

Trinitron® Color Graphic Monitor

Operating Instructions	EN
Mode d'emploi	F
Bedienungsanleitung	D
Manual de instrucciones	E
Istruzioni per l'uso	I
取扱説明書	J

お買い上げいただきありがとうございます。



電気製品は安全のための注意事項を守らないと、
火災や人身事故になることがあります。

この取扱説明書には、事故を防ぐための重要な注意事項と製品の取り扱い方を示しています。この取扱説明書をよくお読みのうえ、製品を安全にお使いください。お読みになったあとは、いつでも見られるところに必ず保管してください。

Trinitron
PGM-200R1A
PGM-200R1E
PGM-200R1J
PGM-200R1U

WARNING

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. _____

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 class A digital apparatus meets all requirements of the Canadian interference-Causing Equipment Regulations.

For PGM-200R1A / 200R1E 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 \perp 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 120 V AC (PGM-200R1U) or 220 to 240 V AC (PGM-200R1A/200R1E). Check that VOLTAGE SELECTOR on the rear panel is set to an appropriate position before using the monitor.
- 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.
- When you install the monitor in a poorly ventilated location, we recommend you to use the optional Ventilation Fan Unit BKM-202FN.

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.

Note

When you connect a computer to this monitor, attach the supplied ferrite cores. If you do not do this, this monitor will not conform to mandatory FCC/IC/CE (EN55022) standards.

Attaching the ferrite cores

Set the ferrite cores on the both ends of the AC power cord. Close the lid tightly until the clamps click.

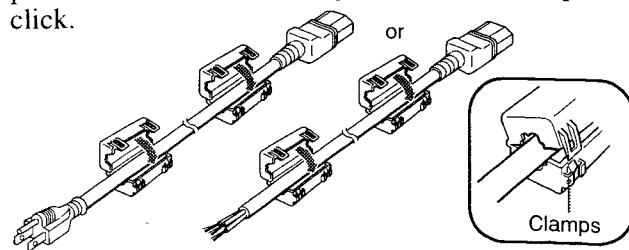


Table of contents

Precautions	2(EN)
Features	3(EN)
Location and Function of Parts and Controls	4(EN)
Front Panel	4(EN)
Rear Panel	5(EN)
Remote Commander	7(EN)
Power Sources	9(EN)
Using On-screen Menus	10(EN)
Operating Through Menus	10(EN)
Menu Guide	10(EN)
Operating a Specific Monitor With the Remote Commander ...	12(EN)
Specifications	13(EN)

Features

Trinitron¹⁾ picture tube

The Trinitron picture tube provides a flat and high resolution picture.

Receivable video modes

No.	Resolution (dots × lines)	Horizontal Frequency	Vertical Frequency	Graphics Mode
1	640 × 480	31.5 kHz	60.0 Hz	VGA ²⁾ (Graphics)
2	720 × 400	31.5 kHz	70.0 Hz	VGA (Text)
3	—	31.25 kHz	50.0 Hz	—

Notes

- The values of No. 1 in the table above are same as the NTSC signal which is doubled for each line to 31.5 kHz horizontal frequency.

- The values of No. 3 in the table above are same as the PAL signal which is doubled for each line to 31.25 kHz horizontal frequency.

ID control

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.

Warning on power connection

Use a proper power cord for your local power supply.

