LCD MONITOR
Model XM-101 and SRD-XM-101

USER GUIDE

1. In order to use the industrial monitors correctly, please keep this manual carefully for reference.
2. Please do not disassemble the device by any agency or person who are not authorized by our company.
3. Only the professional maintenance personnel are allowed to repair the industrial monitor, for any damage, please contact us.
4. We reserve the right to modify this manual.

Important Notice
1. The monitor should be placed on the flat position horizontally.
2. Do not expose the monitor directly in sunlight and other heat source.
3. Please unplug the power cable when thunderstorm/lightening weather occur.
4. Do not step on the power cord.
5. Please make sure the power supply voltage meets the device requirements before you supply power to the device.
6. Do not make the external wall socket overload to avoid causing fire or electric shock.
7. There must be an easily accessible power socket around the device.
8. Before cleaning the device, please unplug the power cord from the outlet and wipe the monitor with a dry, soft fabric (volatile matter not allowed).
9. Avoid the fragmentation, corrosion and any other damage to products or components (such as shell, LCD/LED panel, port, circuits etc.).
10. Do not contact with inappropriate temperatures, solvents, acid, water or moisture.
11. Do not allow any liquid to flow into or spill into the device to avoid a short circuit or fire.
12. Please do not open the device by any agency or person who are not authorized by our company.
13. Unplug the power cord if the device is not used for a long time.

Disclaimer
From the date of purchase, our company provides a one-year free warranty for the purchaser. However, the products repaired by unauthorized maintenance person will not provide quality assurance. There is a disclaimer about incorrect use, force majeure, and incorrect installation. If the products fail in use, we would provide after-sales service for free during the warranty period. While for products that are expired, we will charge the cost of materials and artificial services fee as per reasonable judgement. Please contact the service department for details once product damaged.

Table of Contents

1. Overview

Second generation of industrial displays are designed for industrial and commercial application equipment. They have embedded or wall-mounted installation methods. The body is made of aluminum alloy, which has a solid structure, easy installation and use, and a touch screen. It has a manual touch function with low radiation, high quality and long life. The screen adopts industrial control A regulatory screen. The screen does not flicker; it is suitable for military, aerospace, telecommunications, electric power, metallurgy, transportation, railway, communications, finance, network, medical, security, factory automation and other fields.

1. The aluminum alloy chassis has a rugged and durable structure with triple protection design for fire protection, explosion protection, and dust protection.
2. The front panel is made of brushed aluminum alloy, and the screen surface is IP65 dustproof and waterproof.
3. Industrial-grade driver board, the components in the board are all industrial-grade, support 365 * 24h non-stop operation.
4. Anti-interference performance, meeting EMI / EMC standards.
5. Equipped with + HDMI + DVI interface + DC interface as standard, all interfaces adopt anti-falling design.
6. Support / HDMI / DVI automatic identification signal channel.
7. Support wide voltage -24V DC power input, support DC interface and DC connection terminal.
8. OSD can adjust the backlight brightness and multi-language menu selection, which w not affect the color saturation of the screen when adjusting the brightness.
9. Touch optional resistance / capacitance / infrared screen, which features high accuracy, high sensitivity, and has many industrial field application characteristics
10. Using LED back light technology, the picture is colorful, high brightness, good contrast, wide viewing angle, longer life.
11. Support working temperature - 20℃ - 70 ℃, customizable to optional - 30℃ - 80 ℃.
12. High protection and anti-surge, the voltage rises 280V instantaneously, and the machine and adapter will not cause failure.
13. Anti-static (4KV-8KV) meets industry standards. Customers with high requirements can customize 16KV, with high anti-static level, which can greatly reduce the machine. Device failure rate.
14. The anti-vibration standard reaches GB2423, and it will not damage the machine when used in transportation / industrial / offshore operating environments.
15. Outdoor display can be installed with a visible screen under the sun, which is more convenient for users.

