



# USER MANUAL

---

## DIGITAL SIGNAGE TOUCH MONITOR

M1-490DS-A1

M1-550DS-A1

M1-650DS-A1



# Table of Contents

About This Document .....	4
Compliance Information .....	5
Important Safety Instructions .....	7
Usage Notice .....	7
Precautions.....	7
Warnings.....	9
Installation Tips .....	10
Product Overview .....	11
Key Features .....	11
Unpacking.....	11
Package Contents .....	12
Product Setup and Use.....	13
Configuration and Cable Options.....	15
Turning Monitor On and Off .....	16
Power Status LED .....	16
On-Screen Display (OSD).....	17
Using the OSD Menus.....	18
Locking the OSD and Power button functions .....	18
IR Remote Control Function Description .....	19
OSD Default Settings.....	31
Network Configuration details (Selected from Advanced Settings OSD menu) .....	33
Mounting options .....	34
Specifications and Dimensions .....	36
Supported Timings.....	38
Dimensions.....	40

Appendix.....	43
Cleaning .....	43
Solutions to Common Problems .....	44
Warranty Information .....	45
RoHS Declaration .....	46

## About This Document

No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, including, but not limited to, electronic, magnetic, optical, chemical, manual, or otherwise without prior written permission of MicroTouch™ a TES Company.

# Compliance Information

## For FCC (USA)

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 generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try 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 into 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.

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.

## For IC (Canada)

CAN ICES-003(B)/NMB-003(B)

## For CE (EU)

The device complies with the EMC Directive 2014/30/EU and Low Voltage Directive 2014/35/EU

## Disposal Information

Waste Electrical and Electronic Equipment



This symbol on the product indicates that, under the European Directive 2012/19/EU governing waste from electrical and electronic equipment, this product must not be disposed of with other municipal waste. Please dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources. For more information about recycling of this product, please contact your local city office or your municipal waste disposal service.

# Renseignements relatifs à la conformité

## Pour la FCC (États-Unis)

Ce matériel a fait l'objet d'essais qui ont déterminé qu'il respectait les limites d'un appareil de classe A selon la partie 15 des règlements de la FCC. Ces limites sont établies pour assurer une protection raisonnable contre les parasites nuisant à une installation résidentielle. Ce matériel génère, utilise et peut émettre des ondes radio électriques, et lorsqu'il n'est pas installé et utilisé selon les instructions, peut causer des parasites nuisant aux communications radio. Il n'y a toutefois aucune garantie qu'il n'y aura pas de parasites dans une installation en particulier. Si ce matériel cause des parasites à la réception d'ondes radio ou de télévision, ce qui peut être déterminé en l'éteignant et en l'allumant, l'utilisateur est invité à essayer de corriger le problème des parasites par l'une ou l'autre des mesures suivantes :

- Réorienter ou déplacer l'antenne de réception.
- Augmenter la distance entre le matériel et la réception.
- Brancher le matériel dans une prise sur un autre circuit que celui où le récepteur est branché.
- Consulter le distributeur ou un technicien radio ou TV expérimenté pour des conseils.

L'appareil respecte la partie 15 des règlements de la FCC. Le fonctionnement doit respecter les deux conditions suivantes : 1) cet appareil ne doit pas causer de parasites et (2) cet appareil doit accepter tous les parasites reçus, notamment ceux pouvant causer un fonctionnement non voulu.

## Pour Industrie Canada

Norme canadienne NMB-3(A)

## Pour la CE (UE)

L'appareil respecte la directive 2014/30/UE relative à la compatibilité électromagnétique et la directive 2014/35/EU sur les limites de basse tension

## Informations sur l'élimination

Déchets d'équipements électriques et électroniques



Ce symbole sur le produit indique que, conformément à la directive européenne 2012/19/UE régissant les déchets d'équipements électriques et électroniques, ce produit ne doit pas être jeté avec les autres déchets municipaux. Veuillez éliminer vos déchets d'équipement en les remettant à un point de collecte désigné pour le recyclage des déchets d'équipements électriques et électroniques. Pour éviter d'éventuels dommages à l'environnement ou à la santé humaine dus à une élimination incontrôlée des déchets, veuillez séparer ces articles des autres types de déchets et les recycler de manière responsable afin de promouvoir la réutilisation durable des ressources matérielles. Pour plus d'informations sur le recyclage de ce produit, veuillez contacter votre mairie ou votre service municipal d'élimination des déchets.

# Important Safety Instructions

Before using this monitor, please read the 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 installation or adjustment, please follow the instructions in this manual and refer all servicing to qualified service personnel.

## Usage Notice



### Warning

To prevent the risk of fire or shock hazards, do not expose the product to moisture.



### Warning

Please do not open or disassemble the product, as this may cause electric shock.



### Warning

The AC power cord must be connected to an outlet with ground connection.



### Warning

There is a risk of explosion if the IR remote batteries are replaced with an incorrect type. Dispose of used batteries in accordance with local regulations.

## Precautions

Please follow all warnings, precautions and maintenance as recommended in this user's manual to maximize the life of your unit.

*Do :*

Disconnect the power plug from AC outlet if the product is not going to be used for an extended period of time.

*Don't :*

Do not operate the product under the following conditions:

Extremely hot, cold or humid environment.

Areas susceptible to excessive dust and dirt.

Near any appliance generating a strong magnetic field.

## Avis d'utilisation



### Mise en garde

Pour prévenir les risques d'incendie ou d'électrocution, ne pas exposer le produit à l'humidité.



### Mise en garde

Prière de ne pas ouvrir ou démonter le produit, car cela pourrait entraîner l'électrocution.



### Mise en garde

Le cordon d'alimentation doit être branché à une prise pourvue d'une mise à la terre.



### Mise en garde

Il y a un risque d'explosion si la batterie est remplacée par un type incorrect. Jetez les piles usagées conformément aux réglementations locales.

## Précautions

Veuillez suivre toutes les mises en garde, précautions et entretiens recommandés dans ce manuel d'utilisation pour maximiser la durée de vie de votre unité.

### À faire :

Utiliser uniquement l'adaptateur d'alimentation prescrit pour votre appareil.

Débrancher l'appareil lorsqu'il n'est pas utilisé pendant une période prolongée.

### À éviter :

Ne jamais utiliser l'appareil dans les conditions suivantes :

des conditions environnementales extrêmes (chaud, froid ou humidité)

des endroits remplis de poussières et de saletés.


à proximité d'appareils produisant un fort champ magnétique





## Warnings


To turn off monitor power, press the “Power” button on the OSD keypad.

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

 **If any of the following occur, remove the power plug from the outlet immediately:**  
the monitor is dropped; the housing is damaged; water is spilled onto or objects dropped inside the monitor.  
**Failure to immediately remove the power plug may result in fire or electrical shock. Contact qualified service personnel for inspection.**

 **If the power cord or plug is damaged or becomes hot, turn the monitor off, make sure the power plug has cooled down and remove the power plug from the outlet.**  
If the monitor is still used in this condition, it may cause fire or electrical shock.  
Contact your dealer for replacement.

 **Si l'un des événements suivants se produit, débranchez immédiatement la fiche d'alimentation de la prise:** le moniteur est tombé; le boîtier est endommagé; de l'eau est renversée ou des objets tombent à l'intérieur du moniteur.  
**Si vous ne débranchez pas immédiatement la fiche d'alimentation, vous risquez de provoquer un incendie ou un choc électrique. Contacter le personnel de service qualifié pour inspection.**

 **Si le cordon d'alimentation ou la fiche est endommagé, ou devient chaud, éteignez le moniteur, assurez-vous que la fiche d'alimentation a refroidi et débranchez la fiche d'alimentation de la prise.**  
Si le moniteur est toujours utilisé dans cet état, il peut provoquer un incendie ou un choc électrique. Contactez votre revendeur pour le remplacement.

# Installation Tips

## No Touch Screen Drivers Required

MicroTouch Touch Monitors are plug and play when connected to Windows 7 or later Windows devices; Kernel 3.2 for most builds of Linux; Android 1.0 and most other modern Operating Systems. If you have a non-Plug and Play operating system, please refer to the Technical Support Section of [www.microtouch.com](http://www.microtouch.com) or contact MicroTouch Technical Support to inquire about driver support for your particular operating system.

## Things to avoid

Don't install in a high-temperature environment. Operating temperature: 0°C to 40°C (0°F to 104°F), storage temperature -20°C - 60°C (-4°F to 140°F). If the monitor is used in a high temperature environment or near any heat sources, the case and other parts may become distorted or damaged, resulting in overheating or electrical shock.