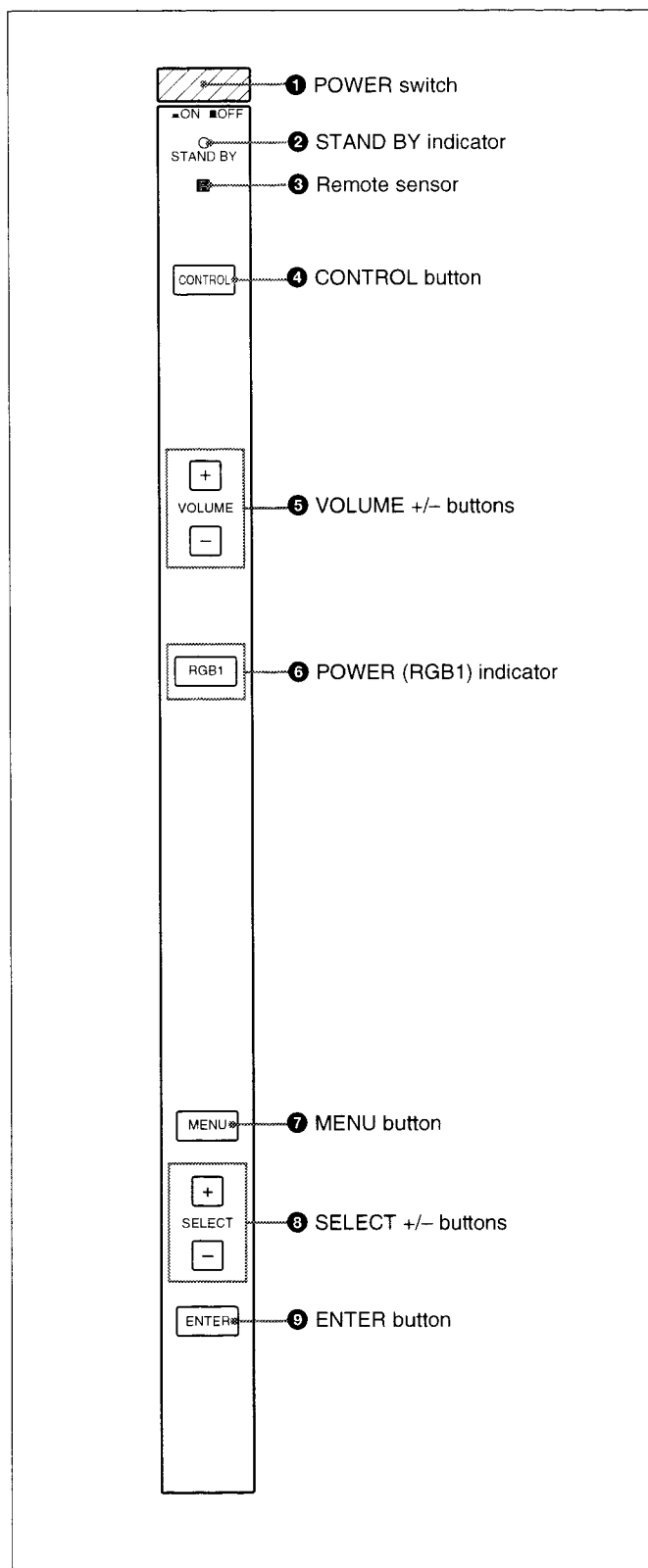
	United States, Canada	Continental Europe	United Kingdom, Ireland, Australia, New Zealand	Japan
Plug type	VM0234S	COX-07 636	—	VM1292
Female end	VM0244S	COX-02 VM0310B	VM0310B	VM1298
Cord type	SJT	H05VV-F	CEE (13) 53rd (O.C)	HVCTF
Minimum cord set rating	10A/125V	10A/250V	10A/250V	7A/120V
Safety approval	UL/CSA	VDE	VDE	DENTORI

¹⁾ Trinitron is a registered trademark of Sony corporation.

²⁾ VGA is a registered trademark of the International Business Machines Corporation, USA.

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 STAND BY 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 button

To operate the buttons on the front panel, first press this button. Then the buttons light up that shows they can be operated. Press again to deactivate them.

5 VOLUME +/- buttons

Press to obtain the desired volume.

6 POWER (RGB1) indicator

Lights up when the monitor is turned on.

7 MENU button

Press to make the menu appear or to go to the following menu.

8 SELECT +/- buttons

Press to move the cursor (►) to an item or to adjust value in a menu.