16. The product complies with ROHS environmental protection standards. The peak power consumption only needs to be less than or equal to 48W. It has the characteristics of low voltage, low power consumption, energy saving and quiet
17. The 3mm slim front panel is more suitable for being embedded in a cabinet and integrated into the cabinet. Supports multiple installation methods such as embedded, wall-mounted, desktop, cantilever.

2. Basic Parameters

Panel Type	Industrial A grade, TFT
Backlight Type	LED backlight
Brightness	300mcd (higher brightness can be customized, up to 1500mcd.)
Display Color	16.7M
Pixel Pitch	0.264mm
Viewing Angle	160°/160 °(178° for optional)
Response Time	≤5ms
Installation Type	Embedded, wall-mounted, desktop, VESA, open frame,. etc.
Language Menu	English, German, French, Korean, Spanish, Chinese, Italian, Russian.
Touch Screen Type	Capacitive/Resistive/Mouse-control
Shell Material	Aluminum alloy material (black/silver/white)
Signal Interface	VGA、HDMI、DVI
Power Interface	DC12V-24V
Audio Interface	Audio input/output
Touch Interface	RJ45 (USB, COM for optional)
Anti-interference	EMC, EMI
Anti-vibration	5-19 HZ/1.0mm amplitude; 19-200HZ/1.0g acceleration.
Ambient Temp	Working temp: -20~60°C; Storage temp: -40~80°C.
Anti-static	4KV-8KV (≤16KV for optional)
AC Power Input	AC 100-240V 50/60Hz (power adapter), CCC, CE approved.
DC Power Input	DC12V-24V/4A (DC12V-36V for optional)
Power (standby)	≤2W
Power (Maximum)	≤24W

3. Inspection of your AbraxSys Monitor

The LCD is supplied with different accessories depending on the model configuration purchased. Verify the model and accessories that were ordered. Contact your AbraxSys salesperson should there be any discrepancies.

4. Unpacking your AbraxSys Monitor

Your new rugged LCD monitor package will consist of a variation of the components listed below (section 5), depending on model, configuration, and options ordered. Open shipping container and place all the components on a flat clean surface. Contact your AbraxSys salesperson should there be any discrepancies and/or packaging damage. Packaging type will depend on model size. 'Cable Kits' are clearly labeled on a box inside the shipping container which will include not only all associated cables, but as well necessary mounting hardware, user manual (USB flash drive), touch screen driver (USB flash drive). If the kit box is missing, please contact AbraxSys immediately. Additionally, on the outside of each packaging container you will notice a white AbraxSys product label. Printed information on this label will be Model, Model Configuration, Date Code, Serial Number, Invoice number, customer PO number, and customer requested reference information, and the AbraxSys Production work-order number.