Don't install in a high-humidity environment.

Operating humidity: 20-90%

Don't insert the power plug into anything other than a grounded 100-240V AC outlet.

Don't use a damaged power plug or worn outlet.

The use of extension cords is not recommended.

The use of the power supply that comes with the MicroTouch product is strongly recommended.

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

Don't place objects on the monitor.

If the monitor is covered or the vents are blocked, the monitor could overheat and cause a fire.

Please keep a 10 cm minimum distance between the monitor and the surrounding structures to allow sufficient ventilation.

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

When moving the monitor, make sure to remove the power plug and cables from the outlet or source.

**If you encounter a problem during installation, please contact your dealer for assistance. Do not attempt to repair or open the monitor.**

## Product Overview

This product is a large, wide format LCD monitor with a projected capacitive (PCAP) touch screen. It is particularly well suited for information display, wayfinding and informational assistance, and industrial process display and control, as well as many other applications.

### Key Features

Size: 490DS: 48.5"; 550DS: 54.6"; 650DS: 64.5"

Resolution: 3840 x 2160

Contrast Ratio: 1100:1

Aspect Ratio: 16x9

Brightness: 500 cd/m<sup>2</sup>

View Angle: H:178°, V:178°

Video Port: 1 VGA (DB15), 2 HDMI, 1 DP

VESA mount: 490DS, 550DS: 300 mm x 300 mm; 650DS: 400 mm x 400 mm

Front is sealed to IP65 standard

P-cap touch with up to 55 simultaneous touches; 4 pens, 4 erasers


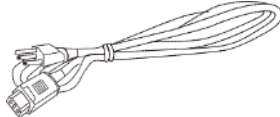
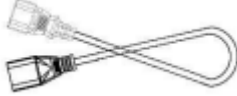


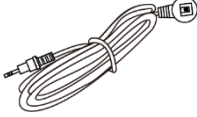
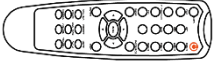
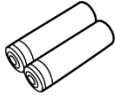
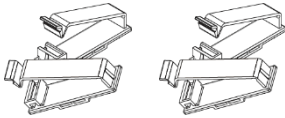
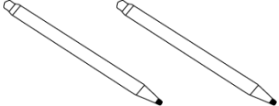
Plug and Play: no touch driver installation required for most modern operating systems

Warranty: 3 years

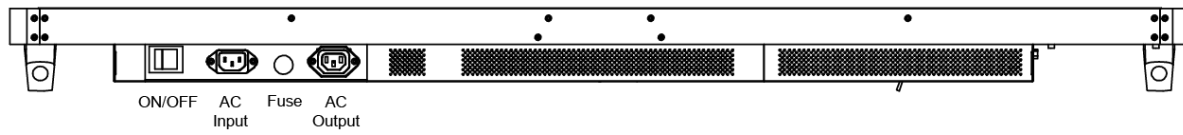
### Unpacking

When unpacking please ensure that all the items in the following Accessories section are included. If any are missing or damaged, please contact the place of purchase for a replacement.

## Package Contents

No.	Part	Picture	Qty
1	LCD Monitor		1
2	AC power cable IEC C13 (1.8m)		1
3	AC power output cable IEC C14 to C15 (0.3m)		1
4	HDMI cable (1.8m)		1
5	USB A-B cable (1.8m)		1
6	IR Extender cable		1
7	Remote Control		1
8	Batteries		2
9	Cable Clips		4
10	Passive Pens		2

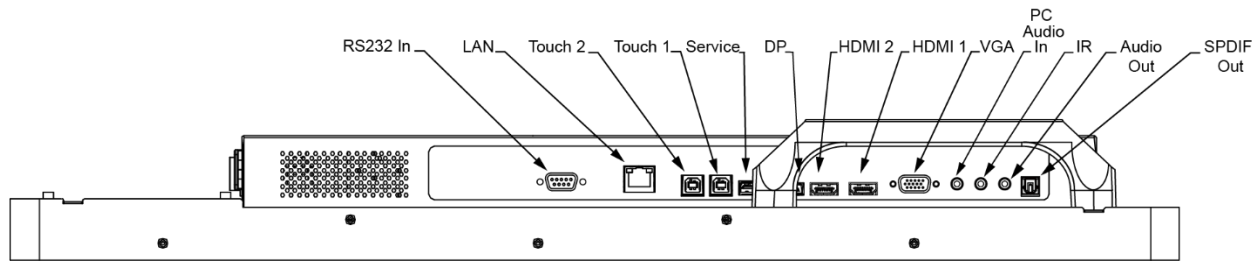
# Product Setup and Use



## Power Connectors & Power Switch

The AC power connectors and Off/On switch are on the left side of the bottom of the monitor as viewed from the front. The power cord connects to the AC Input connector. The AC Output connector may be used to supply power to an additional device (this cable is not included).

## Input/Output Connectors



### Video Signal Input Connectors

DP (Display Port): Digital video input.

HDMI1 and 2: Digital video inputs (selectable).

VGA: Analog video input.

### Touch Output Connectors

Touch 1 and 2: USB type-B ports supply the touch function output (selectable).

### OSD

OSD: Connector for the wired On-Screen Display remote control.

### Audio

PC Audio In: Audio input from computer/source equipment.

Audio Out: Pass-through audio output.

SPDIF Out: Sony/Phillips Digital Interconnect Format audio output.

### IR

Infrared receiver for IR remote.

### Service

For factory use only.

### RS232 In and LAN

Remote management serial interface.

## Configuration and Cable Options

Power is supplied by the included AC power cable. Connect the cable to the monitor, then plug it into an AC wall outlet.

Connect the included USB cable from one of the monitor's touch outputs to the computer/source equipment. The two Touch outputs may be connected to two computers/source equipment.

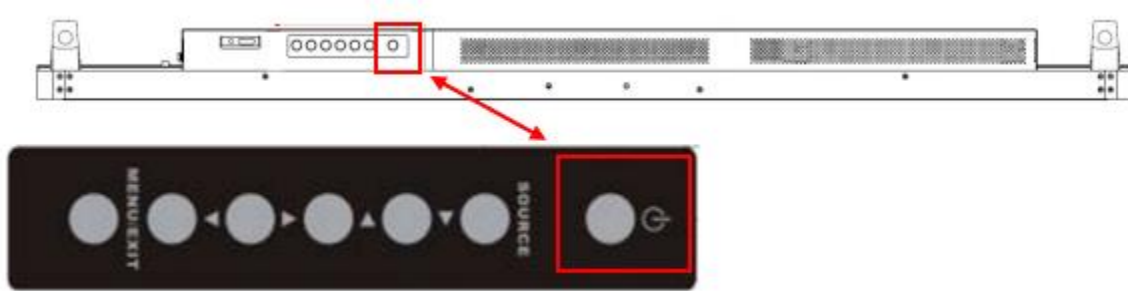
Connect the included HDMI video cable from the computer/video source to one of the monitor's HDMI inputs. The two HDMI inputs may be connected to two computers/source equipment. The DP or VGA video may also be connected.

Connect the wired OSD remote cable to the monitor's OSD input.

Connect the computer/source equipment's audio output to the monitor's PC Audio In connector.

## Turning Monitor On and Off

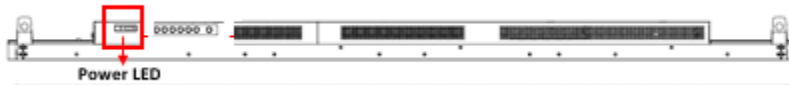
Turn the power switch on (left side of the top of the monitor as viewed from the front, or the Power button on the IR Remote). The monitor should come on within 10 seconds.



**Note:** If there is no video input signal for a preset period, the monitor will automatically go into standby mode. Allow up to 10 seconds for the video to reappear after the signal is reapplied.

## Power Status LED

The LED on the top left of the monitor shows the monitor power and video status.

