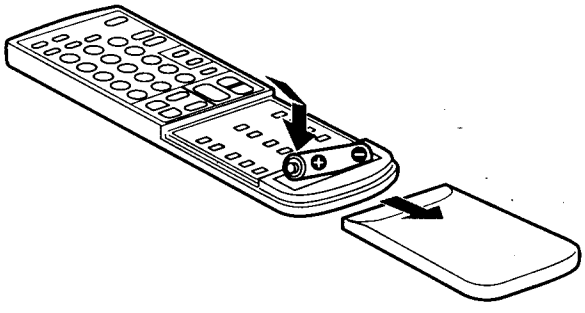
If you connect CONTROL S IN to the other equipment's CONTROL S OUT connector, you cannot operate the monitor with the supplied remote commander.

## Remote commander




### Installing battery

Insert a size AA (R6) battery in correct polarity.



**Notes**

- In normal operation, a battery will last up to half a year. If the remote commander does not operate properly, the battery might be exhausted. Replace it with new one.
- To avoid damage from possible battery leakage, remove the battery if you do not plan to use the remote commander for a fairly long time.

**1 DISPLAY button**
Press to display the color system and the selected line input.

**2 MUTING button**
Press to mute the sound.

**3 LINE 1/LINE 2/LINE 3 buttons**
Press to choose the line input.

**4 Number buttons**
Press to select the index number. Cannot use the ⑪ to ⑮ buttons with the monitor.

**5 MENU button**
Press to make the menu appear or to go to the following menu.

**6 SELECT +/– buttons**
Press to move the cursor (▶) to an item or to adjust value in a menu.

**7 ENTER button**
Press to select the desired item in a menu.

**8 BRIGHTNESS +/– buttons**
Press the + button to make the picture brighter or the – button to make it darker.

**9 CONTRAST +/– buttons**
Press the + button to increase the contrast or the – button to decrease it.

**10 ID MODE buttons**
Press ON to make an index number appear on the screen. Then press the index number of the monitor you want to operate and press SET. After you finish the operation, press OFF to return to the normal mode.

**11 POWER ON/OFF button**
Press to turn on the monitor. Press again to turn it off.

**12 Y/C button**
Press to select the Y/C input of LINE 1 or LINE 2.

**13 RGB button**
Press to select the RGB input of LINE 3. If you do not press this button (RGB key is not lit), the component input is selected on LINE 3.

**14 POWER ON button**
Press to turn on the monitor. Use this button instead of the POWER ON/OFF button when you do not want to let another monitor be affected.

**15 POWER OFF button**
Press to turn off the monitor. Use this button instead of the POWER ON/OFF button when you do not want to let another monitor be affected.

16 **DEGAUSS button**
Press to demagnetize the screen. Wait for 10 minutes or more before activating this feature again. The same interval is needed after turning on the monitor.

17 **CH +/– buttons**
(Cannot use these buttons with the monitor.)

18 **VOL +/– buttons**
Press to obtain the desired volume.

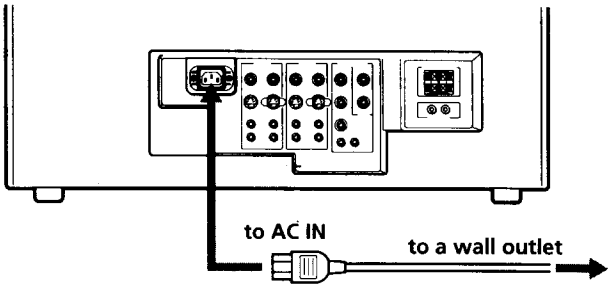
19 **APERTURE +/– buttons**
Press the + button for more sharpness or the – button for less sharpness. (This adjustment has no effect on the pictures of RGB signals.)

20 **PHASE +/– buttons**
Press the + button to make the skin tones greenish or the – button to make them purplish. (NTSC signal only)

21 **CHROMA +/– buttons**
Press the + button to increase the color intensity and the – button to decrease it. (This adjustment has no effect on the pictures of RGB signals.)