5. What is included with your AbraxSys Monitor

Depending on configuration, and options ordered will dictate what has been supplied.
In general, the below cables will be ~6ft (~1.82m) and supplied based on inputs present.
  - If VGA (HD15) input is present, then a VGA Video Cable is supplied.
  - If DVI input is present, then a DVI Video Cable is supplied.
  - If DisplayPort (DP) input is present, then a DP Video Cable is supplied.
  - If HDMI input is present, then an HDMI Video Cable is supplied.
  - If Touch Screen is present, then a Serial (RS232) and/or USB cable is/are supplied depending on touch type.
  - Typically, SDI, S-video, BNC, or Composite cables are not supplied.
  - Power Cable for AC input, or a Locking Connector Cable for DC, or a Barrel Connector Cable for DC.
  - User's Controls Device.
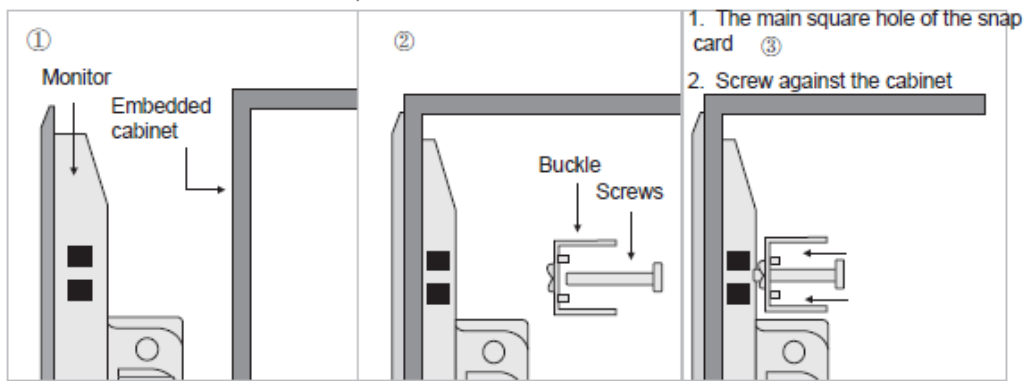 - Mounting Hardware.
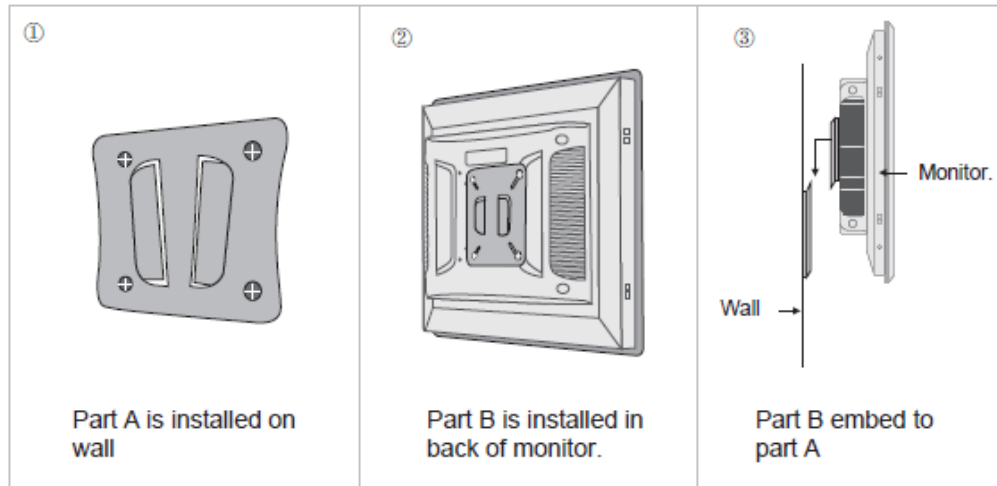
6. Installation

Notice:
1. Please do not place the monitor near radiator or any heat source material.
2. Please do not allow anything to press or wind the power cable and video cable.
3. Please do not place the monitor near water sources and wet places.
4. Please do not cover the ventilation hole in back of panel.