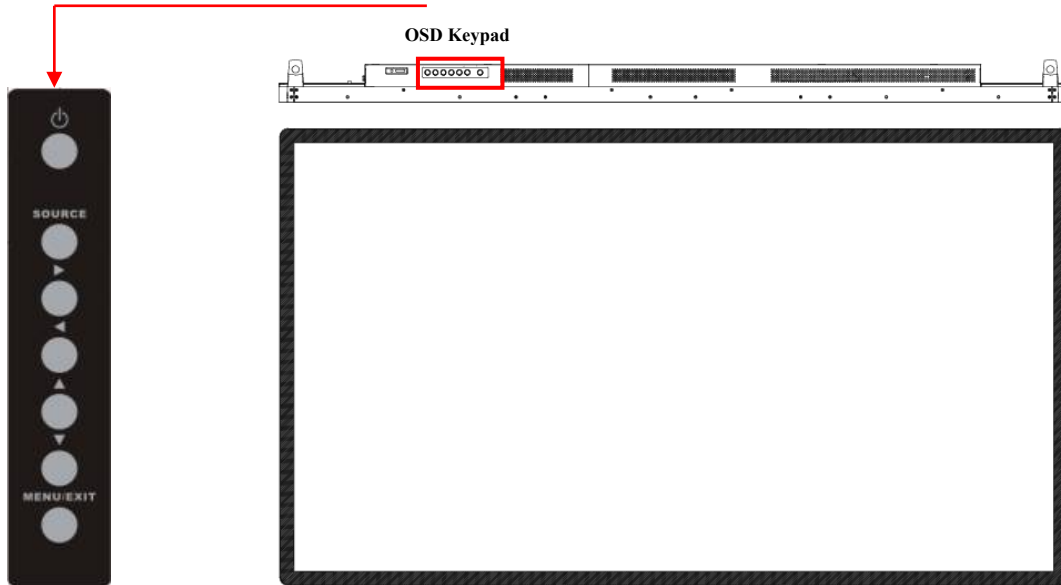


Power LED Status	Condition
Green	Power on
Blinking Orange	No signal
Orange	Power saving mode
Off	Power off



# On-Screen Display (OSD)

The On-Screen Display, or OSD, allows the user to make changes to the video or touch settings and to turn the monitor on and off. Button controls on top of the monitor may be used, or the infrared (IR) remote control may be used.



Button	Function	Description
	Power On/Off	
<b>SOURCE</b>	Source appears	Source selection / Activate selection
	Right	Main item select right / Adjust up
	Left	Main item select left / Adjust down
	Up	Main item select up
	Down	Main item select down
<b>MENU / EXIT</b>	Menu appears	Menu disappears / return to main item

See the Using the OSD Menus section below.

## Using the OSD Menus

### Navigating through the Menu System

With the power on, press **MENU** and the **on-screen menu** will pop up.

Within the menu, use ▲, ▼ to navigate through the six menus (Image Settings, Display Settings, Audio Settings, Basic Settings, Advanced Settings, and second Advanced Settings). Use **SELECT** to open the highlighted menu. Then use to ◀, ▶ to highlight or adjust options and **SELECT** to return to the previous menu.

Press **MENU** to return to exit the OSD menu

Note that some of the adjustments may be grayed out, indicating that they are not selectable. This indicates the use of a digital video input signal (DP or HDMI). These selections are fixed/not adjustable for digital video signals. The VGA video signal (because it is analog) may require all adjustments, so they are all selectable when VGA is being used.

The OSD menu will automatically close if left idle for a pre-set time.

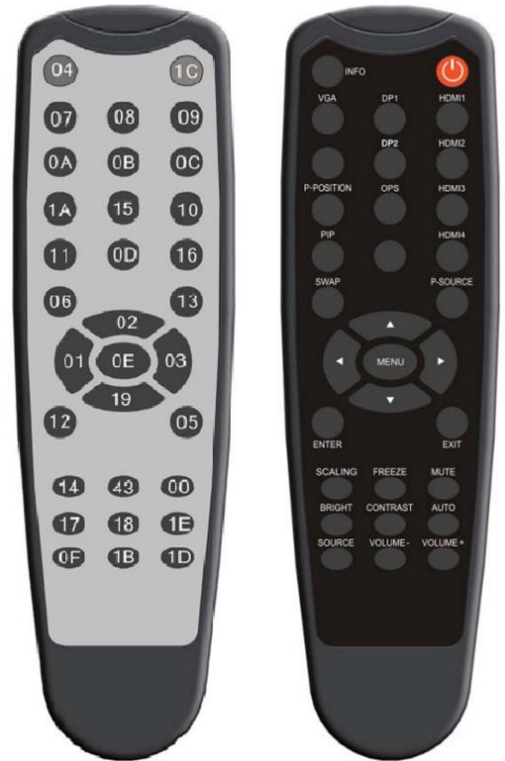
## Locking the OSD and Power button functions

**Lock OSD:** prevents all the monitor settings from being changed. When this function is activated, all OSD controls and hotkey operations will be disabled except for the Power and RS232 buttons.

- **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.

## IR Remote Control Function Description

No.	Function	Customer Code	Hex Code
1	INFO	40AF	04FB
2	POWER	40AF	1CE3
3	VGA	40AF	07F8
4	DISPLAYPORT1	40AF	08F7
5	HDMI1	40AF	09F6
6	—	40AF	0AF5
7	DISPLAYPORT2	40AF	0BF4
8	HDMI2	40AF	0CF3
9	PIP POSITION	40AF	1AE5
10	OPS	40AF	15EA
11	HDMI3	40AF	10EF
12	PIP	40AF	11EE
13	—	40AF	0DF2
14	HDMI4	40AF	16E9
15	SWAP	40AF	06F9
16	PIP SOURCE	40AF	13EC
17	▲	40AF	02FD
18	—	40AF	01FE
19	◀	40AF	0EF1
20	—	40AF	03FC
21	MENU	40AF	19E6
22	▶	40AF	12ED
23	—	40AF	05FA
24	▼	40AF	40BF
25	—	40AF	41BE
26	ENTER	40AF	14EB
27	EXIT	40AF	43BC
28	—	40AF	00FF
29	—	40AF	17E8
30	SCALING	40AF	18E7
31	FREEZE	40AF	1EE1
32	MUTE	40AF	0FF0
33	BRIGHTNESS	40AF	1BE4
34	CONTRAST	40AF	1DE2



## Image Settings Menu

This menu is used for making common image adjustments.



### Scheme

Selects the desired image display scheme Press ◀ or ▶ to highlight the desired level, and then press **SELECT**.

**Range:** User / Vivid / Cinema / Game / Sports

### Brightness

Increases or decreases the brightness of the image. Press ◀ or ▶, select the desired level, and then press **SELECT**.

**Range:** 0-100

### Contrast

Increases or decreases the contrast of the image. Press ◀ or ▶, select the desired level, and then press **SELECT**.

**Range:** 0-100

## Sharpness

Adjusts the sharpness of the image. Press ◀ or ▶, select the desired level, and then press **SELECT**.

**Range:** 0-50

## Saturation

Adjust the color intensity of the image. Press ◀ or ▶ to select the desired level, and then press **SELECT**.

**Range:** 0-100

## Hue

Adjust the hue (warmth) of the image. Press ◀ or ▶ to select the desired level, and then press **SELECT**. Selectable only when VGA input is in use.

**Range:** 0-100

## Backlight

Adjusts the backlight intensity of the image. Press ◀ or ▶ to select the desired level, and then press **SELECT**.

**Range:** 0-100

## Color Temp and Gamm

Adjusts the Gamma (master brightness control, for setting extremely dim levels) and Color Temperature (individual Red, Green and Blue gains and offsets). Press ◀ or ▶ to select the desired level, and then press **SELECT**. Selectable only when VGA input is in use.