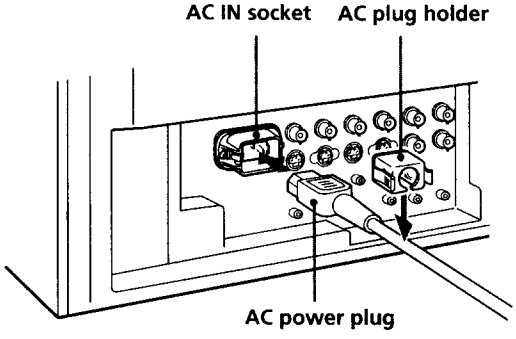
# Power sources

Connect the AC power cord (supplied) to the AC IN socket and to a wall outlet.

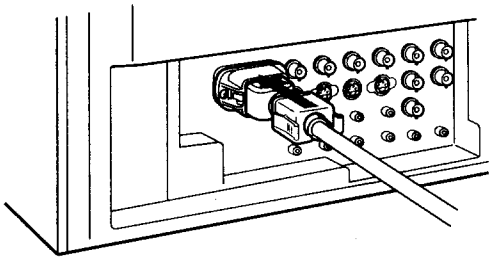



## To connect an AC power cord securely with an AC plug holder

**1** Plug the power cord into the AC IN socket. Then, attach the AC plug holder (supplied) to the AC power cord.




**2** Slide the AC plug holder over the cord until it connects to the attached holder.



## To remove the AC power cord

Squeeze the left and right sides and pull out the AC plug holder.

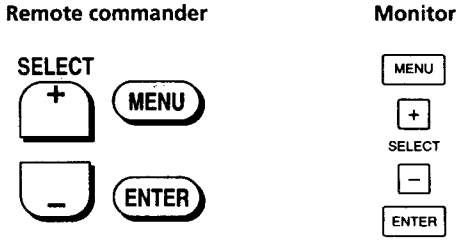
English

# Using on-screen menus

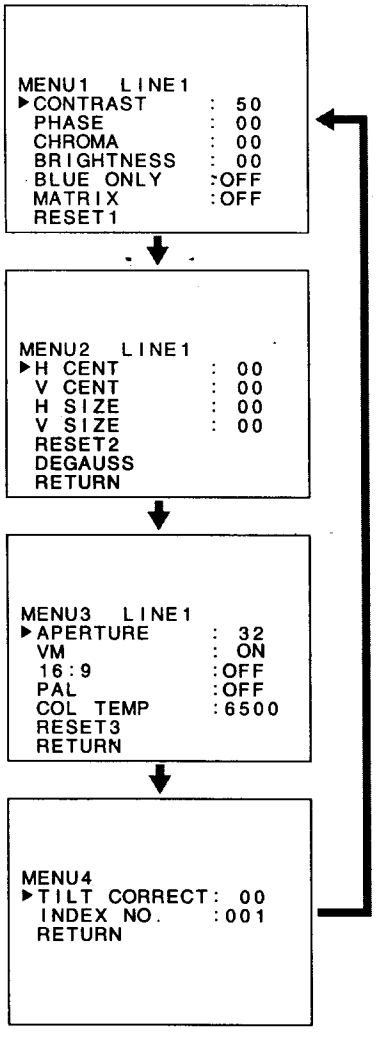
## Operating through menus

There are four buttons (keys) on the monitor and the remote commander for menu operations.
To display a menu, first press MENU. Press + or – to move the cursor (▶) and press ENTER to select an item.
To return to the normal screen, press the selected line input button (key).

### Menu operating buttons



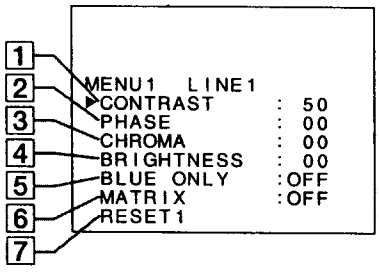

Each time you press MENU, the screen changes as shown below. For details see the following guide.




## Menu guide

You can adjust the picture for each line input. Select the line input by pressing the line input button (key) before making adjustments.
The items on Menu 4 are common for all line inputs.

### Menu 1




**1 CONTRAST**
Press + to increase the contrast and press – to decrease it.

**2 PHASE**
Press + to make the skin tones greenish and press – to make them purplish. (NTSC signal only)
(Set MATRIX to OFF when adjusting this item.)

**3 CHROMA**
Press + to increase the color intensity and press – to decrease it.
(Set MATRIX to OFF when adjusting this item.)

