APPENDIX H

: USER'S MANUAL

User’s Manual

CCTV COLOR LCD MONITOR

Part No. 11900000

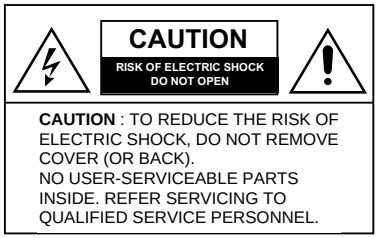
CONTENTS

- Important Safety Instructions 3
- FCC Requirements 5
- Safety Notices 6
- Location control 8
- REMOTE Control Unit 10
- Functions and Control Methods 11
- To connect the power 18
- Possible connections 19
- Troubleshooting Tip 20
- Specifications 21

Important Safety Instructions

Shock Hazard Marking and Associated Graphical Symbols

Explanation of Safety Related Symbols



This symbol 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.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING – To Reduce The Risk Of Fire Or Electric Shock, Do Not Expose This Apparatus To Rain Or Moisture.

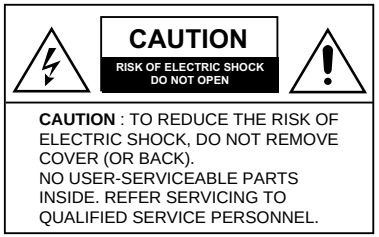
Correct Disposal of This Product
(Waste Electrical & Electronic Equipment)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Important Safety Instructions



Before connecting the AC power cord to the DC adapter outlet, make sure the voltage designation of the DC adapter corresponds to the local electrical supply.
Never insert anything metallic into the cabinet openings of the Liquid Crystal Display LCD Monitor: doing so may create the danger of electric shock.
To avoid electric shock, never touch the inside of the LCD Monitor. Only a qualified technician should open the case of the LCD Monitor.
Never use your LCD Monitor if the power cord has been damaged. Do not allow anything to rest n the power cord, and keep the cord away from areas wherepeople can trip over it.

Be sure to hold the plug, not the cord, when disconnecting the LCD Monitor from an electric socket.

Openings in the LCD Monitor cabinet are provided for ventilation. To prevent overheating, these openings should not be blocked or covered. Also, avoid using the LCD Monitor on a bed, sofa, rug, or other soft surface. Doing so may block the ventilation openings in the bottom of the cabinet.
If you put the LCD Monitor in a bookcase or some other enclosed space, be sure to provide adequate ventilation. Put your LCD Monitor in a location with low humidity and a minimum of dust.

Do not expose the LCD Monitor to rain or use it near water.
(in kitchen, near swimming pool, etc.). If the LCD Monitor accidentally gets wet, unplug it and contact an authorized dealer immediately. You can clean the LCD Monitor with a damp cloth when necessary, but be sure to unplug the LCD Monitor first.

Place the LCD Monitor on a solid surface and treat it carefully.
The screen is made of thin glass with a plastic front surface and be damaged if dropped, hit or scratched.
Do not clean the front panel with keton-type materials (e.g., acetone), ethyl alcohol, toluene, ethylacid, methyl, or chloride - these may damage the panel.

Locate your LCD Monitor near an easily accessible AC outlet.

FCC Requirements

This device complies with Part 15 of the FCC Rules and Regulations. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must tolerate any interference encountered, including interference that may cause improper operation.
The equipment has been tested and found to comply with the requirements stipulated in Part 15 of FCC regulations for a Class B digital device. These requirements 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 strict compliance with the instructions, may disrupt radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause detrimental interference with 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 taking one or more of the following measures:

- Reorienting or relocating the receiving antenna.
- Increasing the separation between the equipment and the receiver.
- Connecting the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consulting the dealer or an experienced radio/TV technician for help.

Shielded interconnected cables and shielded power cords must be used with this equipment to ensure compliance with the pertinent RFD emission limits governing this device.
Changes or modifications not expressly approved by the manufacturer could void the user's right to operate the equipment.
Notice of Compliance with Canadian Interference-causing Equipment Regulations.
This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.
Cet appareil numerique de classe B satisfait toutes les exigences des reglementations canadiennes inherentes aux equipements generant des interferences.