**Range:** 0-100

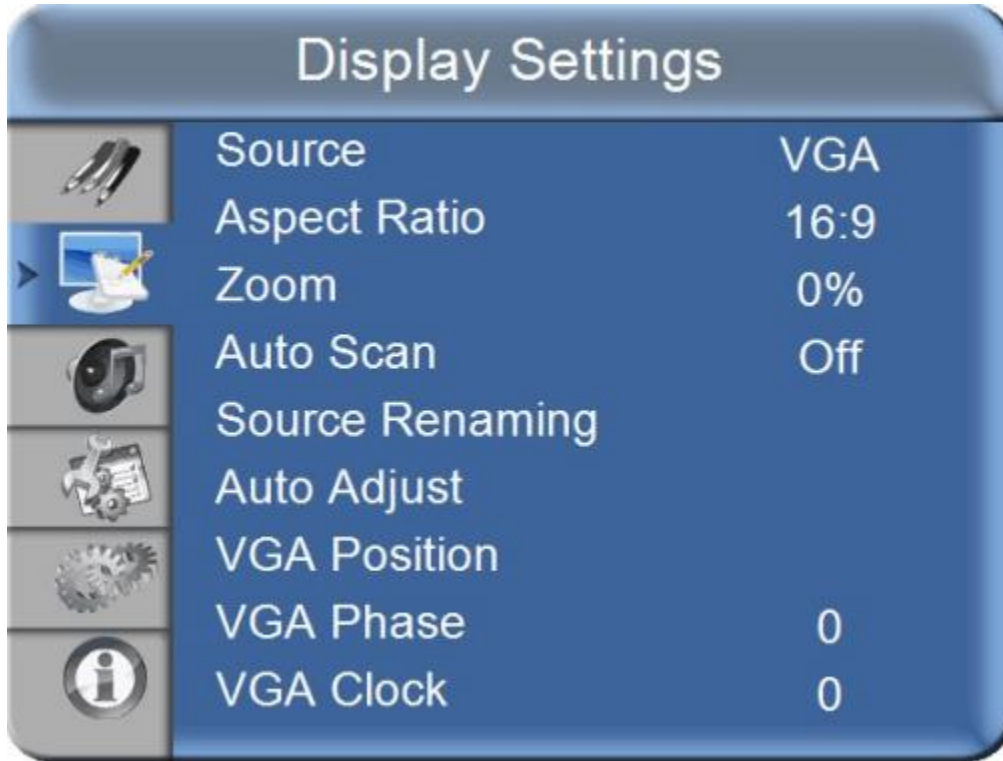
## HDMI RGB Range

Adjusts the color depth of the image (only when HDMI input signal is in use). Press ◀ or ▶ to select the desired level, and then press **SELECT**.

**Range:** 0-100

## Display Settings Menu

This menu is used to adjust various display settings and options.



### Source

Select the source of the video input signal.

**Options:** VGA, DisplayPort, HDMI1, HDMI2

### Aspect Ratio

Adjust the image format.

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

### Zoom

Enlarge the image beyond fit-to-display area

**Options:** 0% to 10%

### Auto Scan

Automatically display connected video source(s)

**Options:** Off

## Source Renaming

## Auto Adjust

Select Auto-Adjustment function for image adjustments.

## VGA Position

Adjust the image position when using the VGA input signal.

**Range:** 0-100

## VGA Phase

Adjusts the signal phase when using the VGA input signal.

**Range:** 0-255

## VGA clock

Adjusts the signal timing clock when using the VGA input signal.

**Range:** 0-100

## Audio Menu

This menu is used to make adjustments to the speakers.



### Volume

Adjusts the speaker volume

**Range:** 0-100

### Bass

Selects the speaker low frequency response.

**Range:** -10 to 10

### Treble

Selects the speaker high frequency response.

**Range:** -10 to 10

### Balance

Selects the balance between left and right speaker volume.

**Range:** 100/0 – 0/100



## Speaker

Turns speaker audio On or Off.

**Options:** ON, Off

## Audio Source

Selects the source of the Audio signal.

**Options:** Audio In, Default

## Basic Settings Menu

This menu is used to set Miscellaneous settings and options.



### Horizontal Position

Sets the OSD Menu Horizontal Position.

**Range:** 0-100

### Vertical Position

Sets the OSD Menu Vertical Position.

**Range:** 0-100

### OSD Transparency

Sets the "see-through" level of the OSD Menu.

**Range:** 0 - 4

### OSD Language

Sets the language of the OSD

**Options:** English, French, Japanese, German, Spanish, Italian

### Splash Screen

Turn the startup logo on or off.

**Options:** On/Off

## Power LED

Enables or disables the Power LED

**Options:** On/Off

## RTC and Schedule

Nine sub-menus to allow setting when the monitor is to automatically turn on and off.

### **Current Time**

Set the current time. All times are in 24 hour format.

### **Time Mode**

User: Manually configure the timer for individual days.

Every day: Configure the same settings for all days of the week.

Work day: Configure the same settings for Monday through Friday.

### **Seven sub-menus for Monday through Sunday**

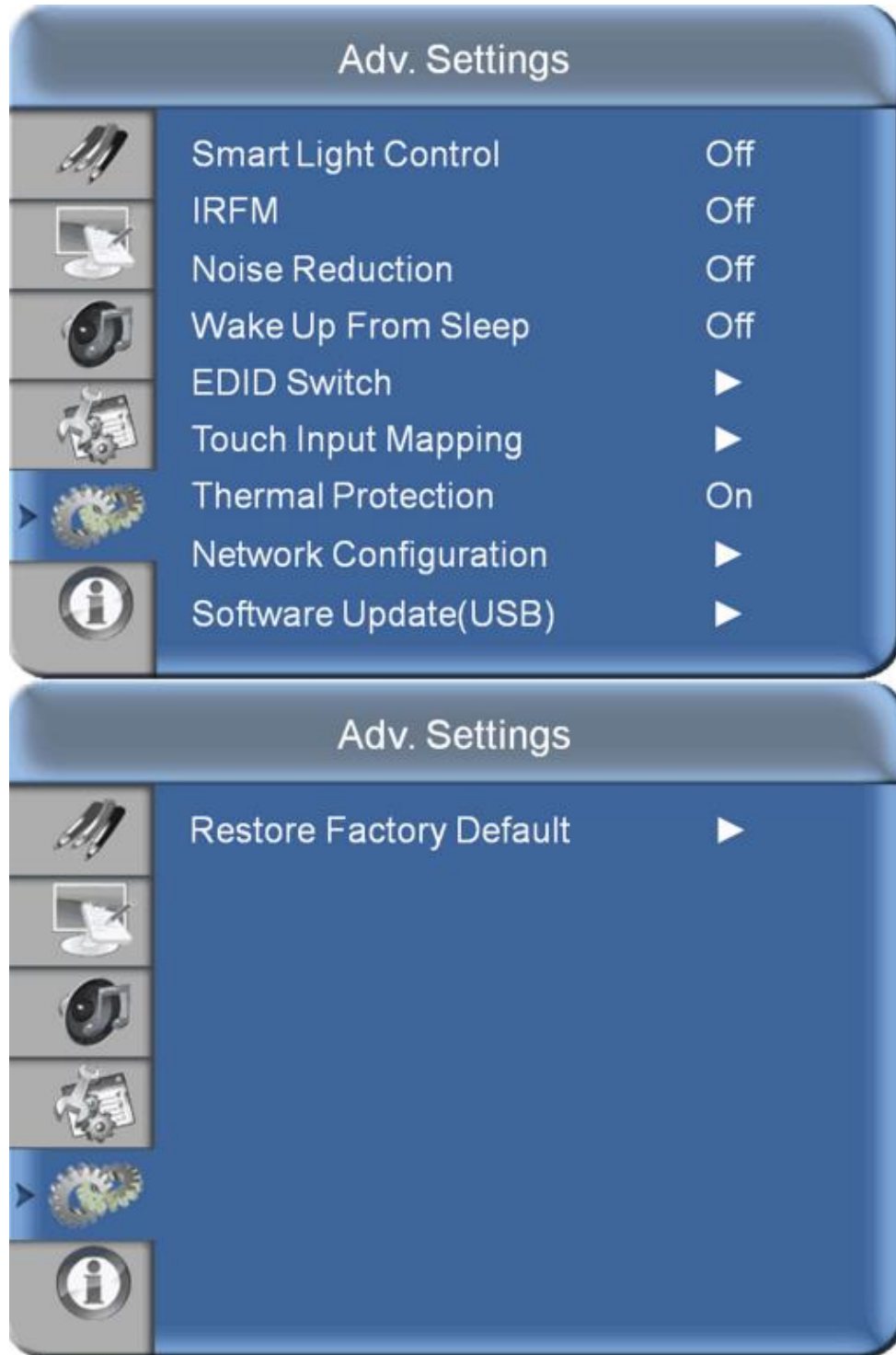
Set the on time and the off time for each day.

For User mode. Set Enable or Disable for individual days.

**Ranges:** 00:00 to 23:59 for both Off and On.

## Advanced Settings Menus

These menus are used to set and select Miscellaneous Advanced settings and options.



## Smart light Control

Sets the backlight control function.

**Options:** Off, DCR (dynamically sets backlight level based on image content), Light Sensor (adjusts backlight intensity based on sensed ambient light).

## IRFM

Select the anti burn-in function.

**Options:** On/Off. NOTE: Default is off. If your application displays a fixed image for long periods of time, IRFM should be turned on.

## Noise Reduction

Selects the noise reduction mode.

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

## Wake up from Sleep

Adjusts the wake-up-from-sleep behavior.

**Options:**

**VGA Only** – The LCD panel wakes up from power saving mode when it receives an active video signal from its VGA (analog) input.

**Digital,RS232,Ethernet:** The LCD panel wakes up when it receives an active signal from its VGA, HDMI, DisplayPort or DVI inputs and can wake up by RS232 command as well.

