

17"/19" TFT LCD MONITOR
User's Manual



LCD SECURITY MONITOR
for STAND-ALONE / PC DVR

MA11220403



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1. Introduction

Safety Precautions

- 1 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.
- 2 Never insert anything metallic into the openings in the cabinet of the Liquid Crystal Display (LCD) Monitor : doing so may cause electric shock.
- 3 To avoid electric shock, never touch the inside of the LCD Monitor. Only a qualified technician should open the case of the LCD Monitor.
- 4 Never use your LCD Monitor if the power cord has been damaged. Do not allow anything to rest on the power cord, and keep the cord away from areas where people can trip over it.
- 5 Be sure to hold the plug, not the cord, when disconnecting the LCD Monitor from an electric socket.
- 6 Openings in the LCD Monitor cabinet are provided for ventilation. To prevent overheating, these opening 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.
- 7 Put your LCD Monitor in a Location with Low humidity and a minimum of dust.
- 8 Do not expose the LCD Monitor to rain or use it near water (in kitchens, near swimming pools, 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.
- 9 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 can be damaged if dropped, hit or scratched. Do not clean the front panel with keton-type materials (e.g., acetone), ethyl alcohol, toluene, ethyl acid, methyl, or chloride- these may damage the panel.
- 10 Position your LCD Monitor near an easily accessible AC outlet.
- 11 If your LCD Monitor does not operate normally-in particular, if there are any unusual sounds or smells coming from it-unplug it immediately and contact an authorized dealer or service center.
- 12 High temperature can cause problems. Don't use your LCD Monitor in direct sunlight, and keep it away from heaters, stoves, fireplaces, and other sources of heat.
- 13 Unplug the LCD Monitor when it is going to be left unused for an extended period of time.
- 14 Unplug your LCD Monitor from the AC outlet before any service.

1. Introduction

Contents of Package



TFT-LCD Monitor



Power Cord



BNC Cable



User's Manual



AC/DC Adaptor



DVI-D Cable (Option)



D-SUB Signal Cable (15 pin)

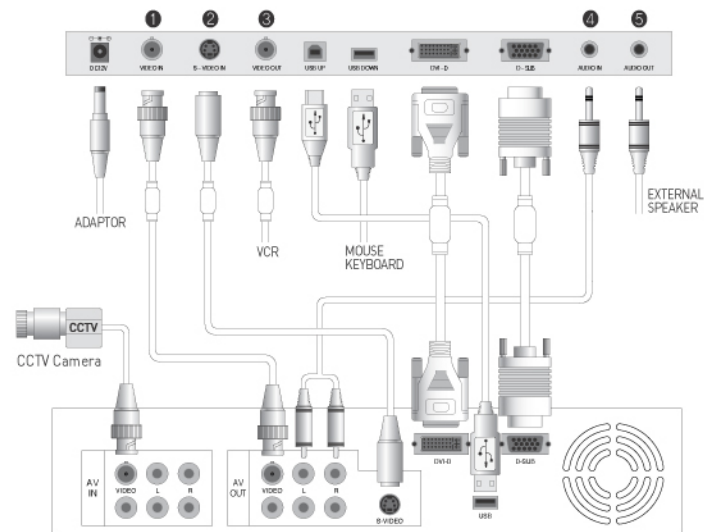


Audio Cable (Y type)

Please make sure the following items are included with your monitor.
If any items are missing, contact your dealer.

2. Connection

Connecting to the DVR



- ① Video In(BNC) : Connect the Video connection of the monitor and the DVR using the BNC Cable.
- ② S-Video In : Connect the S-Video connection of the monitor and the DVR using the S-Video Cable.
- ③ Video Out(BNC) : Connect the Video connection of the monitor and the VCR using the BNC Cable.
- ④ Audio In : Connect the Audio In connection of the monitor and the DVR using the Audio Cable(Y type).
- ⑤ Audio Out : Connect the Audio out connection of the monitor and the external speaker.

