

# CAMOS

## WIDE TFT LCD COLOR MONITOR series (17", 19", 22")

**MM-1750H / MM-1950H / MM-2250H**

### INSTRUCTION MANUAL

Thank you for purchasing this product.  
For proper usages and application,  
Please read this instruction manual thoroughly.





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## SAFEGUARD INSTRUCTIONS

Please read the "Safety Rules" carefully before using this product. Following the safety rules prevents users from damages related with the misuse of the product. It is very important to follow these safety rules. We state "Caution" and "Warning" to clarify any potential risk for a damage associated with the misuse of the product.



### CAUTION

This information is for preventing damage or shorten the life time of the products.



### WARNING

This information is for preventing bodily harm or even death and use should follow this safety rules.



### CAUTION

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**Should install while power off. (After install products, connect DC jack)**  
- It may cause to electronic shock or malfunction.



**While stop driving (parking), set the car in motion.**  
- It may cause battery discharge.



**Do not use multi socket or extended adaptor.**  
- It may cause unexpected heating, fire and malfunction.



**Unplug product when do not use for a long time.**  
- It may case fire by short circuit due to heating.



**Do not place near magnet.**  
- It may cause malfunction and trouble.



**Do not push a LCD panel.**  
- It may cause LCD broken.



**In case of inserting battery, attend to polarity and insert according to direction.**  
- When wrong inserting, it may cause fire, damage by explsn.



**Before install the body, take enough place at least more than 15cm from the wall to emit heat.**



**The battery for remote controller is not rechargeable and should replace same or similar model. Used battery may cause environmental pollution, so trash it carefully.**  
- This may cause a malfunction and problem.

## **WARNING**

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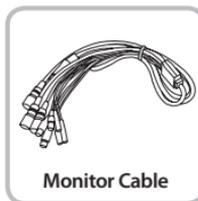
-  **Do not put the product in place where sudden temperature increasing and should use on optimum voltage, temperature and humidity.**
  - It may cause to electronic shock or malfunction.
-  **Do not get product wet and operate with wet hands.**
  - It may cause to electronic shock or malfunction.
-  **Do not place near of air bag effective range.**
  - It may cause malfunction of air bag or accident, injury due to hitting monitor by air bag.
-  **Keep clean dust on power socket.**
  - It may cause electronic shock and fire by bad connection.
-  **Do not pull cord with a jerk, should catch a plug and pull. Do not use damaged cord.**
  - It may cause cord malfunction, electronic shock and fire.
-  **When clean exterior, power off and wipe with dry cloth.**
  - Wet cloth may cause a electronic shock.
-  **Do not clean exterior with volatility or oily solvent.**
  - Neither keep touching rubber and plastic for long time.
  - It may cause change of surface, fall of paint, malfunction and fire.
-  **Do not place where vibration and shock.**
  - It may cause throw down and then malfunction and accident.
-  **Do not put metals as like pin and needle into hole and chink of grill, speaker.**
  - In case of inserting them, stop to operate, it may cause electronic shock, fire and malfunction.
-  **Do not use in problem condition as like smoking, smell something burn.**
  - It may cause fire. Stop to use and make inquiries to agency.
-  **Do not disassemble, repair and remodeling.**
  - It may cause malfunction and injury, can not get warranty.
  - Make inquiries to agent for repair and checkup.

# 1 FEATURE

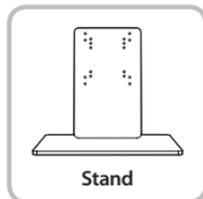
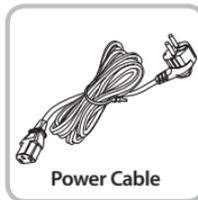
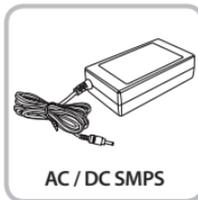
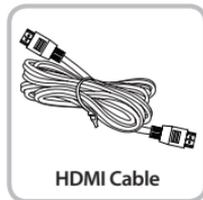
- Digital TFT Wide LCD with high resolution and low reflection
- All electronic control functions
- All functions are displayed on screen (OSD function)
- Auto recognition function of Video Signal system (PAL / NTSC / AUTO)
- 7 languages on OSD menu (ENG-FRA-DEU-ESP-ITA-JPN-KOR)
- Mode selection (HDMI - AV1 - AV2)
- Built-in speaker (3Watt x 2)
- Low power consumption

