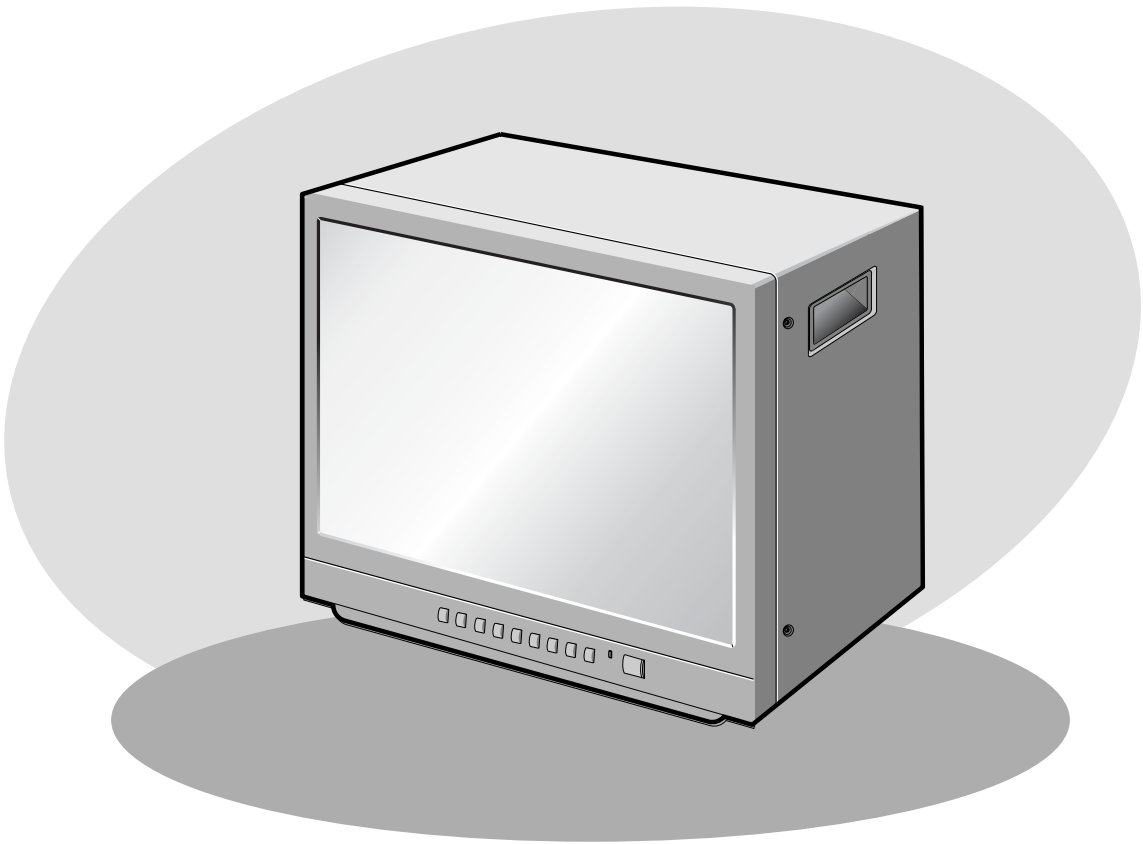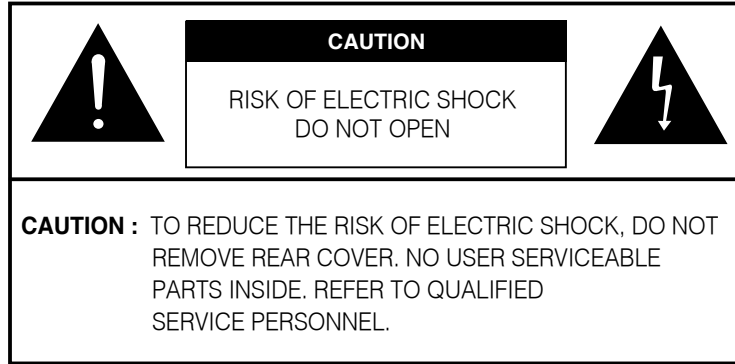# SAMSUNG

# COLOR MONITOR

## SMC-145

## User Guide

# IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these Instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
11. Only use attachment/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

    S 3126 A
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus the apparatus has been exposed to rain or moisture does not operate normally or has been dropped.