3. Basic Explanation

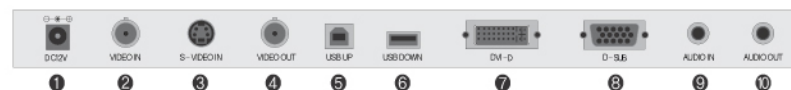
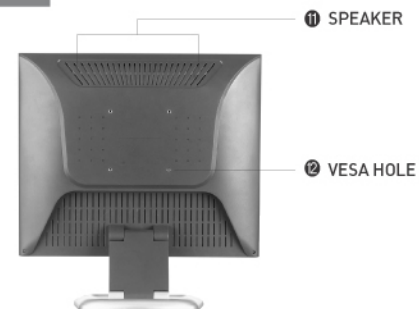
Front View



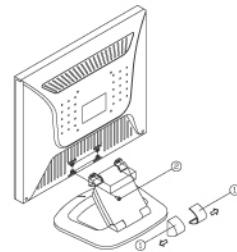
- ①② DOWN (▼) UP (▲) : Move to Up/Down on OSD Main Menu.
- ③④ LEFT (◀) RIGHT (▶) : Move to the Left/Right on OSD SUB Menu
Adjust the Volume.
- ⑤ POWER : Turns the LCD Monitor ON/OFF.
- ⑥ AUTO / SEL : This button is for adjusting the SCREEN Setting automatically on VGA Source and is for Selecting Left(Sub) Items on the OSD (On Screen Display).
(Note : "AUTO" function doesn't work on the DVI Source)
- ⑦ MENU : View or hide the OSD Menu.
- ⑧ MODE : This button is only for ANALOG and DVI Source.
The screen changes to PC-GAME-MOVIE, when pressing it.
- ⑨ SOURCE : The input source changes to ANALOG-DVI-VIDEO-S-VIDEO

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Rear View



- ① POWER : Connect the Power cord of your monitor.
- ② VIDEO IN(BNC) : Connect the BNC cable to video.
- ③ S-VIDEO IN : Connect your S-Video input cable to S-Video input for VCR use.
- ④ VIDEO OUT(BNC) : Connect the Video connection of the monitor and the VCR using the BNC Cable.
- ⑤ USB UP : Connect the upstream port of the display to the downstream port of the USB compliant DVR or another hub using the USB cable. (DVR must have a USB port)
- ⑥ USB DOWN : Connect the USB compliant peripherals to the downstream ports of the display.
- ⑦ DVI-D : Connect the supplied DVI-D cable to your computer.
Please note your Graphic Card should support DVI function.
- ⑧ D-SUB : Connect your Monitor to your computer using the D-SUB cable.
- ⑨ AUDIO IN : Connect an audio cable and adaptor between this input and audio output on DVR.
- ⑩ AUDIO OUT : You can connect a separate speaker to this output, you can hear all sounds through your separate speaker system.
- ⑪ SPEAKER : Built-in Speakers.
- ⑫ VESA HOLE for fixing on the wall : Supports VESA mounting standard for use with VESA mounting devices. It adopted 100X100mm VESA Standard.
Note: You can buy a wall-mount tool at your nearby electronic shops.



How to remove the Monitor Stand for installing VESA compliant mounting device.

1. Remove the cover of Screw Holes to the Left/Right.
2. Remove Screws and then remove the Monitor stand.

4. OSD Controls

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OSD Controls



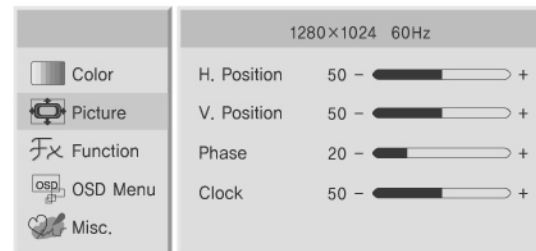
Color

- **Contrast** : Adjust the white level of the picture.
- **Brightness** : Adjust to brighten or darken the picture.
- **Color Adjust** : Adjust to increase or decrease the Color intensity.
- **Color Temp** : Select Color Temperature or set Color Level [9300K, 6500K, 5800K, USER].

