

User Manual

LCD Display



Models:

M2-490DS-A1, M2-490DSN-A1

M2-550DS-A1, M2-550DSN-A1

M2-650DS-A1, M2-650DSN-A1

Contents

Document History	3
Important Safety Instructions.....	4
Safety Precautions.....	4
Installation	5
Use	6
Cleaning.....	7
Warnings	8
Use	8
Exemptions	8
Product Features.....	9
Package Contents	9
Unpacking.....	9
Packing list.....	10
Accessories	12
Product Overview	13
Main Power Switch and AC Inlet	13
Power Switches.....	14
Input and Output Connectors.....	15
Operating the Display	16
Setting up the Display.....	16
Turning Display On and Off	17
Adjusting Volume and Input Source	17
Using the Keypad.....	18
Reading the Status LED.....	18
Avoiding Image Retention	19
Using the Remote Control	20
Locking the OSD (On-screen Display).....	21
Changing the Remote Control Battery.....	22
Using the Menus	23
Navigating through the Menu System	23
Image Settings.....	23
Display Settings	25
Audio Settings.....	26
Basic Settings.....	26
Adv. Settings.....	29
Information	31
Wake Up from Sleep.....	32
Default Settings.....	33
Supported Timings	37
Specifications	38
Troubleshooting	41
External Control.....	42
Compliance	51
Dimensions	52
Appendix I: Moving and Carrying Notice	58
Appendix II: Installing a Wall Mount	59
Appendix III: Wall Mount Safety Notes	62

Document History

Title: Sample Display User Manual

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Revision: 01

Version	Update	Remark
<i>Ver.01</i>	<i>18 Nov, 2025</i>	First issue.
<i>Ver.02</i>	<i>21 Nov, 2025</i>	Revise the description of remote control via RS232 and Ethernet

Important Safety Instructions

Before using this display, please read this user manual thoroughly to help protect against property damage and to ensure your personal safety and the safety of others.

- Be sure to observe the following instructions.
- For your safety, be sure to observe the warnings located in this manual.
- For installation or adjustment, please follow the instructions in this manual and refer all servicing to qualified service personnel.

Safety Precautions

If smoke or a peculiar smell comes from the display, remove the power plug from the outlet immediately.

Failure to do so may result in fire or electrical shock. Contact your dealer for inspection.

If the display has been turned on but there isn't a picture, remove the power plug from the outlet immediately.

Failure to do so may result in fire or electrical shock. Contact your dealer for inspection.

If water is spilled or objects are dropped inside the display, remove the power plug from the outlet immediately.

Failure to do so may result in fire or electrical shock. Contact your dealer for inspection.

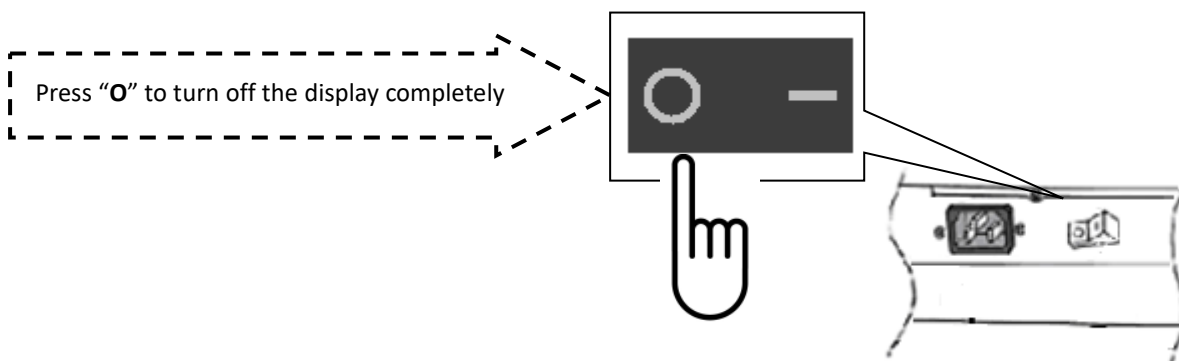
If the display is dropped or the cabinet is damaged, remove the power plug from the outlet immediately.

Failure to do so may result in fire or electrical shock. Contact your dealer for inspection.

To turn off the power of the display, press "O" on the main power switch at side of display.

The power standby/on indicator will go off and the display cannot be turned on/off by using the POWER button on the remote control. (To turn on/off the display by the remote control, press the main power switch again and light the power standby/on indicator.)

- When turning off the display by pressing the POWER button on the remote control, the main power of the display is not turned off completely.
- To disconnect power completely, remove the power plug from the outlet.



If the power cord or plug is damaged or becomes hot, turn off the main power switch of the display, make sure the power plug has cooled down and remove the power plug from the outlet.

If the display is still used in this condition, it may cause fire or electrical shock. Contact your dealer for replacement.

Installation

Don't install in a high-temperature environment.

If the display is used in high-temperature or in direct sunlight, it may cause the case or other parts to become distorted or damaged, resulting in overheating or electrical shock.

Don't install in a high-humidity environment.

This may cause overheating or electrical shock.

Don't install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.

This may cause fire or electrical shock.

Don't overload outlets or cables beyond electrical capacity.

Don't use extension cords as it may cause fire or electrical shock.

Don't insert the power plug into an outlet other than 100~240V AC.

This may cause fire or electrical shock.

- Don't use a damaged power plug or worn outlet.
- Don't insert an improper power plug it may cause fire or electric shock.

Don't place the display on an unstable shelf or surface.

The display may fall, causing injury. Please install on a horizontal, stable, level surface.

Don't place objects on the display.

- If the display is covered or the vents are blocked, the display could overheat and cause a fire.
- If metal or liquid gets into the display, it may cause fire or electrical shock.
- Do not put heavy objects on the display as they may fall, causing injury.
- Please keep a 10 cm minimum distance between the display and the wall for enough ventilation.

Don't move the display when it is connected to the power cord and AV cables.

- When moving the display, make sure to remove the power plug and cables from the outlet or source.
- When unpacking or carrying the display, at least 2 people are needed. Make sure the display is carried upright.
- Transport the display upright. Avoid placing the display face up or down.
- Handle the display gently. Do not drop.

Use

If you encounter a problem during installation, please contact your dealer for assistance. Don't repair or open the display by yourself.

Failure to do so may result in fire or electrical shock. Contact your dealer for inspection.

Protect and correctly use the power cord/plug.

- Don't pinch the power cord/plug between hard surfaces.
- Don't step on the power cord/plug.
- Before inserting the power plug into the wall outlet, connect the power cord to the display.
- Don't operate the display with a damaged power cord or it may damage the display.
- The power cord should be connected to a socket-outlet with earthing connection.

Using extension cords (not recommended)

If an extension cord must be used, ensure the voltage rating exceeds the max power consumption of the display. If the voltage rating is less than the display, it will cause the extension cord to overheat.

If there is thunder or lightning, don't touch the display or the power plug.

This may cause an electrical shock.

Don't use any kind of liquid on the display.

- If liquid is spilled on the display, remove the power and ask qualified service personnel to check the display.
- If the liquid gets on the display's screen, please clean it with a dry and soft cloth immediately.
- Don't use any harsh chemicals on the display.
- If metal or liquid gets into the display, it may cause a fire or an electrical shock.

Don't install or remove the power plug with wet hands.

This may cause an electrical shock.

If the display is not used for a long period of time, unplug the display.

This may cause premature wear of electrical components or fire.

Don't press on the LCD panel.

This may cause personal injury or panel damage.

Don't push or shake the display.

This may cause damage or injury.

- If the glass of the display panel is broken, liquid may escape. Please don't touch the liquid.
- If liquid get into your eyes or touches your skin, wash with the clean water and seek medical attention immediately.

Precautions with the remote-control batteries

- Please only use approved AAA type batteries.
- Please be sure to insert batteries by matching the + and -.
- Don't recharge, heat, disassemble, short or throw batteries into a fire.
- Don't mix a new battery with a used one.
- Don't mix different types of batteries together (only use the specified type). Or, it may cause burn and injury.

CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type.

Dispose of Used Batteries according to the Instructions

Cleaning

If dust has collected on the power plug, remove the plug from the outlet and clean off the dust.

Dust build-up may cause a fire.

Take off the power plug before cleaning.

Failure to do so may result in electrical shock or damage.

Cleaning the surface of the display

- When the surface of the display becomes dirty, please wipe the surface lightly with a soft clean cloth.
- If the surface requires additional cleaning, lightly moisten the cloth.
- Do not let any kind of liquid enter the display as it may cause electrical shock or damage.
- Do not clean the display with alcohol, solvents or ammonia, as this could damage the display.

Warnings

Use

- Do not use the display lying flat on its back.
- Transport the display upright with proper packaging. Avoid placing the display face up or down. Be careful not to bump to the display.
- **Operation usage to protect against image sticking due to long-term static display**
 - Recommend not to continuously operate over 20 hours a day.
- **Liquid Crystal refresh time is required. Cycling display between 5 minutes' information (static) display and 10 seconds' moving image.**
 - Periodical display contents should be changed from static image to moving picture.
 - Different background and image colors changed respectively, and changed colors periodically
 - Background and image with large different luminance displayed at the same time should be avoided.
 - Periodical power-off the system for a while or screen saver is needed after long-term static display.
 - Moving pictures or black pattern is strongly recommended for screen saver.
 - Do not send a static (non-moving) image to this display, or it may cause image 'burn-in' or image retention.
- "Burn in" and/or image retention is not covered under warranty.
- If the display keeps displaying the same pattern for a long period of time, the image may remain visible on the screen.
- Make sure to change the image on the display periodically. It is recommended to (1) turn off the display for at least 6 hours after 18 hours of usage in a 24-hour period to avoid image retention and (2) to turn the "IRFM" function to "ON" in the OSD menu (under "Adv. Setup" Menu).
- Try not to run the display in a closed environment. Suitable venting on the system cover would be helpful for cooling.
- Do not connect or disconnect the module in the "Power On" condition.

Exemptions

- This product isn't warranted for any damage caused by natural disaster (such as earthquake, thunder, etc.), fire, acts by third parties, accidents, owner's intentional misuse and fault, or use in other improper conditions.
- This product isn't warranted for incidental damages (such as profit loss or interruption in business, modification or erasure of record data, etc.) caused by use or inability to use of this product.
- This product isn't warranted for any damage caused by inappropriate operation, or from not following the user manual.
- This product isn't warranted for any damage caused by misuse or malfunction through simultaneous use of this product and the connected equipment or software.
- This product isn't warranted for any damage caused by neglect of the instructions described about installation.
- This product isn't warranted for any damage caused by improper installation.
- This product isn't warranted for any damage caused by disassembly, modification or repair by non-authorized service center or people.

Product Features

All touch/non-touch displays support a 3840x2160 UHD format and can display true 1.07 billion colors. They also support a full range of interface types, including DisplayPort 1.2 x1, HDMI 2.0 x2, VGA, PC audio in, IR extender, and S/PDIF.

<u>Video system Input:</u>	<u>RGB Input:</u>	<u>Communication</u>
HDMI x2 DisplayPort x1	VGA x1	RS-232 in (D-sub 9 pin) Ethernet

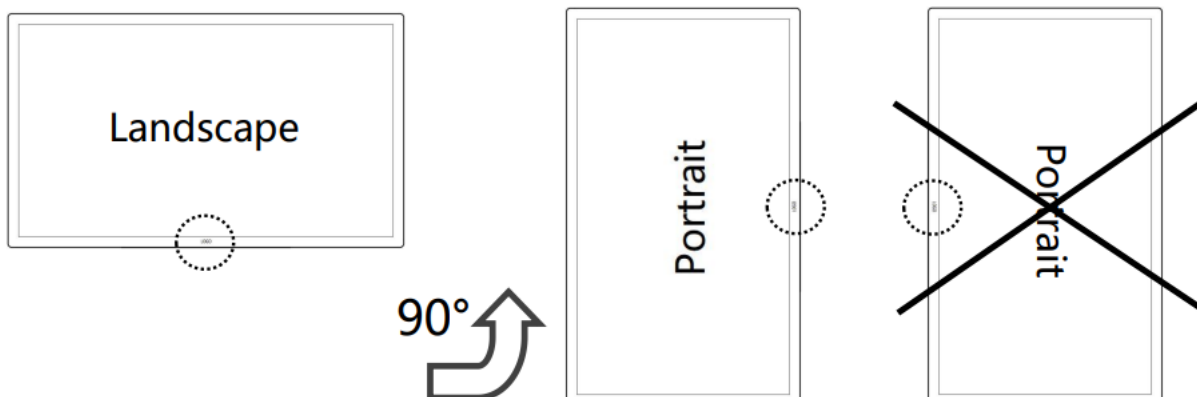
Other features

- DisplayPort v1.2 input
- HDMI v2.0 inputs with HDCP.
- Audio function output
- Internal speaker 10Wx2
- Signal source auto detection.
- OSD keypad lock function.
- Landscape, portrait supported
- Power ON/OFF Timer setup
- Low power consumption
- PCAP Touch Technology(Touch Model)

Package Contents

Unpacking

- The display is packed using cushions to protect the display during shipping.
- Before unpacking your display, prepare a stable, level, and clean surface near a wall outlet.
- Set the LCD Display box in an upright position and open from the top of the box before removing the top cushions.
 - Step 1: Remove the white handle and cut the banding
 - Step 2: Remove the top cushion and take the accessory bag out.
- When used in portrait mode, it should be counterclockwise (regular front view perspective).



Packing list

DRAWING NAME		REV	DESCRIPTION	DATE	APP.																								
CAVITY/SET		⚠																											
CAV. MATERIAL		⚠																											
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>No.</th> <th>Part Name</th> <th>Q'ty</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>CARTON</td> <td>1</td> </tr> <tr> <td>2</td> <td>EPE CUSHION-TOP</td> <td>1</td> </tr> <tr> <td>3</td> <td>Monitor</td> <td>1</td> </tr> <tr> <td>4</td> <td>抗靜電袋(Anti-Static Bag)</td> <td>1</td> </tr> <tr> <td>5</td> <td>EPE CUSHION-Bottom</td> <td>1</td> </tr> <tr> <td>6</td> <td>箱扣(Carton Box Handle)</td> <td>4</td> </tr> <tr> <td>7</td> <td>配件盒(包)</td> <td>1</td> </tr> </tbody> </table>				No.	Part Name	Q'ty	1	CARTON	1	2	EPE CUSHION-TOP	1	3	Monitor	1	4	抗靜電袋(Anti-Static Bag)	1	5	EPE CUSHION-Bottom	1	6	箱扣(Carton Box Handle)	4	7	配件盒(包)	1
		No.	Part Name	Q'ty																									
		1	CARTON	1																									
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6	箱扣(Carton Box Handle)	4																											
7	配件盒(包)	1																											
NOTES: All parts must accord with R.O.H.S. norm.																													
M2-490DS-A1																													
NO	MODEL NO.	PARTS NAME		PARTS NO.	MATERIAL/FINISH																								
APPROVALS		DATE	SCALE	UNIT	3rd ANGLE	TOLERANCE LIMITS	REV.																						
DESIGN: Ray		2025/7/2	1/1	M/M		0-100mm ±0.20 100-300mm ±0.30 300-500mm ±0.40 500-1000mm ±0.50 1000mm- ±0.7 ANGLES ±1°	∇01 SIZE A4																						
CHECKED: S.C.Kuo		2025/7/2	SHEET: 1 OF 1	DO NOT SCALE DRAWING																									
APPROVAL: Ader Dia		2025/7/2	AGILE																										

Using M2-490DSN-A1
as a reference illustration

Accessories

<p>Power Cord (US black) x1</p> 	<p>HDMI Cable x1</p> 
<p>IR Extender x1</p> 	<p>OSD Remote Control x1</p> 
<p>Power Cord (UK Black) x1</p>	<p>Batteries (x2) For remote controller</p>
	
<p>Power Cord (EU Black) x1</p>	<p>QSG</p> 
	<p>Passive Pen (Only Touch Model)</p>
	