**CAUTION**

RISK OF ELECTRIC SHOCK
DO NOT OPEN

**CAUTION :** TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT
REMOVE REAR COVER. NO USER SERVICEABLE
PARTS INSIDE. REFER TO QUALIFIED
SERVICE PERSONNEL.

## Graphic Symbol Explanation

The lightning flash with arrowhead symbol, within an
equilateral triangle, is intended to alert the user to the
presence of uninsulated 'dangerous voltage' within the
product's enclosure that may be of sufficient magnitude to
constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is
intended to alert the user to the presence of important
operating and maintenance (servicing) instructions in
the literature accompanying the appliance.

## Warning - To Prevent Fire or Shock Hazard,Do Not
## Expose This Monitor To Rain or Moisture.

# IMPORTANT SAFEGUARDS

**Caution**
Power source is indicated on the rear of the set. It contains high-voltage parts. If you remove the cover, it may cause fire or electric shock. Do not remove the cover by yourself. (Control switches are at the front of the monitor.)

1. **Read Instructions :** All the safety and operating instructions should be read before the appliance is operated.

2. **Retain Instructions :** The safety and operating instructions should be retained for future reference.

3. **Heed Warnings :** All warnings on the monitor and in the operating instructions should be adhered to.

4. **Follow Instructions :** All operating and user instructions should be followed.

5. **Cleaning :** Unplug this monitor from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
   Exception. A monitor that is meant for uninterrupted service and that for some specific reason, such as the possibility of the loss of an authorization code for a CATV converter is not intended to be unplugged by the user for cleaning or any other purpose may exclude the reference to unplugging the monitor in the cleaning description otherwise required in Item 5.

6. **Attachments :** Do not use attachments not recommended by Samsung as they may cause hazards.

7. **Water and Moisture :** Do not use this monitor near water for example, near a bathtub, wash bowl, kitchen sink or laundry tub in a wet basement or near a swimming pool and the like wet basement or near a swimming pool and the like.

8. **Accessories :** Do not place this monitor on an unstable cart, stand, tripod, bracket or table. The monitor may fall, causing serious injury to a child or adult and serious damage to the appliance. Use only with a cart, stand, tripod. bracket or table recommended by Samsung or sold with the monitor. Any mounting of the monitor should follow Samsung's instructions and should use a mounting accessory recommended by Samsung.

9. **Ventilation :** Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the monitor and to protect it from overheating and these openings should never be blocked by placing the monitor on a bed, sofa, rug or other similar surface. This monitor should never be placed near or over a radiator or heat register. This monitor should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or Samsung's instructions have been adhered to.

10. **Power Sources :** This monitor should be operated only from the type of power source indicated on the making label. If you are not sure of the type of power supply to your installation site, consult your Samsung dealer or local power company. This product shall be connected to a MAINS socket outlet with a protective earthing connection.

11. **Grounding or Polarization :** For monitors equipped with a 3-wire grounding-type plug having a third(grounding) pin. This plug will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.

12. **Power :** Cord Protection-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, paying particular attention to cords at plugs, convenience receptacles and the point where they exit from the monitor. To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable or equivalent.

**13. Lightning :** For added protection for this monitor during a lightning storm or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cable system. This will prevent damage to the monitor due to lightning and power-line surges.

**14. Overloading :** Do not overload wall outlets and extension cords as this can result in a risk of fire of electric shock.

**15. Object and liquid Entry :** Never push objects of any kind into this monitor 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 monitor.

**16. Servicing :** Do not attempt to service this monitor yourself as opening or removing cover may expose you to dangerous voltage or other hazards.
Refer all servicing to qualified service personnel.

**17. Handing :** Do not put vessels such as vases filled with liquids on this monitor. This apparatus shall not be exposed to dripping or splashing.

**18. Damage Requiring Service :** Unplug this monitor from the wall outlet and refer servicing to qualified service personnel under the following conditions.

a. When the power-supply cord or plug is damaged.

b. If liquid has been spilled or objects have fallen into the monitor.

c. If the monitor has been exposed to rain or water.

d. If the monitor does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and require extensive work by a qualified technician to restore the monitor to its normal operation.

e. If the monitor has been dropped or the cabinet has been damaged.

f. When the monitor exhibits a distinct change in performance-this indicates a need for service.

