



SMALL FORMAT DISPLAYS



User Guide

27" LCD Touch Screen Monitor

Model: TSI27PDADVZZZZ

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1. Introduction

1.1 Monitor description

The equipment is intended for general use in commercial environment for human-machine interface (HMI) and display for reference. It was designed with high resolution, operational safety, and long service life in mind.

1.2 Package contents

- 27" LCD Touch Screen Monitor
- Power Adapter (12V)
- AC Power Cord
- VGA Cable
- HDMI Cable
- DP Cable
- USB Cable
- Stand

1.3 Product overview

Front View

The image below shows the front view of the display.

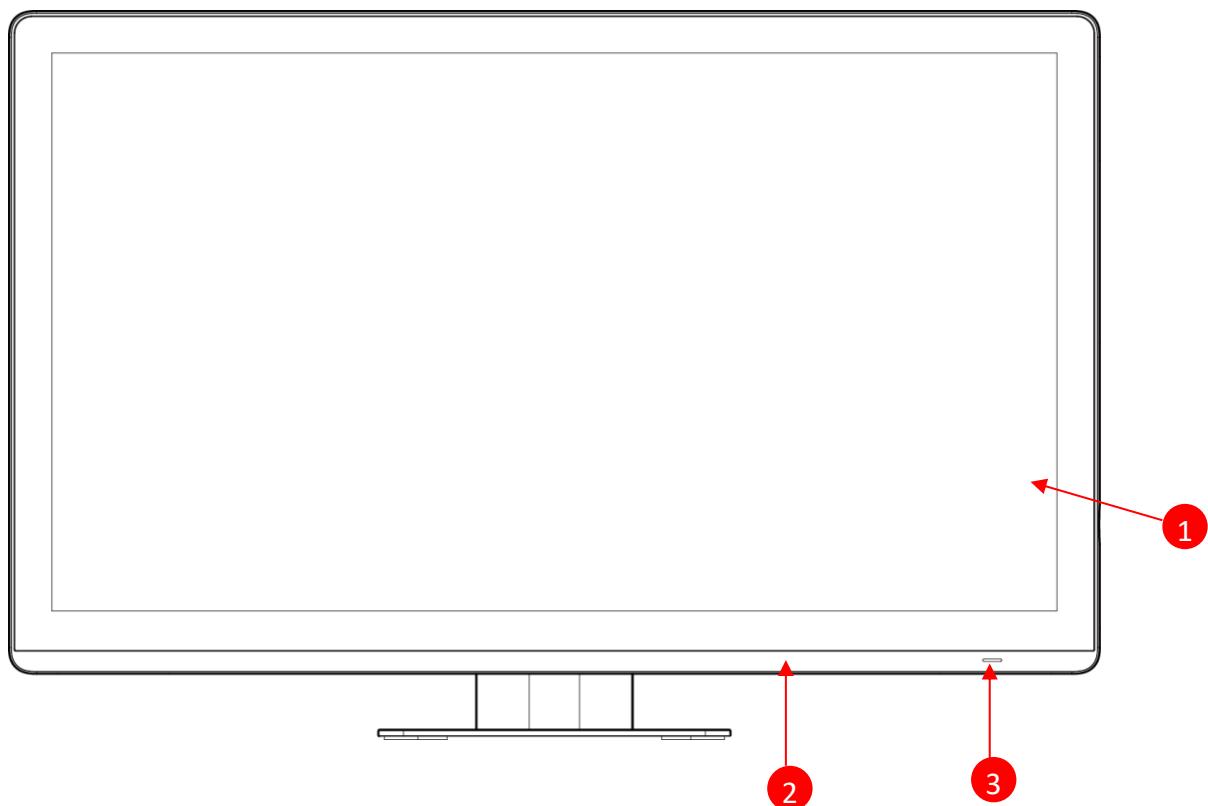


Image 1-1 Front view

1. PCAP touch screen
2. Bezel
3. LED

Side View

The image below shows the control key located in the right bottom corner of the display.