Product Overview

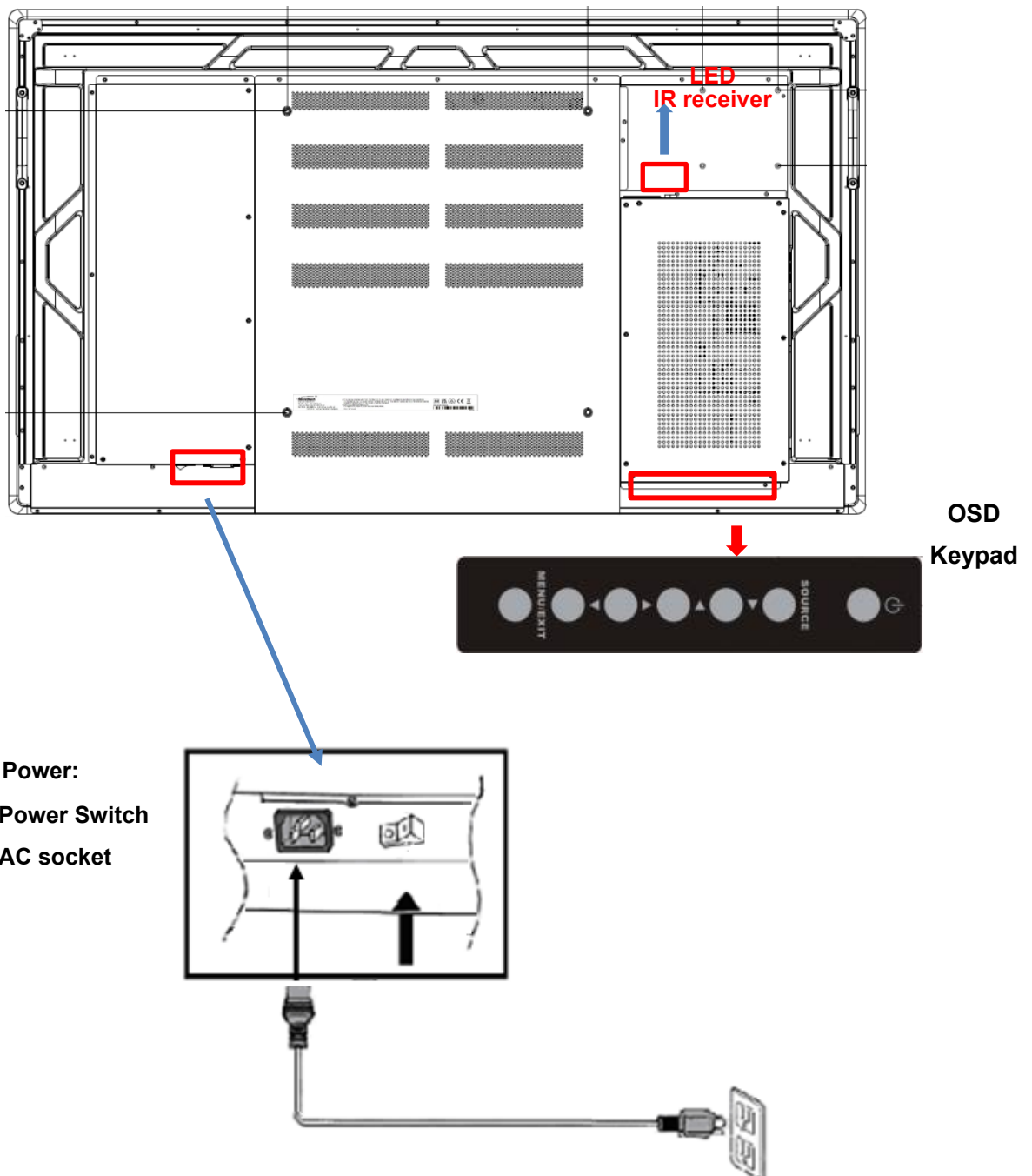
When operating the display, ambient room conditions should not exceed the following:

- Operating temperature: 0°C to 40°C (0°F to 104°F)
- Humidity: 35~85% RH

Main Power Switch and AC Inlet

The included power cord is used to connect the display to an AC wall outlet. Plug the power cord into the AC inlet on the side of the display.

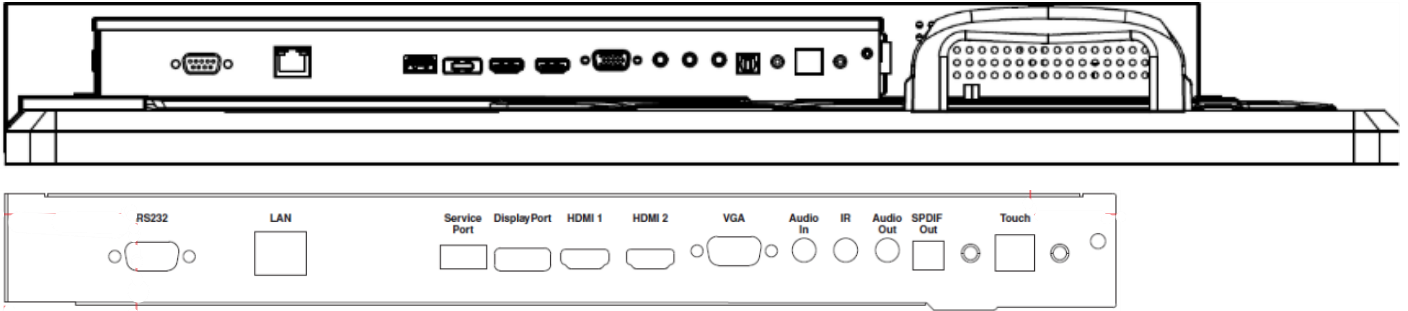
Locate the Main Power switch directly below the AC inlet and press “-” to turn power on, and “O” to turn power off.



Power Switches

- The main power switch is located directly below the AC power inlet. Please refer to Main Power Switch and AC Inlet on page 13.
- The on/off switch is the top button on the display keypad.
- The on/off switch is also located on the remote control.

Input and Output Connectors

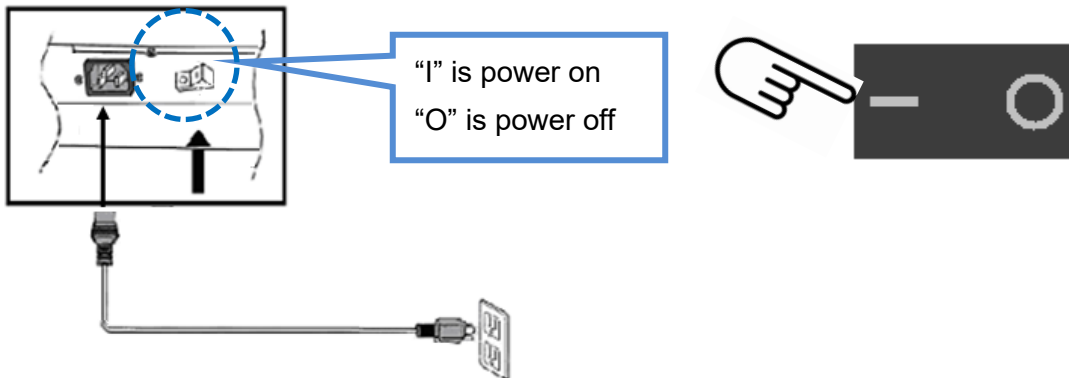


	Name	Remarks
1	RS232	Communication port
2	LAN	Communication port
3	Service Port	
4	Display Port	4K/60Hz
5	HDMI 1	4K/60Hz
6	HDMI 2	4K/60Hz
7	VGA	
8	Audio In	
9	IR	
10	Audio Out	
11	SPDIF Out	
12	Touch	Only Touch Model

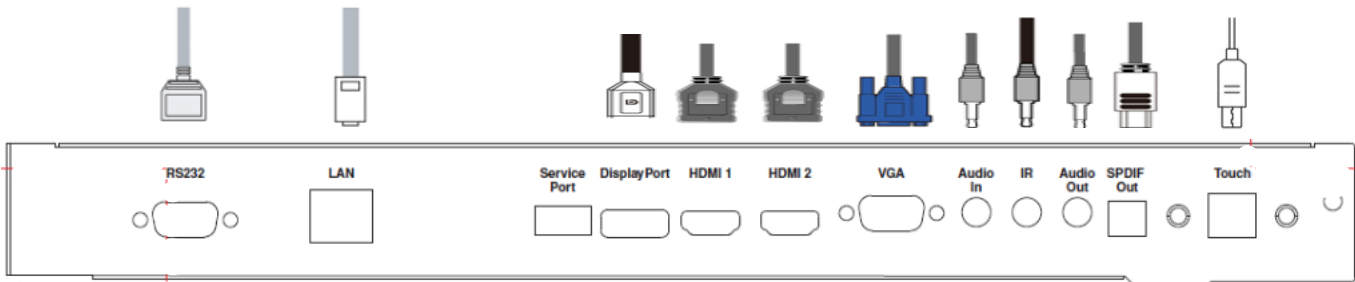
Operating the Display

Setting up the Display

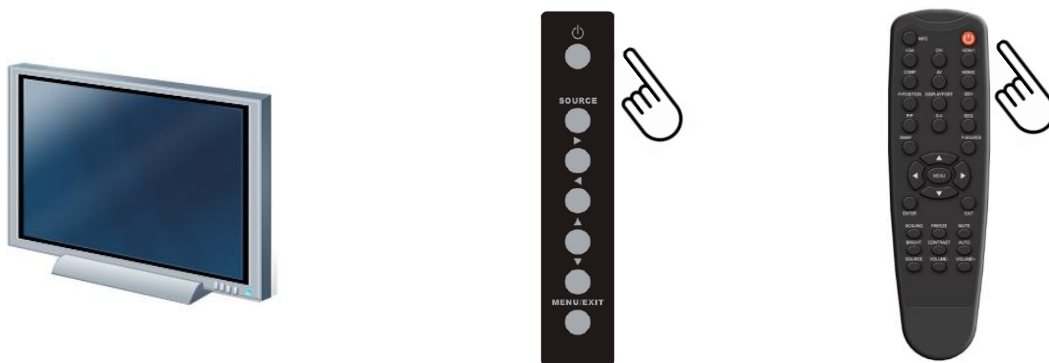
Step 1: Plug in the power cable and turn on the AC power switch (without turning on the signal source device(s)).



Step 2: Plug in the signal source cables.



Step 3: Press the power key on the display's keypad or the power key on the remote control to turn on the display.



Step 4: Turn on the power of the signal source device(s) to begin sending a signal to the display.



Turning Display On and Off

Turning the display on

1. Connect the display to an AC power outlet
2. Ensure the AC switch is set to “—”.
3. Press the power button on the remote control or keypad.

Turning the display off

With the power on, press the power button on the remote control or keypad to put the display into standby mode. To turn off power completely, turn the AC switch to “O” or disconnect the AC power cord from the power outlet.

Note: If there is no signal input for a period, the display will automatically go into power saving (sleep) mode.

Adjusting Volume and Input Source

Adjusting the Volume

1. Using the remote, press the **VOLUME-** or **VOLUME+** to increase or decrease the volume.
2. Press the **MUTE** button to temporarily turn off all sound. To restore the sound, press the **MUTE** button again.

Selecting the input source

1. Using the remote, press the desired source button or press **SOURCE** on the display keypad, use the arrow buttons (▲ ▼) to navigate to the desired input source, and press **ENTER**:
2. If the display cannot find a source, a “No signal” message will appear.

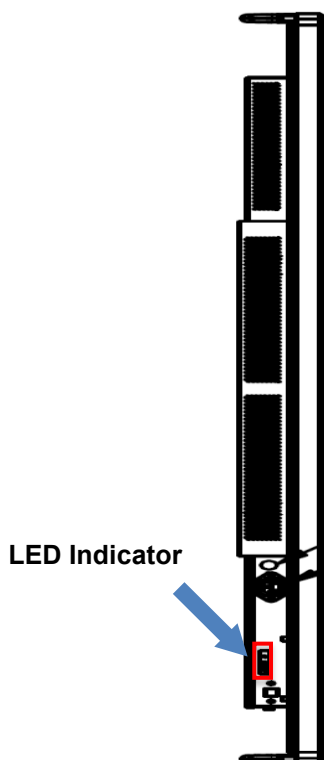
Using the Keypad



Key	Descriptions
Power	Power on / Power off
Source	Source selection (toggle)
▶	Menu Right/Volume +
◀	Menu Left/Volume -
▲	Menu Up
▼	Menu Down
Menu/Exit	Menu/Exit selection

Reading the Status LED

The LED indicator light is located on the rear of the display near the keypad. The following table explains what the different colors and blink patterns mean.



LED Indicator	Condition
Green	Normal operation
Blinking Orange	No signal
Orange	Power Saving
Off	Power off
	AC off

Note: If the LED is set to “Off” in the OSD menu, the status LED will not operate.

Avoiding Image Retention

Fixed images displayed over a long period of time may cause image “burn-in” or image retention. Image retention is not covered under warranty.

Follow the recommendations below to avoid image retention.

Operate display within its rated ambient environment

- Operating temperature: 0°C to 40°C (0F to 104°F)
- Humidity : 35~85% RH (Max)

Avoid static content

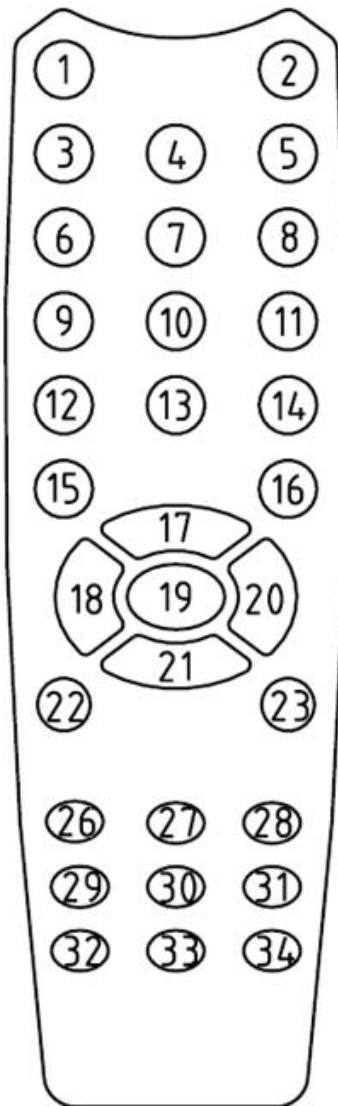
- During each 24-hour period, turn the display off for a continuous 6 hours.
- Display dynamic (moving) images whenever possible.
- Avoid displaying static (fixed) images for long periods of time.
- Consider using a screen saver to avoid displaying static (fixed) video content continuously.

Set IRFM to ON

To help avoid image retention, it is recommended that the IRFM feature be set to “ON”. This feature can be selected via the OSD (on screen display) under **Adv. Setup – IRFM – ON**.

Using Remote Control

NO	Customer Code	Data Code	Function
1	40AF	04FB	INFO
2	40AF	1CE3	POWER
3	40AF	07F8	VGA
4	40AF	08F7	DISPLAYPORT1
5	40AF	09F6	HDMI1
6	40AF	0AF5	_____
7	40AF	0BF4	_____
8	40AF	0CF3	HDMI2
9	40AF	1AE5	_____
10	40AF	15EA	_____
11	40AF	10EF	_____
12	40AF	11EE	_____
13	40AF	0DF2	_____
14	40AF	16E9	_____
15	40AF	06F9	_____
16	40AF	13EC	_____
17	40AF	02FD	↑
18	40AF	01FE	←
19	40AF	0EF1	MENU
20	40AF	03FC	→
21	40AF	19E6	↓
22	40AF	12ED	ENTER
23	40AF	05FA	EXIT
24	40AF	40BF	_____
25	40AF	41BE	_____
26	40AF	14EB	SCALING
27	40AF	43BC	FREEZE
28	40AF	00FF	MUTE
29	40AF	17E8	BRIGHTNESS
30	40AF	18E7	CONTRAST
31	40AF	1EE1	AUTO
32	40AF	0FF0	SOURCE
33	40AF	1BE4	VOLUME -
34	40AF	1DE2	VOLUME +



- **Hot Key :** Remote key and keypad Lock/Unlock Control.
- **Lock:** Press Enter, Enter, Exit, Exit, Enter and Exit on the controller by sequence and all keys(including remote and keypad) will be locked except RS232 and power on control.
- **Unlock:** Press Enter, Enter, Exit, Exit, Enter and Exit on the controller by sequence again and all keys will be unlocked.

Locking the OSD (On-screen Display)

To lock the remote control and keypad (to prevent tampering display settings):

Press **Enter**, **Enter**, **Exit**, **Exit**, **Enter** and **Exit** on the remote control or the keypad.

To unlock the remote control and keypad:

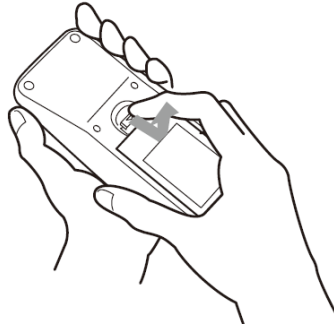
Press **Enter**, **Enter**, **Exit**, **Exit**, **Enter** and **Exit** on the controller by sequence again and all keys will be unlocked.

A blue rectangular button with the text "Key Locked" centered in white.A blue rectangular button with the text "Key Unlocked" centered in white.

Changing the Remote-Control Battery

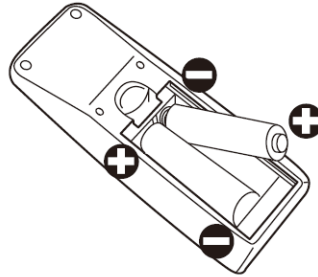
Remove the battery cover

1. Slide back and remove the battery cover in the direction of the arrow.



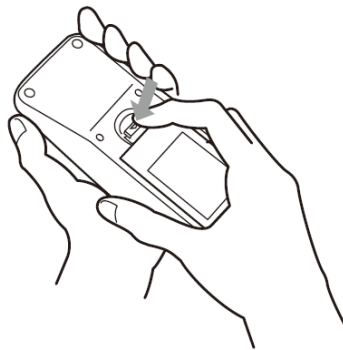
Insert the batteries

2. Align and insert two AAA batteries according to their plus and minus ports (as indicated in the remote control).



Close the battery cover

3. Replace the battery cover in the direction of the arrow and snap it back into place.



- Used batteries needed to follow the city rule to be discarded.
- Avoid keeping used, old batteries inside the remote control, causing leakage of internal liquid resulting metal rust or fatal damage to the remote control hand unit.
- Battery to be used according to the instruction



About the remote control

- Don't drop, shake or bump.
- Don't place on wet materials.
- Don't dismantle.
- Don't place in locations with exposure to high-temperature or high-humidity levels.