**Never Sleep:** monitor never goes to sleep.

## EDID Switch

Three sub-menus allow selecting which video input will control the EDID information. EDID is a communications channel that allows the monitor and the video controller to communicate to ensure proper setup and operation.

**Options:** DisplayPort, HDMI1, HDMI2

**Sub-Options:** 1080p, 4K2K@30 Hz, 4K2K@60 Hz

## Touch Input Mapping

Select the touch input

**Options:** Auto, USB Touch1, USB Touch2

## Thermal Protection

**Options:**

## Network Configuration

Allows configuration of the network settings.

## Software Update (USB)

Allows downloading of the latest monitor firmware.

**Options:** Yes, No

## Restore Factory Default

Resets all options and configurations to as-shipped condition.

**Options:** Yes, No

## OSD Default Settings

Menu	Sub-Menu	Sub-Sub Menu	Default Settings	
<b>Image Settings</b>	Scheme		User	
	Brightness		50	
	Contrast		50	
	Sharpness		50	
	Saturation		50	
	Hue		50	
	Backlight		80	
	Color Temp & Gamma	Select Gamma		2.2
		Select Color Temp		9300K
		Select Red Gain		50
		Select Green Gain		50
Select Blue Gain		50		
Select Red Offset		50		
Select Green Offset		50		
Select Blue Offset		50		
HDMI RGB Range		Auto		
<b>Display Settings</b>	Source		VGA	
	Aspect Ratio		16 :9	
	Zoom		0	
	Auto Scan		Off	
	Source Renaming		Default	
	Auto Adjust		N/A	
	VGA Position		50	
	VGA Phase		N/A	
	VGA Clock		50	
<b>Audio Settings</b>	Volume		User	
	Bass		0	
	Treble		0	
	Balance		0	
	Speaker		On	
	Audio Source		Default	

## OSD Default Settings (continued)

Menu	Sub-Menu	Sub-Sub Menu	Default Settings	
<b>Basic Settings</b>	Horizontal Pos		50	
	Vertical Pos		50	
	OSD Transparency		0	
	OSD Timeout		30 sec.	
	OSD Language		English	
	Splash Screen		On	
	Power LED		On	
	RTC & Schedule	Current Time		--
		Timer Mode		User
		MON		00:00 00:00
		TUE		00:00 00:00
WED		00:00 00:00		
THU		00:00 00:00		
FRI		00:00 00:00		
SAT		00:00 00:00		
SUN		00:00 00:00		
<b>Advanced Settings</b>	Smart Light Control		Off	
	IRFM		Off	
	Noise Reduction		Off	
	Wake up from Sleep		VGA only	
	EDID Switch	DisplayPort		
		HDMI1		
		HDMI2		
	Touch Input Mapping		Auto	
	Thermal Protection		On	
	Network Configuration	See separate table below	--	
	Software Update (USB)		--	
Restore Factory / ENERGY STAR Default		--		



## Network Configuration details (Selected from Advanced Settings OSD menu)

Sub-Sub Menu	Sub-Sub-Sub Menu	Description	Setting	Default
<b>Network Configuration</b>	UART Baudrate	Adjusts the baud rate of serial port (RS-232)	115200 / 38400 / 19200 / 9600	115200
	Network	Enable network feature	No / Yes	No
	Dynamic IP	Enable Dynamic IP mode	On / Off	Off
	Static	Set Static IP address	255.255.255.255(0.0.0.0)	0.0.0.0
	Netmask	Set subnet mask	255.255.255.255(0.0.0.0)	0.0.0.0
	Gateway	Set gateway address	255.255.255.255(0.0.0.0)	0.0.0.0
	DNS	Set DNS address	255.255.255.255(0.0.0.0)	0.0.0.0
	Save Settings	Update the IP settings To net device	No / Yes	--
	Refresh	Refresh Dynamic IP info		--
	Power Status Alert	Power change notification sent letters	On / Off	Off
	Source Status Alert	Source change notification sent letters	On / Off	Off
	Lost Status Alert	Signal lost change notification sent letters	On / Off	Off
	Load Default	Load default network settings	No / Yes	--
	MAC Address	MAC Info	00:00:00:00:00:00	00:00:00:00:00:00

# Mounting options

## VESA Mount

The monitors have an integral VESA standard mount pattern that conforms to the “VESA Flat Display Mounting Interface Standard” which defines a physical mounting interface and corresponds to the standards for monitor mounting devices. The -490 and -550 have a 300 mm pattern, while the -650 has a 400 mm pattern, as illustrated on the following pages.

Follow the manufacturer’s 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. To avoid damaging the front panel during the move, be sure to use the handles in the back of the display while lifting or moving the display.

Before installing, please make sure the wall or other mounting surface is strong enough to hold the weight of the display and the mount.

Step 1. Select a sturdy, flat work surface of suitable size and strength to support the monitor.

Step 2: Put a suitable pad material on the work surface to protect the display.

Step 3: Place the display front side down on the padded work surface.

Step 4: Remove the screws (M8\*20) from the back of the display.

Step 5: Align the mounting brackets with the display’s mounting holes and attach the brackets to the display using the screws (M8\*20mm, 4pcs) removed in Step 2.

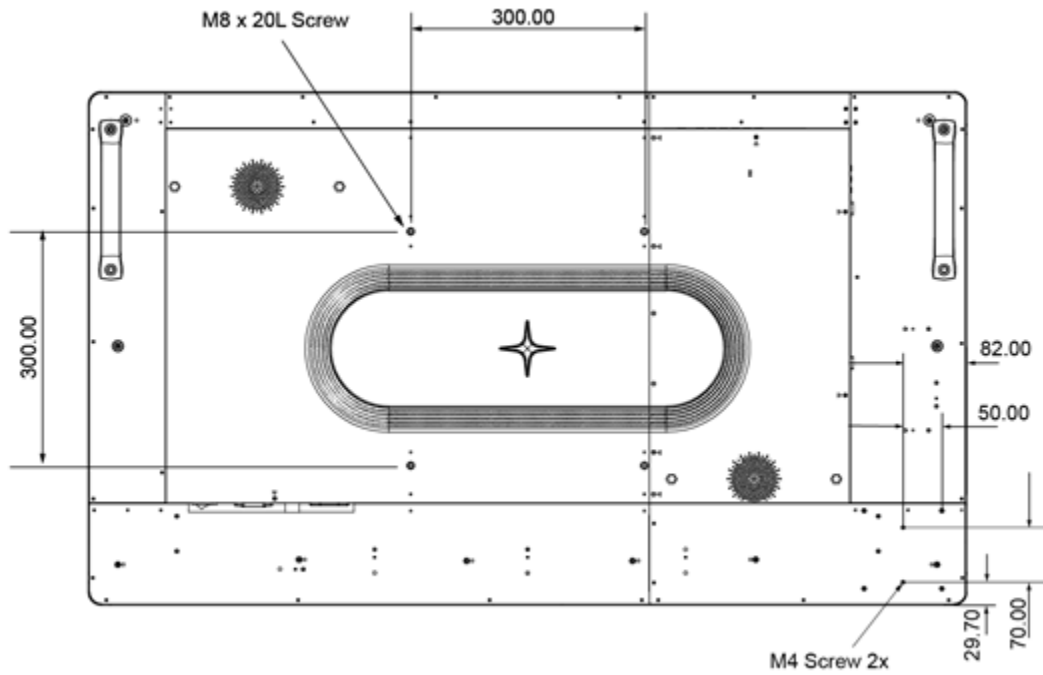
### Warning

Please use the correct screws! The distance between the back cover surface and the bottom of the screw hole is 20 mm. Please use four M8 diameter screws with 20 mm length to mount the monitor.