# 2 BOX CONTENTS

## \* BASIC CONTENTS

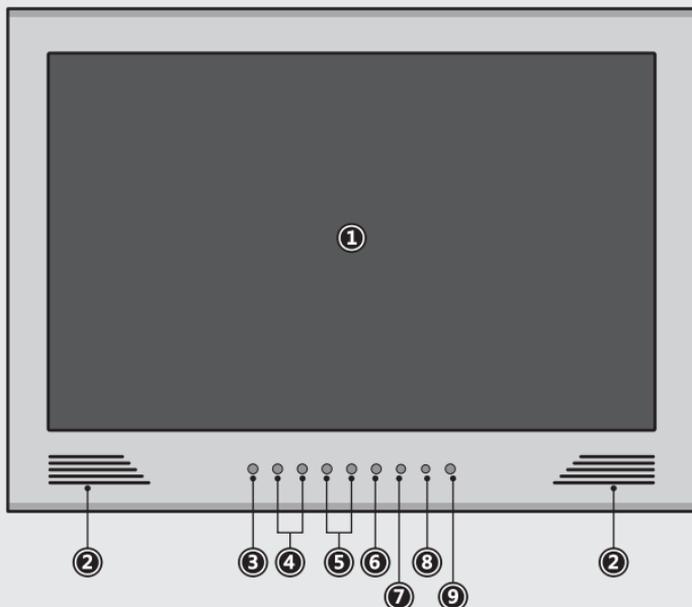


## \* OPTION



### 3 FUNCTION OF EACH PART

#### MONITOR



#### 1. LCD SCREEN

LCD SCREEN

#### 2. SPEAKER

STEREO SPEAKER (3W x 2)

#### 3. MENU

Selecting menu and changing function

#### 4. SELECT

Button to select menu and mode

#### 5. ADJUST

Adjusting menu level or volume

#### 6. MODE

Change mode (HDMI / AV1 / AV2)

#### 7. REMOTE SENSOR

Sensor for receiving signal from the remote control

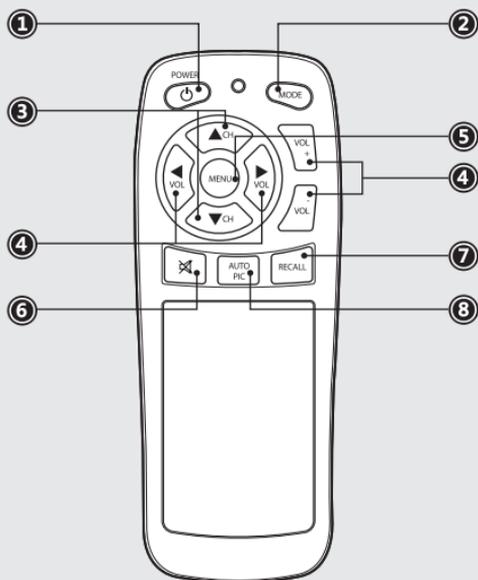
#### 8. STAND-BY LED

Displays stand-by and ON/OFF

#### 9. POWER

Power ON/OFF

## REMOTE CONTROLLER



### 1. POWER

Power ON/OFF button

### 2. MODE

Change mode (HDMI - AV1 - AV2)