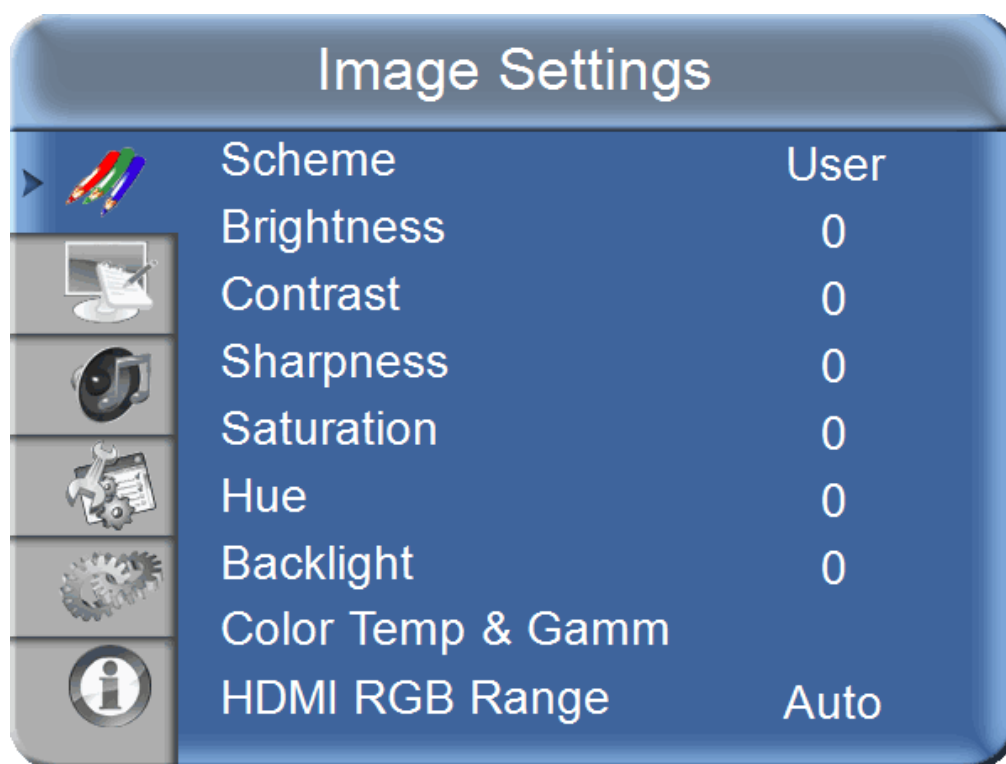
Using the Menus

Navigating through the Menu System

1. With the power on, press **MENU**. The **Image Settings** menu will display.
2. Within the menu, use **▲**, **▼**, **◀**, **▶**, and **ENTER** to navigate through the menus and adjust options.
3. Press **MENU** to return to the previous menu or exit the OSD menu.
4. The OSD menu will automatically close if left idle for a pre-set time.

Image Settings

This menu lets you adjust common image settings. Some options may appear grayed out when using a digital input signal (DP or HDMI). These settings are fixed and cannot be adjusted for digital signals. When using a VGA signal (analog), all options are available because analog signals may need more image adjustments.



Scheme

Select the scheme.

Options: User, Vivid, Movie, Game, Sports; **Default:** User

Brightness

Adjust the brightness of the screen.

Range: 0~100; **Default:** 50

Contrast

Adjust the contrast of the screen.

Range: 0~100; **Default:** 50

Sharpness

Adjust the sharpness of the screen.

Range: 0~100; **Default:** 50

Saturation

Adjust the saturation of the screen.

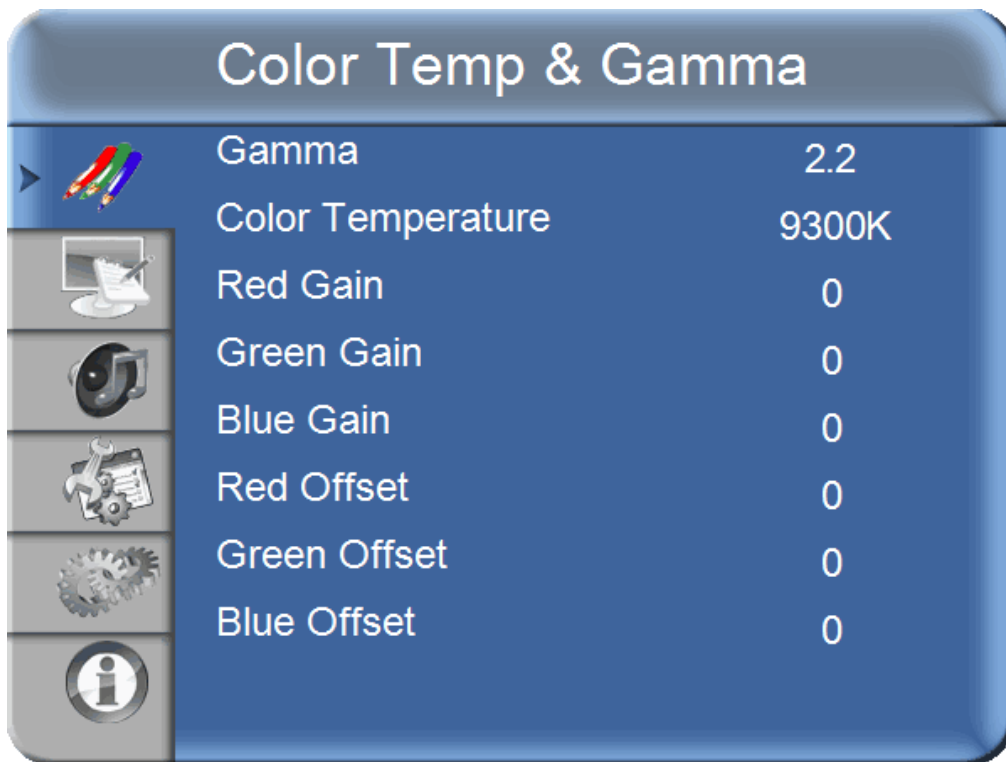
Range: 0~100; **Default:** 50

Hue

Adjust the hue of the screen.
Range: 0~100; **Default:** 50

Backlight

Adjust the backlight.
Range: 0~100; **Default:** 80



Gamma

Select the Gamma.
Options: 2.2, Off; **Default:** 2.2

Color Temp

Select the color temperature.
Options: 5000K, 6500K, 7500K, 9300K, User; **Default:** 9300K

Red Gain

Select the Red Gain.
Range: 0~100; **Default:** 50

Green Gain

Select the Green Gain.
Range: 0~100; **Default:** 50

Blue Gain

Select the Blue Gain.
Range: 0~100; **Default:** 50

Red Offset

Select the Red Offset.
Range: 0~100; **Default:** 50

Green Offset

Select the Green Offset.
Range: 0~100; **Default:** 50

Blue Offset

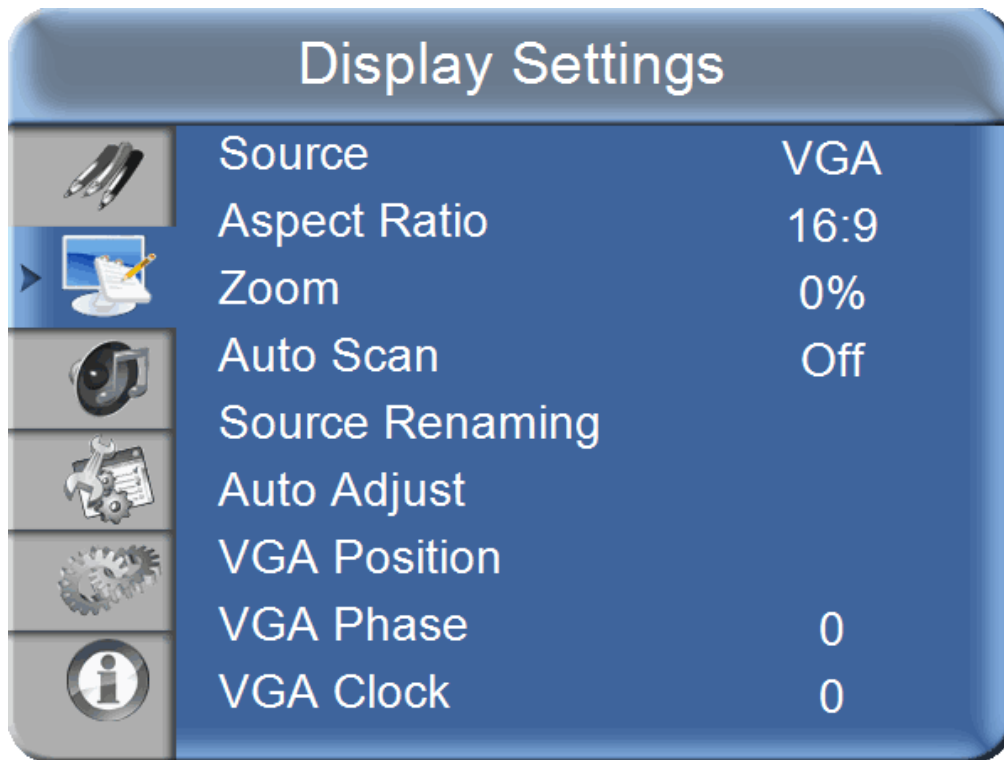
Select the Blue Offset.
Range: 0~100; **Default:** 50

HDMI RGB Range

Select the RGB color depth.
Options: Auto, 0~255, 16~235; **Default:** Auto

Display Settings

This menu is used for selecting the main input source and other display settings.



Main Input

Select the input source.

Options: VGA, DisplayPort, HDMI1/, HDMI2; **Default:** VGA

Picture Format

Adjust the Aspect Ratio of the Screen.

Options: 16:9, 4:3, Auto, Point To Point; **Default:** 16:9

Zoom

For the image size adjustment.

Range: 0% ~ 10%; **Default:** 0%

Auto Scan

Select the Auto Scan Function.

Options: Off, On; **Default:** ON

Source Renaming

For sources annotations.

Auto Adjustment

Select Auto Adjustment Function.

VGA Position

Adjust the VGA Mode Image position.

Range: 0~100; **Default:** 50

VGA Phase

Adjust the VGA Mode phase.

Range: 0~100; **Default:** -

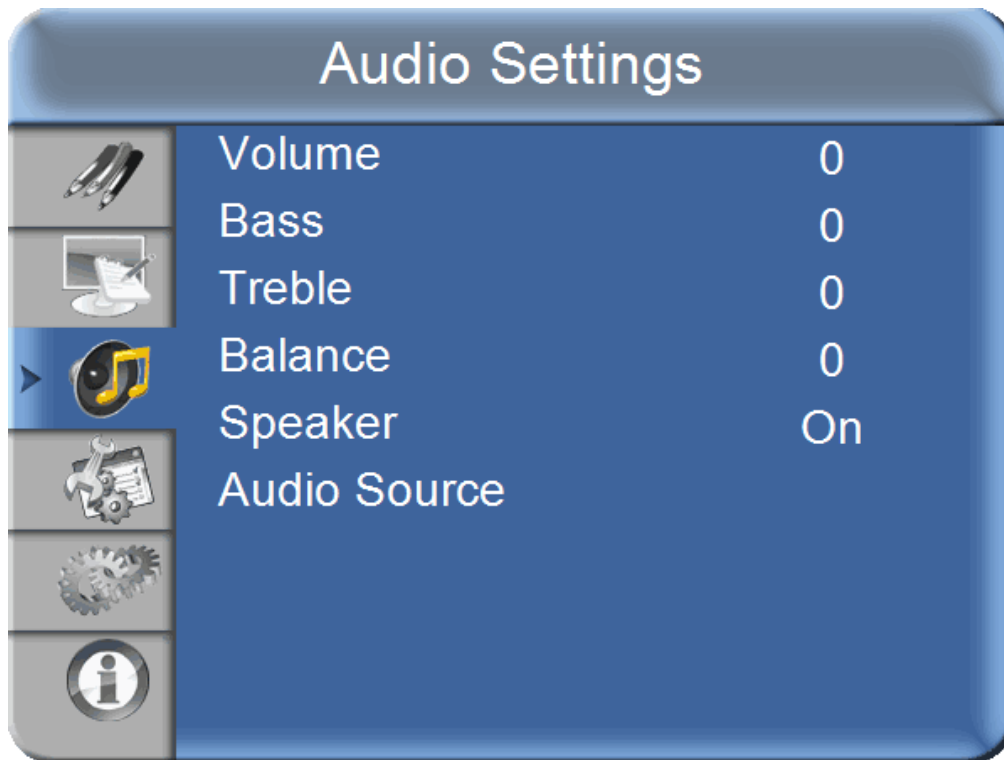
VGA Clock

Adjust the VGA Mode clocks.

Range: 0~100; **Default:** 50

Audio Settings

This menu is used for adjusting volume settings.



Volume

Adjust the sound. Press ◀ or ▶, select the desired level, and then press ENTER.

Range: 0~100

Default: 50

Bass

Adjust the sound in low tones (bass). Press ◀ or ▶, select the desired level, and then press ENTER.

Range: -10~+10

Default: 0

Treble

Adjust the sound in high tones (treble). Press ◀ or ▶, select the desired level, and then press ENTER.

Range: -10~+10

Default: 0

Balance

Adjust the balance of the left and right speakers. Press ◀ or ▶, select the desired level, and then press ENTER.

Range: -10~+10

Default: 0

Speaker

Select the internal speaker audio on or off

Default: On

Audio Source

Select another audio source; Display Port, HDMI1, HDMI2

Options: Audio In; **Default**

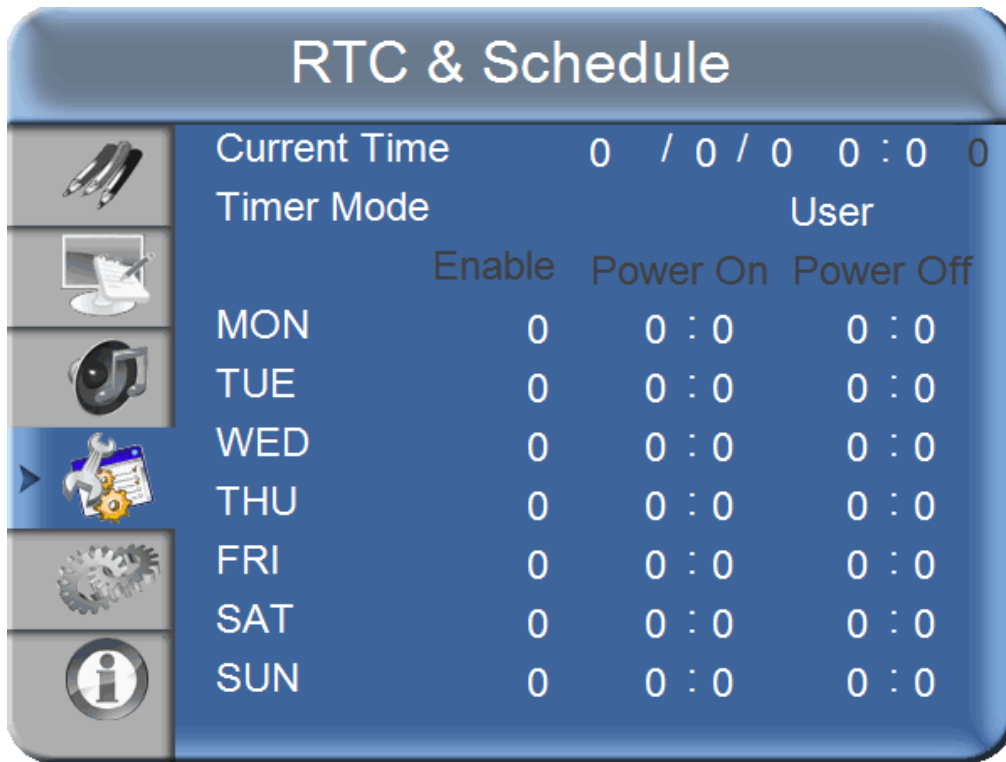
Default: Default

Basic Settings

This menu is used to make initial set-up adjustments to the OSD (On-Screen Display) menu and other on-screen messages.