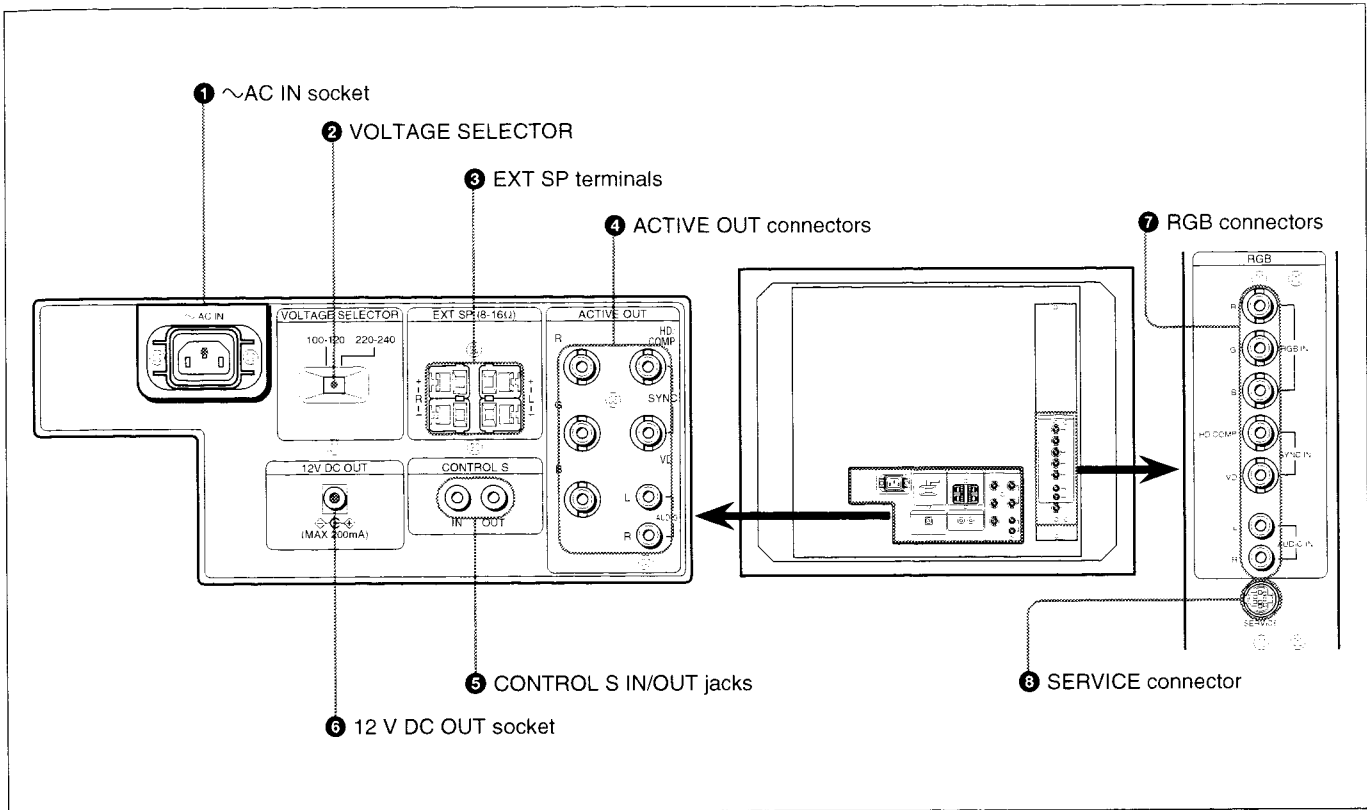
9 ENTER button

Press to select the desired item in a menu.

Notes

- If the picture disappears suddenly and the STANDBY indicator flashes, there may be a failure in the monitor. Unplug the unit and call your authorized Sony dealer.
- There is the DIN 8-pin connector under the cover on the lower-left corner of the front panel. This connector is only for qualified personnel. Do not remove the cover and the screw.

Rear Panel



① ~AC IN socket

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

② VOLTAGE SELECTOR

Set this selector to an appropriate position according to your local power supply before connecting the supplied AC power cord.

③ EXT SP (External speakers) 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.

④ ACTIVE OUT connectors

These connectors work as output (buffered) connectors of the RGB connectors ⑦ when the monitor is connected to a power source regardless of the power status.

R/G/B OUT (BNC-type): Outputs of the RGB IN connectors. Connect to the RGB signal inputs of another monitor.

SYNC HD/COMP OUT (BNC-type): Output of the SYNC IN HD/COMP connector. Connect to the H sync signal or composite sync signal input of another monitor.

SYNC VD OUT (BNC-type): Output of the SYNC IN VD connector. Connect to the V sync signal input of another monitor.