### 3. UP/DOWN

Moving up/down on menu

### 4. ADJUST/VOLUME

Adjusting menu level or volume

### 5. MENU

Selecting menu and changing function

### 6. MUTE

Mute ON/OFF

### 7. RECALL

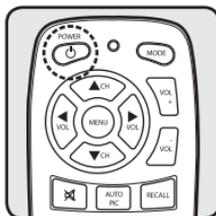
Displaying the current mode and volume level

### 8. AUTO PIC

Auto screen setting (USER-DYNAMIC-NORMAL-MILD)

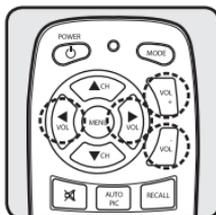
## 4 OPERATION

### 1. SCREEN ON/OFF



1. Press the POWER button on the monitor front or remote controller, the screen turns on. Press the POWER button again, the screen turns off.
2. If the power is connected, the S/BY LED is on. (to show power status)  
When the screen is on, the S/BY LED is off.

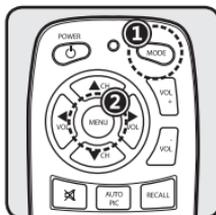
### 2. VOLUME CONTROL



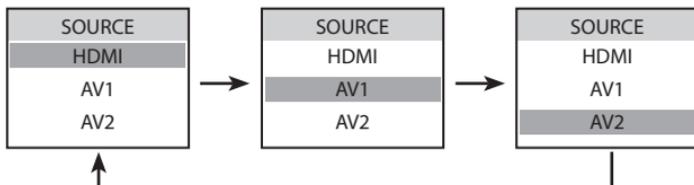
1. To control volume, press the adjust buttons (◀ ▶) on the monitor front or volume button on the remote controller. (0~100)
2. This function is not working on "NO SIGNAL" status.

### 3. MODE

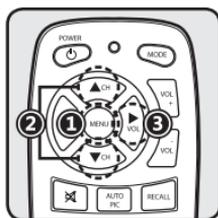
\* A function to change external video signals to HDMI, AV1, AV2.



1. Press the MODE button on the monitor front or remote control, the mode changes. (HDMI - AV1 - AV2)
2. Select input mode and press the MENU button on the monitor front or remote controller then mode is changed.



## 4. MENU



1. Press the MENU button on the monitor front or remote control, the menu list is displayed. Press the MENU button again, it is disappeared.
2. Select a menu item by ▲▼ button on the monitor front or remote controller, then press ► button.

3. Adjust the value by pressing ◀▶ button, then press MENU button to fix it.

\* Menu item is variable depending on current output mode.

### • HDMI mode

#### 1. PICTURE

PICTURE	BRIGHTNESS	50 -	+
OSD SETUP	CONTRAST	50 -	+
SOUND			

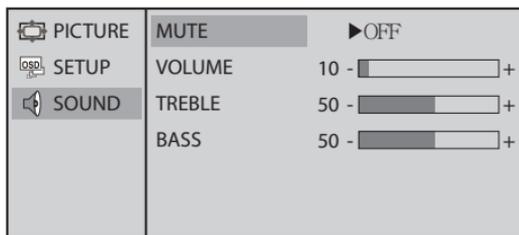
- 1) BRIGHTNESS Adjust the brightness of the screen.
- 2) CONTRAST Adjust the contrast of the screen.

#### 2. SETUP

PICTURE	LANGUAGE	▶ ENGLISH	
OSD SETUP	OSD TIME	10 -	+
SOUND	TRANSLUCENT	0 -	+
	OSD H POS.	50 -	+
	OSD V POS.	50 -	+
	FACTORY RESET	▶ OFF	

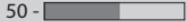
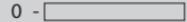
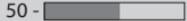
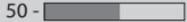
- 1) LANGUAGE Change the OSD language. (ENG-FRA-DEU-ESP-ITA-JPN-KOR)
- 2) OSD TIME The number of seconds that the OSD will remain visible before disappearing. (1~60sec.)
- 3) TRANSLUCENT Change the opaqueness of the background of the OSD. (0~100%)
- 4) OSD H POS. Move the OSD window to the horizontal direction.
- 5) OSD V POS. Move the OSD window to the vertical direction.
- 6) FACTORY RESET A factory default reset will clear all of OSD information.