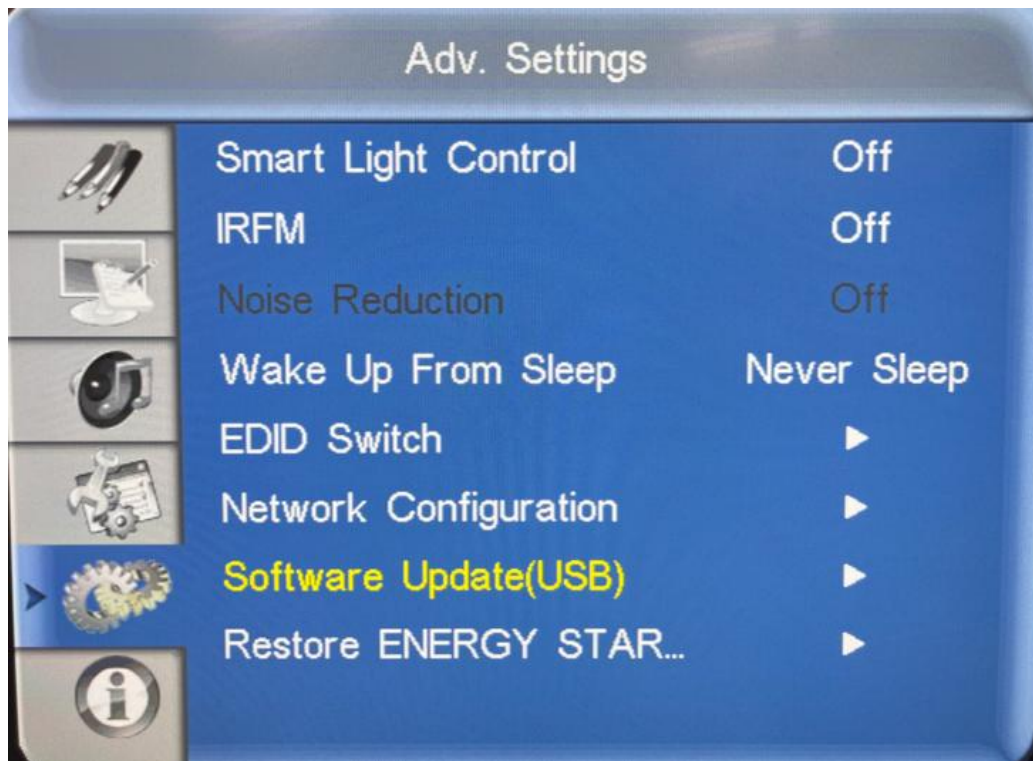


OSD Horizontal Pos	Adjust the horizontal position of the OSD menu. Range: 0~100; Default: 50
OSD Vertical Pos	Adjust the vertical position of the OSD menu. Range: 0~100; Default: 50
OSD Transparency	Adjust the transparency of the OSD menu. Range: 0~4; Default: 0
OSD Timeout	Adjust the time in seconds before the OSD menu disappears. Range: 5~60 sec.; Default: 30 sec.
OSD Language	Select the OSD language. Options: English, French, Japanese, German, Spanish, Italian Default: English
Power LED	Enable or disable the LED status. Options: Off, On; Default: On



Current Time	Setup Date & Time.
Timer Mode	Setup power on/off timers. Options: User, Workday, Every day; Default: Everyday
MON	Setup Disable or Enable. (Power On Time & Power Off Time) Range: <input type="checkbox"/> 00:00 ~ 23:59, <input checked="" type="checkbox"/> 0:00 ~ 23:59; Default: <input type="checkbox"/> 00:00 00:00
TUE	Setup Disable or Enable. (Power On Time & Power Off Time) Range: <input type="checkbox"/> 00:00 ~ 23:59, <input checked="" type="checkbox"/> 0:00 ~ 23:59; Default: <input type="checkbox"/> 00:00 00:00
WED	Setup Disable or Enable. (Power On Time & Power Off Time) Range: <input type="checkbox"/> 00:00 ~ 23:59, <input checked="" type="checkbox"/> 0:00 ~ 23:59; Default: <input type="checkbox"/> 00:00 00:00
THU	Setup Disable or Enable. (Power On Time & Power Off Time) Range: <input type="checkbox"/> 00:00 ~ 23:59, <input checked="" type="checkbox"/> 0:00 ~ 23:59; Default: <input type="checkbox"/> 00:00 00:00
FRI	Setup Disable or Enable. (Power On Time & Power Off Time) Range: <input type="checkbox"/> 00:00 ~ 23:59, <input checked="" type="checkbox"/> 0:00 ~ 23:59; Default: <input type="checkbox"/> 00:00 00:00
SAT	Setup Disable or Enable. (Power On Time & Power Off Time) Range: <input type="checkbox"/> 00:00 ~ 23:59, <input checked="" type="checkbox"/> 0:00 ~ 23:59; Default: <input type="checkbox"/> 00:00 00:00
SUN	Setup Disable or Enable. (Power On Time & Power Off Time) Range: <input type="checkbox"/> 00:00 ~ 23:59, <input checked="" type="checkbox"/> 0:00 ~ 23:59; Default: <input type="checkbox"/> 00:00 00:00

Adv. Settings



Smart Light Control

Select the backlight control function in order to enable dynamic contrast (DCR) or ambient light sensor.

Options: Off, DCR, Light Sensor; **Default:** Off

IRFM

Select the anti-burn in mode function to avoid image retention.

Options: Off, On; **Default:** Off

Noise Reduction

Select the Noise Reduction Mode in order to reduce random noise in the video content.

Options: Off, High, Medium, Low; **Default:** Off

Wake Up from Sleep

Adjust the Wake Up from Sleep behaviour.

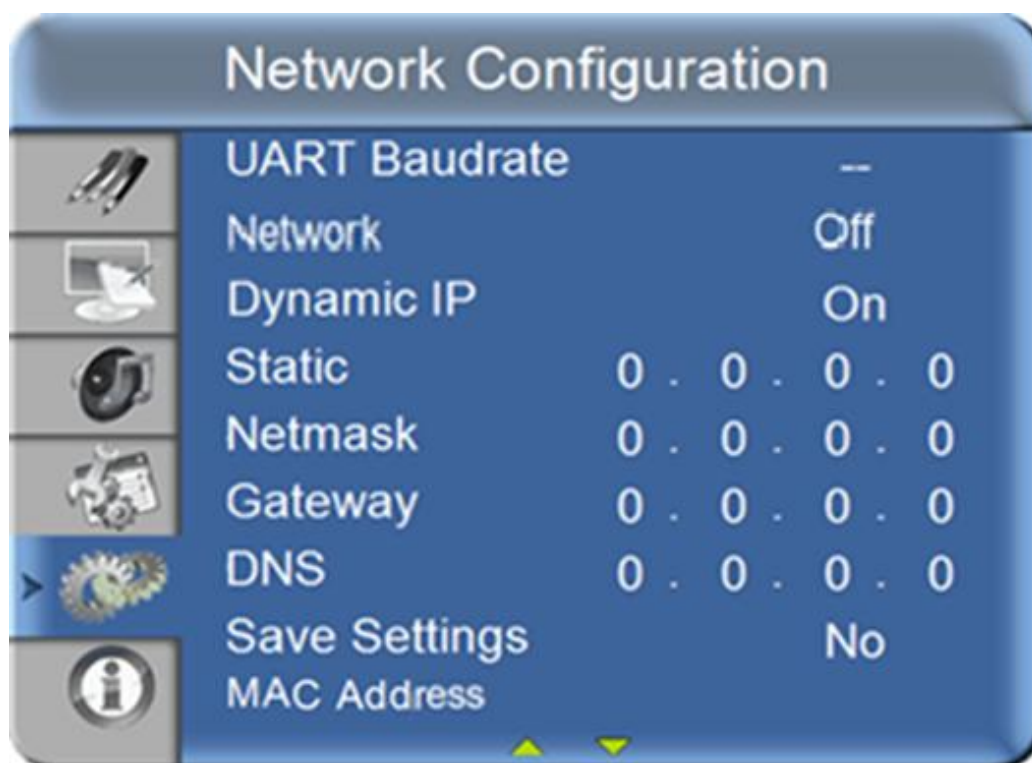
Options: VGA Only, Digital, RS232, Ethernet, Never Sleep; **Default:** VGA Only

EDID Switch

Replace the EDID Code Table.

Options: 1080p, 4K2K@30, 4K2K@60; **Default:** 4K2K@60

Note: Use the 1080p setting for the broadest support of lower resolution sources. Use 4K setting to support high resolution sources such as 3840x2160.



UART Baud rate

Adjust the baud rate of serial port (RS-232).
Options: 115200, 38400, 19200, 9600

Dynamic IP

Enable Dynamic IP mode.
Options: Off, On
Default: Off

Static IP Address

Set static IP address.
 255.255.255.255(0.0.0.0)

Subnet Mask

Set subnet mask.
 255.255.255.255(0.0.0.0)

Gateway

Set gateway address.
 255.255.255.255(0.0.0.0)

DNS Addr.

Set DNS address.
 255.255.255.255(0.0.0.0)

Save Network Settings

Update the IP settings to net device.
Options: No, Yes
Default: No

Device MAC

MAC Info

Software Update (USB)

Update the Firmware.
Options: Yes, No; **Default:** -

Restore Energy Star / Factory Reset

Reset to the factory default setting.
Options: Yes, No; **Default:** -

Information

This read-only menu provides information on the active sources and the latest firmware version.



Source	Show the name of input source.
Resolution	Show the current resolution.
Model Name	M2-490DS-A1
Firmware Version	Show the firmware version of the monitor.
SubMCU Version	Show the firmware version of the monitor.
Serial Number	Show the serial number of the monitor.

Wake Up from Sleep

By default, the display will enter power saving (Sleep Mode) if no signal is received for 5 minutes. Normally, the RS-232, DisplayPort and HDMI inputs are inactive in Sleep Mode, to save power.

To change the behavior of Sleep Mode, change the “**Wake up from Sleep**” setting in the “**Adv. Setup**” menu.

- **VGA Only** (default) – The RS-232, DisplayPort and HDMI inputs are inactive when the display is in sleep mode. The display will wake up when it receives a signal at the VGA input.
- **Digital,RS232,Ethernet** – The RS-232, DisplayPort and HDMI inputs stay active when the display is in sleep mode. The display will wake up when it receives a signal at the VGA, DisplayPort, or HDMI input.

Default Settings

Main Menu	Sub-Menu	Sub-Sub menu	Description	Setting	Default	
Image Settings	Scheme		Select the Scheme	User / Vivid / Movie / Game / Sport	User	
	Brightness		Adjust the Brightness of the Screen	0~100	50	
	Contrast		Adjust the Contrast of the Screen	0~100	50	
	Sharpness		Adjust the Sharpness of the Screen	0~100	50	
	Saturation		Adjust the Saturation of the Screen	0~100	50	
	Hue		Adjust the Hue of the Screen	0~100	50	
	Backlight		Adjust the Backlight	0~100	80	
	Color Temp & Gamma	Select the Gamma		Select the Gamma	2.2, Off	2.2
		Select the Color Temp		Select the Color Temp	5000K / 6500K / 7500K / 9300K / User	9300K
		Select the Red Gain		Select the Red Gain	0~100	50
		Select the Green Gain		Select the Green Gain	0~100	50
		Select the Blue Gain		Select the Blue Gain	0~100	50
		Select the Red Offset		Select the Red Offset	0~100	50
Select the Green Offset		Select the Green Offset	0~100	50		
Select the Blue Offset		Select the Blue Offset	0~100	50		
HDMI RGB Range		Select the RGB Color Depth	Auto/0~255/16~235	Auto		
Display Settings	Source		Select the Input Source	VGA/DisplayPort/HDMI1/HDMI2	VGA	
	Aspect Ratio		Adjust the Aspect Ratio of the Screen	16:9/4:3/Auto/PointToPoint	16:9	
	Zoom		Image Size Adjustment	0% ~ 10%	0%	
	Auto Scan		Select the Auto Scan Function	Off / On	On	
	Source Renaming		Sources Add Annotations		Default	
	Auto Adjust		Select Auto		--	

		Adjustment Function			
	VGA Position	Adjusts the VGA Mode Image position.	0~100	50	
	VGA Phase	Adjusts the VGA Mode Phase.	0~100	--	
	VGA Clock	Adjusts the VGA Mode Clocks.	0~100	50	
Audio Settings	Volume	Adjust Volume	0~100	50	
	Bass	Adjust Bass Volume	-10 ~ 10	0	
	Treble	Adjust Treble Volume	-10 ~ 10	0	
	Balance	Adjust the Balance of the Screen	-10 ~ 10	0	
	Speaker	Select the Speaker On or Off	Off / On	On	
	Audio Source	Select Another Sound Source	Audio In / Default	Default	
Basic Settings	Horizontal Pos.	Adjust the OSD Location	0~100	50	
	Vertical Pos.	Adjust the OSD Location	0~100	50	
	OSD Transparency	Adjust the OSD Transparency Function	0 ~ 4	0	
	OSD Timeout	Select the OSD Timeout Seconds	5~60 sec.	30 sec.	
	OSD Language	Select the OSD Language	English, French, Japanese, German, Spanish, Italian	English	
	Screen Splash	Turn on and off the startup logo	Off / On	On	
	Power LED	Select the Function of Power Status LED	Off / On	On	
	RTC & Schedule	Current Time	Setup Date & Time		--
		Time Mode (Note1)	Setup Power On/Off Timers	User / Workday / Everyday	Everyday
		MON	Setup Disable or Enable (Power On Time&Power Off Time)	<input type="checkbox"/> / <input type="checkbox"/> 00:00 ~ 23:59 / 00:00 ~ 23:59	<input type="checkbox"/> 00:00 00:00
		TUE	Setup Disable or Enable (Power On Time&Power Off Time)	<input type="checkbox"/> / <input type="checkbox"/> 00:00 ~ 23:59 / 00:00 ~ 23:59	<input type="checkbox"/> 00:00 00:00
		WED	Setup Disable or Enable (Power On	<input type="checkbox"/> / <input type="checkbox"/> 00:00 ~ 23:59 / 00:00 ~ 23:59	<input type="checkbox"/> 00:00 00:00

			Time&Power Off Time)		
		THU	Setup Disable or Enable (Power On Time&Power Off Time)	<input type="checkbox"/> /■ 00:00 ~ 23:59 / 00:00 ~ 23:59	<input type="checkbox"/> 00:00 00:00
		FRI	Setup Disable or Enable (Power On Time&Power Off Time)	<input type="checkbox"/> /■ 00:00 ~ 23:59 / 00:00 ~ 23:59	<input type="checkbox"/> 00:00 00:00
		SAT	Setup Disable or Enable (Power On Time&Power Off Time)	<input type="checkbox"/> /■ 00:00 ~ 23:59 / 00:00 ~ 23:59	<input type="checkbox"/> 00:00 00:00
		SUN	Setup Disable or Enable (Power On Time&Power Off Time)	<input type="checkbox"/> /■ 00:00 ~ 23:59 / 00:00 ~ 23:59	<input type="checkbox"/> 00:00 00:00
Adv. Settings	Smart light control		Select Backlight control function	Off / DCR / Light Sensor	Off
	IRFM		Select the anti burn in mode function	Off / On	Off
	Noise Reduction		Select the Noise Reduction Mode	Off / High / Medium / Low	Off
	Wake Up from Sleep (Note2)		Adjusts the Wake Up From Sleep Behavior	VGA Only/ Digital,RS232,Ethernet /Never Sleep	VGA Only
	EDID Switch	Display port	Replace the EDID Code Table	1080p / 4K2K@30/ 4K2K@60	4K2K@60
		HDMI1		1080p / 4K2K@30/ 4K2K@60	4K2K@60
		HDMI2		1080p / 4K2K@30/ 4K2K@60	4K2K@60
	Network Configuration		Configure Network Settings. Please Refer to Section 4.1 for Detail Settings.		--
Software Update(USB)		Update the Firmware	Yes / No	--	
Restore Factory Default		Reset to the Factory Default Setting	Yes / No	--	
Information	Channel Information	Source	Show the Name of Input Source		--
		Resolution	Show the Current Resolution		--
		Model Name	Show the Model Name of the Monitor		--

		Firmware Version	Show the Firmware Version of the Monitor		--
		SubMCU Version	Show the Firmware Version of the Monitor		--
		Serial Number	Show the Serial Number of the Monitor		--

Note1: Timer Mode

- a. **User:** Manually configure the alarm timer of each day.
- b. **Everyday:** Configure the same alarm timer settings for every day.
- c. **Workday:** Configure the same alarm timer settings for work days (Mon.~Fri.)

Note2: Wake Up From Sleep

- a. **VGA Only** – the LCD panel normally wakes up from power saving mode when it receives an active video signal from its VGA (analog) input.
- b. **Digital,RS232,Ethernet**– the LCD panel wakes up when it receives an active signal from its VGA, HDMI, DisplayPort inputs and can be waked up by RS232 command as well.
- c. **Never Sleep** – monitor would never sleep.