19. **Replacement Parts :** When replacement parts are required, be sure the service technician has used replacement parts specified by Samsung or have the same characteristics as the original parts.
Unauthorized substitutions may result in fire, electric shock or other hazards.

20. **Safety Check :** Upon completion of any service or repairs to this monitor, ask the service technician to preform safety checks to determine that the monitor is in proper operating condition.

# FCC information

### Warning

This equipment has been tested and found to comply the limits for a class A digital device, pursuant to part 15 of the FCC Rules and ICES-003 of Industry Canada.
These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generate, 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.

### User-Installer Caution

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Information to user**

Changes or modifications not expressly approved by the party responsible
for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits
for a Class A digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful
interference when the equipment is operated in a commercial environment.
This equipment generates, uses and can radiate radio frequency energy and,
if not installed and used in accordance with the instruction manual, may
cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful
interference in which case the user will be required to correct the interference
at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the
following two conditions: (1) this device may not cause harmful interference
and (2) this device must accept any interference received, including interference
that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible
for compliance could void the user's authority to operate the equipment.
If necessary, consult your dealer or an experienced radio/television
technician for additional suggestions. You may find the booklet called How
to Identify and Resolve Radio/TV Interference Problems helpful.
This booklet was prepared by the Federal Communications Commission.
It is available from the U.S. Government Printing Office, Washington, DC
20402, Stock Number 004-000-00345-4.

The party responsible for product compliance:
SAMSUNG ELECTRONICS CO., LTD.
America QA Lab of Samsung
3351 Michelson Drive,
Suite #290, Irvine, CA92612 USA


**IC Compliance Notice**

This Class (A) digital apparatus meets all requirements of the Canadian
Interference-Causing Equipment Regulations.
Cet appareil numérique de la classe (A) respecte toutes les exigences du
Règlement sur le matériel brouilleur du Canada.

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numéique de la classe A est conforme à la norme NMB-003 du
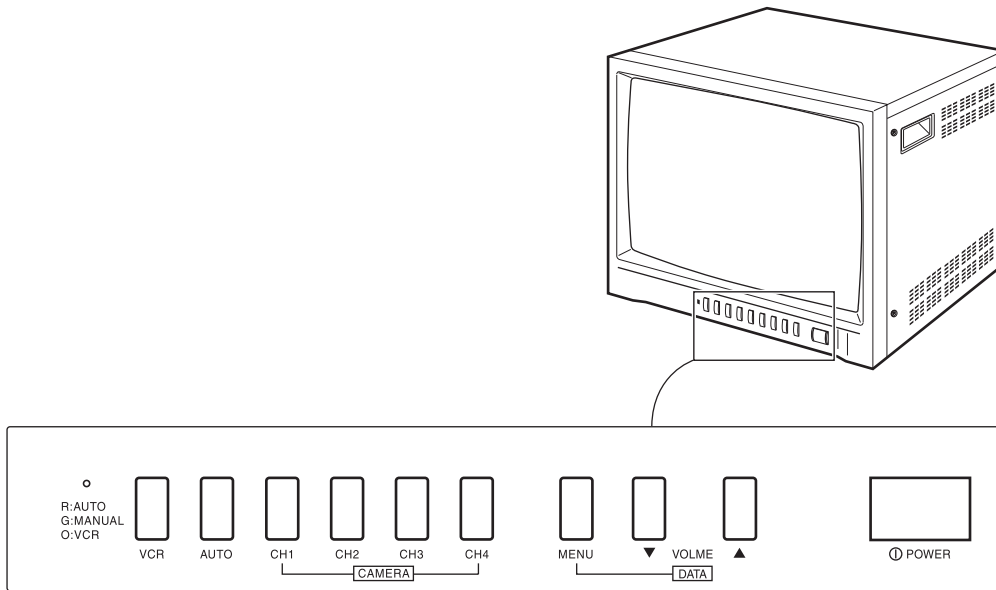Canada.

