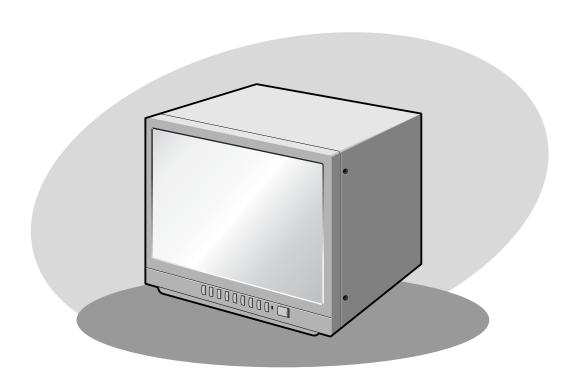


COLOR MONITOR

SMC-212FP/SMC-210FP SMC-152FP/SMC-150FP SMC-212FN/SMC-210FN SMC-152FN/SMC-150FN

User Guide Mode d'emploi Bedienungsanleitung Manuale dell'utente Guía del usuario



IMPORTANT SAFETY INSTRUCTIONS

- 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.
- 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.

periods of time.



13. Unplug this apparatus during lightning storms or when unused for long

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 COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING 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.
- 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.

- **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. 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.

- 18. 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.
- **19. 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.

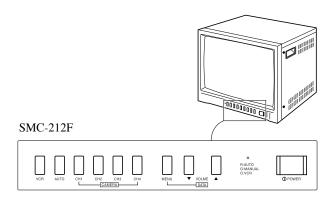
User-Installer Caution

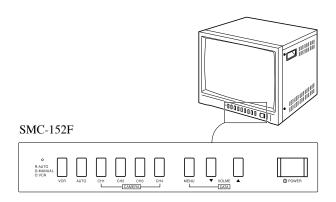
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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Front Panel Components and Controls







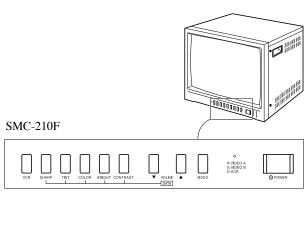
POWER On/Off Switch

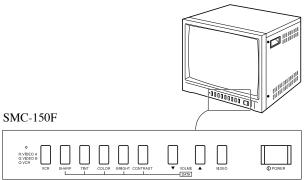
If you press this switch, the monitor is turned on and the LED of selected input signal is lit.



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.







POWER On/Off Switch

If you press this switch, the monitor is turned on and the LED of selected input signal is lit.



VIDEO A/VIDEO B/VCR Mode Selection Button

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

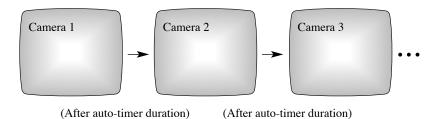
Using the Auto Mode

The RED indicator light is lit when Auto Mode is selected.

In the Auto mode, the camera and VCR input channels will automatically switch by following sequence:

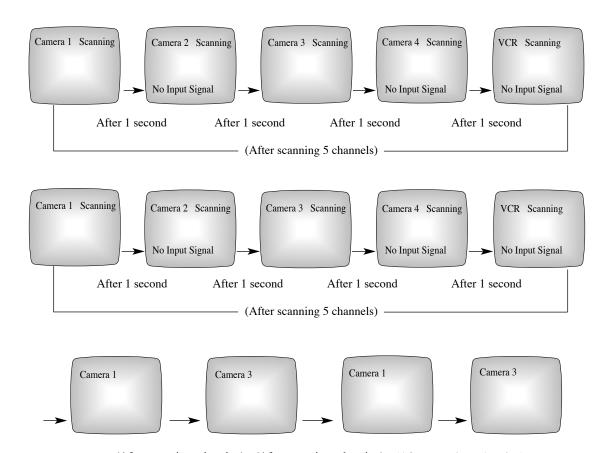
Camera $1 \rightarrow$ Camera $2 \rightarrow$ Camera $3 \rightarrow$ Camera $4 \rightarrow$ VCR, where the switching interval is set in the MENU option.

(In the MENU option, auto-timer, 2 to 10 seconds)



Using the Auto-Skip Mode

When the Auto-skip options is set in the MENU settings, and no input signals are found for the channels 2, 4 and VCR, the Monitor will operate as follows:



(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.

MENU Button - ∇ VOLUME \triangle

If the MENU Button is pressed, all user controllable menus will be displayed in the following sequence:

Contrast → Brightness → Sharpness → Color → Tint(NTSC) → Auto Timer → Auto Skip → Camera OSD → Language → Preset

To set each Menu setting

- 1. Press MENU button to select Menu to set
- 2. Use ∇ VOLUME △ Button to set Menu setting
- After setting each MENU option, return to the MAIN MENU for other menu options.

(Press the MENU Button to return to the MAIN MENU)

Settings Range of Each Button

MENU	Settings Range	Explanation
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)	Red 0~100 Green 0~100	To select specific Tint within the setting range.
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).
Camera OSD	ON / OFF	To display OSD menu (ON) Not to display OSD menu (OFF)
Preset		To preset all Menus to Factory Default settings.

Adjustments & Settings of the MENU options:

Use ∇ VOLUME \triangle button to adjust Contrast, Brightness, Sharpness, Color, Tint and Auto Timer.

- Select each Menu and then press ∇ VOLUME \triangle button to adjust.
- Adjusted Settings of the selected Menu option is displayed.
- Press the ∇ VOLUME button to decrease setting of the menu option.
- Press the VOLUME \triangle button to increase setting of the menu option.

Use the ∇ VOLUME \triangle Button to adjust Auto-Skip menu setting.