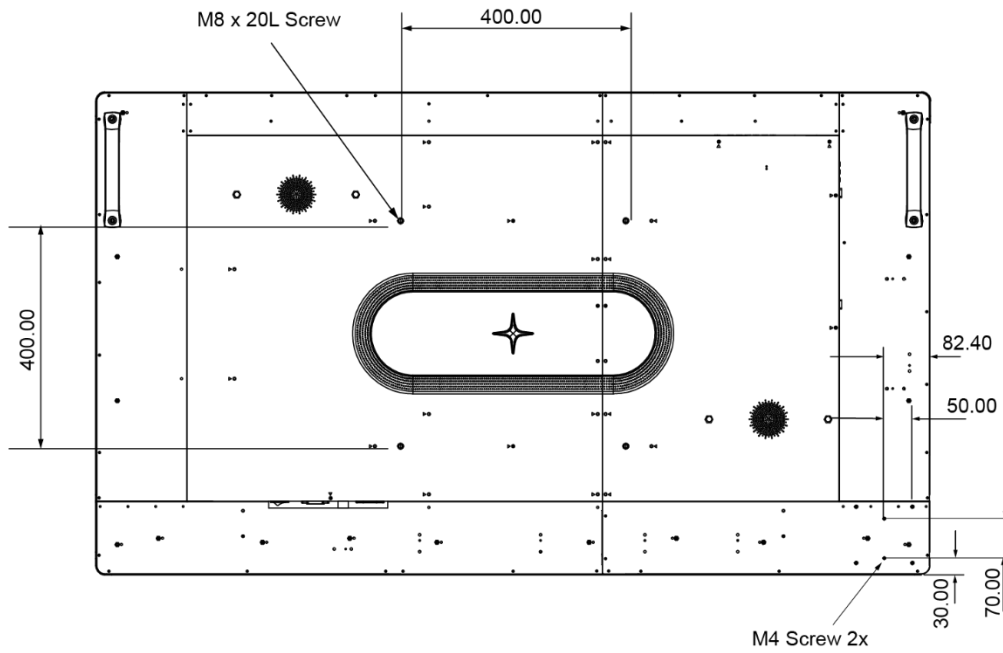
### Mise en garde

Veillez utiliser les vis correcte! La distance entre la surface du capot arrière et le fond du trou de vis est de 20 mm. Veuillez utiliser quatre vis de diamètre M8 d’une longueur de 20 mm pour monter le moniteur.

**M1-490DS-A1, M1-550DS-A1**



**M1-650DS-A1**



## Specifications and Dimensions

Model	M1-490DS-A1	M1-550DS-A1	M1-650DS-A1
<b>LCD Panel</b>			
Size	48.5 inch	54.6 inch	64.5 inch
Resolution	3840 x 2160		
Monitor Area	1073.8 mm x 604 mm	1209.6 mm x 680.4 mm	1428.48 mm x 803.52 mm
Contrast	1100:1 (typ.)		
Touch Screen	500 nits (typ.)		
Response Time	8 ms (typ.)		
Viewing Angle	Typical 178° H / 178° V		
<b>Touch System</b>			
	P-CAP		
Touch Points	55 points, 4 pens, 4 erasers		
Touch Screen Interface	USB-HID (Type B)		
Operating System	Windows 7 / 8 / 10, Mac OS and Linux		
Coating	AG and AF Coating Semi-Tempered glass , 3mm		
<b>Audio</b>			
Speaker	2 channel x 10W / @4 ohm		
<b>Power</b>			
Power Supply	AC Input 100~240V (50/60Hz) Max 2.0A	AC Input 100~240V (50/60Hz) Max 2.2A	AC Input 100~240V (50/60Hz) Max 2.5A
Power Consumption	70 W (typical) 150 W (max)	75 W (typical) 160 W (max)	85 W (typical) 185 W (max)
Power Saving	≤ 0.5W		
<b>Dimensions</b>			
Width x Height (mm)	1127.6 x 657.8	1264.2 x 734.6	1483.1 x 857.9
Depth (mm, w/o handle)	69.8	69.8	71.3
Depth (mm, with handle)	78.8		
<b>Weight</b>			
Net Weight	30 kg	36.4 kg	51.2 kg
Shipping Weight	36 kg	42.5 kg	59.2 kg

<b>Model</b>	<b>M1-490DS-A1</b>	<b>M1-550DS-A1</b>	<b>M1-650DS-A1</b>
<b>Mounting</b>			
VESA Mount Pattern (mm)	300 x 300	300 x 300	400 x 400
<b>Environmental</b>			
Operating Temperature	0°C ~ 40°C	Operating Temperature	0°C ~ 40°C
Operating Humidity	35% ~ 85% RH. (non-condensing)		
Storage Temperature	-20°C ~ 60°C		
Storage Humidity	35% ~ 85% RH. (non-condensing)		

## Supported Timings

Dot = resolution supported for this input type

Dash = resolution *not* supported for this input type

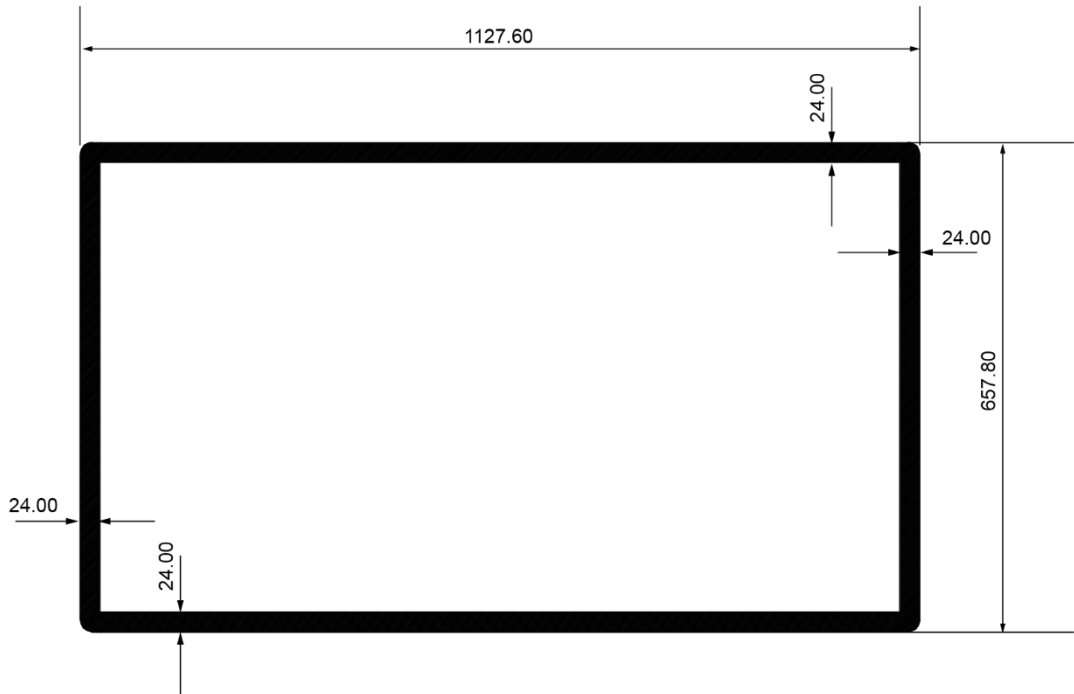
Signal Type	Resolution	fH (kHz)	fV (Hz)	Dot Clock (MHz)	VGA	HDMI	DP	
VESA	VGA 640x480	31.469	59.94	25.175	•	•	•	
		37.861	72.809	31.5	•	•	•	
		37.5	75	31.5	•	•	•	
	SVGA 800x600	35.156	56.25	36	•	•	•	
		37.879	60.317	40	•	•	•	
		48.077	72.188	50	•	•	•	
		46.875	75	49.5	•	•	•	
	XGA 1024x768	48.363	60.004	65	•	•	•	
		56.476	70.069	75	•	•	•	
		60.023	75.029	78.75	•	•	•	
	WXGA1366x768	47.712	59.79	85.5	•	•	•	
	1280 x 720	44.444	59.98	64	-	-	•	
		44.772	59.86	74.5	-	-	•	
		56.456	74.78	95.75	-	-	•	
	1280 x 768	47.776	59.87	79.5	-	-	•	
		47.396	59.995	68.25	-	-	•	
	1280 x 800	49.306	59.91	71	•	•	•	
		49.702	59.81	83	•	•	•	
	SXGA	1152x864	67.5	75		•	•	•
			63.981	60.02		•	•	•
		1280x1024	79.976	75.025		•	•	•
	1440 x 900	55.469	59.901	88.75	-	-	•	
		55.935	59.88	106.5	•	•	•	
	WSXGA+ 1680 x1050	64.674	59.883	119	•	•	•	
		65.29	59.954	146.25	•	•	•	
	UXGA 1600 x 1200	75	60	162	•	•	•	
	1920 x 1080	66.587	59.93	138.5	-	-	•	
	WUXA 1920 x 1200	74.038	59.95	154	-	-	•	
	QHD 2560x1440	88.787	59.951	241.5	-	•	•	
	QSXGA 2560x1600	98.713	59.972	268.5	-	•	•	