Supported Timings

Timing		fH (kHz)	fV (Hz)	Dot clock (MHz)	VGA	HDMI	DisplayPort	
VESA	VGA 640x480	31.469	59.94	25.175	0	0	0	
		37.861	72.809	31.5	0	0	0	
		37.5	75	31.5	0	0	0	
	SVGA 800x600	35.156	56.25	36	0	0	0	
		37.879	60.317	40	0	0	0	
		48.077	72.188	50	0	0	0	
		46.875	75	49.5	0	0	0	
	XGA 1024x768	48.363	60.004	65	0	0	0	
		56.476	70.069	75	0	0	0	
		60.023	75.029	78.75	0	0	0	
	WXGA1366x768	47.712	59.79	85.5	0	0	0	
	1280 x 720	44.444	59.98	64	-	-	0	
		44.772	59.86	74.5	-	-	0	
		56.456	74.78	95.75	-	-	0	
	1280 x 768	47.776	59.87	79.5	-	-	0	
		47.396	59.995	68.25	-	-	0	
	1280 x 800	49.306	59.91	71	0	0	0	
		49.702	59.81	83	0	0	0	
	SXGA	1152x864	67.5	75	108	0	0	0
		1280x1024	63.981	60.02	108	0	0	0
1440 x 900	79.976	75.025	135	0	0	0		
	55.469	59.901	88.75	-	-	0		
WSXGA+ 1680 x1050	55.935	59.88	106.5	0	0	0		
	64.674	59.883	119	0	0	0		
UXGA 1600 x 1200	65.29	59.954	146.25	0	0	0		
	75	60	162	0	0	0		
1920 x 1080	66.587	59.93	138.5	-	-	0		
WUXA 1920 x 1200	74.038	59.95	154	-	-	0		
EDTV	480p	31.5	60	27.03	-	0	0	
	576p	31.25	50	27	-	0	0	
HDTV	720p	37.5	50	74.25	-	0	0	
	1280x720	44.995	59.94	74.176	-	0	0	
		45	60	74.25	-	0	0	
	1080p 1920x1080	27	24	74.25	-	0	0	
		28.125	25	74.25	-	0	0	
		33.75	30	74.25	-	0	0	
		56.25	50	148.5	-	0	0	
		67.433	59.94	148.352	-	0	0	
67.5	60	148.5	-	0	0			
4K2K	3840x2160	54	24	297	-	0	0	
		56.25	25	297	-	0	0	
		67.5	30	297	-	0	0	
		112.5	50	594	-	0	0	
		134.8	59.997	593.4	-	0	0	
	135	60	594	-	0	0		

Specifications

Item		Specification			Unit
		M2-490DS-A1 M2-490DSN-A1	M2-550DS-A1 M2-550DSN-A1	M2-650DS-A1 M2-650DSN-A1	
LCD Panel	Active Screen Size	48.50	54.64	64.53	inch
	Aspect Ratio	16 : 9			
	Display Colors	1.07billion (8-bit+FRC)			Colors
	Resolution	3840x2160			-
	Backlight Illumination	Direct type			
	Response time (typ.)	8			ms
	Viewing Angle (typ.)	178 / 178			deg
	Pixel Pitch	0.27963(H) x 0.27963(W)	0.315(H) x 0.315(W)	0.372(H) x 0.372(W)	mm
	Native Brightness (typ.)	500	500	500	cd/m ²
	Native Contrast Ratio (typ.)	1200:1	1200:1	1200:1	
	Pixel Arrangement	RGB vertical stripe			-
	Color Saturation (typ.)	72%			NTSC
	Display Operation Mode	Normally black			-
	Surface Treatment	Transmission mode, Normally Black Front Polarizer : Haze 25%, 3H, Anti glare treatment Bottom Polarizer : Clear			-
Optical*	Brightness (typ.)	500 450(w/Touch)	500 450(w/Touch)	500 450(w/Touch)	cd/m ²
	Brightness (min.)	400 320(w/Touch)	400 320(w/Touch)	400 320(w/Touch)	
	Contrast Ratio (typ.)	1200:1	1200:1	1200:1	
	Contrast Ratio (min.)	1000:1	1000:1	1000:1	
Input / Output	Input Connectors	HDMI 2.0 x2(4K/ 60Hz) DisplayPort 1.2 x1 (4K/ 60Hz) VGA / PC audio in / IR extender ※Detail display mode information as "Supported Timings" section			
	Output Connectors **	Audio Out / S/PDIF Out			-
HDCP Support	DisplayPort, HDMI	Yes			
Audio	Internal Speakers	L/R speakers @ 10W each, Full-range, Defeatable			
Audio	Max input Channel / Each channel	2.5			Vpp

Item	Specification			Unit		
	M2-490DS-A1 M2-490DSN-A1	M2-550DS-A1 M2-550DSN-A1	M2-650DS-A1 M2-650DSN-A1			
	Channel	2				
	Input Impedance	100			KΩ	
	Po (@Vin=1Vpp, RL= 8 Ohm)	10			W	
	THD	<10			%	
	Adjustment	Linear				
Performance	Auto Adjust	Clock, Phase, H-Position & V-Position			-	
	Screen Scaling	VGA, SVGA, XGA, WXGA, FHD, WQXGA, QHD, WUXGA, UHD			-	
	Power Management	VESA DPMS,			-	
	Color Adjustment	3200K,5000K,6500K, 7500K,9300K, User			-	
	OSD Language	English, French, Japanese, German, Spanish, Italian			-	
Power Consumption	Power Input	AC100-240V(Worldwide), Max 2.0A 50/60Hz(Note1)	AC100-240V(Worldwide), Max 2.5A 50/60Hz(Note1)	AC100-240V(Worldwide), Max 3.5A 50/60Hz(Note1)	-	
	Typical(Ref)	135	175	255	W	
	Max	180	215	310	W	
	Stand By	≤ 0.5 (Note2)			W	
Size and Weight Objectives	Dimension (W x H x D)	w/o handle	Touch 1139.20x669.4x77.7 Non-touch 1098.5x628.7x74.5	Touch 1275x745.8x77.7 Non-touch 1234.3x705.1x74.5	Touch 1493.2x868.24x89.9 Non-touch 1471.48x846.52x87.8	mm
		w/handle	Touch 1139.20x669.4x77.7	Touch 1275x745.8x77.7	Touch 1493.2x868.24x89.9 Non-touch 1471.5x846.5x87	
	Active Area	1073.8(H)×604.0(V)		1209.6(H) x 680.40(V)	1428.48(H) x 803.52(V)	mm
	Bezel Width (L/R/T/B)	Touch 31.5/31.5/31.5/31.5 Non-touch 11.4/11.4/11.4/11.4		Touch 31.5/31.5/31.5/31.5 Non-touch 11.4/11.4/11.4/11.4	Touch 31.36/31.36/31.36/31.36 Non-touch 20.5/20.5/20.5/20.5	mm
	Net weight	18 26(w/Touch)		21.5 30(w/Touch)	30 42(w/Touch)	KG
	Gross weight	23 31(w/Touch)		26 37(w/Touch)	36 49(w/Touch)	KG
	Environment	Storage temperature	Min -20 ~ Max 60			°C
Operating temperature		Min 0 ~ Max 40			°C	
Humidity		35%~85%			RH	

Item		Specification			Unit
		M2-490DS-A1 M2-490DSN-A1	M2-550DS-A1 M2-550DSN-A1	M2-650DS-A1 M2-650DSN-A1	
Function	OSD key	7 keys			Key
	Wall mount	400 x 400 VESA	400 x400 VESA	600 x600 VESA	mm
	Communication port	D-Sub 9 Pin In, Ethernet In			
Touch	Technology	PCAP Multi-Touch; Support 55 finger points			-
	Touch Resolution	32768x32768			-
	Pen Tip Size	Tip: 2mm Rear: 7mm			mm
	Interface	USB HID			
	Operating System	Windows 10 / 11, Mac OS and Linux			
Cover Glass	Glass Type	AG and AF Coating Semi-Tempered glass, 3mm			-

Notes:

*Performance characteristics above are for panel only. Performance may change with addition of cover glass.

**Audio Out: To output the analog audio from DisplayPort, HDMI, and PC Audio in.

S/PDIF Out : To output the digital audio from DisplayPort, and HDMI .

Note1: Please wait for at least 10 seconds before turning the system back on with AC switch to suit the panel's requirements.

Note2: For power consumption to be less than 0.5-watt, power saving config shall be "wake on VGA".

Note3: Power Consumption in Sleep: when no video for 5 minutes, Power Consumption in Standby: means power draw when power=off, the measure result will have slightly different in different unit.

Note4: Power Consumption test pattern is White pattern.

Troubleshooting

Before calling service personnel, please check the following chart for a possible cause to the trouble you are experiencing.

- Perform the adjustments according to Operating The Display on page 16
- If the problem you have experienced isn't described below or you can't correct the problem, stop using the display and call service personnel or your dealer.

Problem	Check these things
No Display	Ensure the power plug is installed correctly on both ends. Check the main power switch is set to "—". Check that source equipment is operating correctly. Check the input signal is compatible with this display. Check the LED status light.
The image is not centered	Check the input signal is compatible with this display.
The image is not locked correctly	Check the input signal is compatible with this display.
The remote control doesn't work	Make sure the batteries fresh and are installed correctly. Ensure the remote is aimed at the IR sensor.
The picture color looks poor	Check the picture settings. Reset the display.

External Control

Remote Control via RS232 and Ethernet

RS232 and Ethernet interfaces enable remote management of displays from a computer. All functions accessible through the display's remote control can also be executed using command instructions. Commands can additionally be used to query the display for current settings and operational values. The command set is identical for both RS232 and Ethernet interfaces.

Ethernet Communication

For Ethernet communication, commands are transmitted using the Telnet protocol over port 23. The display will obtain an IP address automatically if DHCP is enabled on the network. Ensure that the PC sending commands is on the same network segment as the display.

RS232 Communication

For RS232 communication, connect the display to the computer using the appropriate serial cable. Set the baud rate, parity, data bits, and stop bits according to the display's specifications before sending commands.

Control Command Format

STX(1byte) + IDT(1byte)+ Type(1byte)+ CMD(3bytes)+ [Value/Reply(1byte)] + ETX(1byte)

STX : Start byte = 07

IDT : Don't care

Type : Read or Write command, 01: read, 02: write; 00: return to host (from monitor)

CMD : as following tables

Value : Setting Value of "Write Command"

Reply : Return Value of monitor

ETX : End byte = 08

Transmit from PC (Host)

Read command : 07 IDT 01 CMD 08 (7bytes)

Write/Setting command : 07 IDT 02 CMD VAL 08 (8bytes)

Return from Monitor: Return CMD is the same with received CMD, the return command will be sent after action.

Serial Port Setting

Baud Rate	Data Bit	Parity Bit	Stop Bit
115200	8	None	1

Baud rate can set to 115200, 38400, 19200, 9600 to match the monitor baud rate setting.

Baud rate 115200 is the default setting.

Explanation of symbols

▲ : Valid command on Power saving/ off mode (The setting of "Wake Up from Sleep" must be "Digital,RS232,Ethernet").

Main Item	Control Item	CM D	Typ e	Value (HEX)	Reply (HEX)	Content	CMD (HEX)	Remar k
-----------	--------------	------	-------	--------------	--------------	---------	-----------	---------

Power Control and Input Source	Power Control	PO W	W/R	0	0	Off (soft power)	50 4F	▲		
				1	1	On (soft power)	57	▲		
	Input Source	MIN	W/R	0	0	VGA	4D 49 4E			
				9	9	HDMI 1				
0A				0A	HDMI 2					
0D				0D	Displayport					
Display Adjustme nt	Display Adjustm ent	BRI	W/R	00~6 4	00~6 4	Back Light Brightness	42 52 49			
				BRL	W/R	00~6 4	00~6 4	Digital Brightness Level	42 52 4C	
		BLC	W/R	0	0	Off (Back Light)	42 4C			
				1	1	On (Back Light)	43			
		CO N	W/R	00~6 4	00~6 4	Contrast	43 4F 4E			
		HU E	W/R	00~6 4	00~6 4	Hue	48 55 45			
		SAT	W/R	00~6 4	00~6 4	Saturation	53 41 54			
		NO R	W/R	0	0	Noise Reduction :Off	4E 4F 52			
				1	1	Noise Reduction :Low				
				2	2	Noise Reduction :Medium				
				3	3	Noise Reduction :High				
		US R	W/R	00~6 4	00~6 4	Red Gain (mapping 0~100)	55 53 52			
		US G	W/R	00~6 4	00~6 4	Green Gain (mapping 0~100)	55 53 47			
		US B	W/R	00~6 4	00~6 4	Blue Gain (mapping 0~100)	55 53 42			
		UO R	W/R	00~6 4	00~6 4	Red Offset (mapping 0~100)	55 4F 52			
		UO G	W/R	00~6 4	00~6 4	Green Offset (mapping 0~100)	55 4F 47			
		UO B	W/R	00~6 4	00~6 4	Blue Offset (mapping 0~100)	55 4F 42			
		CO T	W/R	0	0	User	43 4F 54			
				1	1	6500K				
				2	2	9300K				
				6	6	5000K				
				7	7	7500K				
		GA C	W/R	0	0	Gamma Off	47 41			
				1	1	Gamma 2.2	43			
		VGA Adjustm ent	VGA Adjustm ent	PH A	W/R	00~F F	00~F F	Phase	50 48 41	
				CL O	W/R	00~6 4	00~6 4	Clock	43 4C 4F	
				HO R	R/W	00~6 4	00~6 4	Horizontal Position	48 4F 52	
				VE R	R/W	00~6 4	00~6 4	Vertical Position	56 45 52	
ADJ	W			0	0	Auto Adjust	41 44 4A			

	Sharpness	SH A	W/R	00~64	00~64	Sharpness	53 48 41	
Other Control	Scaling	AS P	W/R	0	0	Main Window Aspect Ratio	41 53 50	
				1	1	Native(PointToPoint) Full Screen(16:9)		
				2	2	Pillarbox(4:3)		
				4	4	Auto		
		ZO M	W/R	00~0A	00~0A	Adjust overscan ratio	5A 4F 4D	
	Baud rate Adjustm ent	BR A	W/R	0	0	115200	42 52 41	
				1	1	38400		
				2	2	19200		
				3	3	9600		
	Other Control	RC U	W	0	0	MENU Key	52 43 55	
				1	1	INFO Key		
				2	2	UP Key		
				3	3	DOWN Key		
				4	4	LEFT Key		
				5	5	RIGHT Key		
				6	6	ENTER Key		
				7	7	EXIT Key		
				8	8	VGA Key		
				0A	0A	HDMI1 Key		
				0B	0B	HDMI2 Key		
				0C	0C	DISPLAYPORT Key		
				17	17	SCALING Key		
				18	18	FREEZE Key		
				19	19	MUTE Key		
				1A	1A	BRIGHT Key		
		1B	1B	CONTRAST Key				
		1C	1C	AUTO Key				
1D		1D	VOLUME+ Key					
1E		1E	VOLUME- Key					
	ALL	W	0	0	Reset all	41 4C 4C		
1			1	Reset all but communication (RS232 , LAN)				
	KLC	W/R	0	0	Un-lock keys	4B 4C 43		
			1	1	Lock keys			
	SE R	R		13 bytes	Read Serial Number	53 45 52		
	MN A	R		13 bytes	Read Model Name	4D 4E 41		
	GV E	R		6 bytes	Read Firmware Version	47 56 45		
	RT V	R		Current value	Read RS232 table Version	52 54 56		
Audio	VO L	W/R	00~64	00~64	volume	56 4F 4C		
	BA	W/R	00~1	00~1	Bass(-10~10)	42 41		

		S		4	4		53		
		TR E	W/R	00~1 4	00~1 4	Treble(-10~10)	54 52 45		
		BAL	W/R	00~1 4	00~1 4	Balance (-10~10)	42 41 4C		
		HA S	W/R	00	00	HDMI audio source : Default	48 41 53		
				01	01	HDMI audio source : Audio In			
		IAS	W/R	00	00	HDMI2 audio source : Default	49 41 53		
				01	01	HDMI2 audio source : Audio In			
		DA S	W/R	00	00	DP audio source : Default	44 41 53		
				01	01	DP audio source : Audio In			
		INS	W/R	0	0	Internal Speaker Off	49 4E 53		
				1	1	Internal Speaker On			
		MU T	W/R	0	0	Mute Off	4D 55 54		
				1	1	Mute On			
	Scheme selectio n	SC M	W/R	0	0	User	53 43 4D		
				1	1	Sport			
				2	2	Game			
				3	3	Movie			
				4	4	Vivid			
Other Control	EcoMod e WakeUp FromSle ep	WF S	W/R	0	0	Set VGA_ONLY	57 46 53		
				1	1	Set DIGITAL,RS232,Ethern et			
				2	2	Set Never_Sleep			
		RTC	RT Y	W/R	00~6 3	00~6 3	Set Real time Year	52 54 59	
			RT M	W/R	01~0 C	01~0 C	Set Real time Month	52 54 4D	
			RT D	W/R	01~1 F	01~1 F	Set Real time Day	52 54 44	
			RT H	W/R	00~1 7	00~1 7	Set Real time Hour	52 54 48	
			RT N	W/R	00~3 B	00~3 B	Set Real time Minute	52 54 4E	
		TM S	W/R	0	0	Same Settings On All (Everyday)	54 4D 53		
				1	1	Same Settings On Work Days (Workday)			
				2	2	User			
		AE N	W/R	1	1	Sunday Alarm Enable (Note 1)	41 45 4E		
				2	2	Monday Alarm Enable (Note 1)			
				4	4	Tuesday Alarm Enable			