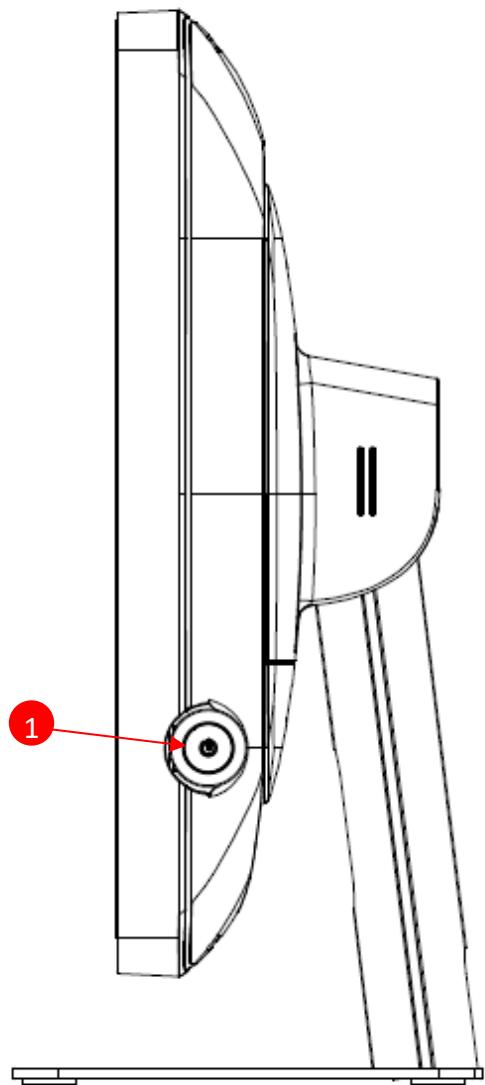


Image 1-2 Control Key

1. Menu/Enter key / Scrolling key

Rear View

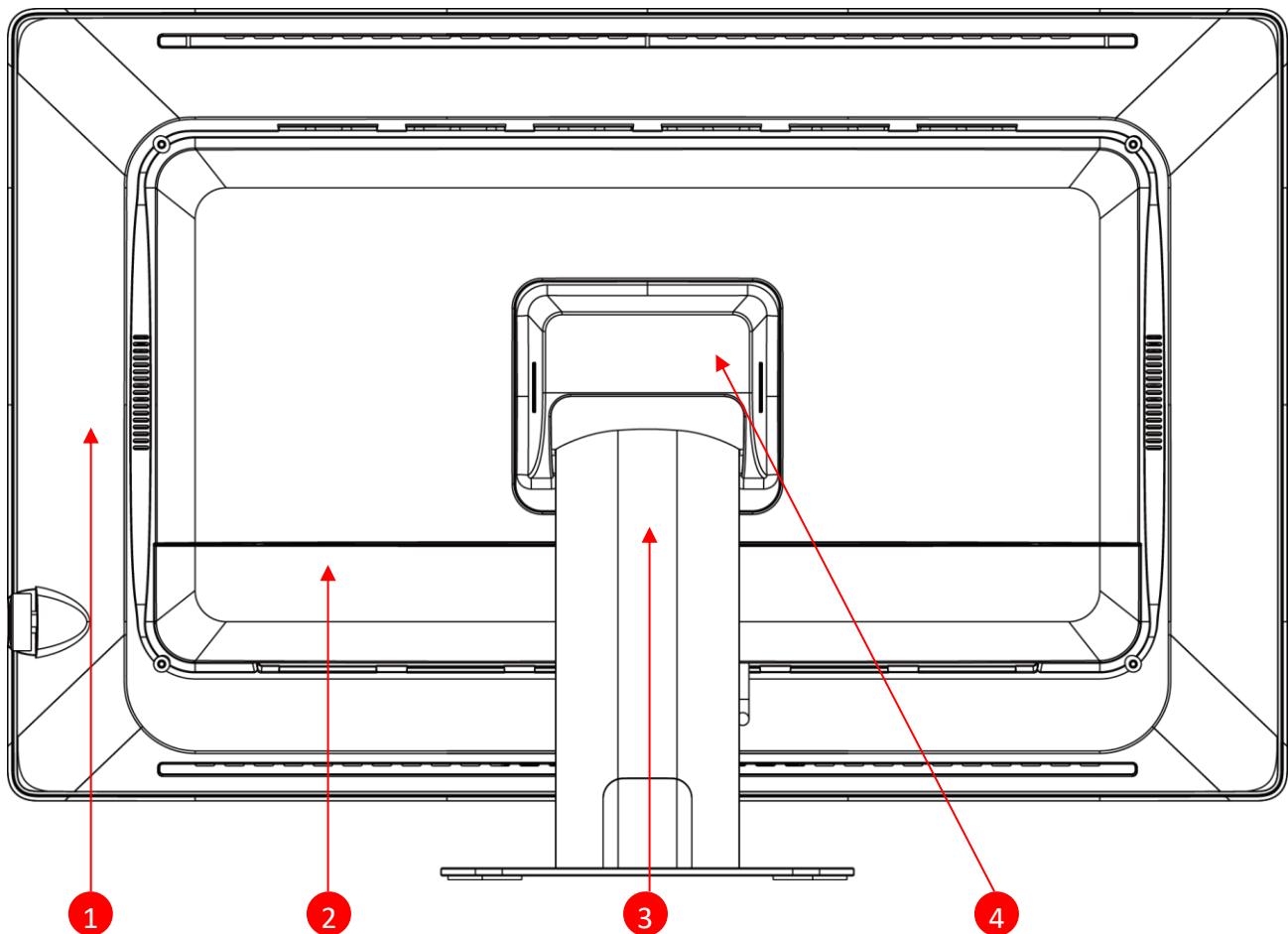


Image 1-3 Rear view

1. Rear cover
2. IO cover
3. Monitor stand
4. Hinge cover

2. Important information

2.1 Safety information

General recommendations

Read the safety and operating instructions before operating the device. Save the safety and operating instructions for future reference.

Adhere to all warnings on the device and in the operating instructions manual. Follow all instructions for operation and use.

Electrical Shock or Fire Hazard

To prevent an electrical shock or fire hazard, do not remove the cover.

No serviceable parts are inside. Refer servicing to qualified personnel. Do not expose this apparatus to rain or moisture.

Modifications to the unit:

Do not modify this equipment without authorization of the manufacturer.

Type of protection (electrical):

Monitor with internal power supply: Class III equipment.

Degree of safety (flammable anesthetic mixture):

Equipment is not suitable for use in the presence of a flammable anesthetic mixture of air, oxygen, or nitrous oxide.

Mission critical applications

We strongly recommend for there to be a replacement monitor immediately available in mission critical applications.

Power connection – Equipment with external power supply

- Power requirements: The equipment must be powered by the DC mains voltage.

Transient over-voltage

To fully disengage the power to the device, please disconnect the power cord from the AC inlet.

Power cords:

- Do not overload wall outlets and extension cords as this may result in fire or electric shock.
- Main leads protection (U.S.: Power cord): Power cords should be routed so that they are not walked upon or pinched by items placed upon or against them. Pay particular attention to cords at plugs and receptacles.
- The power supply cord should be replaced by the designated operator only at all times.
- Use a power cord that matches the voltage of the power outlet, which should be approved and in compliance with the safety standard of your particular country.
- Avoid placing the monitor near places that is hard to reach or difficult to disconnect the power supply cord.
- "**WARNING:** To avoid risk of electric shock, this equipment must only be connected to a main supply with protective ground"
- "**AVERTISSEMENT :** Pour éviter tout risque d'électrocution, cet équipement ne doit être connecté qu'à une alimentation principale avec mise à la terre de protection"

Grounding reliability

Grounding reliability can only be achieved when the equipment is connected to an equivalent receptacle.

Liquids and moisture

Never expose the monitor to liquids or moisture.

Never use the monitor near water - e.g. near a bathtub, washbasin, swimming pool, kitchen sink, laundry tub or in a wet basement.

Ventilation

Do not cover or block any ventilation openings in the cover of the set. When installing the device in a cupboard or another closed location, heed the necessary space between the set and the sides of the cupboard.

Installation

Place the device on a flat, solid, and stable surface that can support the weight of at least 3 devices. If you use an unstable cart or stand, the device may fall, causing serious injury to a child or adult, and serious damage to the device.



WARNING

1. The power cable connector is the primary means of detaching the system from the power supply. The monitor should be installed close to a power outlet, which is easily accessible.
2. AC power inlet is considered as Disconnect Device.
3. To prevent fire or shock hazards, do not expose this unit to rain or moisture. Also, do not use this unit's polarized plug with an extension cord receptacle or other outlets unless the prongs can be fully inserted.
4. To prevent the risk of electric shock, make sure the power cord is fully disengaged from the power socket of the unit. Please disconnect the power cord from the AC outlet.
5. The power cord shell must be connected to an outlet with ground connection.
6. **CAUTION:** Double pole, neutral fusing. Disconnect mains before servicing. Please refer to manufacturer for any service needs.



AVERTISSEMENT

1. Le connecteur du câble d'alimentation est le principal moyen de débrancher le système de l'alimentation. Le moniteur doit être installé à proximité d'une prise de courant facilement accessible.
2. L'entrée d'alimentation CA est considérée comme un dispositif de déconnexion.
3. Pour éviter tout risque d'incendie ou d'électrocution, n'exposez pas cet appareil à la pluie ou à l'humidité. De plus, n'utilisez pas la fiche polarisée de cet appareil avec une prise de rallonge ou d'autres prises à moins que les broches ne puissent être complètement insérées.
4. Pour éviter tout risque d'électrocution, assurez-vous que le cordon d'alimentation est complètement débranché de la prise de courant de l'appareil. Veuillez débrancher le cordon d'alimentation de la prise secteur.
5. La coque du cordon d'alimentation doit être connectée à une prise mise à la terre.
6. **ATTENTION :** Fusible bipolaire, neutre. Débranchez le secteur avant l'entretien. Veuillez vous référer au fabricant pour tout besoin de service.

2.2 Environmental information

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.

RoHS

EU Directive 2011/65/EC and 2015/863/EU.

On the restriction of certain hazardous substances in electrical and electronic equipment.
This product is RoHS compliant.

2.3 Regulatory information

FCC class B

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.

This device 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 device 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 device does cause harmful interference to radio or television reception, which can be determined by turning the device 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 device and receiver.
- Connect the device to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Canadian notice

This ISM device complies with Canadian ICES-003.

Cet appareil ISM est conforme à la norme NMB-003 du Canada.

2.4 Equipment Symbols

Electrical and electronic equipment symbols

	Indicates the device meets the requirements of the applicable CE directives. Indique que l'appareil répond aux exigences des directives CE applicables.
	Indicates compliance with Part 15 of the FCC rules (Class A or Class B) Indique la conformité à la partie 15 des règles de la FCC (classe A ou classe B)
	Indicates the device is approved according to the TUV regulations for Canada and US. Indique que l'appareil est approuvé conformément aux réglementations TUV pour le Canada et les États-Unis.
	Indicates the USB connectors on the device Indique les connecteurs USB sur l'appareil
	Indicates the Display Port connectors on the device Indique les connecteurs Display Port sur l'appareil
	Indicates the legal manufacturer Indique le fabricant légal
	Indicates the manufacturing date Indique la date de fabrication
	Indicates the temperature limitations for the device to safely operate within specs. Indique les limites de température pour que l'appareil puisse fonctionner dans les spécifications.
	Indicates the device serial number Indique le numéro de série de l'appareil
	Indicates the device part number or catalog number Indique le numéro de pièce ou le numéro de catalogue de l'appareil
	Warning: dangerous voltage Attention : tension dangereuse
	Caution Mise en garde

	Indicates this device must not be thrown in the trash but must be recycled, according to the European WEEE (Waste Electrical and Electronic Equipment) directive Indique que cet appareil ne doit pas être jeté à la poubelle mais doit être recyclé, conformément à la directive européenne DEEE (Déchets d'équipements électriques et électroniques)
	Indicates Direct Current (DC) Indique le courant continu (DC)
	Indicates Alternating Current (AC) Indique le courant alternatif (AC)
	Stand-by Etre prêt
	Power ON. Power connection to the mains Allumer. Raccordement électrique au secteur
	Power OFF Éteindre
	Protective earth (ground) Terre de protection (masse)

3. Cleaning the display

3.1 Cleaning instructions

To clean the display

Cleaning the display using a sponge, soft clean cloth, or soft tissue with lightly moistened recognized cleaning product for the equipment. Read and follow all labeled instructions on the cleaning product. In case of doubt about a certain cleaning product, use plain water.