SAFETY NOTES

Thank you for purchasing our product.
Before using it, please read this user's manual carefully and apply it correctly and safely.
Please keep this manual close to you so you can refer to it anytime after reading it.
Also, for the transportation of the product, please attach this manual without fail.
Please observe the notes below.

1. Use at the rated power voltage.
   Use of non-rated voltage may cause fire, electric shock and breakdown.

2. Do not open the cabinet and external cover.
   The high voltage inside of this product may cause the electric shock.

3. Do not remodel or disassemble this product.
   Remodeling or disassembling in wrong method may cause fire, electric shock or breakdown.

4. Do not insert or drop any foreign substance such as metals or flammable object inside from the air hole.
   It may cause fire, electric shock or breakdown.
   If any foreign substance is inserted inside of this product, turn off the power, pull the plug out of the socket and contact the sales department. Do not use the product with the foreign substance in.

5. Do not place any vase, potted plant, cup, medicine and any container with water on this product.
   If the liquid is spilt, it may cause the fire, electric shock or breakdown.

6. Do not place this product with water nor moisten it.
   If water flows in it, it may cause the fire, electric shock or breakdown.
   If there is water inside of the product, turn off the power immediately, pull the plug out of the socket and contact the sales department.
   Do not use the product with water in it.

7. Never touch the antenna lie or power plug if it stars to thunder.
   It may cause the electric shock.

8. If any impact is applied, the parts inside of the product may be fallen out or broken to be the cause of fire, electric shock or breakdown.

9. Clean the dust on the power plug periodically.
   The dusty power plug may cause the poor insulation due to the moisture to be the reason of fire.

10. Do not destroy, process, make closer to heating device, bend or twist forcibly, place any heavy object on nor bind the power cord or power plug. If it is used in the broken condition, it may cause fire or electric shock.

11. Do not touch the power plug with wet hands.
    If you pull in or out the power plug with wet hands, it may cause electric shocks.

12. Put the power plug in firmly.
    Putting the plug incompletely may cause the electric shock or fire by the generation of heat.

13. Do not use any non-rated power socket with numerous devices jointed on one power socket or cable device.
    The wire of non-designated capacity may cause the fire due to the generation of heat.

14. In case of malfunction, turn off the power switch immediately and pull out the power plug.
    If this product is used in the abnormal condition such as damage to it, foreign substance inside of the product, generation of joints, smelling, smoking, overheating and non production of signal, it may cause fire, electric shock or breakdown.
    Turn off the power switch immediately, pull the power plug out of the socket and contact to the sales store..

15. Leave space 10 cm or more from the wall for the installation of the device.
    Do not install it close to the wall nor block the ventilation of the air.
    Insufficient ventilation or accumulated heat inside of the product may cause the fire.

16. Do not install it at the unstable location such as on the bouncing prop or tilted place.
    It may be tipped over as it loses balance or damaged as it is fallen down.

SAFETY NOTES

17. Do not install at the place with moisture or dust.
    It may cause the fire or the electric shock

18. Do not install it at the place with poisonous gas.
    It may cause the fire.

19. Do not install it at the location with continuous vibration.
    It may be tipped over as it loses balance or damaged as it is fallen down.

20. Do not install it at the place on the strong magnetic field or current field.
    It may cause fire, electric shock or break down.
    This equipment may be observed deterioration of the picture by electromagnetic radiation in electromagnetic environment.

21. Fasten the wheel of the product or shelf with wheels when installing this product.
    If it moves or is tipped over, it may be damaged.

22. Do not leave it in the car under the burning sun for a long time.
    The high temperature may distort the cabinet or the parts inside may be broken down or heated.
    If you use this product in this condition, it may cause the fire, electric shock or breakdown due to the short circuit or poor insulation.

23. Do not place any fire source such as candlelight close to this product or place it on this product.
    If it is tipped over or fallen down, it may cause damage or fire.