AUDIO OUT (L/R) (phono type): Outputs of the AUDIO IN jacks. Connect to the audio inputs of another monitor.

Notes

- When using the ACTIVE OUT connectors, be careful of the followings:
 - When inputting external sync signals to the unit, the sync signal level must be between 3 to 5 Vp-p.
 - Serial connections via the ACTIVE OUT connectors are available up to five units.

(Continued)

Location and Function of Parts and Controls

- SYNC HD/COMP OUT and SYNC VD OUT are high impedance outputs.
When using these outputs, it is recommended to connect a monitor with high impedance sync input connector, or the picture might disappear because of the sync signal level mismatch.

5 CONTROL S IN/OUT jacks

Connect to the CONTROL S jacks of a VCR or several monitors. Then you can control the system with a single Remote Commander.
To control the system by aiming the supplied Remote Commander to the remote sensor of the monitor, connect CONTROL S OUT of the monitor and CONTROL S IN of other equipment.

Note

If you connect CONTROL S IN to the other equipment's CONTROL S OUT jack, you cannot operate the monitor with the supplied Remote Commander.

6 12 V DC OUT socket

This socket is only used to supply the power to the optional Ventilation Fan Unit BKM-202FN. Do not connect equipment other than BKM-202FN.

7 RGB connectors

RGB IN (R/G/B) (BNC-type): Connect to the RGB signal outputs of a computer. This monitor accepts VGA signals of an IBM or compatible system equipped with a VGA.

SYNC IN HD/COMP (BNC-type): Connect to the H sync signal or composite sync signal output of a computer.

SYNC IN VD (BNC-type): Connect to the V sync signal output of a computer.

Note

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

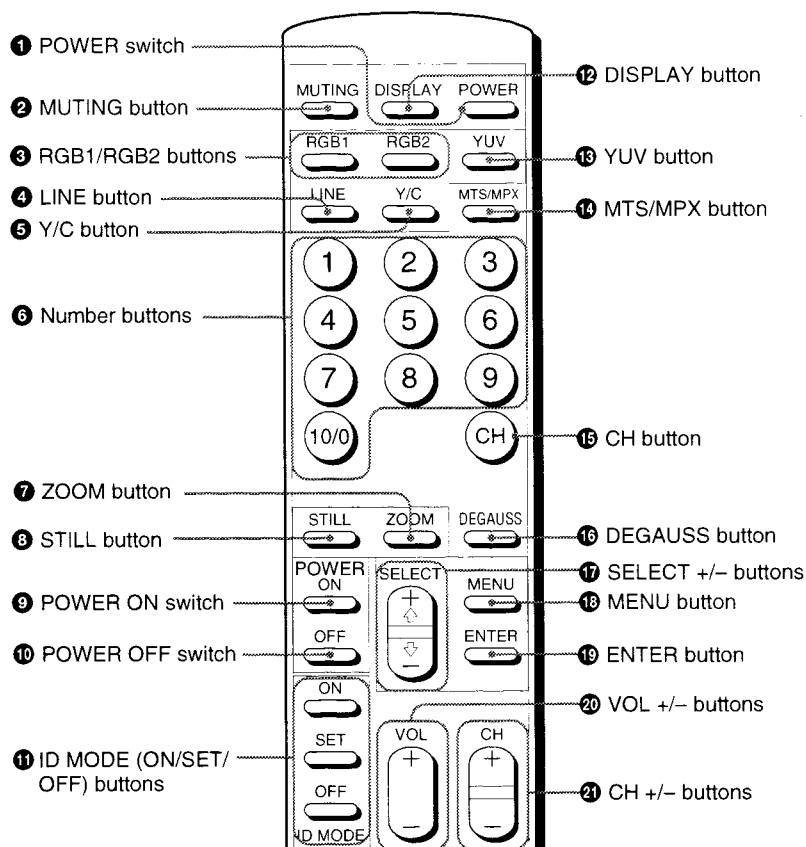
Input connector	Input sync signals		
HD/COMP IN	H Sync	Comp Sync	—
VD IN	V Sync	—	—
G(Y) IN	Sync on G	Sync on G	Sync on G
Sync signals to be selected	H Sync V Sync	Comp Sync	Sync on G

AUDIO IN (L/R) (phono type): Connect to the audio output of a computer. Connect to the channel L when the audio signal is monaural.