CAUTION:

- Take care not to damage or scratch the front glass or LCD. Be careful with rings or other jewelry and do not apply excessive pressure on the front glass or LCD.
- Do not apply or spray liquid directly to the display as excess liquid may cause damage to internal electronics. Instead, apply the liquid to a cleaning sponge, cloth, or tissue.

ATTENTION :

- Veillez à ne pas endommager ou rayer la vitre avant ou l'écran LCD. Soyez prudent lorsque vous portez des bagues ou autres bijoux et n'appliquez pas une pression excessive sur le verre avant ou l'écran LCD.
- N'appliquez ou ne vaporisez pas de liquide directement sur l'écran car l'excès de liquide peut endommager l'électronique interne. Appliquez plutôt le liquide sur une éponge, un chiffon ou un mouchoir en papier.

4. Monitor installation



WARNING: Sufficient expertise is required to install this equipment. All devices and complete setup must be tested before operation.



AVERTISSEMENT : Une expertise suffisante est requise pour l'installation de cet équipement. Tous les appareils et la configuration complète doivent être testés avant d'être mis en service.

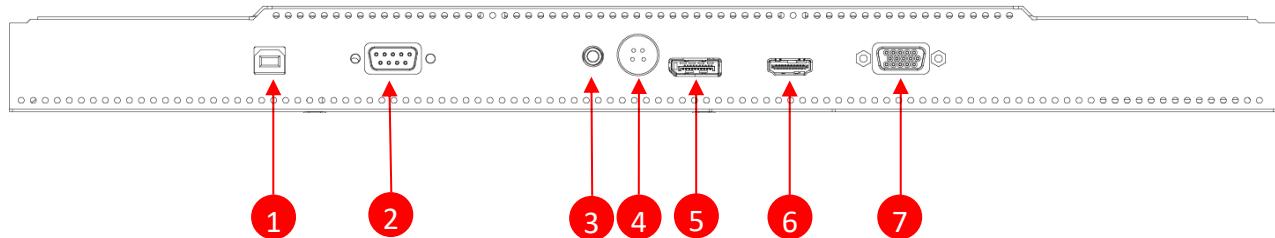
4.1 Installation procedure

To install your monitor

To get access to the connectors, put the display on a flat surface.

1. Connect one or more video source(s) to the corresponding video inputs of the monitor.
Use the appropriate video cable(s) to do this.
2. Connect the USB or RS232 connector for touch screen function.
3. Connect the Audio cable for audio function.
4. Connect the power cord input to a power adapter with a grounded Power Outlet.
5. Connect the power adapter input to the monitor.
6. Install cable cover back on the monitor.

Available Connections



Available connections (bottom view)

No	Name	Connection Type	Remarks
1	USB TOUCH	USB type-B	Touch screen signal output
2	RS232 Input	9 pin Serial	RS232 serial communication for touch only
3	LINE IN	3.5mm stereo phone jack	Audio signal input
4	Power Input	4 pin power socket	Power from included External Power Adapter
5	DP	DisplayPort	DisplayPort signal input
6	HDMI	HDMI	HDMI signal input
7	VGA	D-Sub 15	VGA signal input

4.2 Stand removal & VESA mount installation

This monitor provided with a validated stand. The monitor has been designed to be used in landscape position with a maximum tilt of -5° forward to 30° backward. If a different stand is needed in the final application, the monitor VESA interface (VESA 100 mm standard) could be used.

To remove the stand and install the VESA mount

1. Place the monitor face down on a flat, solid and stable surface.
2. Remove the hinge cover
3. Unscrew the 4x M4 (length: 10mm) screws fixing the stand and rear cover
4. Remove the stand and install the VESA mount.

Caution: Use a protective cloth or soft cushion to avoid damaging or scratching the monitor and LCD screen.

Attention : Utilisez un chiffon de protection ou un coussin doux pour éviter d'endommager ou de rayer le moniteur et l'écran LCD.

Tip: Store the fixation screws at a known place for possible future use.