How to use

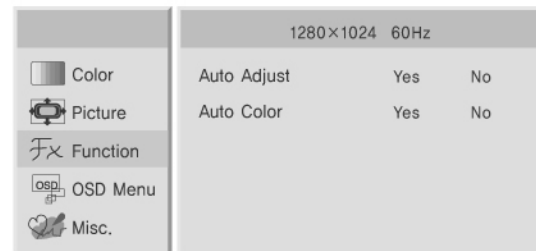
- Open OSD Menu by pressing the Menu button.
- Move to the desired menu using SEL button.
- Move the Sub-Menus of the chosen Menu using SEL button.
- Exit the OSD menu by pressing Menu button once or twice.

OSD Controls



Picture

- **H.Position** : Move the entire screen to the left or right.
- **V.Position** : Move the entire screen up or down.
- **Sharpness** : Adjust to sharpen or soften the picture.
- **Phase** : Fine tuning of the screen.
- **Clock** : Adjust the horizontal-size of the entire screen.
- * This function doesn't work on the DVI source.



Function

- **Auto Adjust** : Reset to the optimal state automatically.
- **Auto Color** : Reset the Color intensity automatically.
- * This function doesn't work on the DVI source.

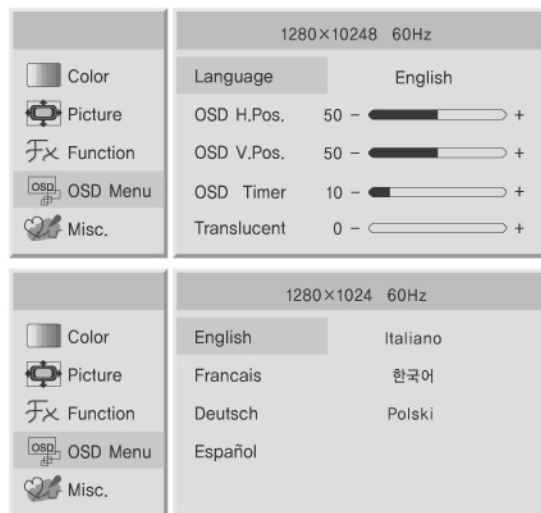
How to use

- Open OSD Menu by pressing the Menu button.
- Move to the desired menu using SEL button.
- Move the Sub-Menus of the chosen Menu using SEL button.
- Exit the OSD menu by pressing Menu button once or twice.

4. OSD Controls

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OSD Controls



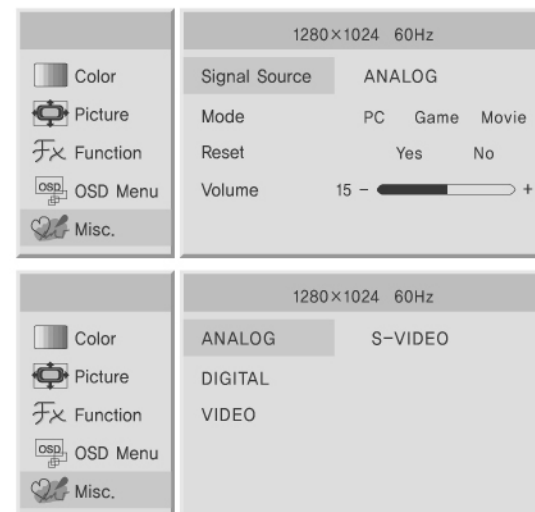
OSD Menu

- **Language** : Select the OSD language.
(English, Francais, Deutsch, Español, Italiano, 한국어, Polski)
- **OSD H.Pos.** : Move the OSD screen to the left or right.
- **OSD V.Pos.** : Move the OSD screen up or down.
- **OSD Timer** : Set time for auto-hiding OSD, when there is no menu selection after predefined time. Mximum is 100 sec.
- **Translucent** : Change the transparent or opaque status of the background of the OSD.

