



# LED CCTV Security Surveillance Monitors

A Genuine Mace® Accessory





# 1

## Introduction and Package Contents

Congratulations on your purchase. You can expect only the sharpest and most brilliant color images from this security surveillance monitor. Featuring simple OSD controls and built-in speakers, you will find this monitor both easy to use and a pleasure to look at.

### Contents

- Monitor
- 12VDC Power Adapter
- D-Sub 15-pin VGA Connector Cable
- User Guide

### Hardware Installation

The following sections in this guide give clear, step-by-step descriptions of the installation process and explain how to use the monitor for optimum results.

Please pay attention to the Regulations and Warnings Section of this User Guide before setting up the security monitor. Failure to do so may inadvertently result in personal injuries or machine damage.



## Specifications

Model Number:	MAC-MON-17LED	MAC-MON-19LED
Video inputs	(1) HDMI, (1) VGA, (2) Composite BNC	
Video outputs	(2) Composite BNC	
Audio inputs	(1) VGA PC Audio, (2) RCA Composite Audio	
Speakers	2 × 1.5W (rear projection)	
Display modes	HDMI, VGA PC, AV1, AV2	
Multi-window support	PIP, POP, Off (AV or VGA sub sources)	
OSD control	Picture Mode, Contrast, Brightness, Tint, Saturation, Sharpness, Color Temp, DNR, Position, Sound, PIP	
OSD languages	English, German, French, Italian, Spanish, Russian, Turkish, Polish, Dutch, Czech	
Auto adjustment	Yes (Only for VGA mode)	
Wall mount	Removable stands, VESA mount-ready case	
Max resolution	1280 × 1024	
Response time	5 ms	
Color depth	16.7 million colors	
Pixel pitch	0.264 × 0.264 mm	0.294 × 0.294 mm
Display area (H × V)	13.3 × 10.64 in (337.9 × 270.3 mm)	14.81 × 11.85 in (376.3 × 301.06 mm)
Viewing angle	Vertical -80° ~ 80°; Horizontal -85° ~ 85°	
Power	AC 100 ~ 240V 50/60Hz 12VDC Power Adapter 15W max. in "ON" Mode Under 3W in Power Saving Mode (100 VAC) Under 5W in Power Saving Mode (240 VAC)	
Temperature	Operation: 32° ~ 104°F (0° ~ 40°C) Storage: 14° ~ 140°F (-10° ~ 60°C) Humidity: 10% ~ 90%	
Dimensions (W × H × D)	15.16 × 15.12 × 6.5 in (385 × 384 × 165 mm)	16.69 × 16.34 × 6.5 in (424 × 415 × 165 mm)
Weight	7.5 lbs (3.4 Kgs)	11.7 lbs (5.3 Kgs)
Included accessories	Power Supply Adapter, VGA Cable, User Guide	
Regulatory compliance	FCC, CE, RoHS	





## VGA Timing

Item	Resolution	H Freq. (kHz)	V Freq. (Hz)
1	640 × 400 @ 70 Hz	31.460	70.080
2	640 × 480 @ 60 Hz	31.469	59.940
3	640 × 480 @ 72 Hz	37.861	72.809
4	640 × 480 @ 75 Hz	37.500	75.000
5	720 × 400 @ 70 Hz	31.460	70.080
6	800 × 600 @ 56 Hz	35.156	56.250
7	800 × 600 @ 60 Hz	37.879	60.317
8	800 × 600 @ 72 Hz	48.077	72.188
9	800 × 600 @ 75 Hz	46.875	75.000
10	1024 × 768 @ 60 Hz	48.363	60.004
11	1024 × 768 @ 70 Hz	56.476	70.069
12	1024 × 768 @ 75 Hz	60.023	75.029
13	1280 × 1024 @ 60 Hz	63.981	60.020
14	1280 × 1024 @ 75 Hz	79.976	75.025

### Note:

The timings with presets are recommended. Adjustments to the timing need to be made manually if they are not included in this list.