					(Note 1)		
			8	8	Wednesday Alarm Enable (Note 1)		
			10	10	Thursday Alarm Enable (Note 1)		
			20	20	Friday Alarm Enable (Note 1)		
			40	40	Saturday Alarm Enable (Note 1)		
	AEF	W/R	1	1	Sunday Alarm Disable (Note 1)	41 45 46	
			2	2	Monday Alarm Disable (Note 1)		
			4	4	Tuesday Alarm Disable (Note 1)		
			8	8	Wednesday Alarm Disable (Note 1)		
			10	10	Thursday Alarm Disable (Note 1)		
			20	20	Friday Alarm Disable (Note 1)		
			40	40	Saturday Alarm Disable (Note 1)		
NN H	W/R	00~1 7	00~1 7	Monday On Hour	4E 4E 48		
NN M	W/R	00~3 B	00~3 B	Monday On Minute	4E 4E 4D		
NF H	W/R	00~1 7	00~1 7	Monday Off Hour	4E 46 48		
NF M	W/R	00~3 B	00~3 B	Monday Off Minute	4E 46 4D		
EN H	W/R	00~1 7	00~1 7	Tuesday On Hour	45 4E 48		
EN M	W/R	00~3 B	00~3 B	Tuesday On Minute	45 4E 4D		
EF H	W/R	00~1 7	00~1 7	Tuesday Off Hour	45 46 48		
EF M	W/R	00~3 B	00~3 B	Tuesday Off Minute	45 46 4D		
DN H	W/R	00~1 7	00~1 7	Wednesday On Hour	44 4E 48		
DN M	W/R	00~3 B	00~3 B	Wednesday On Minute	44 4E 4D		
DF H	W/R	00~1 7	00~1 7	Wednesday Off Hour	44 46 48		
DF M	W/R	00~3 B	00~3 B	Wednesday Off Minute	44 46 4D		
UN H	W/R	00~1 7	00~1 7	Thursday On Hour	55 4E 48		
UN M	W/R	00~3 B	00~3 B	Thursday On Minute	55 4E 4D		
UF H	W/R	00~1 7	00~1 7	Thursday Off Hour	55 46 48		

		UF M	W/R	00~3 B	00~3 B	Thursday Off Minute	55 46 4D	
		INH	W/R	00~1 7	00~1 7	Friday On Hour	49 4E 48	
		INM	W/R	00~3 B	00~3 B	Friday On Minute	49 4E 4D	
		IFH	W/R	00~1 7	00~1 7	Friday Off Hour	49 46 48	
		IFM	W/R	00~3 B	00~3 B	Friday Off Minute	49 46 4D	
		TN H	W/R	00~1 7	00~1 7	Saturday On Hour	54 4E 48	
		TN M	W/R	00~3 B	00~3 B	Saturday On Minute	54 4E 4D	
		TFH	W/R	00~1 7	00~1 7	Saturday Off Hour	54 46 48	
		TF M	W/R	00~3 B	00~3 B	Saturday Off Minute	54 46 4D	
		SN H	W/R	00~1 7	00~1 7	Sunday On Hour	53 4E 48	
		SN M	W/R	00~3 B	00~3 B	Sunday On Minute	53 4E 4D	
		SF H	W/R	00~1 7	00~1 7	Sunday Off Hour	53 46 48	
		SF M	W/R	00~3 B	00~3 B	Sunday Off Minute	53 46 4D	
	Auto Scan	ATS	W/R	0 1	0 1	Off On	41 54 53	
	IRFM	IRF	W/R	0 1	0 1	Off On	49 52 46	
	Smart Light Control	SLC	W/R	0 1 2	0 1 2	Off DCR Light Sensor	53 4C 43	
	Power LED	LED	W/R	0 1	0 1	Off On	4C 45 44	
	HDMI1 EDID	EH1	W/R	0 1 2	0 1 2	1080P 4K30Hz 4K60Hz	45 48 31	
	HDMI2 EDID	EH2	W/R	0 1 2	0 1 2	1080P 4K30Hz 4K60Hz	45 48 32	
	Display Port 1 EDID	ED1	W/R	0 1 2	0 1 2	1080P 4K30Hz 4K60Hz	45 44 31	
	HDMI RGB Color Range	HC R	W/R	0 1 2	0 1 2	Auto Detect 0~255 16~238	48 43 52	
OSD Control	Transpa rency	OS T	W/R	00~0 4	00~0 4	OSD Transparency	4F 53 54	
	H Position	OS H	W/R	00~6 4	00~6 4	OSD H Position	4F 53 48	

	V Position	OS V	W/R	00~64	00~64	OSD V Position	4F 53 56	
	OSD Language	OS L	W/R	0	0	English	4F 53 4C	
				1	1	French		
				2	2	German		
				0D	0D	Italian		
				10	10	Spanish		
				14	14	Japanese		
	OSD Timeout	OS O	W/R	05~3C	05~3C	OSD Timeout (5, 10, 20, 30, 60 sec)	4F 53 4F	
Ethernet Setup	Network Enable	NW E	W/R	0	0	No	4E 57 45	
				1	1	Yes		
	Dynamic IP	DIP	W/R	0	0	Disable	44 49 50	
				1	1	Enable		
	Default	LDS	W	0	0	Load network default settings (It will take about 15 seconds.)	4C 44 53	
	E-Mail Alert	PS A	W/R	0	0	Off (Power Status Alert)	50 53 41	
				1	1	On (Power Status Alert)		
		SS A	W/R	0	0	Off (Source Status Alert)	53 53 41	
				1	1	On (Source Status Alert)		
		SLA	W/R	0	0	Off (Signal Lost Alert)	53 4C 41	
				1	1	On (Signal Lost Alert)		
	Static IP Settings	IP1	W/R	00~FF	00~FF	Static IP Address 1	49 50 31	
		IP2	W/R	00~FF	00~FF	Static IP Address 2	49 50 32	
		IP3	W/R	00~FF	00~FF	Static IP Address 3	49 50 33	
		IP4	W/R	00~FF	00~FF	Static IP Address 4	49 50 34	
		MK 1	W/R	00~FF	00~FF	Subnet Mask 1	4D 4B 31	
		MK 2	W/R	00~FF	00~FF	Subnet Mask 2	4D 4B 32	
		MK 3	W/R	00~FF	00~FF	Subnet Mask 3	4D 4B 33	
		MK 4	W/R	00~FF	00~FF	Subnet Mask 4	4D 4B 34	
		GW 1	W/R	00~FF	00~FF	Gateway 1	47 57 31	
		GW 2	W/R	00~FF	00~FF	Gateway 2	47 57 32	
		GW 3	W/R	00~FF	00~FF	Gateway 3	47 57 33	
		GW 4	W/R	00~FF	00~FF	Gateway 4	47 57 34	
		FD1	W/R	00~FF	00~FF	DNS Address 1	46 44 31	
		FD2	W/R	00~FF	00~FF	DNS Address 2	46 44 32	
		FD3	W/R	00~FF	00~FF	DNS Address 3	46 44	

				F	F		33	
		FD4	W/R	00~F F	00~F F	DNS Address 4	46 44 34	
		SN S	W	00	00	Save Network Settings	53 4E 53	
		MA C	W	00~0 5	00~F F	Querying MAC ID #0~#5	4D 41 43	
Note 1:								
<p>The data value of AEN and AEF cab be configured by bit.</p> <p>Bit0: Sunday Bit1: Monday Bit2: Tuesday Bit3: Wednesday Bit4: Thursday Bit5: Friday Bit6: Saturday</p> <p>To enable alarm for whole week: 0x07+IDT+0x02+AEN+0x7F+0x08</p> <p>To disable alarm for Wed. , Sat. and Sun: 0x07+IDT+0x02+AEF+0x49+0x08</p>								

Example:

Power Control and Input Source

Turn monitor power off [CMD: POW]

[Transmit] : PC → 07 01 02 50 4F 57 00 08 → Monitor

[Return] : Monitor → 07 01 00 50 4F 57 00 08 → PC

Turn monitor power on [CMD: POW]

[Transmit] : PC → 07 01 02 50 4F 57 01 08 → Monitor

[Return] : Monitor → 07 01 00 50 4F 57 01 08 → PC

Read Power Status from monitor [CMD: POW]

[Transmit] : PC → 07 01 01 50 4F 57 08 → Monitor

[Return] : Monitor → 07 01 00 50 4F 57 XX 08 → PC

XX = 0, the set is off. XX = 1, the set is on.

Display Adjustment

Read back light from monitor [CMD: BRI] (If the setting of back light is 80)

[Transmit] : PC → 07 0101 42 52 49 08 → Monitor

[Return] : Monitor → 07 01 00 42 52 49 50 08 → PC

Set back light 80 to monitor [CMD: BRI]

[Transmit] : PC → 07 01 02 42 52 49 50 08 → Monitor

[Return] : Monitor → 07 01 00 42 52 49 50 08 → PC

Set Contrast 30 to monitor [CMD: CON]

[Transmit] : PC → 07 01 02 43 4F 4E 1E 08 → Monitor

[Return] : Monitor → 07 01 00 43 4F 4E 1E 08 → PC

Read Contrast from monitor [CMD: CON] (If the monitor contrast setting is 50)

[Transmit] : PC → 07 0101 43 4F 4E 08 → Monitor

[Return] : Monitor → 07 01 00 43 4F 4E 32 08 → Monitor

Scaling Adjustment

Set monitor to Pillar box [CMD: ASP]

[Transmit] : PC → 07 01 02 41 53 50 02 08 → Monitor

[Return] : Monitor → 07 01 00 41 53 50 02 08 → PC

Other Control

Adjust up to monitor [CMD: RCU]

[Transmit] : PC → 07 01 02 52 43 55 02 08 → Monitor

[Return] : Monitor → 07 01 00 52 43 55 02 08 → PC

Reset all to monitor [CMD: ALL]

[Transmit] : PC → 07 01 02 41 4C 4C 00 08 → Monitor

[Return] : Monitor → 07 01 00 41 4C 4C00 08 → PC

Read serial number monitor [CMD: SER]

[Transmit] : PC → 07 01 01 53 45 52 08 → Monitor

[Return] : Monitor → 07 01 00 53 45 52 S(0) ... S(12) 08 → PC , S(0) ~ S(12): serial number in ASCII

Read firmware version monitor [CMD: GVE]

[Transmit] : PC → 07 01 01 47 56 45 08 → Monitor

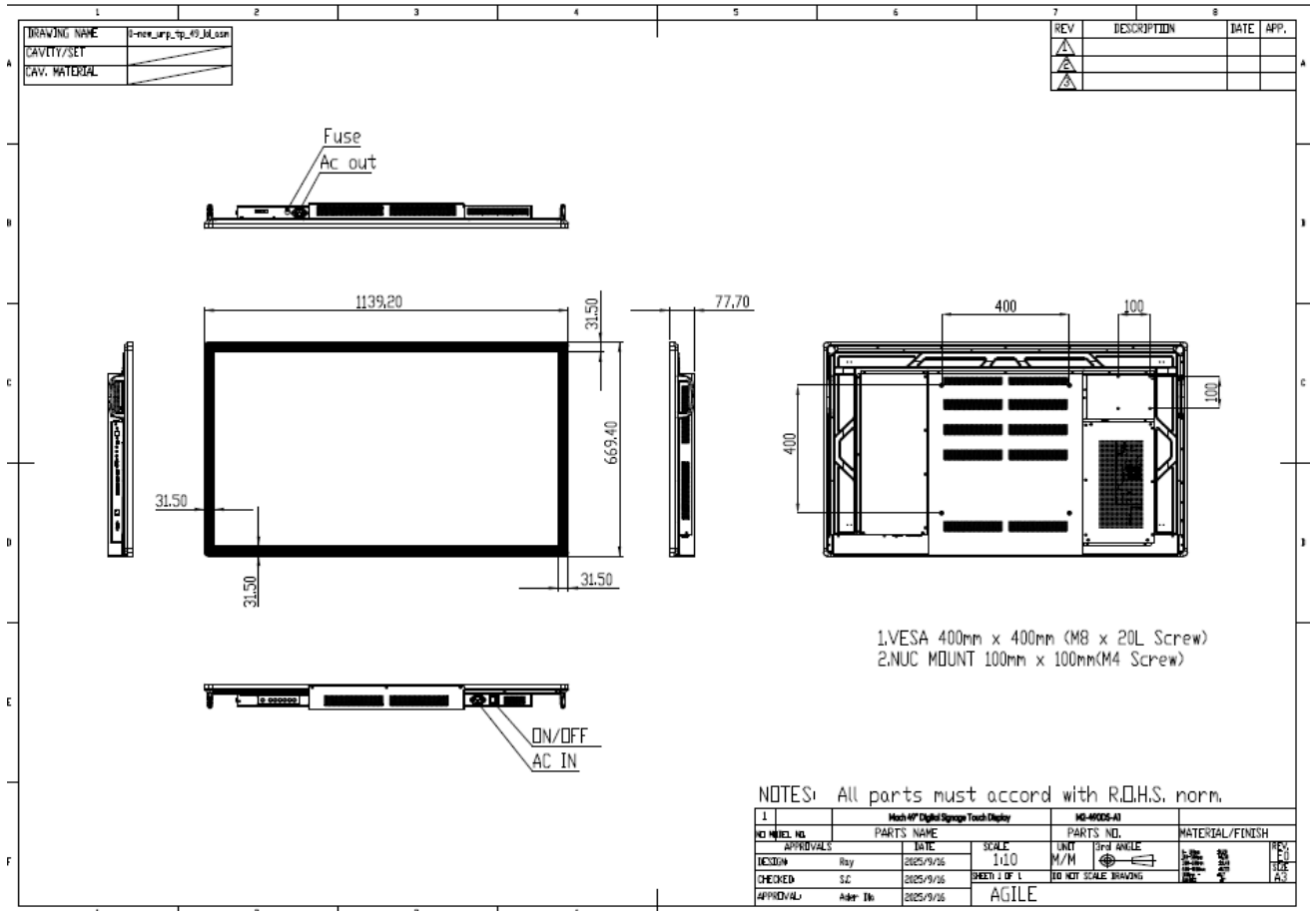
[Return] : Monitor → 07 01 00 47 56 45 S(0) ... S(5) 08 → PC , S(0) ~ S(5): firmware version in ASCII

Compliance

FCC	FCC CFR Title 47 Part 15 Subpart B: Class A ICES-003
CE	EN 55032 / BS EN 55032 EN 55035 / BS EN 55035 EN IEC 61000-3-2 / BS EN IEC 61000-3-2 EN 61000-3-3 / BS EN 61000-3-3
cTUVus	UL 62368-1 CAN/CSA-C22.2 NO.62368-1
CB	IEC 62368-1
CEC	California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4, Sections 1601-1609

Dimensions

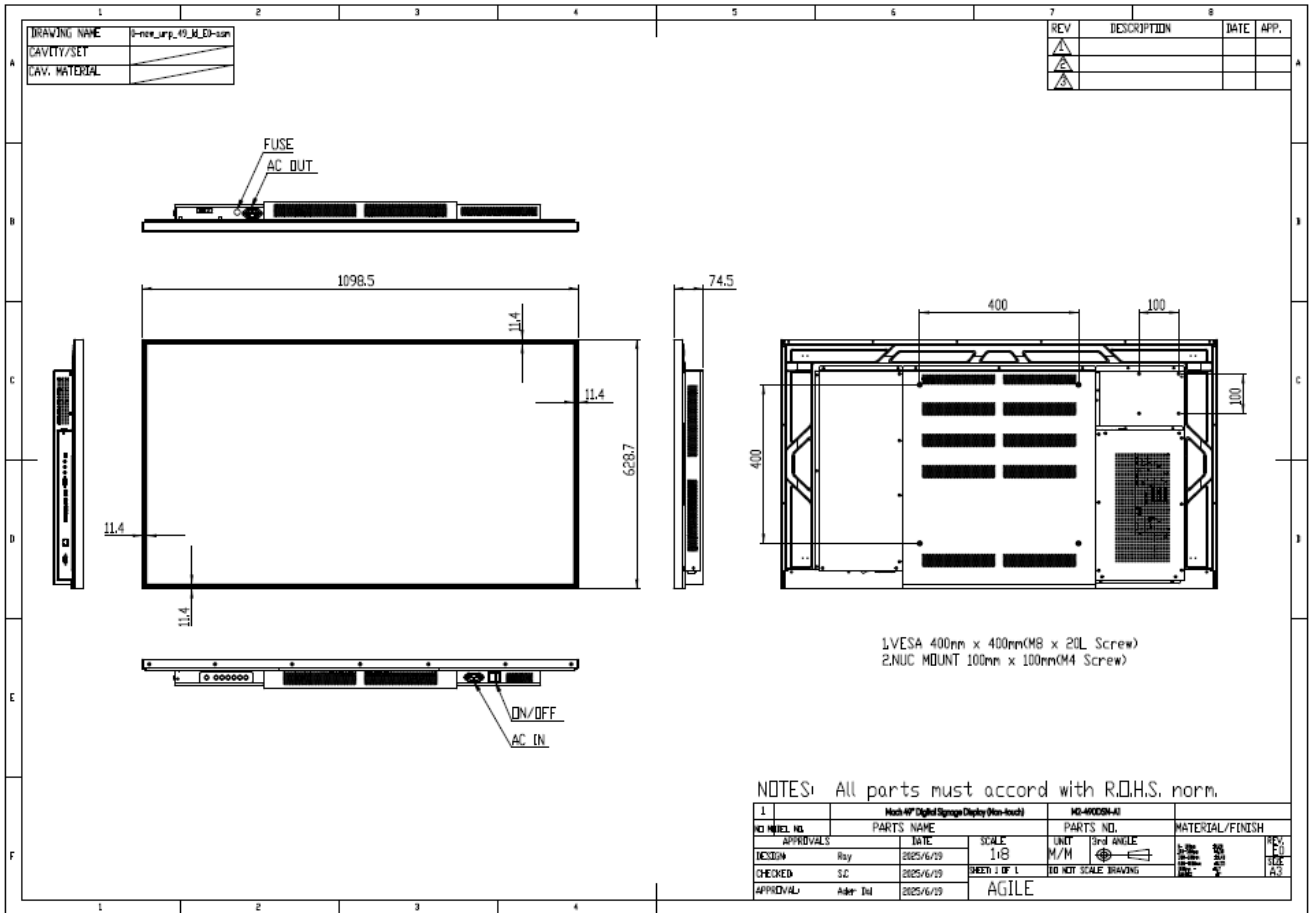
M2-490DS-A1



NOTES: All parts must accord with R.D.H.S. norm.