EDTV	480p	31.5	60	27.03	-	•	•
	576p	31.25	50	27	-	•	•
HDTV	720p	37.5	50	74.25	-	•	•
	1280x720	44.995	59.94	74.176	-	•	•
		45	60	74.25	-	•	•
	1080i	28.13	50	74.25	-	•	•
	1920x1080	33.716	59.94	74.176	-	•	•
		33.75	60	74.25	-	•	•
	1080p 1920x1080	27	24	74.25	-	•	•
		28.125	25	74.25	-	•	•
		33.75	30	74.25	-	•	•
		56.25	50	148.5	-	•	•
		67.433	59.94	148.352	-	•	•
	67.5	60	148.5	-	•	•	
4K2K	3840x2160	54	24	297	-	•	•
		56.25	25	297	-	•	•
		67.5	30	297	-	•	•
		112.5	50	594	-	•	•
		133.313	59.997	533.25	-	•	•
		135	60	594	-	•	•

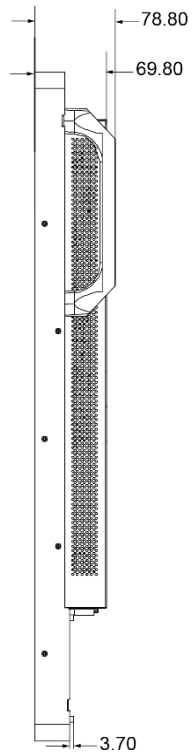
# Dimensions

M1-490DS-A1

Front

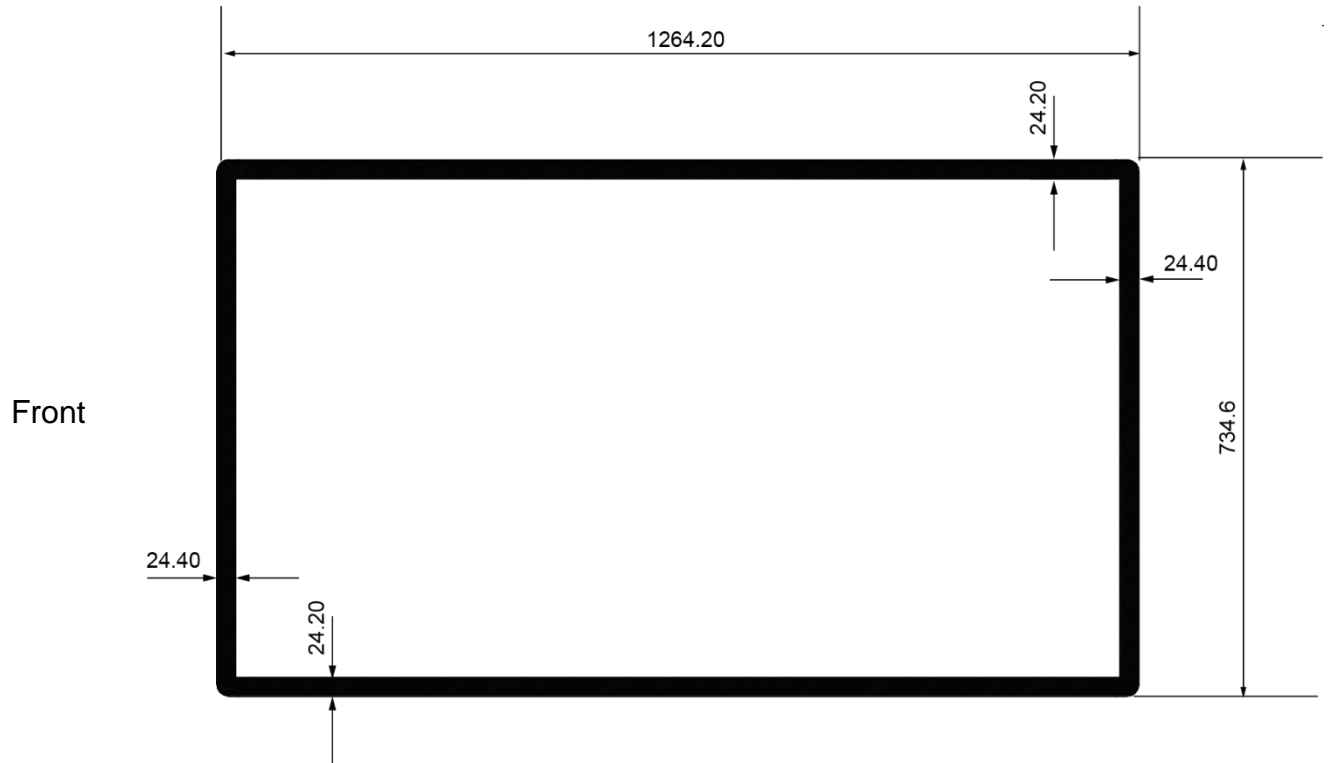


Side

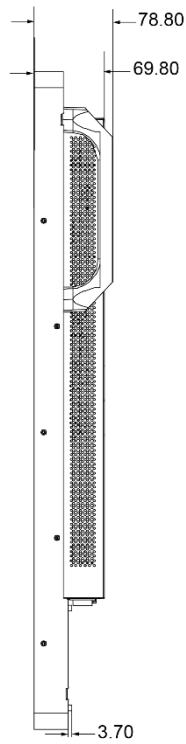




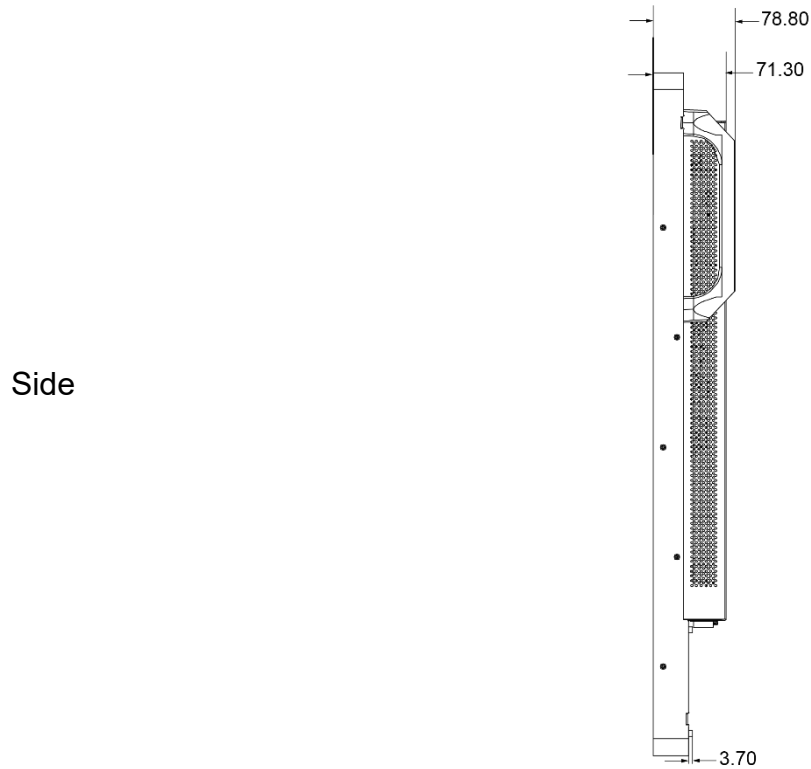
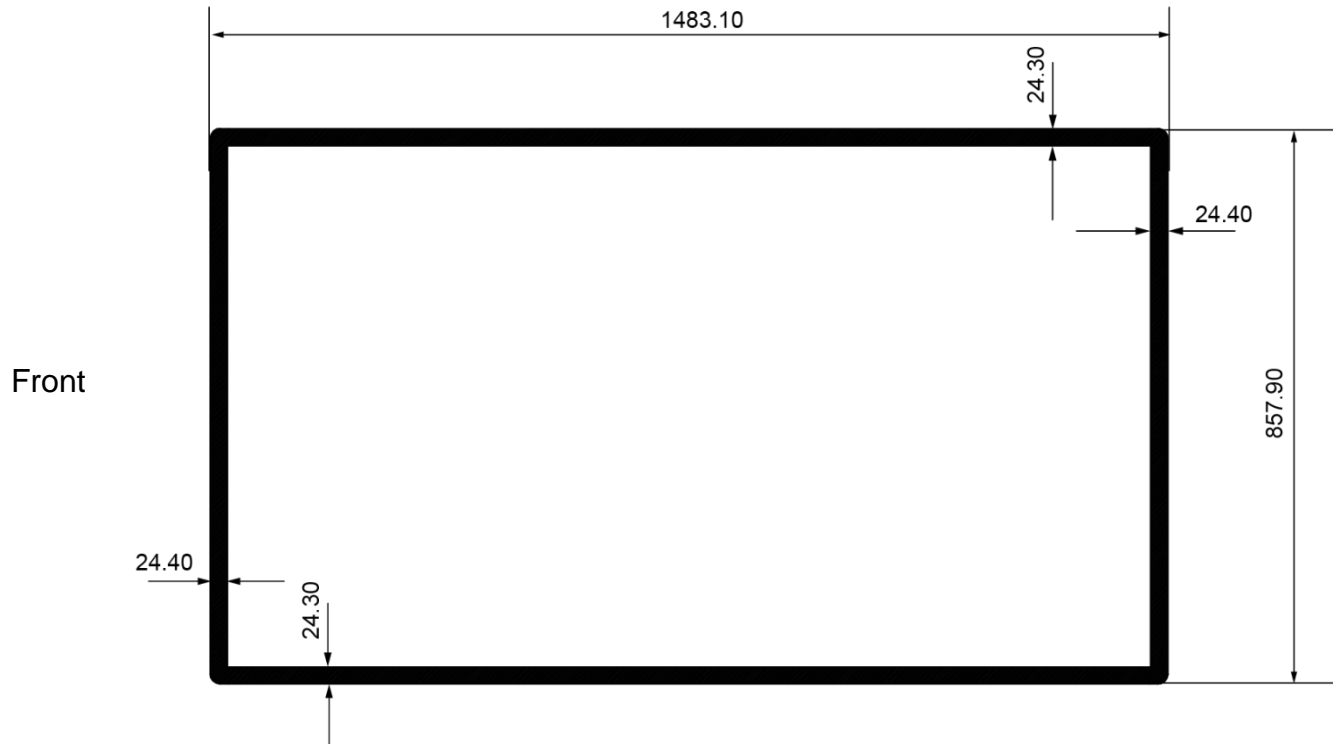
M1-550DS-A1