### 3. SOUND



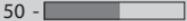
- 1) MUTE** Mute the sound temporarily. Mute is released when you adjust volume.
- 2) VOLUME** Adjust the sound volume.
- 3) TREBLE** Emphasize high frequency audio.
- 4) BASS** Emphasize low frequency audio.

## 1. PICTURE

PICTURE	BRIGHTNESS	50 -  +
osd SETUP	CONTRAST	50 -  +
SOUND	SHARPNESS	0 -  +
	COLOR TINT	50 -  +
	COLOR TONE	50 -  +
	SYSTEM	AUTO NTSC PAL

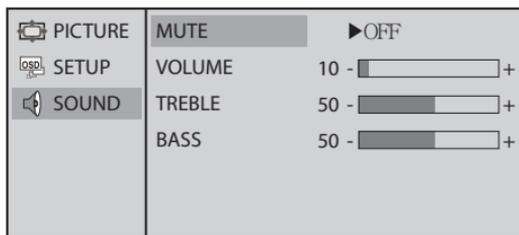
- 1) BRIGHTNESS** Adjust the brightness of the screen.
- 2) CONTRAST** Adjust the contrast of the screen.
- 3) SHARPNESS** Adjust the sharpness of the video image.
- 4) COLOR TINT** Change the richness of color.
- 5) COLOR TONE** Change the tone of color.
- 6) SYSTEM** Change video signal system NTSC, PAL, AUTO.

## 2. SETUP

PICTURE	LANGUAGE	▶ ENGLISH
osd SETUP	OSD TIME	10 -  +
SOUND	TRANSLUCENT	0 -  +
	OSD H POS.	50 -  +
	OSD V POS.	50 -  +
	FACTORY RESET	▶ OFF

- 1) LANGUAGE** Change the OSD language. (ENG-FRA-DEU-ESP-ITA-JPN-KOR)
- 2) OSD TIME** The number of seconds that the OSD will remain visible before disappearing. (1~60sec.)
- 3) TRANSLUCENT** Change the opaqueness of the background of the OSD. (0~100%)
- 4) OSD H POS.** Move the OSD window to the horizontal direction.
- 5) OSD V POS.** Move the OSD window to the vertical direction.
- 6) FACTORY RESET** A factory default reset will clear all of OSD information.

### 3. SOUND



- 1) **MUTE** Mute the sound temporarily. Mute is released when you adjust volume.
- 2) **VOLUME** Adjust the sound volume.
- 3) **TREBLE** Emphasize high frequency audio.
- 4) **BASS** Emphasize low frequency audio.

## 5. FUNCTION OF REMOTE CONTROL

\* This product has a function worked by only remote controller.

### • MUTE

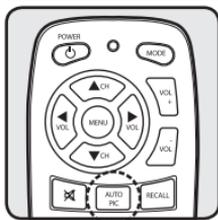


If press MUTE button on the remote controller, it turns mute mode and there is an icon on right top side of screen.

To clear mute mode, press mute button one more or press volume button.



### • AUTO PIC



If press AUTO PIC button on the remote controller, the screen is changed as saved on memory.

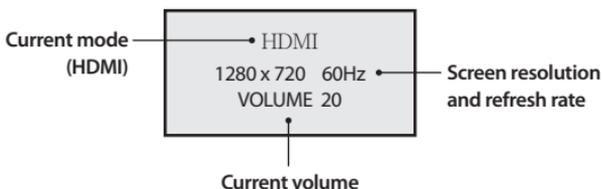
The screen is changed [USER-DYNAMIC-NORMAL-MILD] by pressing button.

\* This function is not working on HDMI mode.