## Monitor and OSD Control

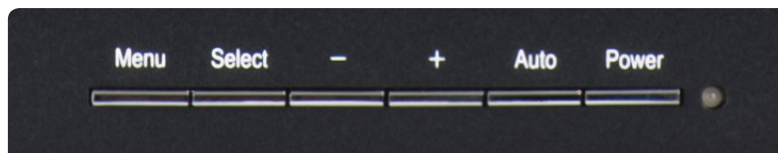
Your LED color monitor has a simple button layout for controlling the monitor and OSD (On Screen Display) functions.

### Button Functions

MAC-MON-17LED



MAC-MON-19LED



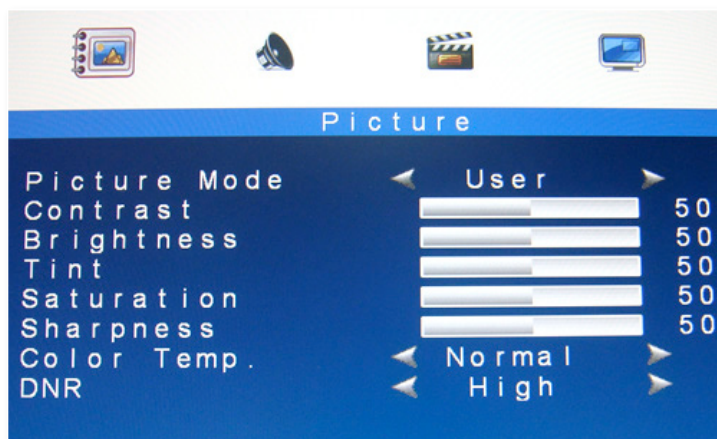
Button	Function
<b>M / Menu</b>	Enter the main menu
<b>S / Select</b>	Switch between modes: "PC", "AV1" and "AV2"
<b>- / ◀</b>	Switch setting item—decrease the value of the chosen item
<b>+ / ▶</b>	Switch setting item—increase the value of the chosen item
<b>A / Auto</b>	Automatically adjusts H-Position, V-Position, Pixel Clock and Phase for an optimal image in PC mode only
<b>Power</b>	Toggle the display between Standby mode and On/Off (Press "Power" and wait for 6 seconds)

### LED Status Display

Power State	LED Color
On	Green
Standby	Red
No Power	None (Off)

## OSD Control

### OSD Menu: Picture Mode



<b>Picture Mode</b>	Press -/◀ or +/▶ to select Picture Mode <b>User   Standard   Movie   Vivid</b>
<b>Contrast</b>	This is used to set the brightness of the screen. Press -/◀ or +/▶ to adjust the parameter.
<b>Brightness</b>	This is used to adjust the image contrast. Press -/◀ or +/▶ to adjust the parameter.
<b>Tint</b>	This is used to adjust the image Tint. Press -/◀ or +/▶ to adjust the parameter.
<b>Saturation</b>	This is used to adjust the image saturation. Press -/◀ or +/▶ to adjust the parameter.
<b>Sharpness</b>	Adjust the sharpness. It makes the image become soft. Press -/◀ or +/▶ to adjust the parameter.
<b>Color Temp.</b>	Press -/ OR +/ to adjust color tones <b>Cool   Warm   Normal</b>
<b>DNR</b>	Press -/ OR +/ to adjust noise reduction <b>High   Low   Off   Mid</b>
<b>Note:</b> VGA Mode: Contrast, Brightness, Color Temp., Auto Adjust.	