■How to use

- Open OSD Menu by pressing the Menu button.
- Move to the desired menu using SEL button.
- Move the Sub-Menus of the chosen Menu using SEL button.
- Exit the OSD menu by pressing Menu button once or twice.

OSD Controls



Misc.

- **Signal Source** : Setting Analog, DVI, Video, S-Video.
- **Mode** : Select PC, Game, or Movie for your screen status.
- **Reset** : Returns back all setting values to original factory values.
- **Volume** : Adjust the Speaker Volume

■How to use

- Open OSD Menu by pressing the Menu button.
- Move to the desired menu using SEL button.
- Move the Sub-Menus of the chosen Menu using SEL button.
- Exit the OSD menu by pressing Menu button once or twice.

4. OSD Controls

OSD Controls

PAL	660×232 60Hz
Color	Contrast 50
Video ADJ	Bright 50
Function	Hue 50
OSD Menu	Saturation 70
Misc.	Sharpness 28



Video ADJ

- **Contrast** : Adjust the white level of the picture.
- **Bright** : Adjust to brighten or darken the picture.
- **Hue** : Adjust the Color tone of the picture.
- **Saturation** : Adjust Saturation of the picture.
- **Sharpness** : Adjust to sharpen or soften the picture.

■How to use

- Open OSD Menu by pressing the Menu button.
- Move to the desired menu using SEL button.
- Move the Sub-Menus of the chosen Menu using SEL button.
- Exit the OSD menu by pressing Menu button once or twice.

5. Other

Troubleshooting

If problems exist, check these items before calling the service center.

Trouble	Suggested	Remedy
Screen is blank and power indicator is off.	<ul style="list-style-type: none"> ▶ Check power cable connection. ▶ Check power button. 	<ul style="list-style-type: none"> ▶ Secure the connection. ▶ Push the power button.
Screen is blank but power indicator is in green mode.	<ul style="list-style-type: none"> ▶ Check the monitor signal cable [D-SUB] connection. 	<ul style="list-style-type: none"> ▶ Secure the connection of monitor signal cable [D-SUB].
Display position and size is incorrect.	<ul style="list-style-type: none"> ▶ Check for correct adjustment of display position and size. 	<ul style="list-style-type: none"> ▶ Start Auto adjustment in main menu.
Screen color isn't uniform and stable.	<ul style="list-style-type: none"> ▶ Check video card resolution. 	<ul style="list-style-type: none"> ▶ Change the video card settings or resolution. ▶ Adjust color in SUB menu.
Display is too bright or too dark.	<ul style="list-style-type: none"> ▶ Check monitor brightness. 	<ul style="list-style-type: none"> ▶ Adjust the brightness and contrast in SUB menu.
Any noise appearing in images or characters are not clearly portrayed.	<ul style="list-style-type: none"> ▶ Check PHASE icon. 	<ul style="list-style-type: none"> ▶ Decrease the noise using the PHASE icon in main menu.
Picture is OK but No Sound.	<ul style="list-style-type: none"> ▶ Check that the AUDIO Cable connected between Audio in terminal of Monitor and Line Out terminal of your Computer. ▶ Check the Volume level. 	<ul style="list-style-type: none"> ▶ Make sure that MUTE is not on and adjust the volume level.
Sound is too low.	<ul style="list-style-type: none"> ▶ Check the Volume Level of monitor and Audio Level on your OS[Operating System]. 	<ul style="list-style-type: none"> ▶ Turn up the volume on both your Monitor and OS[Operating System].
DVI Mode does not appear.	<ul style="list-style-type: none"> ▶ Check the DVI cable. 	<ul style="list-style-type: none"> ▶ Secure the DVI Cable connection.