Embedded snap-in installation method: The machine has four snap-in holes to be installed, as shown in the following steps.
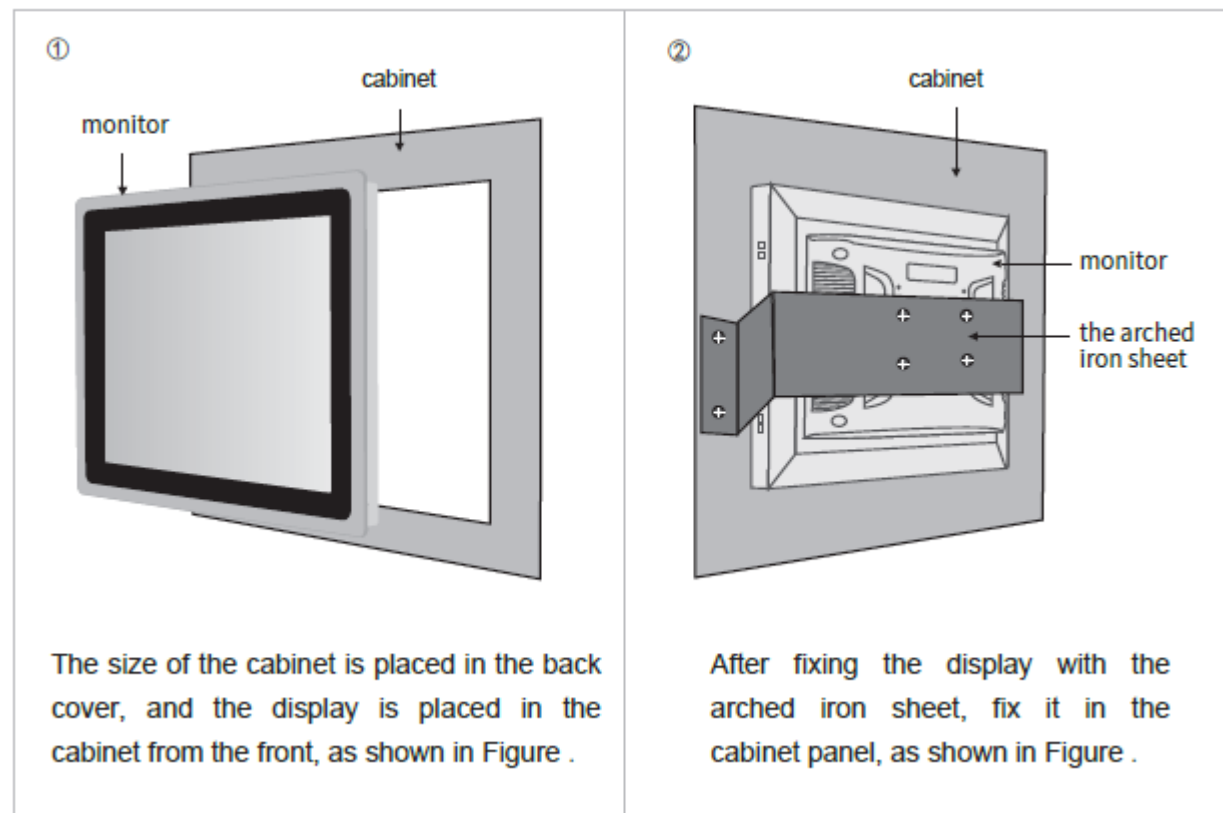
① Monitor
Embedded cabinet

② Buckle
Screws

1. The main square hole of the snap card ③
2. Screw against the cabinet

For wall-mounted, the bracket is composed with part A and part B, please embed part B into part A.

① Part A is installed on wall

② Part B is installed in back of monitor.

③ Monitor.
Wall
Part B embed to part A

Mounting instructions:

① monitor
cabinet

The size of the cabinet is placed in the back cover, and the display is placed in the cabinet from the front, as shown in Figure .

② cabinet
monitor
the arched iron sheet

After fixing the display with the arched iron sheet, fix it in the cabinet panel, as shown in Figure .

Guidance on Rack Mounting

①

monitor

②

monitor   cabinet

VESA Mount

①

Monitor

②

VESA bracket

③

The panel PC is installed on the VESA bracket.

VESA Mount

①

Monitor

②

VESA bracket

③

The machine is mounted on a desktop base (front)

④

The machine is mounted on a desktop base (rear)

7. Connecting the AbraxSys Monitor

1. Connect all cables to the computer first. This would include the VGA Video cable and any optional touch interface cable, serial or USB.
2. After connecting the cables between the LCD monitor and the computer, connect the Power Cable to the display and the customer supplied DC voltage source. Check the display unit label to determine the correct DC voltage.
3. Turn the DC voltage source on. The display will be active.
4. Turn on your computer. The display should now operate showing your OS or the video that is being supplied to the flat panel.

Note: If for any reason the display goes blank and gives an "Out of Range" or "No Input Signal", your computer or video source is supplying a signal that is "out of range" of the LCD's video board. If this happens, reboot the computer or video source and make sure you are supplying the correct video resolution and refresh signal. If the display doesn't work properly, it may be because:
  *   The resolution is too high or low for the LCD.
  *   The refresh rate is set too high. Set the refresh rate to 60Hz.
  *   The power source is incorrect.
  *   The unit is malfunctioning. If you believe this to be true, disconnect the video cable from the LCD display and connect to a known working display. If the display is working satisfactory and the video is within the appropriate range, then contact AbraxSys Customer service for an RMA number at 800-883-9050.