24. Do not sprinkle water drops or water on this product.
    It may cause the fire, the electric shock or breakdown.

25. Do not place heavy objects on this product.
    It may be tipped over as it loses balance or damaged as it is fallen down.

26. Do not transport it with the power cord or the connection cable connected.
    If you move this product with the power cord or the connection cable connected, the damaged power cord, connection cable or connection terminal may cause the fire, the electric shock or breakdown.

27. Pull the power cord out while holding the plug portion.
    If you pull the power cord out by force, the cord may the fire or the electric shock.

28. Do not use it outdoor.
    Dust or rainstorm may cause the fire, electric shock or breakdown.

29. Do not climb on this product.
    If you climb on it, it may damage or hurt it.

30. 2 persons or more shall transport the device, which is heavier than 18 kg.
    If you drop or tip over the device, it may damage it.
    The weight is indicated on the user's manual.

31. Use the this unit shall be connected to a mains socket outlet with a protective earthing connection.
    And connection cable, or those, which are indicated on the user's manual.
    If you do not use the designated power cord and connection cable, it may cause the electric shock or breakdown.

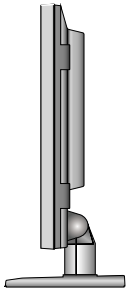
32. Turn off the power switch when connecting the power cord or connection cable.
    If you not turn off when connecting it, it may cause the electric shock or breakdown.

33. Do not use any chemical such as the paint thinner or benzine to clean the cabinet.
    It may scratch the surface or disappear the indication to cause wrong operation, whch can be the reason for disorder.

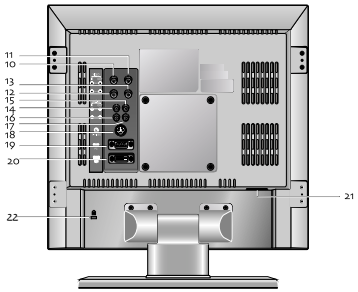
34. Clean the cabinet with 5~6 time diluted neutral detergent water on smooth cloth as stirring to remove the contamination.
    After that, clean it with dry cloth to remove any stain.

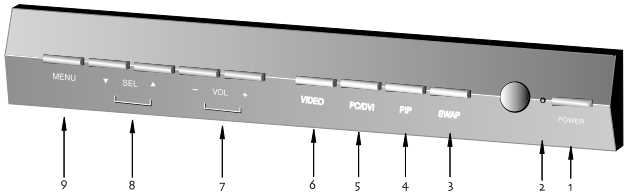
Front

Side

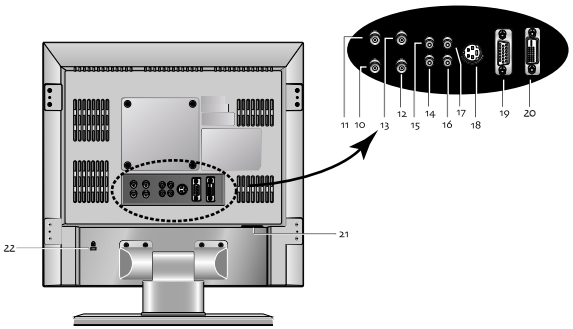


Rear(LCM-150/LCM-170)





Rear (LCM-190)



1. POWER
2. POWER LED LAMP (STAND BY)
3. SWAP
4. PIP
5. PC/DVI
6. VIDEO
7. VOLUME DOWN/UP
8. SELECT
9. MENU
10. VIDEO IN (CH1)
11. VIDEO OUT(CH1)
12. VIDEO IN (CH2)
13. VIDEO OUT (CH2)
14. AUDIO IN (CH1)
15. AUDIO OUT (CH1)
16. AUDIO IN (CH2)
17. AUDIO OUT (CH2)
18. S-VIDEO
19. PC
20. DVI
21. POWER INLET
22. KENSINGTON LOCK HOLE