8 SERVICE connector (mini DIN 8-pin)

This connector is only for qualified personnel.

Remote Commander



1 POWER switch

Press to turn on the monitor. Press again to turn it off.

2 MUTING button

Press to mute the sound. Press this button again or press the VOL (volume) + button to obtain the sound again.

3 RGB1/RGB2 buttons

(This button operates only when the Scan Converter Adaptor BKM-201SC is installed into the monitor.)

4 LINE button

(This button operates only when the Scan Converter Adaptor BKM-201SC is installed into the monitor.)

5 Y/C button

(This button operates only when the Scan Converter Adaptor BKM-201SC is installed into the monitor.)

6 Number buttons

Press to select the index number.

7 ZOOM button

(This button operates only when the Scan Converter Adaptor BKM-201SC is installed into the monitor.)

8 STILL button

(This button operates only when the Scan Converter Adaptor BKM-201SC is installed into the monitor.)

9 POWER ON switch

Press to turn on the monitor. When you use multiple monitors, you can use this switch instead of the POWER switch 1 not to affect another monitor which is already turned on.

(Continued)

Location and Function of Parts and Controls

⑩ POWER OFF switch

Press to turn off the monitor. When you use multiple monitors, you can use this switch instead of the POWER switch ① not to affect another monitor which is already turned off.

⑪ ID MODE (ON/SET/OFF) 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.

⑫ DISPLAY button

(This button operates only when the Scan Converter Adaptor BKM-201SC is installed into the monitor.)

⑬ YUV button

(This button operates only when the Scan Converter Adaptor BKM-201SC is installed into the monitor.)

⑭ MTS/MPX button

(This button does not operate with the monitor.)

⑮ CH button

(This button does not operate with the monitor.)

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 SELECT +/- buttons

Press to move the cursor (▶) to an item or to adjust value in a menu.

⑱ MENU button

Press to make the menu appear or to go to the following menu.

⑲ ENTER button

Press to select the desired item in a menu.

⑳ VOL +/- buttons

Press to obtain the desired volume.

㉑ CH +/- buttons

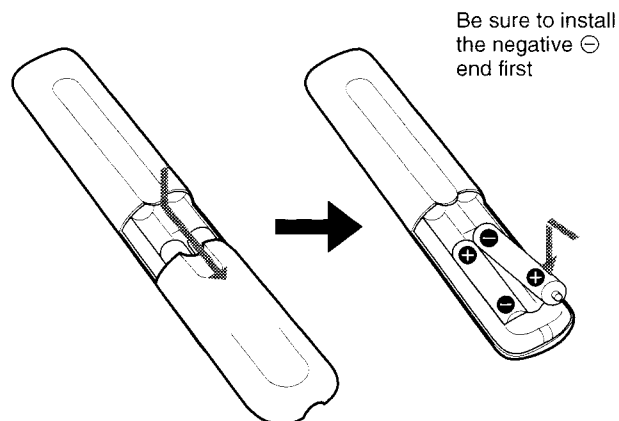
(This button does not operate with the monitor.)

Note

③-⑤, ⑦, ⑧, ⑫, ⑬ buttons are only available when installing the Scan Converter Adaptor BKM-201SC to the monitor.

Installing batteries

Insert two size AA (R6) batteries in correct polarity.

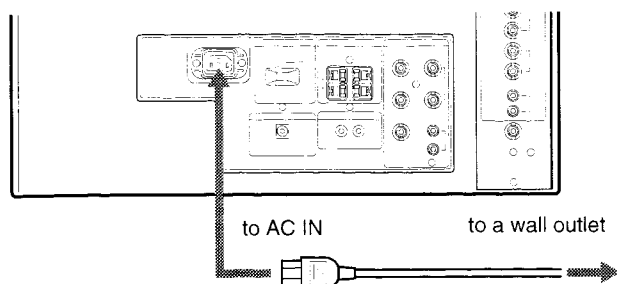


Notes

- In normal operation, batteries will last up to half a year. If the Remote Commander does not operate properly, the batteries might be exhausted. Replace them with new ones.
- To avoid damage from possible battery leakage, remove the batteries if you do not plan to use the Remote Commander for a fairly long time.
- If you connect the cable to the CONTROL S IN jack on the rear of the monitor, you cannot operate the monitor with the supplied Remote Commander.