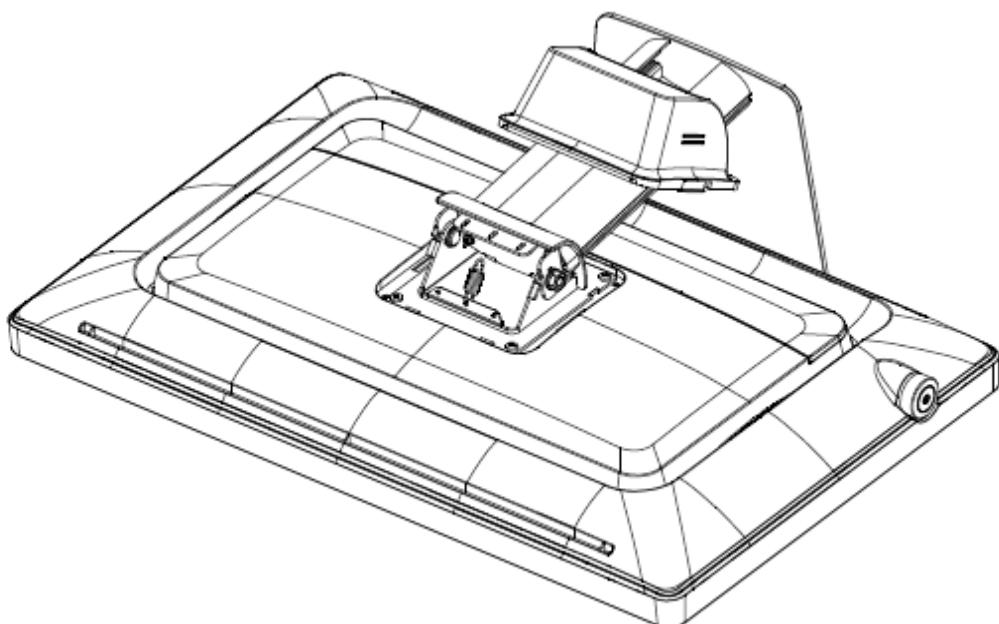


Image 4-2-1 Remove the hinge cover

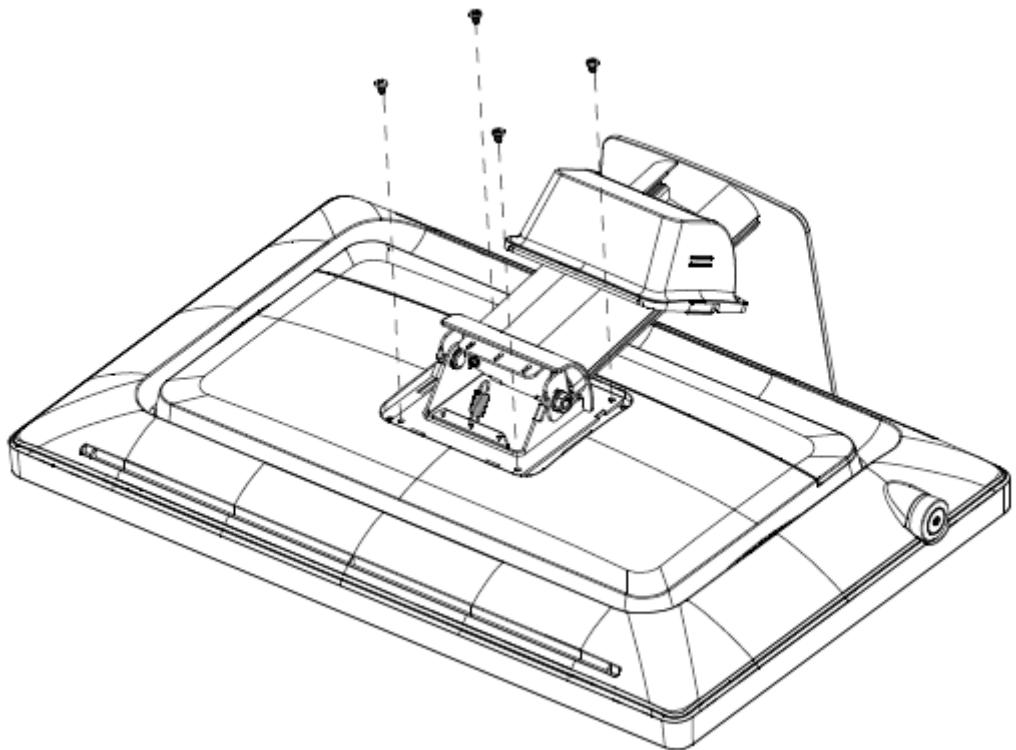


Image 4-2-2 Remove the 4x M4 screws

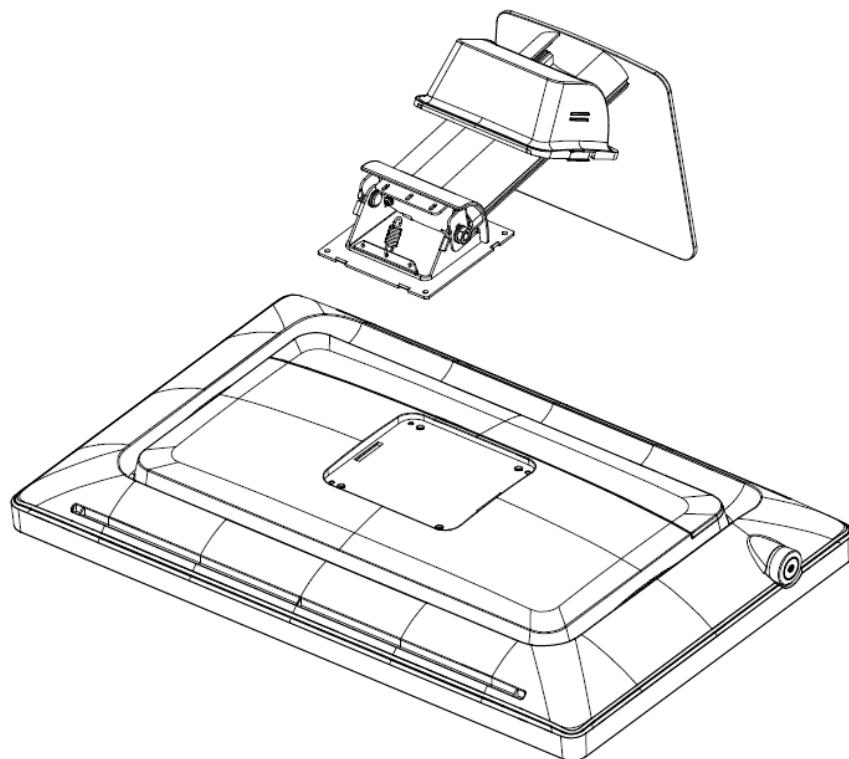


Image 4-2-3 Remove the stand from the monitor

5. Attach the monitor in landscape position to a 100 mm VESA mounting bracket. If monitor is placed in Portrait position, the OSD Menu cannot be rotated.

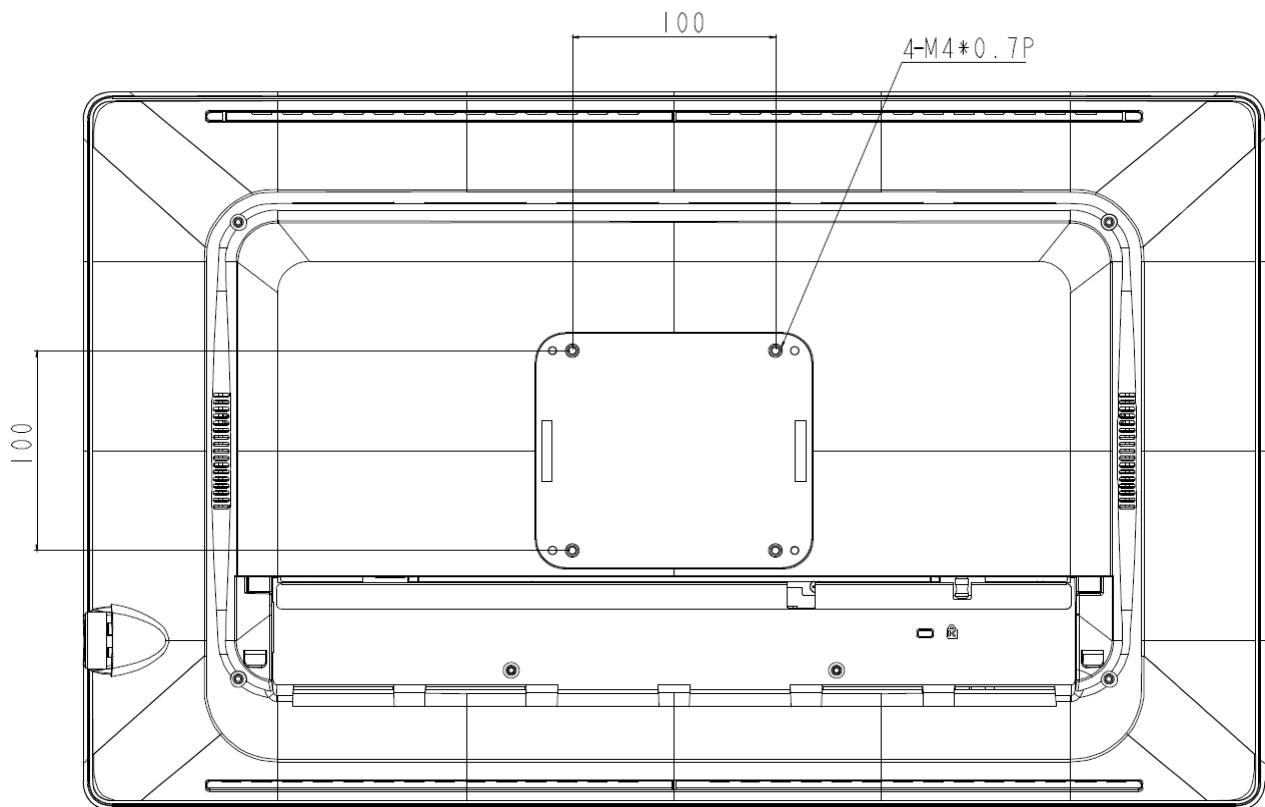


Image 4-2-4 VESA mount is located at the back of the monitor.

5. Daily operation

5.1 Main powerswitch

The monitor is switched on or off with the main switch, **see image 1-2 Control key.**

5.2 Power/Status indication

During start-up the monitor performs signal detection before going into normal operation mode. Depending on the detection result, the status LED on the side of the monitor will show different LED color.

Below is an overview of the possible status LED modes:

LED Color	Status LED modes	Operation Description
OFF (No LED)	OFF mode	Monitor is not powered.
Green, static	Normal mode	Monitor is ON, video sync OK.
Orange, static	Stand-by mode (Power saving)	Automatically enters power saving and standing by for input signal

6. OSD menu operation

The Charts displays the function tree and brief explanations of the functions. Color, OSD, and other adjustments have submenus under each tree.