Side



M1-650DS-A1



# Appendix

## Cleaning

Turn off the product and disconnect from AC power before cleaning. Turning the product off protects against accidental touch selections that could cause problems or hazardous results. Disconnecting power protects against hazardous interaction between accidental liquid entry and electricity.

To clean the case, dampen a clean cloth lightly with water and a mild detergent and wipe gently. Use a soft, dry cloth to clean areas that have ventilation openings to avoid getting any liquid or moisture inside. If liquid does get inside, do not use the product until it has been inspected and tested by a qualified service technician.

To clean the touch screen, apply a glass cleaning solution to a soft cloth and wipe the screen clean. To ensure that liquid does not enter the product, do not spray cleaning solution directly onto the touch screen or any other part.

Do not use volatile solvents, waxes or any abrasive cleaners on any part of the product.

## Solutions to Common Problems

### No image on monitor

Check that the video signal source device is turned on.

Check that the selected video input signal matches the video connection.

The monitor or computer may be in SLEEP mode. Press any key/move the mouse/touch the touchscreen and wait a few seconds to see if the image appears.

Check that the AC cable is securely connected to the wall outlet and to the AC to DC converter.

### Monitor display is dim.

Use the OSD controls to increase the brightness.

Use the OSD controls to increase the contrast.

### Can only adjust Contrast and Brightness using OSD, cannot select Position, AutoAdjust, etc.

Monitor is connected to a digital video signal source (HDMI or DP), which does not need such adjustments. Only analog (VGA) video signal needs these adjustments.

### Monitor displays the “Out of Range” message.

This message will only occur when using the VGA video signal input; use either the HDMI or Display Port video signal input if your signal source equipment supports either of those.

Reduce the resolution to a resolution the monitor supports – see the Supported Timings chart in the Specifications and Dimensions section of this manual.

### Monitor display image looks strange.

Try the Auto Adjust function in the OSD (only available when using the VGA video signal input).

Adjust your computer’s resolution/timing mode to be within the allowable timing ranges specified for your touch monitor (see section above).

### Touch functionality doesn’t work or works incorrectly.

Make sure the USB cable is properly connected.

Ensure that the monitor is in an upright position with nothing touching the screen, then cycle power Off/On.

Legacy operating systems, prior to circa 2007, may require drivers to support Touch Devices. Please contact MicroTouch Technical Support.

### Neither the OSD nor power buttons respond when pressed.

See the Lock/Unlock section to check if both functions are locked.

## Warranty Information

Except as otherwise stated herein, or in an order acknowledgment delivered to Buyer, Seller warrants to Buyer that the Product shall be free of defects in materials and workmanship. The warranty for the touchscreen display and their components is three years. Seller makes no warranty regarding the model life of components. Seller's suppliers may at any time and from time to time make changes in the components delivered as Products or components. Buyer shall notify Seller in writing promptly (and in no case later than 30 days after discovery) of the failure of any Product to conform to the warranty set forth above; shall describe in commercially reasonable detail in such notice the symptoms associated with such failure; and shall provide to Seller the opportunity to inspect such Products as installed, if possible. The notice must be received by Seller during the Warranty Period for such product, unless otherwise directed in writing by the Seller. Within thirty days after submitting such notice, Buyer shall package the allegedly defective Product in its original shipping carton(s) or a functional equivalent and shall ship to Seller at Buyer's expense and risk. Within a reasonable time after receipt of the allegedly defective Product and verification by Seller that the Product fails to meet the warranty set forth above, Seller shall correct such failure by, at Seller's options, either (i) modifying or repairing the Product or (ii) replacing the Product. Such modification, repair, or replacement and the return shipment of the Product with minimum insurance to Buyer shall be at Seller's expense. Buyer shall bear the risk of loss or damage in transit and may insure the Product. Buyer shall reimburse Seller for transportation cost incurred for Product returned but not found by Seller to be defective. Modification or repair, of Products may, at Seller's option, take place either at Seller's facilities or at Buyer's premises. If Seller is unable to modify, repair, or replace a Product to conform to the warranty set forth above, then Seller shall, at Seller's option, either refund to Buyer or credit to Buyer's account the purchase price of the Product less depreciation calculated on a straight-line basis over Seller's stated Warranty Period. These remedies shall be the buyer's exclusive remedies for breach of warranty. Except for the express warranty set forth above, seller grants no other warranties, express or implied by statute or otherwise, regarding the products, their fitness for any purpose, their quality, their merchantability, their non-infringement, or otherwise. No employee of Seller or any other party is authorized to make any warranty for the goods other than the warranty set forth herein. Seller's liability under the warranty shall be limited to a refund of the purchase price of the product. In no event shall Seller be liable for the cost of procurement or installation of substitute goods by Buyer or for any special, consequential, indirect, or incidental damages. Buyer assumes the risk and agrees to indemnify Seller against and hold Seller harmless from all liability relating to (i) assessing the suitability for Buyer's intended use of the Products and of any system design or drawing and (ii) determining the compliance of Buyer's use of the Products with applicable laws, regulations, codes, and standards. Buyer retains and accepts full responsibility for all warranty and other claims relating to or arising from Buyer's products, which include or incorporate Products or components manufactured or supplied by Seller. Buyer is solely responsible for any and all representations and warranties regarding the Products made or authorized by Buyer. Buyer will indemnify Seller and hold Seller harmless from any liability, claims, loss, cost, or expenses (including reasonable attorney's fees) attributable to Buyer's products or representations or warranties concerning same.

## RoHS Declaration

Equipment name : Touch LCD Monitor    Type designation (Type) : M1-490DS-A1 M1-550DS-A1 M1-650DS-A1						
Component	Restricted substances and their chemical symbols					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr <sup>+6</sup> )	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Plastic Parts	○	○	○	○	○	○
Metal Parts	-	○	○	○	○	○
Cable components	-	○	○	○	○	○
LCD Panel	-	○	○	○	○	○
Touch Panel	-	○	○	○	○	○
PCBA	-	○	○	○	○	○
Software	○	○	○	○	○	○
Notes “○” indicates that the percentage of the restricted substance does not exceed the permissible limit. “-” indicates that the restricted substance is exempt.						



[www.MicroTouch.com](http://www.MicroTouch.com) | [www.usorders@microtouch.com](mailto:www.usorders@microtouch.com)

TES AMERICA LLC | 215 Central Avenue, Holland, MI 49423 | (616) 786-5353

The information presented in this document is intended as general information about MicroTouch products and is subject to change. Product specifications and warranties will be governed by TES America, LLC. Standard terms and conditions of sale. Products are subject to availability. Copyright © 2022 TES America, LLC. All rights reserved. Android is a trademark of Google LLC. Windows is a trademark of Microsoft Corporation in the United States and other countries.