8. Touch Screen

NOTE: Projected Capacitive touch screens (PCAP for short) are **USB only** devices and do NOT need drivers or calibration. They are HID devices (Human Interface Device) and all Windows and Linux based operating systems, Win7 and above, are all HID-enabled.

The HID standard was adopted primarily to enable innovation in PC input devices and to simplify the process of installing such devices. Prior to the introduction of the HID concept, devices usually conformed to strictly defined protocols for mouse, keyboards, touch screens, and joysticks.   The HID protocol enables all modern mainstream operating systems to recognize standard USB HID devices, again, such as touch screens, keyboards, and mice, without needing a specialized driver. When installed, a message saying "An HID-compliant device has been recognized" generally appears on screen.

9. Maintenance

1. The power cord must be kept in good contact to avoid looseness, ignition and voltage fluctuation.
2. Please close the current program when the machine is shut down, and then click "start" - "shut down". After "no signal" is displayed, then turn the AC power switch off.
3. After turn the machine off, if you need to turn it on again, please wait at least 5 seconds, which will keep long service life of product. Please avoid frequent switching on/off operations.
4. It is not used for a long time after shutdown, it is better to cut off the external main power supply (Turn the power socket off or unplug the power plug).
5. In thunderstorm weather, it is recommended not to use the machine, and it is better to unplug all the power cables and network cables to prevent lightning strike.
6. Please exit the device according to the correct operation procedure after using the external storage devices such as U disk and mobile hard disk.
7. Do not download, delete or change computer system files and settings.

8. Do not use the third-party software to repair the system.
9. When cleaning the machine, please pull the power plug out firstly, then spray the cleaning liquid on the soft cloth and then wipe it. Pay attention do not use too wet cloth to wipe it for preventing water from entering the machine.
10. If the sunlight is too bright or under direct sunlight, it will affect the visual communication of the touch display, and the direct light will damage the electronic components of the screen.
11. The humidity of the environment where the machine is located should be suitable. Wet electronic equipment will affect the circuit and cause problems.

※ Detection method of no display
1. Check whether there is poor contact between the power adapter and the power supply socket; whether the power adapter indicator lights up normally; confirm the model and specification of the power adapter.
2. After pressing the display switch button, check whether the power indicator on the panel lights up normally.
3. When the power indicator of the display is on normally, but still no display. Confirm whether the system has set the correct resolution; press the display menu to enter the menu and select the correct display mode.
   Fault Diagnosis and Exception Handling
4. When there is no signal on the display, check whether the video cable of the display is well connected with the host, replace the video cable and replace the host for exclusion test.

※ Troubleshooting method of blurry display
1. Do not connect the video cable, power the display on, then check whether the screen blurred
2. Replace the video cable, and reconnect the video cable, then test and exclude the wire problem
3. Replace the host and test, and exclude the problem of the host video output source.
4. Press the MENU button for re-setting.

※ How to switch to normal display mode when the screen displays an aging mode
1. Press menu button of the display, then switch to normal mode.

※ Check the display mode of the display interface and how to change the display mode (such as VGA, DVI, HDMI)
1. Connect the video cable well (such as VGA video cable), connect the power supply, and press the power on button of the display.
2. Press MENU button to enter the main menu, press "+ -" to enter the menu of selecting display output mode, and press Menu to confirm the selection.

※ How to calibrate the resistive touch screen and adjust the sensitivity
1.   Install the resistance drive and start the resistance drive software
2. For setting touch calibration and linear calibration touch points. 9 points are general calibration with low accuracy; 25 points are precision calibration, which can improve touch accuracy (25-point calibration is recommended).
3. For the Tool part, it can be cleared and corrected. Linear setting: the 25-point correction mentioned above is done here to improve touch accuracy.