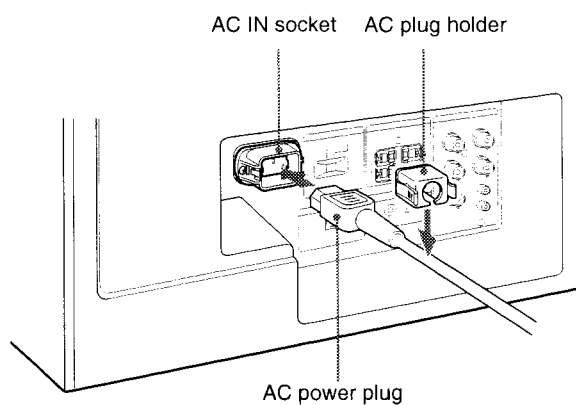
Power Sources

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

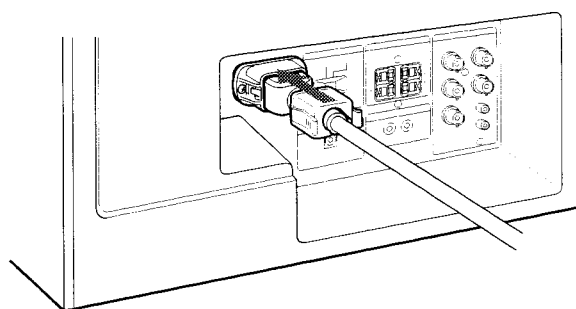


To connect an AC power cord securely with an AC plug holder

- 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.

Using On-screen Menus

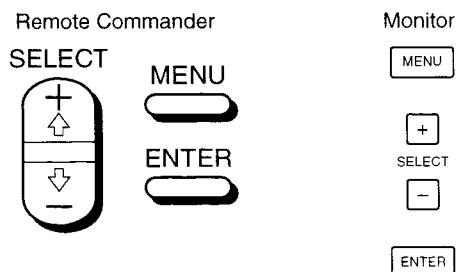
Operating Through Menus

There are four buttons on the monitor and the Remote Commander for menu operations.

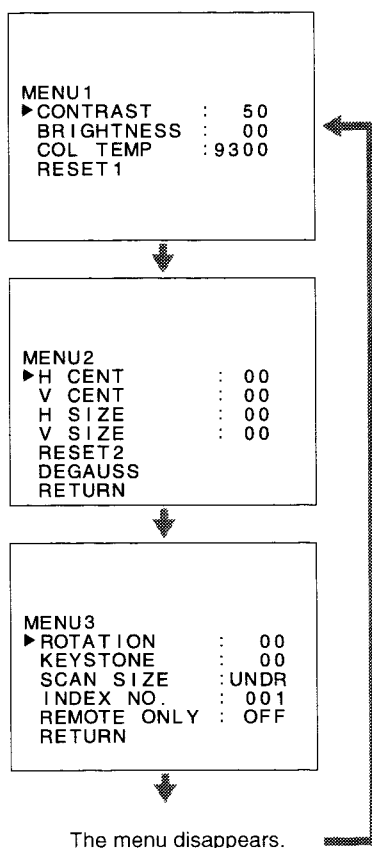
To display a menu, first press MENU. Press + or – to move the cursor (►) and press ENTER to select an item.

To return to the normal screen, press MENU repeatedly until the menu disappears.

Menu operating buttons

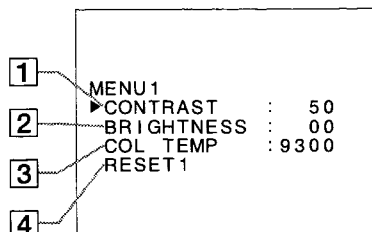


Each time you press MENU, the screen changes as shown below. For details see the following guide.