### • RECALL



Display the current mode and volume level.



## 6. OSD MESSAGE

### OUT OF RANGE



There is an error message as same as left one, when the setting value of external device is not comparable with this monitor.

EX) Resolution, Refresh rate, etc.

### NO SIGNAL



There is a message as same as left one, when the external device is not connected or power off status of external device.

After connecting this monitor and external device, power on the external device.

## 7. Supported display mode

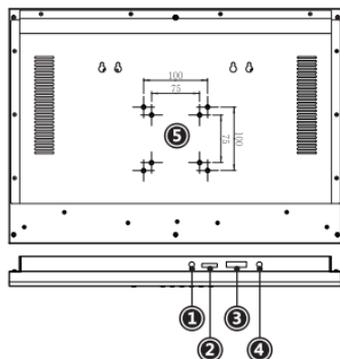
### \* MM-1750H / MM-1950H

Mode	Resolution	Horizontal Frequency(KHz)	Vertical Frequency(KHz)
VGA	640 x 480	31.469	59.940
	640 x 480	37.500	75.000
WVGA	720 x 400	31.469	70.087
	720 x 480	31.469	59.940
SVGA	800 x 600	37.880	60.300
	800 x 600	46.875	75.000
XGA	1024 x 768	48.363	60.004
	1024 x 768	60.023	75.029
WXGA	1280 x 720	45.000	60.000
	1280 x 720	56.383	75.029
WSXGA+	1440 x 900	55.919	60.000

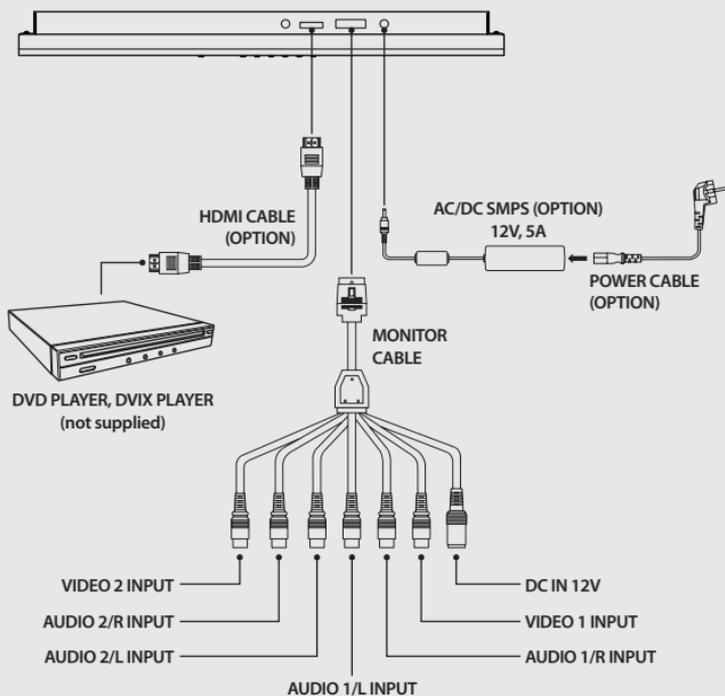
### \* MM-2250H

Mode	Resolution	Horizontal Frequency(KHz)	Vertical Frequency(KHz)
VGA	640 x 480	31.469	59.940
	480i	640 x 480	37.500
WVGA	720 x 400	31.469	70.087
	480p	720 x 480	31.469
SVGA	800 x 600	37.880	60.300
	800 x 600	46.875	75.000
XGA	1024 x 768	48.363	60.004
	1024 x 768	60.023	75.029
WXGA	1280 x 720	45.000	60.000
	720p	1280 x 720	56.383
SXGA	1280 x 1024	64.000	60.000
	1280 x 1024	74.600	70.000
	1280 x 1024	80.000	75.000
WSXGA+	1440 x 900	55.919	60.000
1080i	1920 x 540	33.750	60.000
1080p	1920 x 1080	67.500	60.000