LOCATION CONTROLS

1. POWER BUTTON
: Press to turn the LCD monitor ON. The POWER LED LAMP will illuminate.

2. POWER LED LAMP
: When SET is normally operated, a green lamp is turned on.
STAND BY : A Red lamp is turned on. (Operate in VIDEO1 mode, VIDEO2 mode, S-VIDEO mode and PC mode)
POWER SAVING : A Amber lamp is turned on. (Operate in PC mode)

3. SWAP BUTTON
: When you press this button, change main screen to sub-screen.
(Only useful in PIP mode)

4. PIP BUTTON
: When you press this button, PIP mode is selected.

5. PC/DVI BUTTON
: When you press this button, PC mode or DVI mode is selected.

6. VIDEO
: Select input source
AV1 → AV2 → S-VIDEO

7. VOLUME +, - BUTTON
: Adjust the volume up and down.

8. SEL BUTTON
: When you want to select the desired item in menu, press this button to move.

9. MENU BUTTON
: When you press this button.
the menu window appears. When you press this button again, the menu window disappears.

10. 11. 12. 13 VIDEO IN/OUT
: This is the terminal to receive the video from the camera. It can be used by connecting the external video equipment.

14. 15. 16. 17. AUDIO IN/OUTPUT
: It is the terminal to receive the audio from the camera.
It can be used by connecting the external audio equipment.

18. S-VIDEO JACK
: When you want to see a high definition S-VIDEO, use the S-VIDEO input of this monitor. You can enjoy the clean and clear video.

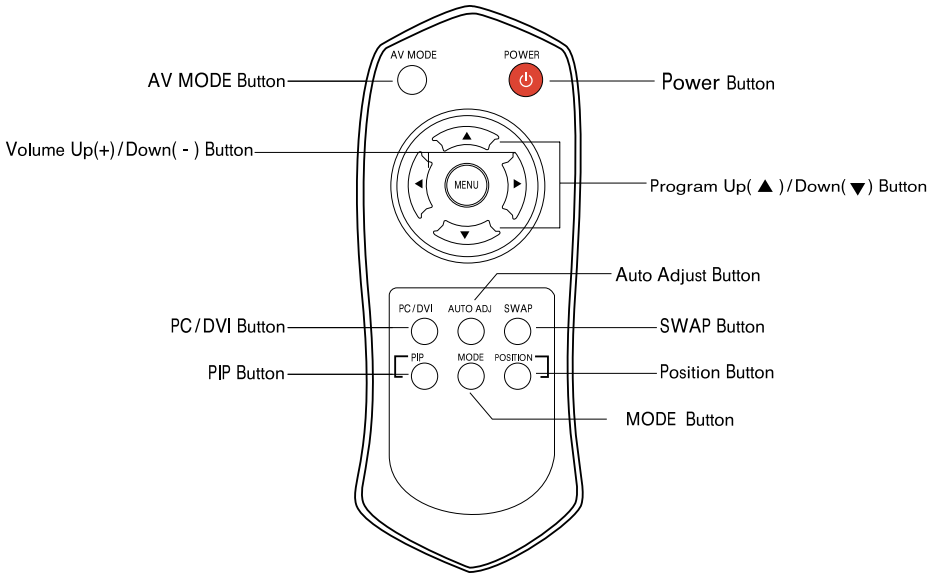
19. PC JACK
: When you use this monitor as PC monitor, you can use it by connecting the PC Cable to PC Jack of this monitor.

20. DVI JACK
: When you use this monitor as DVI monitor, you can use it by connecting the DVI Cable to DVI Jack of this monitor.

21. POWER INLET
: Inlet the AC power (AC100~240V, 50/60Hz)

22. KENSINGTON LOCK HOLE
It will be able to prevent a robbery.

REMOTE CONTROL UNIT



BATTERY INSTALLATION

❖ Replace two batteries in the battery compartment at the same time.
❖ Insert "AAA" batteries, observing the polarity (+ or –) marked on the unit.