※ How to configure the capacitive touch screen when the capacitive touch screen has no response
1. Check whether the touch device is recognized under the control panel-device and print.
2. Check whether the computer-device manager-driver is installed.
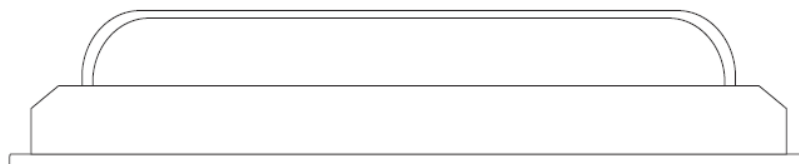3. Control panel tablet PC-Setting, operate according to the prompts.

※ System refresh tool connection for monitor, installation driver, system refresh video (it will be fast by using Win10 system to upgrade program.)
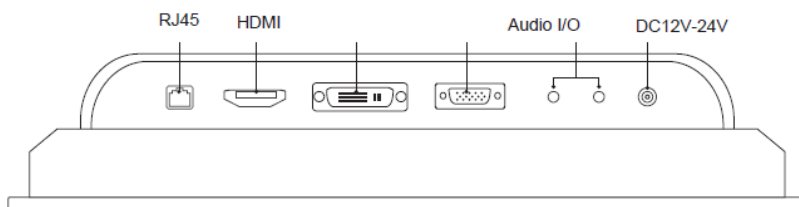
1. Install refresh tool, the 2483 drive board, install the driver, and save the firmware file.
2. Connect the wire and power supply.
3. Select the firmware file and start to refresh system.
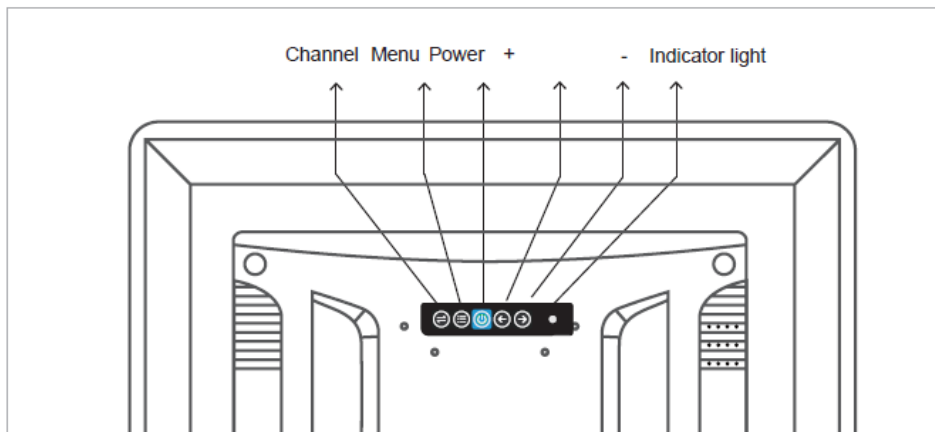
10. Interface Introduction.

Upper bezel

Bottom bezel:

RJ45 HDMI Audio I/O DC12V-24V

(The monitor supports automatic identification signal channel, no matter which port is connected by signal cable, the screen signal will switch automatically.)