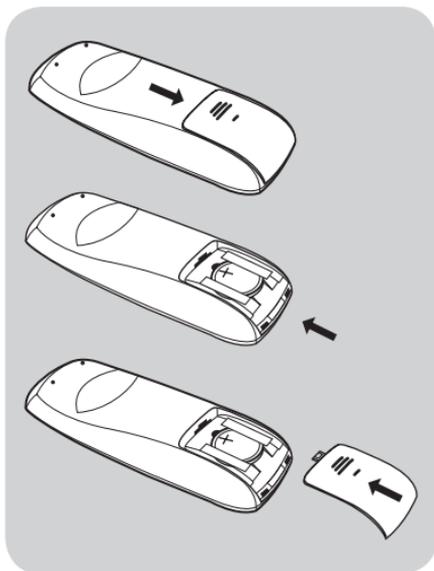
## 5 CONNECTION



- 1) REMOTE OUT  
EXTERNAL REMOTE SENSOR OUT
- 2) HDMI INPUT  
HDMI CONNECTOR
- 3) MULTI CONNECTOR  
DC 12V, AV1, AV2
- 4) DC IN 12V   
DC 12V input
- 5) VESA HOLE  
VESA HOLE (75 x 75mm / 100 x 100mm)



## 6 CHANGING REMOTE CONTROL BATTERY



1. Slide and open the battery cover.

2. Insert new battery and ensure that the polarities are correct when inserting.  
(No. CR2025)

3. Slide and close the battery cover.

## 7 SPECIFICATIONS

### MM-1750H

Screen size	433.019 mm (17.1")
Active area	367.2(H) x 229.5(V)
Resolution	1440 x 900
Pixel Pitch	0.255 x 0.255
Brightness	250cd/m <sup>2</sup>
Contrast ratio	800:1
View angle	80/80/75/85 (L/R/U/D)
Input voltage	DC 12V
Input video system	2 composite (NTSC / PAL), HDMI (720p)
OSD language	7 languages
Sound signal output	Max. 3W x 2
User controls	MENU / DOWN / UP / LEFT / RIGHT / MODE / POWER
Operating temperature	0°C ~ 50°C
Storage temperature	-20°C ~ 60°C
Dimension	418(W)x305(H)x48.5(D) mm
Weight	3.54 kg

**MM-1950H**

Screen size	481.33 mm (18.95")
Active area	408.24(H) x 255.15(V)
Resolution	1440 x 900
Pixel Pitch	0.2835 x 0.2835
Brightness	300cd/m <sup>2</sup>
Contrast ratio	1000:1
View angle	80/80/75/85 (L/R/U/D)
Input voltage	DC 12V
Input video system	2 composite (NTSC / PAL), HDMI (720p)
OSD language	7 languages
Sound signal output	Max. 3W x 2
User controls	MENU / DOWN / UP / LEFT / RIGHT / MODE / POWER
Operating temperature	0°C ~ 50°C
Storage temperature	-20°C ~ 60°C
Dimension	464(W)x330(H)x48.5(D) mm
Weight	4.33 kg

**MM-2250H**

Screen size	546.86 mm (21.53")
Active area	476.64(H) x 268.11(V)
Resolution	1920 x 1080
Pixel Pitch	0.24825 x 0.24825
Brightness	300cd/m <sup>2</sup>
Contrast ratio	1000:1
View angle	85/85/80/80 (L/R/U/D)
Input voltage	DC 12V
Input video system	2 composite (NTSC / PAL), HDMI (1080p)
OSD language	7 languages
Sound signal output	Max. 3W x 2
User controls	MENU / DOWN / UP / LEFT / RIGHT / MODE / POWER
Operating temperature	0°C ~ 50°C
Storage temperature	-20°C ~ 60°C
Dimension	520(W)x370(H)x48.5(D) mm
Weight	5.12 kg



# INSTRUCTION MANUAL