Warning
This is a class A product. In a domestic environment this product may cause
radio interference in which case the user may be required to take adequate
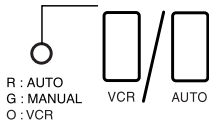measures.

# Contents

# Front Panel Components and Controls



## POWER On/Off Switch

If you press this switch, the monitor is turned on and the LED of selected input signal is lit.
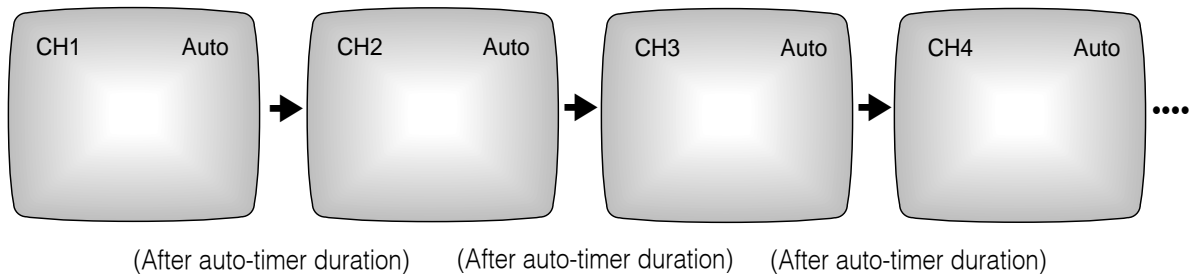
## Auto/Manual/VCR Mode Selection Button

If the Auto/Manual/VCR mode selection button is pressed, a RED indicator light will be displayed for Auto mode, a GREEN indicator light for Manual mode and an ORANGE indicator light for VCR Mode.

# Using the Auto Mode

The RED indicator light is lit when Auto Mode is selected.
In the Manual and VCR mode, the camera input channels will be automatically
displayed from the next channel when the Auto button is pressed.
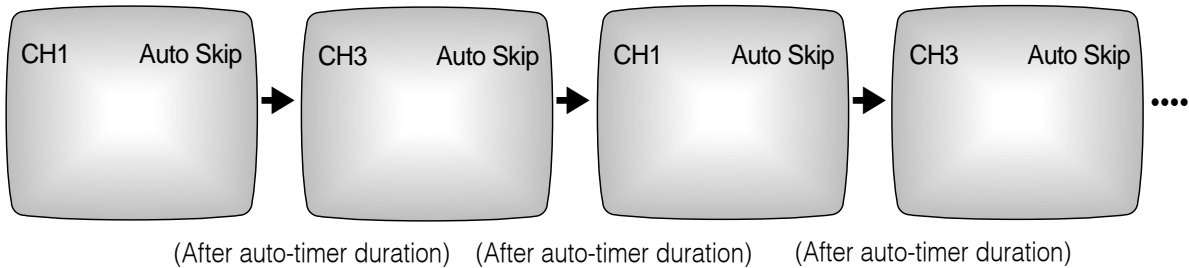(In the MENU option, auto-timer, 2 to 10 seconds)

| CH1    Auto | → | CH2    Auto | → | CH3    Auto | → | CH4    Auto | •••• |

(After auto-timer duration)    (After auto-timer duration)    (After auto-timer duration)

# Using the Auto-Skip Mode

When Auto Mode is selected and the Auto-skip options is set in the MENU settings,the Monitor will operate as follows:

| CH1 Scanning | → | CH2 Scanning | → | CH3 Scanning | → | CH4 Scanning |
|---|---|---|---|---|---|---|

After 1 second          After 1 second          After 1 second

(After scanning 4 channels)

| CH1 Scanning | → | CH2 Scanning | → | CH3 Scanning | → | CH4 Scanning |
|---|---|---|---|---|---|---|