6.1 On-Screen Display

The LCD monitor features an On-Screen Display (OSD) menu with easily identifiable icons designed to make adjustment of your monitor display settings a more user-friendly process. When highlighted, the icon illustrates the control function and brief instruction to assist the user in identifying which control needs adjustment.

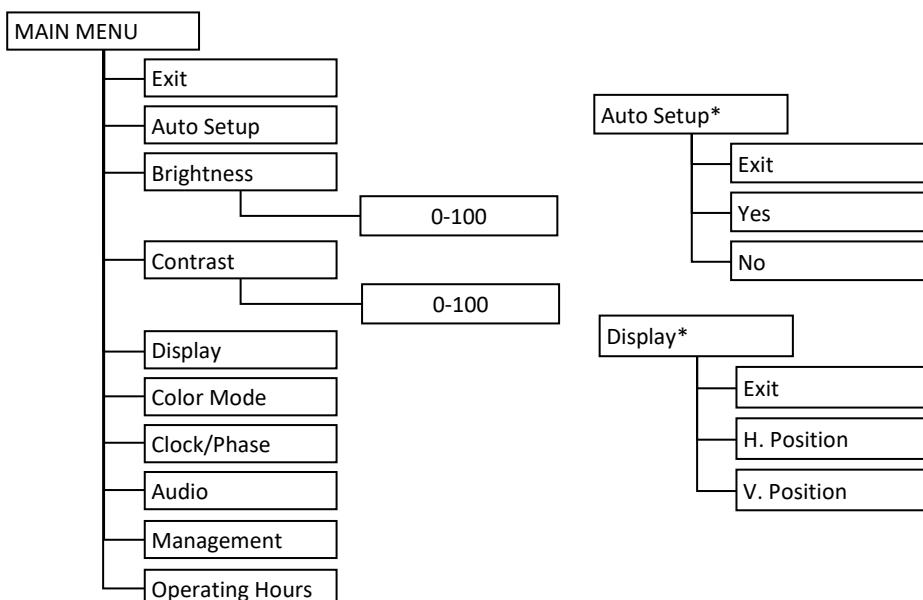
The OSD menu is activated by pressing the Control Dial inward and you can select and adjust the function of your choice by rotating and clicking the Control Dial. The main menu displays a list of sub menu icons and the current video input mode. Rotate the dial to move the highlights to the control you would like to adjust, then press the Control Dial inward to select that control or to activate that function. Depending on the control you selected, a submenu of the control with a status bar will appear. The status bar indicates in which direction, from the factory preset; your adjustments are being made. Rotate the Control Dial to adjust the control.

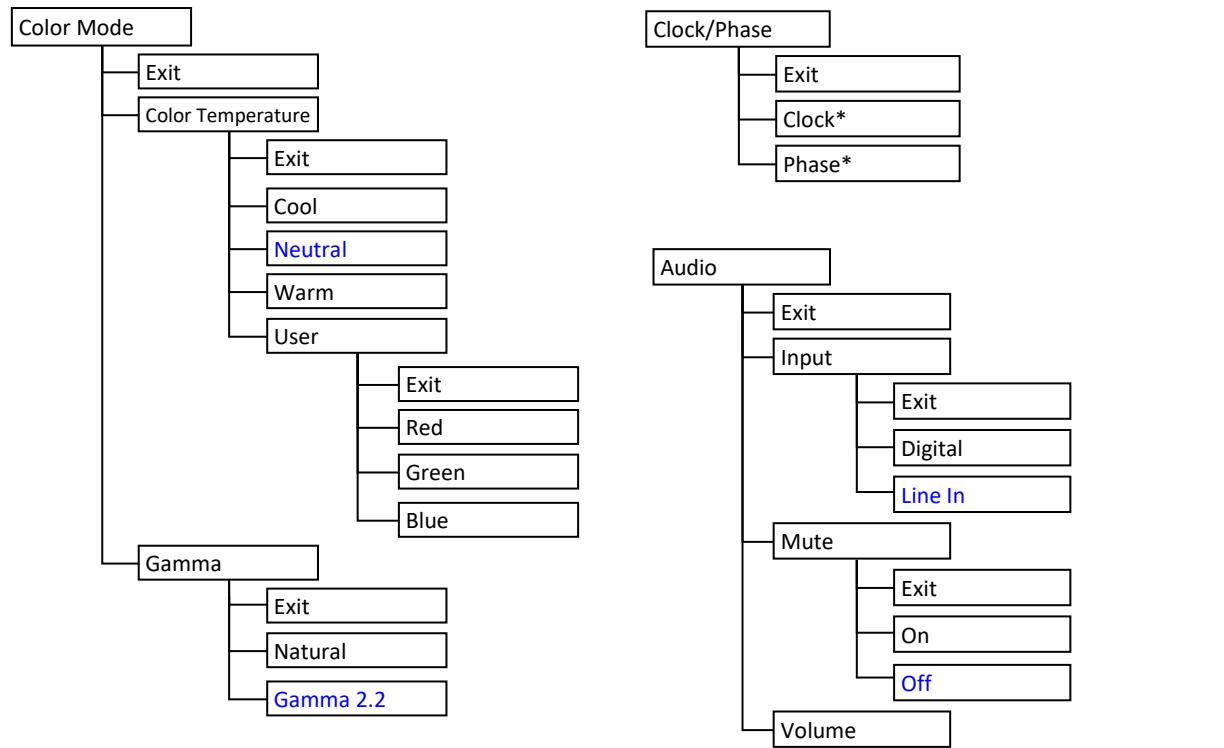
When you have finished making the adjustments, the setting is saved automatically by activating the control function. If you do not touch the Control Dial for 30 seconds, the OSD is automatically exited saving your current settings.

6.2 Menu Descriptions

The LCD monitor can accept VGA, HDMI, or Display Port video signal inputs and therefore has two different sets of OSD control functions. Because the digital signaling always achieves optimum display quality without the need for adjustment, it requires fewer OSD functions than the analog input mode. The following options are not available in digital input mode: Auto Setup, Display, Clock, and Phase, denoted by asterisk (*) in the following descriptions. If switched to digital input mode, you will encounter a "Not Available" message in the OSD menu.

6.3 OSD Structure





6.4 Main Menu



Image 6-4 Main OSD menu

6.4.1 Exit

Choose Exit to close the OSD Menu.

6.4.2 Auto Setup (Analog Video Only)

Choose Yes to automatically setup the analog video signal being displayed.



Image 6-4-2 Auto Setup OSD menu

6.4.3 Brightness

This function allows the user to adjust the monitor's brightness setting manually.

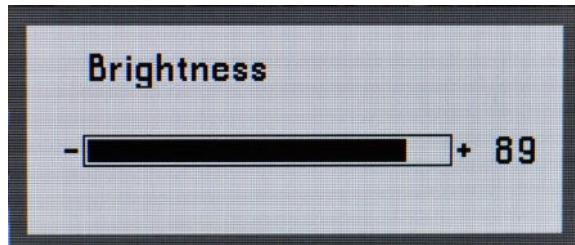


Image 6-4-3 Brightness OSD menu

6.4.4 Contrast

This function allows the user to adjust the contrast setting of the monitor manually.

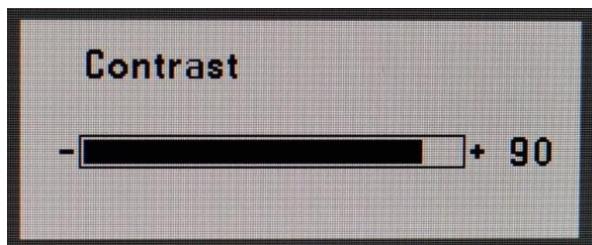


Image 6-4-4 Contrast OSD menu

6.4.5 Display (Analog Video Only)

Setup the image position on the screen.