- Select the Auto-Skip Menu in the MENU options.
- Press the ∇ VOLUME \triangle Button to turn on and off the Auto-Skip setting.

Use the ∇ VOLUME \triangle Button to adjust the preset MENU settings.

- Select the Preset Menu in the MENU options.
- Press the ∇ VOLUME △ Button to adjust default setting values of the PRESET settings.

Default values of the PRESET settings are:

Preset	Default setting
Contrast	60
Brightness	50
Sharpness	50
Color	50
Tint (NTSC)	Green 50, Red 50
Auto Timer	2 seconds
Auto Skip	OFF
Camera OSD	ON

After selecting and adjusting each menu, press the MENU button again to return to the MAIN MENU.

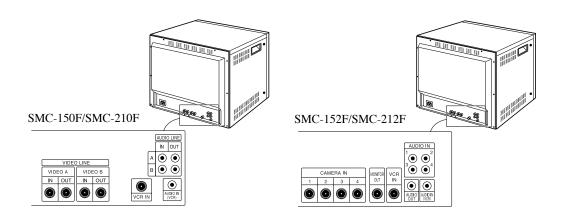
Exit MENU

• The Menu mode will exit automatically after 20 seconds 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 \triangle button to increase the volume.
- Monitor displays the volume as an adjustable signal bar.
- The volume setting will remain unchanged if no adjustment is made within 3 seconds.

Rear Panel Components and Controls



CAMERA IN (1~4)

Camera INPUT connector. Input connectors for up to 4 cameras

MONITOR OUT

Monitor OUTPUT connector.

VCR IN

VCR INPUT connector. Connect to the VCR.

AUDIO IN (1~4)

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

AUDIO OUT

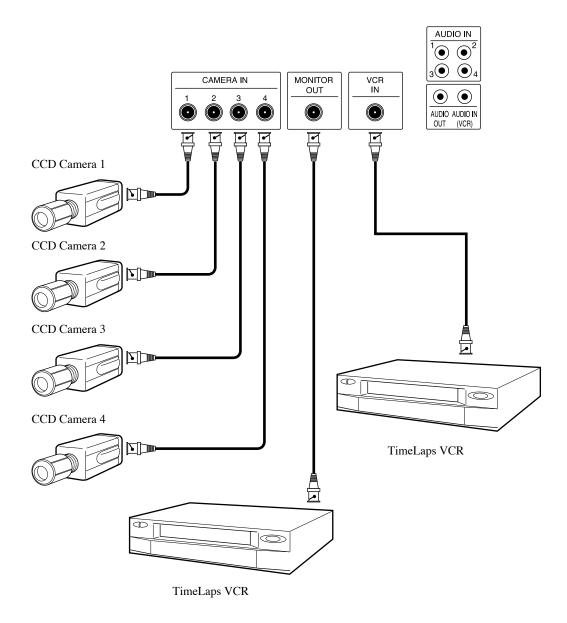
AUDIO OUTPUT connector.

(Not working under AUTO 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

System	SMC-152FP/SMC-150FP/SMC-152FN/SMC-150FN (NTSC/PAL)
CRT	15" diagonal, 0.6mm stripe pitch, 90° deflection
Video In/Out	4 Channel Input/1 Channel Output,
	VCR INPUT 1.0Vp-p BNC jack
Audio In/Out	4 Channel Input/1 Channel output, VCR Input,
	RCA jack
Control Front	MENU (Contrast, Brightness, Tint (NTSC), Color,
	Sharpness, Auto Timer, Auto Skip, Camera OSD,
	Preset)
Power Source	Control range of main section 90V~260V or "Indicated
	on the rear of the MONITOR set"
Power Consumption	86W
Dimensions (W x D x H)	365mm x 391mm x 342mm (without packing)
Weight	about 16.5Kg (with packing)
Resolutions	500 TV lines
Video System	Multiple system (NTSC/PAL)
Horizontal Stabilization	Pull in Range ± 500Hz
	Holding Range ± 500Hz
Vertical Stabilization	Pull in Range ± 4Hz
	Holding Range ± 4Hz
Sub Carrier Stabilization	Pull in Range ± 400Hz
	Holding Range ± 400Hz
Audio	1.5Watts
Convergence	Less than 0.4mm Max (Center)
Overscan	10%
Operating Temperature	0°C ~ +40°C
Operating Humidity	10 ~ 90% (Non-condensing)

Specifications

System	SMC-212FP/SMC-210FP/SMC-212FN/SMC-210FN (NTSC/PAL)
CRT	21" diagonal, 0.75mm stripe pitch, 90° deflection
Video In/Out	4 Channel Input/1 Channel Output,
	VCR INPUT 1.0Vp-p BNC jack
Audio In/Out	4 Channel Input/1 Channel output, VCR Input,
	RCA jack
Control Front	MENU (Contrast, Brightness, Tint (NTSC), Color,
	Sharpness, Auto Timer, Auto Skip, Camera OSD,
	Preset)
Power Source	Control range of main section 90V~260V or "Indicated
	on the rear of the MONITOR set"
Power Consumption	90W
Dimensions (W x D x H)	490mm x 342mm x 482mm (without packing)
Weight	about 31Kg (with packing)
Resolutions	500 TV lines
Video System	Multiple system (NTSC/PAL)
Horizontal Stabilization	Pull in Range ± 500Hz
	Holding Range ± 500Hz
Vertical Stabilization	Pull in Range ± 4Hz
	Holding Range ± 4Hz
Sub Carrier Stabilization	Pull in Range ± 400Hz
	Holding Range ± 400Hz
Audio	1.5Watts
Convergence	Less than 0.4mm Max (Center)
Overscan	10%
Operating Temperature	0°C ~ +40°C
Operating Humidity	10 ~ 90% (Non-condensing)



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