1		M2-490DS-A1		M2-490DS-A1		MATERIAL/FINISH	
NO	REV. NO.	PARTS NAME	DATE	SCALE	UNIT	SYMBOL	PCB
DESIGN	RAY		2025/9/26	1:10	M/M		PCB
CHECKED	SC		2025/9/26	SHEET 1 OF 1	DO NOT SCALE DRAWING		SIZE A3
APPROVED	Adm. Di		2025/9/26	AGILE			

M2-49DSN-A1

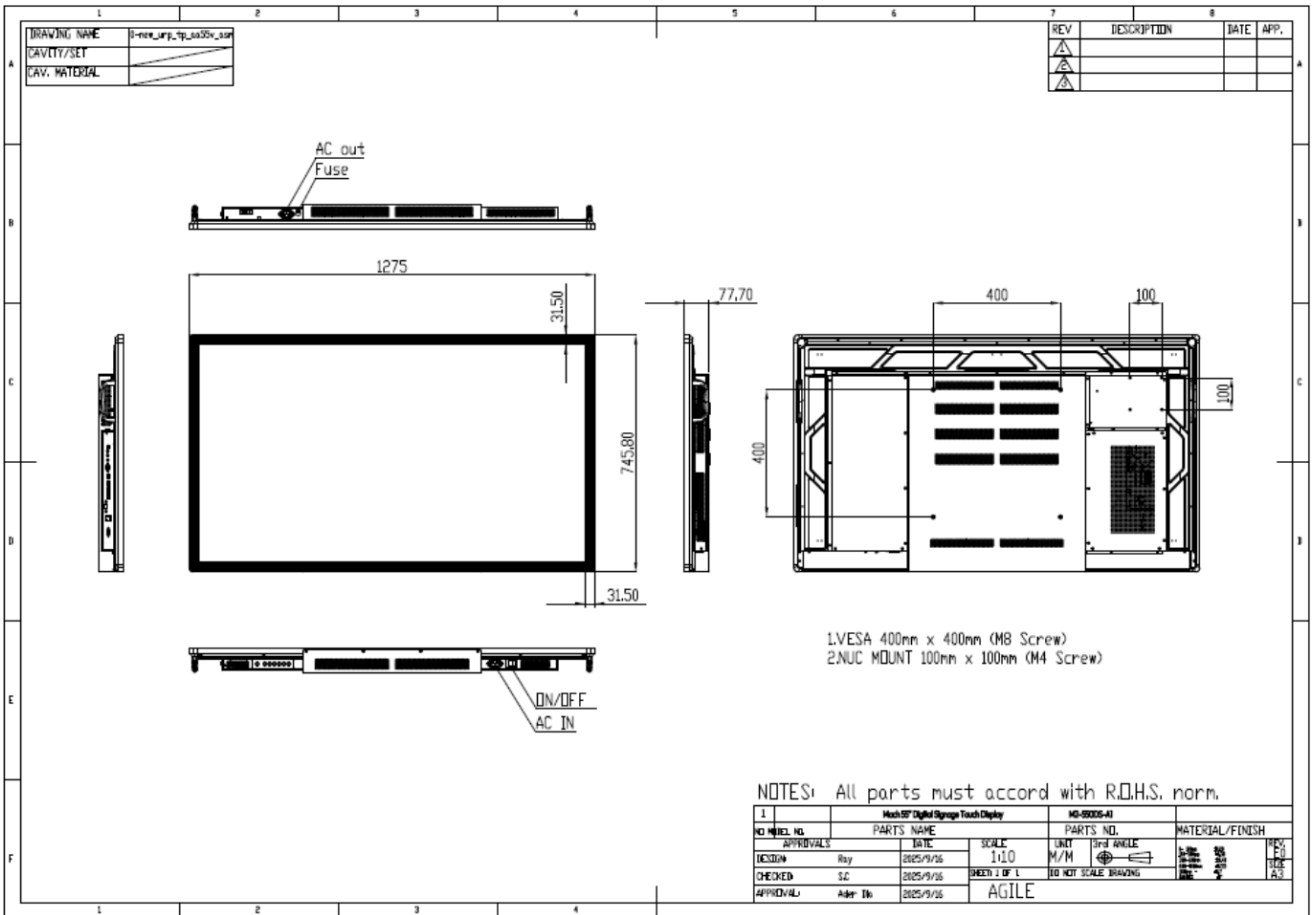


1.VESA 400mm x 400mm(M8 x 20L Screw)
 2.NUC MOUNT 100mm x 100mm(M4 Screw)

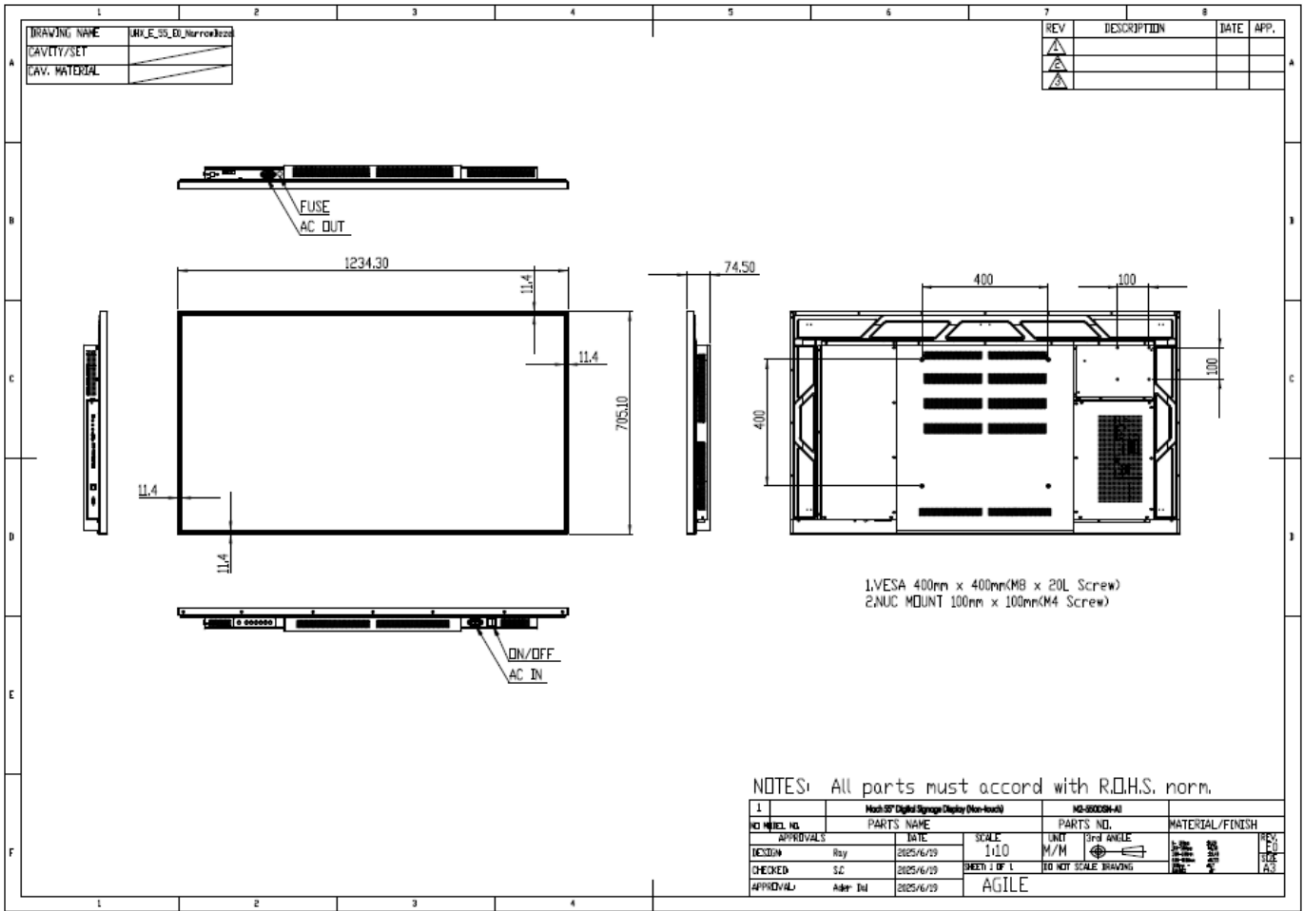
NOTES: All parts must accord with R.D.H.S. norm.

NO-49DSN-A1		Parts Name		NO-49DSN-A1		MATERIAL/FINISH	
NO	NO	PARTS NAME	SCALE	PARTS NO.	UNIT	3rd ANGLE	MATERIAL/FINISH
APPROVALS	DATE	DATE	1/8	M/M			REV
DESIGN	Ray	2025/6/19	SHEET 1 OF 1				SIZE
CHECKED	SC	2025/6/19	DO NOT SCALE DRAWING				A3
APPROVAL:	Appr: Dal	2025/6/19	AGILE				

M2-550DS-A1



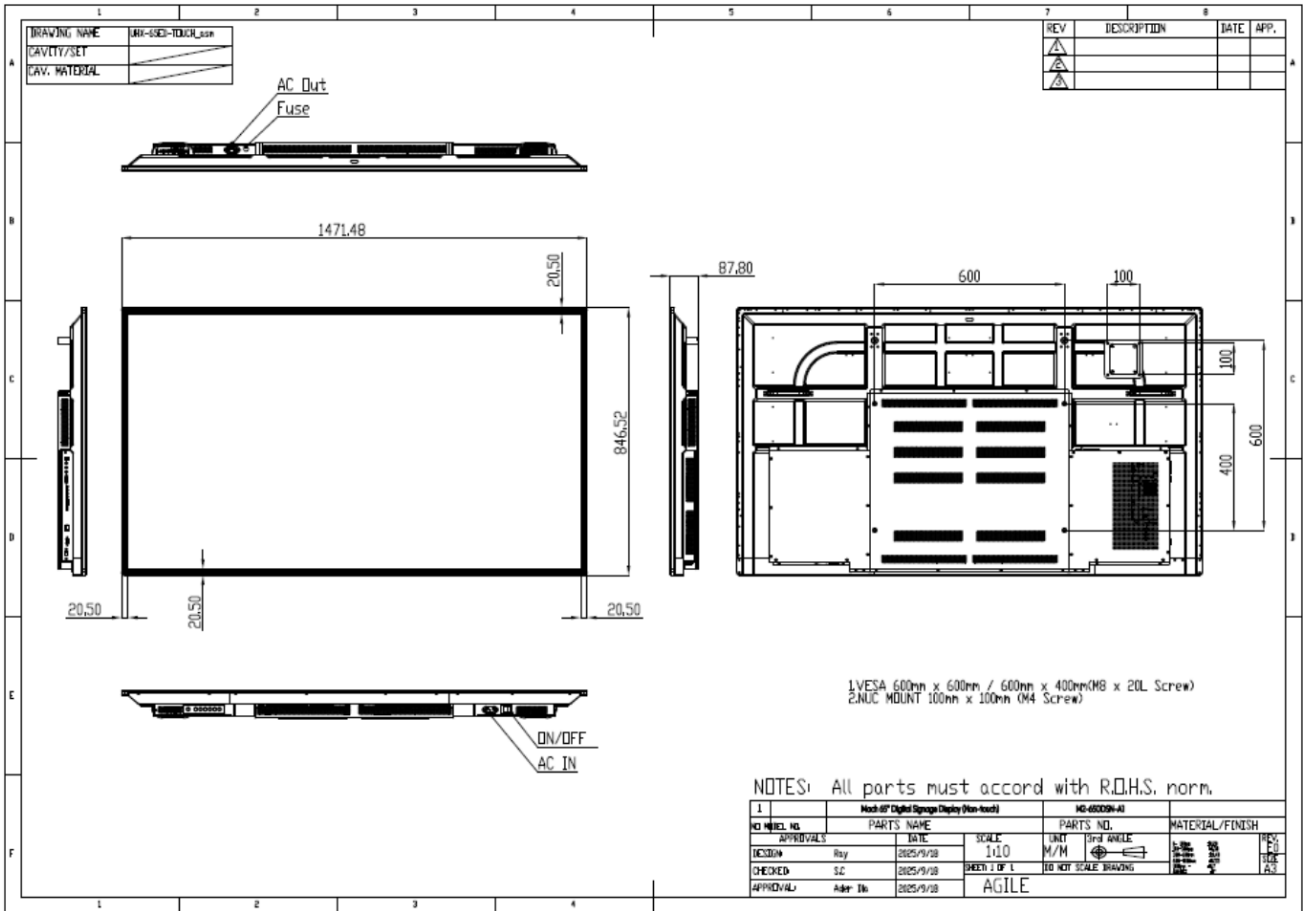
M2-550DSN-A1



NOTES: All parts must accord with R.D.S. norm.

1		M2-550 Digital Storage Display (Duo-Track)		M2-550DSN-A1		MATERIAL/FINISH	
NO	APPROVALS	PARTS NAME	DATE	SCALE	UNIT	DRG ANGLE	REV
DESIGN	Ray		2025/6/10	1:10	M/M		1
CHECKED	SC		2025/6/10	SHEET 1 OF 1	DO NOT SCALE DRAWING		2
APPROVAL	Adm Int		2025/6/10	AGILE			

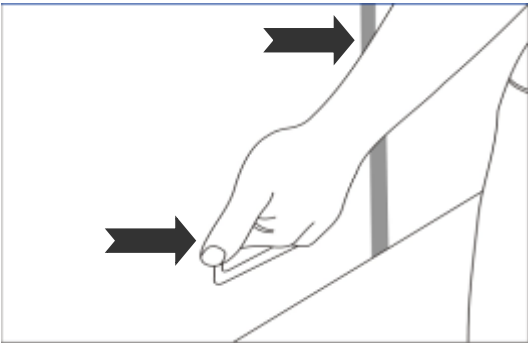
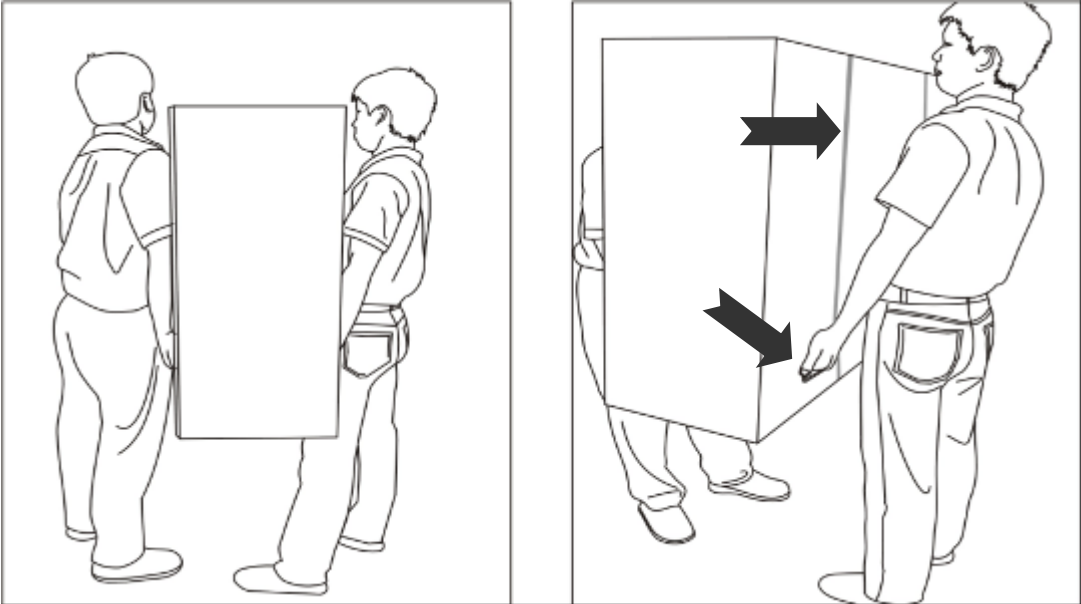
M2-650DSN-A1



Appendix I: Moving and Carrying Notice

Moving the Display:

Moving the display requires at least two people. Attempting to move the display with one person may result in dropping the display and/or serious injury. When moving a display in its shipping carton, lift the carton using the white handles.