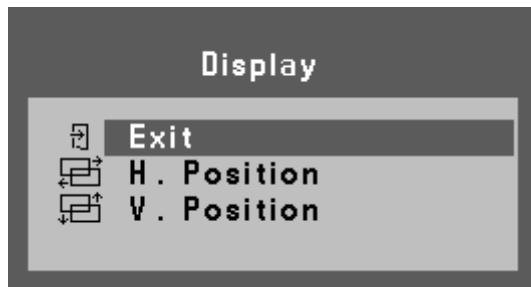


Image 6-4-5 Display OSD menu (Analog Video Only)

- H. Position: Adjust the horizontal position of the analog image.

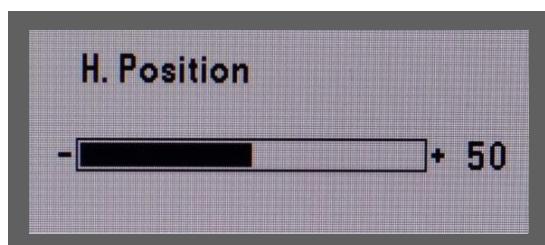


Image 6-4-5-1 H. Position OSD menu

- V. Position: Adjust the vertical position of the analog image.

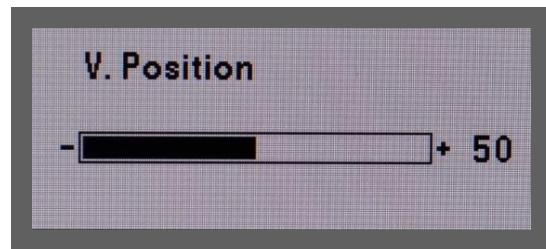


Image 6-4-5-2 V. Position OSD menu

6.4.6 Color Mode

Setup the Color Temperature and Gamma



Image 6-4-6 Color Mode OSD menu

- Color Temperature: Setup the Color temperature.

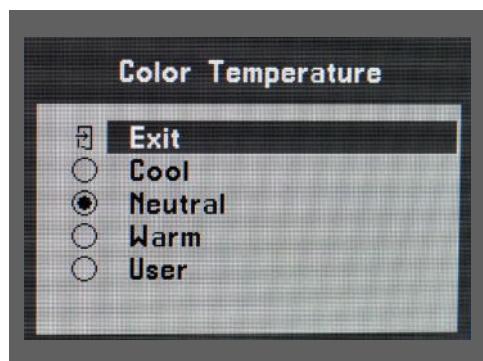


Image 6-4-6-1 Color Temperature OSD menu

- User: Adjust the color of the image independently.

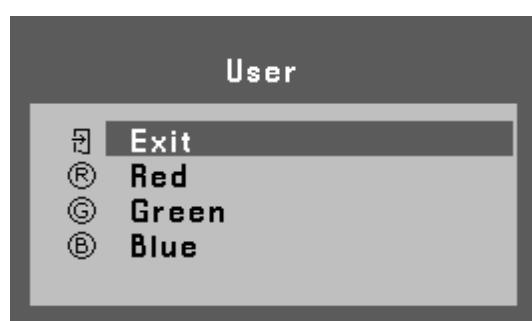


Image 6-4-6-2 User OSD menu

- Gamma: Setup different Gamma curve of the image.

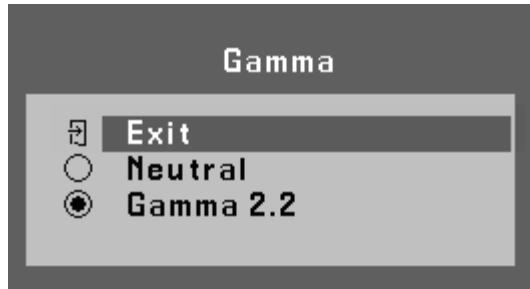


Image 6-4-6-3 Gamma OSD menu

6.4.7 Clock / Phase (Analog Video Only)

Adjust the clock or phase of an analog image manually

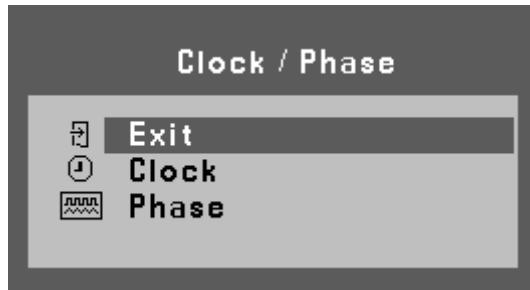


Image 6-4-7 Clock / Phase OSD menu

- Clock: Adjust the clock of an analog image manually if Auto Setup didn't adjust the image correctly.

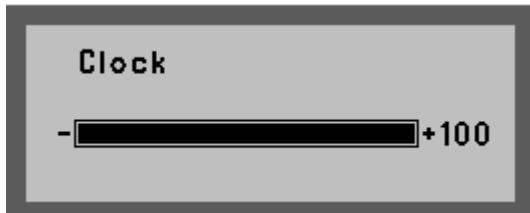


Image 6-4-7-1 Clock OSD menu

- Phase: Adjust the phase of an analog image manually if Auto Setup didn't adjust the image correctly.

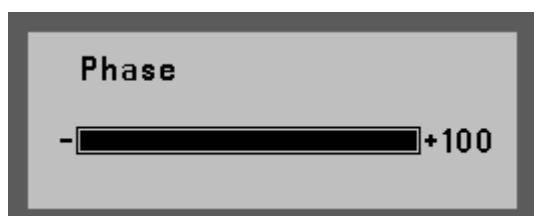


Image 6-4-7-2 Phase OSD menu

6.4.8 Audio

Setup the audio functions.



Image 6-4-8 Audio OSD menu

- Input: Select an input source of audio.

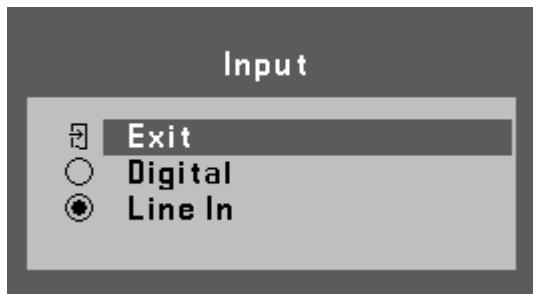


Image 6-4-8-1 Audio Input OSD menu

- Mute: To mute the audio.

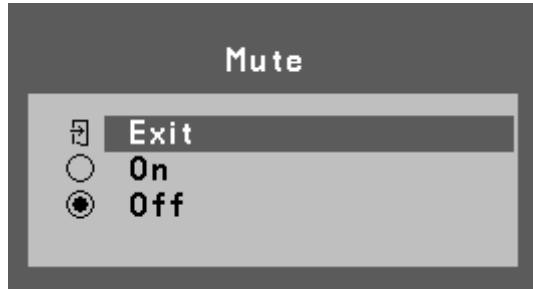


Image 6-4-8-2 Audio Mute OSD menu

- Volume: Volume output adjustment.

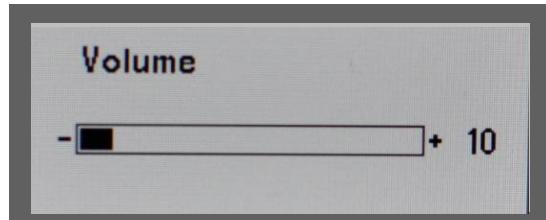


Image 6-4-8-3 Audio Volume OSD menu

6.4.9 Management

To manage the monitor.

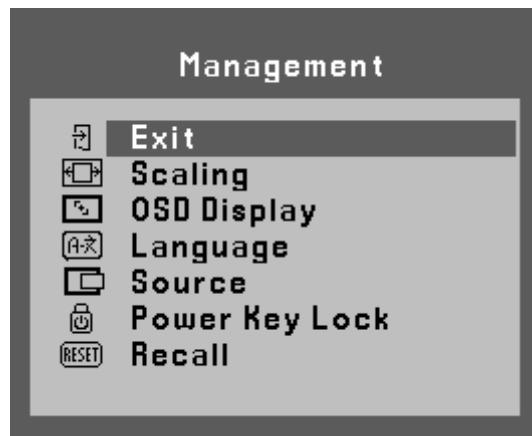


Image 6-4-9 Management OSD menu

6.4.9.1 Scaling

Setup the display ratio of the image.