Batteries should last about a year under normal use. If the operation is unstable(either channel or volume does not change), replace the batteries. When the hand unit is not used for a long, or when the batteries are used up, take out the batteries to prevent possible leakage. To avoid any malfunction of the remote control, press only one button at a time.

FUNCTIONS AND CONTROL METHODS

MENU Operation

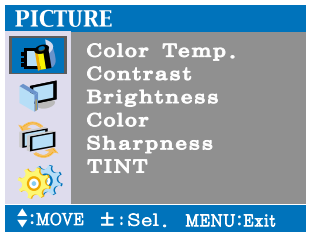
① When you press the MENU button, the MENU window appears on screen.
② Press SEL BUTTON to move to the desired item.
③ Press VOL+/ VOL - key to select the desired item.
④ To shut down the MENU window, wait for time when the MENU window disappears or press the MENU button again.

MENU in AV1, AV2, and S-VIDEO

It shows the MOVE button, SEL button, and EXIT button on a bottom of MENU window.

PICTURE Setting

1. Press the MENU button.
   Result : The PICTURE menu is display.
2. Press the [▶] button menu.
3. Use the [▼] or [▲] button to select setting.
   Result : The color of characters are changing to yellow.
4. Adjust to satisfy your preference by pressing the [◀] or [▶] button.
5. When you are satisfied with the settings, press the MENU button repeatedly to return to normal view-ing.



COLOR TEMP
9300/6500
: You can select temperature of desired color.(9300°K/ 6500°K)

CONTRAST
: Adjust the screen's contrast.
(Operate in AV1 mode, AV2 mode, and S-VIDEO mode)

BRIGHTNESS
: Adjust the screen's brightness.
(Operate in AV1 mode, AV2 mode, and S-VIDEO mode)

COLOR
: Adjust the screen's color.
(Operate in AV1 mode, AV2 mode, and S-VIDEO mode)

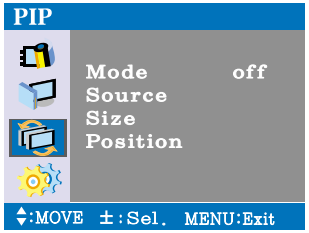
SHARPNESS
: Adjust the screen's sharpness.
(Operate in A V1 mode, AV2 mode, and S-VIDEO mode)

TINT
: Adjust the screen's tint
(Operate in A V1 mode, AV2 mode, and S-VIDEO mode)
(Only use for NTSC system)

PIP Setting

. Press the Menu button.

.. Press the [▼] or [▲] button to select "PIP".



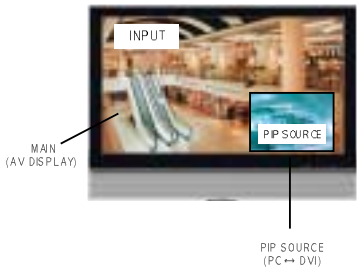
Mode

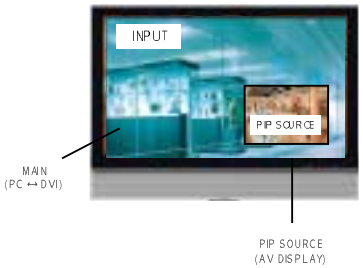
1. It will able to select want PIP input MODE by using the [◀] or [▶] buttons.

→off → PIP → DW1 → DW2

Source

1. Press the [▼] or [▲] button to select "SOURCE".
2. It will able to select want signal by using the [◀] or [▶] buttons.



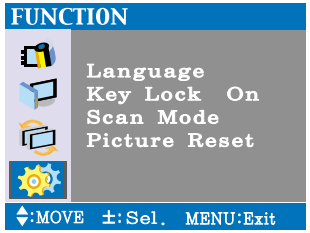


Size

1. Press the [◀] or [▶] buttons to select "PIP SIZE"
2. It will able to select PIP SIZE by using the [◀] or [▶] buttons.

Position

1. Press the [▼] or [▲] button to select "PIP POSITION".
2. It will able to select PIP POSITION by using the [◀] or [▶] buttons.