Carrying the display:

This display is heavy; please follow proper lifting technique, as pictured below. Failure to do so may cause injury.



Appendix II: Installing a Wall Mount

- Follow the manual instructions for the type of mount you have selected. Refer all servicing to qualified service personnel.
- Moving the display requires at least two people.
- Before installing, please make sure the wall is strong enough to hold the necessary weight of the display and the mount.

Step1. Keep the display facing the ground and place it on a flat object.

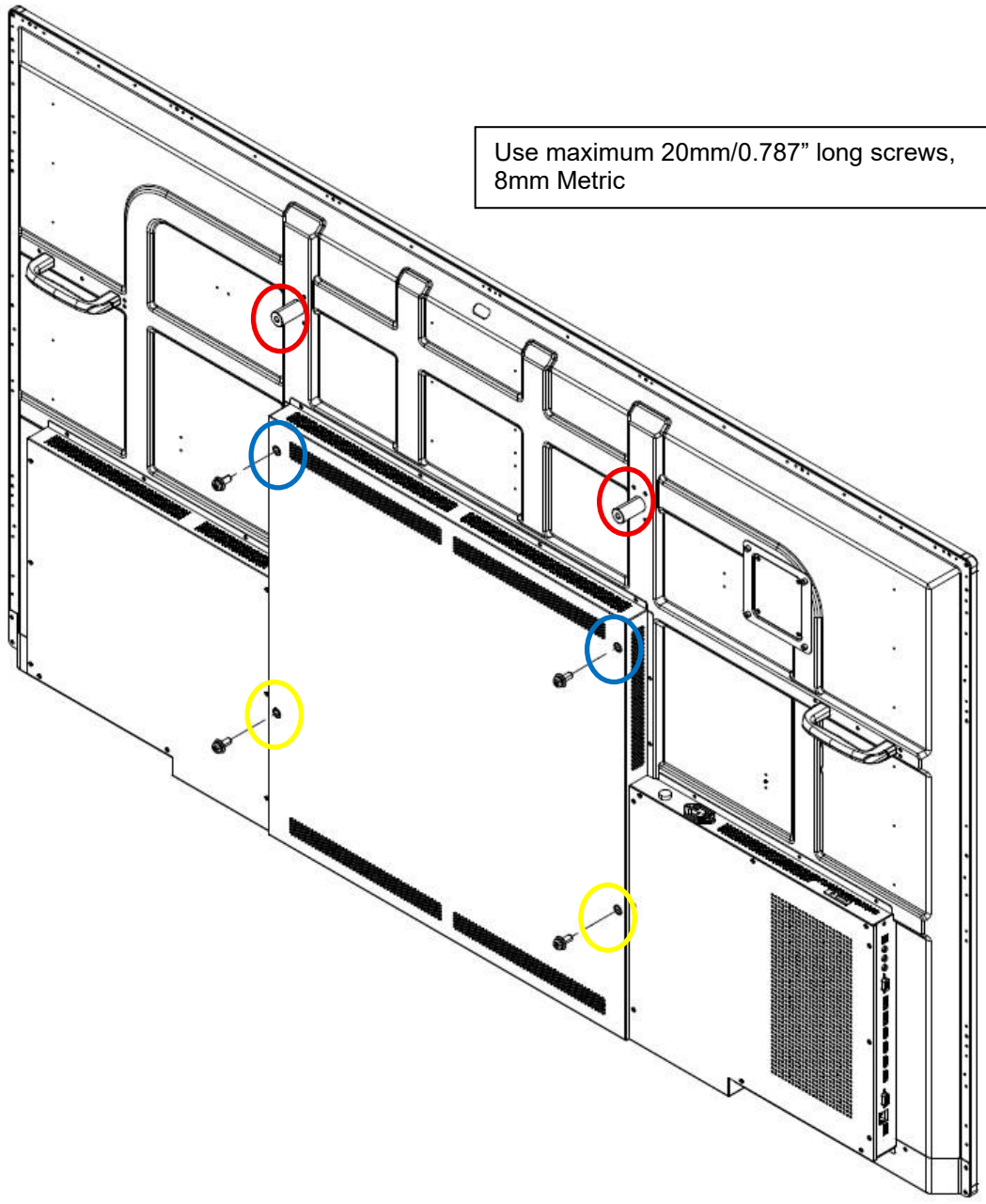
Step2. Remove the 4 screws (M8*20) from the back of the display.

Step3. Align the wall brackets with the mounting holes and attach the brackets to the display using the screws removed in Step 2. First, tighten the two yellow-marked holes. **For portrait orientation**, use the two additional red-marked holes. **For landscape orientation**, use the two additional blue-marked holes. (Reference illustration using the 65" model)

Note:

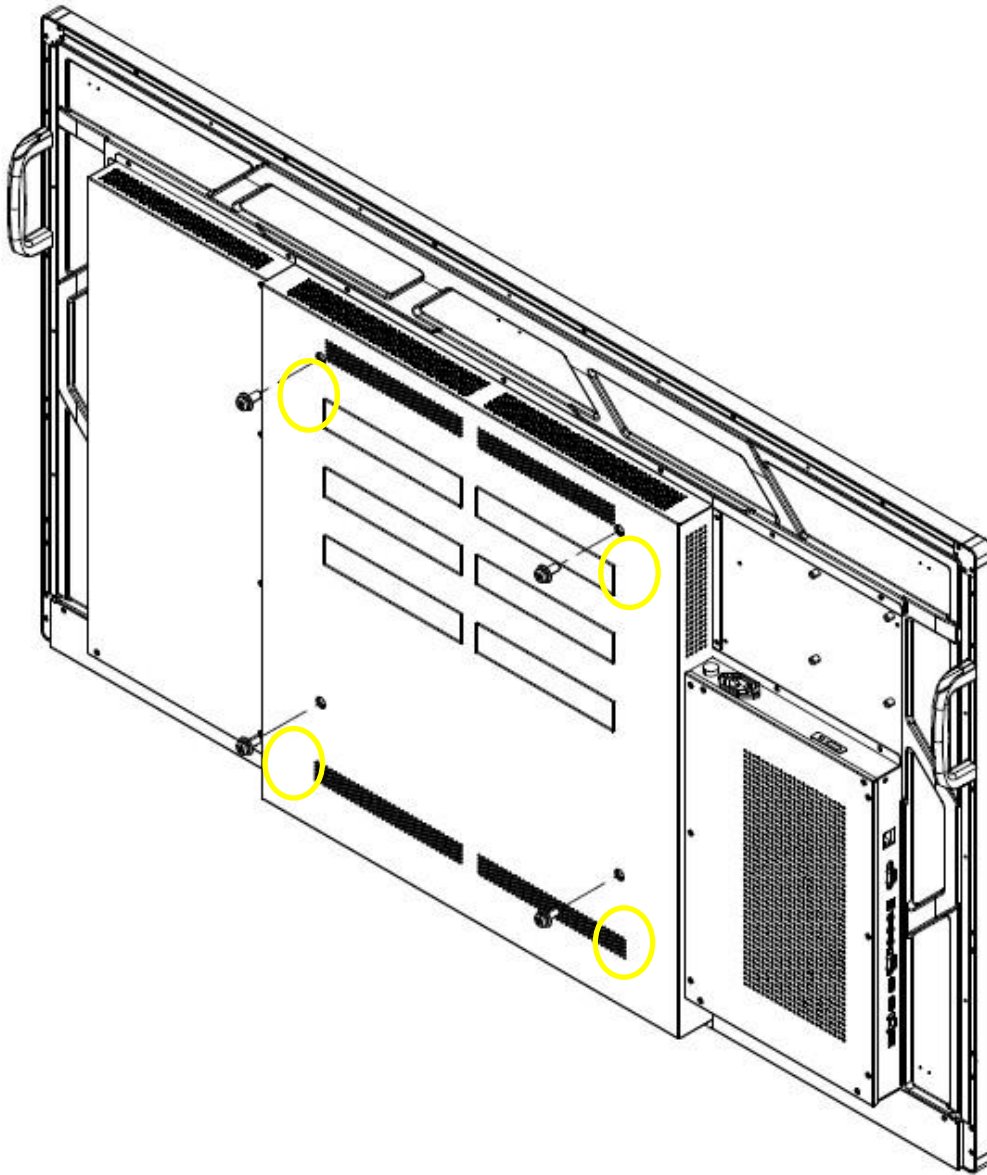
For the **49" and 55"** models, all four holes are suitable for both portrait and landscape orientations. (The 55" model is shown below as a reference illustration)

Caution: Longer screws will damage the display.



Use maximum 20mm/0.787" long screws,
8mm Metric

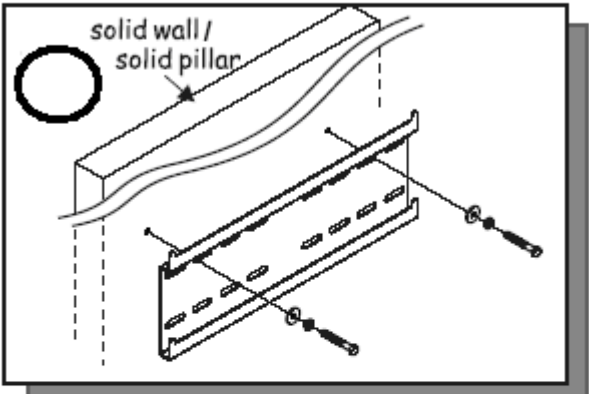
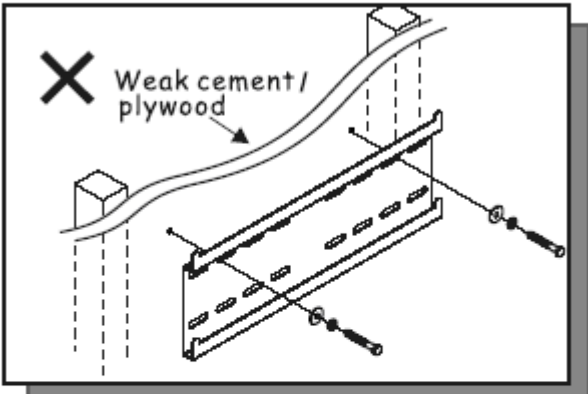
Using the 65" as a reference illustration



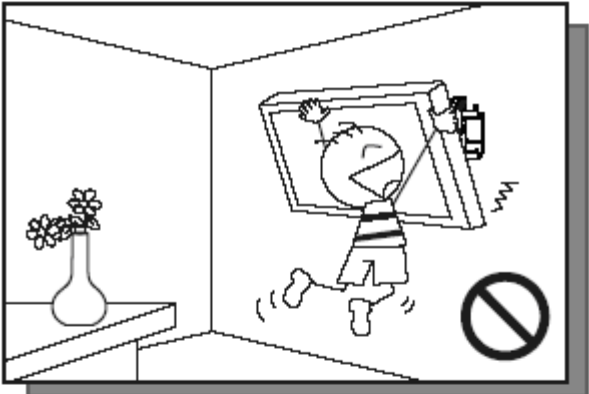
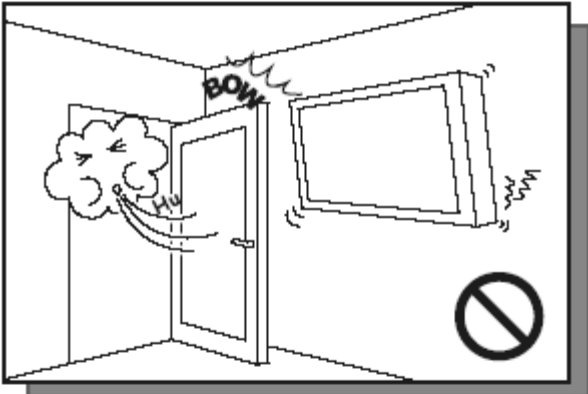
Using the 55" as a reference illustration

Appendix III: Wall Mount Safety Notes

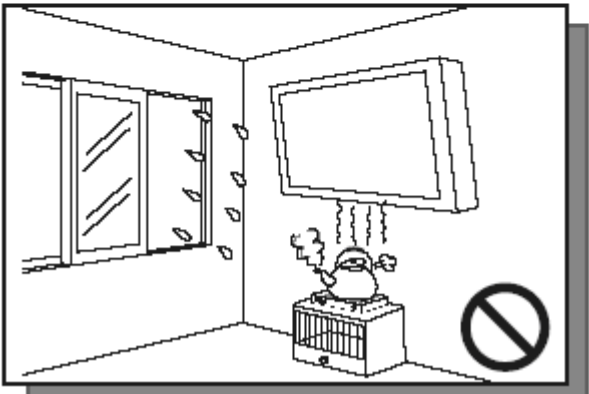
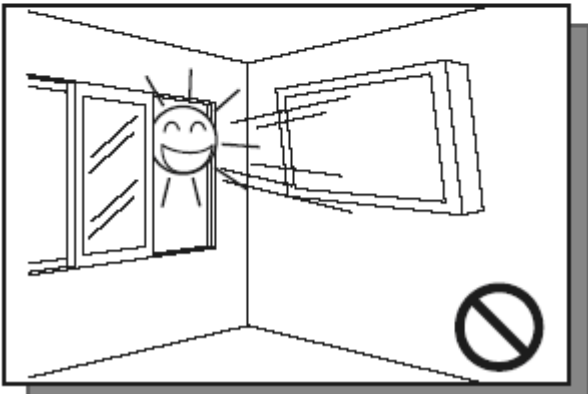
1. Please make sure if the bracket is fixed to the solid wall / solid pillar for fear of falling due to heavy weight.



2. After assembling, please don't pull or shake violently.

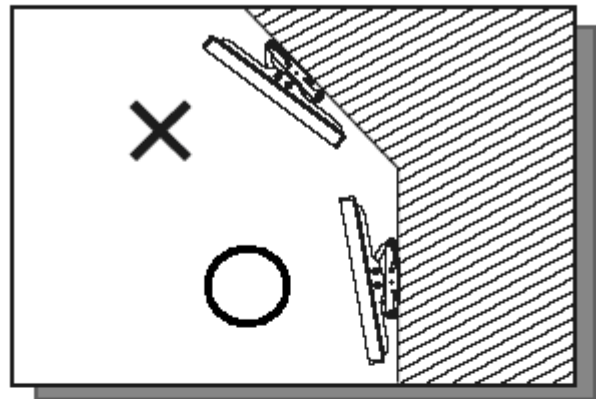
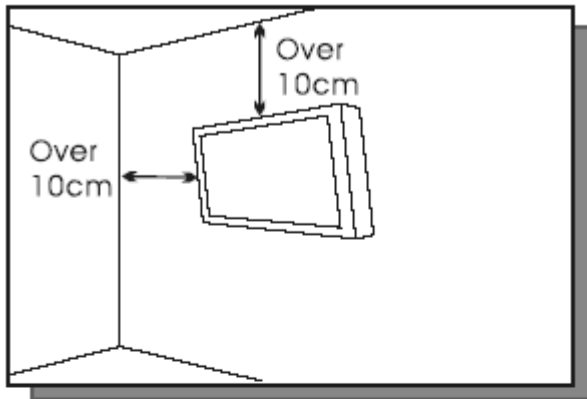


3. Please don't install the bracket directly under the sunshine or humidity / high temperature places for fear that the quality is effected.



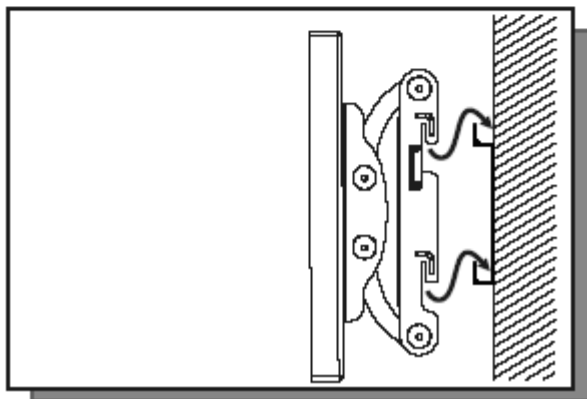
4.

Installing the brakcet over 10 cm from each wall side and being vertical to the ground is the suggested installing position.



5.

Please make sure to hang on the mounting hooks firmly.



6.

The flat screen must be put in the mid of the bracket for fear of slope.