After 1 second          After 1 second          After 1 second

(After scanning 4 channels)
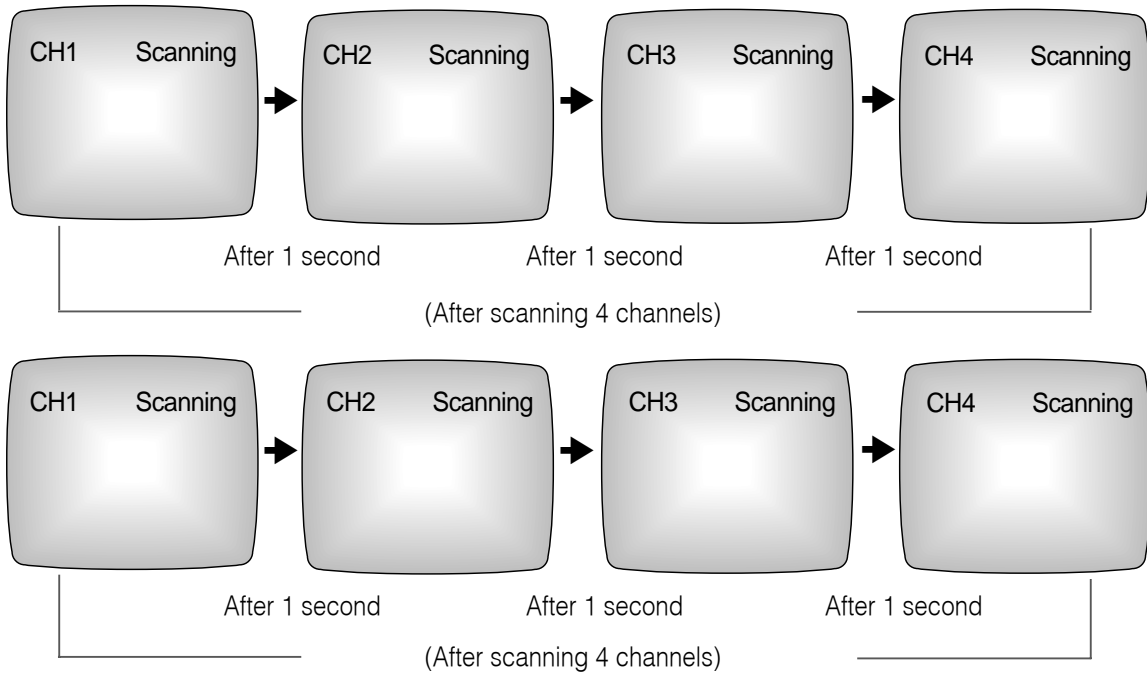
After all channel scanned,the monitor will display the channel which has input signal and auto skip the channel that has no input signal.
For example: After all channel scanned,the monitor will operate as follows when channel1 and channel3 have input signal.

| CH1 Auto Skip | → | CH3 Auto Skip | → | CH1 Auto Skip | → | CH3 Auto Skip | •••• |
|---|---|---|---|---|---|---|---|

(After auto-timer duration)   (After auto-timer duration)   (After auto-timer duration)

# Using the Manual Mode

The GREEN indicator light is lit when Manual Mode is selected.
This option allows the user to manually select either Camera or VCR input channel
accordingly as follows:

CAMERA 1 Button

If this button is pressed, the menu setting will be set to Camera 1.

CAMERA 2 Button

If this button is pressed, the menu setting will be set to Camera 2.

CAMERA 3 Button

If this button is pressed, the menu setting will be set to Camera 3.

CAMERA 4 Button

If this button is pressed, the menu setting will be set to Camera 4.

VCR Button

If this button is pressed, the menu setting will be set to VCR.

# Using the MENU button

Press the MENU button for MENU settings.

# Settings Range of Each Button

| Main Menu | Sub Menu | Settings Range | Explanation |
|---|---|---|---|
| Picture Adjust | Contrast | 0~100 | To select a specific Contrast within the setting range. |
| | Brightness | 0~100 | To select a specific Brightness within the setting range. |
| | Sharpness | 0~100 | To select a specific Sharpness within the setting range. |
| | Color | 0~100 | To select a specific Color within the setting range. |
| | Tint (NTSC) | R 0~100 G 0~100 | To select specific Tint within the setting range. |
| | Return | | Return to the main menu. |
| Auto Setting | Auto Timer | 2 ~ 10 seconds | Interval of Input Channel Switching for Auto Mode |
| | Auto Skip | On / Off | Under the AUTO Mode, every channel having no input signal will be automatically skipped (On) or will be displayed and not skipped (Off). |
| | Return | | Return to the main menu. |
| CH OSD | | On / Off | To display OSD menu (On) Not to display OSD menu (Off) |
| System Setting | DNIe Jr | On / Off | If you set the DNIe Jr to On,the feature will bring you more detailed image with detail enhancement, contrast enhancement and white enhancement. New image compensation algorithm gives brighter, clearer, much detailed image to you. |
| | System | Auto/PAL/NTSC | To select a system PAL(PAL) or NTSC(NTSC). To automatically select PAL or NTSC according to the input signal(Auto). |
| | Blue Screen | On / Off | When no signal is being received, a blue screen will display (On) or a black screen will display (Off). |
| | Language | 3 | English,Español, 中国语 |
| | Return | | Return to the main menu. |
| Reset | | | To reset all Menus to Factory Default settings. |