Language

1 Press the Menu button.
2. Press the [▼] button to select "FUNCTION"
3. Press the [◀] or [▶] button.
4. Result: The "LANGUAGE" menu is displayed.
5. Press the [◀] or [▶] button to select which you want language.

→English → Francais → Deutsch → Espanol → Portugues → Italiano

Key Lock

1. Press the [▼] or [▲] button to select "Key Lock".
2. It will able to select On/Off by using the [◀] or [▶] buttons.

Scan Mode

1. Press the [▼] or [▲] button to select "Scan Mode".
2. It will able to select scan mode by using the [◀] or [▶] buttons.

→Normal →Full → Under

Picture Reset

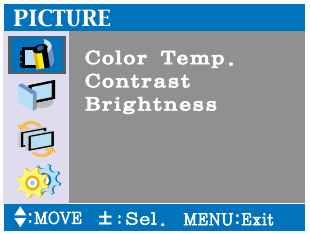
1. Press the [▼] or [▲] button to select "Picture Reset".
2. It will able to select standard state by using the [◀] or [▶] buttons.

FUNCTIONS AND CONTROL METHODS

MENU in PC

When you press the MENU Button, the MENU screen appears.

1. Press the MENU button.
   Result : The PICTURE menu is display.
2. Press the [▶] button menu.
3. Use the [▼] or [▲] button to select setting.
   Result : The color of characters are changing to yellow.
4. Adjust to satisfy your preference by pressing the [◀] or [▶] button.
5. When you are satisfied with the settings, press the MENU button repeat-edly to return to normal view-ing.



COLORTEMP

COLOR TEMP	➞Select the temperature of desired color (6500°K / 9300°K/ USER)
RED	➞Adjust the red tint of screen
GREEN	➞Adjust the green tint of screen
BLUE	➞Adjust the blue tint of screen

CONTRAST

Adjust the screen's contrast.

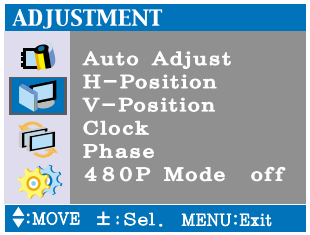
BRIGHTNESS

Adjust the screen's brightness.

AJUSTMENT Setting

When the screen is unstable in PC settings, or to make your PC stable by adjusting the Clock and Phase, set the PC in the following sequence:

1. Press the MENU button.
2. Press the [▼] or [▲] button to select "ADJUSTMENT" and press the [▶]button.
3. Press the [▼] or [▲] button to select frequency.
4. **H Position** [◀] or [▶] button.
   V Position [◀] or [▶] button.
   Clock [◀] or [▶] button.
   Phase [◀] or [▶] button.
5. When you are satisfied with the settings, press the MENU button repeatedly to return to normal viewing.



Auto Adjust:
Adjusts the screen's status in PC mode automatically.

H - Position/V Position:
Adjusts the screen's horizontal position.

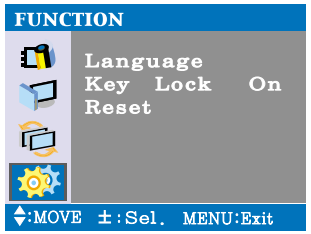
V - Position/V Position:
Adjusts the screen's vertical position.

Clock:
Adjusts the screen's horizontal size through a increase/decrease inthe number of Pixel.

Phase:
Adjusts the screen's phase

480P MODE:
It will able to select that input signil type is interlace or progressive at 640 X 480 mode

Language



1 Press the Menu button.
2. Press the [▼] or [▲] buttons to select "FUNCTION"
3. Press the [▶] button.
4. Result: The "LANGUAGE" menu is displayed.
5. Press the [◀] or [▶] button to select which you want language.