### OSD Menu: Sound Mode



<b>Volume</b>	Press -/◀ or +/▶ to adjust volume level
<b>Mute</b>	Press -/◀ or +/▶ to select sound <b>Off   On</b>

## OSD Menu: Settings Mode

### AV/HDMI Mode

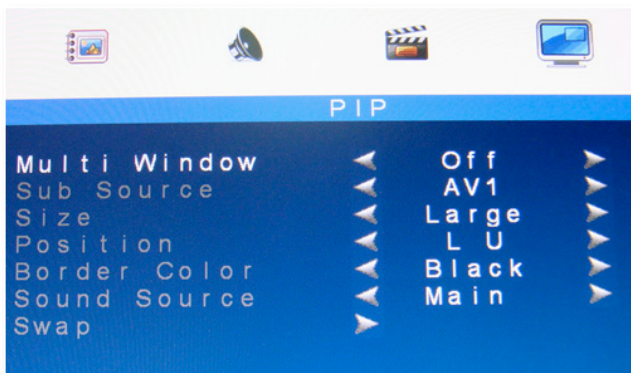


### VGA Mode



<b>Language</b>	Press <b>- / ◀</b> or <b>+ / ▶</b> to select language
<b>H. Position</b>	Move the display picture left or right Press <b>- / ◀</b> or <b>+ / ▶</b> to adjust the parameter
<b>H Zoom</b>	Adjust the H-size of the display picture Press <b>- / ◀</b> or <b>+ / ▶</b> to adjust the parameter
<b>V Position</b>	Move the display picture up or down Press <b>- / ◀</b> or <b>+ / ▶</b> to adjust the parameter
<b>V Zoom</b>	Adjust the V-size of the display picture Press <b>- / ◀</b> or <b>+ / ▶</b> to adjust the parameter
<b>Clock</b>	Press <b>- / ◀</b> or <b>+ / ▶</b> to adjust the parameter
<b>Phase</b>	Press <b>- / ◀</b> or <b>+ / ▶</b> to adjust the parameter
<b>Scale Mode</b>	Adjust the V-size of the display picture Press <b>- / ◀</b> or <b>+ / ▶</b> to adjust <b>Full   16:9</b>
<b>Reset</b>	Recall Default value
<b>Note:</b> "Clock" and "Phase" setting in VGA Mode only	

## OSD Menu: PIP/POP Setup Mode



<b>Multi-Window</b>	Press -/◀ or +/▶ to select PIP   POP   Off
<b>Sub Source</b>	Press -/◀ or +/▶ to select AV   VGA
<b>Size</b>	Adjust the size of Sub Source window Press -/◀ or +/▶ to select Large   Small
<b>Position</b>	Move the position of Sub Source window Press -/◀ or +/▶ to select position LU   RD   RU   LR
<b>Border Color</b>	Choose the border color of Sub Source window Press -/◀ or +/▶ to select color Black   Blue
<b>Sound Source</b>	Press -/◀ or +/▶ to select "Main, Sub" mode
<b>Swap</b>	Press S/Select to Swap the Source of Main and Sub

### Note:

1. AV1 and AV2, HDMI and VGA cannot be displayed at the same time on the monitor in PIP / POP mode.
2. If POP mode is selected both images are scaled to fit the screen.



# 4

## Caring for your LED Security Monitor

The monitor is a sensitive piece of electronic equipment. Proper care can prevent accidental damage to the LED panel or the monitor itself. By following these guidelines you can ensure many years of trouble-free use.

1. The LED monitor's casing and LED glass panel can be cleaned with a soft, lint-free cloth. Never use scrub pads or other cleaning materials with abrasive surfaces to clean your LED monitor!
  - a) A slightly damp cloth or newspaper may be used to clean the glass plate of fingerprints or smudges.
  - b) For the plastic case, a mild detergent may be used to clean the surface. However, you should ensure not to use too much detergent or water as this could leak into the interior of the casing.
2. DO NOT use cleaning fluids based on alcohol, methylated spirit, or ammonia. The glass plate has a hard surface coating to prevent scratches. However, the use of strong chemical cleaning agents may damage this coating. Use only a mild soap or detergent and water or specially formulated cleaners made for cleaning glass panels.
3. Avoid direct contact with water or other liquids. Never use the LED monitor in or around areas where water may pose a potential hazard to normal operation.
4. Only use the LED monitor indoors, and avoid monitor contact with oil, vapor, steam, moisture and dust. The LED monitor should be used in a clean and low humidity environment.
5. Keep the LED monitor away from heaters or other heat sources such as lighting equipment or direct sunlight.
6. Keep the LED monitor away from sharp objects.