**Picture Adjust:**

1. Press MENU button to select Menu to set.
2. Use ▽VOLUME △ button to adjust Contrast, Brightness, Sharpness, Color, Tint.
    • Press the ▽VOLUME button to decrease setting of the menu option.
    • Press the VOLUME △ button to increase setting of the menu option.
3. After setting each MENU option, return to the MAIN MENU for other menu options.

**Auto Setting:**

1. Press MENU button to select Menu to set.
2. Use ▽VOLUME △ button to adjust Auto Timer.
    • Press the ▽VOLUME button to decrease setting of the menu option.
    • Press the VOLUME △ button to increase setting of the menu option.
3. Press the ▽VOLUME △ Button to turn on and off the Auto-Skip setting.
4. After setting each MENU option, return to the MAIN MENU for other menu options.

**CH OSD:**

1. Press the ▽VOLUME △ Button to turn on and off the CH OSD setting.

**System Setting:**

1. Press MENU button to select Menu to set.
2. Press the ▽VOLUME △ Button to turn on and off the DNIe Jr,Blue Screen setting.
3. Press the ▽VOLUME △ Button to select Auto,PAL or NTSC of the System.
4. Press the ▽VOLUME △ Button to select English,Español,中国语 of the Language.
5. After setting each MENU option, return to the MAIN MENU for other menu options.

**Reset:**

1. Press the VOLUME △ Button to reset all menus to factory default settings.
**Default values of the RESET settings are:**

| Reset | Default setting |
|---|---|
| Contrast | 60 |
| Brightness | 50 |
| Sharpness | 50 |
| Color | 50 |
| Tint (NTSC) | R 50, G 50 |
| Auto Timer | 5 seconds |
| Auto Skip | On |
| CH OSD | On |
| DNIe Jr | On |
| System | Auto |
| Blue Screen | Off |
| Language (depending on the model) | English |

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## Exit MENU

• The Menu mode will exit automatically after 1 minute of no user input.

Adjusting VOLUME

• In the MANUAL Mode, use the VOLUME button to adjust the volume of the selected channel.

• Press the ▽ VOLUME button to decrease, or press the VOLUME△ button to increase the volume.