→English → Francais → Deutsch → Espanol → Portugues → Italann0

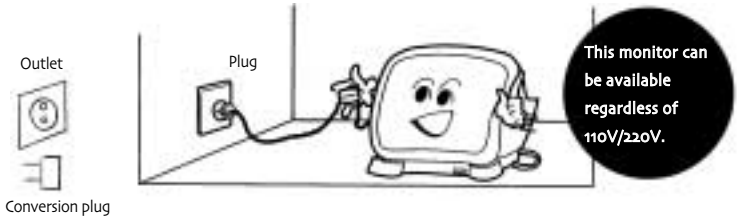
Key Lock

1. Press the [▼] or [▲] button to select "Key Lock".
2. It will able to select On/Off by using the [◀] or [▶] buttons.

Reset

1. Press the [▼] or [▲] button to select "Reset".
2. It will able to select standard state by using the [◀] or [▶] buttons.

TO CONNECT THE POWER



Be sure to connect the conversion plug to the power plug by the outlet!

- This monitor can be available both in AC 110V / 220V 60Hz
- Various input voltage (within a range of AC100~240V) can be available.
  (Do not use it in the voltage higher than a rated voltage)
- 110V/220V selector switch is not necessary. This monitor can be operated directly without a special operation.

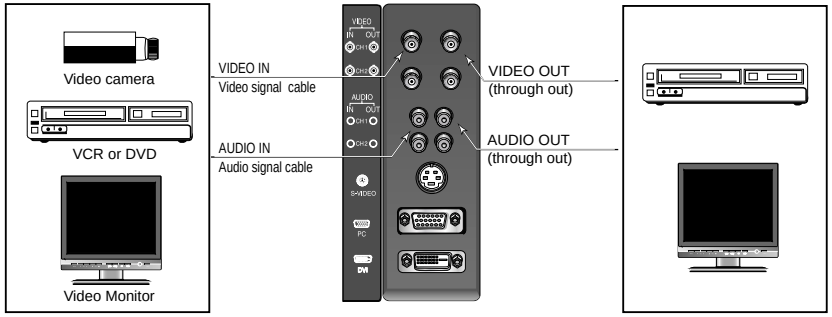
CAUTION

- Make sure to operate this monitor in the rated voltage described in the user's manual or the monitor.
  (When the voltage higher than the rated voltage is supplied, it may give damage to a receiver.
- If you do not use the monitor for a long time, you must pull out the power plug from the inlet for safety.

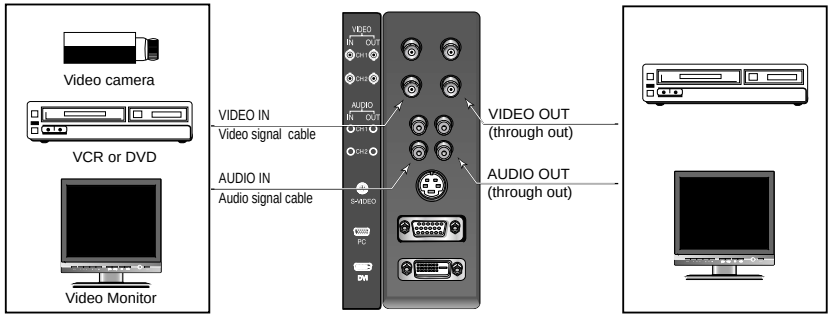
POSSIBLE CONNECTIONS

- Read the installation/operation manual thoroughly before connecting equipment.
- Turn off the power source before connecting the monitor and external equipment.

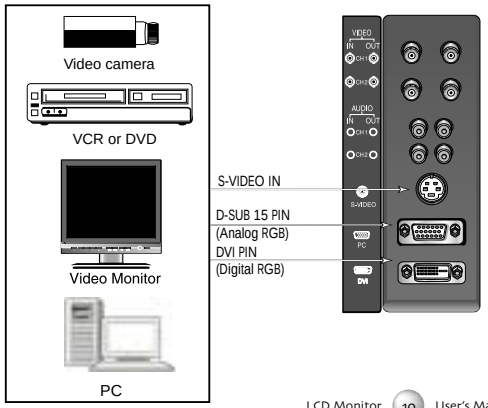
AV 1 Connection



AV 2 Connection



S-VIDEO / D-SUB 15PIN / DVI connection



TROUBLESHOOTING TIP

If your monitor is out of order, check up the below problems firstly.