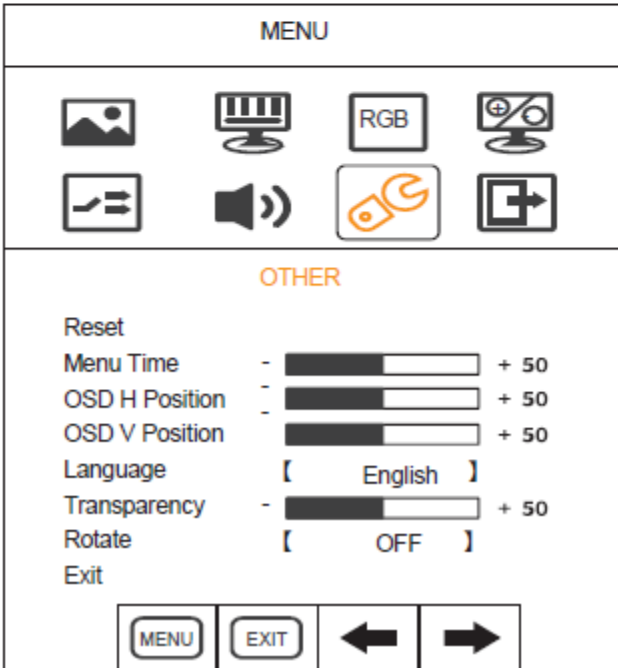# 11. Button Operation

Picture of rear cover of the monitor:

Channel Menu Power + - Indicator light

Button Operation Instructions

Symbol	Name	Instructions
⇌	Channel	Enter channel options
≣	Menu	OSD will pop up for first press on this button
⏻	Turn on/off	Turn on/off for display screen
←	+	Select different submenus, the function of this key is the change of data value
→	-	Select different submenus, the function of this key is the change of data value.

12. OSD Option/Adjustment

The common functions of OSD menu: automatic adjustment of screen display effect; brightness adjustment; contrast adjustment; color adjustment,. etc. To enter OSD menu interface, just press menu main button to adjust the following parameters.

MENU	
PICTURE	
Backlight	— ▬▬▬▬ +100
Brightness	— ▬▬▬ + 50
Contrast	— ▬▬▬▬ +100
Sharpness	— ▬▬ + 2
Light Sensor	【 Off 】
Exit	
[MENU] [EXIT] ← →	

MENU	
DISPLAY	
Auto Adjustment	
Auto Color	
H Position	
V Position	
Pixel Clock	
Phase	
Exit	
[MENU] [EXIT] ← →	

MENU	
AUDIO	
Volume	— ▬▬ + 50
Mute	【 Off 】
Stand a long	【 Off 】
Audio Source	【 Digital 】
Exit	
[MENU] [EXIT] ← →	

MENU	
OTHER	
Reset	
Menu Time	— ▬▬ + 50
OSD H Position	— ▬▬ + 50
OSD V Position	— ▬▬ + 50
Language	【 English 】
Transparency	— ▬▬ + 50
Rotate	【 OFF 】
Exit	
[MENU] [EXIT] ← →	

14. Toxic and Harmful Substances or Element Names and Contents

Statement of toxic and harmful substances or elements

Name and content identification of toxic and harmful substances or elements

The contents of toxic and harmful substances or elements in key components of industrial monitor are as follows:

Components Name	Toxic and harmful substances or elements					
	Pb	Hg	Cd	Cr6+	PBB	PBDE
Shell	O	O	O	O	O	O
Screen/Lamp tube	X	X	O	O	O	O
Plasma screen	X	O	O	O	O	O
Electronic board assembly	X	O	O	O	O	O
The power adapter	X	O	O	O	O	O
Power cable	O	O	O	O	O	O

★: Circuit board assembly includes printed circuit board and its components, such as resistance / capacitance / integrated circuit / connector, etc.

○ : It means that the content of the toxic and harmful substances in all homogeneous materials is below the limit specified in the *Standard For The Limit Requirements Of Toxic And Harmful Substances In Electronic Information Products.*

It means they are meet the requirements of EU ROHS regulations (belong to exemption part).

⟨10⟩ Environmental Protection Use Period

This mark refers to the period of time (ten years), during which toxic and harmful substanc-es or elements contained in electronic information products will not leak or mutate under normal operation conditions, and users will not cause serious environmental pollution or personal / property damage by using the electronic information products.

Attention:

1. When the monitor is not in use, please turn it f to reduce energy consumption.

2. On the premise of ensuring the use quality, the energy consumption of the monitor during operation process can be reduced by turning the brightness down.

For all other support questions or product issues, please contact AbraxSys at (800) 883-9050 or by email customerservice@abraxsyscorp.com.

We Appreciate Your Business

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