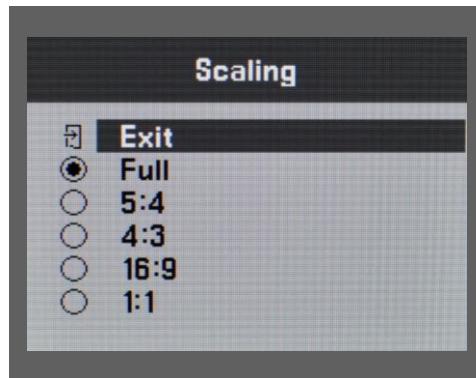


Image 6-4-9-1 Scaling OSD menu

6.4.9.2 OSD Display

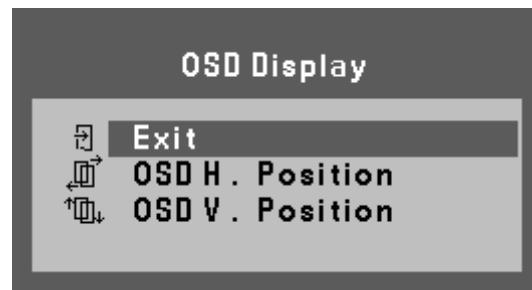


Image 6-4-9-2 OSD Display menu

- OSD H. Position: Adjust the OSD horizontal position on the screen.

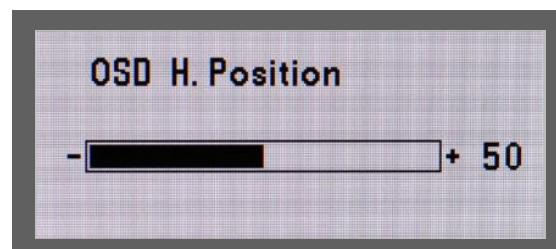


Image 6-4-9-2a OSD Horizontal Position OSD menu

- OSD V. Position: Adjust the OSD vertical position on the screen.

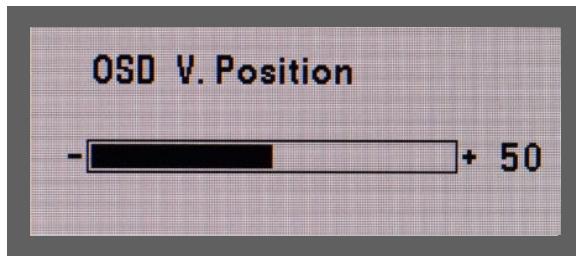


Image 6-4-9-2b OSD Vertical Position OSD menu

6.4.9.3 Language

Select this item to change the OSD language.



Image 6-4-9-3 Language OSD menu

6.4.9.4 Source

Select an input source.

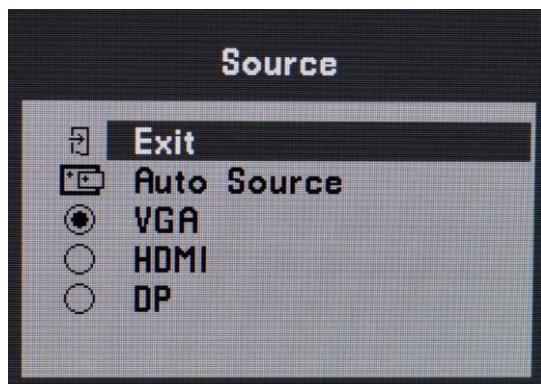


Image 6-4-9-4a Source OSD menu (Analog)

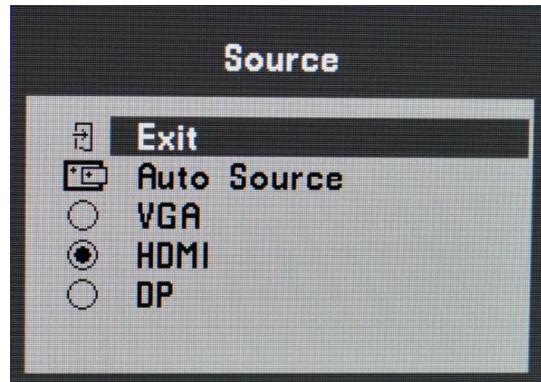


Image 6-4-9-4b Source OSD menu (Digital)

- Auto Source: Select this function to search an input signal automatically.

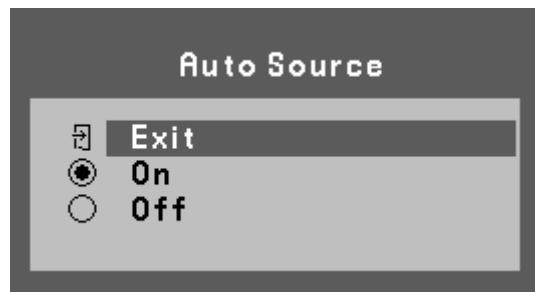


Image 6-4-9-4 Auto Source of the Source OSD menu

6.4.9.5 Power Key Lock

To lock the power key for accidental operation.

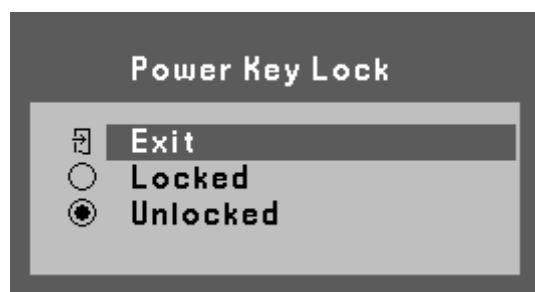


Image 6-4-9-5 Power Key Lock OSD menu

6.4.9.6 Recall

- Yes: Allows users to return the display settings back to factory default settings.

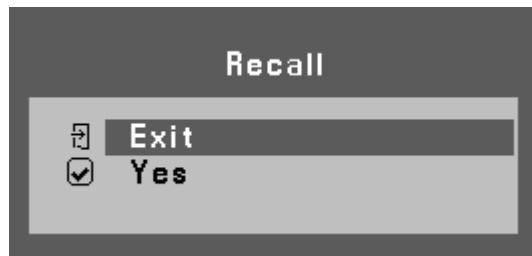


Image 6-4-9-6 Recall OSD menu

6.4.10 Operating Hours

- Keep records of the monitor operating hours.



Image 6-4-10 Operation Hours OSD menu

6.5 Supported Video Modes

※Compliant Graphic Signal Timing (VGA, DVI, HDMI & DP)

Resolution	Pixel-rate [MHz]	Line-rate [kHz]	Frame-rate [Hz]	VGA	DVI/HDMI	DP
640x480	25.200	31.500	60.000	O	O	O
640x480	31.500	37.861	72.809	O		
640x480	31.500	37.500	75.000	O		
720x400	28.322	31.469	70.087	O	O	O
800x600	36.000	35.156	56.250	O		
800x600	40.000	37.879	60.317	O	O	O
800x600	50.000	48.077	72.188	O		
800x600	49.500	46.875	75.000	O		
1024x768	65.000	48.363	60.004	O	O	O
1024x768	75.000	56.476	70.069	O		
1024x768	78.750	60.023	75.029	O		
1280x1024	108.000	63.981	60.020	O	O	O
1280x1024	135.000	79.976	75.025	O		
1600x1200	162.000	75.000	60.000	O	O	O
1920x1080	148.504	67.502	60.002	◎	◎	◎
832x624	57.284	49.722	74.550	O	O	O

7. Technical Specifications

Product description	27" LCD Touch Screen Monitor
Screen technology	VA
Active screen size (diagonal)	685.56 mm (27.0")
Active screen size (H x V)	597.6 mm (H) x 336.15mm (V)
Aspect ratio (H:V)	16:9
Resolution	FHD (1920x1080)
Pixel pitch	0.31125mm (H) x 0.31125mm (V)
Color support	16.7M colors (RGB 8-bit)
Viewing angle (H, V)	178 / 178 (CR=10)
Panel Brightness	300 (Typ.), 240 (Min.) cd/m ²
Response time	12ms (Typ.)
Housing color	Front Bezel: White-N9 Rear Cover: White-N9 IO Cover: Grey-5817 Control Keys: Aluminum/Grey-5817 Stand: White-N9
Video input signals	1xDisplay Port 1xDVI(RGP model)/ 1xHDMI (RGD model) 1xD-SUB 15 Pin (VGA) 1xPhone Jack 3.5mm
Power Rating	12V dc, 2.9 A
Power Supply	Model FSP, FSP060-DHAN3 Input: 100-240 Vac, 1.8 A, 50-60Hz Output: 12 V dc, 5 A
Power consumption (maximum)	<35W
Power consumption (stand-by)	<3W
OSD languages	English, French, German, Italian, Spanish & Japanese.