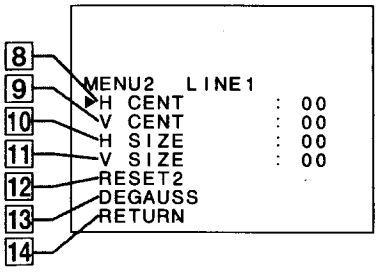
**4 BRIGHTNESS**
Press + to make the picture brighter and press – to make it darker.

**5 BLUE ONLY**
Select ON to turn off the red and green signals. Only a blue signal is displayed on the screen. This facilitates "chroma" and "phase"(NTSC signal only) control adjustments.

**6 MATRIX**
Select ON to activate the matrix circuit that may correct skin tones. (NTSC signal only)

**7 RESET1**
Select to restore the factory settings in MENU 1.

## Menu 2




**8 H CENT**
Adjusts the horizontal centering. Press + to move the picture to the right and press – to move it to the left.

**9 V CENT**
Adjusts the vertical centering. Press + to move the picture up and press – to move it down.

**10 H SIZE**
Adjusts the horizontal picture size. Press + to enlarge the horizontal size and press – to diminish it.

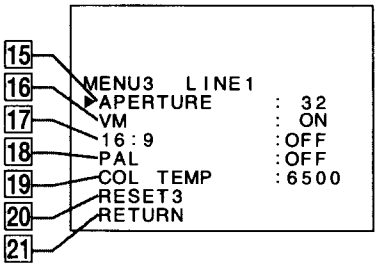
**11 V SIZE**
Adjusts the vertical picture size. Press + to enlarge the vertical size and press – to diminish it.

**12 RESET2**
Select to restore the factory settings in MENU 2.

**13 DEGAUSS**
Select to demagnetize the screen. Wait for 10 minutes or more before activating this feature again. The same interval is needed after turning on the monitor.

**14 RETURN**
Select to return to the MENU 1 screen.

## Menu 3




**15 APERTURE**
Adjusts the picture sharpness. Press + for more sharpness or press – for less sharpness. (This adjustment has no effect on the pictures of RGB signals.)

**16 VM**
Select ON to emphasize sharpness and to reproduce a clear picture. (This adjustment has no effect on the pictures of RGB signals.)

**17 16:9**
Select ON for a 16:9 picture signal.

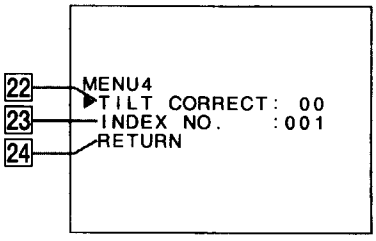
**18 PAL**
Select ON when the monitor does not recognize the PAL signal. (You must select ON when the PAL60 signal is input.)

**19 COL TEMP**
Select the color temperature from among 9300K, 6500K and 3200K.

**20 RESET3**
Select to restore the factory settings in MENU 3.

**21 RETURN**
Select to return to the MENU 2 screen.

## Menu 4




**22 TILT CORRECT**
Adjusts the picture tilt due to the influence of the earth's magnetism. Press + to rotate the picture clockwise and press – to rotate it counterclockwise.

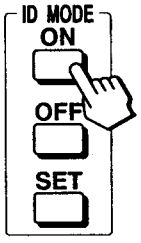
**23 INDEX NO.**
Sets the index number of the monitor. You cannot set the number with the remote commander. Use the keys on the monitor. For more information about the index number, see "Operating a specific monitor with the remote commander."

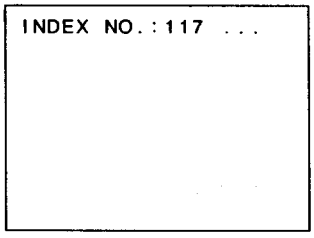
**24 RETURN**
Select to return to the MENU 3 screen.

# Operating a specific monitor with the remote commander

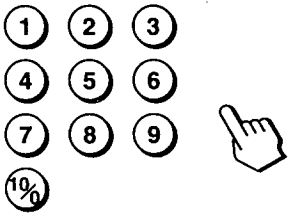
By following procedure, you can operate a specific monitor with the remote commander without affecting other monitors that are installed together.