# Rear Panel Components
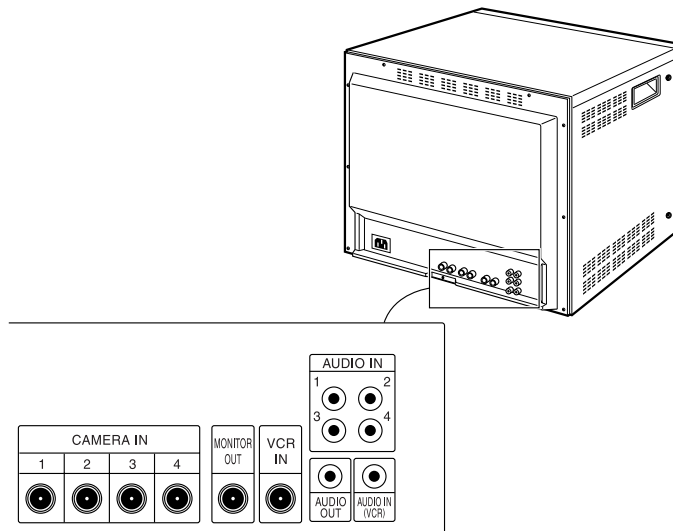


### CAMERA IN (1~4)
Camera INPUT connector. Input connectors for up to 4 cameras

### MONITOR OUT
VIDEO OUTPUT connector.
(Not working under scanning mode)

### VCR IN(VIDEO)
VCR INPUT connector. Connect to the VCR.

### AUDIO IN (1~4)
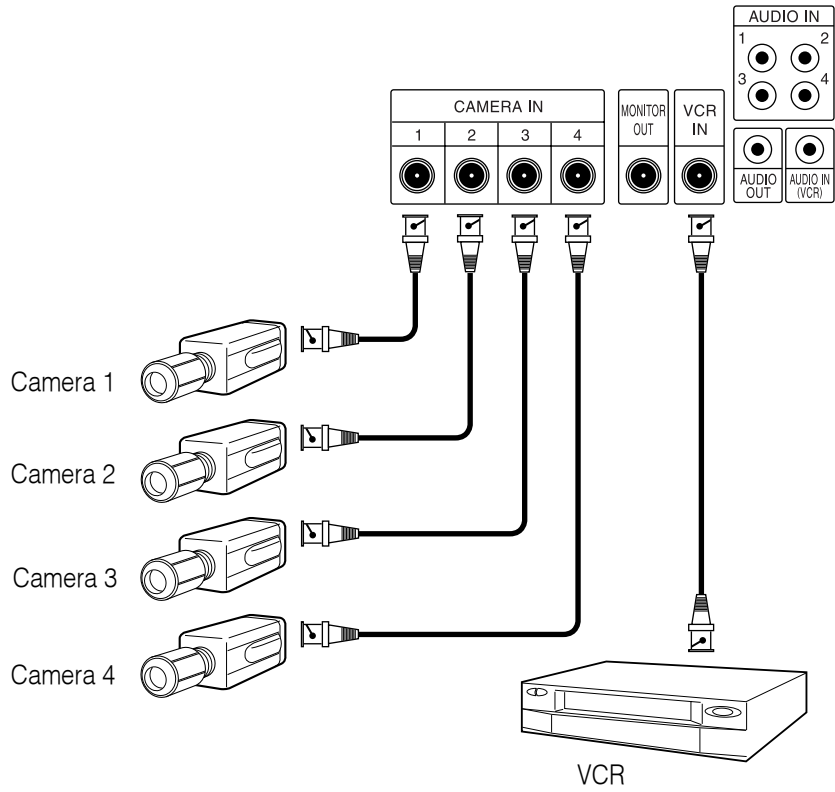AUDIO INPUT connector. Select corresponding AUDIO input signals (1 – 4)

### AUDIO OUT
AUDIO OUTPUT connector.
(Not working under scanning mode)

### AUDIO IN (VCR)
VCR AUDIO INPUT connector.

# Connections

# Maintenance

If the quality of the picture on the COLOR MONITOR is poor and cannot be improved, inspect all system connections and cable runs.
Repairs should be performed by a qualified technician with adequate test equipment and facilities.

# Specifications

| | |
|---|---|
| CRT | 14" diagonal |
| Video In/Out | 4 Channel Input/1 Channel Output.<br>VCR INPUT 1.0Vp-p BNC jack |
| Audio In/Out | 4 Channel Input/1 Channel output.<br>VCR Input RCA jack |
| Power Source | Control range of main section 90V~240V or "Indicated on the rear of the MONITOR set" |
| Power Consumption | 80W |
| Dimensions (W x D x H) | 365mm x 388mm x 341mm (without packing) |
| Net Weight | about 11.1Kg |
| Resolutions | 400TV lines |
| Video System | Multiple system (NTSC/PAL) |
| Horizontal Stabilization | Pull in Range ± 500Hz<br>Holding Range ± 500Hz |
| Vertical Stabilization | Pull in Range ± 4Hz<br>Holding Range ± 4Hz |
| Sub Carrier Stabilization | Pull in Range ± 400Hz<br>Holding Range ± 400Hz |
| Audio | 1.5 Watts |
| Convergence | Less than 0.2mm Max (Center) |
| Overscan | 10% |
| Operating Temperature | -10°C ~ +50°C |
| Operating Humidity | 10 ~ 90%(Non-condensing) |

**SAMSUNG**

AB68-00827E