Menu Guide

Menu 1



1 CONTRAST

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

2 BRIGHTNESS

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

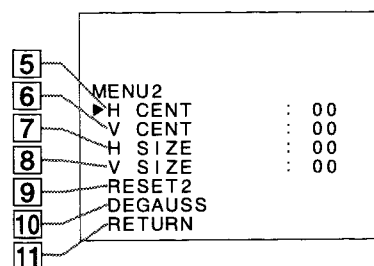
3 COL TEMP

Select the color temperature from among 9300K and 6500K.

4 RESET1

Select to restore the factory settings in MENU 1.

Menu 2



5 H CENT

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

6 V CENT

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

7 H SIZE

Adjusts the horizontal picture size. Press + to enlarge the horizontal size and press – to diminish it.

8 V SIZE

Adjusts the vertical picture size. Press + to enlarge the vertical size and press – to diminish it.

9 RESET2

Select to restore the factory settings in MENU 2.

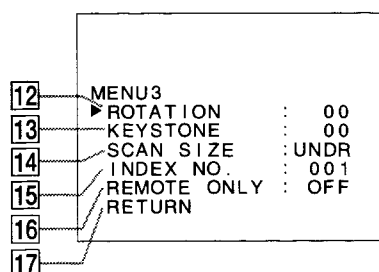
10 DEGAUSS

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.

11 RETURN

Select to return to the MENU 1 screen.

Menu 3

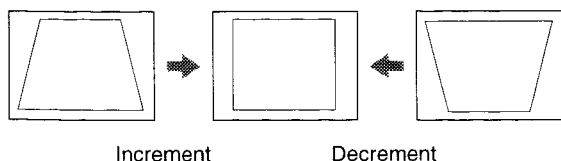


12 ROTATION

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.

13 KEYSTONE

Adjusts the vertical trapezoid distortion due to the influence of the earth's magnetism. Press + to expand the upper part and press – to expand the lower part.



14 SCAN SIZE

Select to switch scan size to either OVER (over scan) or UNDR (under scan).

This item is only available when VGA (Graphics) signal is input. In this case, the description of VGA (Graphics) signal is as follows:

- fH: 31.5 kHz
- fV: 60 Hz
- and also contains NTSC signal which is doubled for each line to 31.5 kHz horizontal frequency.

Selectable items depending on the input signal type are as follows:

	OVER (Over scan)	UNDR (Under scan)
VGA (Graphics) (31.5 kHz × 60.0 Hz)	●	●
VGA (Text) (31.5 kHz × 70.0 Hz)	—	●
Doubled PAL (31.25 kHz × 50.0 Hz)	●	—

Notes

- When VGA (Text) signal is input, SCAN SIZE is automatically set to UNDR.
- When PAL signal which is doubled for each line to 31.25 kHz horizontal frequency is input, SCAN SIZE is automatically set to OVER.

15 INDEX NO.

Sets the index number of the monitor. You cannot set the number with the Remote Commander. Use the buttons on the monitor. For more information about the index number, see "Operating a Specific Monitor with the Remote Commander" on page 12 (EN).

16 REMOTE ONLY

Select ON to disable the front control buttons on the monitor. The monitor can only be controlled with the Remote Commander. (You can then only turn on or off the power on the monitor.)

While REMOTE ONLY is ON, the indicators on the front panel go off.

The setting in this item is still retained when the AC power cord is disconnected, but it will be canceled by switching off the monitor with its main power switch.

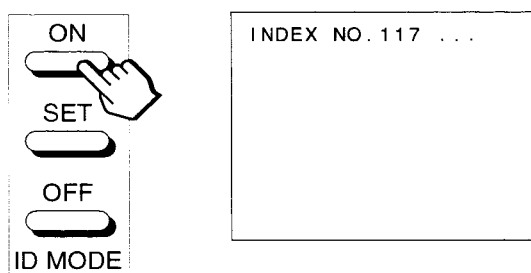
17 RETURN

Select to return to the MENU 2 screen.