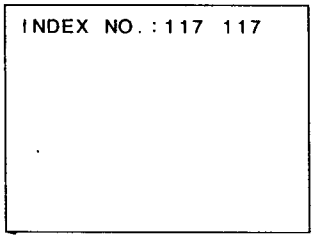
**1 Press ID MODE ON on the remote commander.**
Monitor index numbers appear in white characters on all the monitors. (Every monitor has its own index number from 1 to 255 as factory preset.)



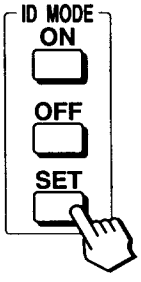




**2 Input the index number of the monitor you want to operate using 0 – 9 buttons of the remote commander.**
The input number appears right next to each monitor's own index number.



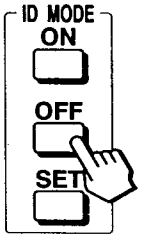




**3 Press ID MODE SET.**
The character on the selected monitor changes to cyan while others change to red.




Now you can operate only a specified monitor. (All operations available in ID mode except POWER ON/OFF.)

**4 After necessary adjustment, press ID MODE OFF.**
The monitor returns to the normal mode.




### To change the index number

You can change the index number if necessary. You cannot change the number with the remote commander. Use the keys on the monitor.

1 Display MENU 4 screen with pressing the MENU button.

2 Select INDEX NO. and press ENTER.

3 Select the index number with the SELECT +/– buttons and press ENTER.

# Specifications

## Video signal

| | |
|---|---|
| Picture tube | 29" Super Trinitron tube<br>Visible picture size: 675 mm<br>(27" measured diagonally)<br>AG pitch: 0.70 – 0.85 mm<br>Anti-glare & Anti-static |
| Color system | NTSC, PAL, SECAM, NTSC$_{4.43}$, PAL60 |
| Resolution | 600 TV lines at the center |
| Frequency response | VIDEO: 7 MHz (–3 dB)<br>S VIDEO: 8 MHz (–3 dB)<br>RGB: 10 MHz (–3 dB) |

## Picture performance

| | |
|---|---|
| Color temperature | 9300K/6500K (standard)/3200K switchable |
| Line pull range | Horizontal: ± 500 Hz<br>Vertical: –8 Hz |
| Overscan | 7% preset (± 3% variable) |
| Zooming | Within 5% |

## Inputs and Outputs

| | |
|---|---|
| VIDEO IN | BNC connector<br>1 Vp-p, sync negative<br>75-ohm (auto), loop through |
| Y/C IN | 4-pin mini DIN connector<br>Y: 1 Vp-p,sync negative<br>C: 0.286 Vp-p (burst signal) (NTSC)<br>0.3 Vp-p (PAL)<br>75-ohm (auto), loop through |
| AUDIO IN (L,R) | Phono jack<br>–5 dBs high impedance,<br>loop through |
| R/R-Y, G/Y, B/B-Y IN | BNC connector<br>R, G, B channels: 0.714 Vp-p,/non-composite, 75-ohm terminated (525 lines)<br>0.7 Vp-p/non composite, 75-ohm terminated (625 lines)<br>1 Vp-p/composite, 75-ohm terminated<br>Y channel: 1.0 Vp-p/composite, 75-ohm terminated<br>0.7 Vp-p/non composite, 75-ohm terminated<br>R-Y, B-Y channels: 0.7 Vp-p, 75-ohm terminated |
| Sync input | BNC connector<br>H (or composite) SYNC, V SYNC,<br>0.5 – 5 Vp-p, 75-ohm terminated |
| Speaker output | 8 – 16 ohm, 7 W + 7 W |

## General

| | |
|---|---|
| Power requirements | PVM-2950Q<br>100 – 120 V AC, 50/60 Hz,<br>MAX. 3.7 A<br>PVM-2950QM<br>220 – 240 V AC, 50 – 60 Hz,<br>MAX. 1.2 A |
| Operating temperature range | 0 – 35°C (32 – 95°F) |
| Dimensions | 687 × 538 × 529 mm (w/h/d)<br>(27 1/8 × 21 1/4 × 20 7/8 inches) |
| Mass | 52 kg (114 lb 10 oz) |
| Supplied accessories | AC power cord (1)<br>AC plug holder (1)<br>Remote commander RM-854 with a battery (1) |
| Optional accessories | |
| Speaker system | SS-X6A |
| TV tuner | ST-92TV (USA only) |