Problems	Checkup	Troubleshoot
The screen doesn't appear and the sound is not heard.	• Is the power cord pulled out? • Is the power turned off? • Is this monitor connected with the external equipment erroneously?	• Connect the power cord correctly • Press the power button. • Check the cord and then connect it correctly.
The sound is heard but the video doesn't appear.	• Is the contrast and brightness wrongly controlled? • Is this monitor connected with the external equipment erroneously?	• Adjust the contrast and brightness correctly. • Check the cord and then connect it correctly.
The video appears but it is interrupted by static.	• Is the external equipment correctly connected?	• Check the cord and then connect it correctly.
Not the sound is heard.	• Is the volume turned down? • Is this monitor connected with the external equipment erroneously?	• Adjust the volume. • Check the cord and then connect it correctly.
The screen color is not clear and clean.	• Is the tint and color correctly adjusted?	• Adjust the contrast and brightness correctly.
The screen is shaken and is affected by static.	• Is the external equipment correctly connected?	• Check the cord and then connect it correctly.

SPECIFICATIONS

	15" LCD CCTV MONITOR LCM-150	17" LCD CCTV MONITOR LCM-170	19" LCD CCTV MONITOR LCM-190
PICTURE TUBE	0.297 PIXEL PITCH	0.264 PIXEL PITCH	0.294 PIXEL PITCH
RESOLUTION	XGA (1024 x 768)	SXGA (1280 x 1024)	SXGA (1280 x 1024)
SOUND OUTPUT	0.5W	0.5W	0.5W
SPEAKER	MAX 2W, 8 ohm 30x70mm	MAX 2W, 8 ohm 30x70mm	MAX 2W, 8 ohm 30x70mm
POWER SOURCE	AC 100~240V 50/60Hz	AC 100~240V 50/60Hz	AC 100~240V 50/60Hz
POWER CONSUMPTION	28±3 [W]	33±3 [W]	37±3 [W]
BRIGHTNESS	450cd/㎡	300cd/㎡	300cd/㎡
DIMENSIONS(WxHxD)	365 x 389 x 180 [mm]	390 x 425 x 180 [mm]	430 x 446 x 220 [mm]
(Without Stand)	365 x 329 x 66 [mm]	390 x 366 x 65 [mm]	430 x 394 x 69 [mm]
WEIGHT(NET)	5.6 Kg	6.0 Kg	7.0 Kg
(Without Stand)	4.1Kg	4.5 Kg	5.1Kg
TERMINALS	VIDEO CH1, 2IN/OUT	VIDEO CH1, 2IN/OUT	VIDEO CH1, 2IN/OUT
	AUDIO CH1, 2IN/OUT	AUDIO CH1, 2IN/OUT	AUDIO CH1, 2IN/OUT
	S-VIDEO IN	S-VIDEO IN	S-VIDEO IN
	PC IN	PC IN	PC IN
	DVI IN	DVI IN	DVI IN

This monitor has received the EMI (Electromagnetic interference) test for the business.
Accordingly, a seller or user needs to know about it. If you purchase the erroneous monitor, be sure to exchange it into non-business monitor in the shop where you buy it.

SPECIFICATIONS

If the signal from the system equals to the standard signal mode, the screen is adjusted automatically. If the signal from the system doesn't equal to the standard signal mode, adjust the mode with referring to the videocard user guide because the screen might not display or only the power LED might be Amver. For the display modes listed below, the screen image has been optimized during manufacture.

Mode	Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)
VGA	720*400	31.469	70.087	28.322
	640 * 480	31.469	59.940	25.175
	640 * 480	37.500	75.000	31.500
SVGA	800 * 600	46.875	75.000	49.500
XGA	1024 * 768	48.4	60	65
	1024 * 768	56.5	70	75
	1024 * 768	60.023	75.029	78.750
SXGA	1280 * 1024	64	60	80.125