### **WARNING:**

Any unauthorized modification to this equipment could result in the revocation of the authorization to operate the equipment and void the product warranty.



# 5

## Frequently Asked Questions

### Power button does not respond

- Check the power cord to ensure that it is securely plugged into the monitor base and also into the electrical outlet.
- Ensure there is electrical power coming from the AC outlet. Use another device to check for power.
- Unplug the power cord of the monitor from the AC outlet, wait a few minutes, then to plug the power cord into the AC outlet again. This will reset the monitor and power supply.

### No image on the screen

- Ensure that the DB-15 signal cable is properly connected to the display card/ computer.
- Check the DB-15 signal cable connector on both ends for bent or pushed-in pins.
- The display card should be properly seated in its card slot within your PC.
- Ensure that the computer's power switch is ON.
- Ensure that the monitor's power switch is ON.
- Unplug the power cord of the monitor from the AC outlet, wait a few minutes, then to plug the power cord into the AC outlet again. This will reset the monitor and power supply.

### Power LED is RED (with no image on the screen)

- Check the DB-15 signal cable to ensure that it is properly attached to the graphics display card.
- Check the DB-15 signal cable on both ends for bent or pushed-in pins.
- Make sure the computer is not in Power-Saving mode (move the mouse or press a key on the keyboard).

### No sound coming from the audio speakers

- Ensure that the audio cable is connected to the line out on the audio card and the line-in on the monitor.
- Inspect the audio cable for any apparent damage. Double check by switching to another audio cable to see if the audio works.

## Regulations & Maintenance

### FCC Compliance

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.

#### NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generation, 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 to correct the interference by one or more of the following measures:

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

### Precautions

#### ► Read all of these instructions and save them for later use

#### ► Follow all warnings and instructions on the product

#### ► Product

- Do not cover or block the vent holes in the case.
- Do not insert sharp objects or spill liquid into the LED monitor through cabinet slots. They may cause accident fire, electric shock or failure.
- Disconnect the power plug from the AC outlet if you will not use it for an indefinite period of time.
- Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage potentials or other risks.
- Do not touch the screen directly with your fingers. You may damage the screen, and oil from your skin is difficult to remove.
- Do not apply pressure to the screen. The LED surface is delicate.

#### ► Power

- Use the type of power indicated on the marking label.



#### ► Plugs

- Do not remove any of the prongs of the monitor's three-pronged power plug.
- Disconnect the power plug from the AC outlet under following conditions:
  - If you will not use it for an indefinite period time.
  - When the power cord or plug is damaged or frayed.
  - If the product does not operate normally when the operation instructions are followed. Adjust only those controls that are covered by the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
  - If the product has been dropped or the cabinet has been damaged.
  - If the product exhibits a distinct change in performance, this indicates a need for service.

#### ► Power and extension cords

- Do not allow anything to rest on the power cord.
- Do not locate this product where people will walk on the cord.
- Use the proper power cord with correct attachment plug type. If the power source is 120VAC, use a power cord that has UL and C-UL approvals. If the power source is a 240VAC supply, use the tandem (T blade) type attachment plug with ground conductor power cord that meets the respective European country's safety regulations, such as VDE for Germany.
- Do not overload wall outlets or power cords. Ensure that the total of all units plugged into the wall outlet does not exceed 10 amperes.
- Ensure that the total ampere rating of all units plugged into the extension cord is not over the cord's rating.
- If the power supply cord, which came with your monitor, is to be connected to the PC instead of the wall outlet, this equipment is to be used with UL/TUV approved computers with receptacle rated 100-240V AC, 50/60Hz, 2.0A(minimum).

#### ► Environment

- Place the monitor on a flat and level surface.
- Place the monitor in a well-ventilated place.
- Keep the monitor away from:  
Extremely hot, cold or humid places, places directly under sunlight, dusty surroundings, equipment that generate strong magnetic fields.



SECURITY PRODUCTS

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