5. Other

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Model Specification

MODEL		17 Inch Series	19 Inch Series
Panel	Viewable Size	17 Inch	19 Inch
	Pixel pitch (H×V)	0.264×0.264mm	0.294/0.098×0.294mm
	Brightness	400cd/m ²	400cd/m ²
	Contrast Ratio	500 : 1	500 : 1
	View Angle (L/R/U/D)	70° / 70° / 80° / 80°	80° / 80° / 85° / 75°
Input Signal	Response Time (R/F)	12 ms	12 ms
	Horizontal Frequency	31~80KHz	30~80KHz
	Vertical Frequency	56~78Hz	56~85Hz
Resolution		1280×1024(60Hz)	1280×1024(60Hz)
Display Color		16.2M(dithering)	16.2M(dithering)
Interface		Analog / Video(BNC) / S-Video / USB / DVI-D(Optional) / D-SUB / Audio	Analog / Video(BNC) / S-Video / USB / DVI-D(Optional) / D-SUB / Audio
Video	Signal input	Analog RGB	Analog RGB
	Sync Type	Separate	Separate
Plug & Play		DDC 1/2B	DDC 1/2B
Power	AC	100~240V, 50/60Hz	100~240V, 50/60Hz
	DC	12V, 4.16A	12V, 4.16A
	Consumption	50W(Max)	50W(Max)
	Stand by	2W below	2W below
Speaker		1W×2	1W×2
On Screen Display (OSD)	Color	Color	Color
	Picture	Picture	Picture
	Function	Function	Function
	OSD Menu	OSD Menu	OSD Menu
	Misc.	Misc.	Misc.
	Video ADJ	Video ADJ	Video ADJ
7 Language Support		7 Language Support	7 Language Support
Tilt Angle(U/D)		0° / 90°	0° / 90°
Set Size (W×L×H)		370×190×390mm	420×190×420mm
Box Size (W×L×H)		490×192×435mm	490×192×435mm
Weight (NET /GROSS)		5.2Kg / 6.6kg	6.2Kg / 7.4kg
Features	Failsafe(85Hz)	Failsafe(85Hz)	Failsafe(85Hz)
	Full Auto Adjustment	Full Auto Adjustment	Full Auto Adjustment

The specification and designs contained herein may be subject to change without notice.

Display Modes

If the signal from the system equals the standard signal mode, then the screen is adjusted automatically. If the signal from the system does not equal the standard signal mode, then adjust the mode, while referring to the Video Card user guide (because the screen might not display, or only the power LED might be on). During manufacture, the screen image has been optimized for the display modes listed below:

MODE	Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)
NEC	640x400(DosMode) VESA compatible	24.8	56.00
VGA	640x350	31.47	70.00
	640x350	37.86	85.00
	720x400	31.47	70.00
	720x400	37.93	85.00
	640x480	31.47	60.00
	640x480	35.00	66.70
	640x480	37.86	72.80
SVGA	640x480	37.50	75.00
	640x480	43.27	85.00
	800x600	35.16	56.30
	800x600	37.88	60.30
	800x600	48.08	72.20
	800x600	46.87	75.00
XGA	800x600	53.67	85.10
	1024x768	48.36	60.00
	1024x768	56.40	70.10
	1024x768	60.02	75.00
	1024x768	68.67	85.00
SXGA	1280x1024	64.00	60.00
	1280x1024	79.98	75.00

FCC Information

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 interface, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of 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 instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try correct the interference by one or more of the following measures:

- 1.1. Reorient or relocate the receiving antenna.
- 1.2. Increase the separation between the equipment and receiver.
- 1.3. Connect the equipment into an outlet on a circuit different from that to which receiver is connected.
- 1.4. Consult the dealer or experienced radio/TV technician for help.

WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority operate the equipment.