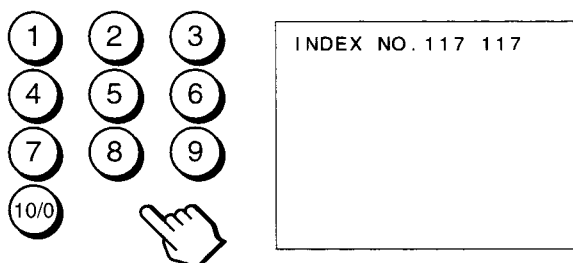
Operating a Specific Monitor With the Remote Commander

Using the supplied Remote Commander, you can operate a specific monitor without affecting other monitors that are installed together.

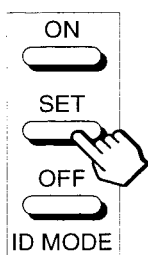
- 1 Press ID MODE ON on the Remote Commander. Monitor index numbers appear in white characters on all the monitors. (Every monitor is allocated an individual preset index number from 1 to 255. See "To change the index number" in the column to the right on this page to change the index number.)



- 2 Input the index number of the monitor you want to operate using 0 – 9 buttons on the Remote Commander. The input number appears right next to each monitor's own index number.

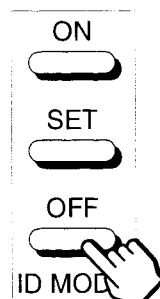


- 3 Press ID MODE SET. The character on the selected monitor changes to cyan while others change to red.



Now you can operate only a specified monitor. (All operations are 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 buttons on the monitor.

- 1 Display MENU 3 screen by pressing the MENU button.
- 2 Select INDEX NO. with the SELECT +/- buttons and press the ENTER button.

Specifications

Video signal

Picture tube	29" Super Trinitron tube
	Visible picture size: 675 mm (27") measured diagonally
	AG pitch: 0.70 – 0.85 mm
	Anti-glare and Anti-static
Frequency response	16 MHz (–3 dB)
Scanning frequency	fH 31.5 kHz, fV 60/70 Hz
	fH 31.25 kHz, fV 50 Hz

Picture performance

Color temperature	9300K (standard)/6500K switchable
Line pull range	Horizontal: ± 500 Hz
	Vertical: –8 Hz
Zooming	Within 5%

Inputs and Outputs

RGB IN (R, G, B)	BNC connector
	0.714 Vp-p/non-composite
	75-ohm
	1 Vp-p/composite
	75-ohm
SYNC IN (HD/COMP, VD)	BNC connector
	H (or composite) SYNC, V SYNC,
	1 – 5 Vp-p
	high impedance
AUDIO IN (L, R)	Phono jack
	500 mVrms high impedance
CONTROL S IN	Mini jack
	5 Vp-p
RGB OUT (R, G, B)	BNC connector
	0.714 Vp-p/non-composite 75-ohm
SYNC OUT (HD/COMP, VD)	BNC connector
	H (or composite) SYNC, V SYNC,
	5 Vp-p
	high impedance

AUDIO OUT (L, R)

Phono jack
Audio gain: ± 1.0 dB typical
Total harmonic distortion: less than 1%, 500 mVrms

CONTROL S OUT

Mini jack

5 Vp-p

12 V DC OUT $\diamond e \diamond$ 12 V DC 200 mA max.

EXT SP (External speakers output)

8 – 16 ohms, 7 W + 7 W (when the impedance is 8 ohms)

General

Power requirements

100 – 120 V AC, 50/60 Hz,

Max. 3.7 A

220 – 240 V AC, 50/60 Hz,

Max. 1.2 A

Power consumption

Max. 183W (Max. 208.5W with BKM-201SC)

Operating temperature range

0 – 35°C (32 – 95°F)

Dimensions

687 × 538 × 520 mm

(27 $\frac{1}{8}$ × 21 $\frac{1}{4}$ × 20 $\frac{1}{2}$ inches) (w/h/d)

Mass

55 kg (121 lb 4 oz)

Supplied accessories

AC power cord (1)

AC plug holder (1)

Remote Commander RM-921 with two size AA (R6) batteries (2)

Ferrite core (2)

Operating instructions (1)

Warranty card (1)

Optional accessories

Scan Converter Adaptor

BKM-201SC

Ventilation Fan Unit BKM-202FN

Speaker System SS-X7A

Design and specifications are subject to change without notice.