Dimensions (W x H x D)	651 x 442 x 175 mm
Dimensions packed (W x H x D)	740 x 221 x 539 mm
Net Weight with stand	10.4 kg ± 0.2 kg
Tilt Angle	-5 ±2 and 30 ±2 degrees
Mounting standard	VESA (100 x 100mm)
Certifications	IEC/EN 62368-1
	UL 62368-1 ;CAN/CSA-C22.2 No.62368-1
	CE EN55032 /EN 55024
	FCC CFR47 Part15 Subpart B
	RoHS (2011/65/EU & 2015/863/EU)
Supplied accessories	Power Supply, DisplayPort cable, HDMI Cable, VGA Cable, USB Cable, stand
Operating temperature	0°C to 40°C
Storage temperature	-20°C to 60°C
Operating humidity	30% - 75% (performance; non-condensing)
Storage humidity	10% - 90% (non-condensing)
Operation altitude	16,404 feet (5000m)

8. Outline Dimension

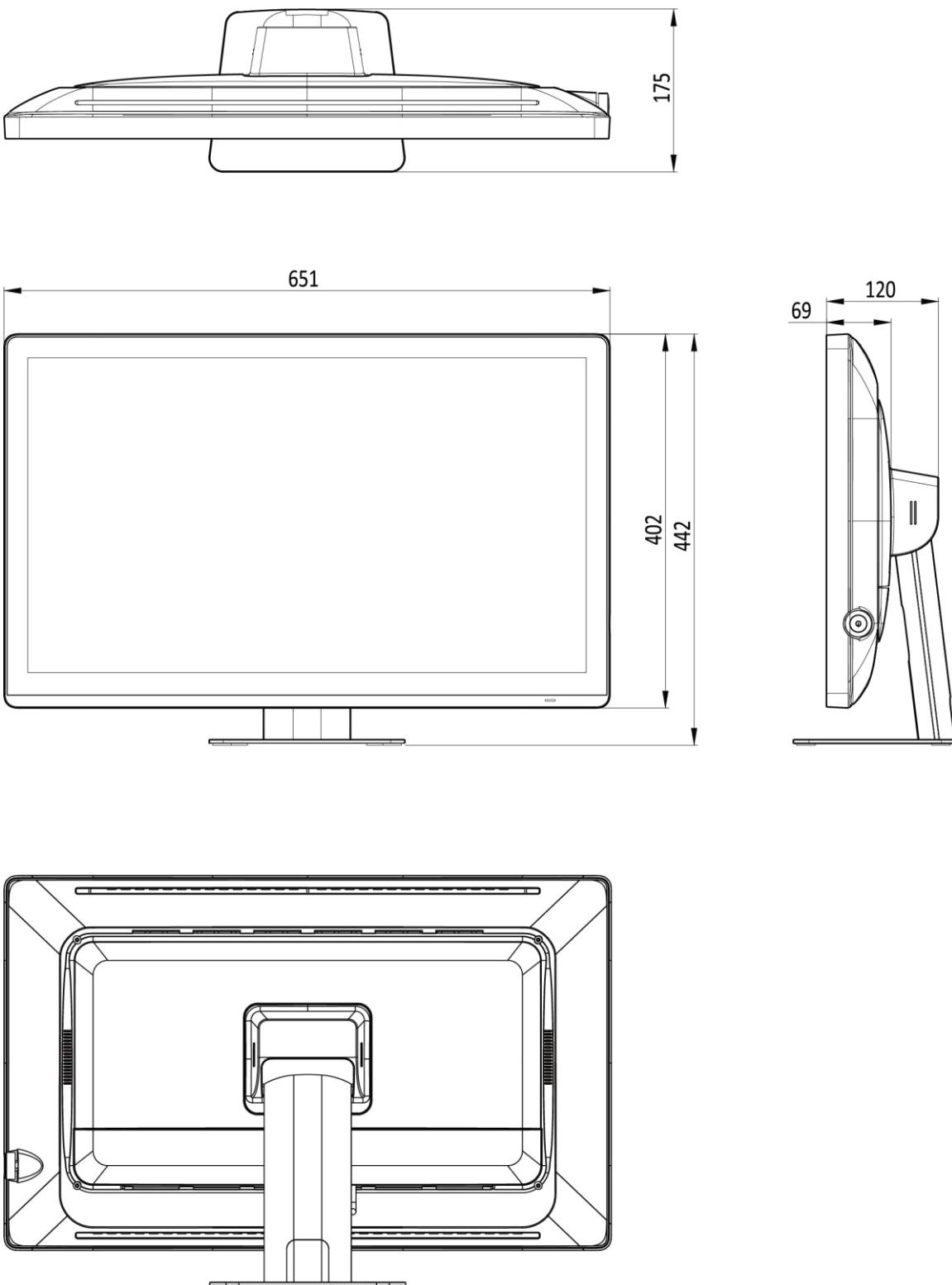


Image 8-1 Outline dimension

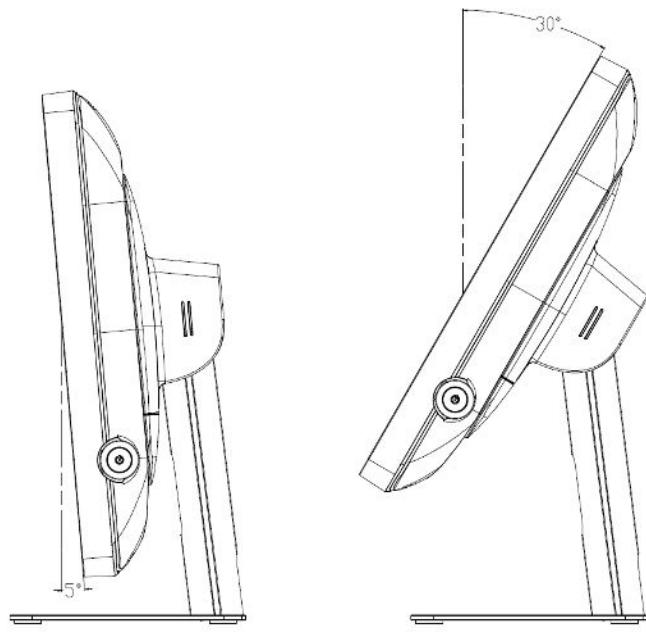


Image 8-2 Outline dimension with monitor tilt -5° forward & 30°backward

TSI TOUCH

1 Millennium Drive, Suite 3

Uniontown, PA 15401

Tel: 802-874-0123 (main)

TSI TOUCH CUSTOMER SERVICE

Tel: 802-874-0123, Option 2

Email: support@tsitouch.com

TSI Touch Customer Service is available from 8:00 am to 8:00 pm Eastern Standard Time, Monday thru Friday except on national holidays.

Customer Service can also be reached by visiting our website at www.tsitouch.com

TSI27PDADVAZZZ

User Guide